

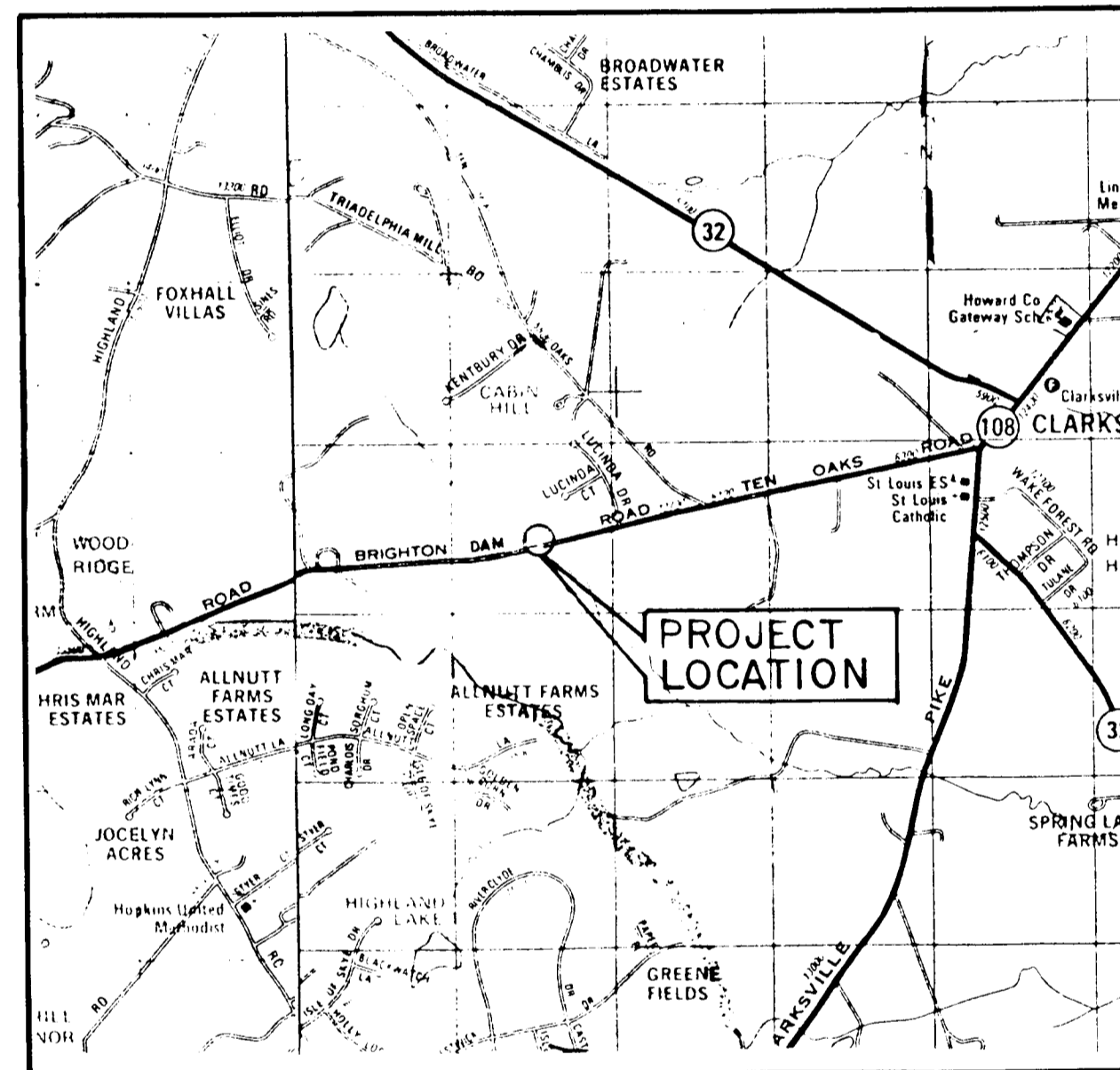
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

INDEX OF DRAWINGS

- 1 TITLE SHEET
- 2 PLAN AND PROFILE
- 3 GENERAL PLAN AND ELEVATION
- 4 CULVERT WALL ELEVATIONS
- 5 RIP-RAP PLAN & DETAILS
- 6 GRADING & SEDIMENT CONTROL PLAN
- 7 SEDIMENT CONTROL DETAILS
- 8 DETAILS & DETOUR PLAN
- 9 DETAILS
- 10 CROSS SECTIONS
- 11 CROSS SECTIONS
- 12 CROSS SECTIONS
- 13 CROSS SECTIONS

BRIGHTON DAM CULVERT
OVER
PATUXENT RIVER TRIBUTARY

CAPITAL PROJECT NO. D-1088



LOCATION MAP
SCALE: 1"=2000'

LENGTH OF PROJECT = 0.112 MILES
ROADWAY CLASSIFICATION - MAJOR COLLECTOR
ADT (1989) - 5130 VPD
ADT (2010) - 10000 VPD
DESIGN SPEED - 35 MPH

ALL REFERENCES TO "GUARD RAIL" SHALL BE
CONSTRUED TO BE "TRAFFIC BARRIER."

CERTIFICATION BY THE DEVELOPER

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THIS CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT."

[Signature] 11-12-91
SIGNATURE OF DEVELOPER DATE

CERTIFICATION BY THE ENGINEER

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 2/26/91
SIGNATURE OF ENGINEER DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED *[Signature]* DATE 11/12/91
HOWARD S.C.D.

REVIEWED FOR HOWARD S.C.D.

MEETS TECHNICAL REQUIREMENTS

[Signature] DATE 11/12/91

SIGNATURE

U.S. SOIL CONSERVATION SERVICE

WATERWAY CONSTRUCTION PERMIT No. 91-WC-1333
NON-TIDAL WETLANDS PERMIT No. 91-NT-619
HCSD No. EP-91-21

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 11-12-91
DIRECTOR OF PUBLIC WORKS DATE
[Signature] 11/26/91
CHIEF, BUREAU OF HIGHWAYS DATE
[Signature] 11/12/91
CHIEF, DIVISION OF ROADS, BRIDGES & STORM DRAINAGE DATE

spi
GREENMAN-PEDERSEN INC.
ENGINEERS/ARCHITECTS/PLANNERS
14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (301) 880-3055



DES: T E M					
DRN: D A B					
CHK: J J B					
DATE: /25/91	BY	NO	REVISION	DATE	600' SCALE MAP NO. _____ BLOCK NO. _____

BRIGHTON DAM CULVERT

TITLE SHEET

CAPITAL PROJECT NO. D-1088

SCALE AS SHOWN

SHEET 1 OF 13

1267

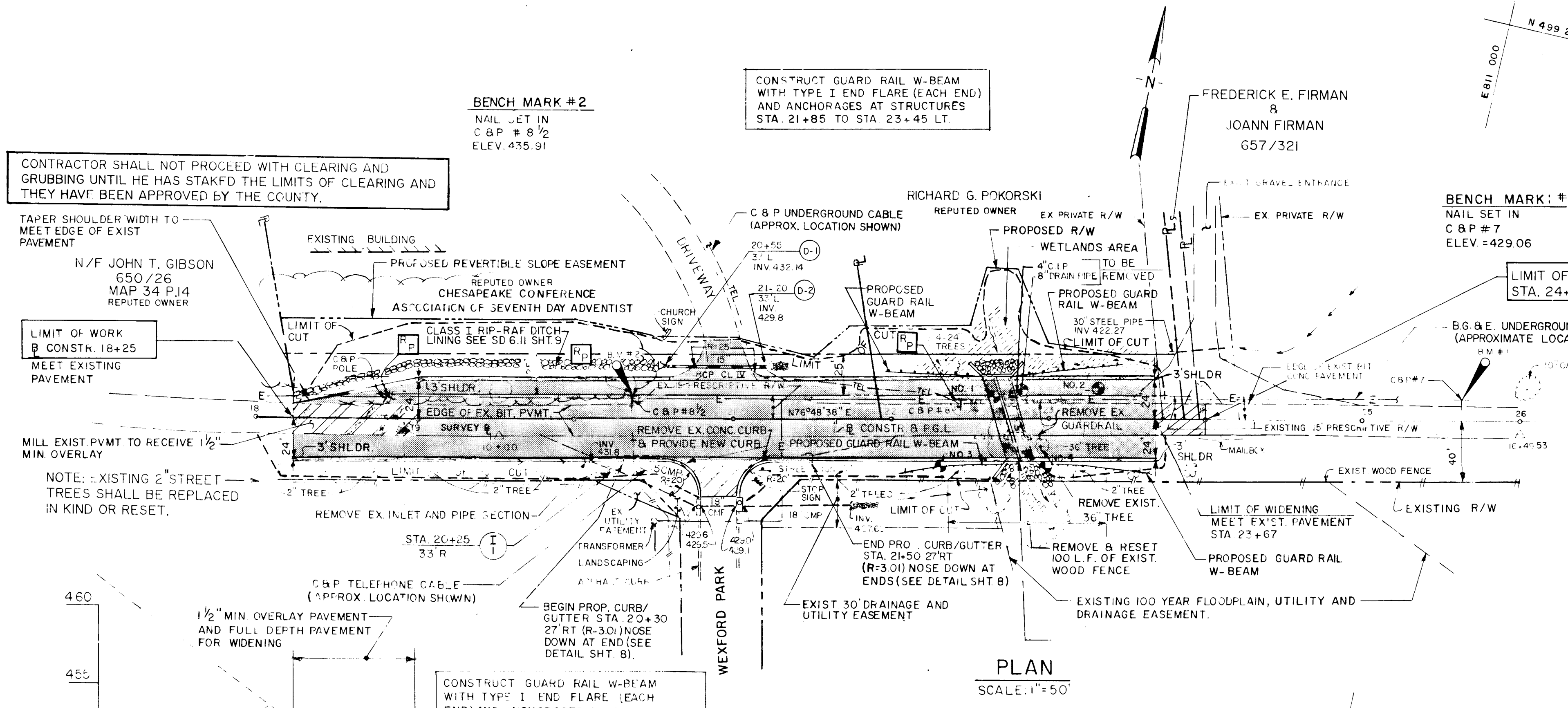
CONSTRUCTION EQUALITIES

CONSTRUCTION STA. 20 + 00.00 =
SURVEY STA. 10 + 50.00 11.10' LEFT

CONSTRUCTION STA. 23 + 00.00 =
SURVEY STA. 13 + 50.00 10.90' LEFT

LEGEND

- OVERLAY PAVEMENT, MILL EX P.V.M.T. 1/2" MIN
- FULL DEPTH PAVEMENT
- RELOCATE POLE (BY OTHERS N.I.C.)
- SOIL TEST BORING LOCATION
- WETLANDS
- SHOULDER PAVEMENT
- TEL UNDERGROUND TELEPHONE CABLE
- E UNDERGROUND ELECTRIC CABLE



TEST BORING LOG

PROJECT: Brighton Dam Rd. Culvert
LOCATION: Brighton Dam Rd., Howard Co., MD
CLIENT: Greenman-Pedersen, Inc.
HAMMER: 140 lbs # 30 inch drop

DEPTH (ft)	SPT	SOIL GRAPH	DESCRIPTION OF SOIL	STRATUM	MC (%)
1	1		Brown silty sand (FILL) moist	A	
2	1		Brown silty sand (FILL) moist	A	
3	2	2.5	Brownish grey poorly graded SAND (SP-SM) with silt, some mica, wet		
4	10		Brownish green at 5.5'		
5	22		Brown and gray sandy silt (ML), wet	B	
6	20		More coarse sand at 8.5'		
7	16		Brown well graded SAND (SM), wet		
8	4	9.0	Brownish yellow sandy silt (ML), wet		
9	2		Brown silty SAND (SM), some mica, wet	C	
10	4		Bottom of boring at 15.0'		
11	7	15.0			
12					
13					
14	2				
15	7				
16					
17					
18					
19					

NOTE: Backfilled upon completion. WATER READINGS: Encountered at After 2 hrs. Water at 4.4' Caved at

TEST BORING LOG

PROJECT: Brighton Dam Rd. Culvert
LOCATION: Brighton Dam Rd., Howard Co., MD
CLIENT: Greenman-Pedersen, Inc.
HAMMER: 140 lbs # 30 inch drop

DEPTH (ft)	SPT	SOIL GRAPH	DESCRIPTION OF SOIL	STRATUM	MC (%)
1	1		Dark brown sandy silt (FILL) silt roots and topsoil, moist	A	
2	2	2.5	Brownish grey sandy silt (ML), wet		
3	2		Brown and gray sandy silt (ML), wet	B	
4	3		More coarse sand at 8.5'		
5	1	5.5	Brown well graded SAND (SM), wet		
6	2	9.5	Brown silty SAND (SM), wet	C	
7	4		Bottom of boring at 15.0'		
8	5				
9	11	15.0			
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

NOTE: WATER READINGS: Encountered at After 2 hrs. Water at 4.4' Caved at

TEST BORING LOG

PROJECT: Brighton Dam Rd. Culvert
LOCATION: Brighton Dam Rd., Howard Co., MD
CLIENT: Greenman-Pedersen, Inc.
HAMMER: 140 lbs # 30 inch drop

DEPTH (ft)	SPT	SOIL GRAPH	DESCRIPTION OF SOIL	STRATUM	MC (%)
1	4		Brownish green silty sand FILL, wet	A	
2	5		Brownish grey silty SAND (SM), wet		
3	3		Brown, well graded SAND (SM), wet	B	
4	2	5.5	Brown silty SAND (SM), wet		
5	2	9.0	Dark brown silty SAND (SM) with gravel, wet		
6	10		Brown silty SAND (SM), wet	C	
7	3	13.5	Bottom of boring at 15.0'		
8	10				
9	11	15.0			
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

NOTE: WATER READINGS: Encountered at After 3 hrs. Water at 6.1' Caved at

TEST BORING LOG

PROJECT: Brighton Dam Rd. Culvert
LOCATION: Brighton Dam Rd., Howard Co., MD
CLIENT: Greenman-Pedersen, Inc.
HAMMER: 140 lbs # 30 inch drop

DEPTH (ft)	SPT	SOIL GRAPH	DESCRIPTION OF SOIL	STRATUM	MC (%)
1	1		Brown silty sand (FILL) some roots and organic matter, moist	A	
2	2	2.5	Brown silty SAND (SM), wet	B	
3	2		Brown well graded SAND (SM) with gravel, wet		
4	10		Dark brown silty SAND (SM) with gravel, wet		
5	7	8.5	Brown silty SAND (SM), wet	C	
6	5	13.5	Bottom of boring at 15.0'		
7	7	15.0			
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					

NOTE: WATER READINGS: Encountered at After 3 hrs. Water at 4.5' Caved at

SURVEY BASELINE REFERENCES

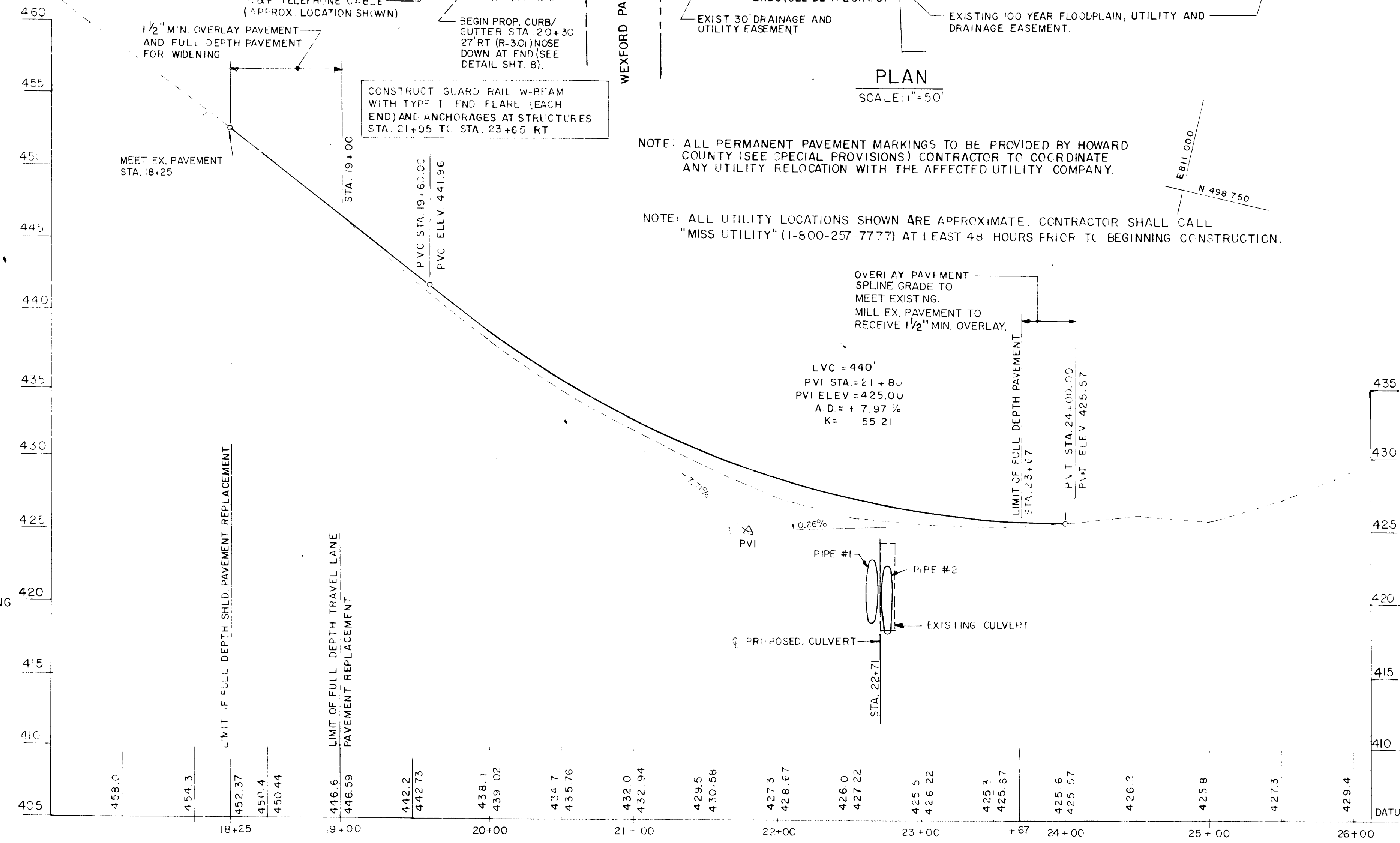
NOT TO SCALE

VERTICAL CONTROL

BM NO. 1 C&P POLE #7 ELEV. 429.06

BM NO. 2 C&P POLE #6 1/2 ELEV. 435.91

NOTE: CONTRACTOR IS RESPONSIBLE FOR MAINTAINING VERTICAL CONTROL THROUGHOUT THE PROJECT.



INLET STRUCTURE SCHEDULE

STRUCTURE	TYPE	TOP ELEV.	INV. CUT	REMARKS
I-1	D	435.7	431.3	HO. CO. SD 4.11 SLOTS E, W INCORPORATE EXIST. PIPE INTO STRUCTURE

DRIVEWAY CULVERT STRUCTURE SCHEDULE

STRUCTURE NO. D-1	PIPE	STRUCTURE NO. D-2
CONCRETE END SECTION- SEE HO. CO. STD. SD-5.51 INV. EL. 432.14	65 LF 15" RC. CL. IV INV. IN 432.14 INV. CUT 429.80	CONCRETE END SECTION- SEE HO. CO. STD. SD-5.51 INV. EL. 429.80

NOTE: SEE SHEET 9 FOR TYPICAL ROADWAY SECTION

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS: *James H. Dickson* 11/12/91
DATE: 11/12/91

CHIEF, BUREAU OF HIGHWAYS: *Christoph Anderson* 11/12/91
DATE: 11/12/91

GREENMAN-PEDERSEN INC.
ENGINEERS/ARCHITECTS/PLANNERS

14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (301) 880-3055

DES. T. E. M.

DRN: D A B

CHK: A J B

DATE 2/25/91

BY NO REVISION DATE

BRIGHTON DAM CULVERT

PLAN AND PROFILE

SCALE AS SHOWN

SHEET 2 OF 12

CAPITAL PROJECT NO. D-1088

GENERAL NOTES

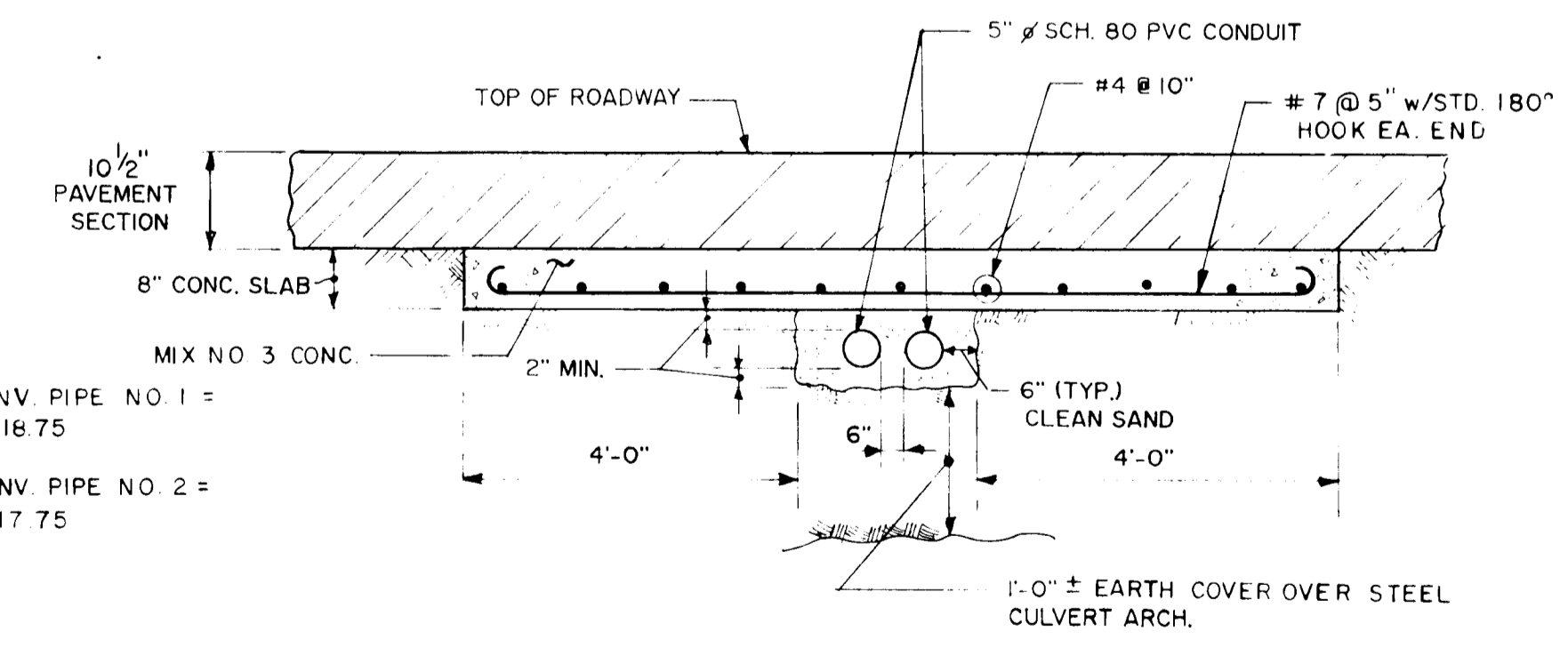
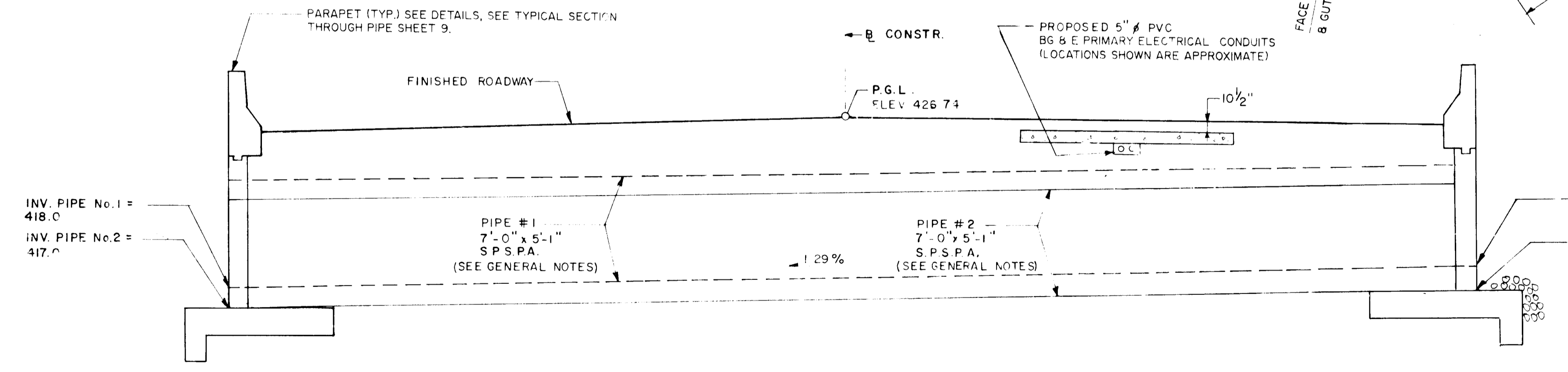
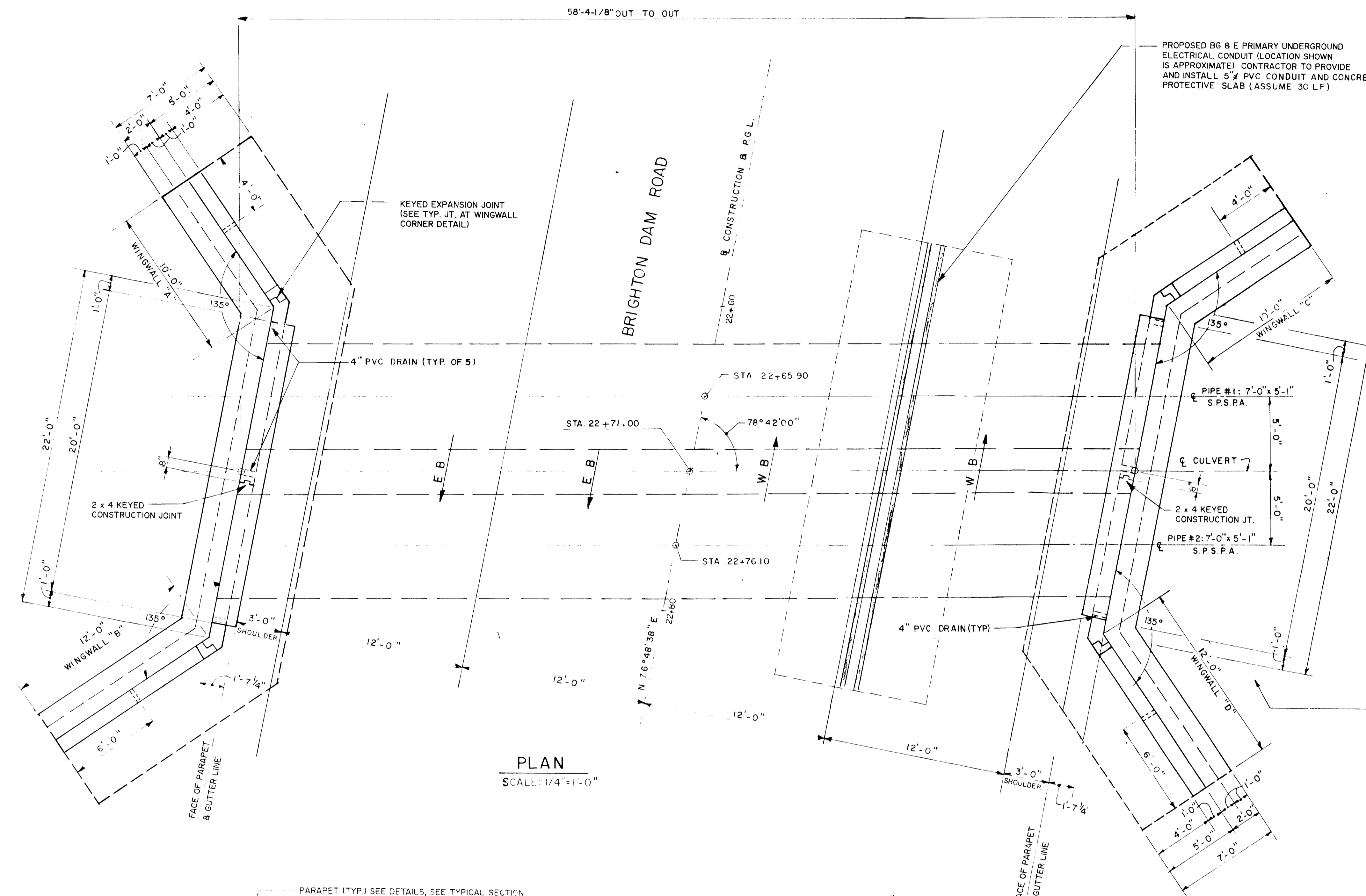
SPECIFICATIONS:
 HOWARD COUNTY DESIGN MANUAL, VOLUME IV AND SHA SPECIFICATIONS DATED JANUARY, 1982, SUPPLEMENT TO SPECIFICATIONS DATED JANUARY 1988, REVISIONS THEREOF AND ADDITIONS THERETO AND SPECIAL PROVISIONS FOR MATERIALS AND CONSTRUCTION, SUPPLEMENT TO THE JANUARY 1988 SUPPLEMENT TO SPECIFICATIONS DATED FEBRUARY 1990.
 AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DATED 1989 FOR DESIGN.
 CONCRETE DESIGN: SERVICE LOAD DESIGN METHOD $f_c = 1200$ PSI
 REINFORCING STEEL DESIGN: $f_s = 24,000$ PSI

LOADING:
 HS 20-44
 CONCRETE:
 ALL CONCRETE FOR CULVERT HEADWALLS, WINGWALLS AND FOOTINGS SHALL BE MIX NO. 3 (3500 PSI)
 ALL CONCRETE FOR JERSEY PARAPETS SHALL BE MIX NO. 6 (4,500 PSI)
 REINFORCING STEEL:
 REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER. ONLY GRADE 60 CAN BE USED ON THIS PROJECT. ALL REINFORCING STEEL IN PARAPETS SHALL BE EPOXY COATED, SEE SPECIAL PROVISIONS.

KEYS:
 ALL KEYS ARE NOMINAL SIZE
 COVER FOR CONCRETE BOXES, PIPES AND/OR PIPE ARCHES:
 NO CONSTRUCTION EQUIPMENT SHALL BE PERMITTED TO PASS OVER THE CULVERT UNTIL A MINIMUM OF 3 FT OF COMPACTED FILL HAS BEEN PLACED OVER THE CULVERT.
 CHAMFER:
 ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS, EXCEPT ON UNEXPOSED FOOTINGS OR WHERE INDICATED BY THE FOLLOWING NOTATION ON THE PLANS "DO NOT CHAMFER".
 CULVERT:
 STRUCTURAL PLATE STEEL PIPE ARCH (S.P.S.P.A.)
 10 GAUGE; CORRUGATIONS - 6" X 2", 18" CORNER RADI;
 7'-0" SPAN X 5' X 1" RISE WITH BOLTED SEAMS.

NOTE:
 SEE SHEET 5 FOR RIPRAP PLAN & DETAIL

NOTE:
 LOCATION OF PROPOSED CONDUIT AND LIMITS OF PROTECTIVE SLAB TO BE DETERMINED BY BG & E. COORDINATE INSTALLATION WITH BG & E. CONTRACTOR TO PROVIDE TWO TEST PITS FOR DETERMINATION OF EXIST. UNDERGROUND ELECTRIC CABLE.



TYPICAL SECTION: SHALLOW COVER PROTECTION FOR CONDUIT

SECTION ALONG CENTERLINE OF CULVERT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS
 DATE

CHIEF, BUREAU OF HIGHWAYS
 DATE

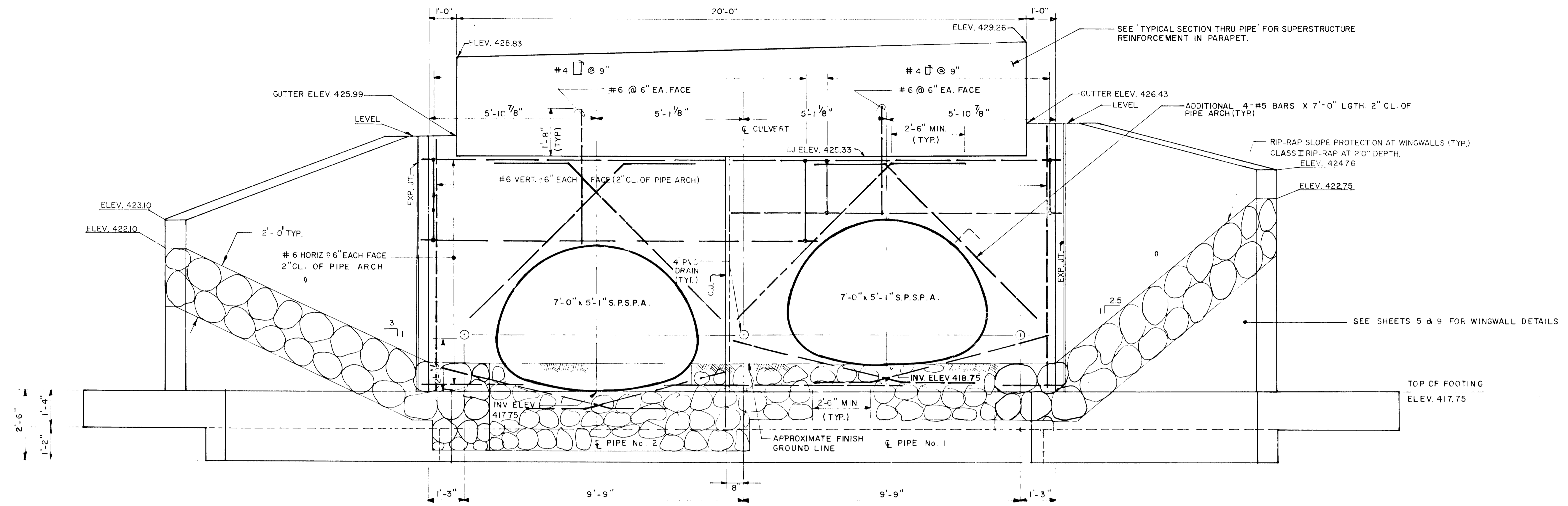
gpi
 GREENMAN-PEDERSEN INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
 WASH. (301) 470-2772 BALT. (301) 880-3055

DES: T.E.M.				
DRN: D.A.E.				
CHK: A.J.B.				
DATE: 2/25/91	BY	NO.	REVISION	DATE

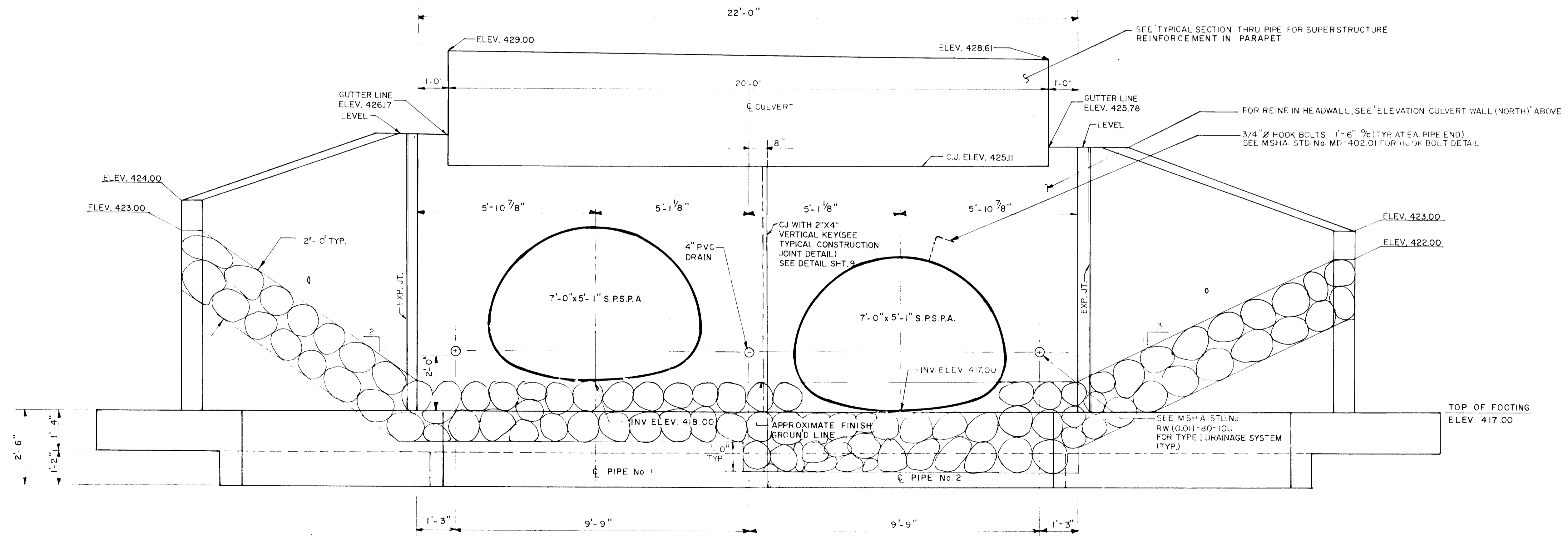
600' SCALE MAP NO. _____ BLOCK NO. _____

BRIGHTON DAM CULVERT
 GENERAL PLAN & ELEVATION
 CAPITAL PROJECT NO. D-1088

SCALE AS SHOWN
 SHEET 3 OF 13



ELEVATION CULVERT WALL (NORTH)
SCALE: 1/2" = 1'-0"



ELEVATION CULVERT WALL (SOUTH)
SCALE: 1/2" = 1'-0"

NOTE: SEE SHEET NO. 5 FOR RIP-RAP PLAN & DETAILS.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

gpi

GREENMAN-PEDERSEN INC.
ENGINEERS/ARCHITECTS/PLANNERS
14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (301) 880-3055



DES: T.E.M.

DRN: D.A.B.

CHK: A.J.B.

DATE: 2/25/91

BY

NO.

REVISION

DATE

600' SCALE MAP NO.

BLOCK NO.

BRIGHTON DAM CULVERT

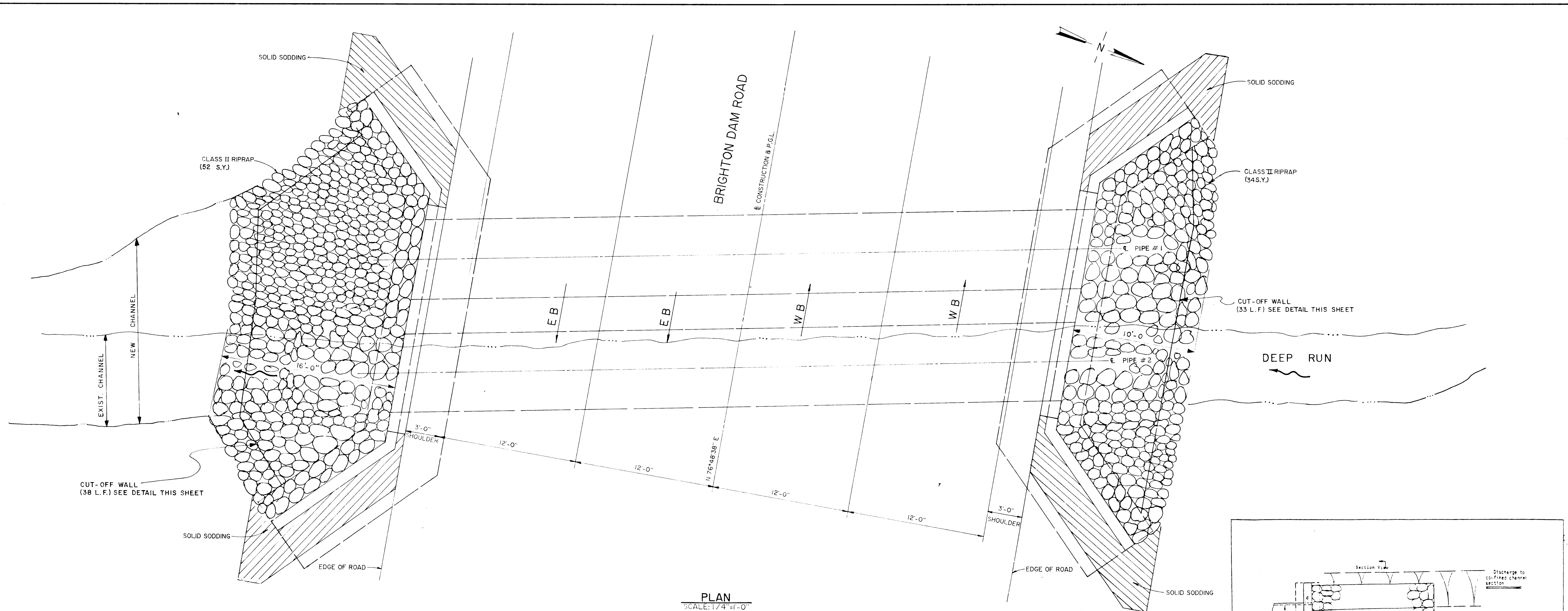
CULVERT WALL ELEVATIONS

SCALE
AS
SHOWN

SHEET
4 OF 13

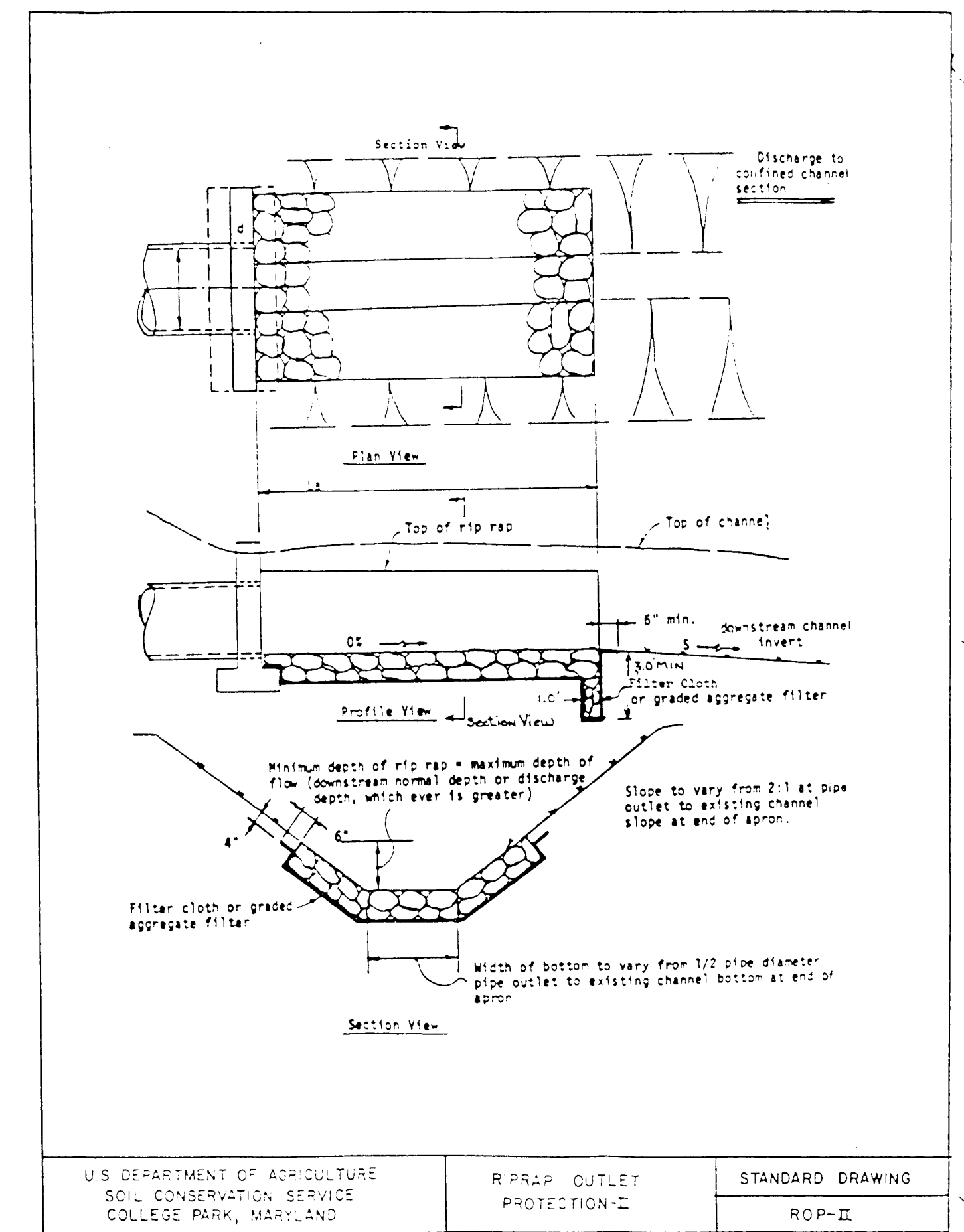
CAPITAL PROJECT NO. D-1088

1027



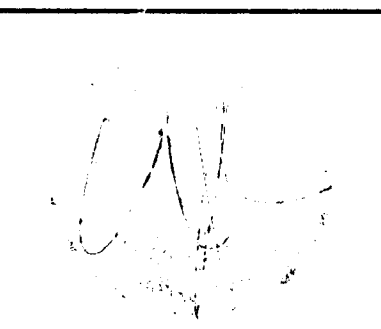
PLAN
SCALE: 1/4" = 1'-0"

NOTE: SEE CULVERT WALL ELEVATIONS ON SHEET NO. 4 AND STANDARD DRAWING ROP-II THIS SHEET FOR LIMITS AND DETAILS OF RIP-RAP PLACEMENT.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DIRECTOR OF PUBLIC WORKS
DATE
11-12-91
CHIEF, BUREAU OF ENGINEERING

gpi
GREENMAN-PEDERSEN INC.
ENGINEERS/ARCHITECTS/PLANNERS
14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (301) 880-3055



DES. M.E.C.	
DRN: J.A.	
CHK: A.J.B.	
DATE: 2/25/91	
BY: NO.	
REVISION	
DATE	
600' SCALE MAP	
BLOCK NO.	

BRIGHTON DAM CULVERT
RIPRAP PLAN & DETAILS
CAPITAL PROJECT NO. D-1088

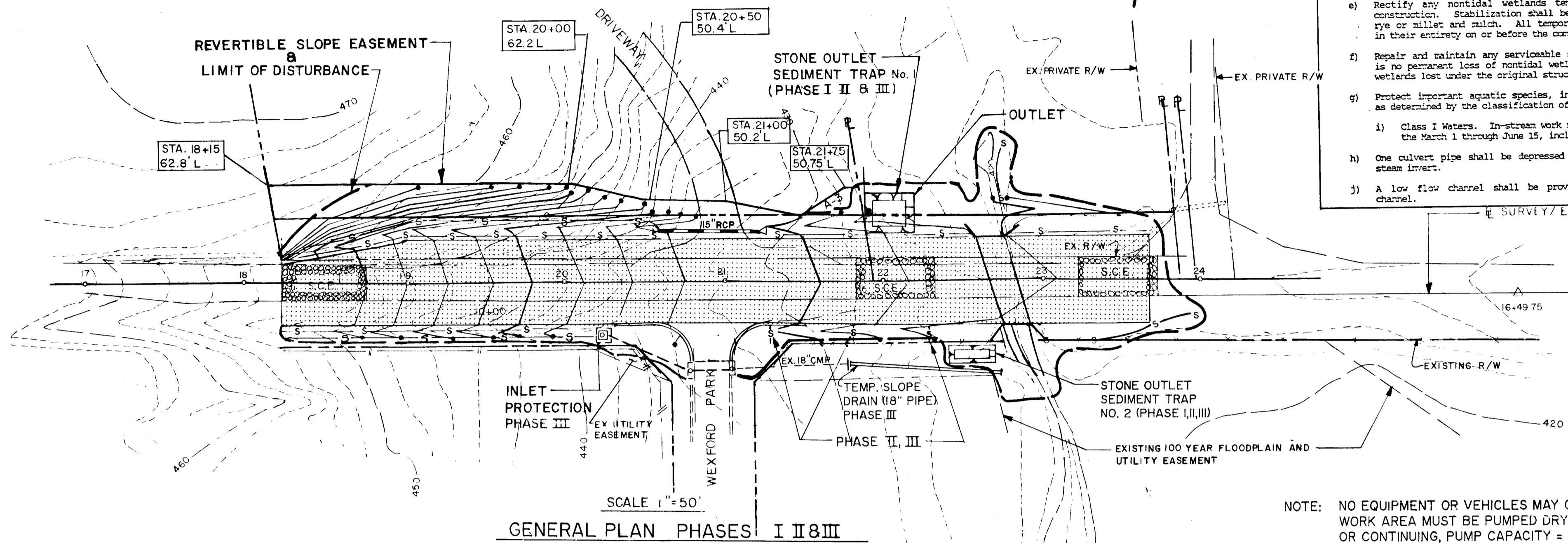
U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
COLLEGE PARK, MARYLAND
RIPRAP OUTLET PROTECTION-II
STANDARD DRAWING ROP-II
38.08
SCALE AS SHOWN
SHEET 5 OF 13

TRAP SUMMARY TABLE

NUMBER	1
TYPE	STONE OUTLET
EX. DRAINAGE AREA	2 AC.
PROP. DRAINAGE AREA	0.5 AC.
STORAGE REQUIRED	900
STORAGE PROVIDED	1500
BOTTOM ELEVATION	419
BOTTOM DIMENSIONS	20x15
SPILLWAY CREST ELEVATION	424
STORAGE DEPTH OF TRAP	5'
CLEANOUT ELEVATION	421.5
WIER LENGTH	8'
SIDE SLOPES	1:1

TRAP SUMMARY TABLE

NUMBER	2
TYPE	STONE OUTLET
EX. DRAINAGE AREA	0.2 AC.
PROP. DRAINAGE AREA	0.2 AC.
STORAGE REQUIRED	360
STORAGE PROVIDED	378
BOTTOM ELEVATION	419
BOTTOM DIMENSIONS	6x18
SPILLWAY CREST ELEVATION	422.5
STORAGE DEPTH OF TRAP	3.5
CLEANOUT ELEVATION	420.75
WIER LENGTH	6'
SIDE SLOPES	1:1



GENERAL PLAN PHASES I II & III

- SEE PLANS BELOW FOR PHASES I, II DETAILS.
- UNLESS NOTED OTHERWISE ALL SEDIMENT CONTROL DEVICES SHOWN ON GENERAL PLAN ARE FOR PHASE III

NOTE: SEE GENERAL PLAN FOR ROADWAY WORK.

NOTE: SEE SHEET 7 FOR SEDIMENT CONTROL DETAILS.

- CONDITIONS AND MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS
- The Contractor shall:
- Remove excess fill or construction material or debris to an upland disposal area outside of the nontidal wetlands and their buffers.
 - Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of the nontidal wetland.
 - If backfill is obtained from other than the originally excavated material, use clean material free of waste metal products, unsightly debris, toxic material or any other deleterious substance.
 - Place heavy equipment on mats or suitably use the equipment to prevent damage to the nontidal wetlands.
 - Rectify any nontidal wetlands temporarily impacted by any construction. Stabilization shall be with annual seed such as rye or millet and mulch. All temporary fills shall be removed in their entirety on or before the completion of construction.
 - Repair and maintain any serviceable structure or fill so there is no permanent loss of nontidal wetlands in excess of nontidal wetlands lost under the original structure or fill.
 - Protect important aquatic species. In-stream work is prohibited as determined by the classification of the stream as follows:
 - Class I Waters. In-stream work may not be conducted during the March 1 through June 15, inclusive, during any year.
 - One culvert pipe shall be depressed 1 foot below the existing stream invert.
 - A low flow channel shall be provided through the in-stream channel.

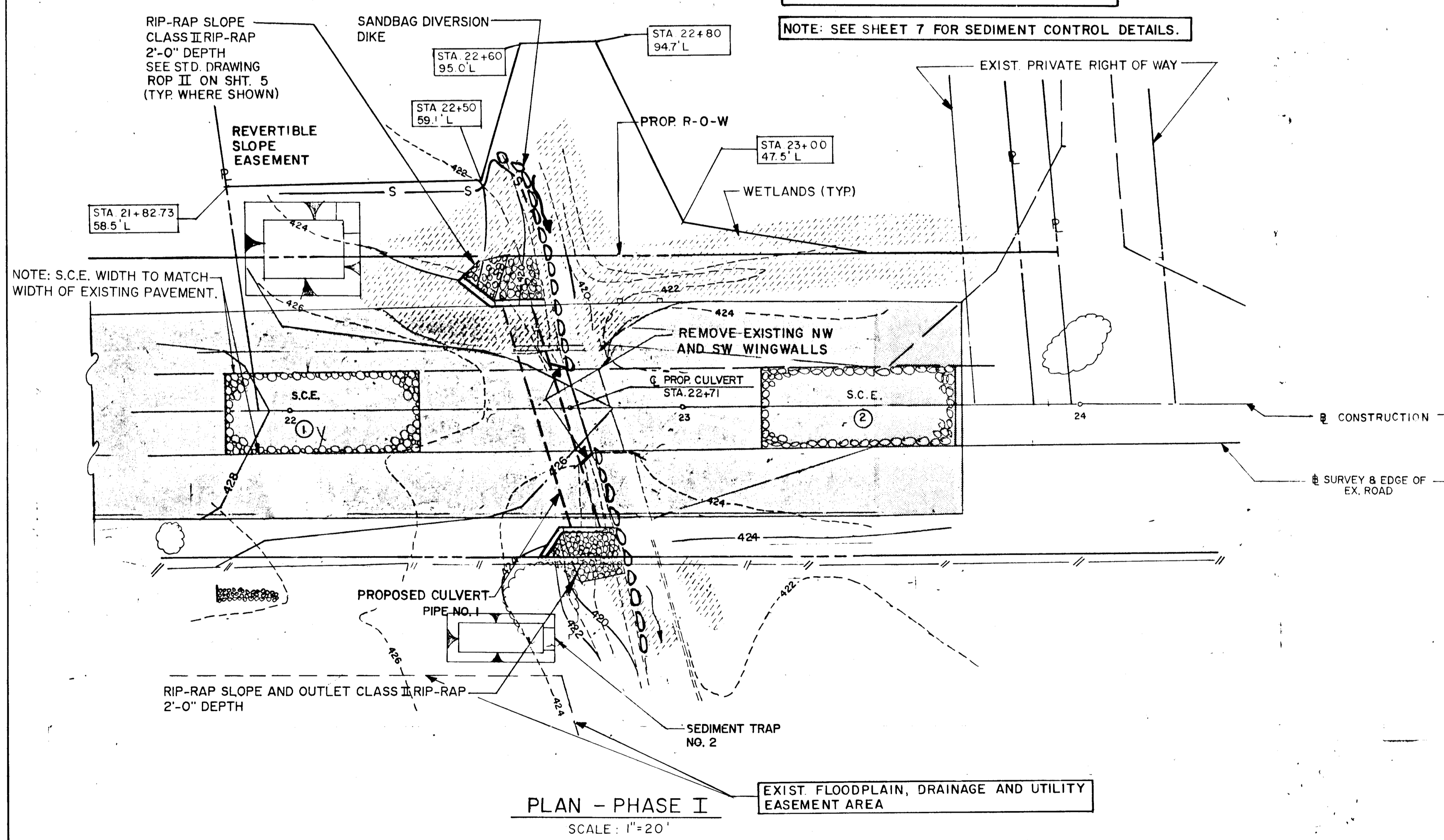
SEQUENCE OF CONSTRUCTION

- Phase I - Culvert Pipe #1
- Contractor shall attend the Erosion and Sediment Control Field meeting as scheduled by the Engineer.
 - Notify sediment control inspector 48 hours prior to beginning construction.
 - Install detour signs.
 - Install sediment control devices for Phase I.
 - Remove existing NW and SW wingwalls.
 - Maintain stream through existing culvert.
 - Excavate for and install culvert #1.
 - Grade Phase I slopes.
 - Stabilize all disturbed areas.
 - Upon approval from sediment control inspector, remove Phase I sediment control devices.
 - Stabilize all areas disturbed as a result of #10

- Phase II - Culvert Pipe #2
- Install Phase II sediment control devices.
 - Divert stream through pipe #1 constructed in Phase I with sandbag diversion dike.
 - Excavate and remove existing culvert.
 - Install culvert #2.
 - Grade Phase II slopes.
 - Stabilize all disturbed areas.
 - Upon approval from sediment control inspector, remove Phase II sediment control devices.
 - Stabilize all areas disturbed as a result of #7

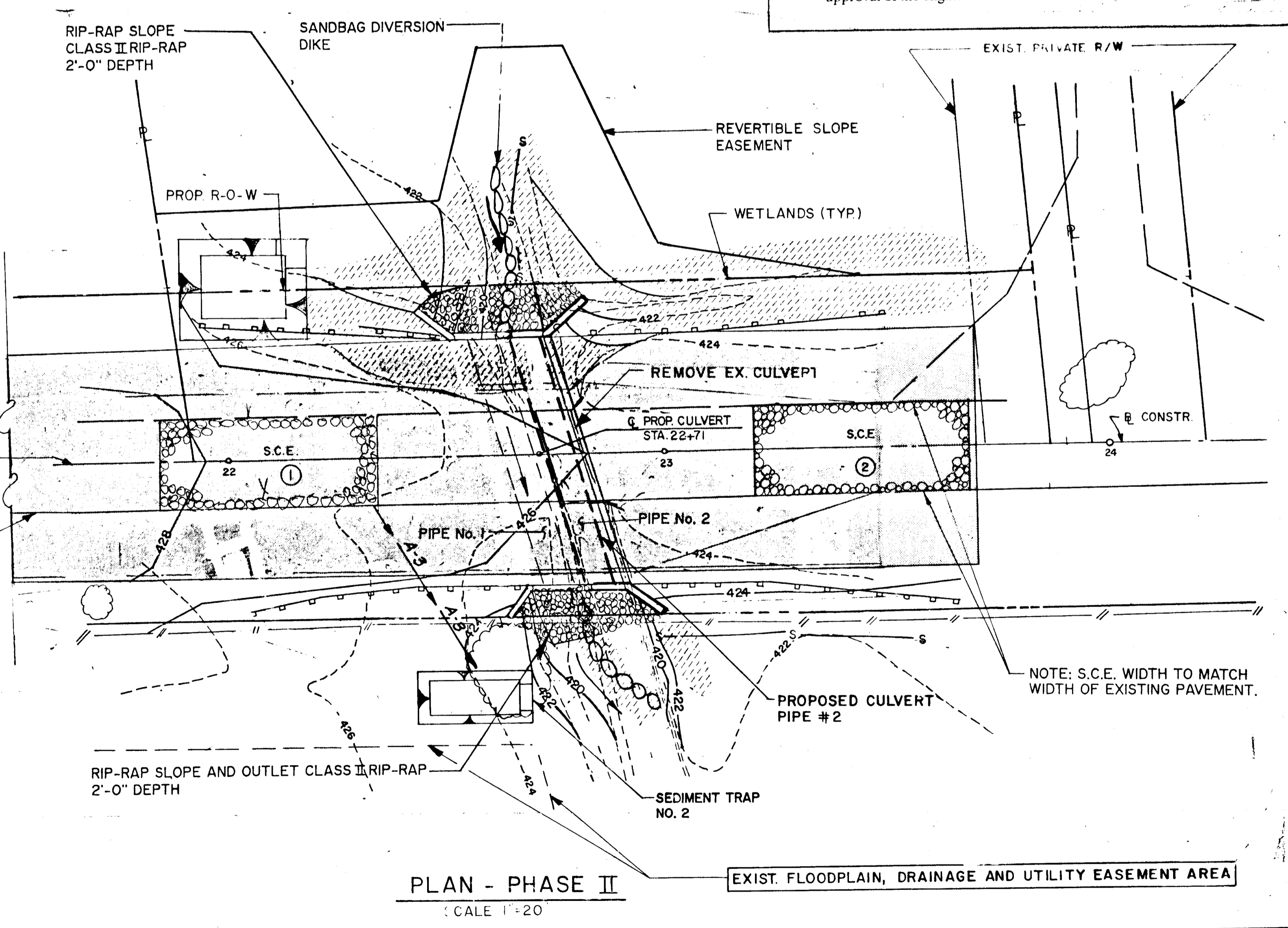
- Phase III - Roadway STA. 18+25 to 22+40 ±
- Install inlet protection, temp. slope drain.
 - Within a 72' hour period of forecast fair weather: Clear, grub, grade and stabilize Phase III slopes. Line ditches, 18+25 to 22+40, with soil stabilization matting. Install silt fence as shown.
 - Widen and reconstruct Brighton Dam Road.
 - Stabilize remaining areas.
 - Upon approval from sediment control inspector, remove Phase III sediment control devices.
 - Stabilize all areas disturbed as a result of #5.
 - Remove detour signs.

NOTE: Phase III/Roadway Construction may, at the contractor's option, be completed in whole or in part under Phases I and/or II with the approval of the engineer.



PLAN - PHASE I

SCALE: 1"=20'



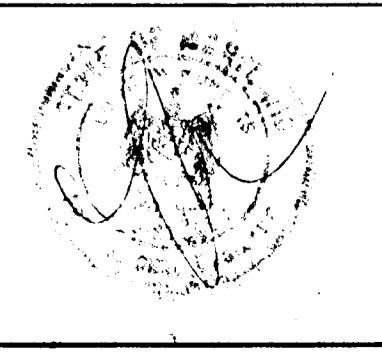
PLAN - PHASE II

SCALE: 1"=20'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *James P. ...* DATE: 11-12-91
 Chief, Bureau of Engineering: *...* DATE: 11/12/91
 Chief, Bureau of Highways: *David W. ...* DATE: 11/12/91
 Chief, Division of Roads, Bridges & Storm Drainage: *Elizabeth ...* DATE: 11/12/91

gpi
GREENMAN-PEDERSEN INC.
ENGINEERS/ARCHITECTS/PLANNERS
14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (301) 880-3055



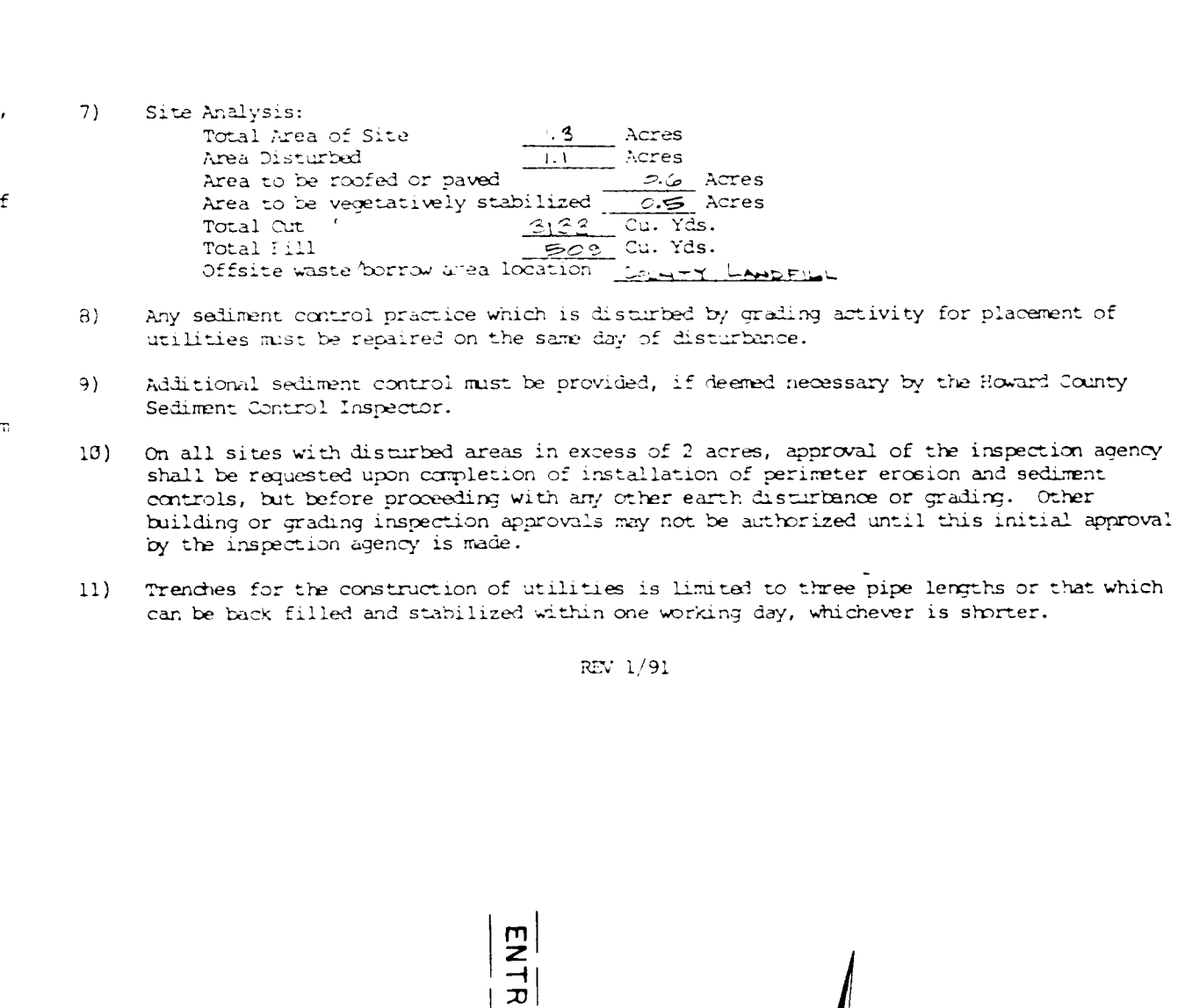
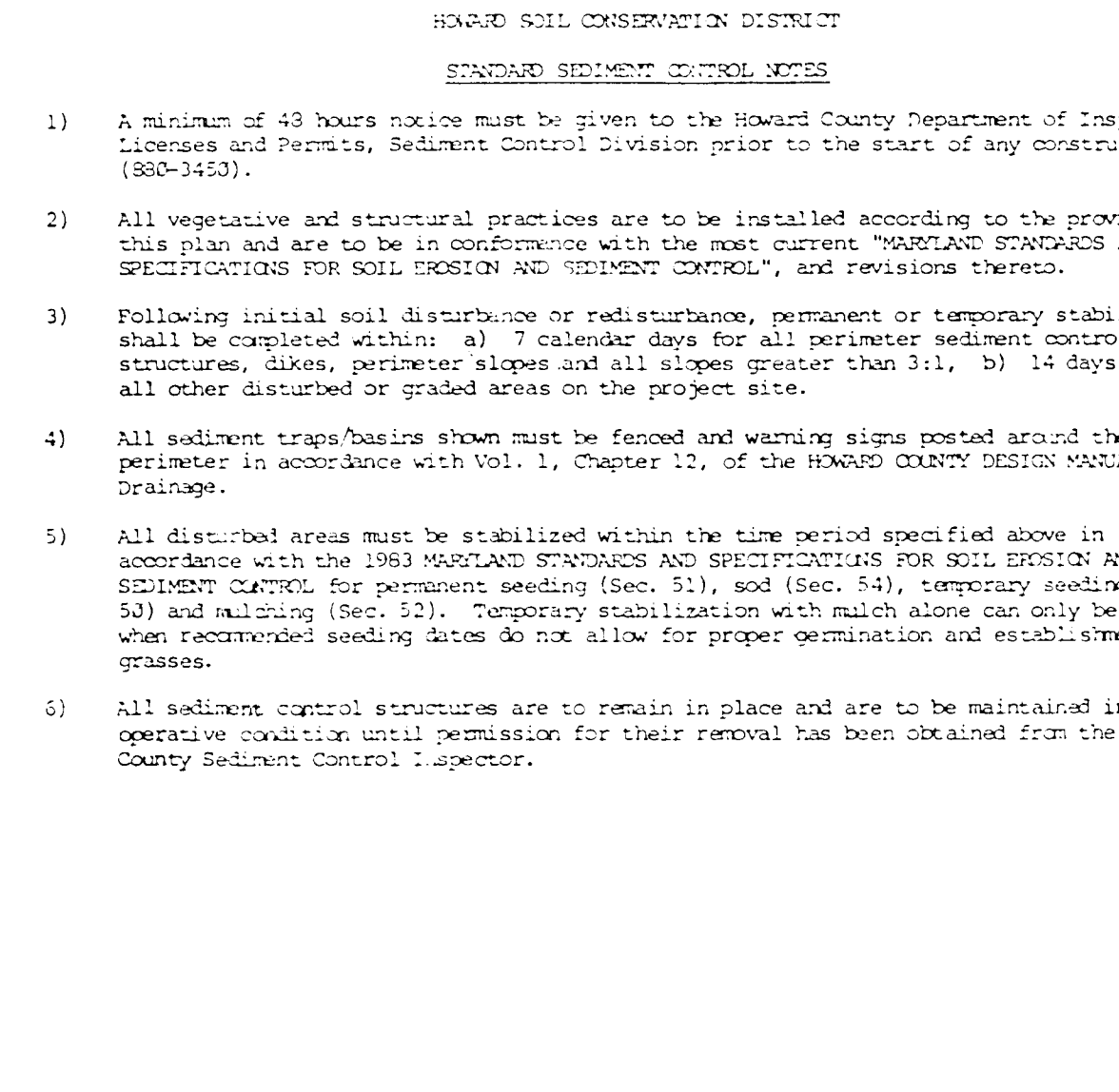
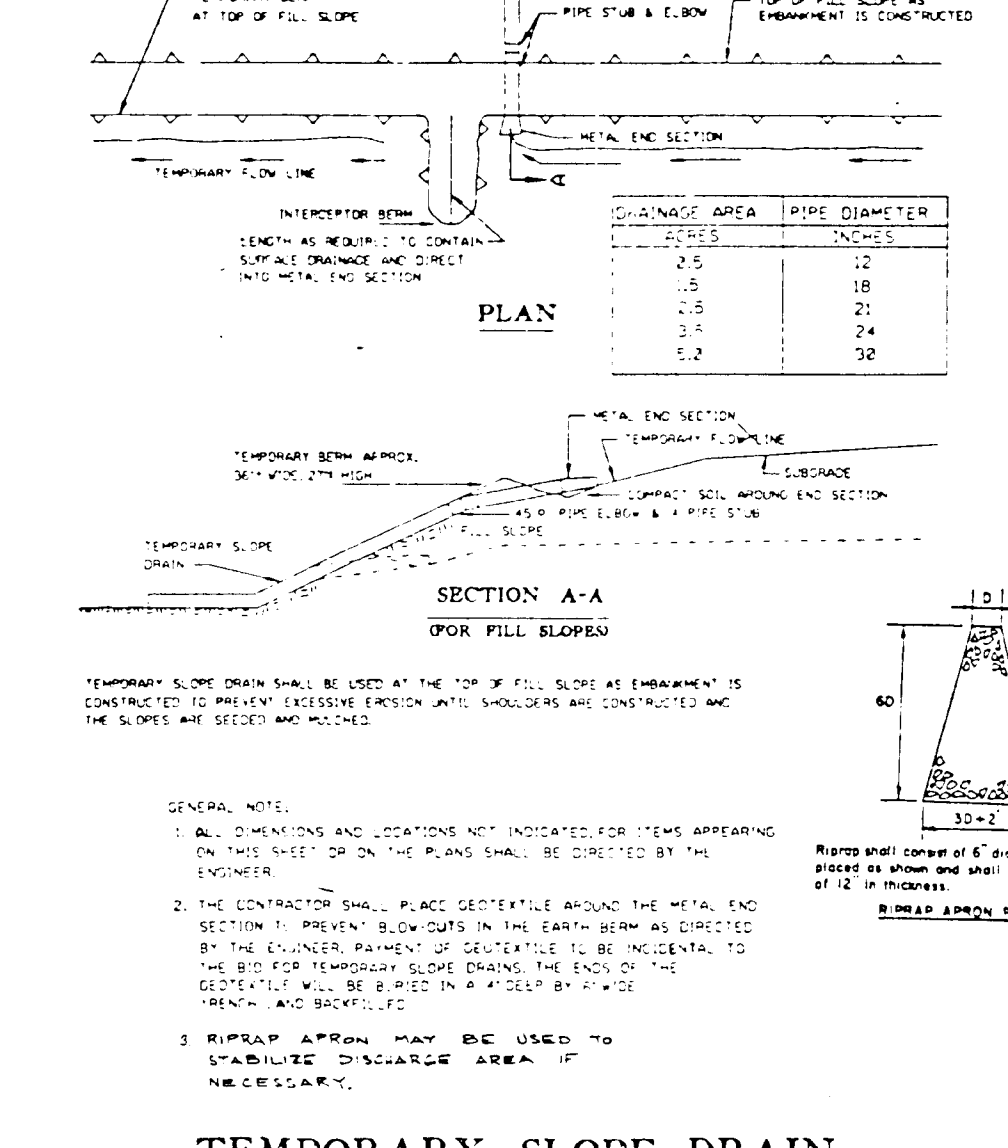
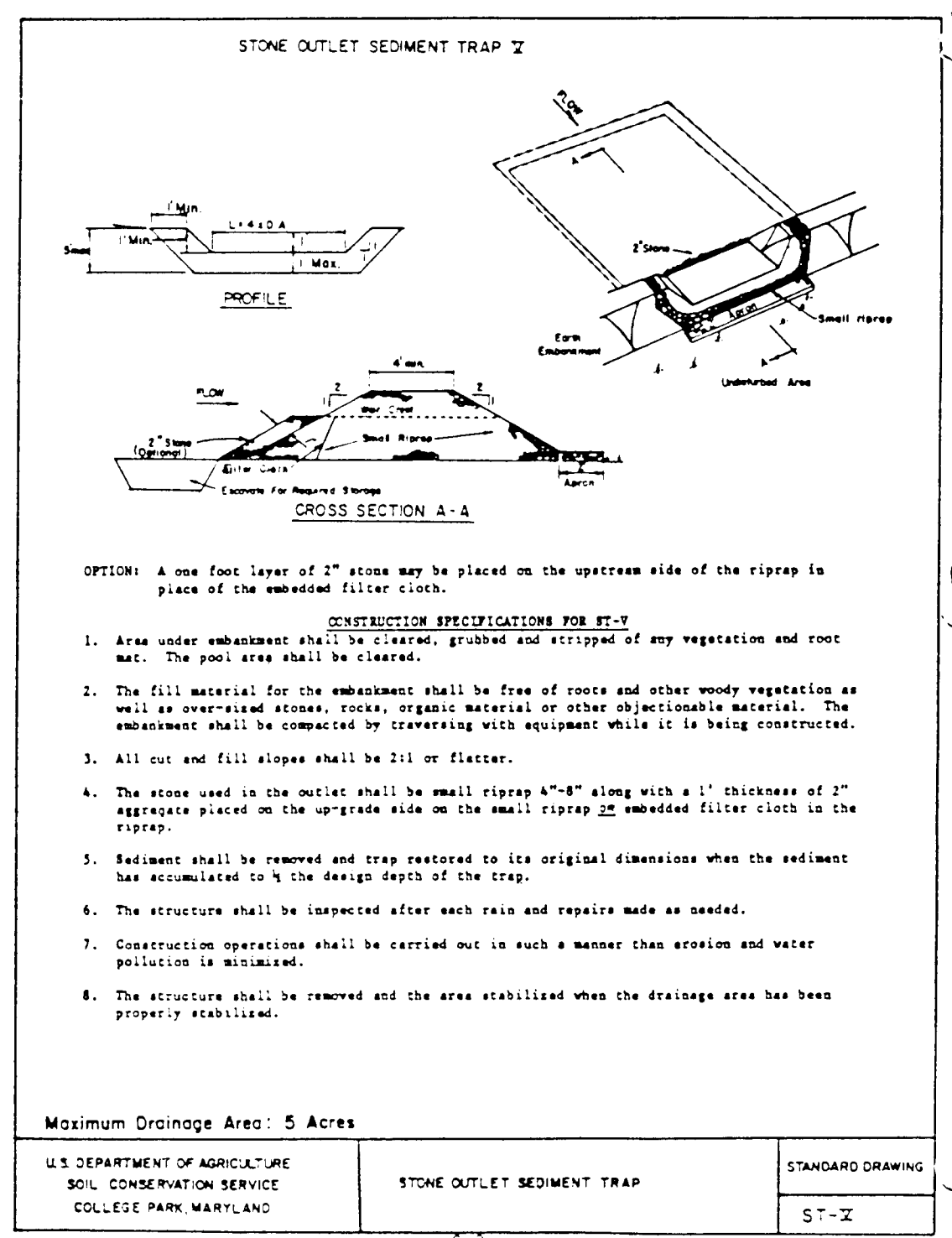
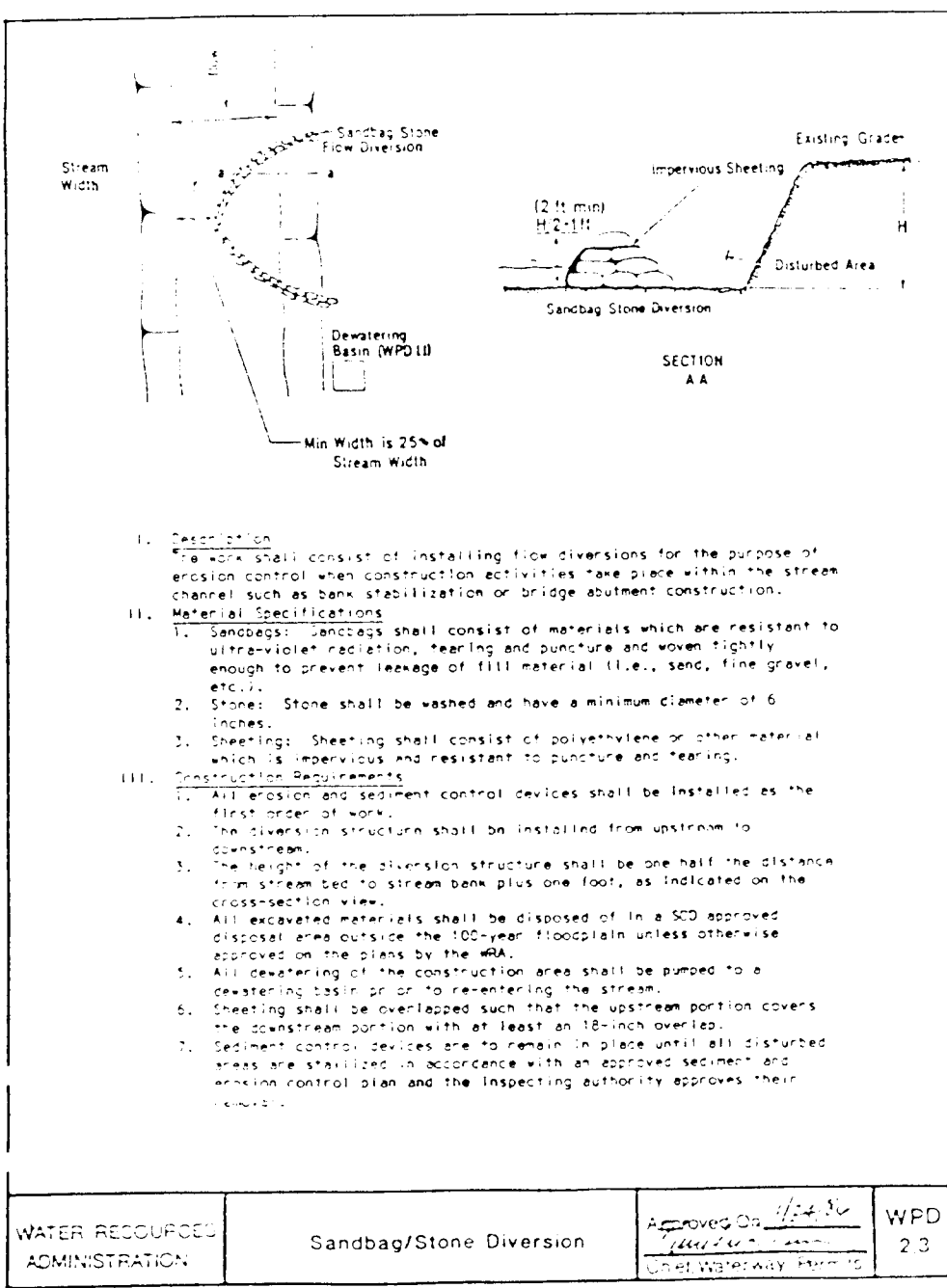
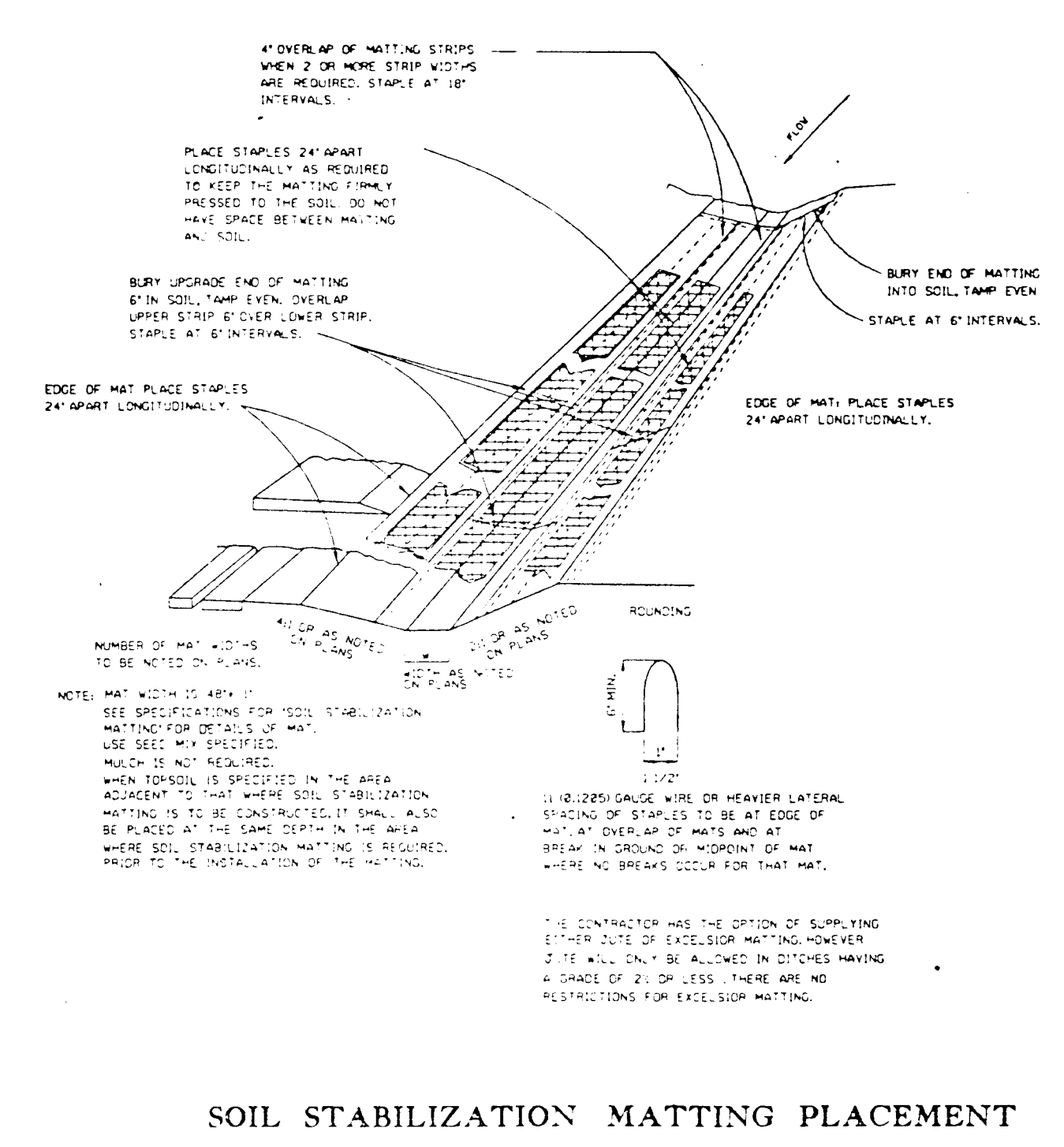
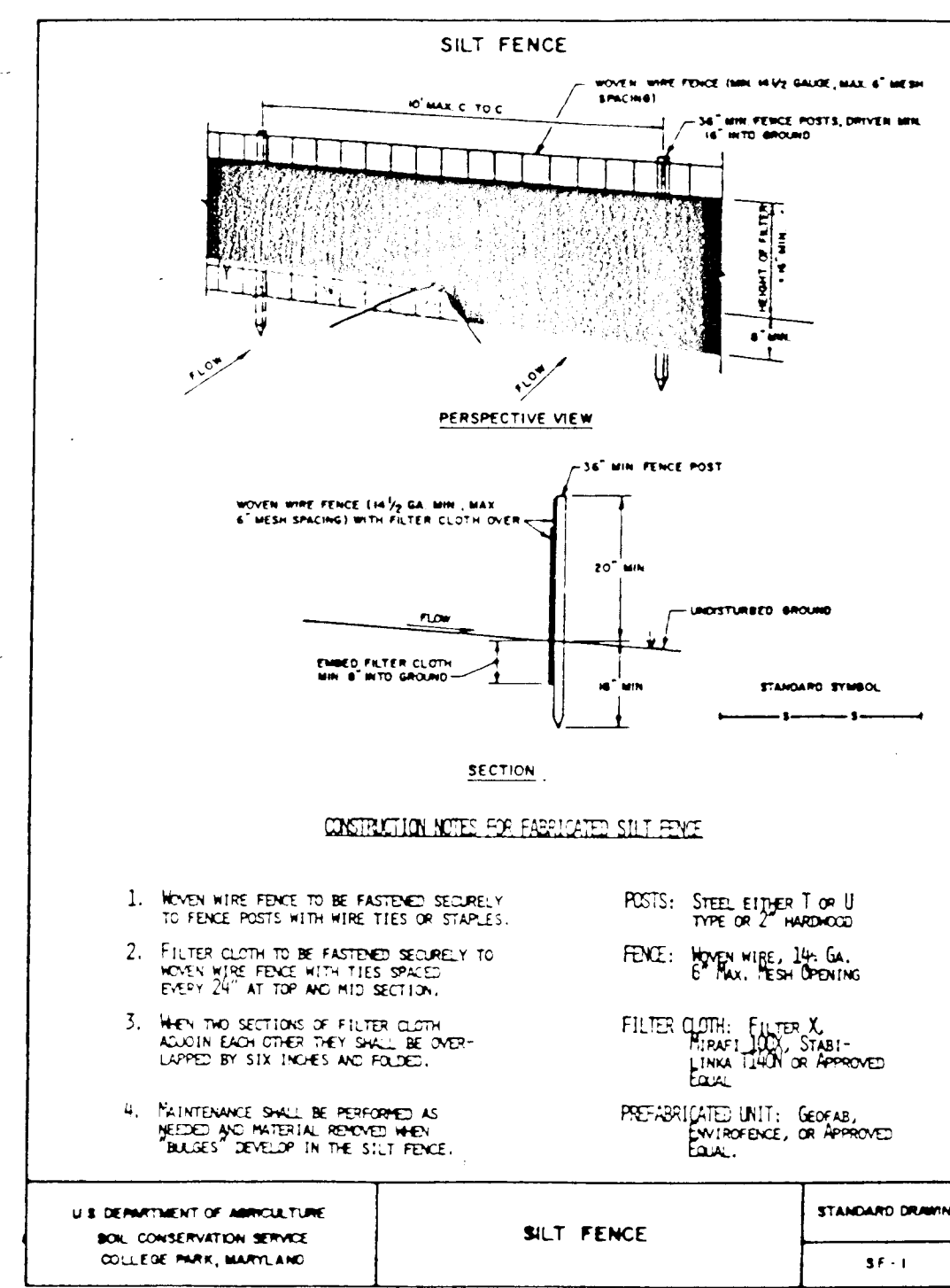
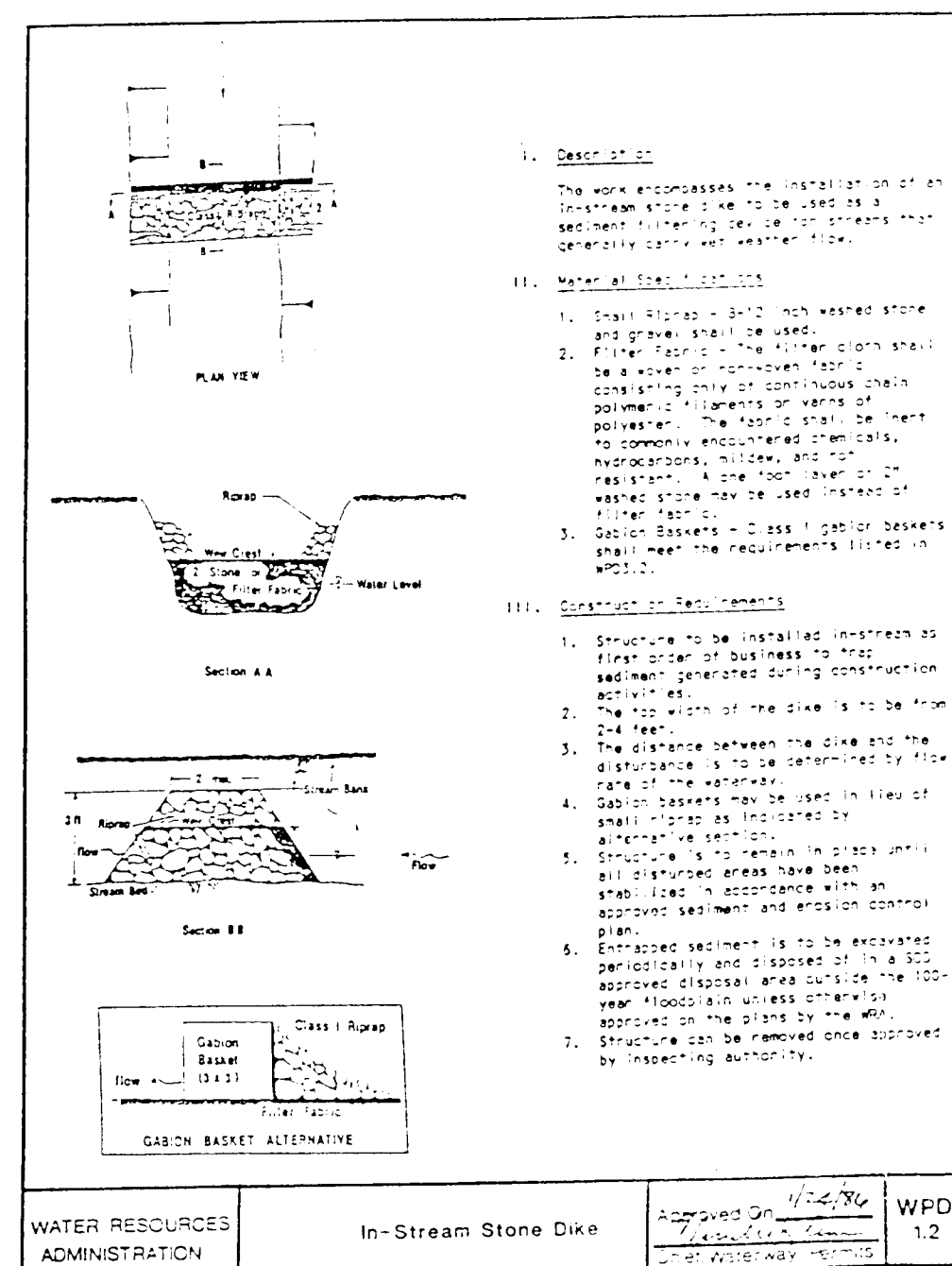
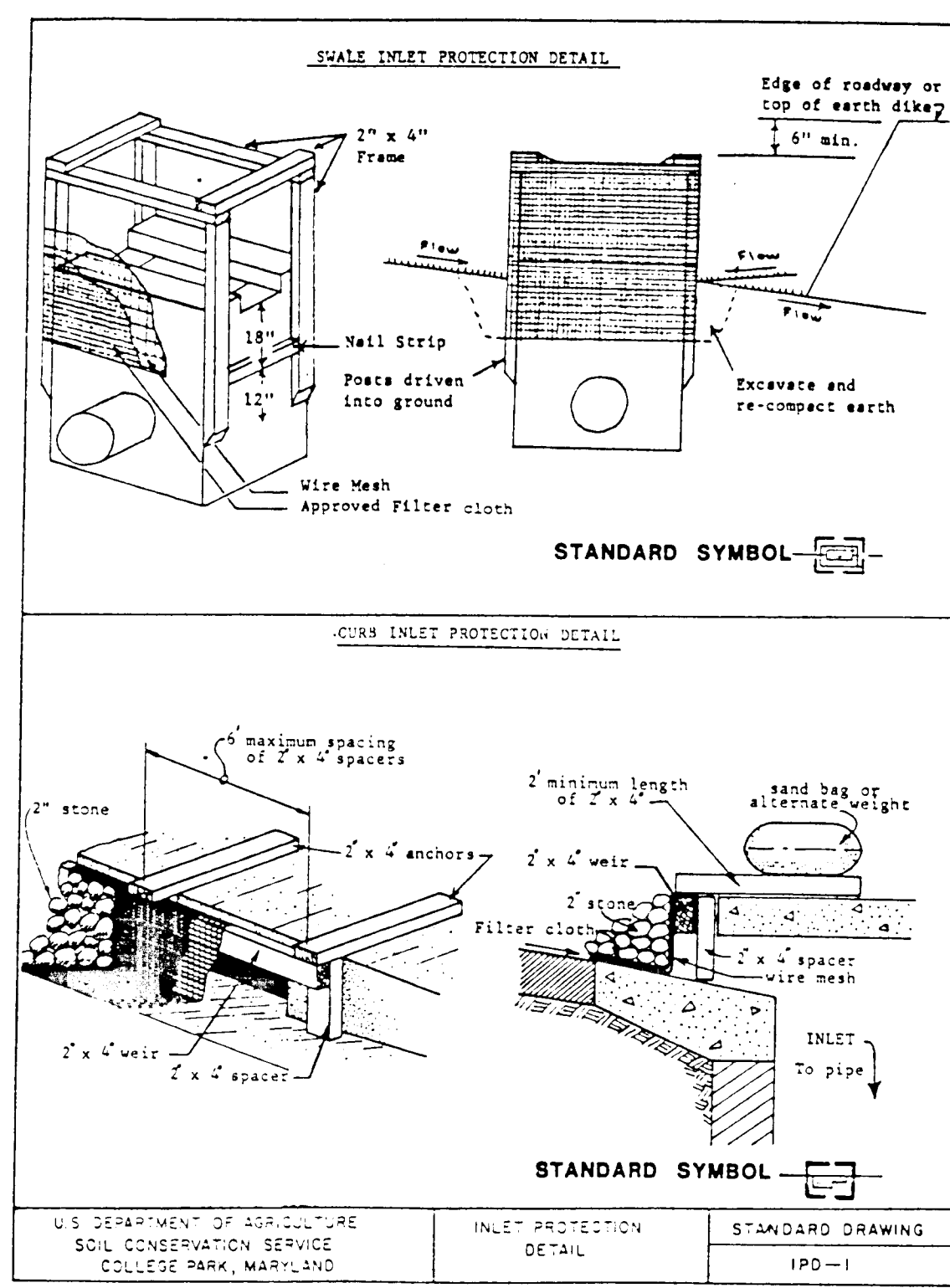
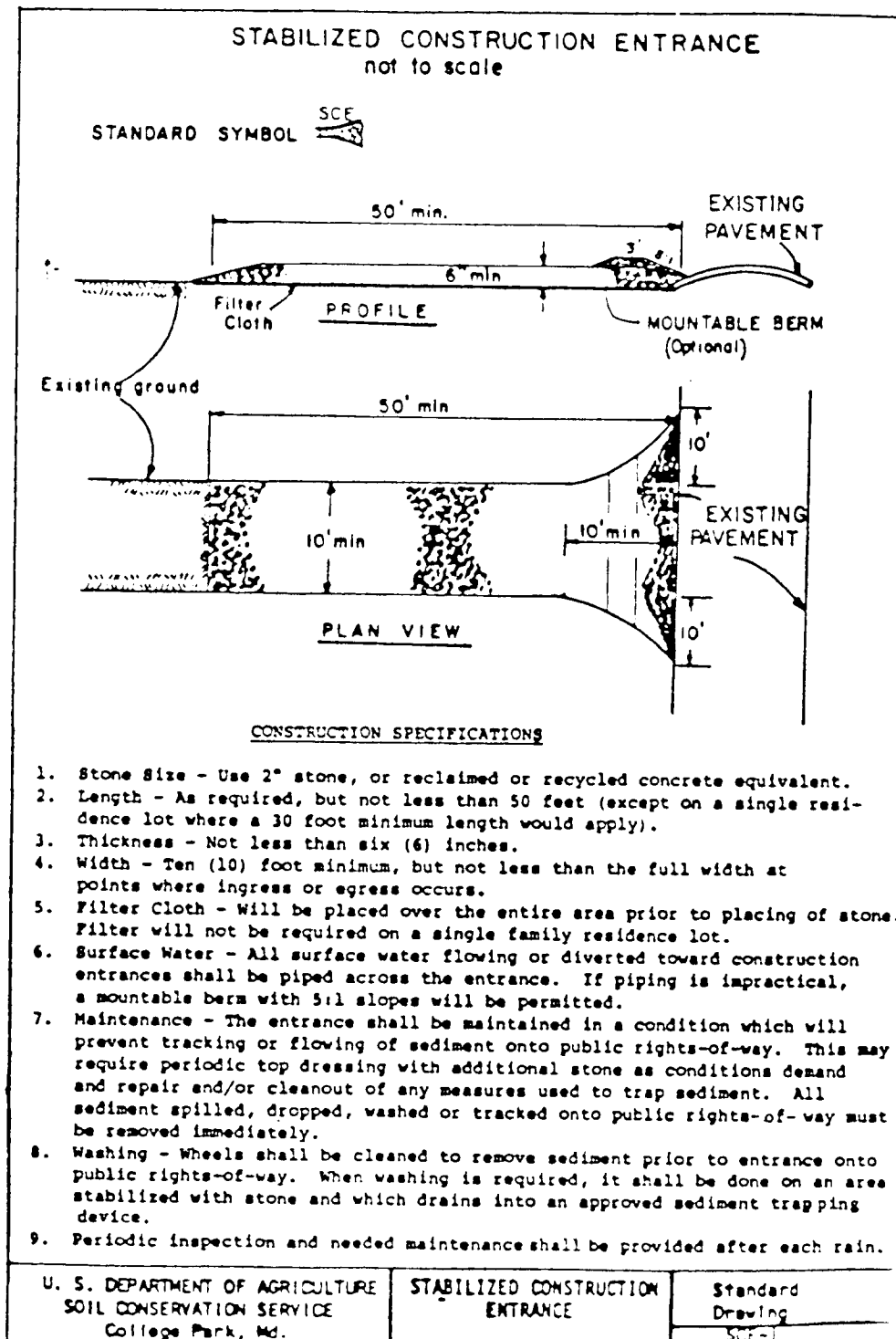
DES: M.E.C.	
DRN: D.A.B.	
CHK: A.J.B.	
DATE: 2/25/91	
BY: NO.	
REVISION	
DATE	
600 SCALE MAP NO.	
BLOCK NO.	

BRIGHTON DAM CULVERT

GRADING & SEDIMENT CONTROL PLAN

CAPITAL PROJECT NO. D-1088

SCALE AS SHOWN
SHEET 6 OF 13



Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Soil Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- Pre-seeding:** Apply 2 tons per acre dolomitic limestone (92 lb/1000 sq. ft.) and 600 lb per acre 10-10-10 fertilizer (14 lb/1000 sq. ft.) before seeding. Narrow or disk into upper three inches of soil. At time of seeding, apply 400 lb per acre 30-0-0 ureaform fertilizer (9 lb/1000 sq. ft.).
- Acceptable:** Apply 2 tons per acre dolomitic limestone (92 lb/1000 sq. ft.) and 1000 lb per acre 10-10-10 fertilizer (23 lb/1000 sq. ft.) before seeding. Narrow or disk into upper three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lb per acre (1.4 lb/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lb Kentucky 31 Tall Fescue per acre and 2 lb per acre (.09 lb/1000 sq. ft.) of weeping lovegrass. During the period of October 15 thru February 29, protect site by: Option (1) - 2 tons per acre of well anchored straw mulch and seed an amount as possible in the spring. Option (2) - Use sod. Option (3) - Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch w/ 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lb/1000 sq. ft.) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq. ft.) of realized asphalt on flat areas. On slopes 8 ft. or higher, use 348 gal per acre (8 gal/1000 sq. ft.) for anchoring.

Maintenance: Inspect all seeding areas and make needed repairs, replacements and reseedings.

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

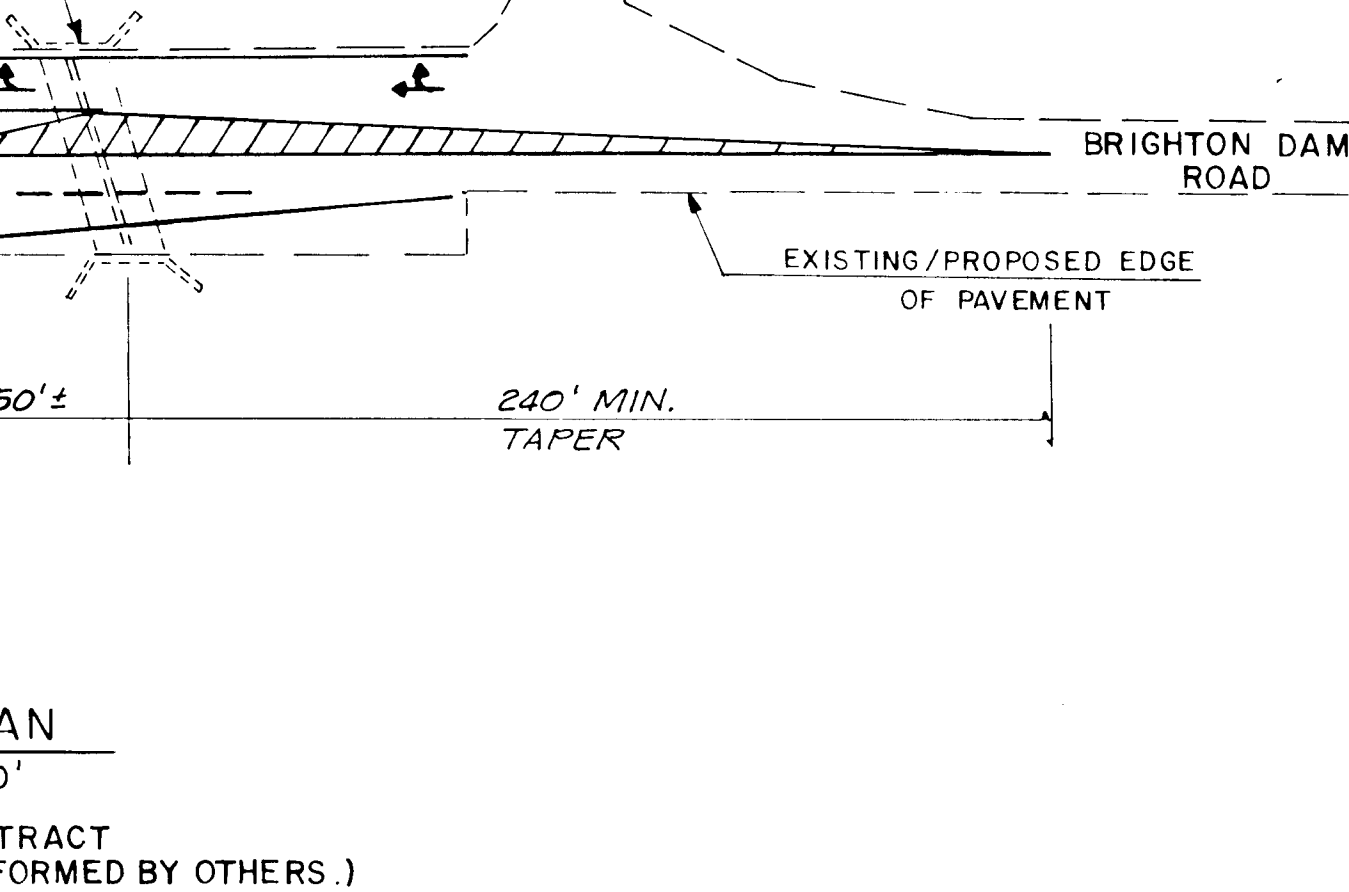
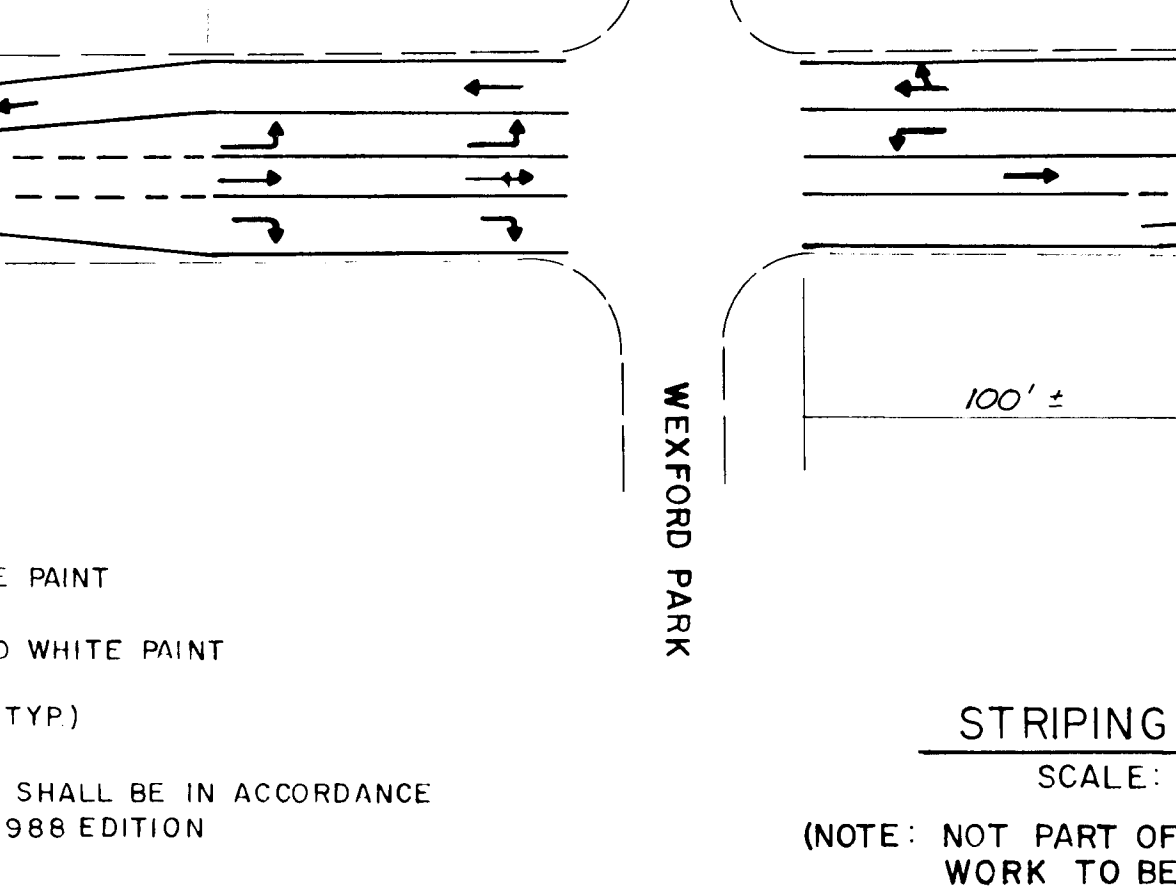
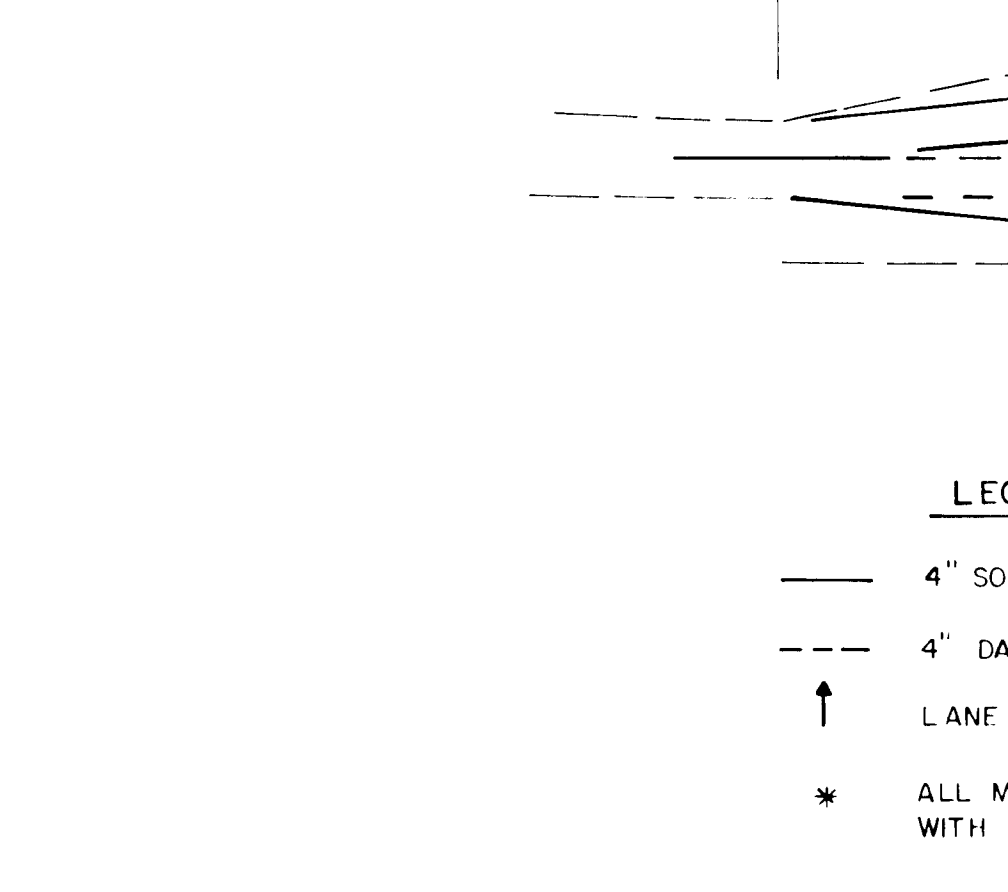
Soil Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: Apply 600 lb per acre 10-10-10 fertilizer (14 lb/1000 sq. ft.).

Seeding: For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lb/1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lb per acre of weeping lovegrass (.07 lb/1000 sq. ft.). For the period November 15 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lb/1000 sq. ft.) of untreated weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq. ft.) of realized asphalt on flat areas. On slopes 8 ft. or higher, use 348 gal per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *William H. Weiland* 11/12/91
Chief, Bureau of Highways

Chief, Bureau of Engineering: *Elizabeth Anderson-Cole* 4/12/91
Chief, Division of Roadways

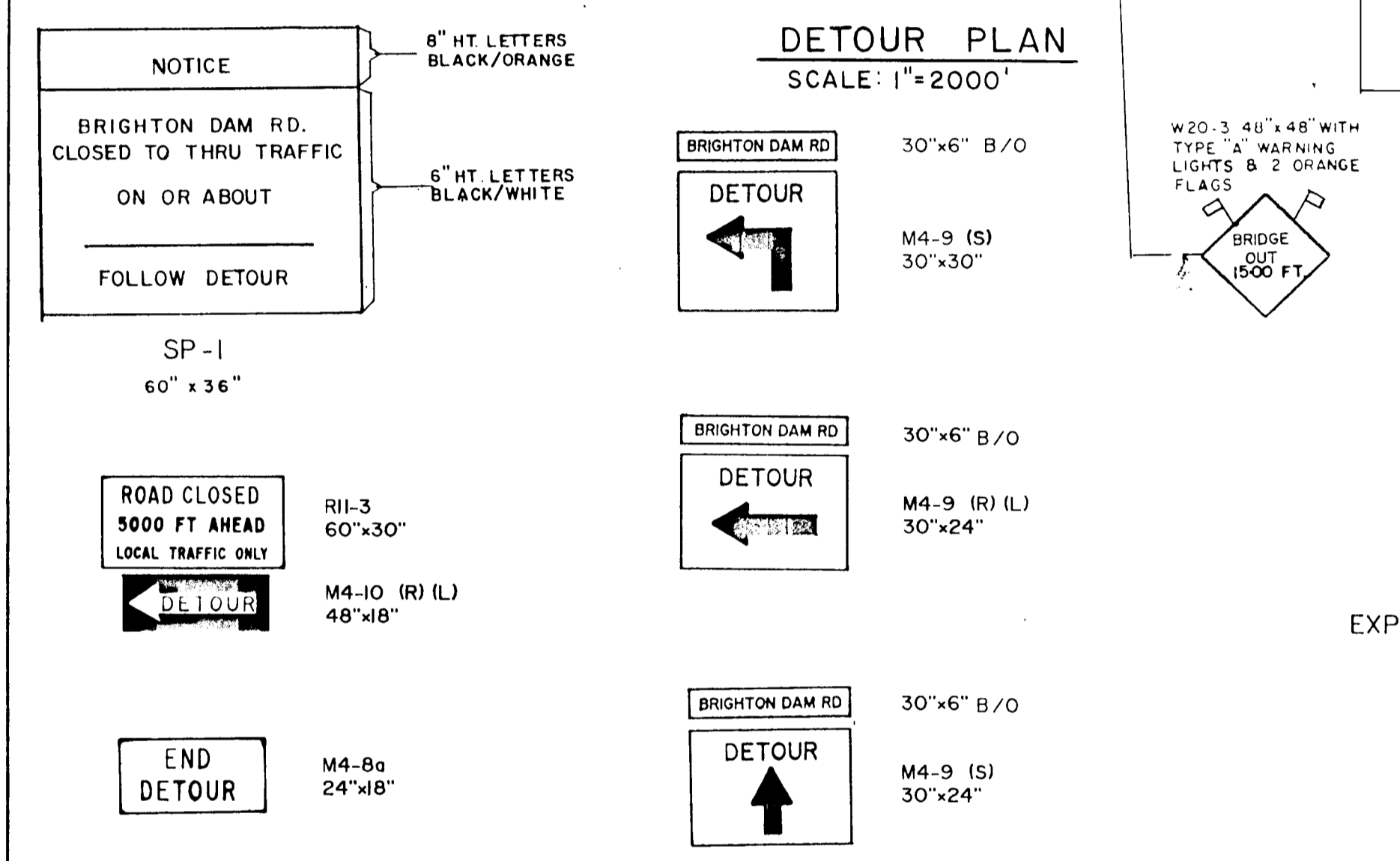
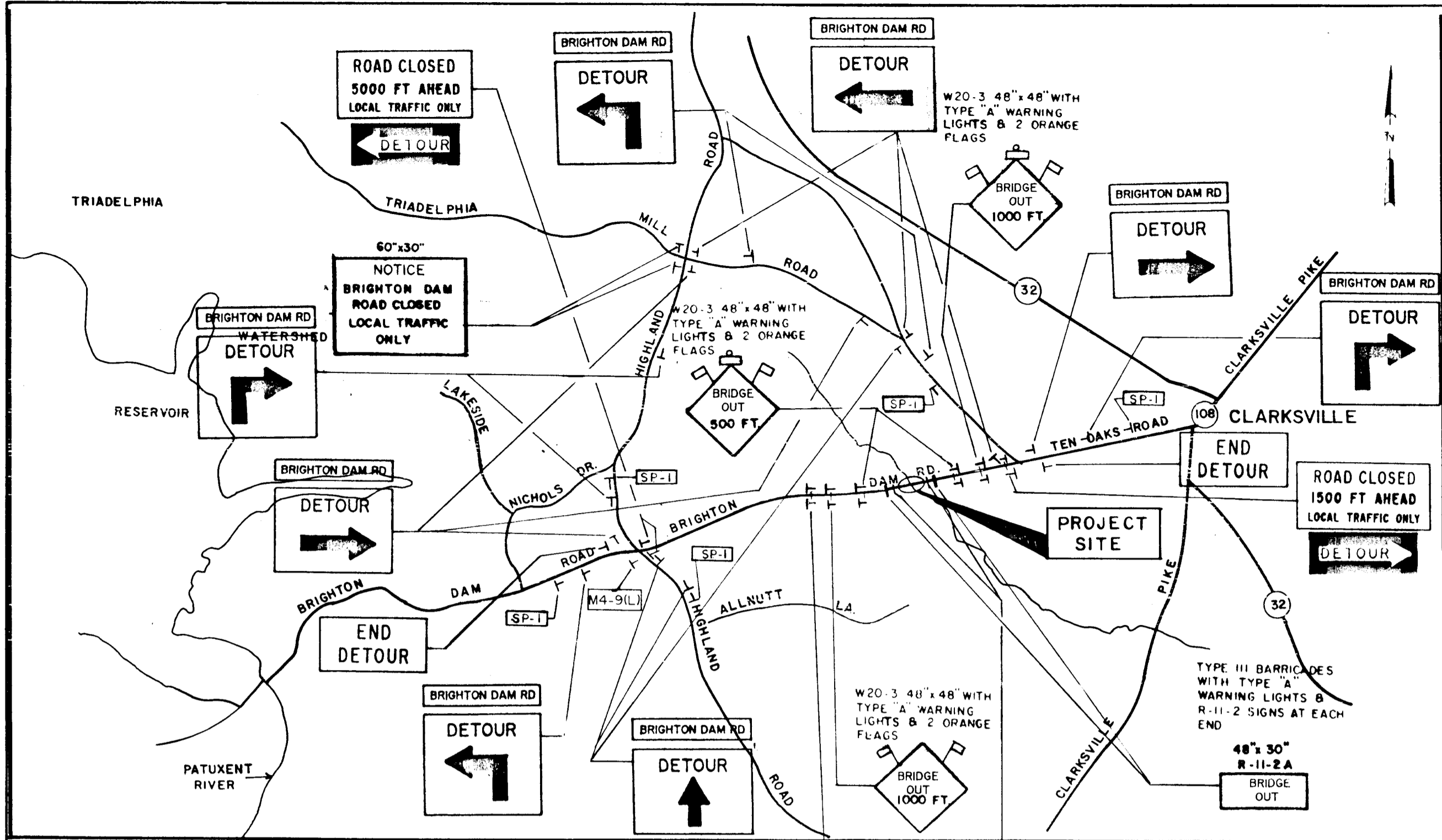
gpi
GREENMAN-PEDERSEN INC.
ENGINEERS/ARCHITECTS/PLANNERS
14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (301) 880-3055

DATE: 2/25/91
BY: NO.
REVISION

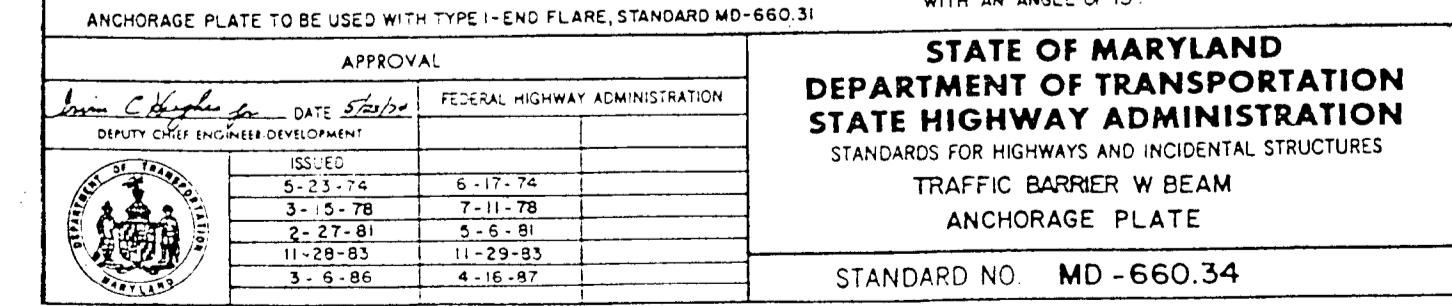
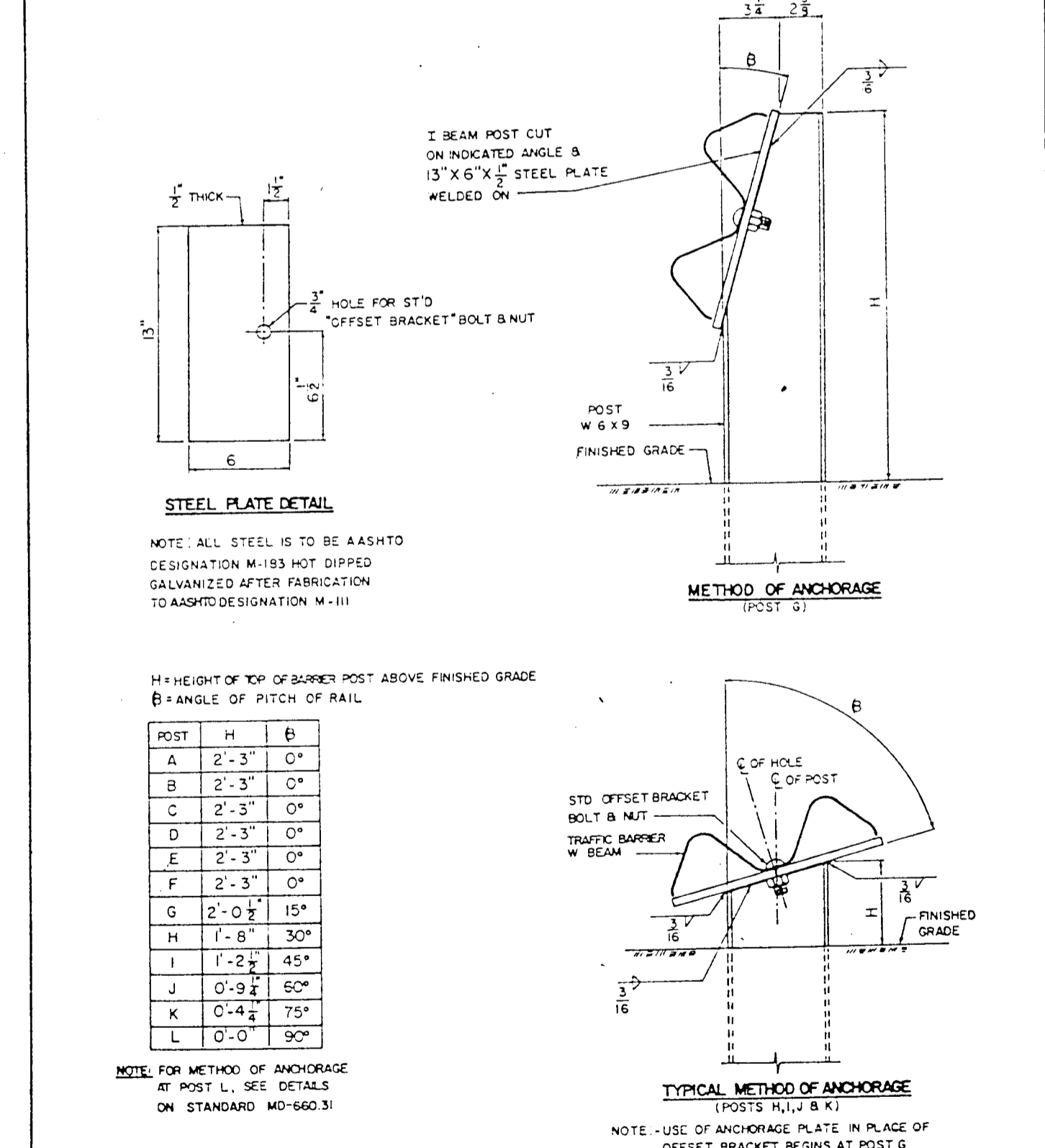
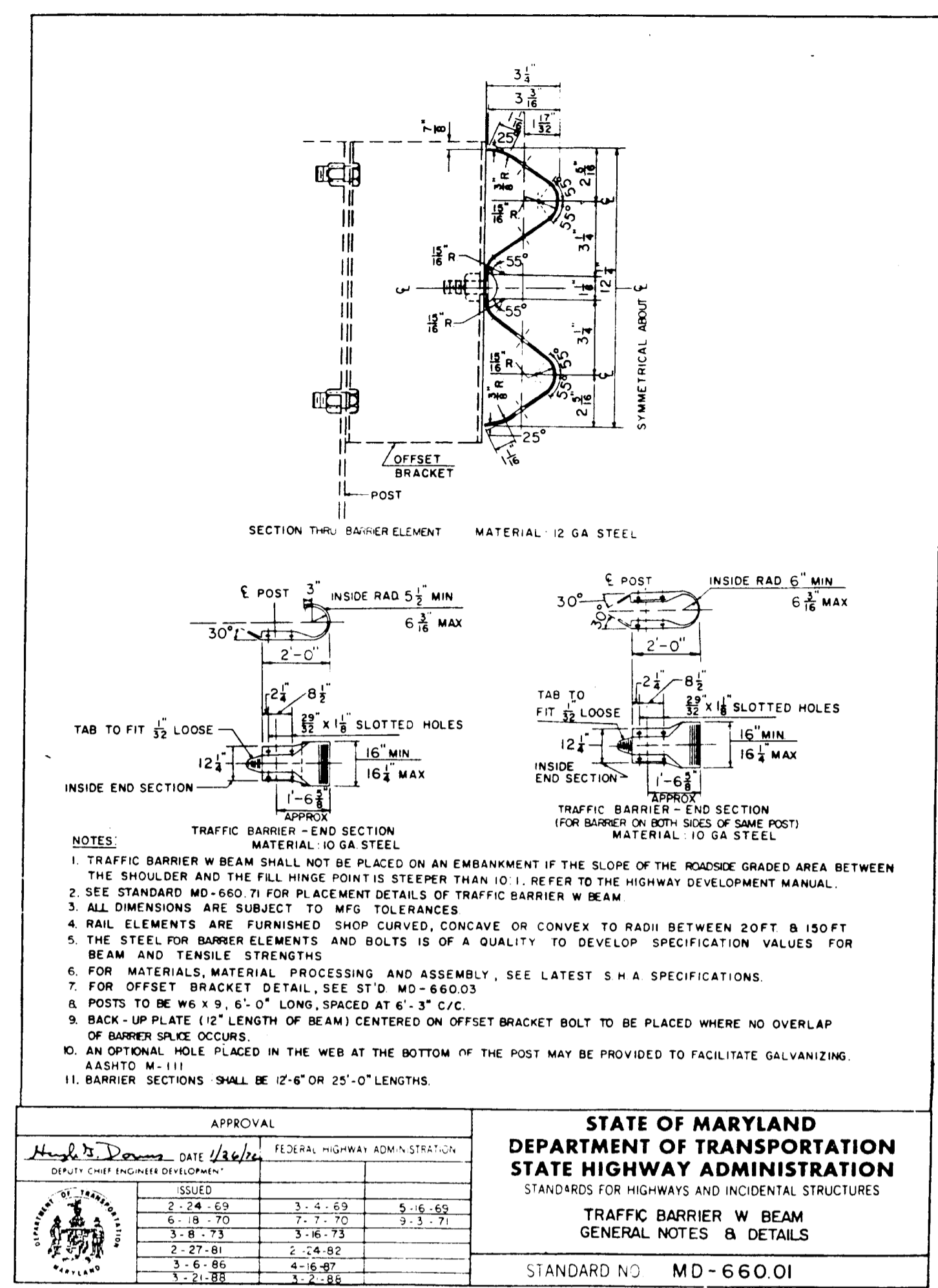
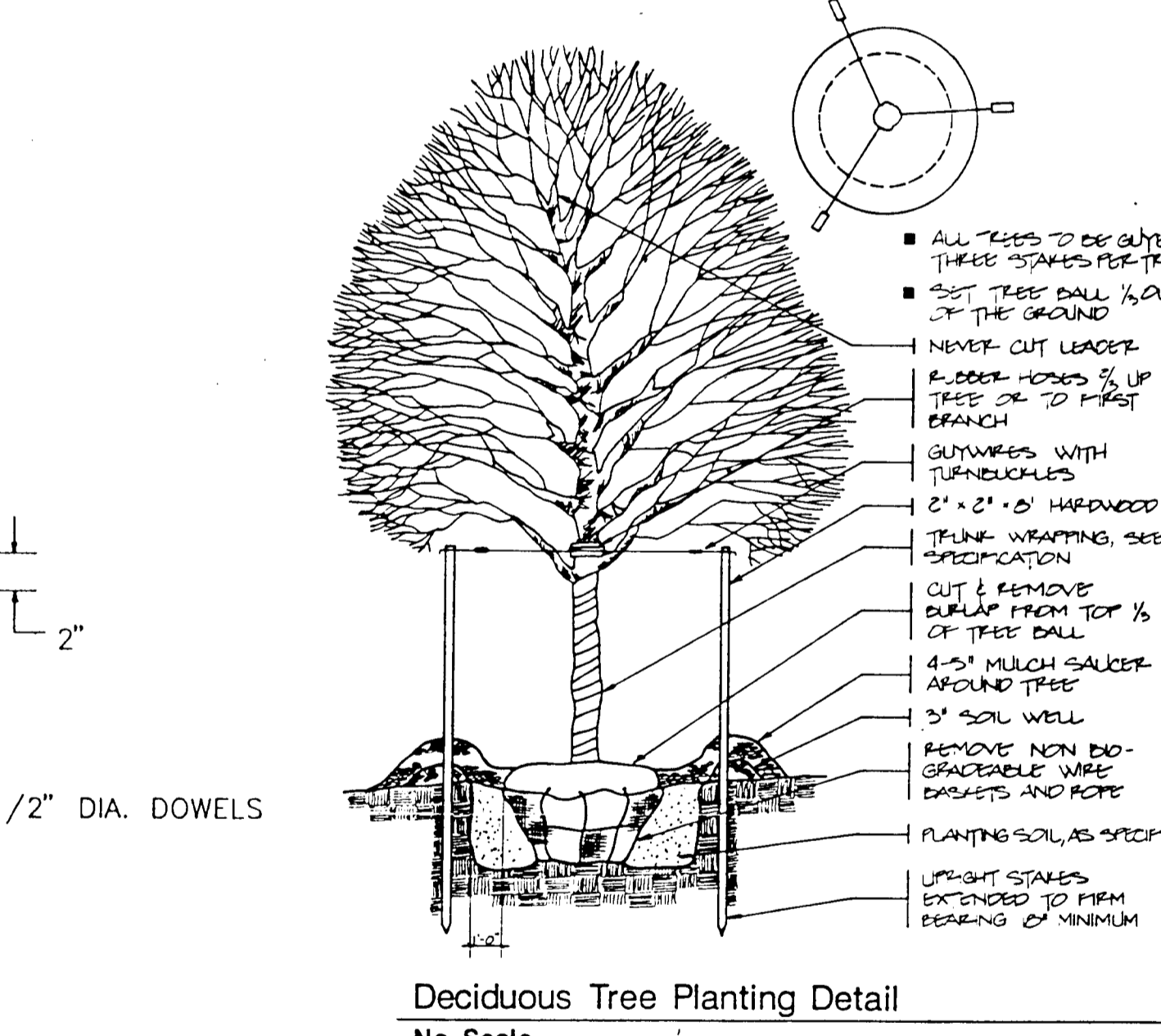
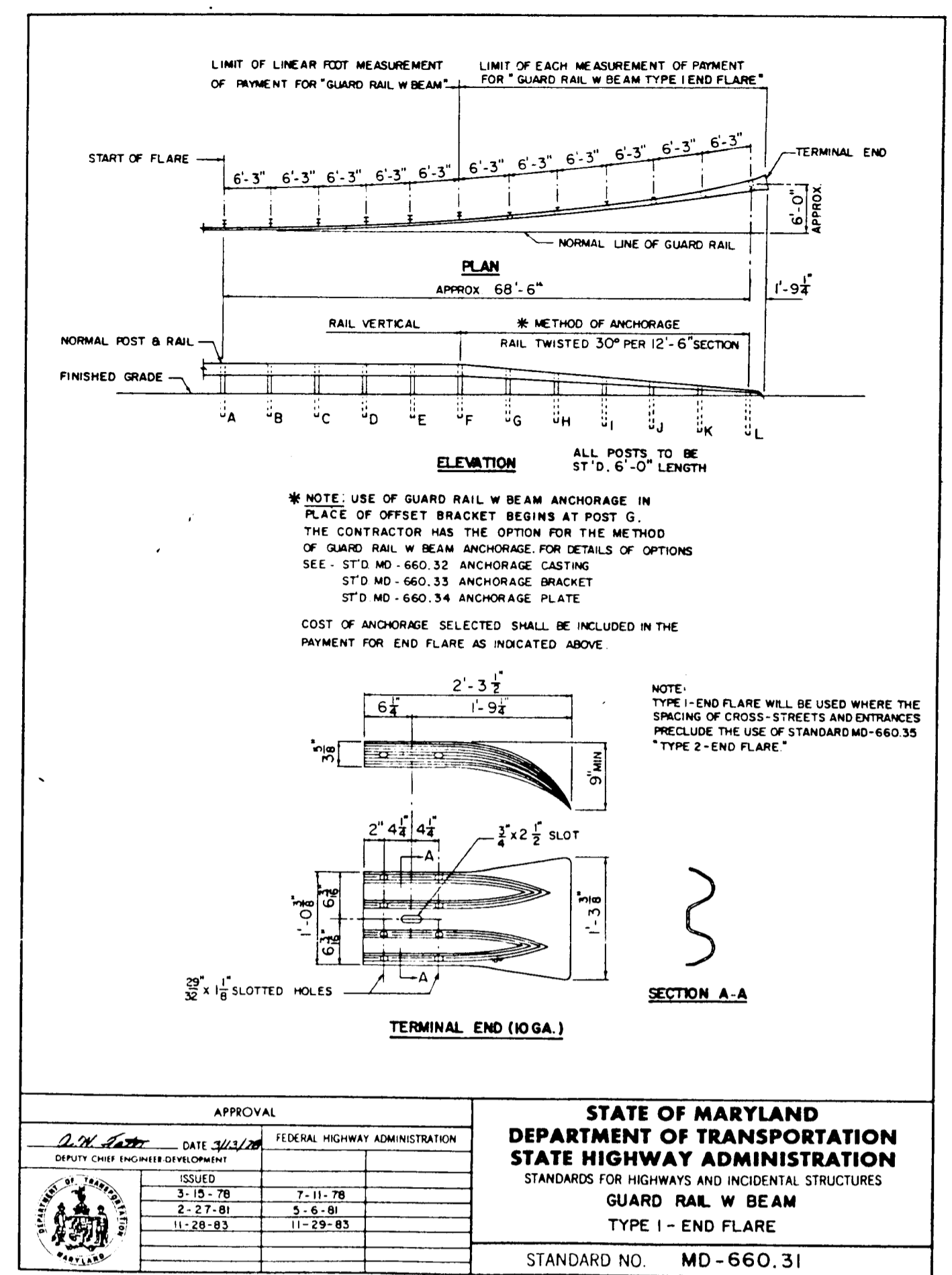
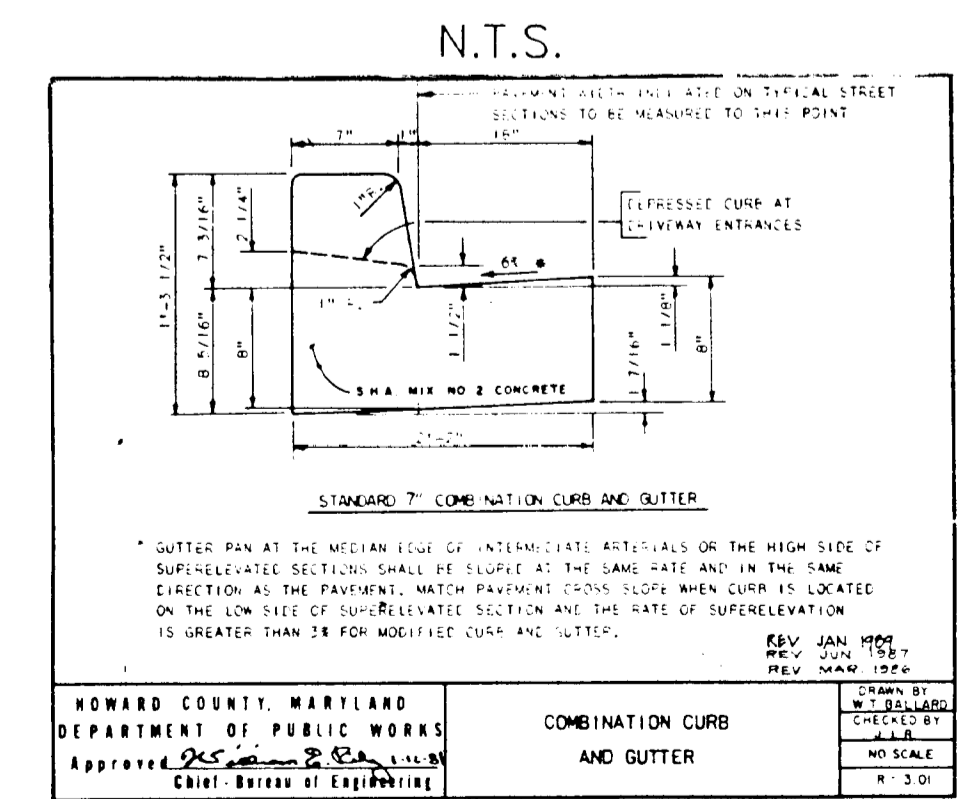
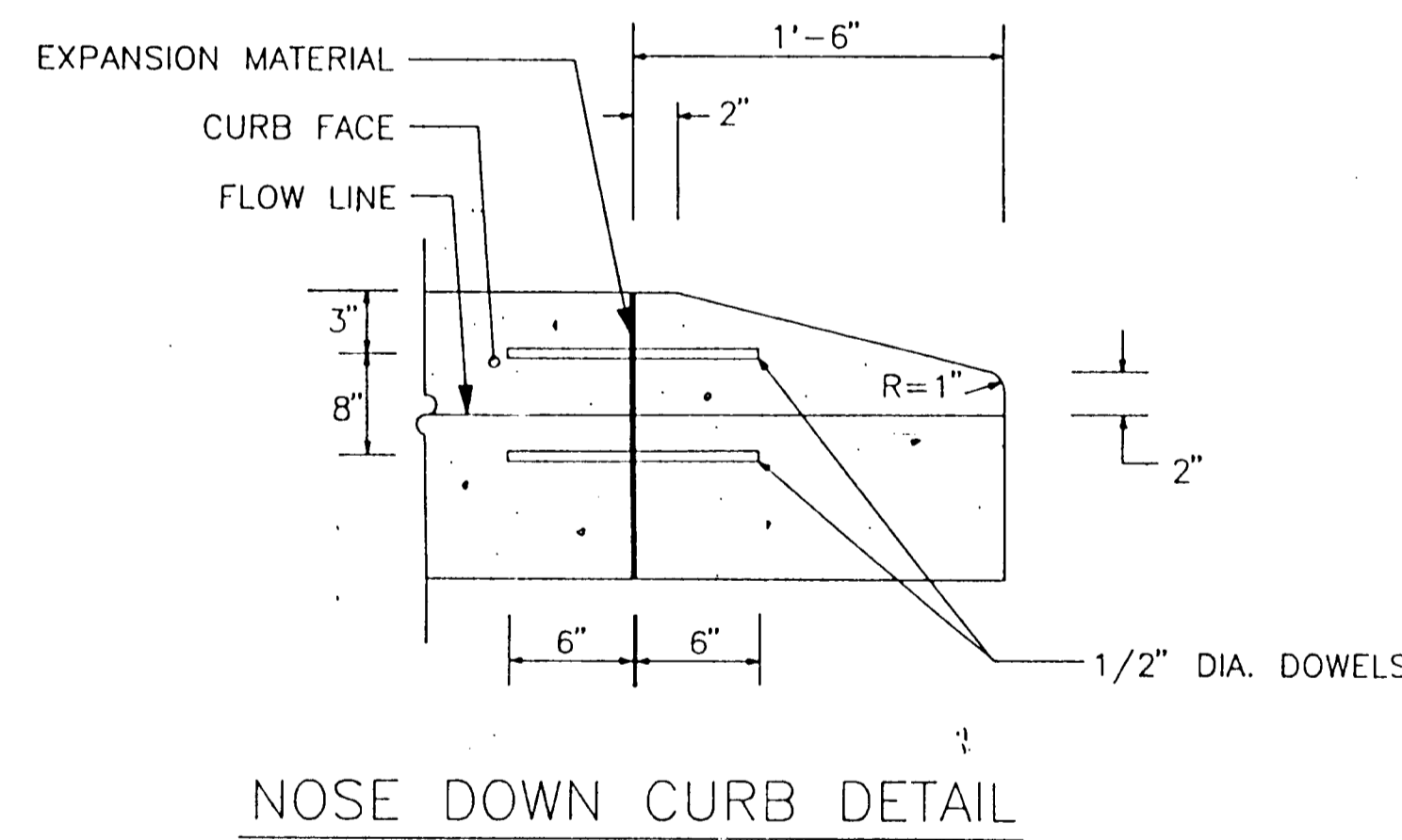
600' SCALE MAP
BLOCK NO.

BRIGHTON DAM CULVERT
SEDIMENT CONTROL DETAILS
CAPITAL PROJECT NO. D-1088

SCALE AS SHOWN
SHEET 7 OF 13



- MAINTENANCE OF TRAFFIC NOTES**
- THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A MAINTENANCE OF TRAFFIC SCHEDULE TO THE ENGINEER FOR APPROVAL. THE SCHEDULE SHALL INCLUDE A CHRONOLOGICAL SEQUENCE OF THE DATES OF PLACEMENT AND REMOVAL OF ALL SIGNS AND DATES OF CLOSURE AND REOPENING OF BRIGHTON DAM ROAD. THE CONTRACTOR WILL BE REQUIRED TO STRICTLY ADHERE TO THE APPROVED MAINTENANCE OF TRAFFIC SCHEDULE, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
 - PLACE SIGNS SP-1 TWO WEEKS IN ADVANCE OF THE DATE OF CLOSURE OF BRIGHTON DAM ROAD.
 - ALL TRAFFIC CONTROL DEVICES MUST COMPLY WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 1988.
 - IN ACCORDANCE WITH THE SPECIAL PROVISIONS, THE CONTRACTOR SHALL PROVIDE SPECIAL SIGNING AND/OR NOTIFICATIONS OF THE CLOSURE OF BRIGHTON DAM ROAD TO THROUGH TRAFFIC IN SUCH A MANNER AS APPROVED BY THE COUNTY.
 - TEMPORARY AND EMERGENCY ACCESS (FROM THE WEST) TO THE CHURCH AND WOLFORD PARK ENTRANCES MUST BE PROVIDED IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND THE CONTRACTOR'S MAINTENANCE AND PROTECTION OF TRAFFIC PLAN, AS APPROVED BY THE COUNTY.
 - THE CONTRACTOR SHALL COORDINATE ALL ROAD CLOSURES AND OPENINGS WITH THE COUNTY.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *James M. [Signature]*
Date: *11/12/91*

Chief, Bureau of Engineering: *James M. [Signature]*
Date: *11/12/91*

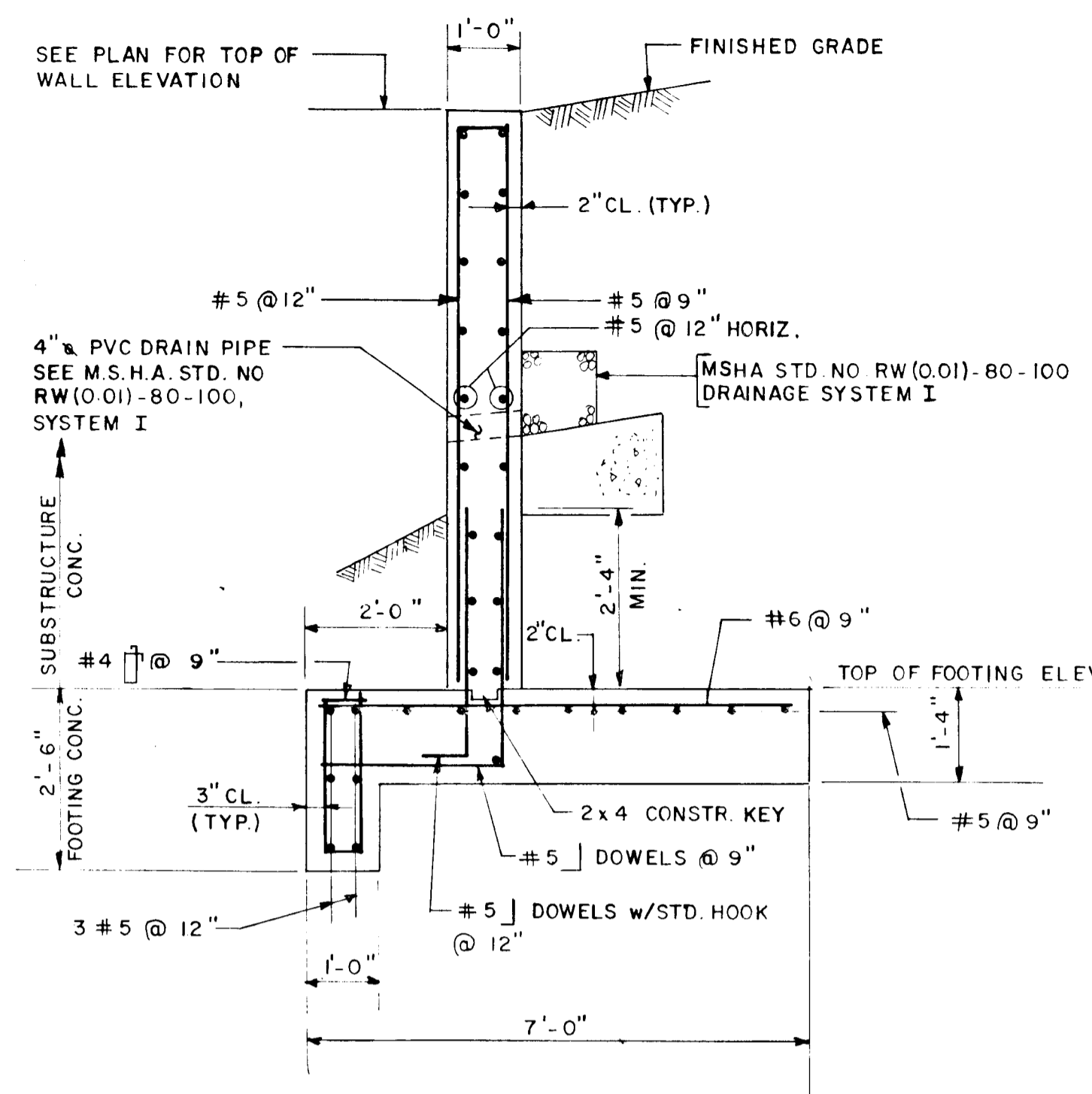
Chief, Bureau of Highways: *James M. [Signature]*
Date: *11/12/91*

gpi
GREENMAN-PEDERSEN INC.
ENGINEERS/ARCHITECTS/PLANNERS
14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (301) 880-3055

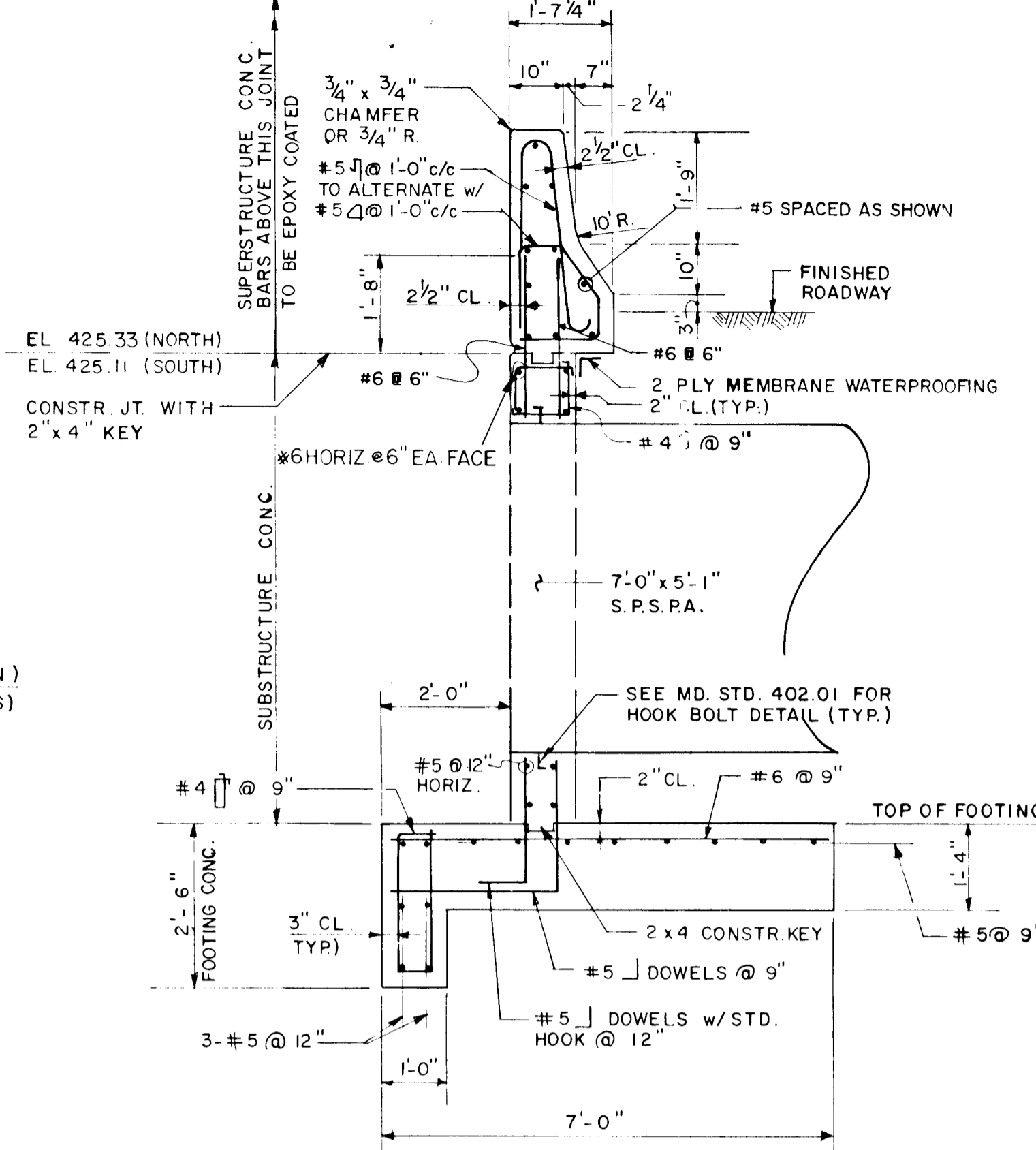
DESIGN	DATE	BY	NO.	REVISION	DATE
DES: T.E.M.					
DRN: D.A.B.					
CHK: A.J.B.					
DATE: 2/25/91					

BRIGHTON DAM CULVERT
DETAILS & DETOUR PLAN
CAPITAL PROJECT NO. I088

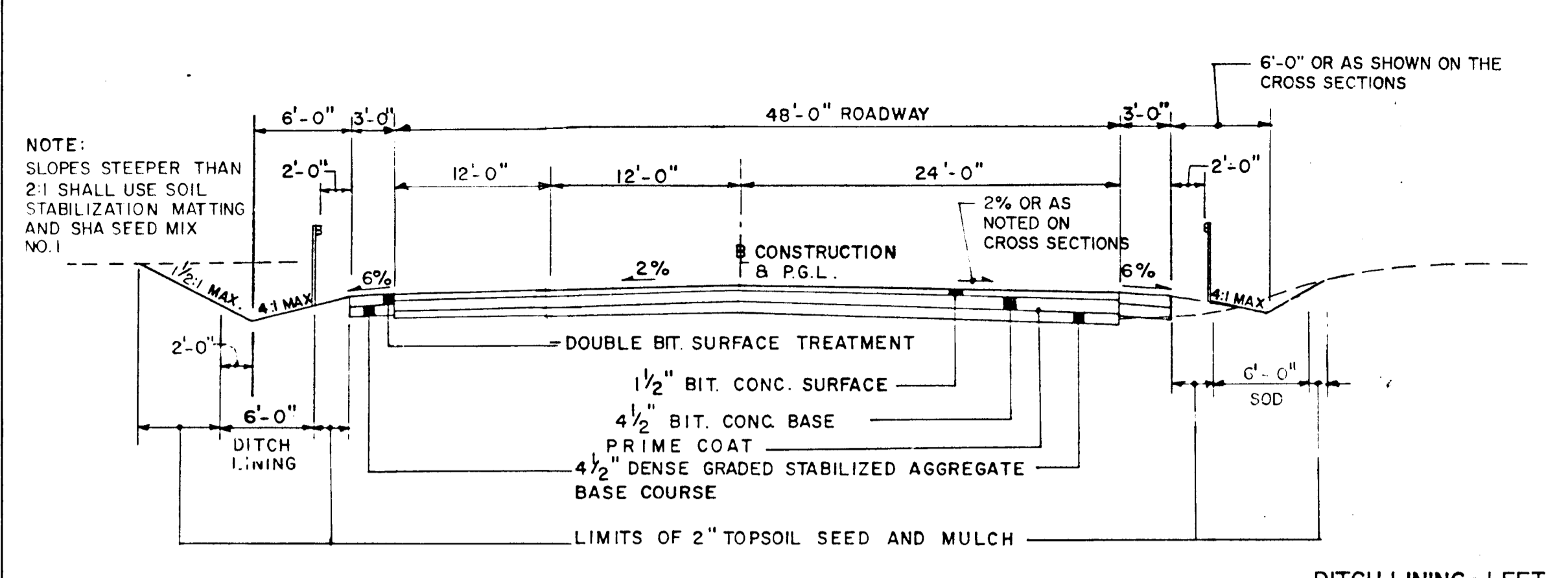
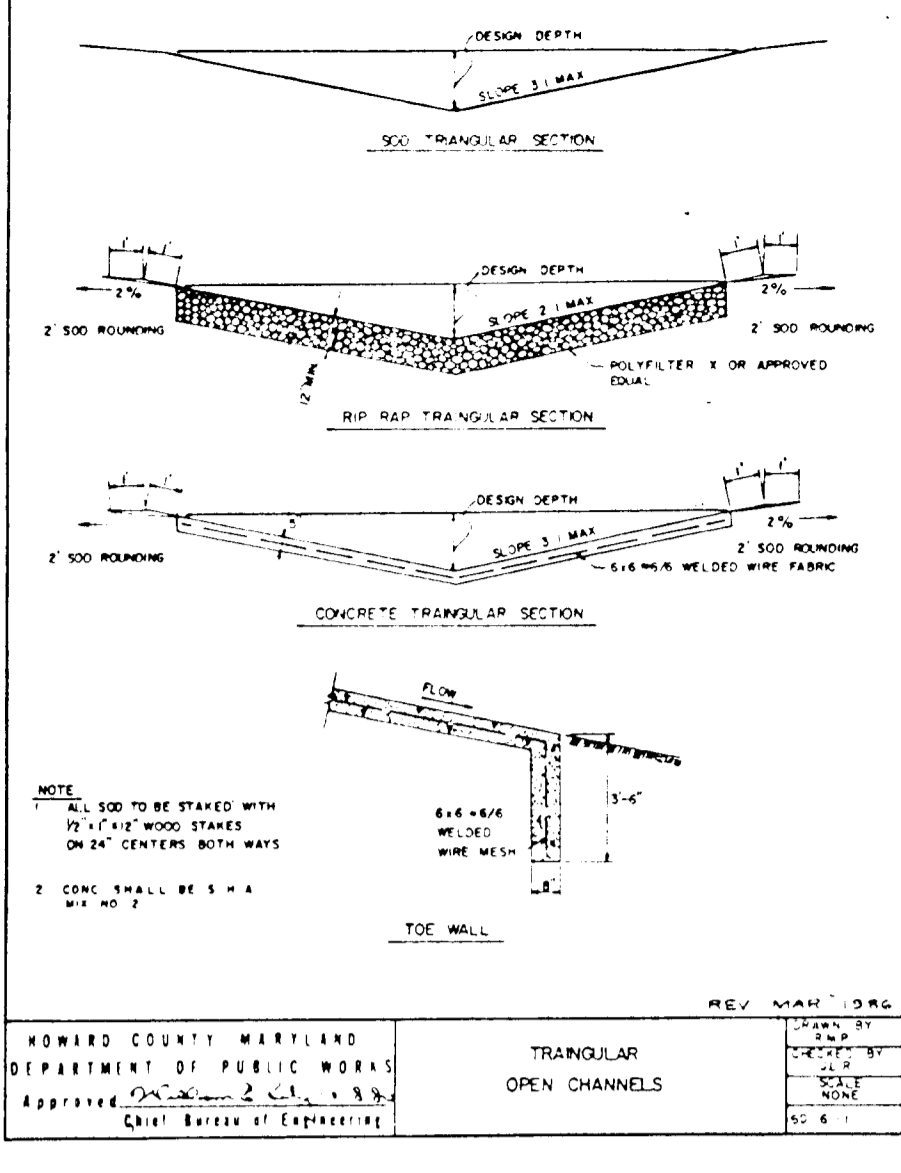
SCALE AS SHOWN
SHEET 8 OF 13



TYPICAL SECTION THRU WINGWALL
SCALE: 1/2"=1'-0"



TYPICAL SECTION THRU PIPE
SCALE: 1/2"=1'-0"

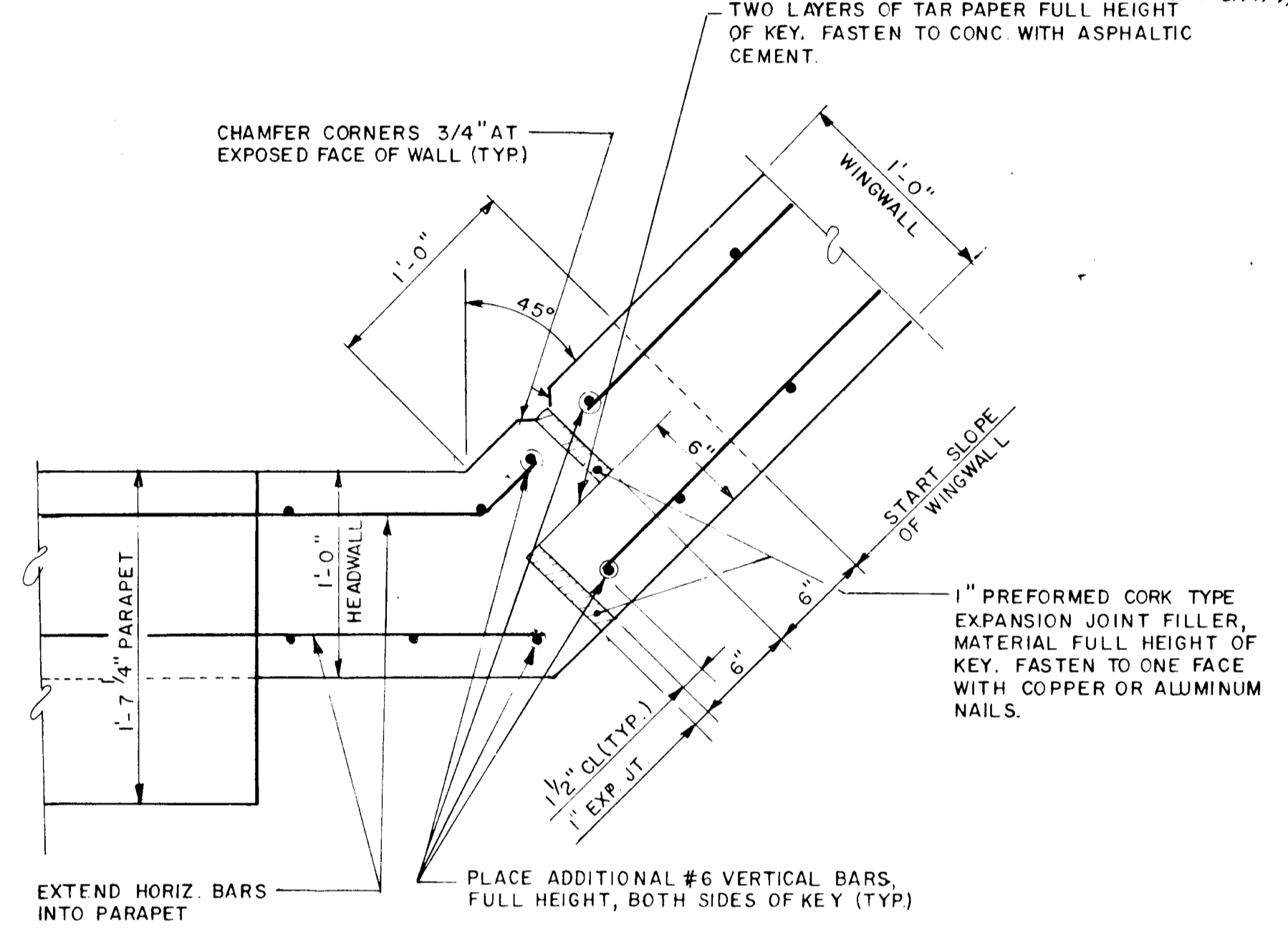


TYPICAL ROADWAY SECTION
NOT TO SCALE

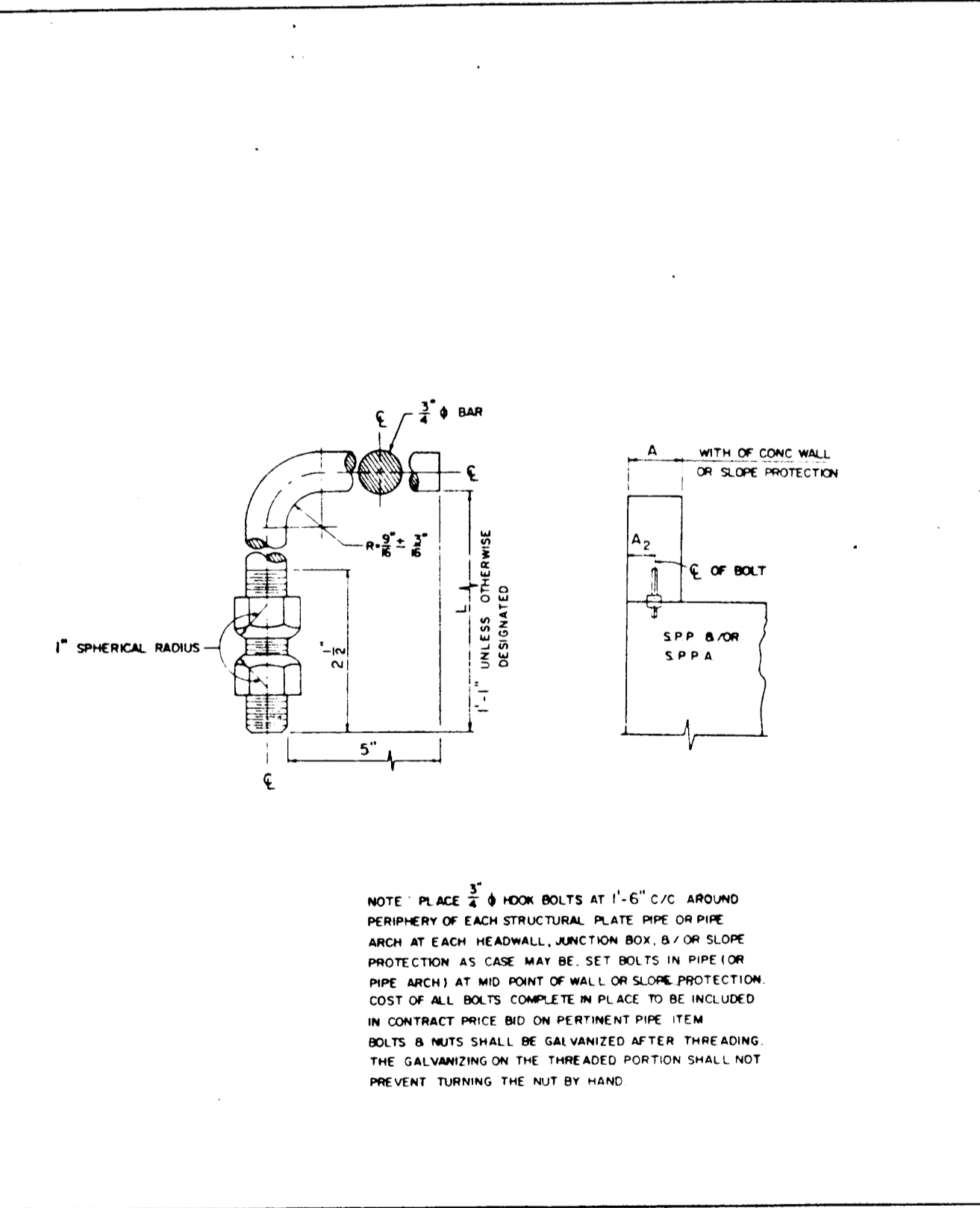
DITCH LINING - LEFT

STA. TO STA.	TREATMENT
18+25 - 20+55	CL. RIP-RAP*
21+25 - 22+75	SOD
* 45'-6" MAX 9'	depth=12"

RIGHT 18+25 - 22+40 SOIL STABIL. MATTING (SEE DETAIL SH. 7)

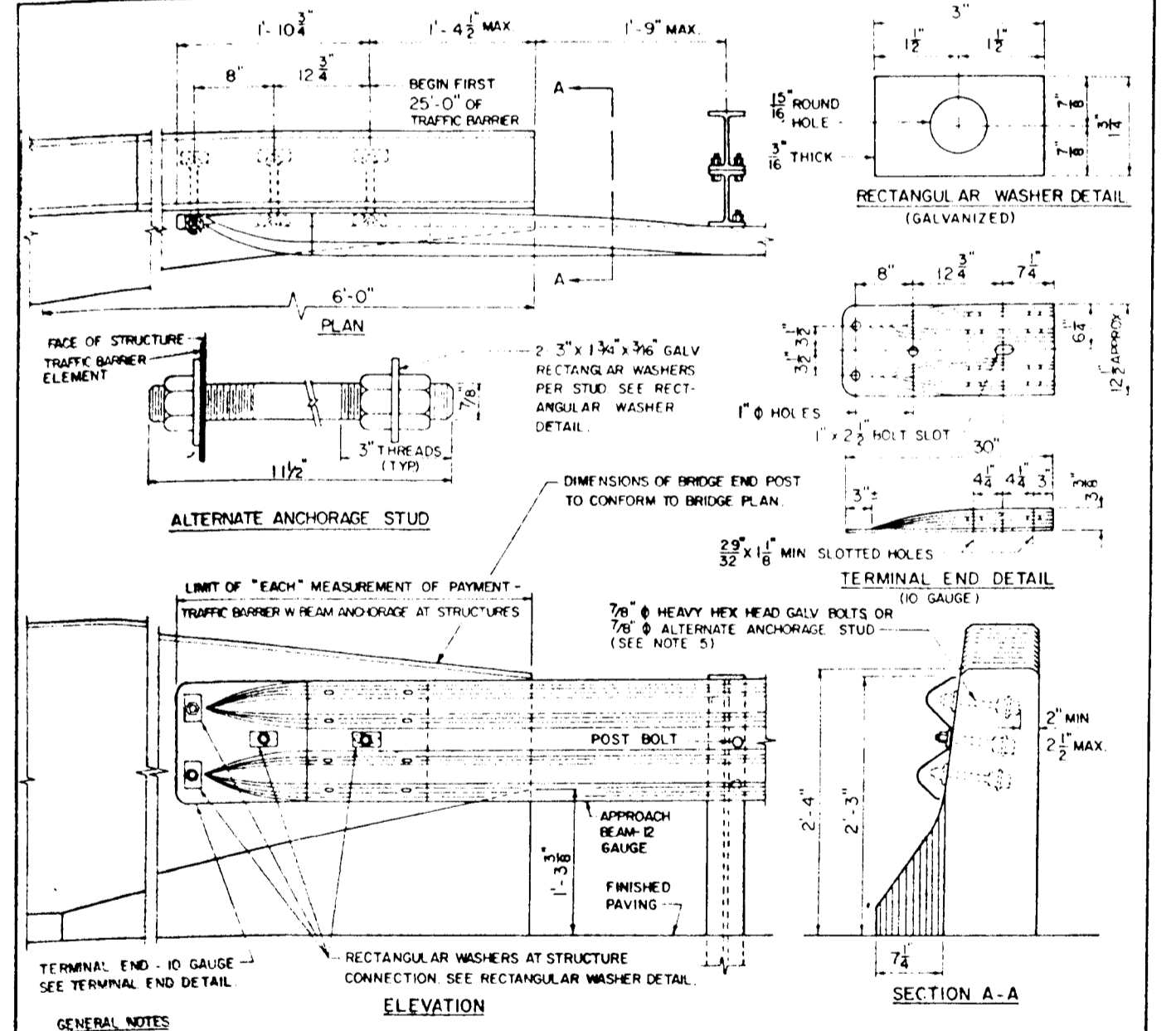


TYPICAL EXPANSION JOINT DETAIL



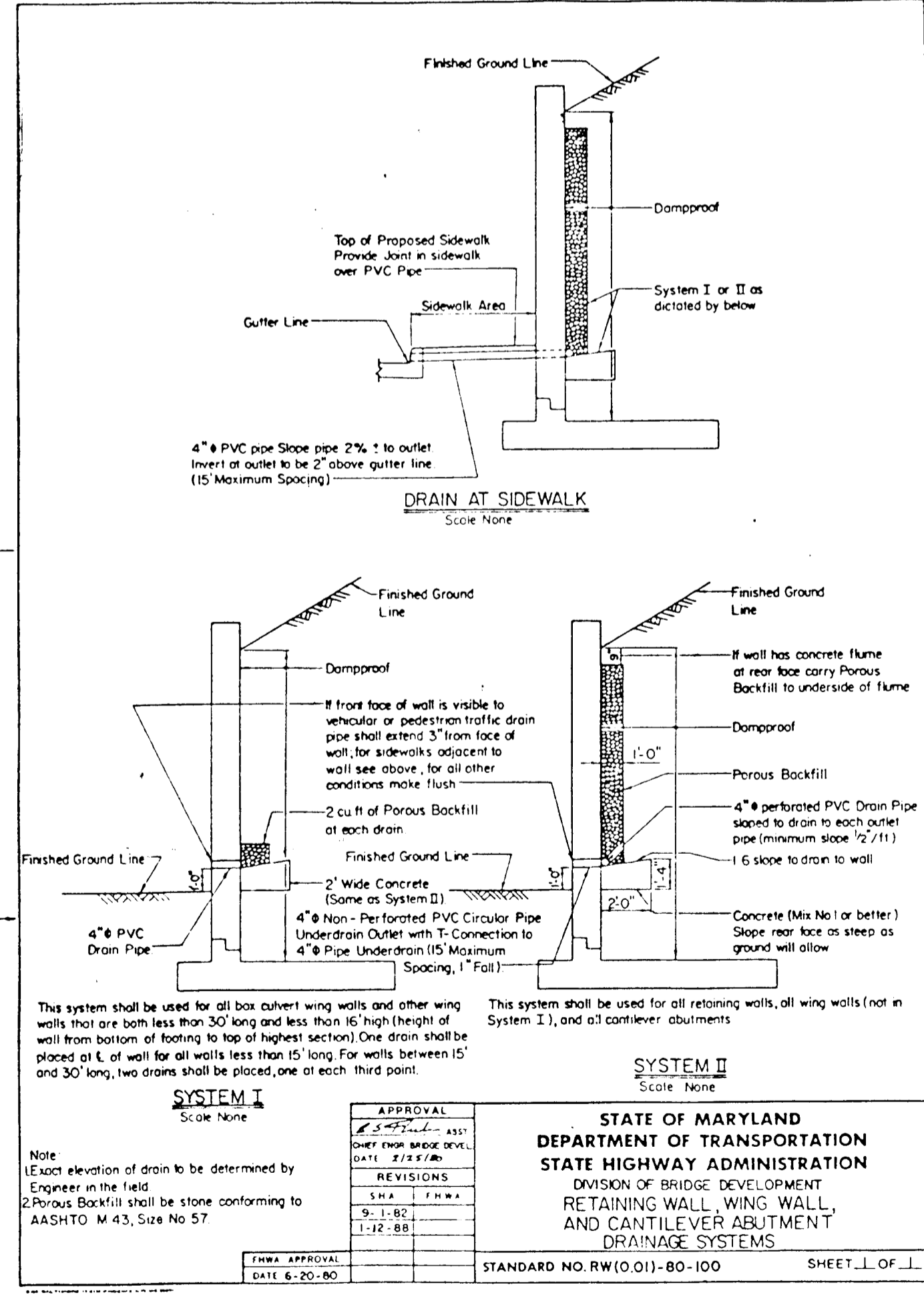
NOTE: PLACE 2" HOOK BOLTS AT 1'-6" O/C AROUND PERIMETER OF EACH STRUCTURAL PLATE PIPE OR PIPE ARCH AT EACH HEADWALL, JUNCTION BOX, S/O OR SLOPE PROTECTION AS CASE MAY BE. SET BOLTS IN PIPE (OR PIPE ARCH) AT MID POINT OF WALL OR SLOPE PROTECTION. COST OF ALL BOLTS COMPLETE IN PLACE TO BE INCLUDED IN CONTRACT PRICE BID ON PERTINENT PIPE ITEM. BOLTS & NUTS SHALL BE GALVANIZED AFTER THREADING. THE GALVANIZING ON THE THEATED PORTION SHALL NOT PREVENT TURNING THE NUT BY HAND.

APPROVAL		STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES	
DATE: 4-27-85	DATE: 7-21-85	STR. PLATE PIPE & PIPE ARCHES	STANDARD NO. MD-402.01



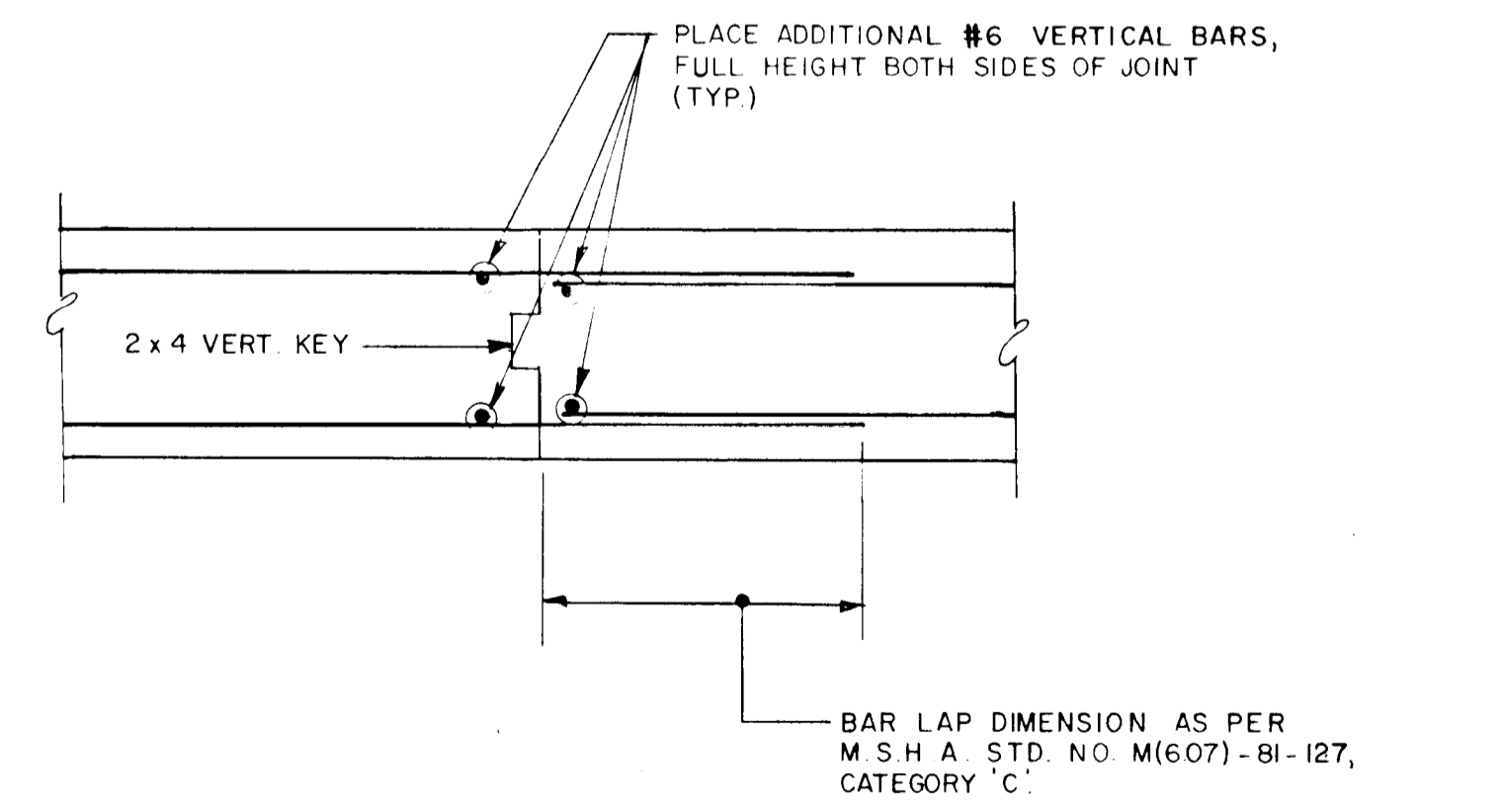
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
TRAFFIC BARRIER W BEAM ANCHORAGE AT STRUCTURES
STANDARD NO. MD-660.41

APPROVAL	DATE: 3-16-87
DATE: 6-4-84	DATE: 4-26-83
3-6-86	8-11-84



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
DIVISION OF BRIDGE DEVELOPMENT
RETAINING WALL, WING WALL, AND CANTILEVER ABUTMENT DRAINAGE SYSTEMS
STANDARD NO. RW(0.01)-80-100

APPROVAL	DATE: 6-20-80
DATE: 2/22/80	DATE: 2/22/80
DATE: 1-12-88	DATE: 1-12-88



TYPICAL CONSTRUCTION JOINT DETAIL

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

gpi

GREENMAN-PEDERSEN INC.
ENGINEERS/ARCHITECTS/PLANNERS
14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD, 20708
WASH. (301) 470-2772 BALT. (301) 880-3055

DES: T.E.M.
DRN: D.A.B.
CHK: A.J.B.
DATE: 2/25/91

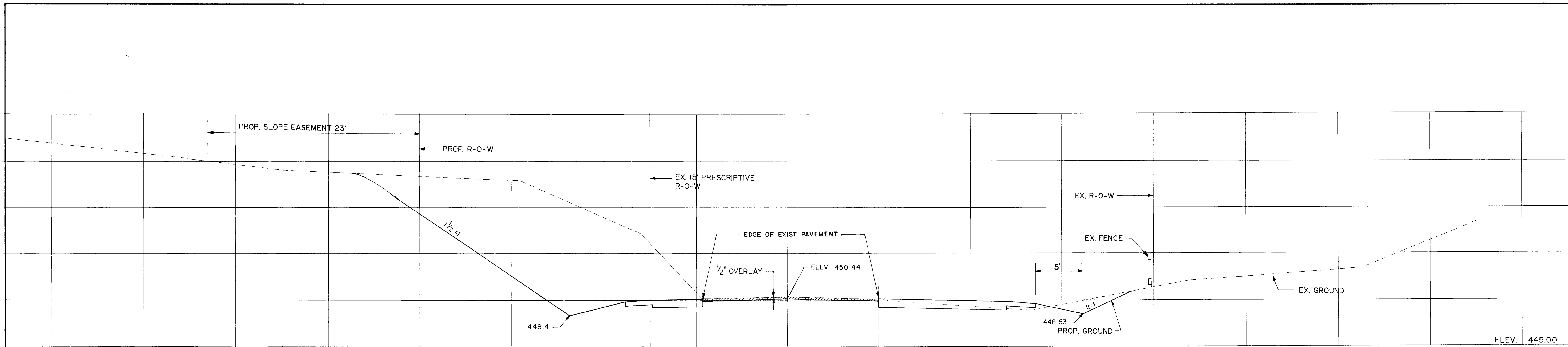
BRIGHTON DAM CULVERT

DETAILS

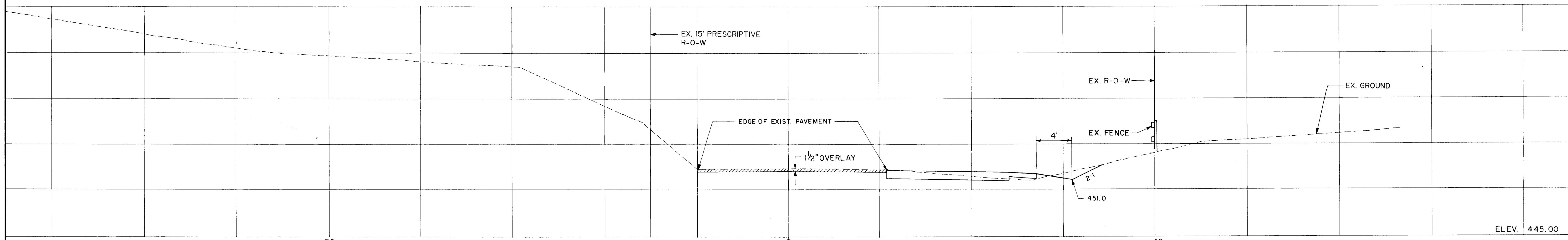
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SHEET 9 OF 13

CAPITAL PROJECT NO. D-1088

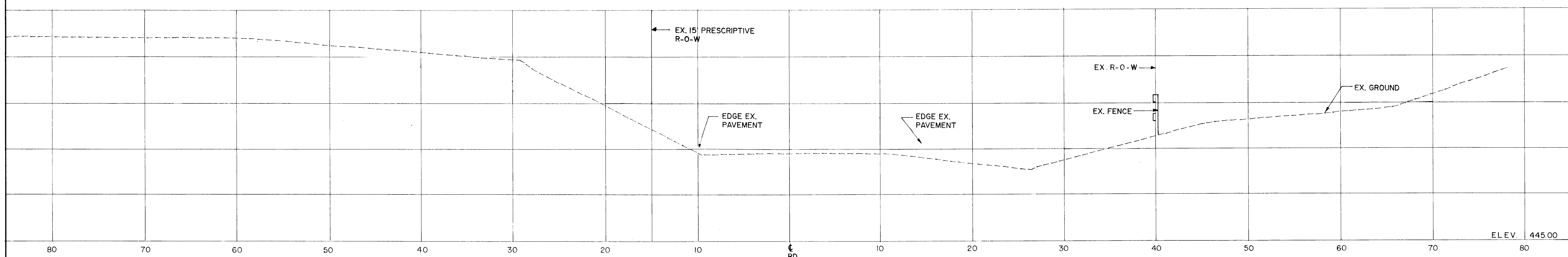
1027



STA. 18+50



STA. 18+25



STA. 18+00

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James P. Wilson 11/12/91
DIRECTOR OF PUBLIC WORKS DATE

Spawell W. Weiland 11/12/91
CHIEF, BUREAU OF HIGHWAYS DATE

Erica M. & Roy 11/12/91
CHIEF, BUREAU OF ENGINEERING DATE

Spawell W. Weiland 11/12/91
CHIEF, DIVISION OF ROADS, BRIDGES & STORM DRAINAGE DATE

gpi
GREENMAN-PEDERSEN INC.
ENGINEERS/ARCHITECTS/PLANNERS
14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (301) 880-3055

DES: M.E.C.
DRN: D.A.B.
CHK: A.J.B.
DATE: 2/25/91

BY	NO.	REVISION	DATE

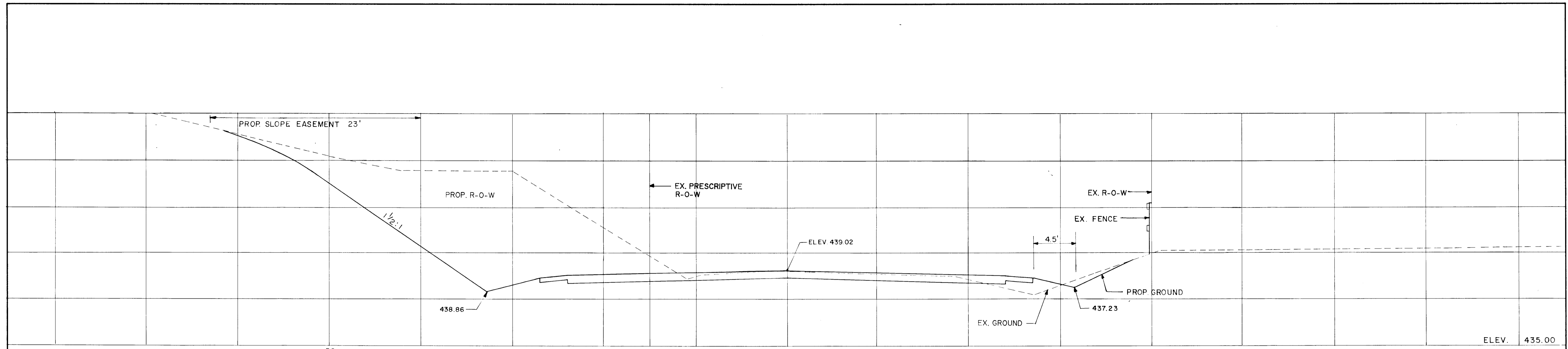
600' SCALE MAP BLOCK NO.

BRIGHTON DAM CULVERT
CROSS SECTIONS
CAPITAL PROJECT NO. D-1088

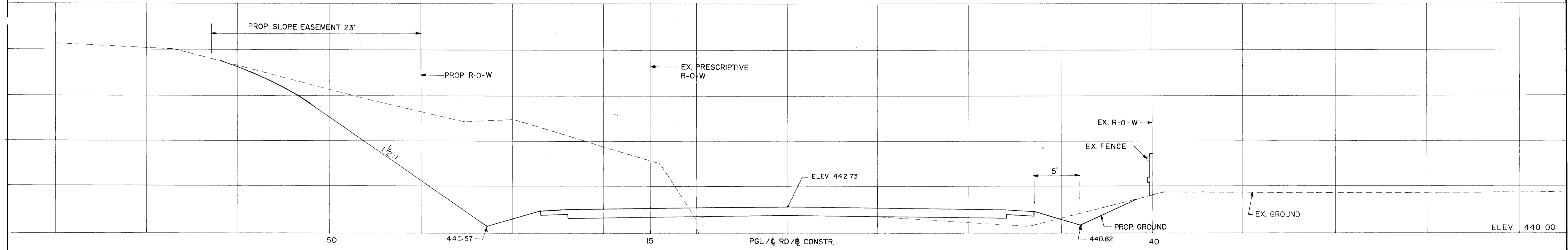
SCALE
1" = 5' VERT.
1" = 5' HORIZ.

SHEET
10 OF 13

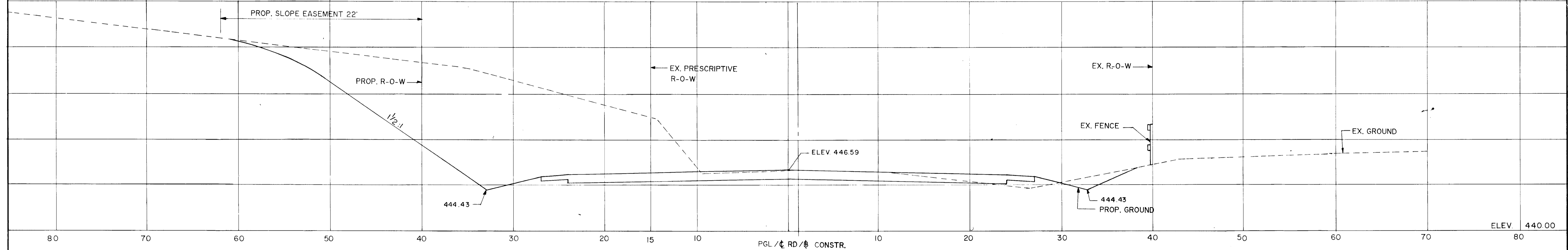
1927



PGL / RD / CONSTR.
 STA. 20+00



PGL / RD / CONSTR.
 STA. 19+50



PGL / RD / CONSTR.
 STA. 19+00

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *[Signature]* DATE: 11/12/91
 Chief, Bureau of Engineering: *[Signature]* DATE: 11/12/91
 Chief, Bureau of Highways: *[Signature]* DATE: 11/12/91
 Chief, Division of Roads, Bridges & Storm Drainage: *[Signature]* DATE: 11/12/91

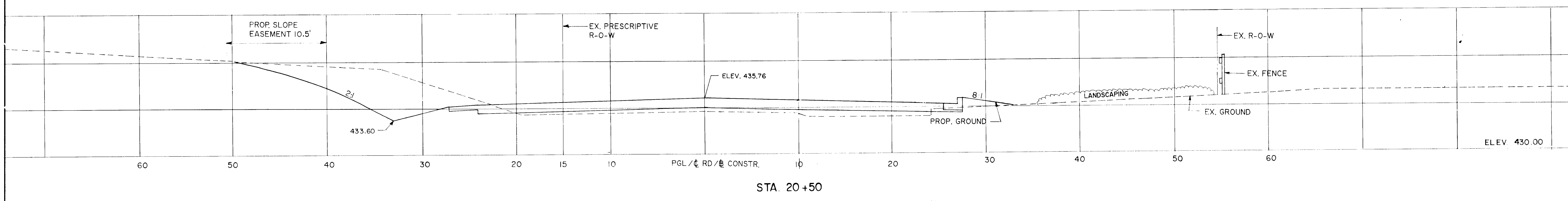
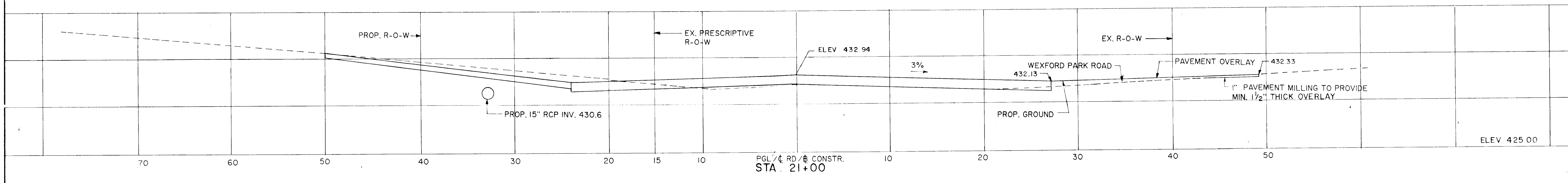
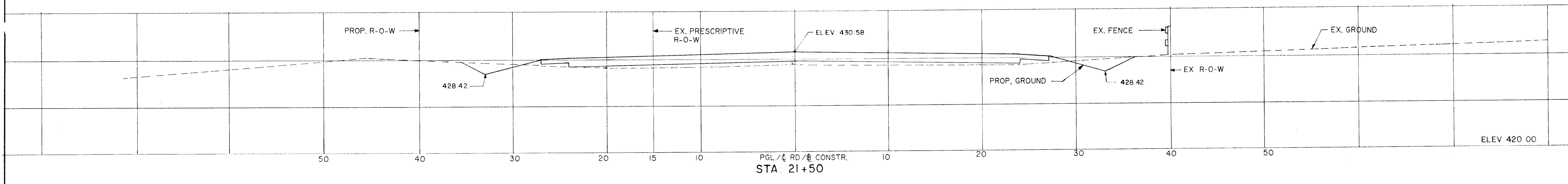
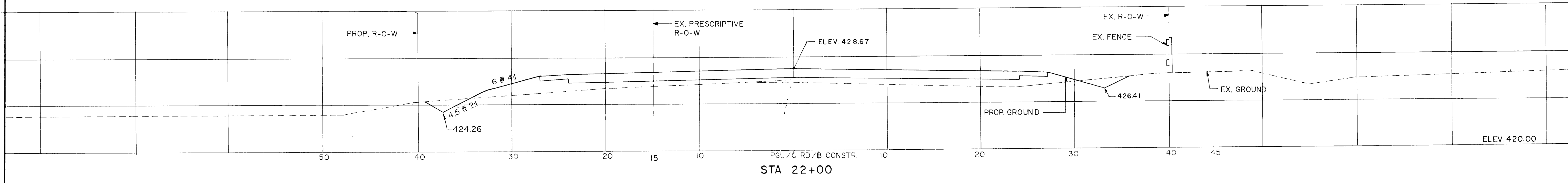
gpi
GREENMAN-PEDERSEN INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD, 20708
 WASH. (301) 470-2772 BALT. (301) 880-3055

[Handwritten Signature]

DES: M.E.C.			
DRN: D.A.B.			
CHK: A.J.B.			
DATE: 2/25/91	BY: NO.	REVISION	DATE

600' SCALE MAP
 BLOCK NO.

BRIGHTON DAM CULVERT
 CROSS SECTIONS
 CAPITAL PROJECT NO. D-1088
 SCALE: 1"=5' HORIZ., 1"=5' VERT.
 SHEET 11 OF 13



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James P. ...
DIRECTOR OF PUBLIC WORKS
DATE: 11/22/91

Elizabeth Anderson-Lake
CHIEF, DIVISION OF ROADS,
BRIDGES & STORM DRAINAGE
DATE: 11/22/91

gpi
GREENMAN - PETERSEN INC.
ENGINEERS/ARCHITECTS/PLANNERS
14504 REEB RD., SUITE 100, LA BEL, MD. 20708
PH: (301) 471-2772 FAX: (301) 880-3055

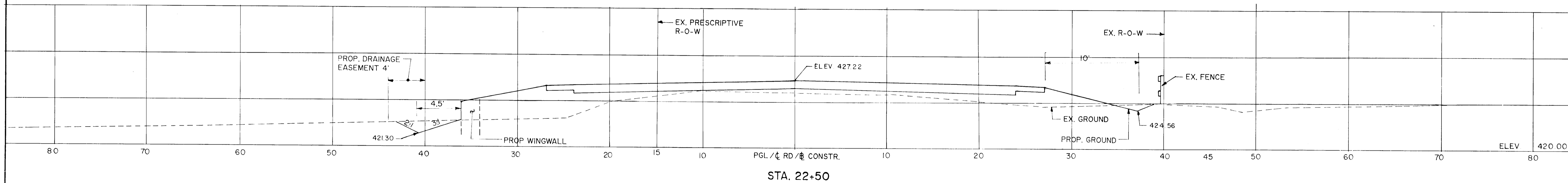
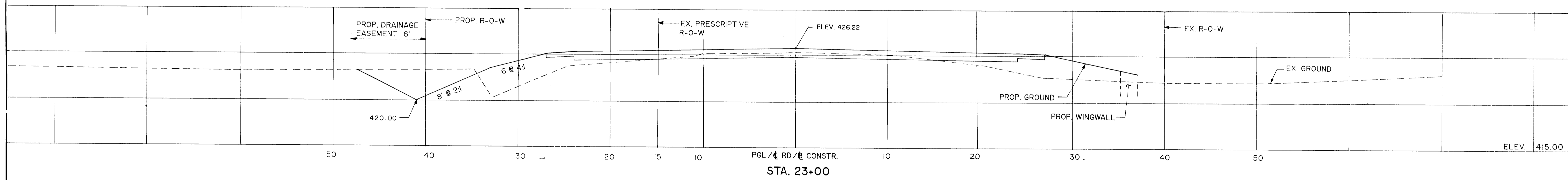
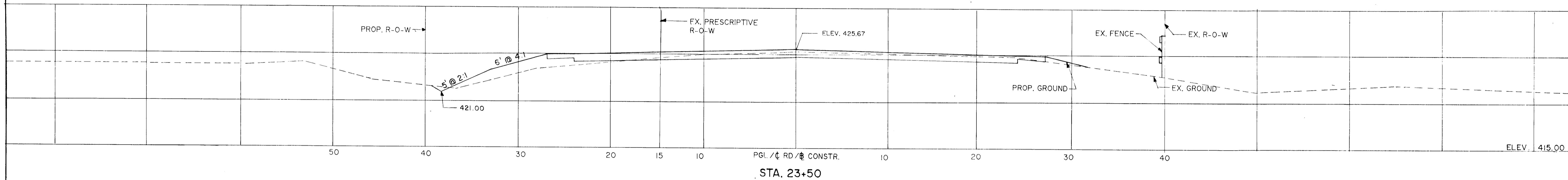
DES: M.E.C.
DRN: D.A.B.
CHK: A.J.B.
DATE: 2/25/91

DATE: 6/00 SCALE MAP
F.D.C. NO.

BRIGHTON DAM CULVERT
CROSS SECTIONS
CAPITAL PROJECT NO. D-1088

SCALE
1" = 5' VERT.
1" = 5' HORIZ.
SHEET
12 OF 13

1021



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *James P. [Signature]*
 Chief, Bureau of Engineering: *William B. Roy 11-12-91*
 Chief, Bureau of Highways: *Francis W. Wallace 11-12-91*
 Chief, Division of Roads, Bridges & Storm Drainage: *Elizabeth Anderson Calva 11/23/91*

gpi
GREENMAN-PEDERSEN INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
 N. SH. (301) 470-2777 BALT. (301) 880-3055

WAS

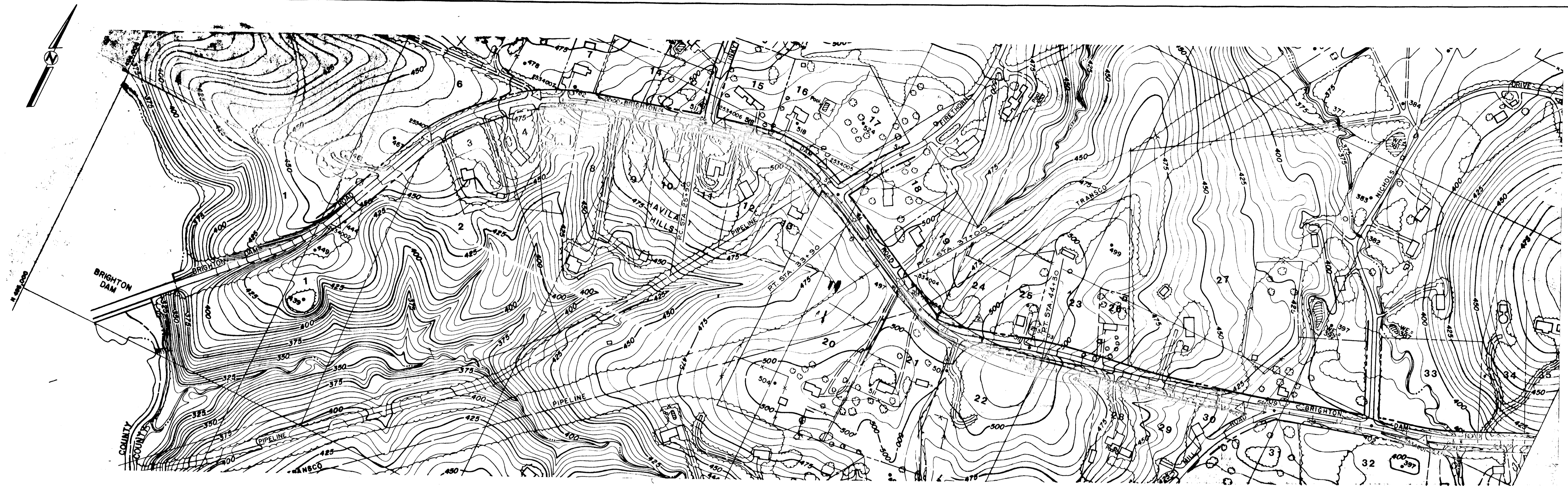
DESIGNED BY	M.E.C.
DRAWN BY	D.A.B.
CHECKED BY	A.J.B.
DATE	2/25/91
BY	NO.
REVISION	
DATE	

800' SCALE MAP
 E. P. NO.

BRIGHTON DAM CULVERT
 CROSS SECTIONS.
 CAPITAL PROJECT NO. D-1088

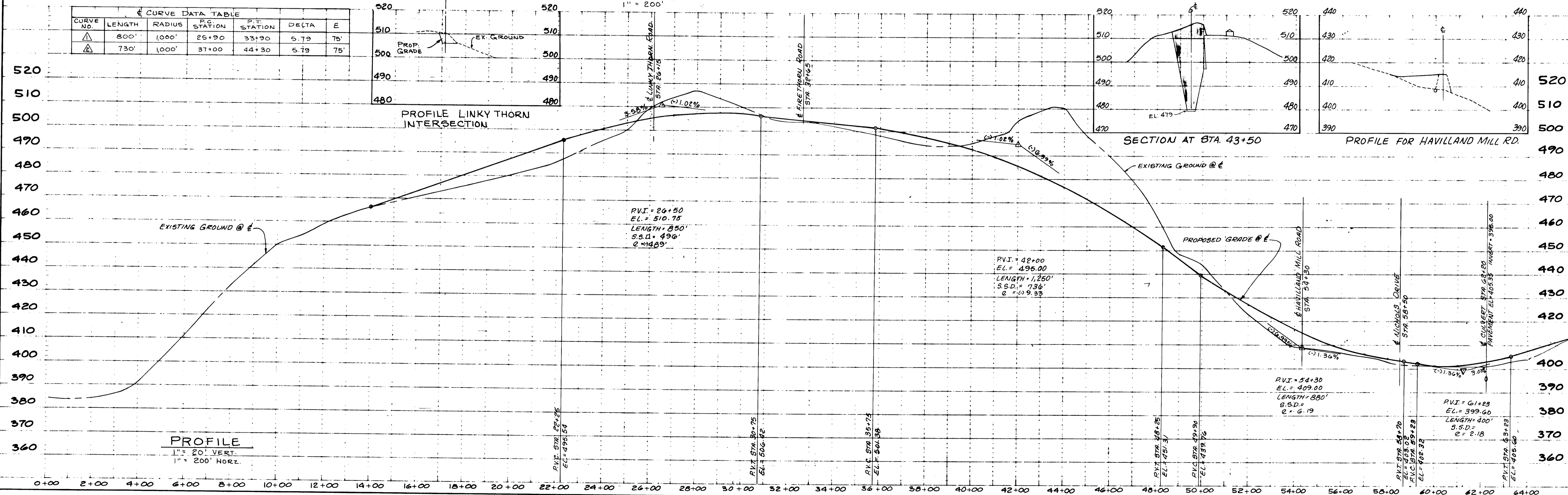
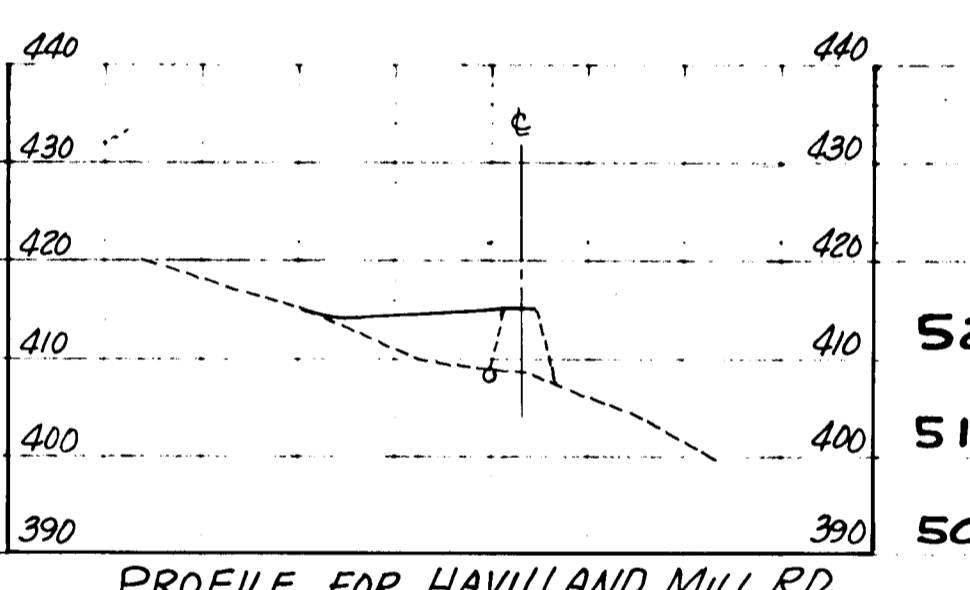
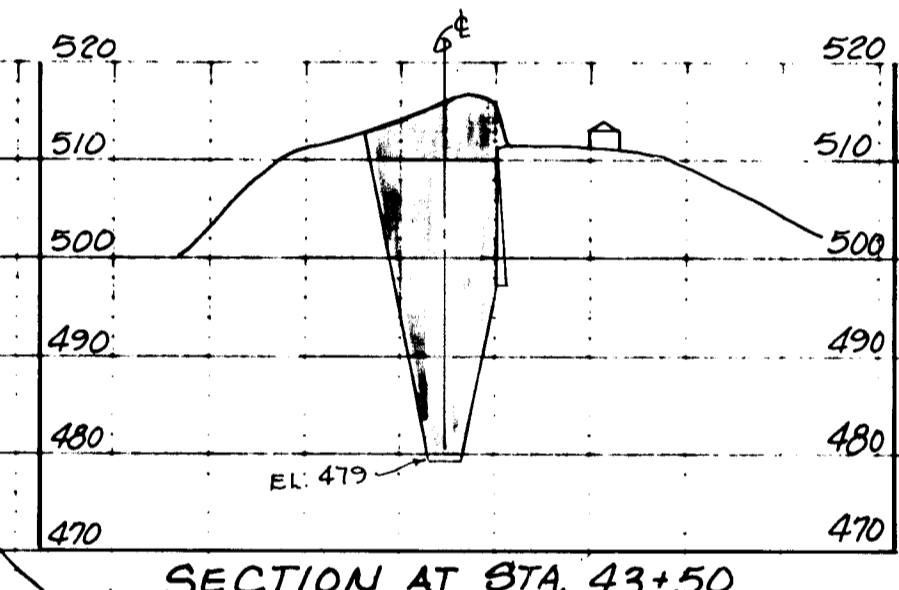
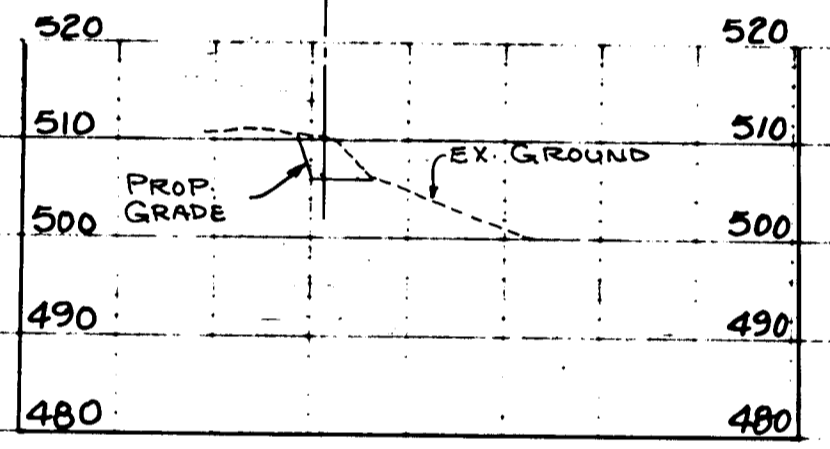
SCALE
 1"=5' HORIZ.
 1"=5' VERT.
 SHEET
 13 OF 13

4927



PLAN
1" = 200'

CURVE DATA TABLE						
CURVE NO.	LENGTH	RADIUS	P.C. STATION	P.T. STATION	DELTA	E
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2	730'	1000'	37+00	44+30	5.79	75'



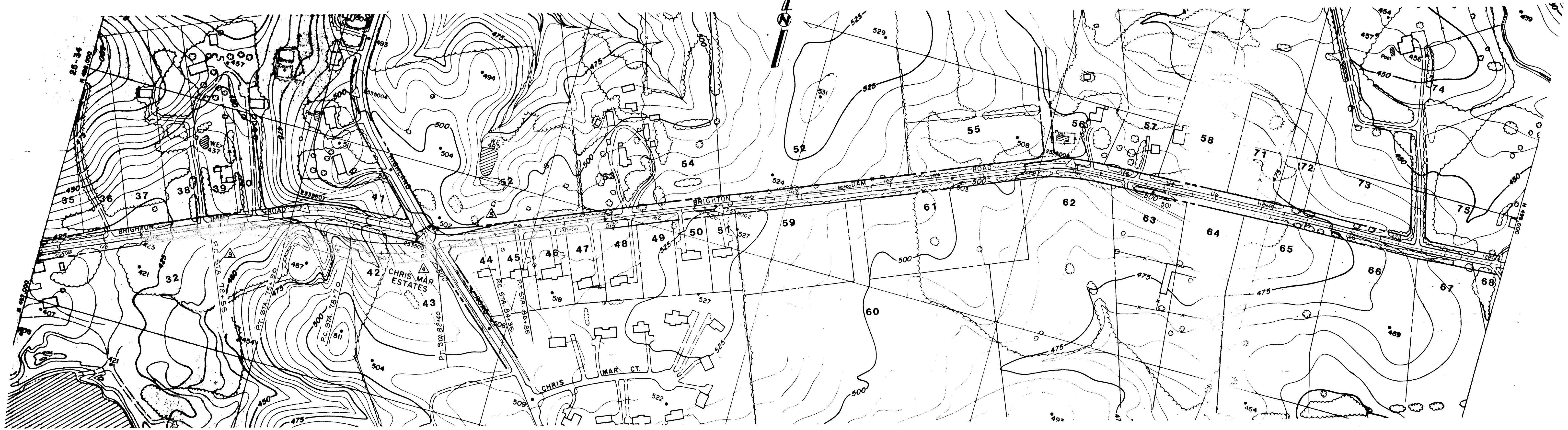
PROFILE
1" = 20' VERT.
1" = 200' HORZ.

PREPARED BY
RBA ENGINEERS • ARCHITECTS • PLANNERS
5560 STEHRETT PLACE STE. 300
COLUMBIA, MARYLAND 21044
301-730-7950 621-8050

DATE	REVISIONS	BY

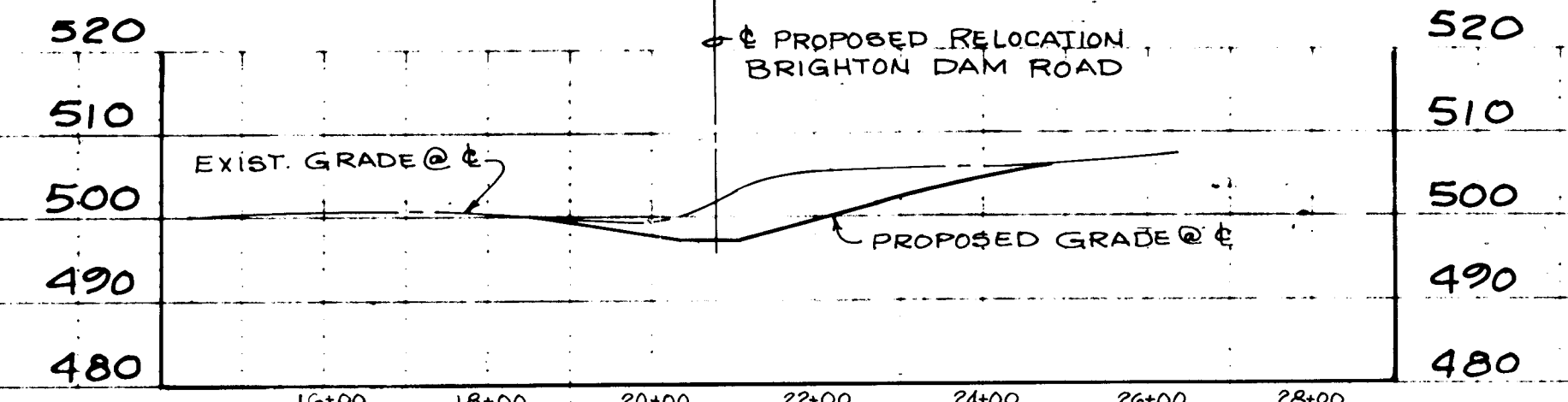
DRAWN BY: J.M.M. SCALE: AS SHOWN
CHECKED BY: SHEET NO. 1 OF 3
DATE: PROJECT NO. 913G
APPROVED: _____
ENGINEER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
MAJOR COLLECTOR STANDARD
BRIGHTON DAM RD
COSTEFZ01

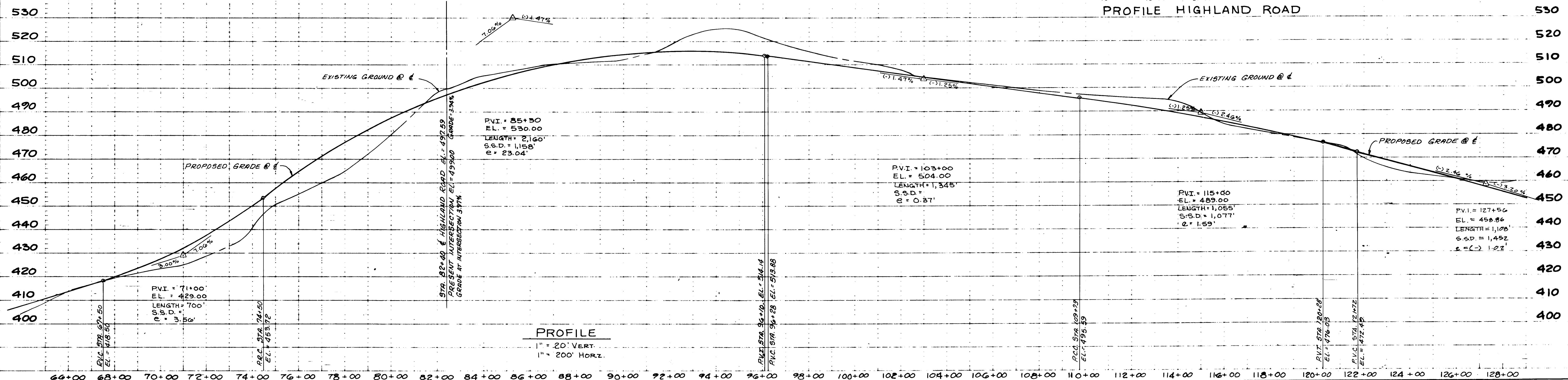


PLAN
1" = 200'

CURVE DATA TABLE					
CURVE NO.	LENGTH	RADIUS	P.C. STATION	P.T. STATION	DELTA
1	355'	900'	72+55	75+90	6.43
2	370'	900'	78+70	82+40	6.43
3	150'	1,000'	84+35	85+85	5.79



PROFILE HIGHLAND ROAD



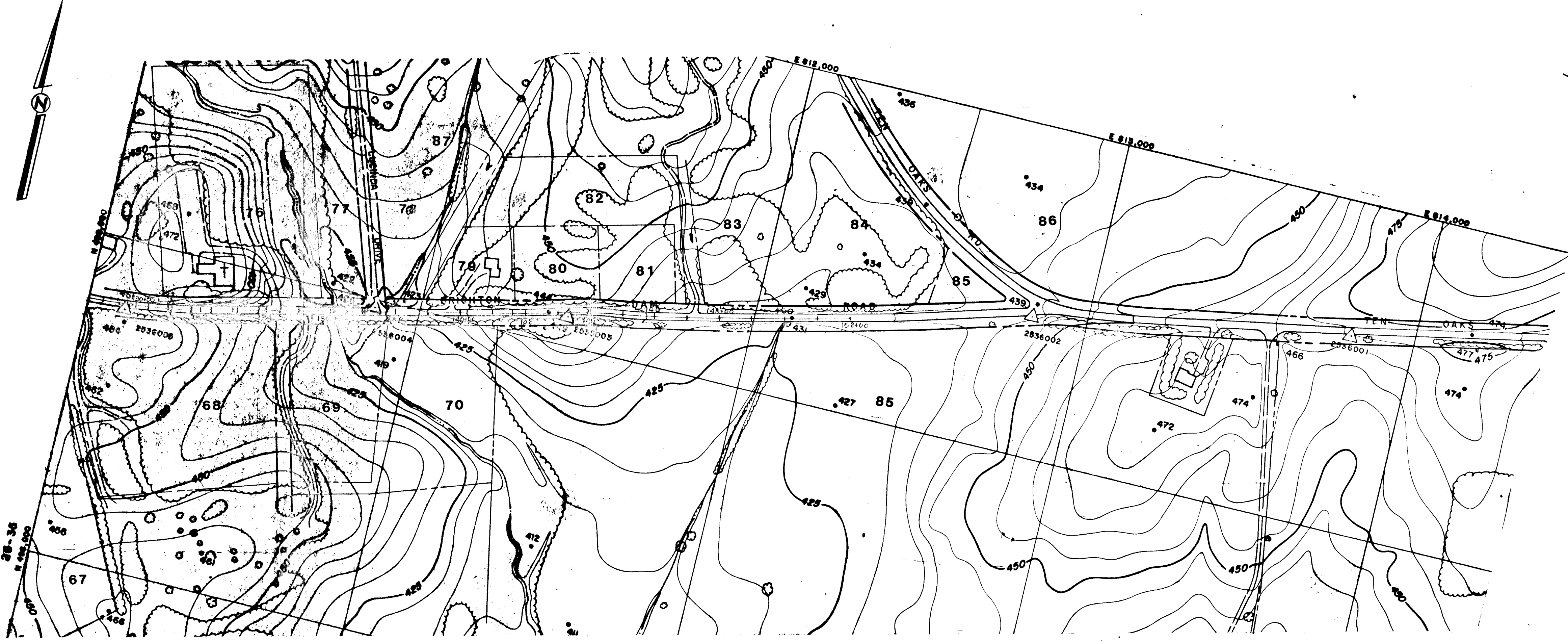
PROFILE
1" = 20' VERT.
1" = 200' HORIZ.

PREPARED BY
RBA
 5560 STEWART PLACE STE. 200
 COLUMBIA, MARYLAND 21044
 301.730-7950 621-6050

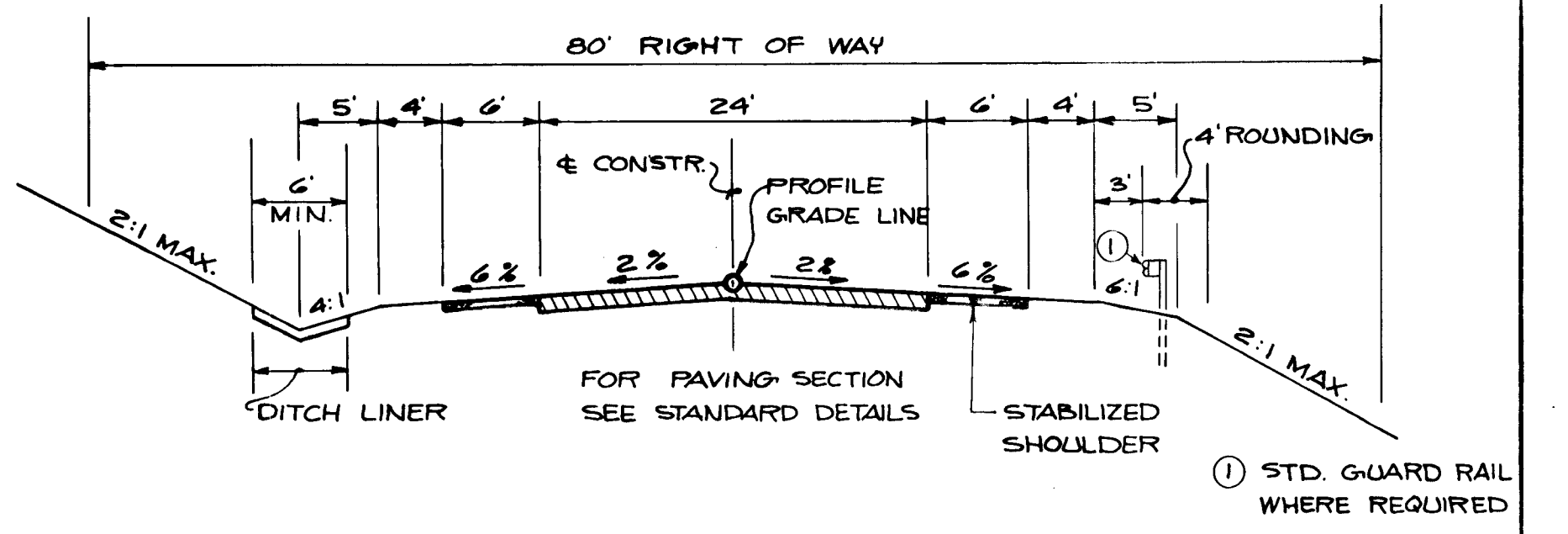
DATE	REVISIONS	BY

HOWARD COUNTY
 DEPARTMENT OF PUBLIC WORKS
 MAJOR COLLECTOR STANDARD

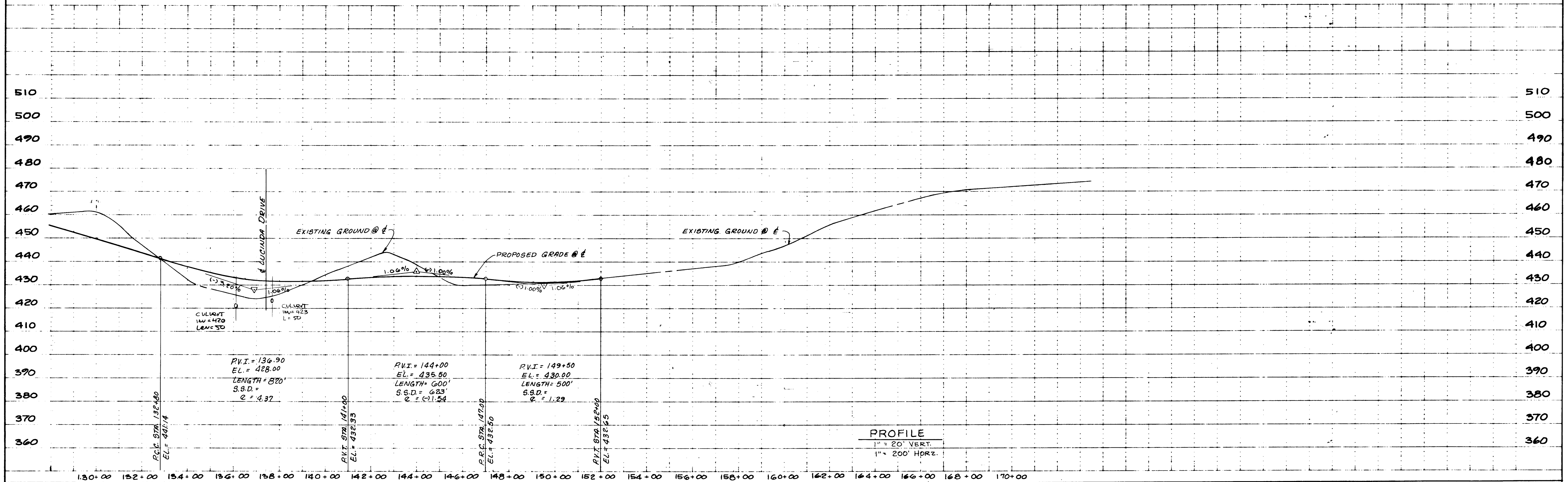
DRAWN BY J.M.U.	SCALE AS SHOWN
CHECKED BY	SHEET NO. 2 OF 3
DATE	PROJECT NO. 9136
APPROVED:	
ENGINEER	



PLAN
1" = 200'



OPEN SECTION - R DISTRICT
MAJOR COLLECTOR TYPICAL SECTION
SCALE: 1" = 10'



PROFILE
1" = 20' VERT.
1" = 200' HPRZ.

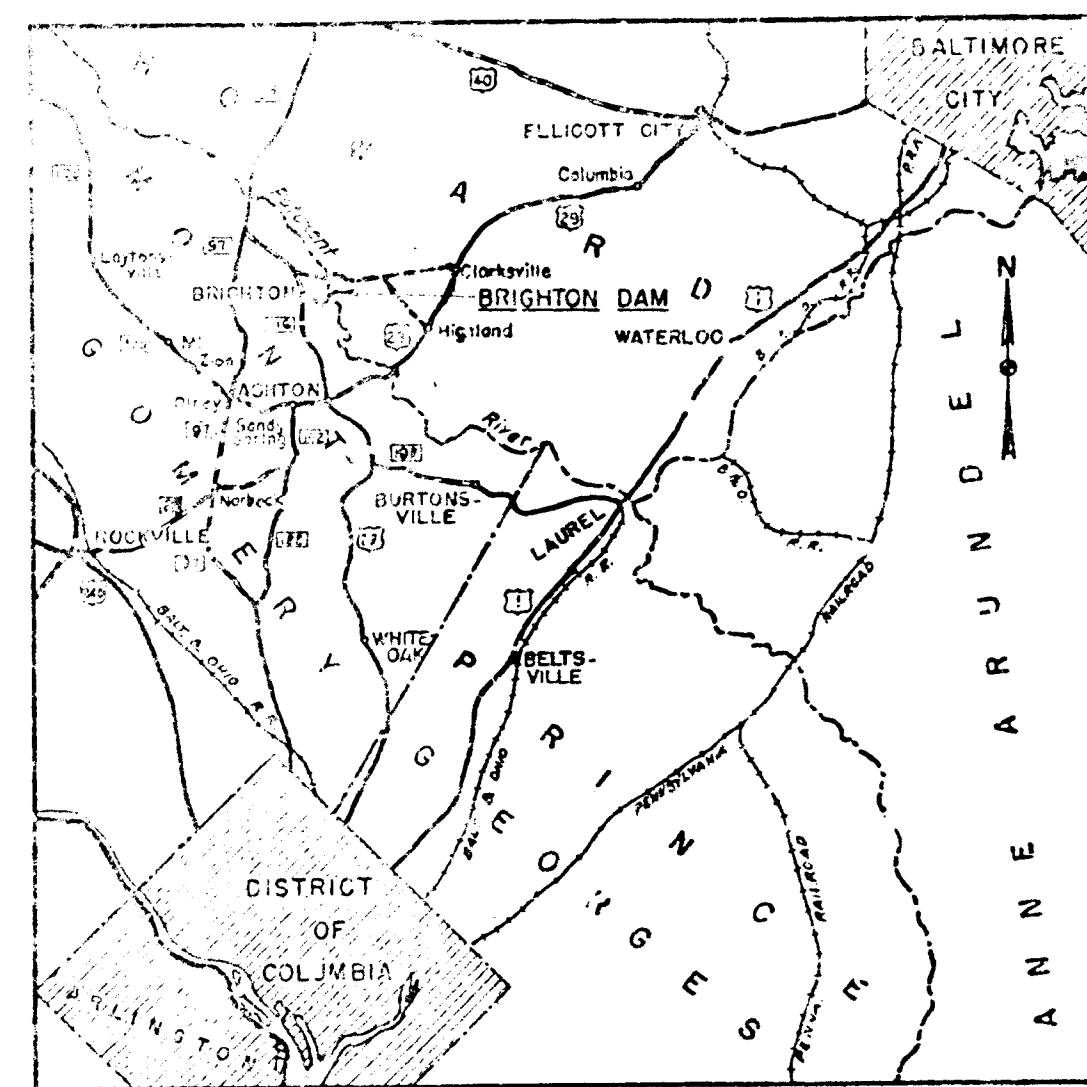
RBA
 ENGINEERS • ARCHITECTS • PLANNERS
 5560 STEWART PLACE, STE. 300
 COLUMBIA, MARYLAND 21044
 301.730-7950 621-6050

DATE	REVISIONS	BY

HOWARD COUNTY
 DEPARTMENT OF PUBLIC WORKS
 MAJOR COLLECTOR STANDARD
 DRAWN BY: J.M.U. SCALE: AS SHOWN
 CHECKED BY: SHEET NO. 3 OF 3
 DATE: PROJECT NO. 9136
 APPROVED: _____
 ENGINEER

CONTRACT DRAWING INDEX

DWG NO.	TITLE
1	LOCATION AND ACCESS PLAN - INDEX
2	BORING RECORDS AND GROUTING LAYOUT
3	GENERAL PLAN AND ELEVATION
4	TYPICAL DAM SECTIONS
5	EXCAVATION PLAN
6	TYPICAL FOOTING AND FOUNDATION DETAILS
7	ABUTMENT DETAILS
8	EARTH EMBANKMENT AND COREWALL
9	TYPICAL BULKHEAD BUTTRESS - CONCRETE DETAILS
10	TYPICAL BULKHEAD BUTTRESS - REINFORCING DETAILS
11	TYPICAL SPILLWAY BUTTRESS - CONCRETE DETAILS
12	TYPICAL SPILLWAY BUTTRESS - REINFORCING DETAILS
13	ELEVATION OF SPILLWAY ABUTMENT BUTTRESSES NOS. 12 AND 25 - CONCRETE DETAILS
14	ELEVATION OF SPILLWAY ABUTMENT BUTTRESSES NOS. 12 AND 25 - REINFORCING DETAILS
15	DECK, APRON, AND BUCKET - CONCRETE AND REINFORCING DETAILS
16	HEARTH AND TAILRACE - PLAN AND DETAILS
17	HEARTH TRAINING WALL DETAILS
18	DETAILS OF CLOSURE
19	INTAKE TOWER - CONCRETE DETAILS
20	INTAKE TOWER - REINFORCING DETAILS
21	POWERHOUSE - SUPERSTRUCTURE DETAILS
22	POWERHOUSE - SUBSTRUCTURE DETAILS
23	SILT UNDERSLUICE DETAILS
24	DETAILS OF GATE OPERATING BRIDGE
25	HIGHWAY BRIDGE - CONCRETE DETAILS
26	HIGHWAY BRIDGE - REINFORCING DETAILS
27	STRUT, WALKWAY, AND STAIR DETAILS
28	18'-0" x 15'-0" TANTER GATES - DRAWING NO. 1 OF 2
29	18'-0" x 15'-0" TANTER GATES - DRAWING NO. 2 OF 2
30	SEPTIC TANK AND PLUMBING DETAILS
31	INTAKE TRASH RACKS, SUPPORTS, AND RAKE GUIDES
32	MISCELLANEOUS STEEL DETAILS - DRAWING NO. 1 OF 3
33	MISCELLANEOUS STEEL DETAILS - DRAWING NO. 2 OF 3
34	MISCELLANEOUS STEEL DETAILS - DRAWING NO. 3 OF 3
35	BENT BAR REINFORCING SCHEDULE
36	LIGHTING PLAN
37	HIGHWAY AND APPURTENANT STRUCTURES - ALINEMENT AND DETAILS
38	HIGHWAY AND APPURTENANT STRUCTURES - PROFILE

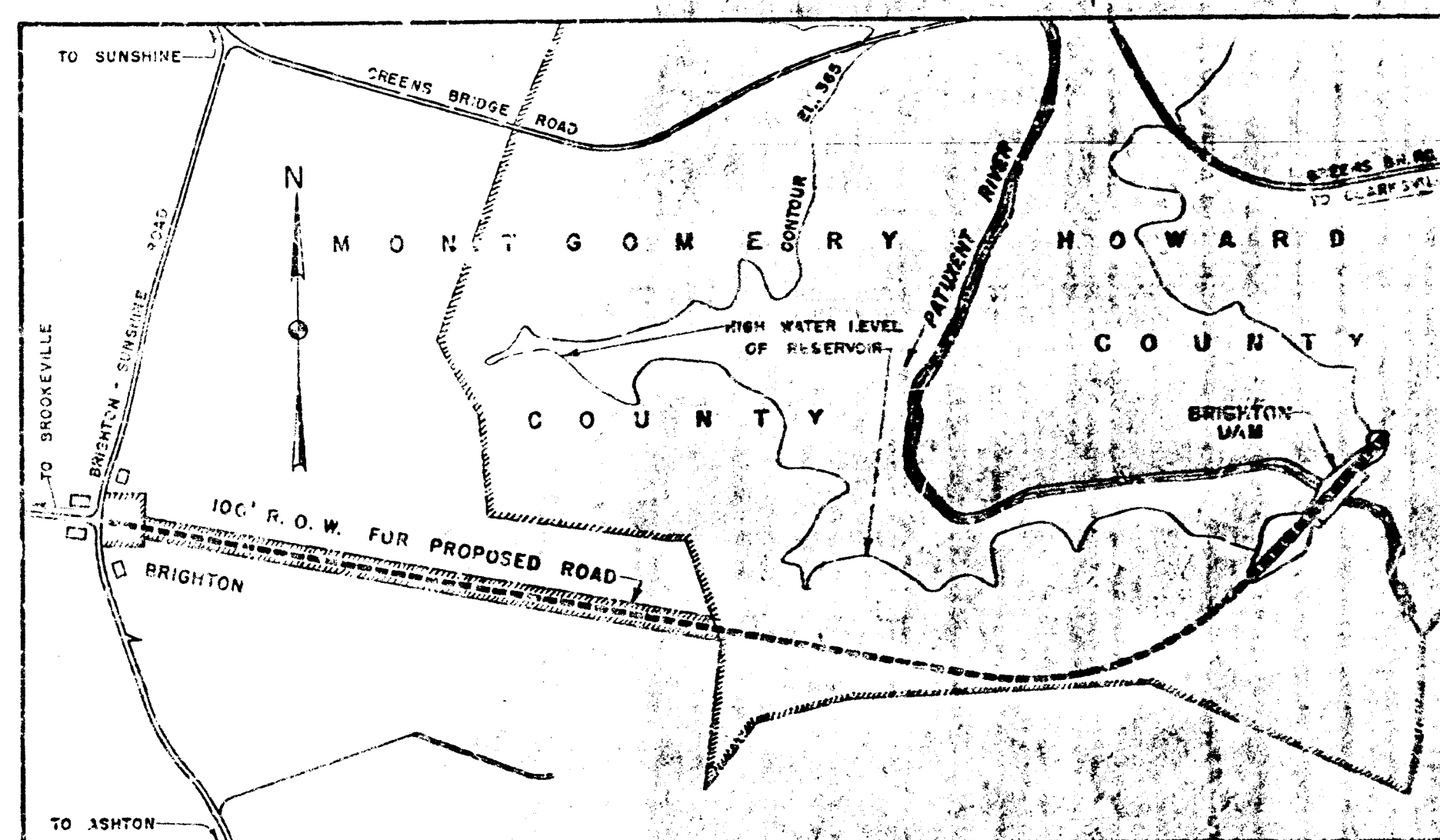


LOCATION MAP

SCALE 0 4 8 12 MILES

LEGEND

- PAVED ROADS
- BITUMINOUS SURFACED ROADS
- RAILROADS
- UNPAVED ROADS



ACCESS MAP

SCALE 0.0 0.1 0.2 0.3 0.4 0.5 MILES

LEGEND

- LAND BEING ACQUIRED BY WASHINGTON SUBURBAN SANITARY COMMISSION
- PROPOSED ROAD
- OTHER ROADS

DR. P.A.A. P.E.T. 10/27	REV. 124
DESIGNED BY P.A.A. P.E.T. 10/27	REV. 125
CHECKED BY G. 10/27	REV. 126
APPROVED BY P.A.A. P.E.T. 10/27	REV. 127

JOB NUMBER 4002
 AMBURSEN ENGINEERING CORPORATION
 CONSULTING ENGINEERS
 NEW YORK

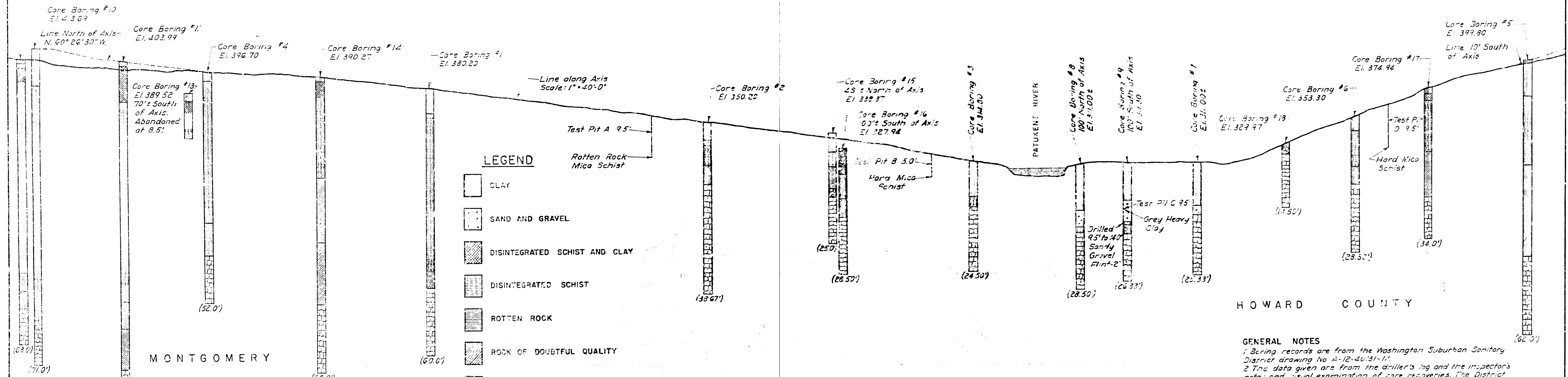
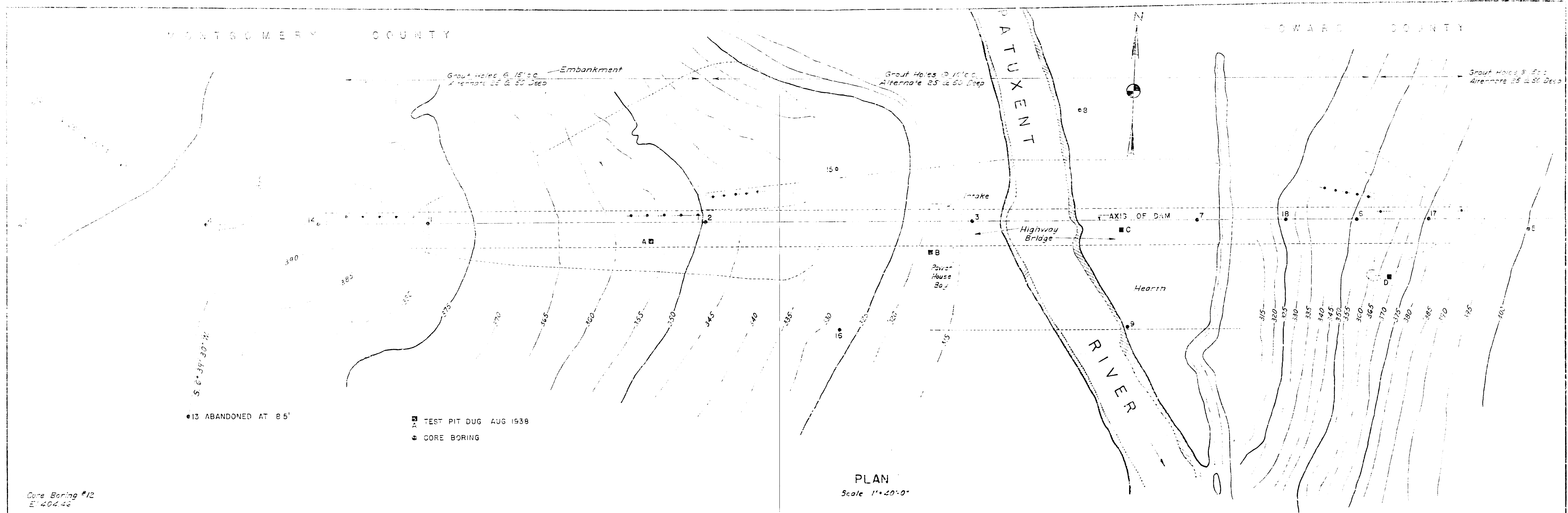
WASHINGTON SUBURBAN SANITARY COMMISSION
 BRIGHTON DAM - CONTRACT 127-W

LOCATION AND ACCESS PLAN INDEX

APPROVED: *[Signature]*
 WASHINGTON SUBURBAN SANITARY COMMISSION

DRAWING NUMBER 1
 SCALE

C0516Z01

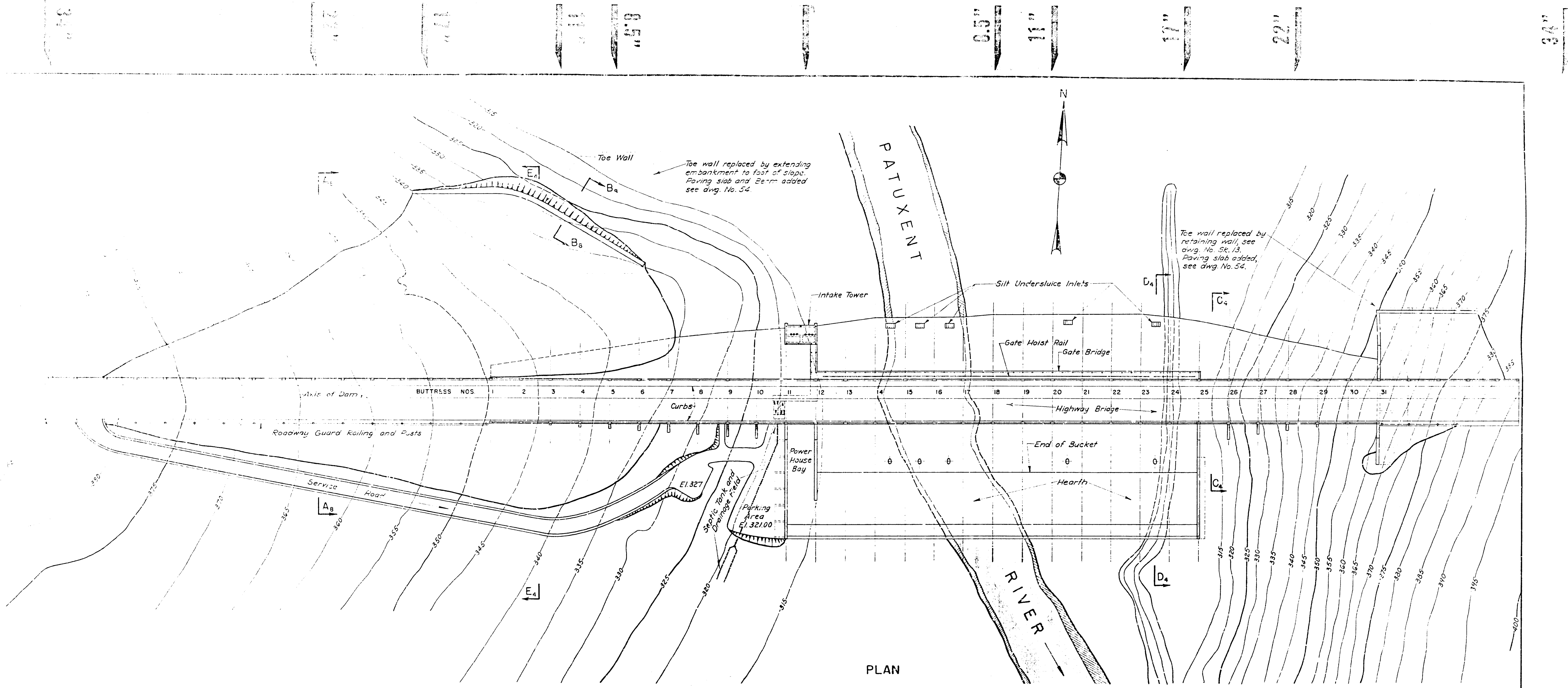


- LEGEND**
- CLAY
 - SAND AND GRAVEL
 - DISINTEGRATED SCHIST AND CLAY
 - DISINTEGRATED SCHIST
 - ROTTEN ROCK
 - ROCK OF DOUBTFUL QUALITY
 - SOUND WISSAHICKON SCHIST
- Test Pit A 9.5' Rotten Rock Mica Schist
- Test Pit B 5.0' Hard Mica Schist
- Test Pit C 9.5' Drilled 9.5' to 14.0' Sandy Gravel Flint-2
- Gray Heavy Clay

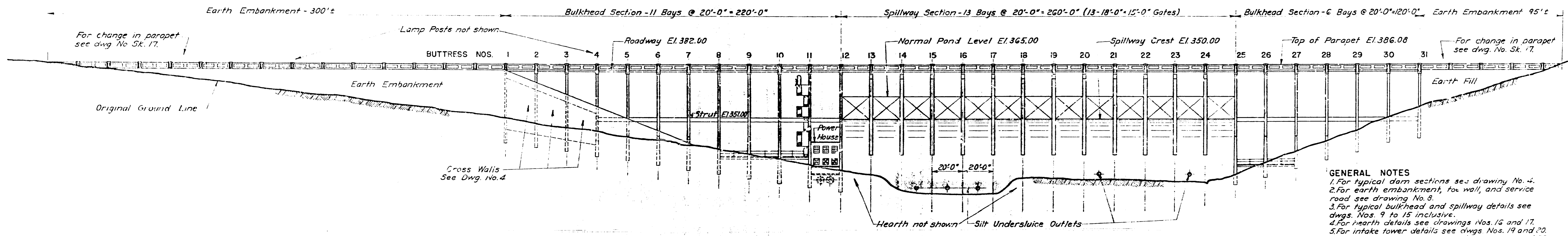
GENERAL NOTES

1. Boring records are from the Washington Suburban Sanitary District drawing No. A-12-40-31-11.
2. The data given are from the driller's log and the inspector's notes and visual examination of core recoveries. The District does not guarantee the classification of the material. Core recoveries may be examined at the District office in Hyattsville, Maryland.
3. For final core boring records see record dwgs. No. 46, 47, 48, 49.

DRAWN BY: J. S. A. 7/10/1941 CHECKED BY: J. S. A. 7/10/1941 REVISED BY: J. S. A. 7/10/1941 DATE: 7/10/1941	SHEET NUMBER: 4002 PROJECT: AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK CLIENT: WASHINGTON SUBURBAN SANITARY COMMISSION CONTRACT: BRIGHTON DAM - CONTRACT 127 W	BORING RECORDS AND GROUTING LAYOUT	DRAWING NUMBER: 2 SCALE: 1"=40'-0"
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PLAN



ELEVATION LOOKING UPSTREAM

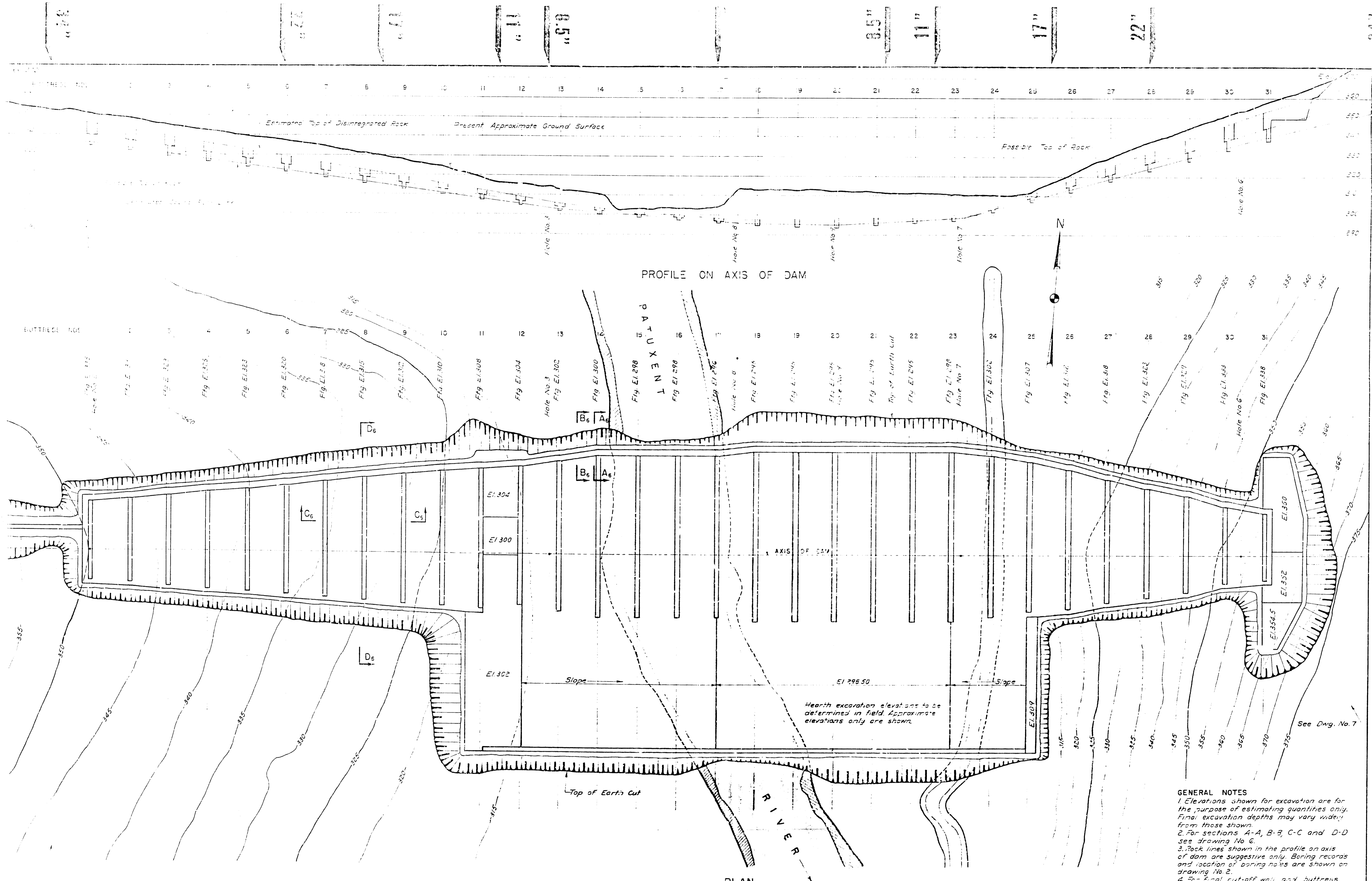
- GENERAL NOTES**
1. For typical dam sections see drawing No. 4.
 2. For earth embankment, toe wall, and service road see drawing No. 8.
 3. For typical bulkhead and spillway details see dwgs. Nos. 9 to 15 inclusive.
 4. For hearth details see drawings Nos. 15 and 17.
 5. For intake tower details see drawings Nos. 19 and 20.
 6. For power house details see drawings Nos. 21 and 22.
 7. For septic tank, drainage field, and plumbing details see drawing No. 30.
 8. For silt undersluice details see drawing No. 23.
 9. For gate bridge details see drawing No. 24.
 10. For highway bridge details see drawings Nos. 25 and 26.
 11. Forainter gate details see drawings Nos. 28 and 29.
 12. Sections and views not shown on drawing are indicated by subscripts to section marks. Thus E₃ indicates section B-B is shown on drawing No. 3.
 13. Closures not shown, see drawing No. 13.
 14. For final buttress foundation elevations see record dwgs. No. 46, 47, 48, 49.

REV. 1-23-1947	REV. 1-23-1947	REV. 1-23-1947	REV. 1-23-1947
REV. 1-23-1947	REV. 1-23-1947	REV. 1-23-1947	REV. 1-23-1947
REV. 1-23-1947	REV. 1-23-1947	REV. 1-23-1947	REV. 1-23-1947
REV. 1-23-1947	REV. 1-23-1947	REV. 1-23-1947	REV. 1-23-1947

JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W
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GENERAL PLAN AND ELEVATION

APPROVED: <i>[Signature]</i> CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 5	SCALE 1" = 30'-0"
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REV. 1	5-20-1941	REV. 1	134
REV. 2	7-29-1941	REV. 2	134
REV. 3	7-28-1941	REV. 3	134
REV. 4	9-13-1941	REV. 4	134

JOB NUMBER
4002

AMBURSEN ENGINEERING CORPORATION
CONSULTING ENGINEERS
NEW YORK

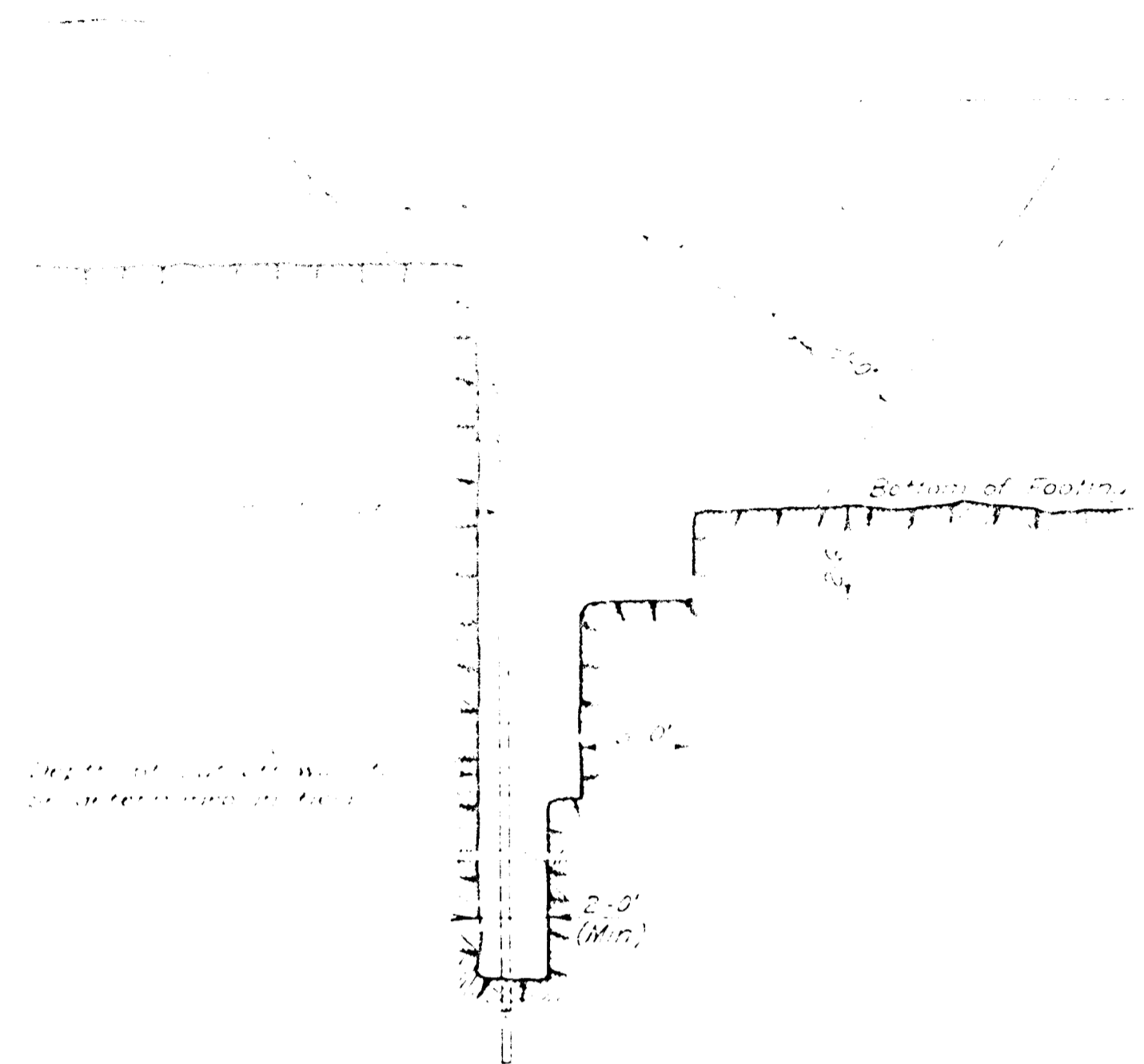
WASHINGTON SUBURBAN SANITARY COMMISSION
BRIGHTON DAM - CONTRACT 127-W

EXCAVATION PLAN

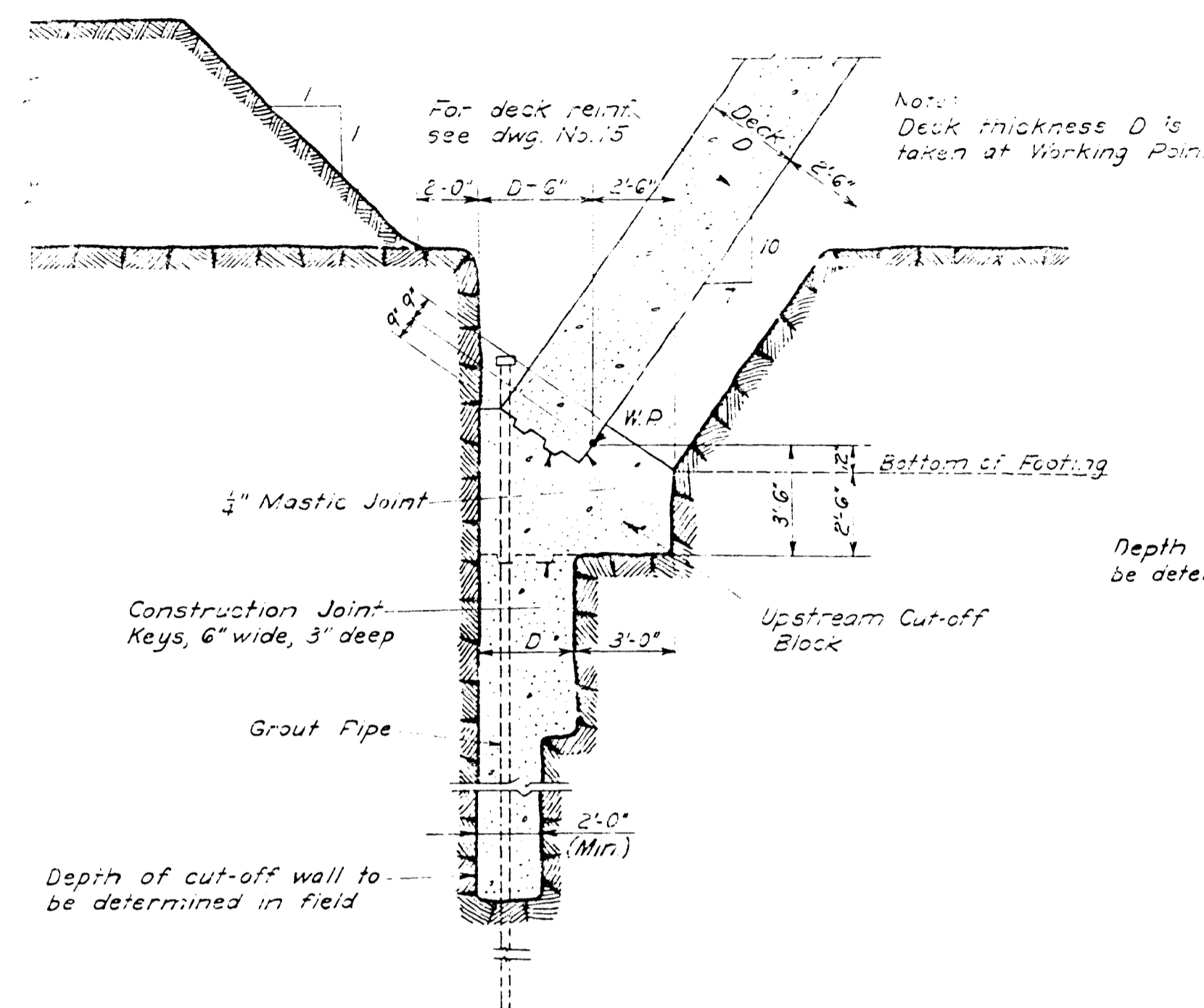
APPROVED: *Sept 25, 1941*
Hamphill CHIEF ENGINEER
WASHINGTON SUBURBAN SANITARY COMMISSION

DRAWING NUMBER
5

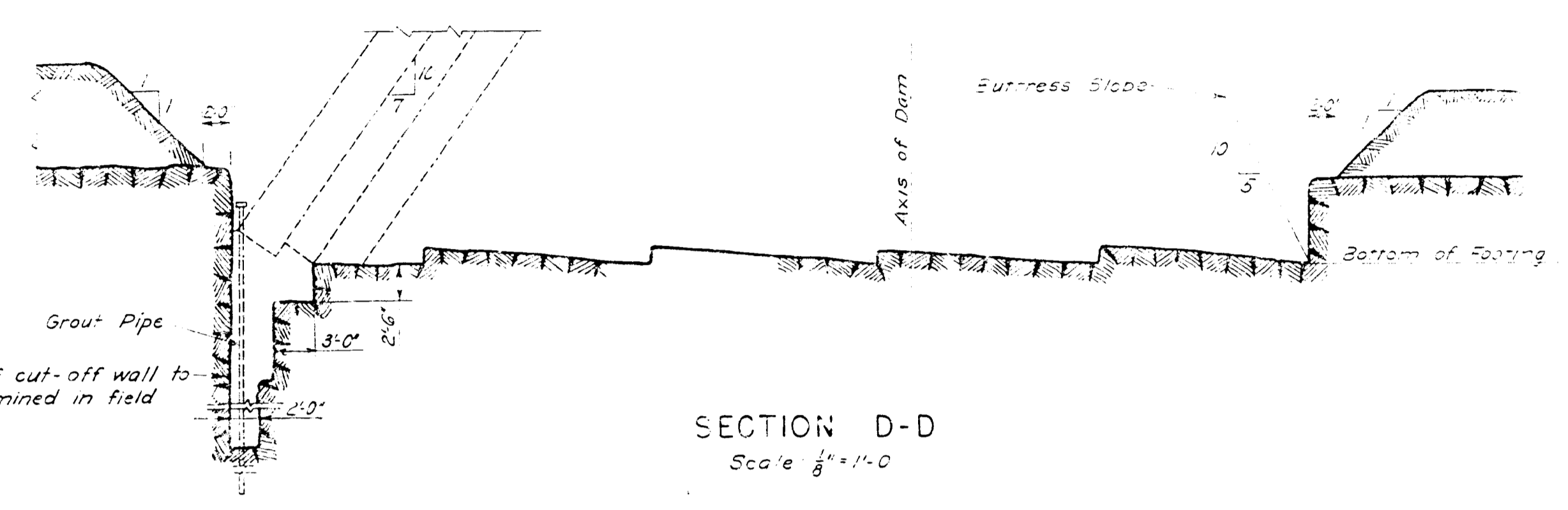
SCALE
1" = 20'-0"



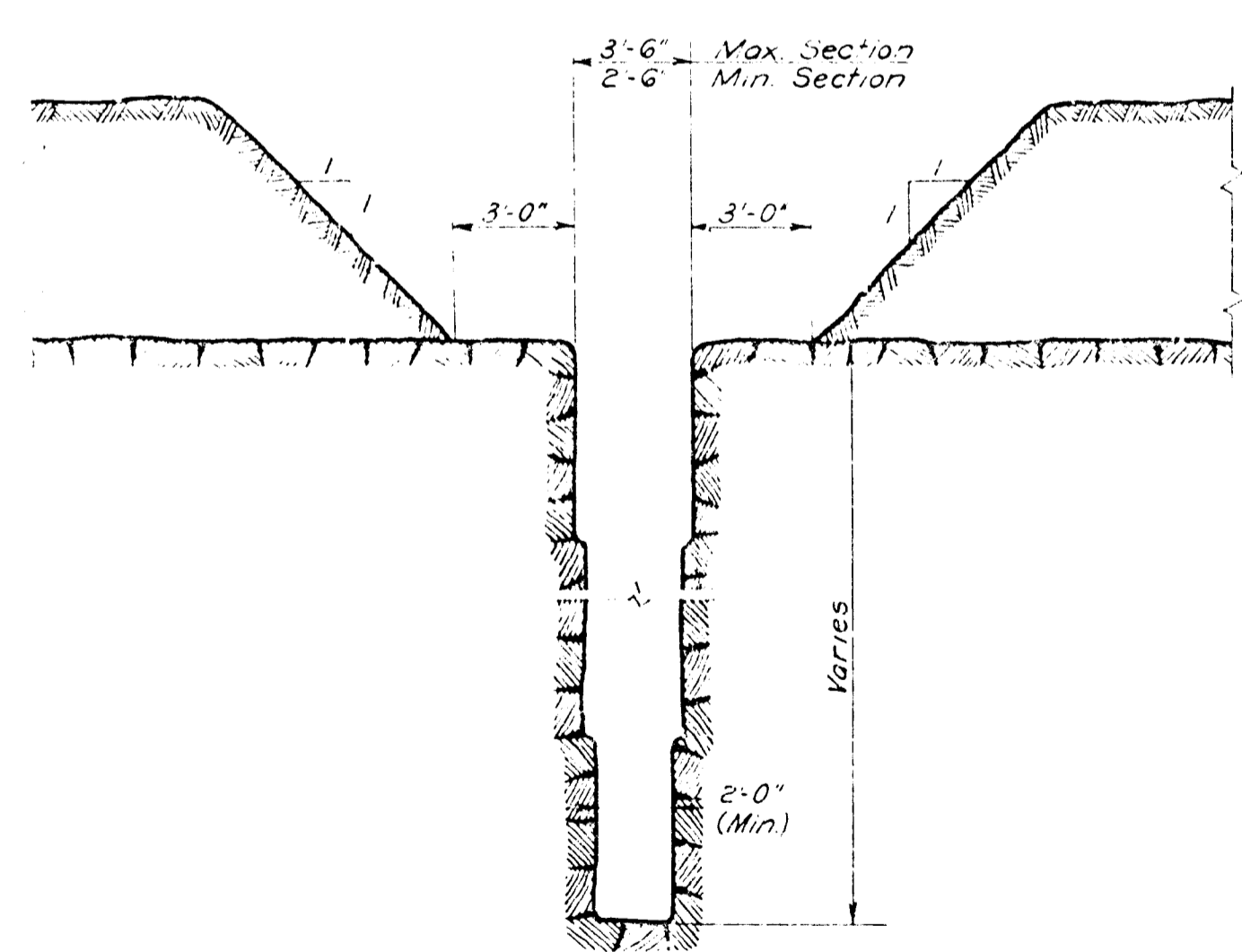
SECTION A-A
Typical Section at Buttress
Scale: $\frac{1}{2}'' = 1'-0''$



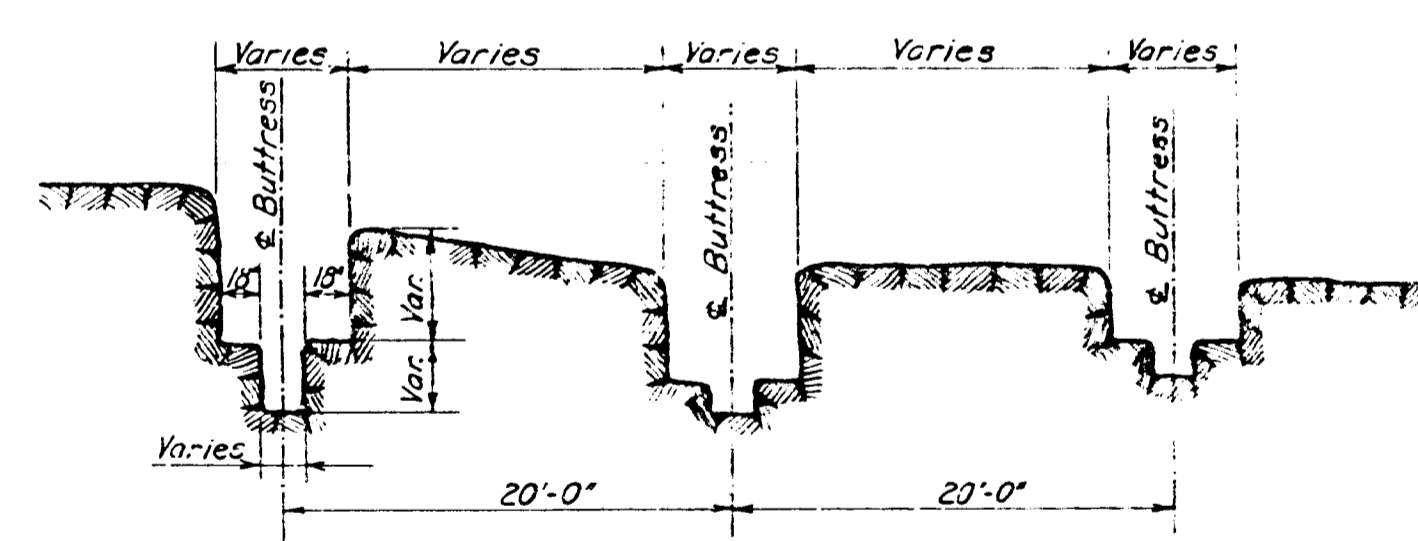
SECTION B-B
Typical Section at Center of Bay
Scale: $\frac{1}{2}'' = 1'-0''$



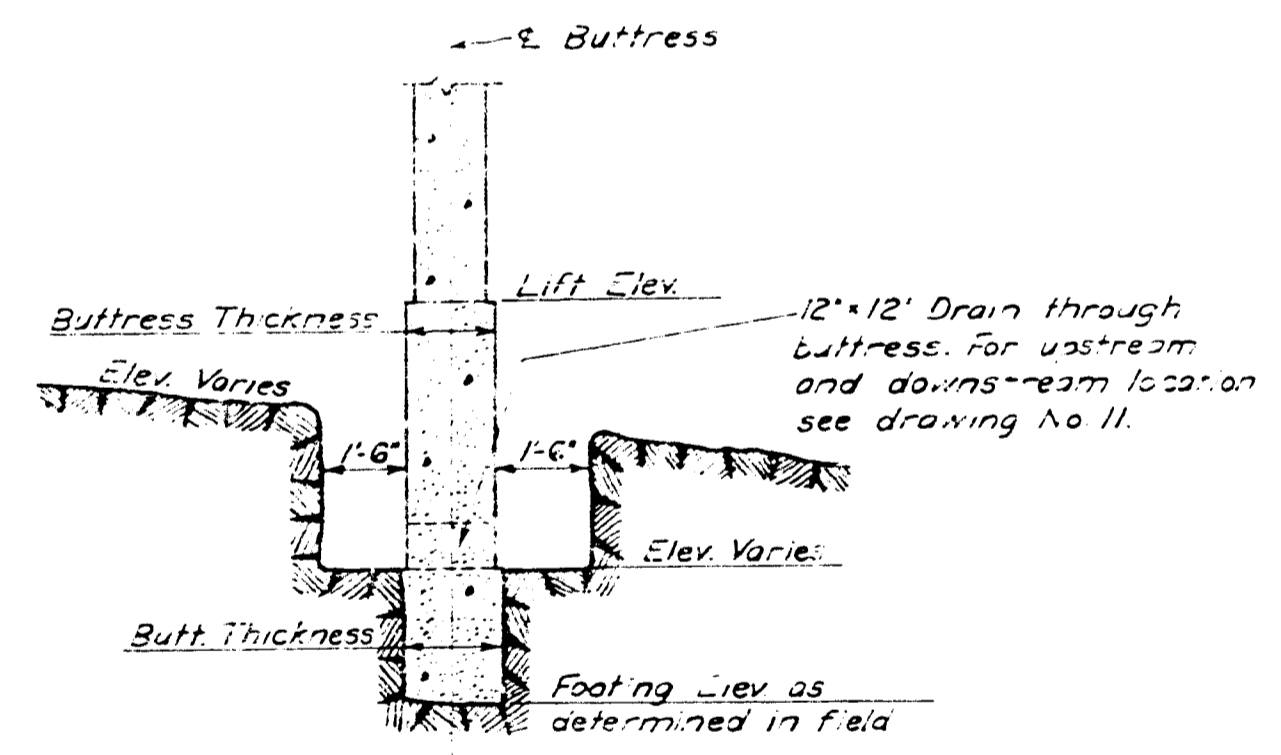
SECTION D-D
Scale: $\frac{1}{8}'' = 1'-0''$



TYPICAL COREWALL EXCAVATION
FOR EARTH EMBANKMENT
Scale: $\frac{1}{2}'' = 1'-0''$



SECTION C-C
Scale: $\frac{1}{8}'' = 1'-0''$



BUTTRUSS FOOTING AND
FOUNDATION DETAIL
Scale: $\frac{1}{2}'' = 1'-0''$

GENERAL NOTES
For location of sections A-A, B-B, C-C
and D-D see dwg No. 5.

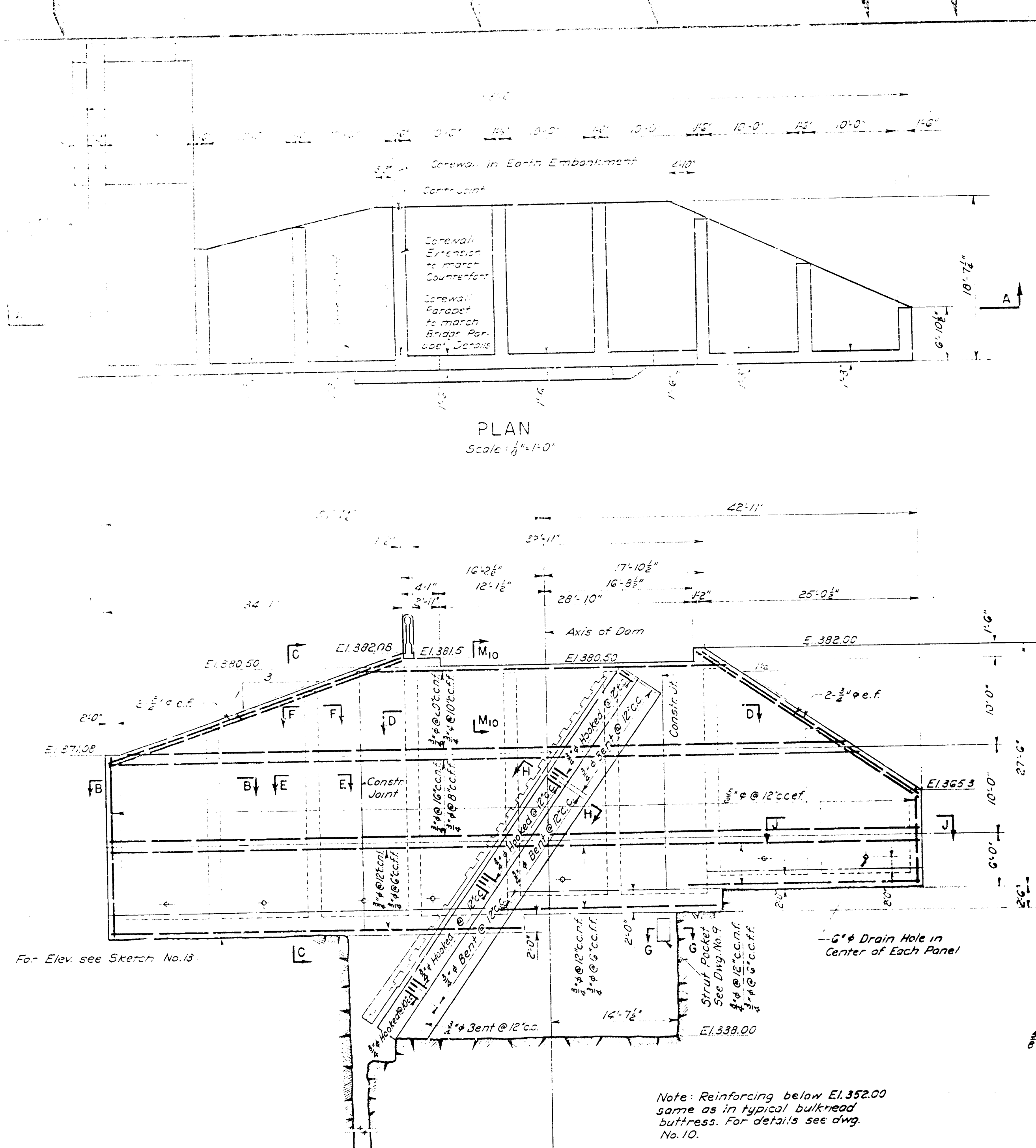
DESIGNED BY	6-10-1947	REV	194
DRAWN BY	7-6-1947	REV	191
CHECKED BY	7-7-1947	REV	190
APPROVED BY	9-2-1947	REV	194

JOB NUMBER	4002	AMUNDSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W
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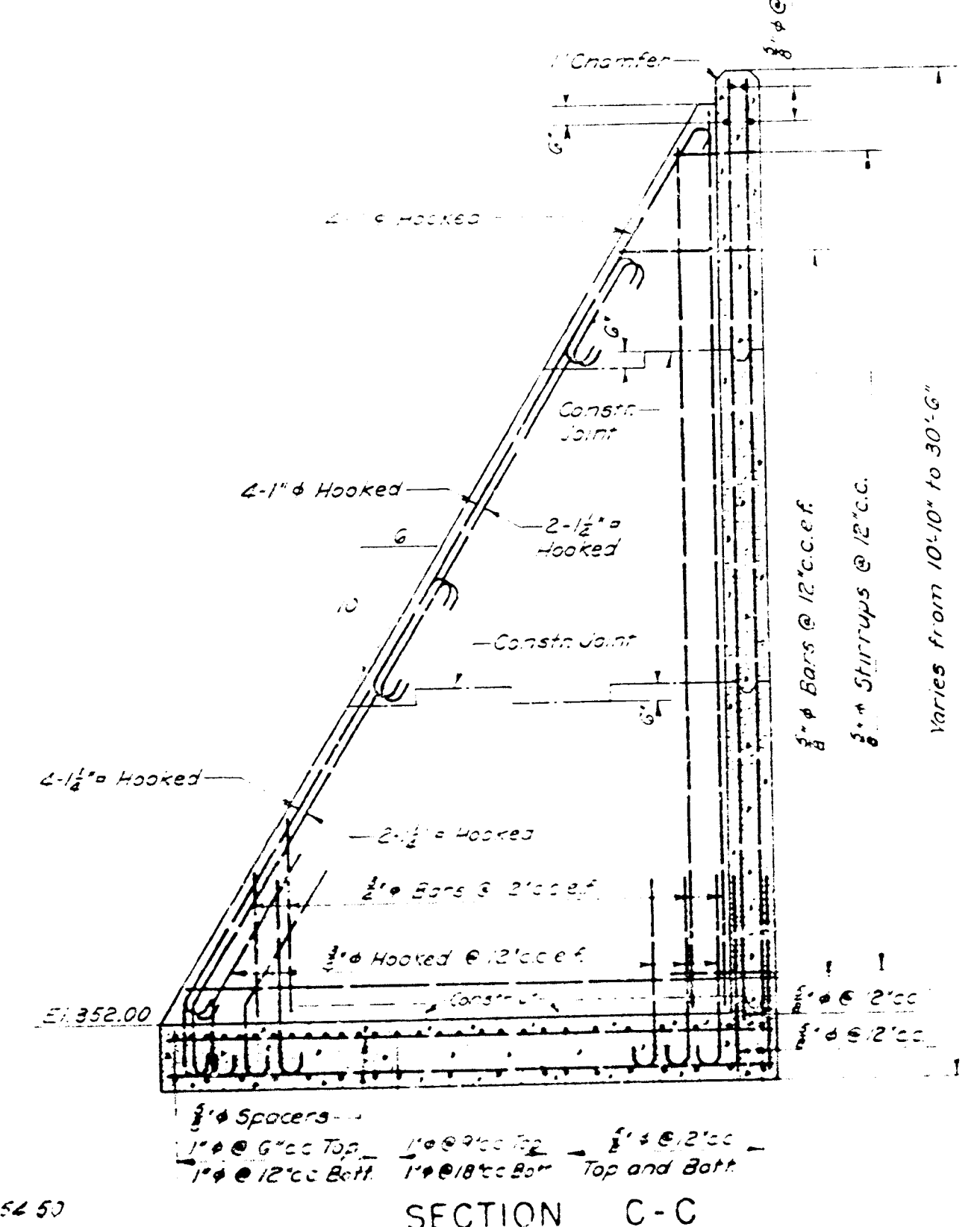
TYPICAL FOOTING AND FOUNDATION DETAILS

APPROVED	Sept. 25, 1947	THIEF ENGINEER	DRAWING NUMBER	6	SCALE	As Shown
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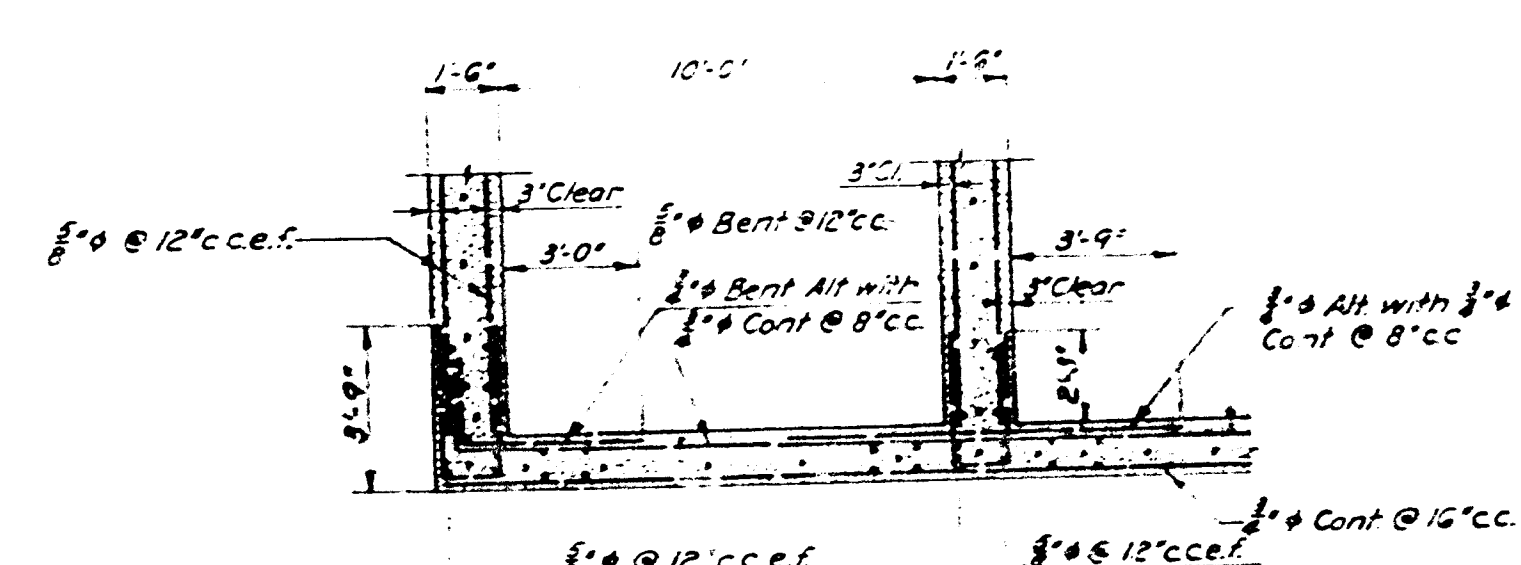
MICROFILMED 2000



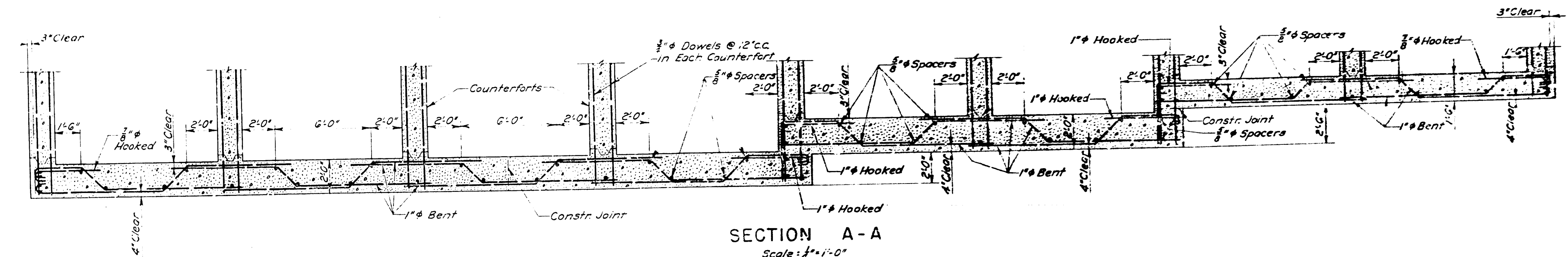
ELEVATION OF ABUTMENT BUTTRESS NO. 31
Scale: 1/4" = 1'-0"



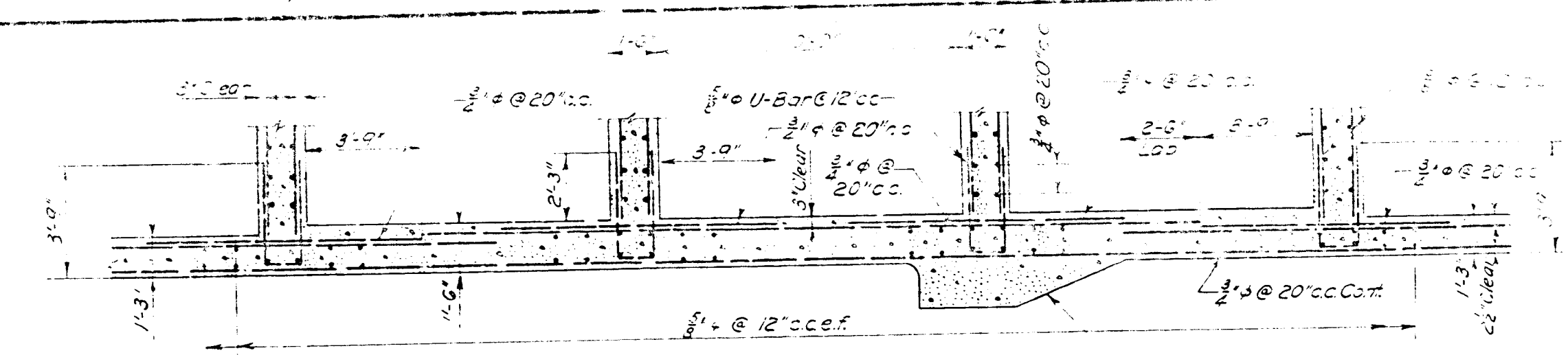
SECTION C-C
Typical Counterfort Elevation Height and Base
Scale: 1/4" = 1'-0"



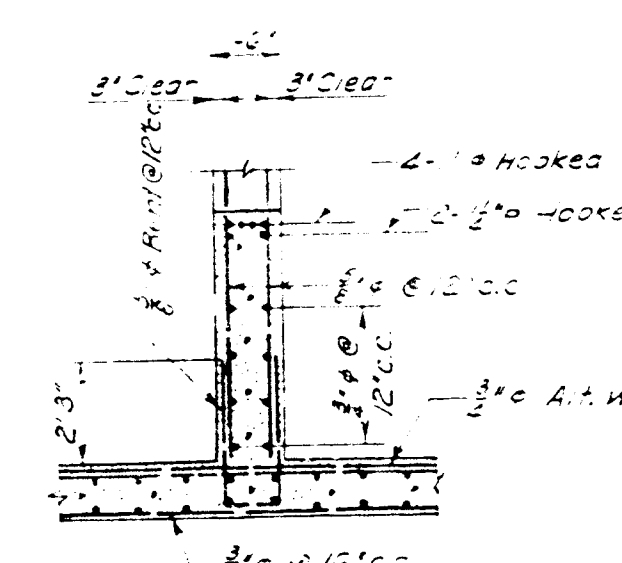
SECTION B-B
Section J-J Opposite Hand
Scale: 1/4" = 1'-0"



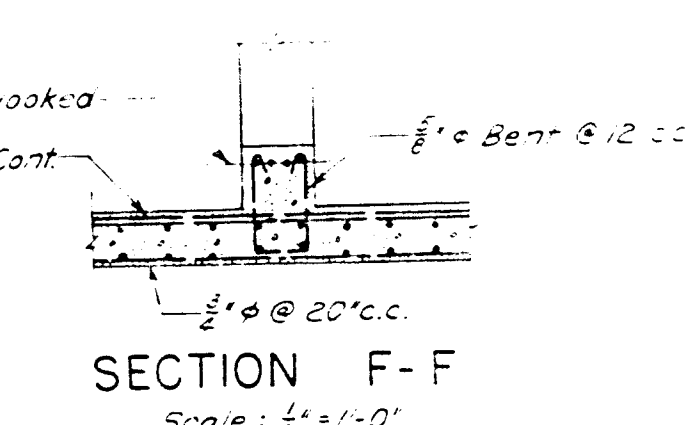
SECTION A-A
Scale: 1/4" = 1'-0"



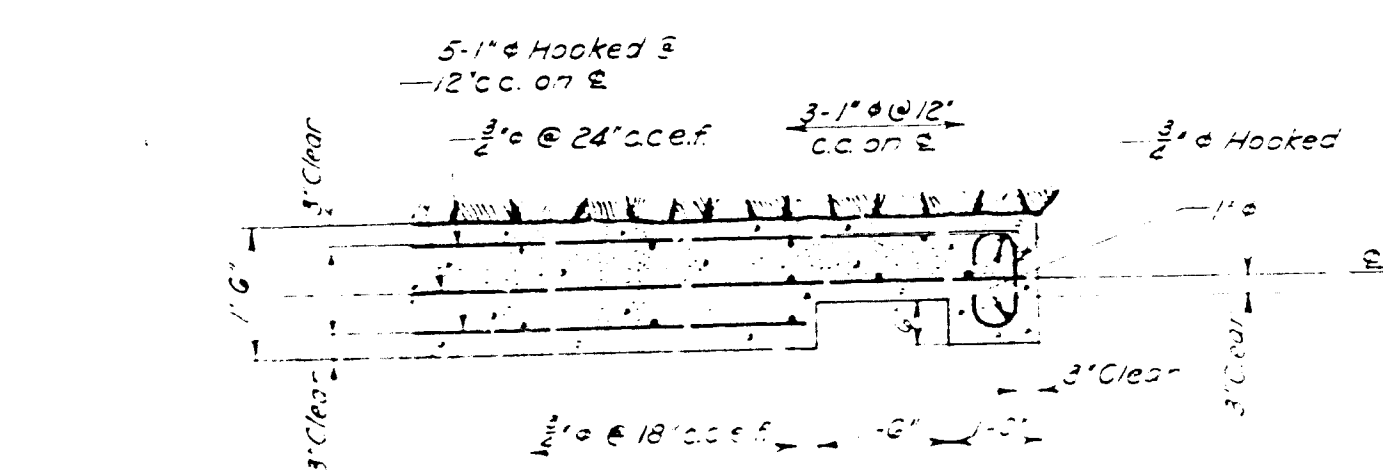
SECTION D-D
Scale: 1/4" = 1'-0"



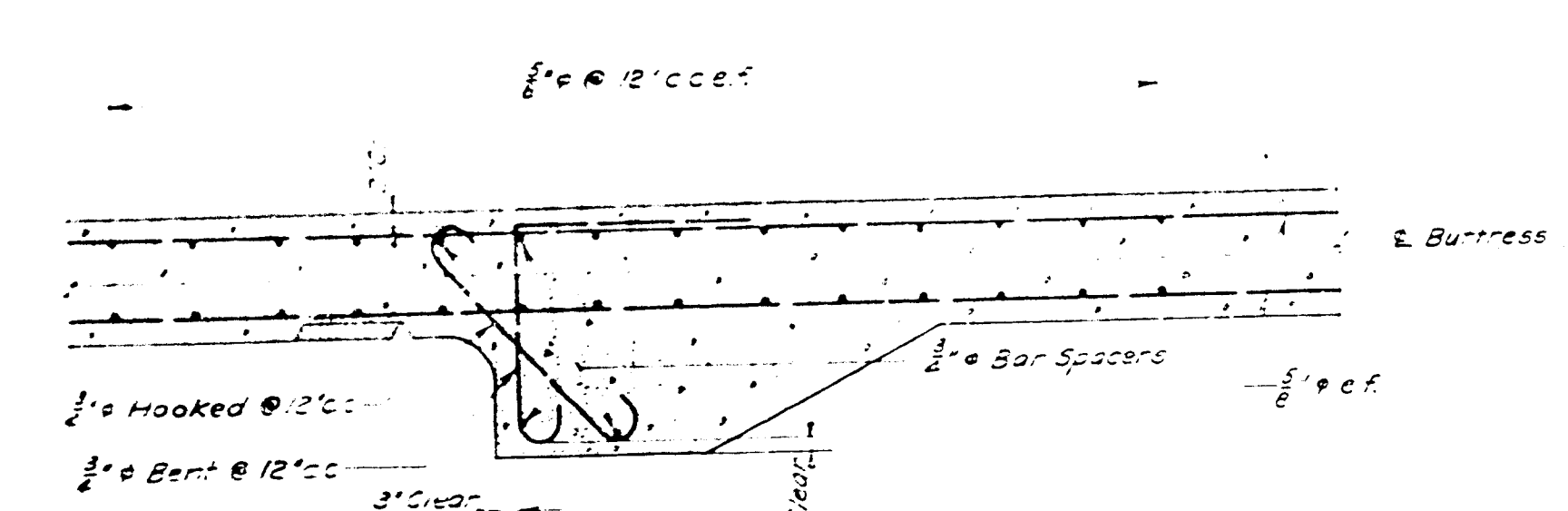
SECTION E-E
Scale: 1/4" = 1'-0"



SECTION F-F
Scale: 1/4" = 1'-0"



SECTION G-G
Scale: 1/4" = 1'-0"



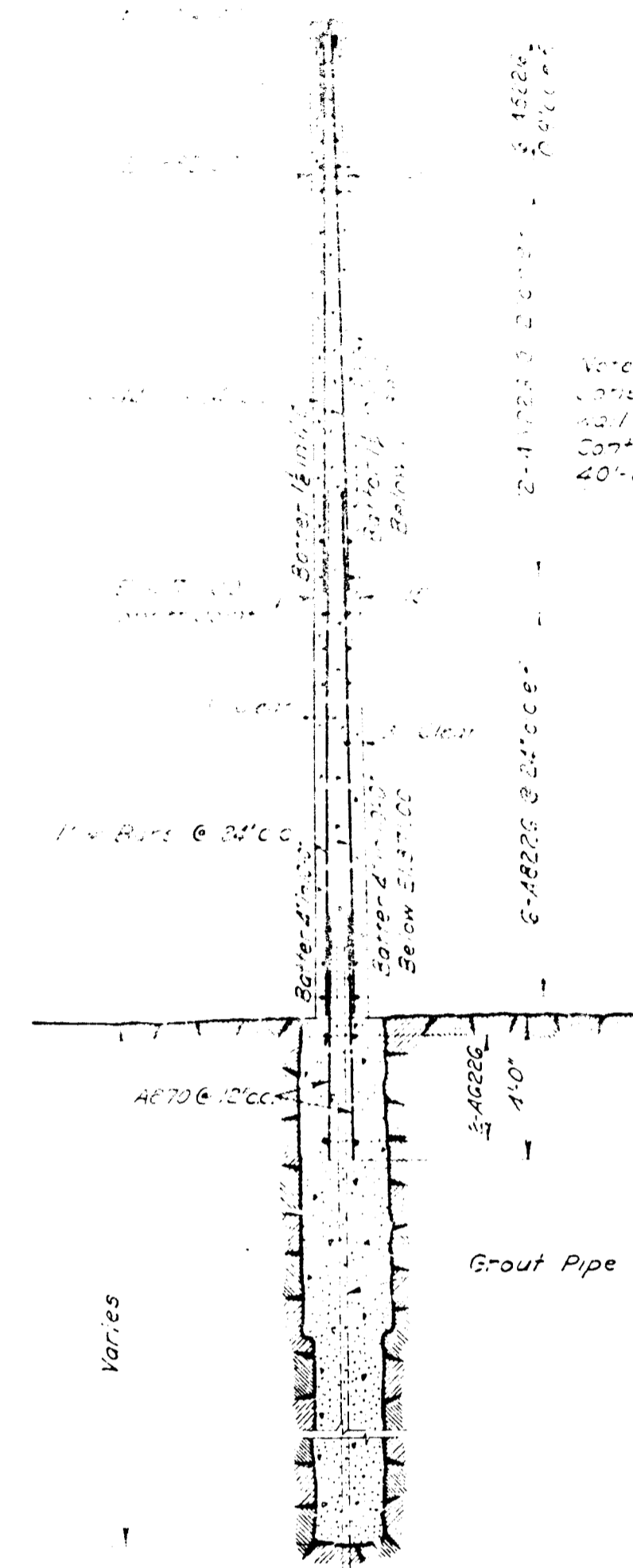
SECTION H-H
Scale: 1/4" = 1'-0"

GENERAL NOTES
 1. Concrete and reinforcing details as shown are for the purpose of estimating quantities only. Final elevations as determined in the field may vary widely from those shown.
 2. For typical bulkhead buttress details see dwgs. Nos. 9 and 10.
 3. Abutment haunch painted and coated as noted and shown on drawing No. 11.
 4. Sections and views not shown on this drawing are shown on drawings indicated by subscripts to section marks. Thus, M-M indicates section M-M is shown on drawing No. 10.

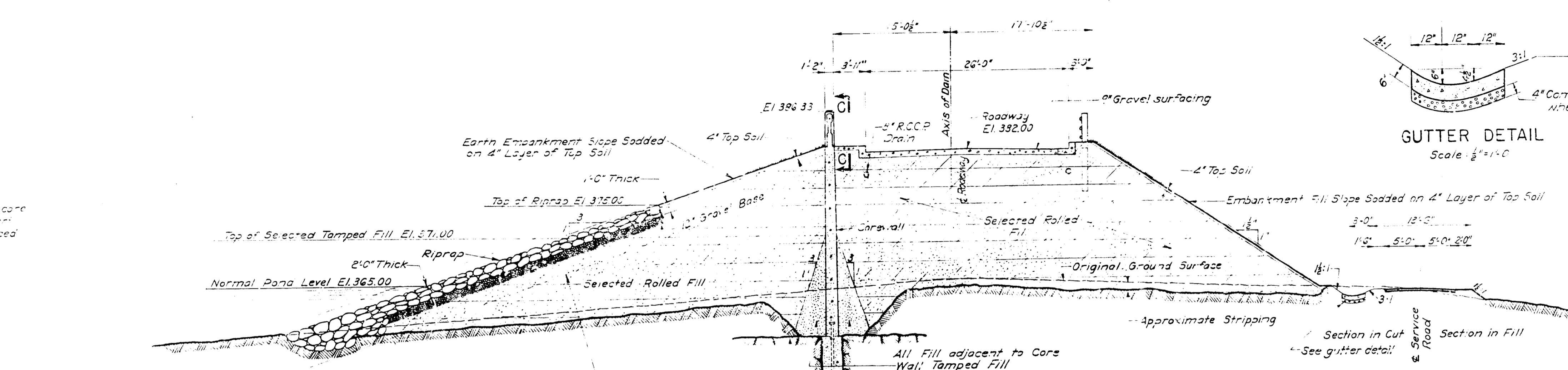
REINFORCING NOTES
 1. Reinforcing bars, as and details to conform to bent bar reinforcing schedule dwg. No. 35.
 2. Lap all bars 20 diameters unless otherwise shown or noted.
 3. Bars marked n.f. are in near face. Bars marked f.f. are in far face. Bars marked e.f. are in each face.

DRAWN: W.V.B. 3-21-1941 CHECKED: H.E.B. 9-25-1941 APPROVED: H.E.B. 9-30-1941	REV. 194 3-21-1941 REV. R.B.A. 9-25-1941 REV. R.B.A. 9-30-1941	JOB NUMBER 4002 AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	APPROVED: Sept. 26, 1941 H. H. H. CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 7 SCALE As Shown
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MICROFILMED 24:1
 Reduction Ratio: _____
 Operator Initials: _____ Date: _____

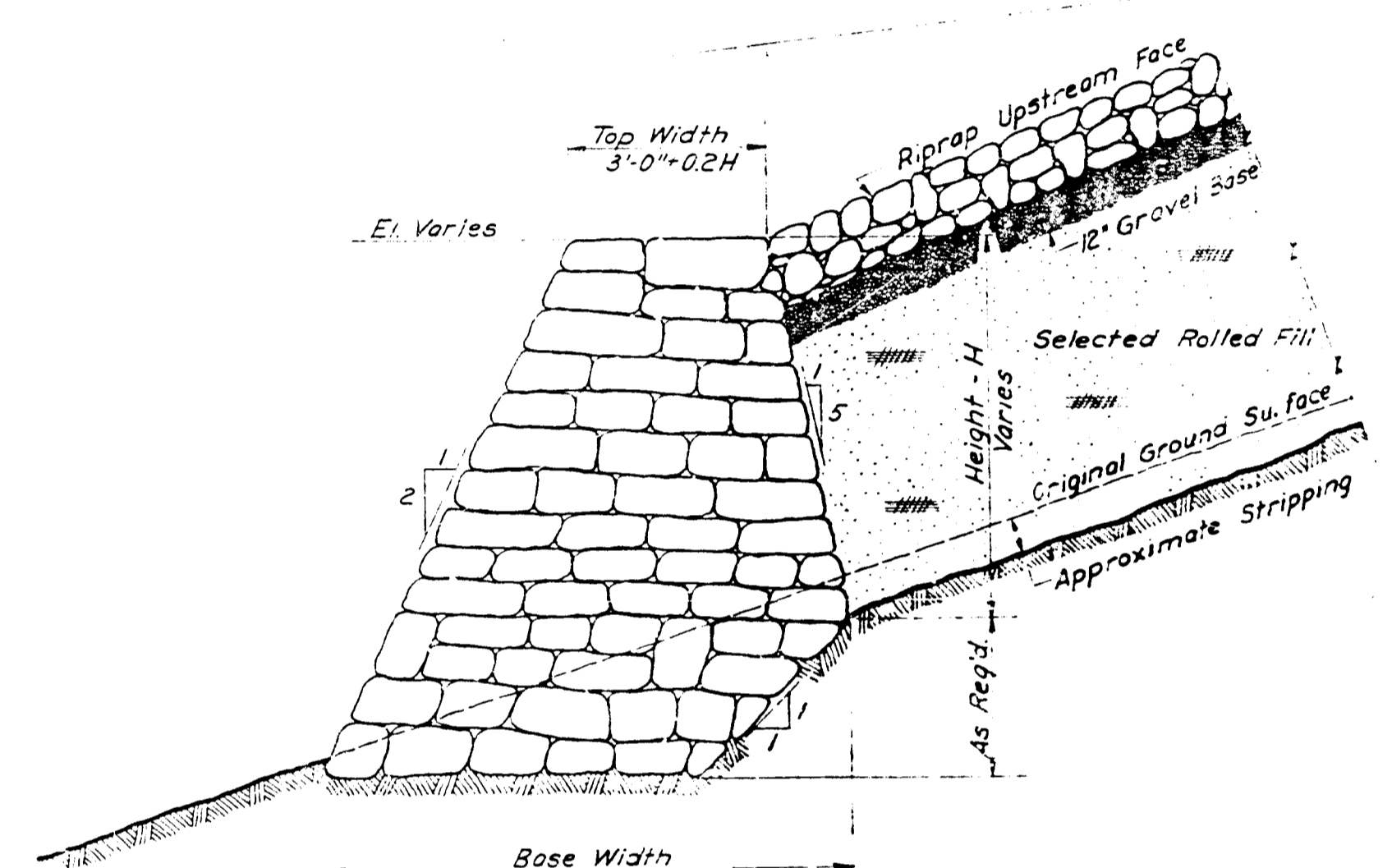


SECTION THRU CORE WALL
Scale: 1/2" = 1'-0"



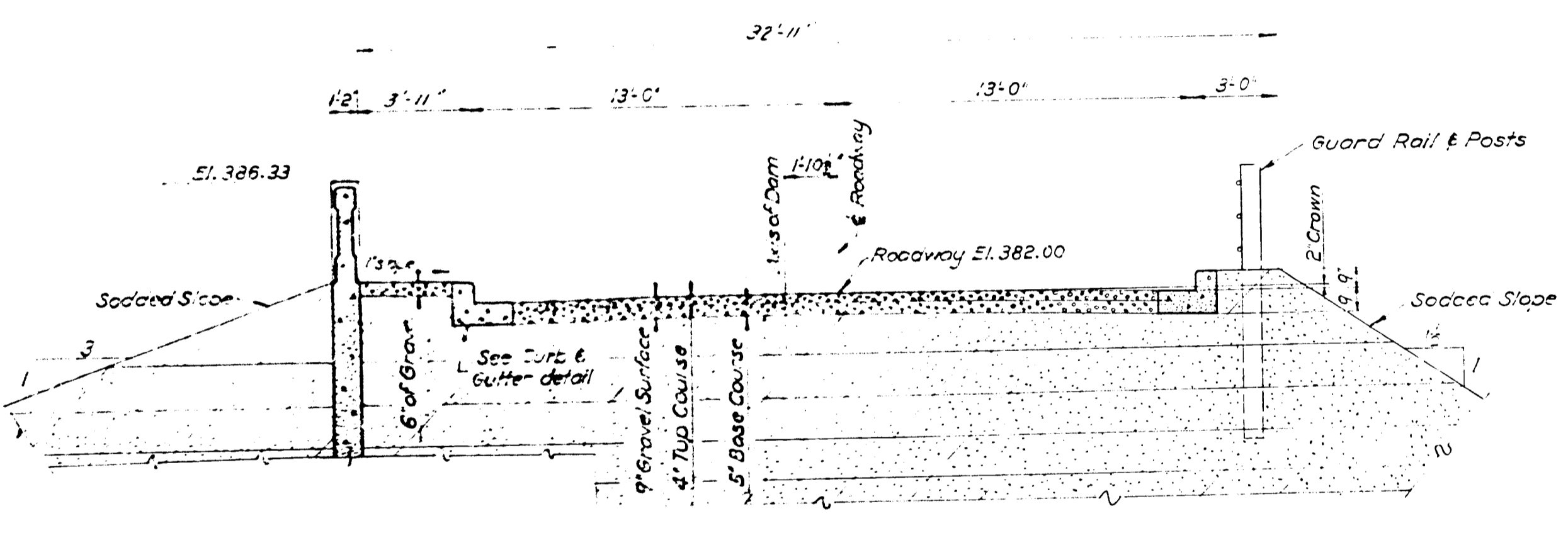
SECTION A-A
Scale: 1/2" = 1'-0"

GUTTER DETAIL
Scale: 1/2" = 1'-0"



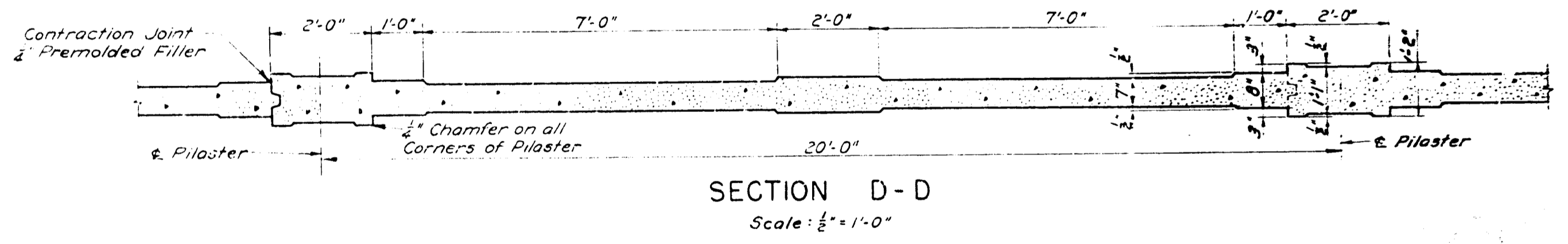
SECTION B-B
DRY RUBBLE TOE WALL
Scale: 1/2" = 1'-0"

Toe wall replaced by extending embankment to foot of slope. Paving slab and Berm added. see drawing No. 5-2.

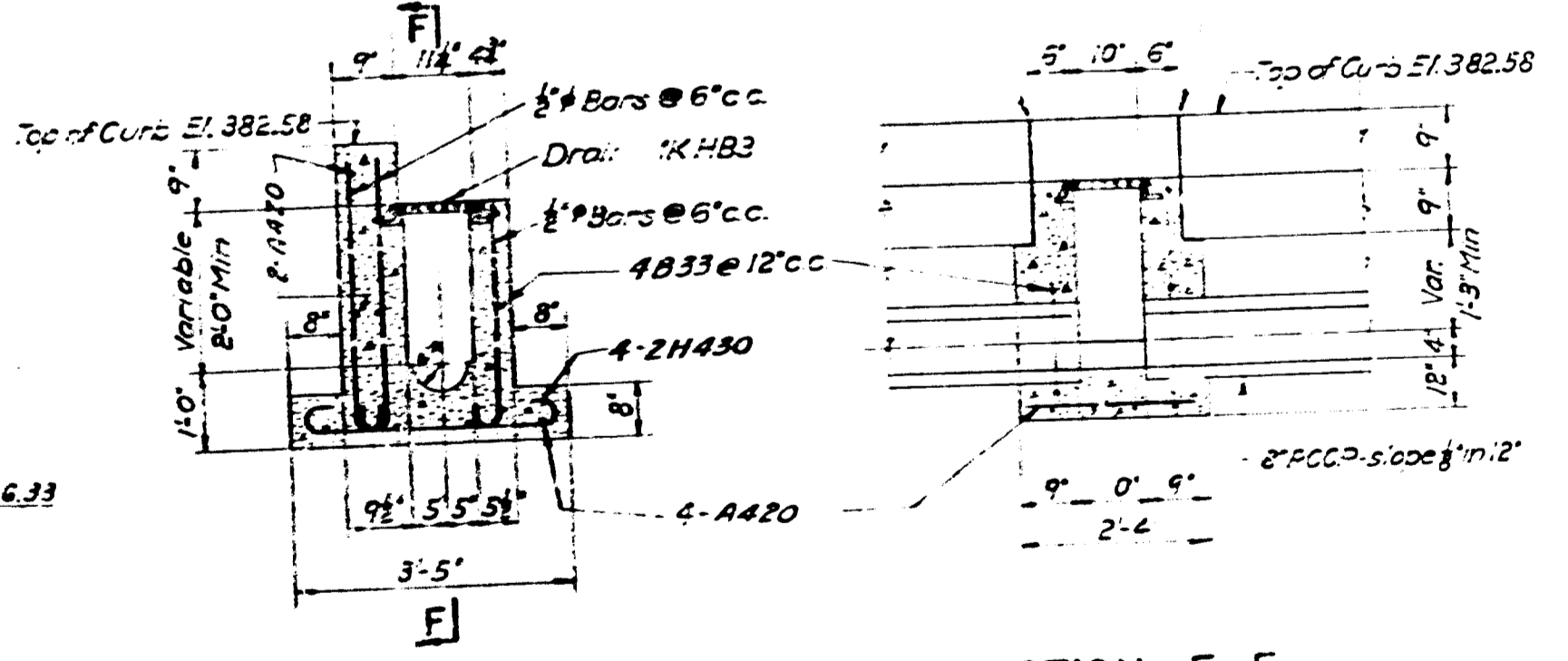


TYPICAL SECTION THROUGH GRAVEL ROADWAY
Scale: 1/2" = 1'-0"

CURB AND GUTTER DETAIL
Scale: 1/2" = 1'-0"

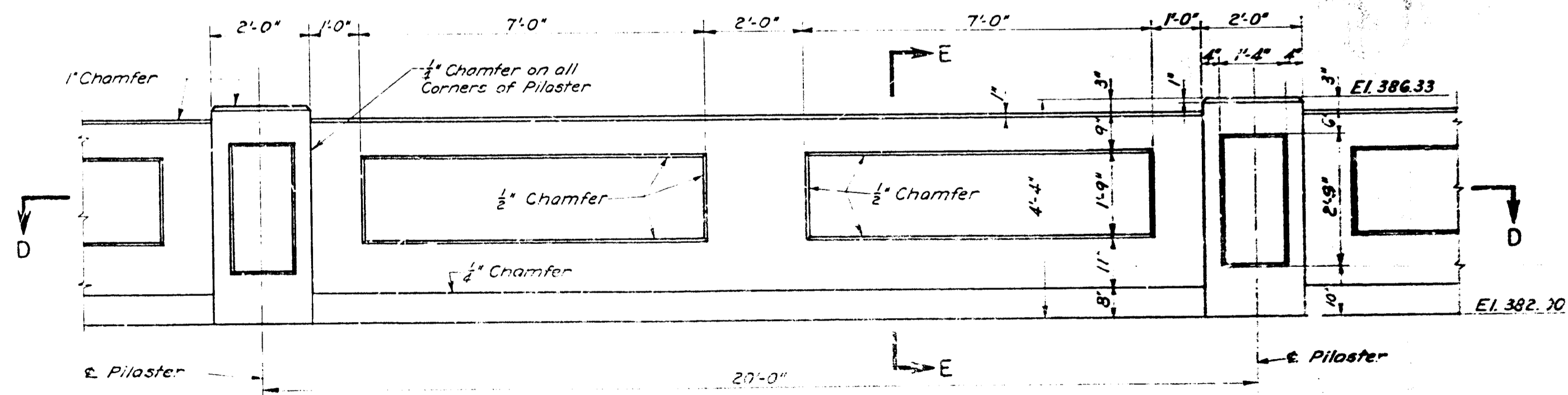


SECTION D-D
Scale: 1/2" = 1'-0"



SECTION THROUGH CATCH BASIN
Scale: 1/2" = 1'-0"

SECTION F-F
Scale: 1/2" = 1'-0"

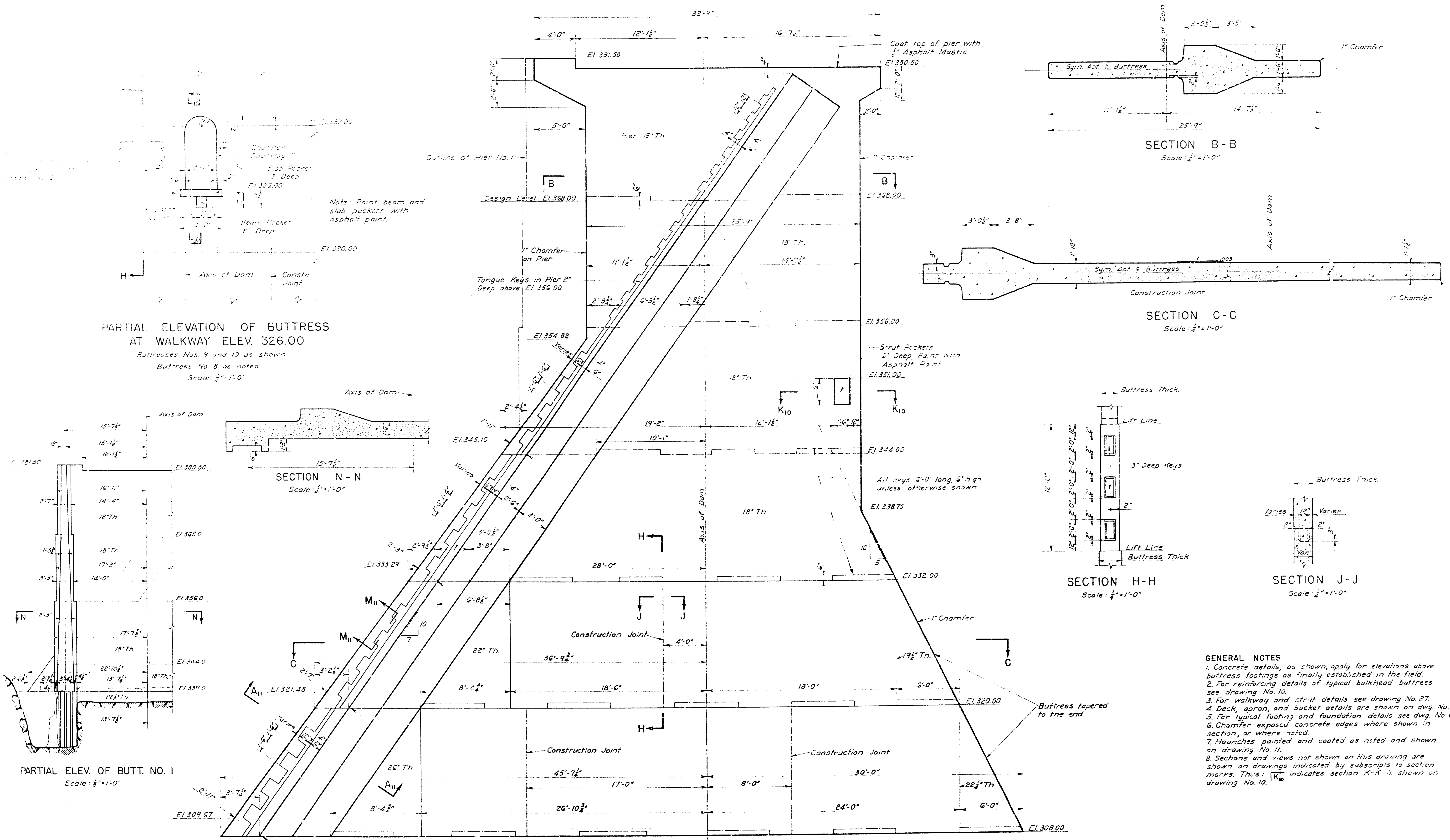


ELEVATION OF PARAPET WALL AT C-C
Scale: 1/2" = 1'-0"

- GENERAL NOTES
1. For plan and layout of earth embankment see drawing No. 3.
 2. Details and sections shown apply to earth embankment at both ends of dam.
 3. For location of section A-A see general plan and elevation drawing No. 3.
 4. For detail of Sheridan Light Standard support on Pilaster: see Det. G. Dwg. No. 25.

DRAW: P.B.A. 7-23-1947 TRACED: V.C. 8-6-1947 CHECKED: E.B. 8-1-1947 APPROVED: H.C. 9-3-1947	REV. 194 REV. 194 REV. 194 REV. B.B.A. 6-27-1947	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	EARTH EMBANKMENT AND COREWALL	APPROVED: Sept 23, 1947 H. Hall CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 8	SCALE AS SHOWN
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34" 22" 17" 11" 9.5" 11" 17" 22" 34"



PARTIAL ELEVATION OF BUTTRESS AT WALKWAY ELEV. 326.00

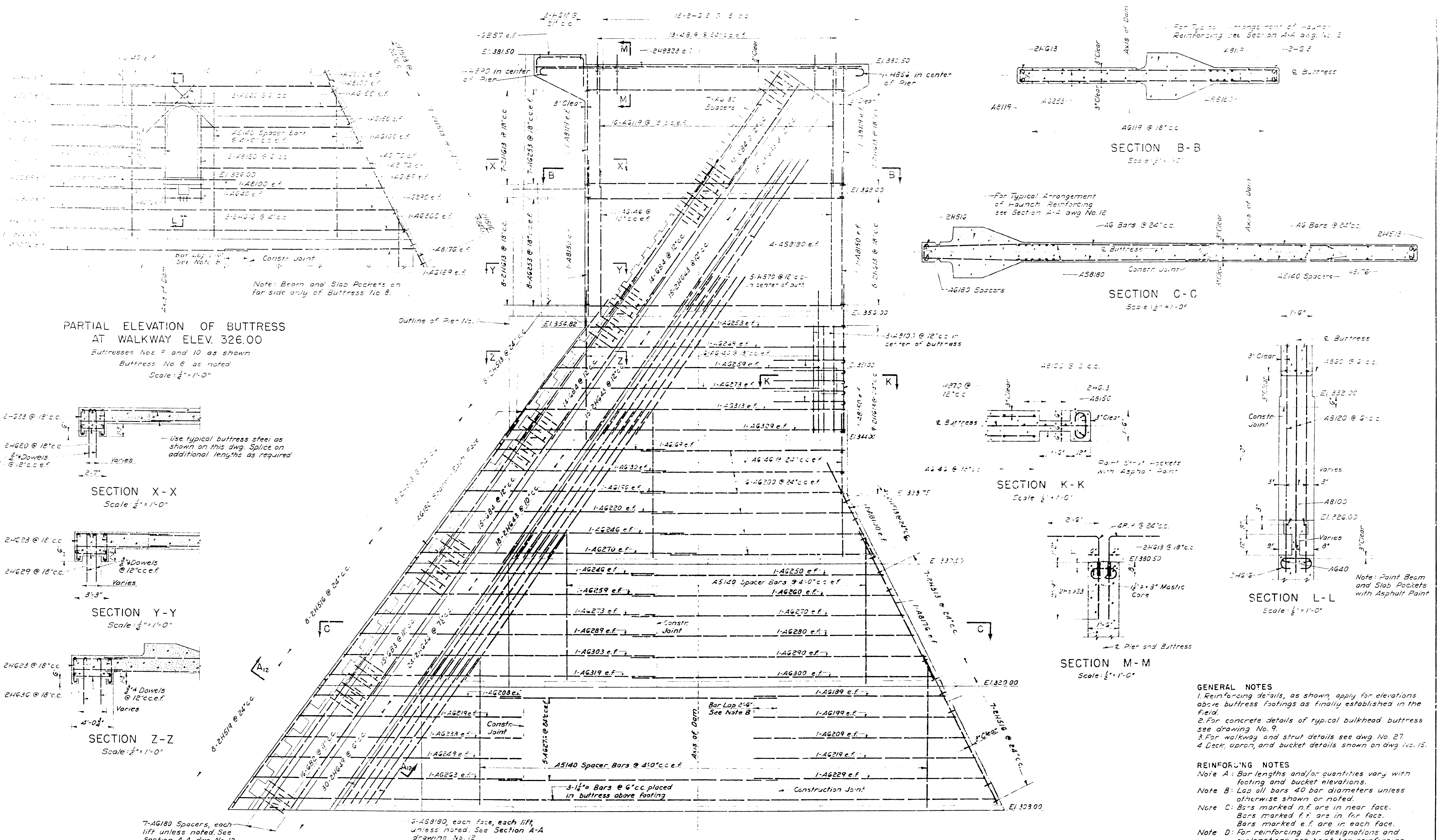
Buttresses Nos 9 and 10 as shown
 Buttress No 8 as noted
 Scale: 1/4" = 1'-0"

ELEVATION OF BULKHEAD BUTTRESS AND PIER
 Scale: 1/4" = 1'-0"

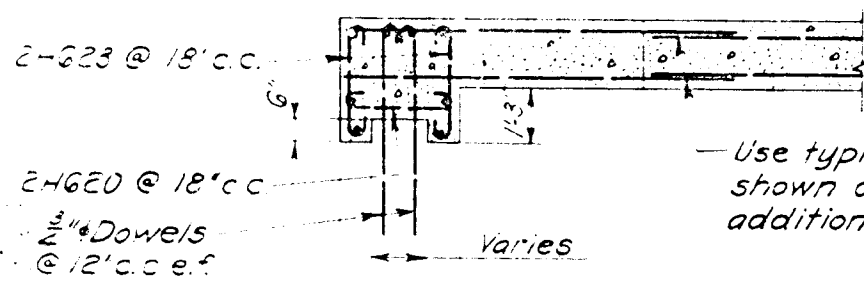
PARTIAL ELEV. OF BUTT. NO. 1
 Scale: 1/4" = 1'-0"

REV 0-2, 1942 0-7, 1942 7-26, 1942 7-26, 1942 8-30, 1942	REV 194 194 194 194 194	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	TYPICAL BULKHEAD BUTTRESS CONCRETE DETAILS	APPROVED <i>[Signature]</i> CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 9	SCALE As Shown
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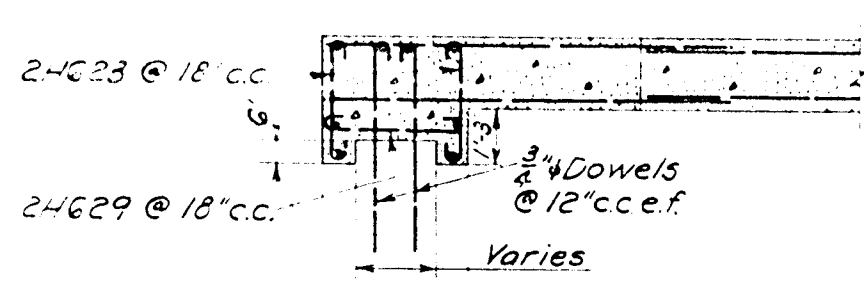
MICROFILMED 24.1



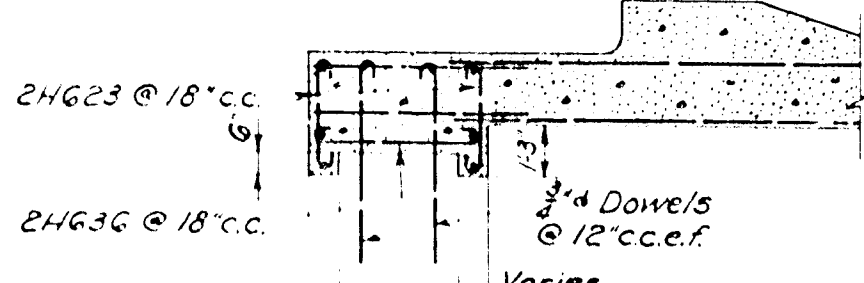
PARTIAL ELEVATION OF BUTTRESS AT WALKWAY ELEV. 326.00
Buttresses Nos 9 and 10 as shown
Buttress No 6 as noted
Scale: 1/2" = 1'-0"



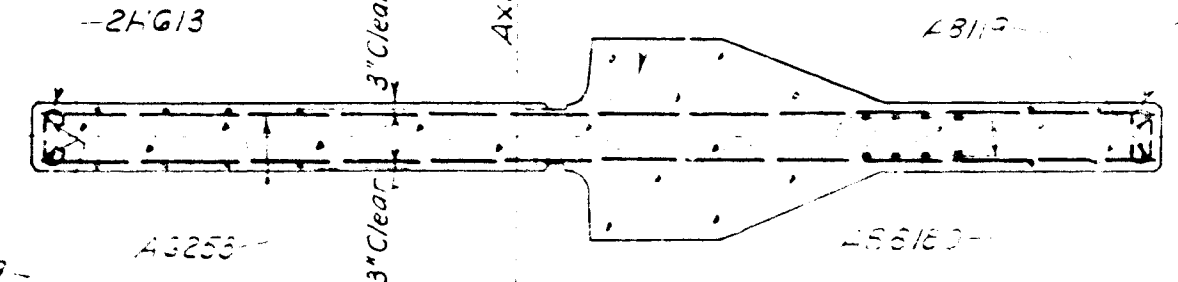
SECTION X-X
Scale: 1/2" = 1'-0"



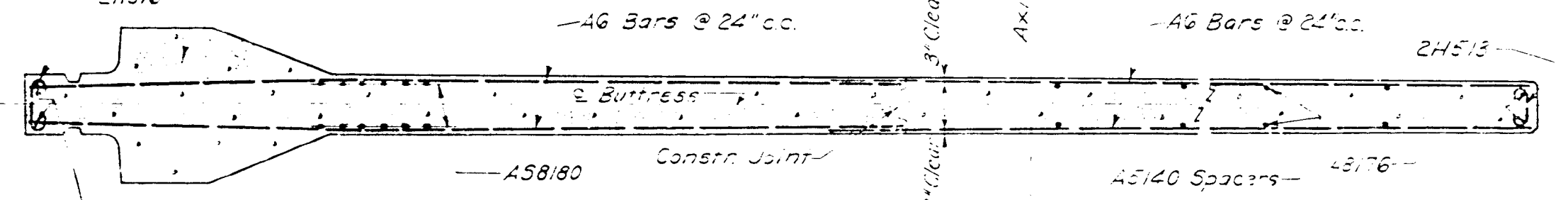
SECTION Y-Y
Scale: 1/2" = 1'-0"



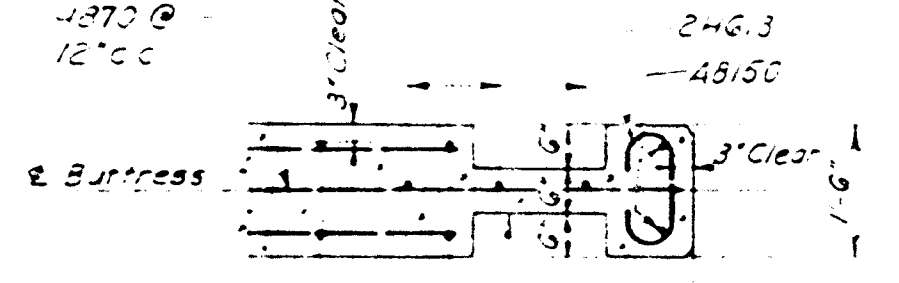
SECTION Z-Z
Scale: 1/2" = 1'-0"



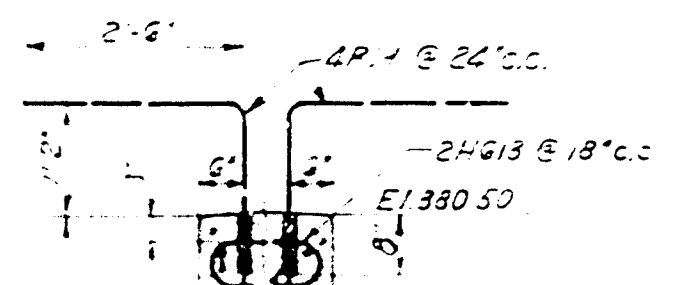
SECTION B-B
Scale: 1/2" = 1'-0"



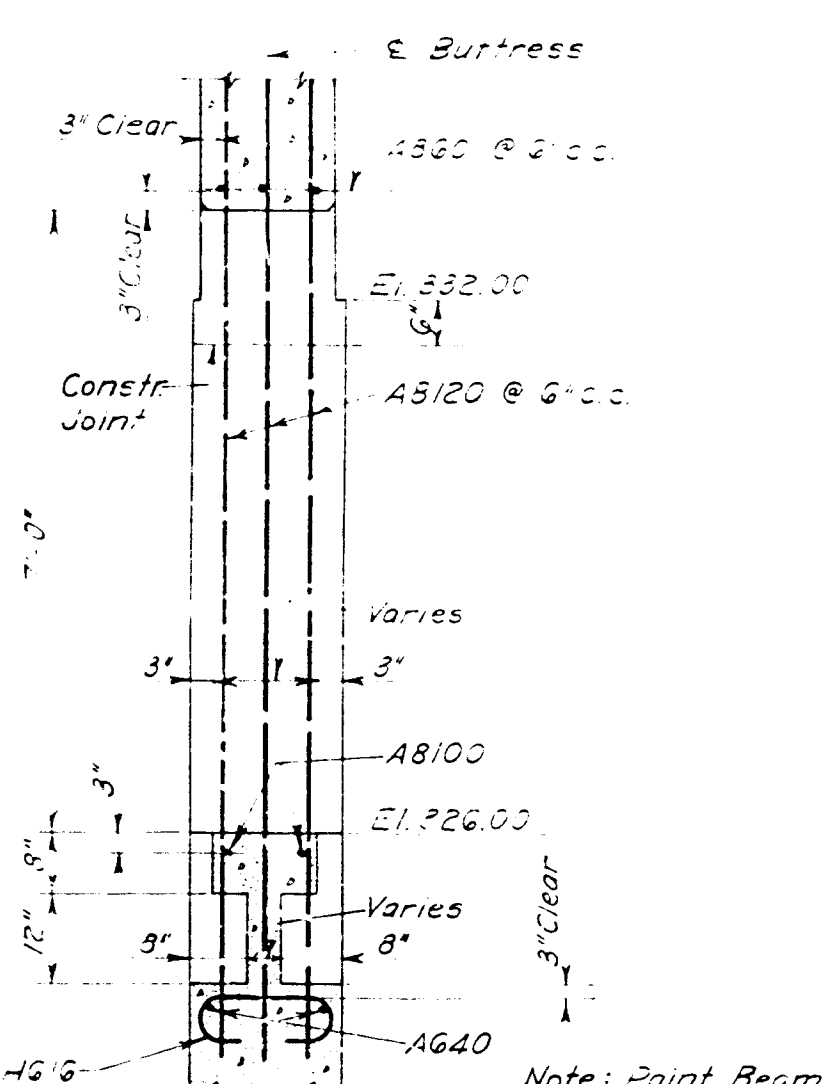
SECTION C-C
Scale: 1/2" = 1'-0"



SECTION K-K
Scale: 1/2" = 1'-0"



SECTION M-M
Scale: 1/2" = 1'-0"

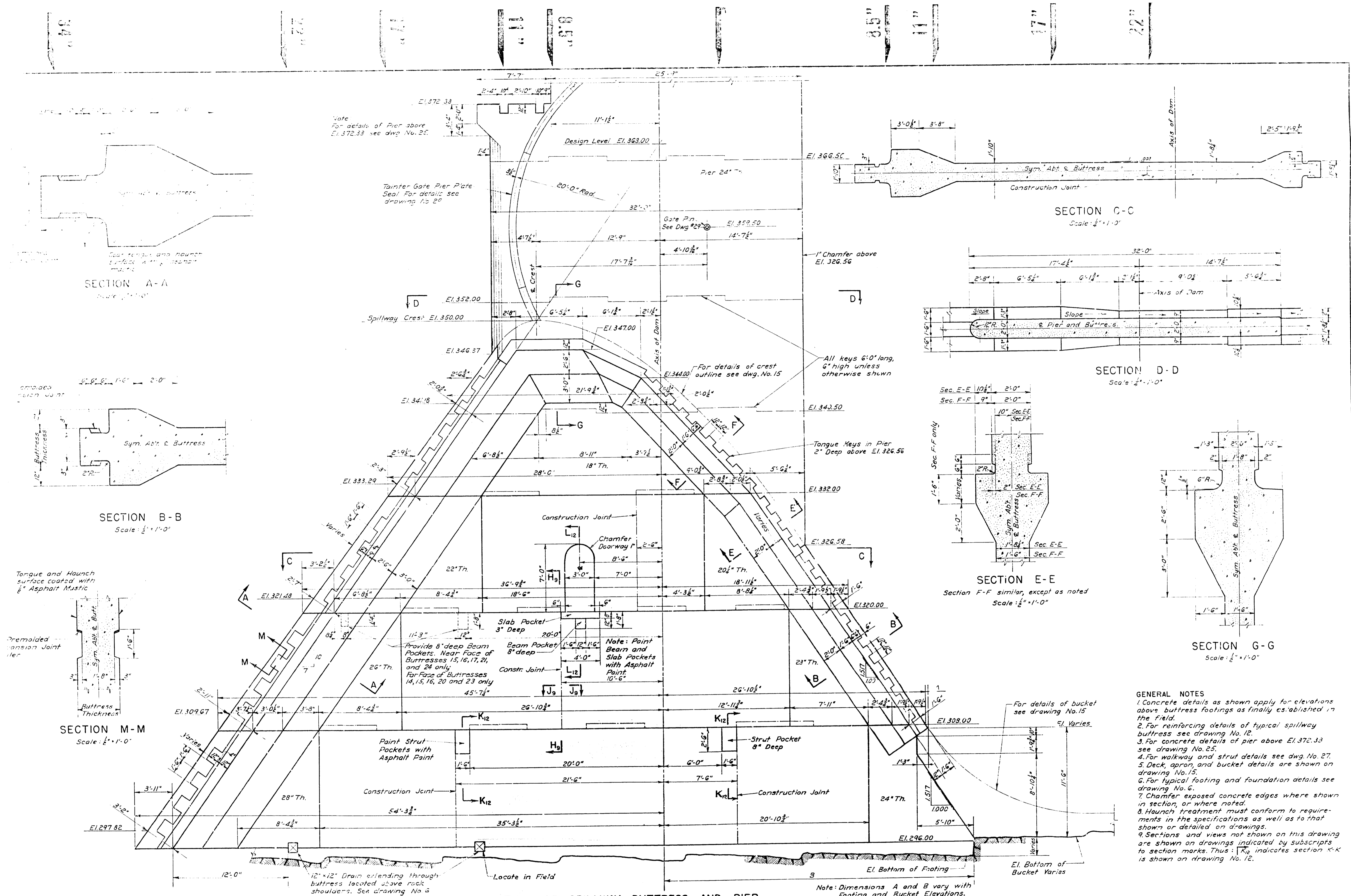


SECTION L-L
Scale: 1/2" = 1'-0"

- GENERAL NOTES**
1. Reinforcing details, as shown, apply for elevations above buttress footings as finally established in the field.
 2. For concrete details of typical bulkhead buttress see drawing No. 9.
 3. For walkway and strut details see dwg. No. 27.
 4. Deck, apron, and bucket details shown on dwg. No. 15.
- REINFORCING NOTES**
- Note A: Bar lengths and/or quantities vary with footing and bucket elevations.
- Note B: Lap all bars 40 bar diameters unless otherwise shown or noted.
- Note C: Bars marked n.f. are in near face. Bars marked f.f. are in far face. Bars marked e.f. are in each face.
- Note D: For reinforcing bar designations and explanations see bent bar reinforcing schedule, drawing No. 35.

DRAWN: S.E.A. 6-9-1947 TRACED: W.V.C. 8-11-1947 CHECKED: L.C. 8-5-1947 APPROVED: H.H. 9-30-1947	REV. 194 REV. 194 REV. 194 REV. 8-7-1942	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	TYPICAL BULKHEAD BUTTRESS REINFORCING DETAILS	APPROVED: <i>Samuel E. ...</i> CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 10	SCALE As Shown
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MICROFILMED
Reduction Ratio: 24:1



Note
For details of Pier above
El. 372.33 see dwg. No. 25.

Tainter Gate Pier Plate
Seal For details see
drawing No. 26

For details of crest
outline see dwg. No. 15

All keys 6'-0" long,
6" high unless
otherwise shown

Tongue Keys in Pier
2" Deep above El. 326.56

Note: Paint
Beam and
Slab Pockets
with Asphalt
Paint.
10'-6"

For details of bucket
see drawing No. 15

Note: Dimensions A and B vary with
Footing and Bucket Elevations.

- GENERAL NOTES**
- Concrete details as shown apply for elevations above buttress footings as finally established in the field.
 - For reinforcing details of typical spillway buttress see drawing No. 12.
 - For concrete details of pier above El. 372.33 see drawing No. 25.
 - For walkway and strut details see dwg. No. 27.
 - Deck, apron, and bucket details are shown on drawing No. 15.
 - For typical footing and foundation details see drawing No. 6.
 - Chamfer exposed concrete edges where shown in section, or where noted.
 - Haunch treatment must conform to requirements in the specifications as well as to that shown or detailed on drawings.
 - Sections and views not shown on this drawing are shown on drawings indicated by subscripts to section marks. Thus: K₁₂ indicates section K-K is shown on drawing No. 12.

ELEVATION OF SPILLWAY BUTTRESS AND PIER
Scale: 1/4" = 1'-0"

SECTION C-C
Scale: 1/4" = 1'-0"

SECTION D-D
Scale: 1/4" = 1'-0"

SECTION E-E
Section F-F similar, except as noted
Scale: 1/2" = 1'-0"

SECTION G-G
Scale: 1/2" = 1'-0"

SECTION A-A
Scale: 1/2" = 1'-0"

SECTION B-B
Scale: 1/2" = 1'-0"

SECTION M-M
Scale: 1/2" = 1'-0"

REV. A	5-6, 1941	REV.	1-11, 1942
B, C, D	7-30, 1941	REV. R.B.A.	8-5, 1942
E, F, G	7-22, 1941	REV. W.A.-R.B.A.	2-4-1943
H, I, J, K, L	9-30, 1941	REV. L.C.	12-17, 1941

Changed Const. Jts. in Elev.
Beam Pockets added. (Silt Under) etc.
Apron haunch El. 320.00 to El. 332.00 revised.

JOB NUMBER
4002

AMBURSEN ENGINEERING CORPORATION
CONSULTING ENGINEERS
NEW YORK

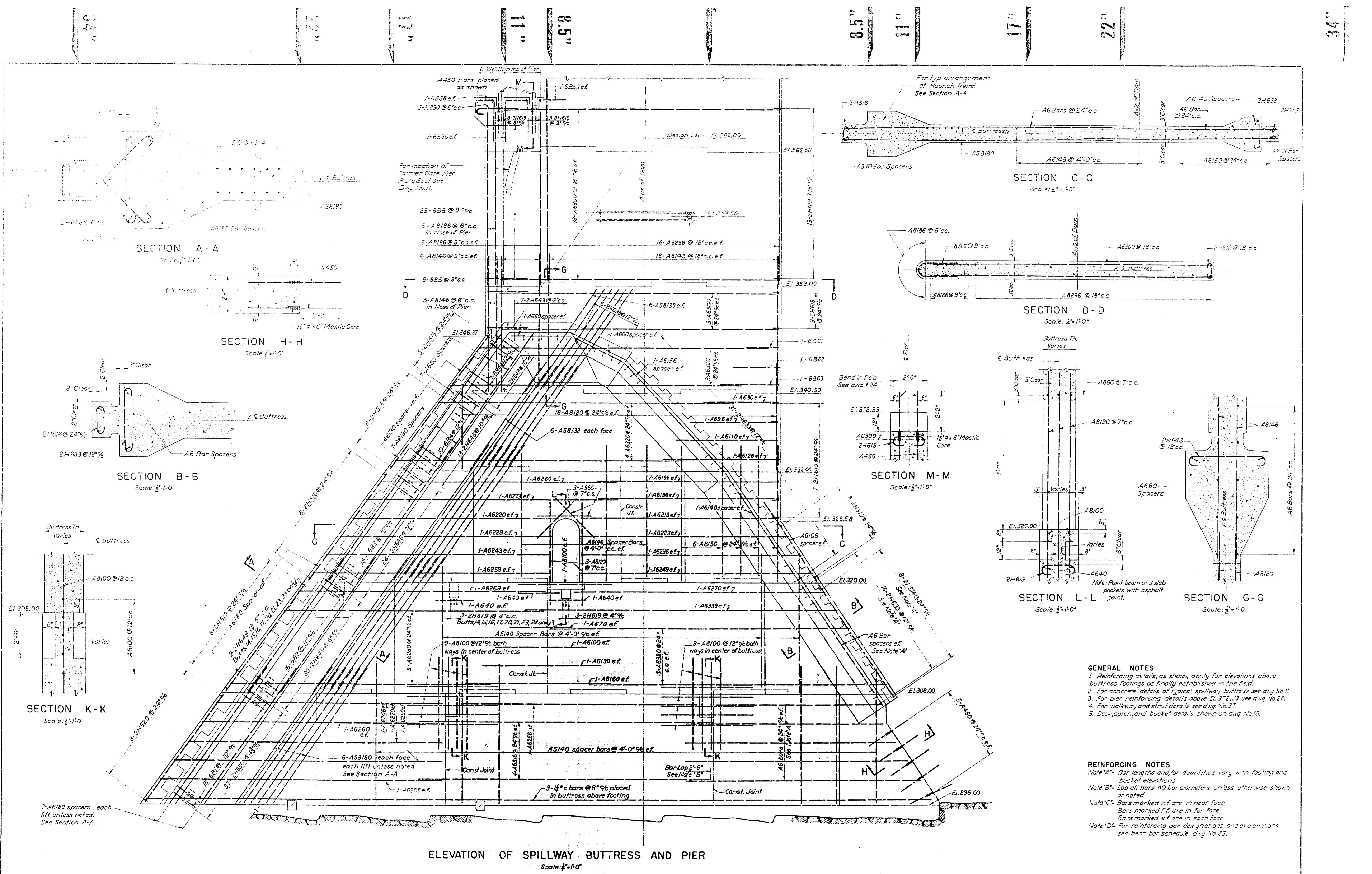
WASHINGTON SUBURBAN SANITARY COMMISSION
BRIGHTON DAM - CONTRACT 127-W

**TYPICAL SPILLWAY BUTTRESS
CONCRETE DETAILS**

APPROVED: *[Signature]* 1-11-42
CHIEF ENGINEER
WASHINGTON SUBURBAN SANITARY COMMISSION

DRAWING NUMBER
11

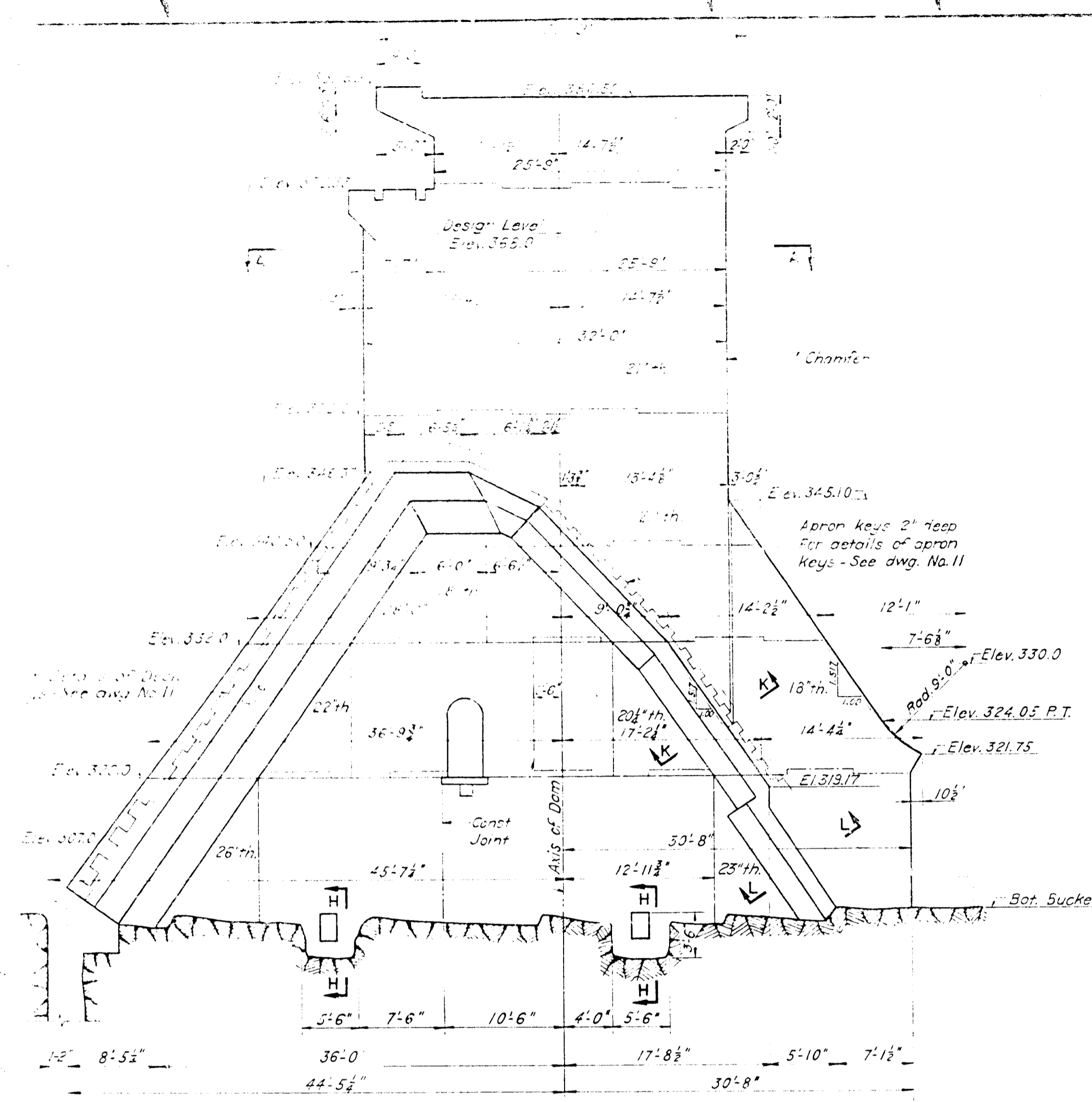
SCALE
As Shown



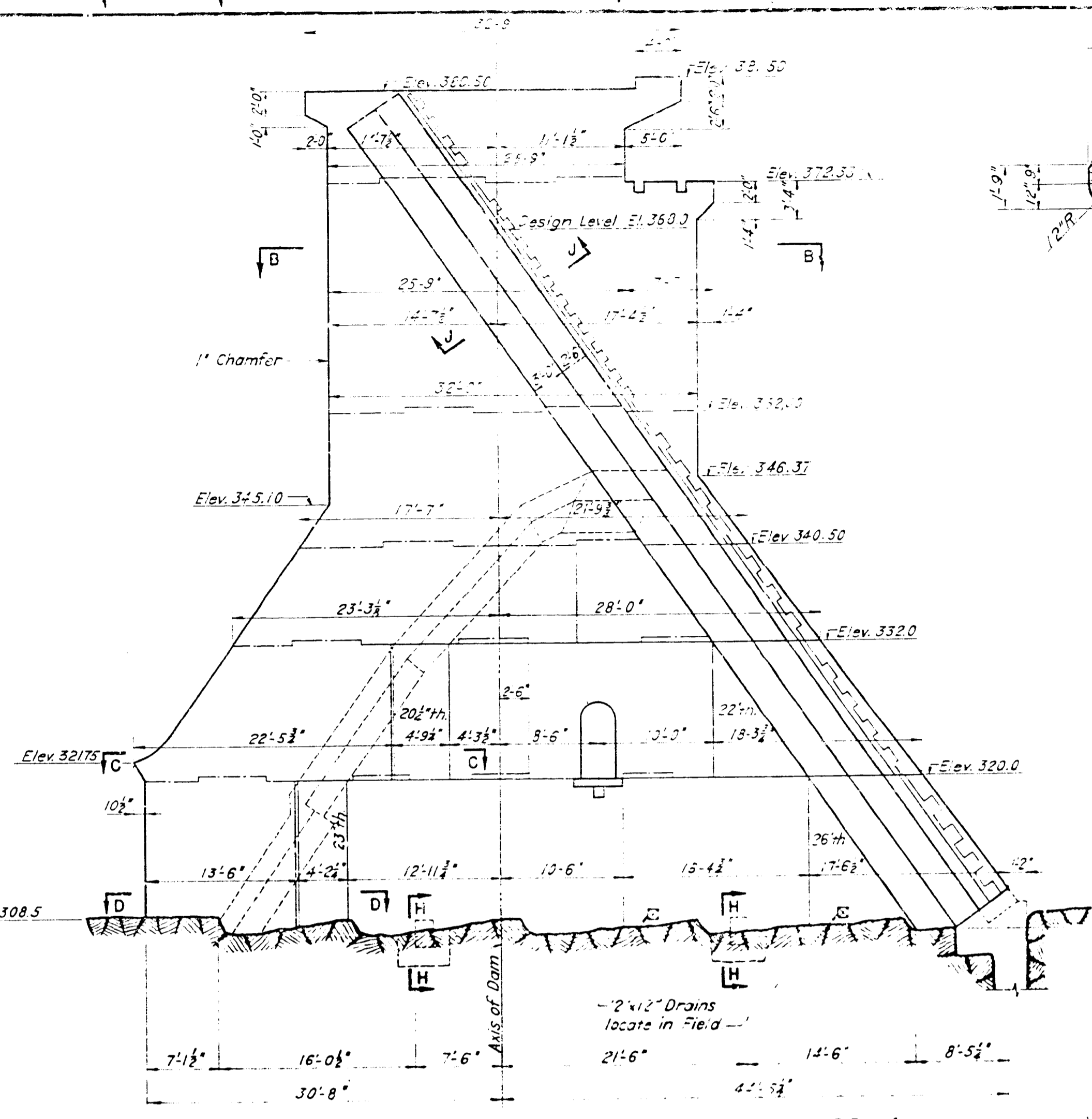
ELEVATION OF SPILLWAY BUTTRESS AND PIER
Scale: 1/4" = 1'-0"

- GENERAL NOTES**
1. Reinforcing details, as shown, apply for elevations above buttress footings as finally established in the field.
 2. For concrete details of typical spillway buttress see div. No. 11.
 3. For pier reinforcing details above El. 326.53 see div. No. 26.
 4. For walkway and strut details see div. No. 27.
 5. Deck, apron, and bucket details shown on div. No. 15.
- REINFORCING NOTES**
- Note "A" - Bar lengths and/or quantities vary with footing and bucket elevations.
- Note "B" - Lap all bars 40 bar diameters unless otherwise shown or noted.
- Note "C" - Bars marked n.f. are in near face. Bars marked f.f. are in far face. Bars marked e.f. are in each face.
- Note "D" - For reinforcing bar designations and explanations see bent bar schedule, div. No. 35.

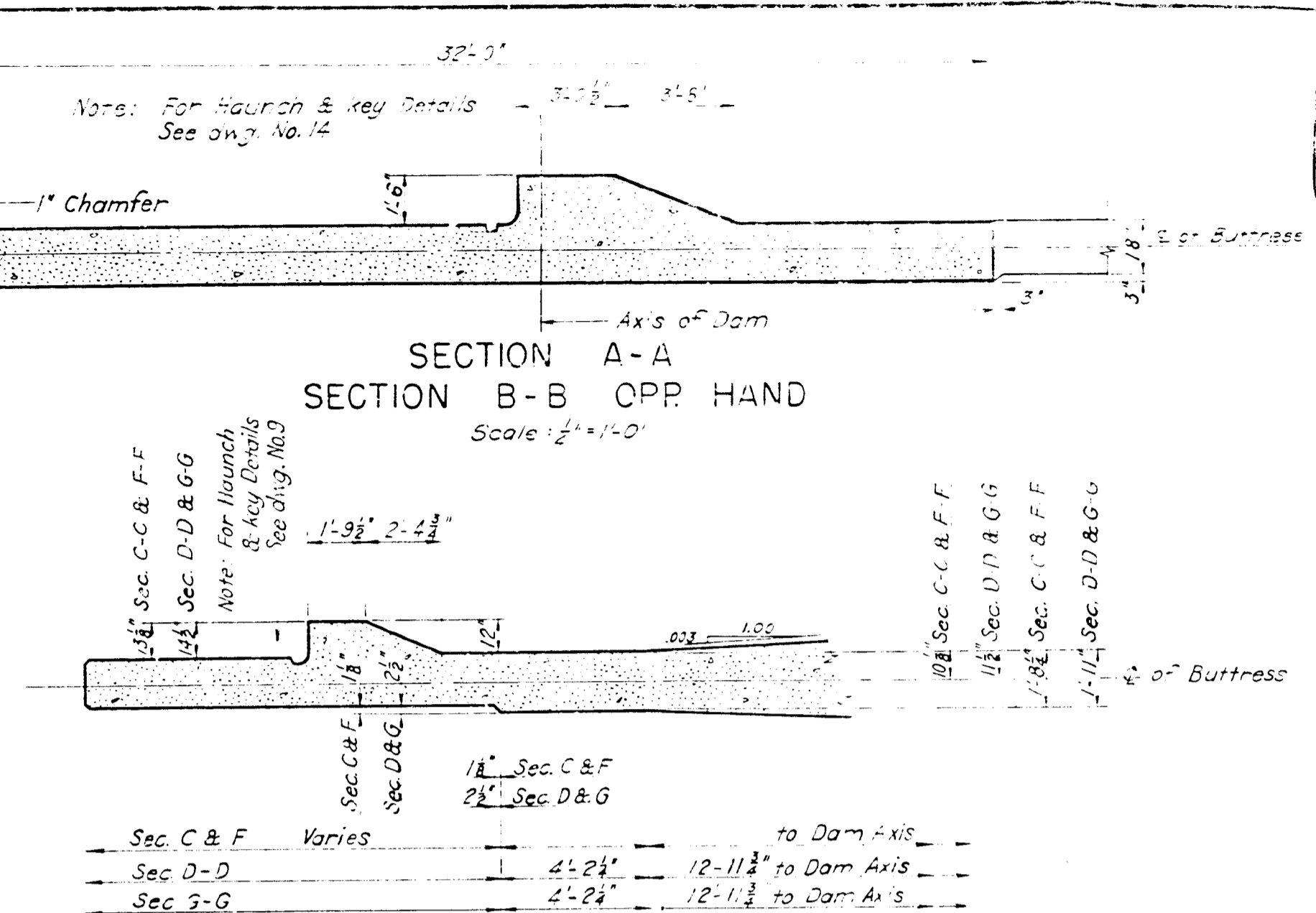
DRAWN: R.B.A. 5-28-1941 CHECKED: L.C. 8-6-1941 APPROVED: 9-3-1941	REV. 194 REV. 194 REV. R.B.A. 10-13-1940 Changed Const. Jt. in Elev. Reinf. placed accordingly REV. W.A.R.B.A. 2-4-1942 Beam Pocket reinf. added for Silt Undersluice	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	TYPICAL SPILLWAY BUTTRESS REINFORCING DETAILS	APPROVED: 8-21-25-1941 CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 12	SCALE As Shown
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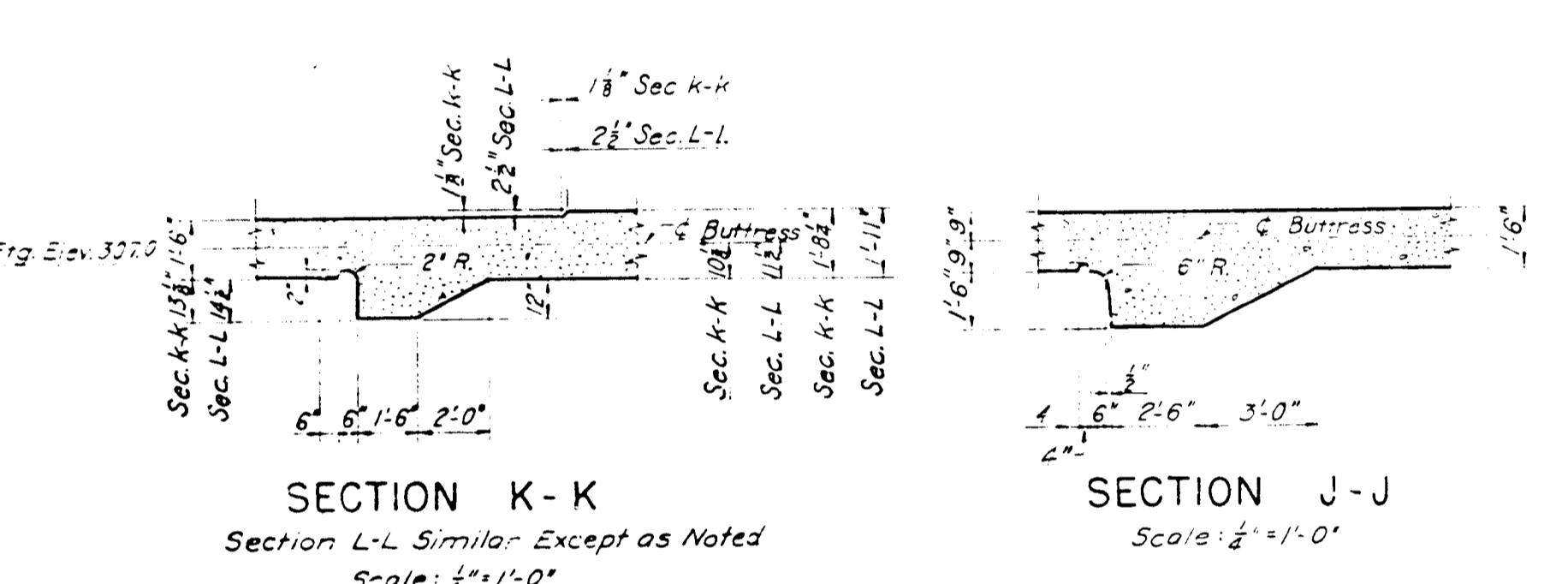
SPILLWAY ELEVATION - BUTTRESS NO. 25 (See Drawing No. 64)
Scale: 1/8" = 1'-0"



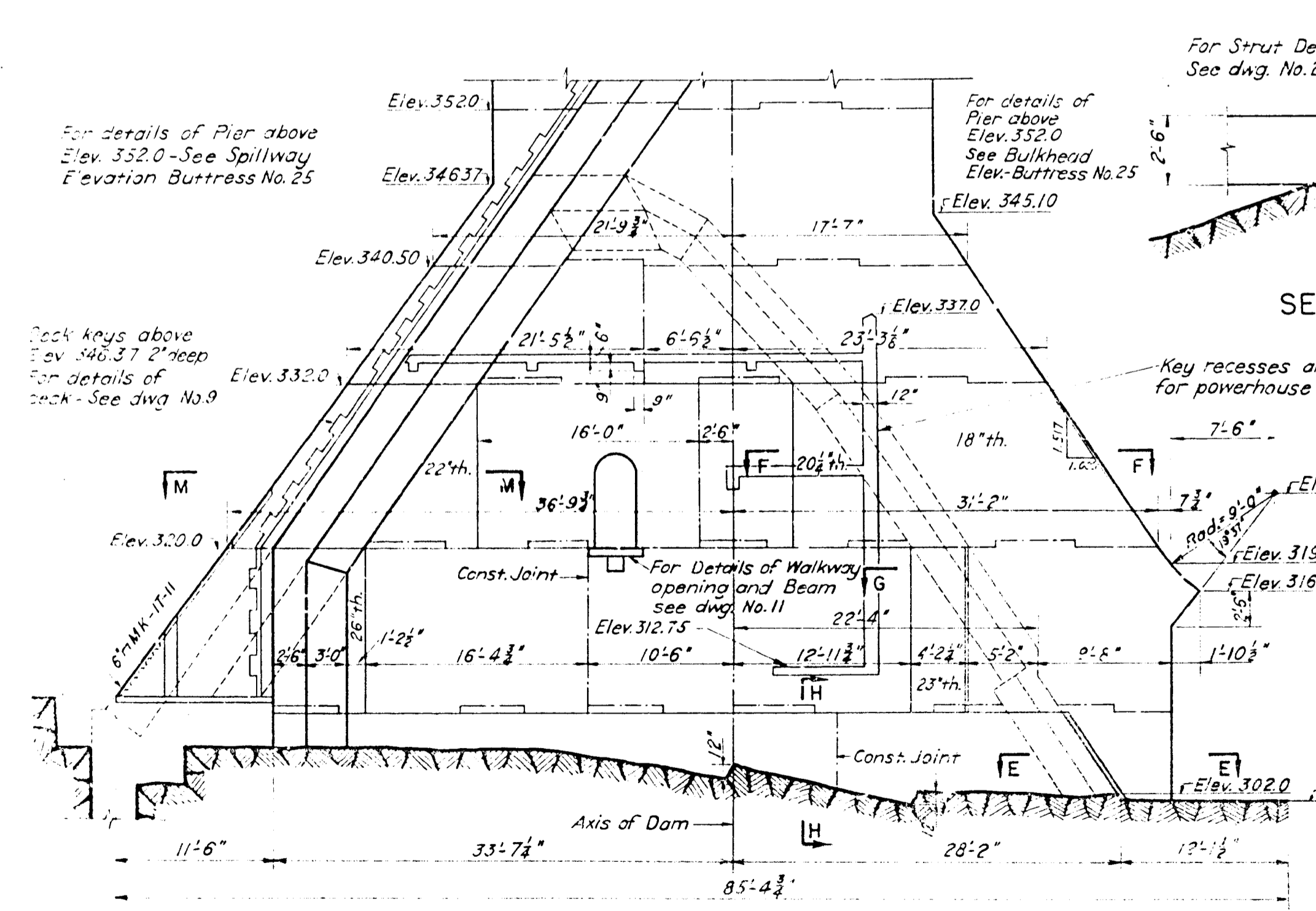
BULKHEAD ELEVATION - BUTTRESS NO. 25 (See Drawing No. 64)
Scale: 1/8" = 1'-0"



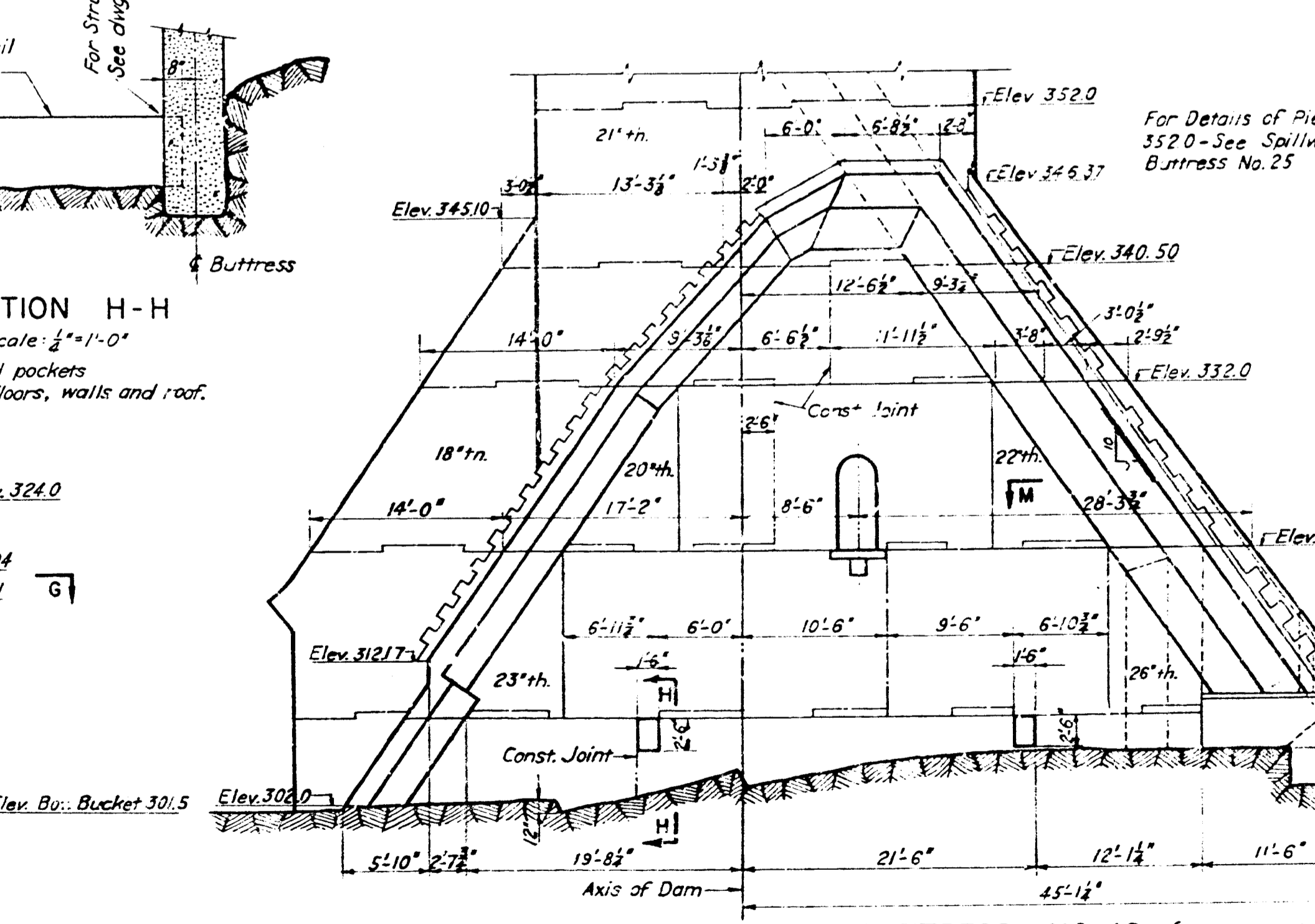
SECTION A-A
SECTION B-B OPP HAND
Scale: 1/2" = 1'-0"



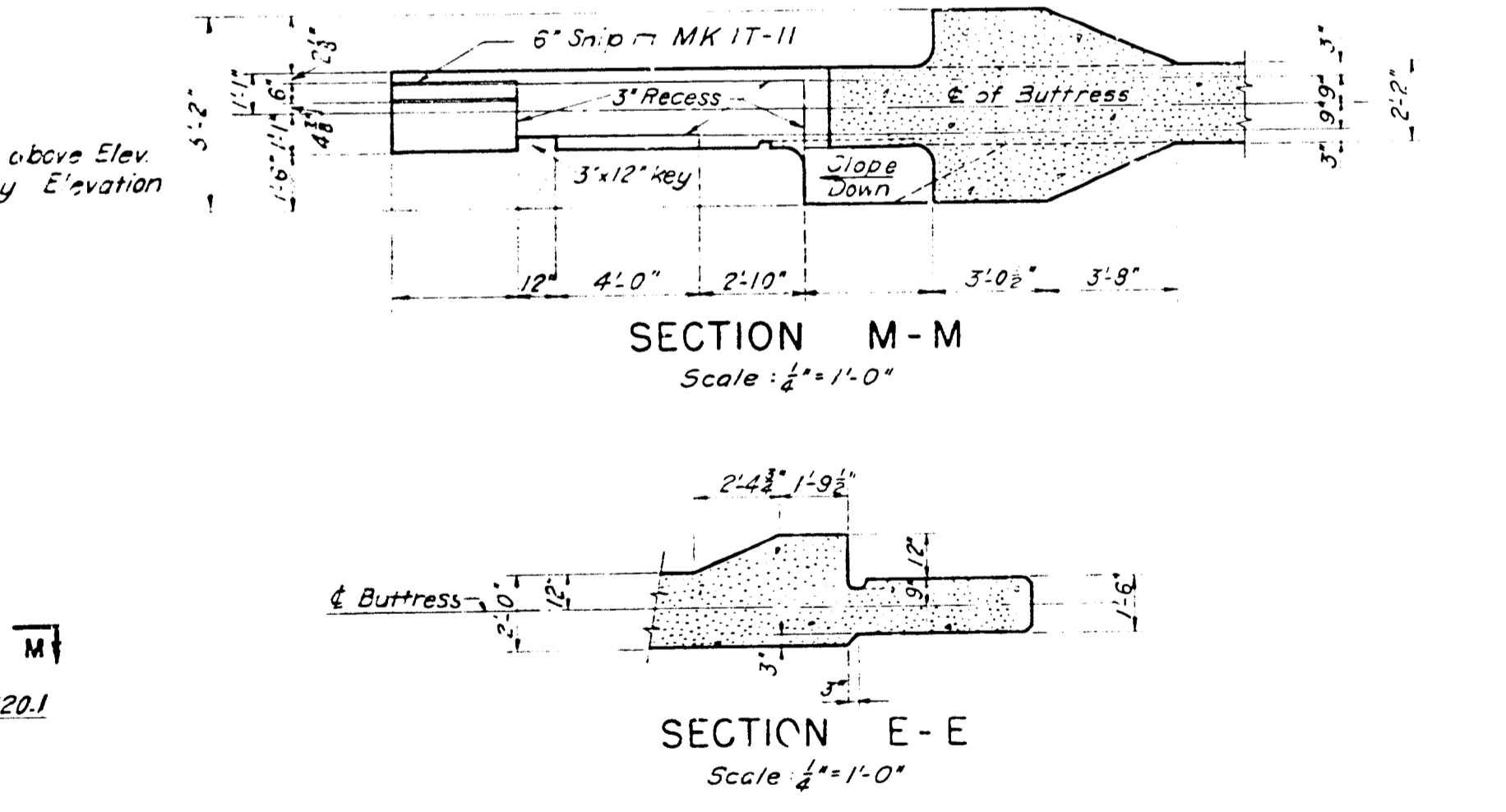
SECTION C-C AND D-D AS SHOWN
SECTION F-F AND G-G OPP HAND
Scale: 1/2" = 1'-0"



BULKHEAD ELEVATION - BUTTRESS NO. 12 (See Drawing No. 62)
Scale: 1/8" = 1'-0"



SPILLWAY ELEVATION - BUTTRESS NO. 12 (See Drawing No. 62)
Scale: 1/8" = 1'-0"



SECTION M-M
Scale: 1/2" = 1'-0"

SECTION E-E
Scale: 1/2" = 1'-0"

- GENERAL NOTES**
- Concrete details as shown apply for elevations above buttress footings as finally established in the field.
 - For reinforcing details of spillway abutment buttresses see drawing No. 14.
 - For concrete details of typical bulkhead and spillway buttresses see drawing Nos. 9 and 11.
 - For typical footing and foundation details see drawing No. 6.
 - Haunch painted and coated as shown on drawing No. 11.
 - Chamfer exposed concrete edges where shown in section or where noted.
 - For final revisions see drawings Nos. 62 and 64.

REV. 194	194	194
REV. 194	194	194
REV. 194	194	194
REV. 194	194	194

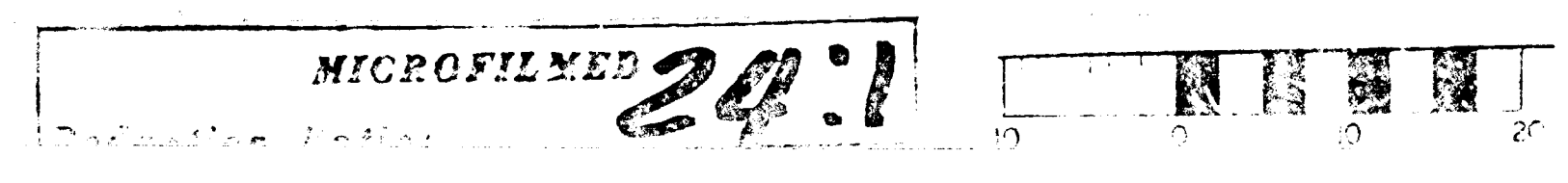
AMBURSEN ENGINEERING CORPORATION
CONSULTING ENGINEERS
NEW YORK

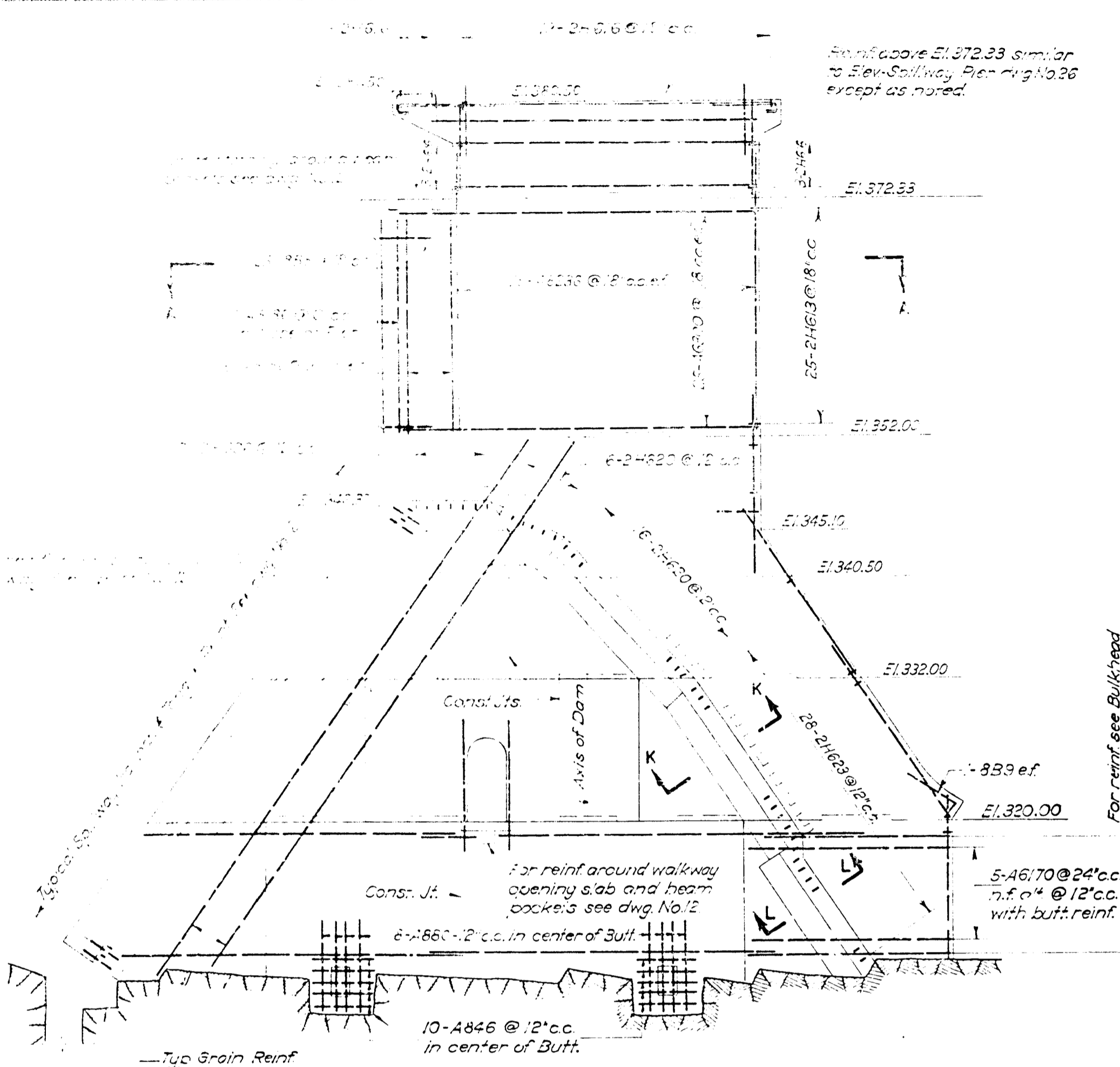
WASHINGTON SUBURBAN SANITARY COMMISSION
BRIGHTON DAM - CONTRACT 127-W

ELEVATION OF SPILLWAY ABUTMENT
BUTTRESSES NOS. 12 AND 25
CONCRETE DETAILS

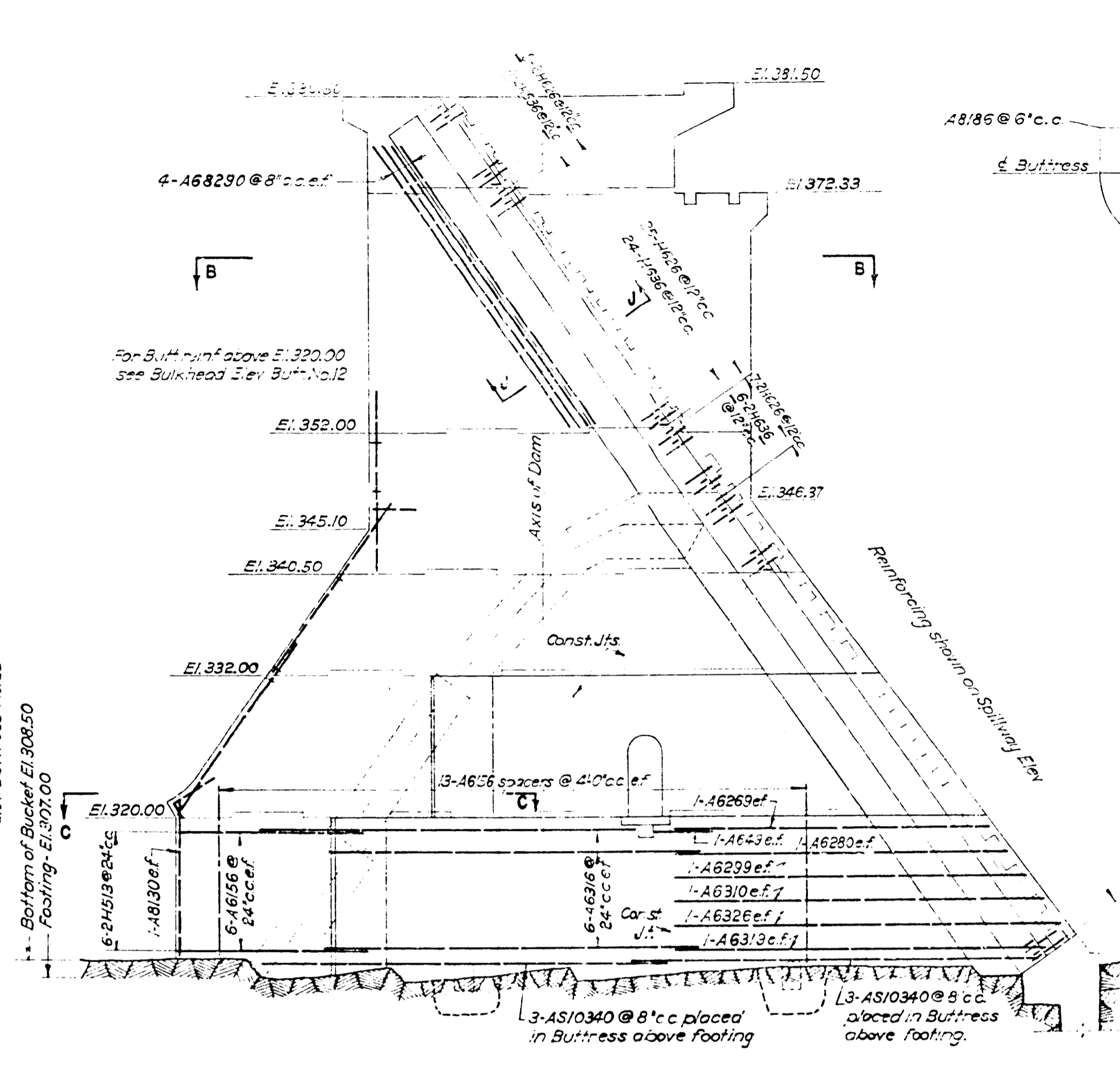
APPROVED: *Harry Hall*
CHIEF ENGINEER
WASHINGTON SUBURBAN SANITARY COMMISSION

DRAWING NUMBER
13
SCALE
As Shown

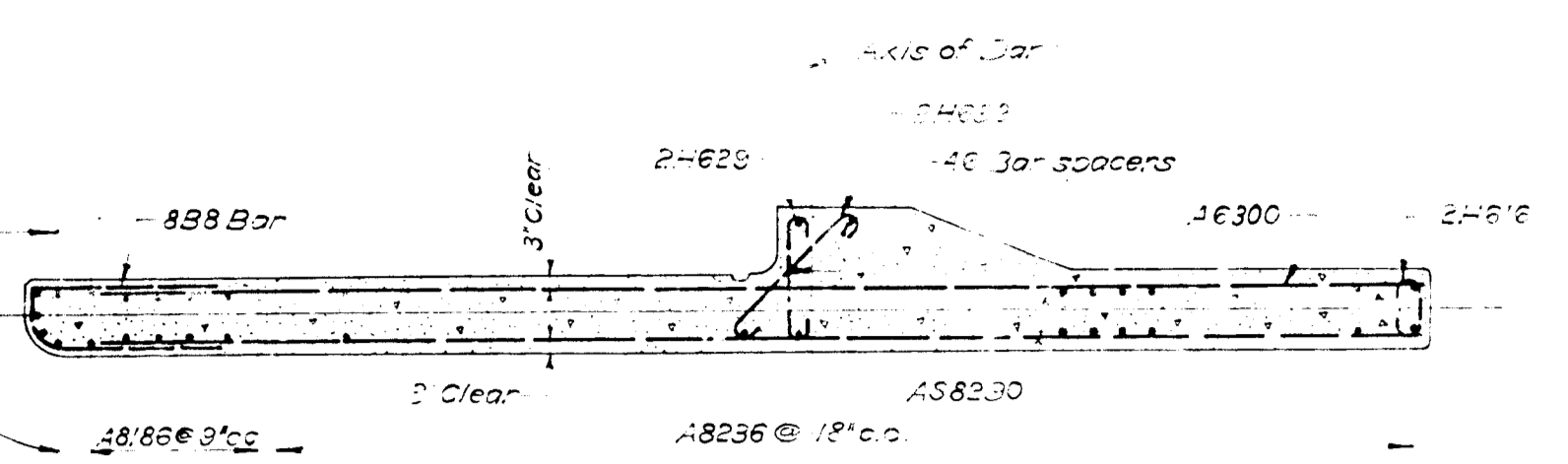




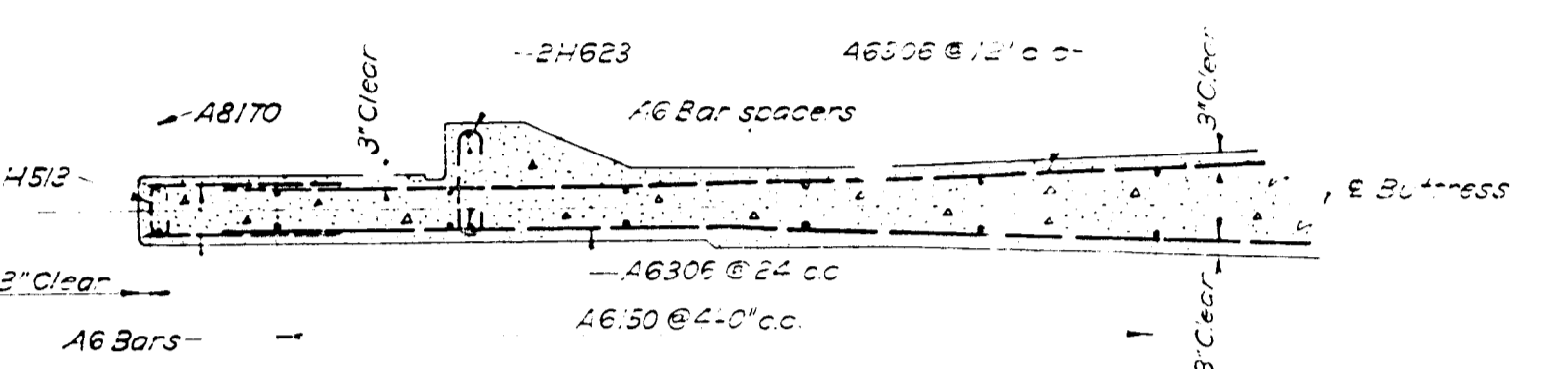
SPILLWAY ELEVATION - BUTTRESS NO. 25 (See Drawing No. 65)
Scale: 1/4" = 1'-0"



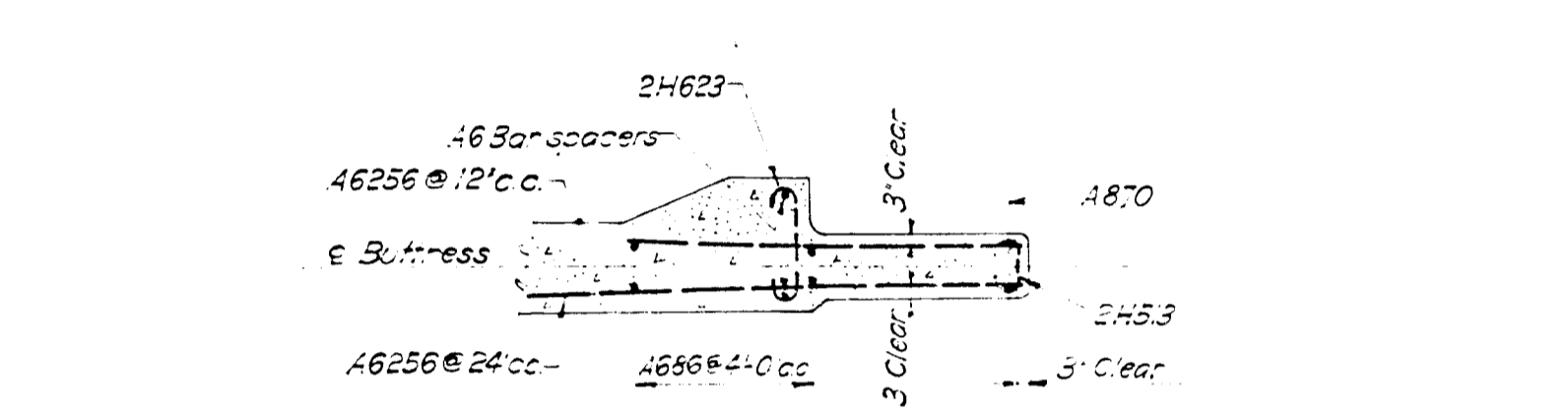
BULKHEAD ELEVATION - BUTTRESS NO. 25 (See Drawing No. 65)
Scale: 1/4" = 1'-0"



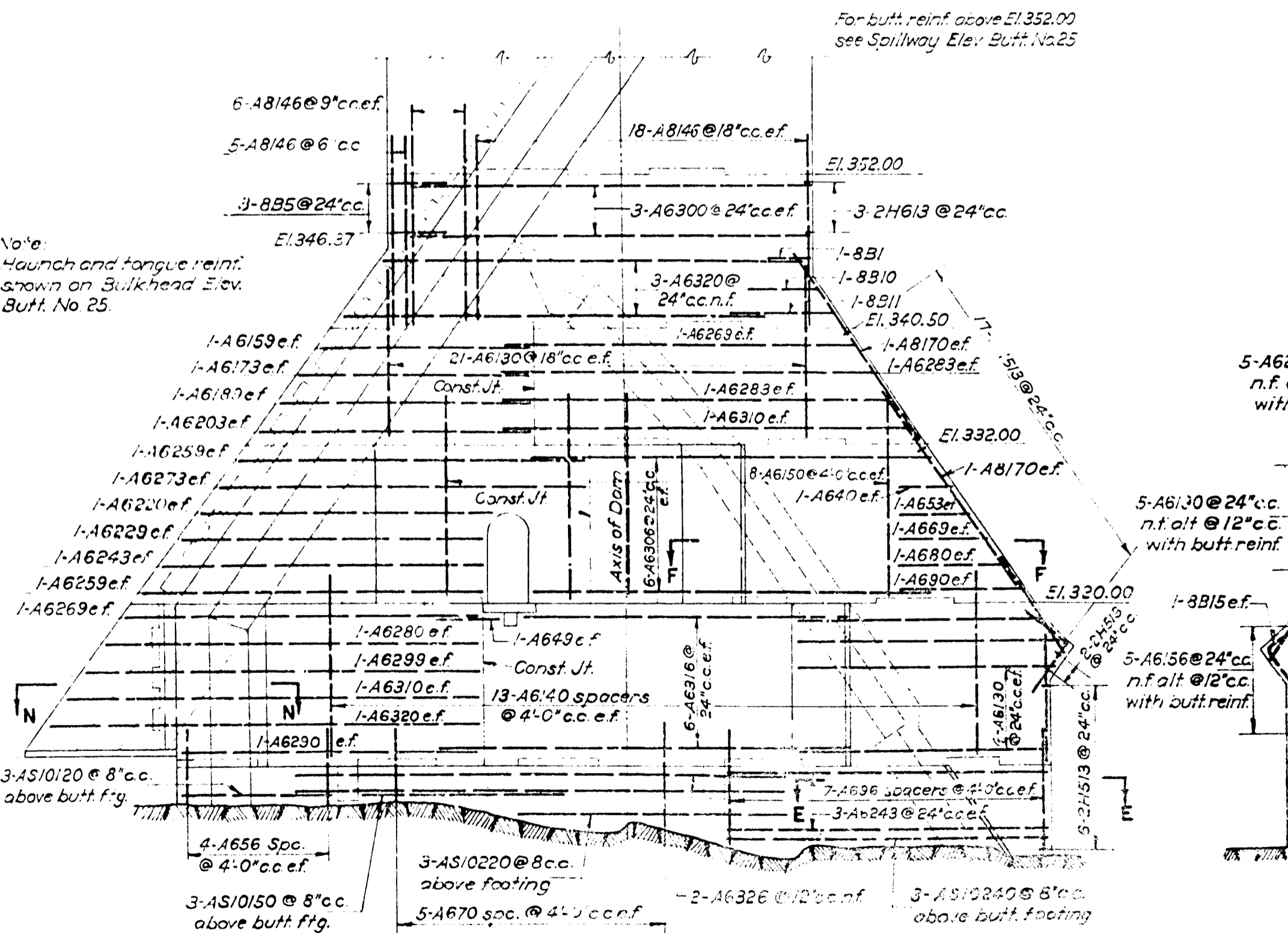
SECTION A-A
SECTION B-B OPP HAND
Scale: 1/4" = 1'-0"



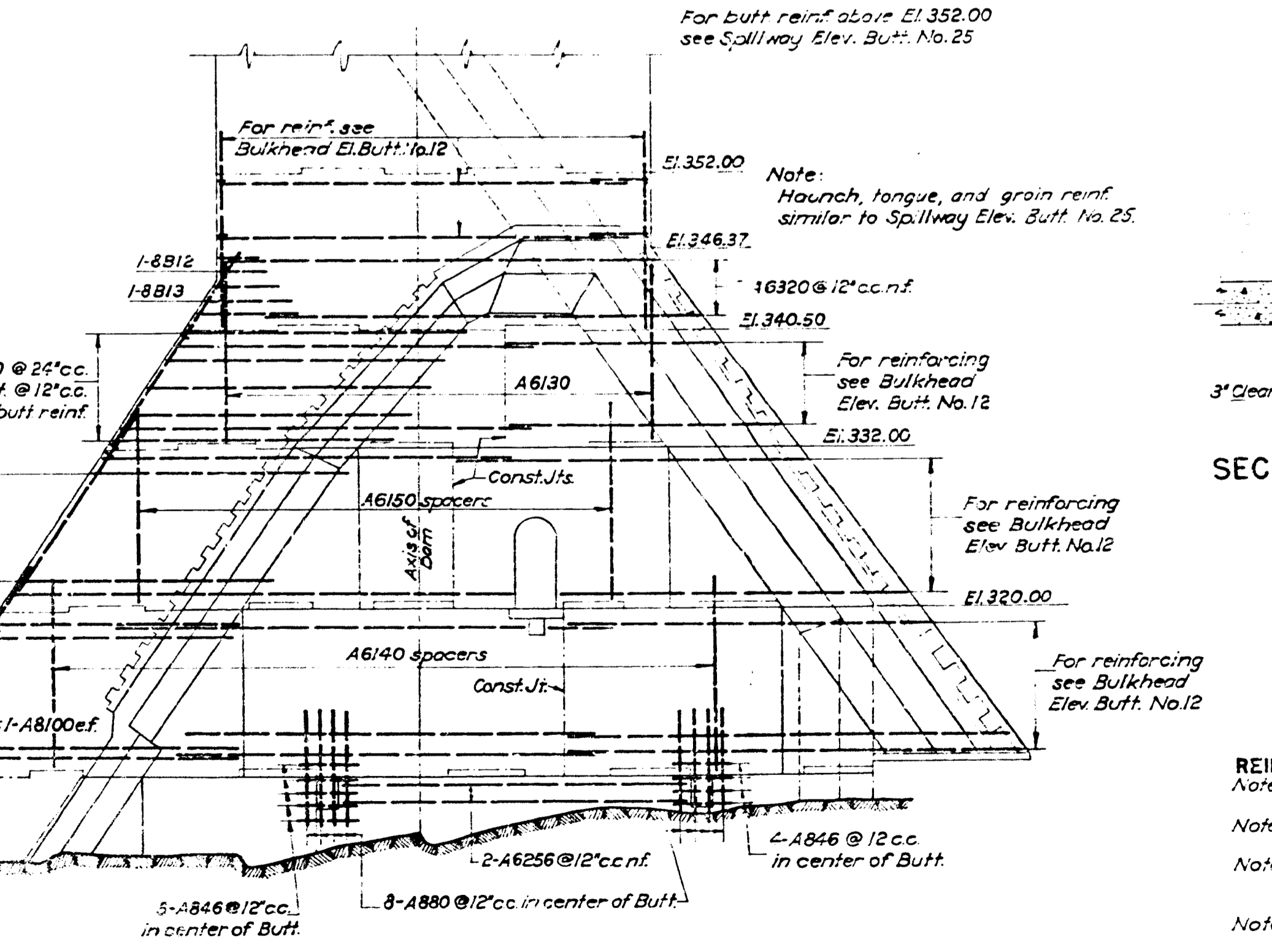
SECTION C-C
SECTION F-F OPP HAND
Scale: 1/4" = 1'-0"



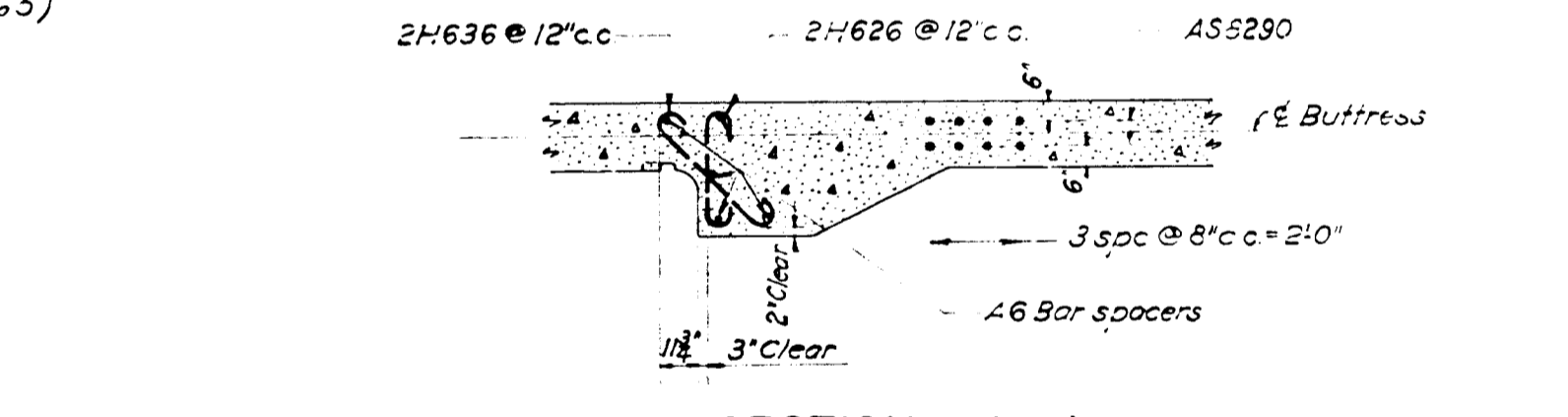
SECTION E-E
Scale: 1/4" = 1'-0"



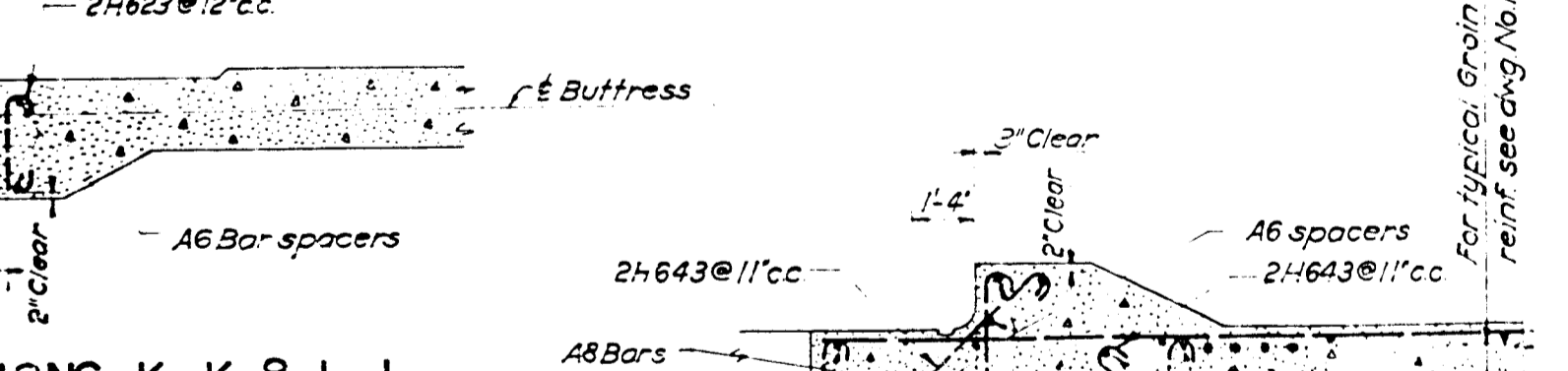
BULKHEAD ELEVATION - BUTTRESS NO. 12 (See Drawing No. 63)
Scale: 1/4" = 1'-0"



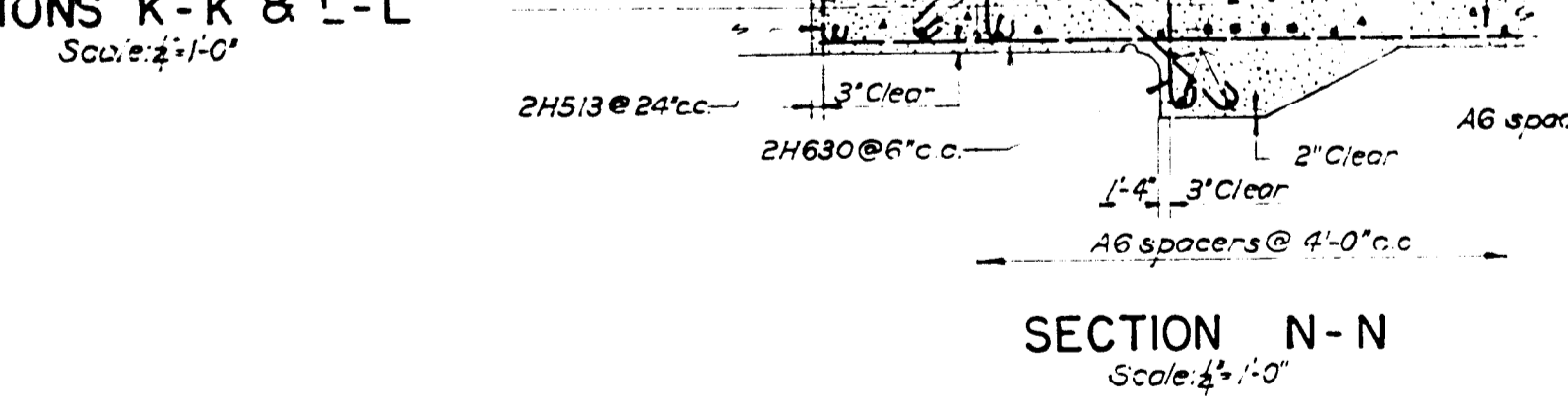
SPILLWAY ELEVATION - BUTTRESS NO. 12 (See Drawing No. 63)
Scale: 1/4" = 1'-0"



SECTION J-J
Scale: 1/4" = 1'-0"



SECTIONS K-K & L-L
Scale: 1/4" = 1'-0"



SECTION N-N
Scale: 1/4" = 1'-0"

REINFORCING NOTES
 Note 'A' Bar lengths and/or spacing varies with footing and bucket elevations
 Note 'B' Lap all bars 40 bar diameters unless otherwise shown or noted
 Note 'C' Bars marked n.f. are in rear face. Bars marked e.f. are in front face.
 Note 'D' For reinforcing bar designations and explanations see bar reinforcing schedule avg. No. 34

GENERAL NOTES
 1. Reinforcing details as shown, apply for elevations above buttress footings as finally established in the field.
 2. For concrete details of spillway abutment buttresses 12 and 25 see drawing No. 13.
 3. For reinforcing details of typical bulkhead and spillway buttresses see drawings Nos. 10 and 12.
 4. For final revisions see drawings Nos. 63 and 65

REV.	NO.	DATE	BY	APP.
1	1	9-30-1941	H.S.B.	
2	2	9-23-1941	H.S.B.	
3	3	9-23-1941	H.S.B.	
4	4	9-23-1941	H.S.B.	

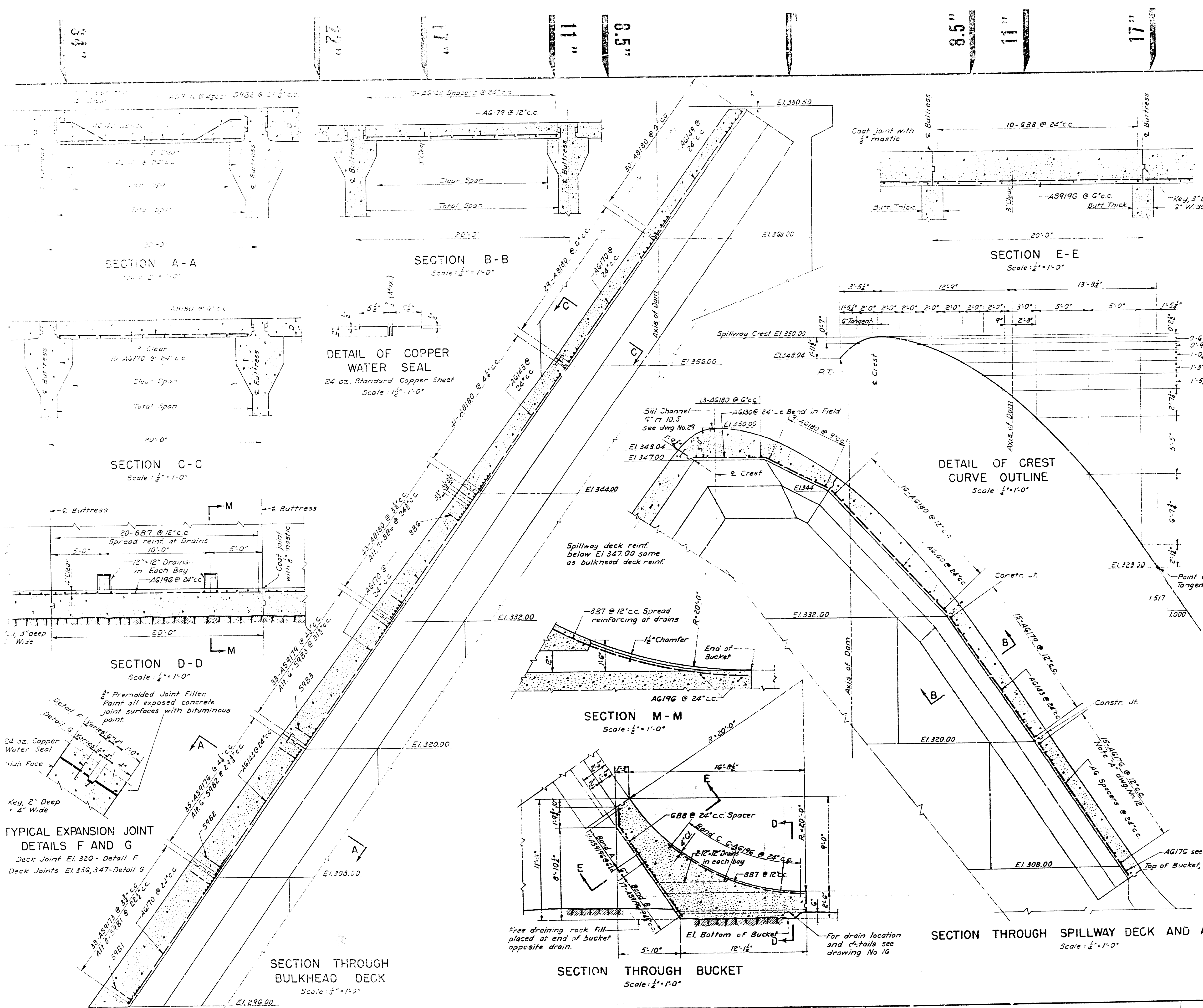
JOB NUMBER	4002
AMBURSEN ENGINEERING CORPORATION	CONSULTING ENGINEERS
NEW YORK	

WASHINGTON SUBURBAN SANITARY COMMISSION	BRIGHTON DAM - CONTRACT 127-W
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ELEVATION OF SPILLWAY ABUTMENT	BUTTRESSES NOS. 12 AND 25	REINFORCING DETAILS
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APPROVED	Exp. 26, 1941	CHIEF ENGINEER
Washington Suburban Sanitary Commission		

DRAWING NUMBER	14
SCALE	As shown

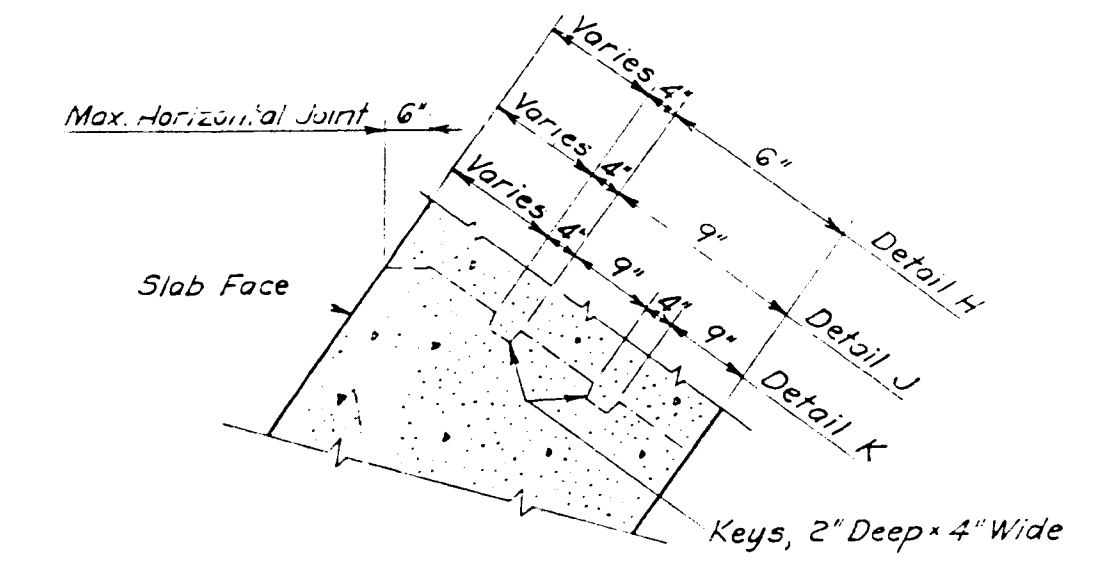


SUMMARY OF REINFORCING

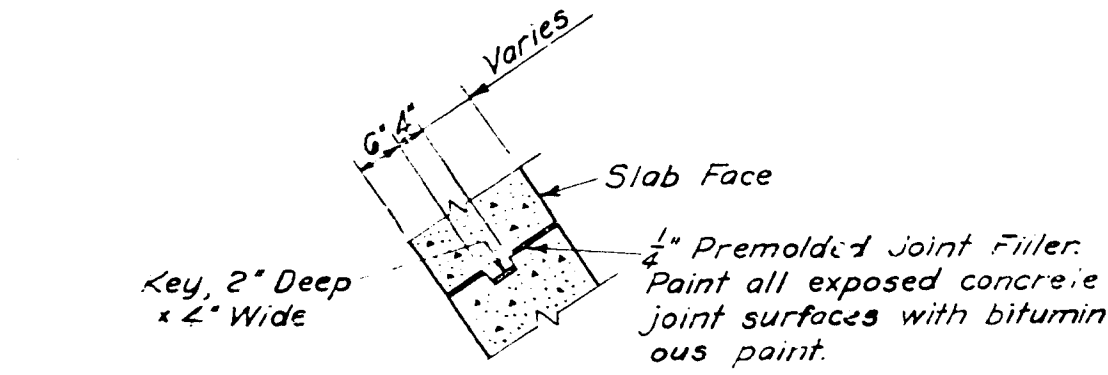
LIFT ELEVATION	DECK DIMENSIONS			DECK REINFORCING					
	D	Clear Span	Total Span	No.	Bar	No.	Bar	No.	Bar
330.50	15'-6"	18'-6"	30	A8180		10	A6149		
328	15'-6"	18'-6"	29	A8180		10	A6170		
326	15'-6"	18'-6"	29	A8180		10	A6143		
324	15'-6"	18'-6"	29	A8180		10	A6143		
322	15'-6"	18'-6"	29	A8180		10	A6143		
320	15'-6"	18'-6"	29	A8180		10	A6143		
318	15'-6"	18'-6"	29	A8180		10	A6143		
316	15'-6"	18'-6"	29	A8180		10	A6143		
314	15'-6"	18'-6"	29	A8180		10	A6143		
312	15'-6"	18'-6"	29	A8180		10	A6143		
310	15'-6"	18'-6"	29	A8180		10	A6143		
308	15'-6"	18'-6"	29	A8180		10	A6143		

LIFT ELEVATION	APRON DIMENSIONS			APRON REINFORCING					
	D	Clear Span	Total Span	No.	Bar	No.	Bar	No.	Bar
Crest	20'-0"	15'-6"	18'-0"	13	A6180				
347	20'-0"	15'-6"	18'-0"	13	A6180				
344	17'-6"	Varies	18'-0"	7	A6180				
332	17'-6"	16'-6"	18'-0"	16	A6180				
320	17'-6"	16'-6"	18'-0"	16	A6180				
308	17'-6"	16'-6"	18'-0"	16	A6180				

BUCKET LOCATION	BUCKET DIMENSIONS			BUCKET REINFORCING					
	D	Clear Span	Total Span	No.	Bar	No.	Bar	No.	Bar
Band A	20'-0"		20'-0"	10	A59196				
Band B	20'-0"		20'-0"	17	A59196				
Band C	20'-0"		20'-0"	6	A6196				



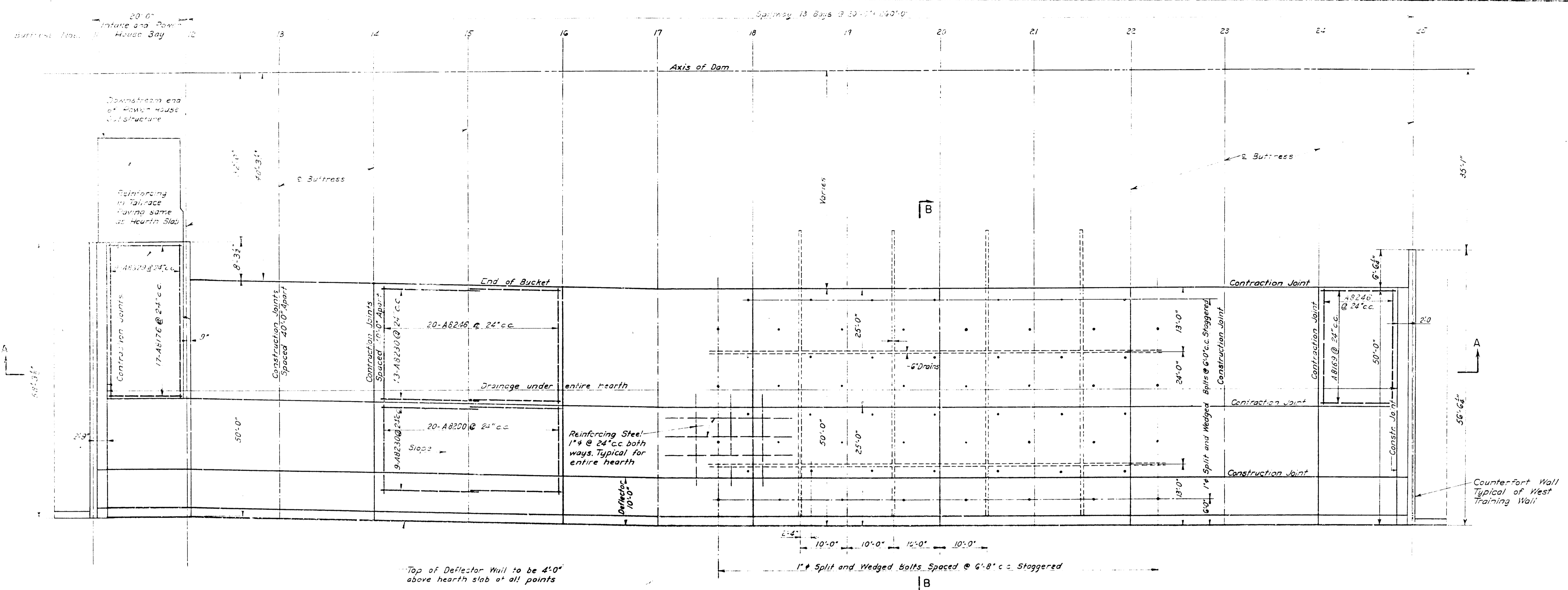
TYPICAL CONSTRUCTION JOINT DETAILS H, J AND K
 Deck Joint at El. 349 - Detail H
 Deck Joints at El. 344, 332 - Detail J
 Deck Joints at El. 308, 276 - Detail K



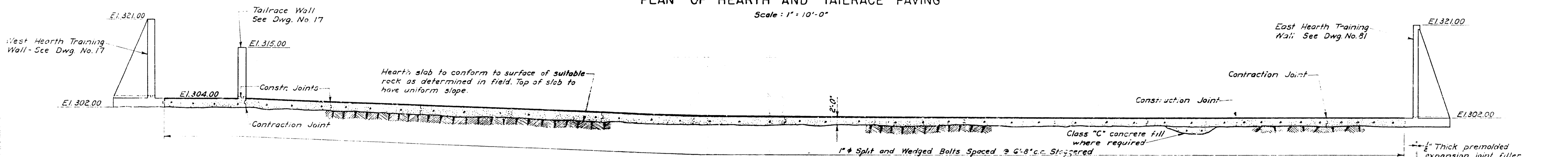
TYPICAL EXPANSION JOINT DETAIL L
 Apron Joints at Elevat. 344 and Top of Bucket

- GENERAL NOTES**
- Deck, apron, and bucket details, as shown, apply above footing and bucket elevations as finally established in the field.
 - See typical footing and foundation details, drawing No. 6 for detail of deck at top of cut-off wall.
 - For details and reinforcing of bulkhead buttresses see drawings Nos. 9 and 10.
 - For details and reinforcing of spillway buttresses see drawings Nos. 11 and 12.
 - For hearth details see drawing No. 16.
 - For reinforcing bar bend details see drawing No. 35.
 - For reinforcing notes see drawing No. 12.

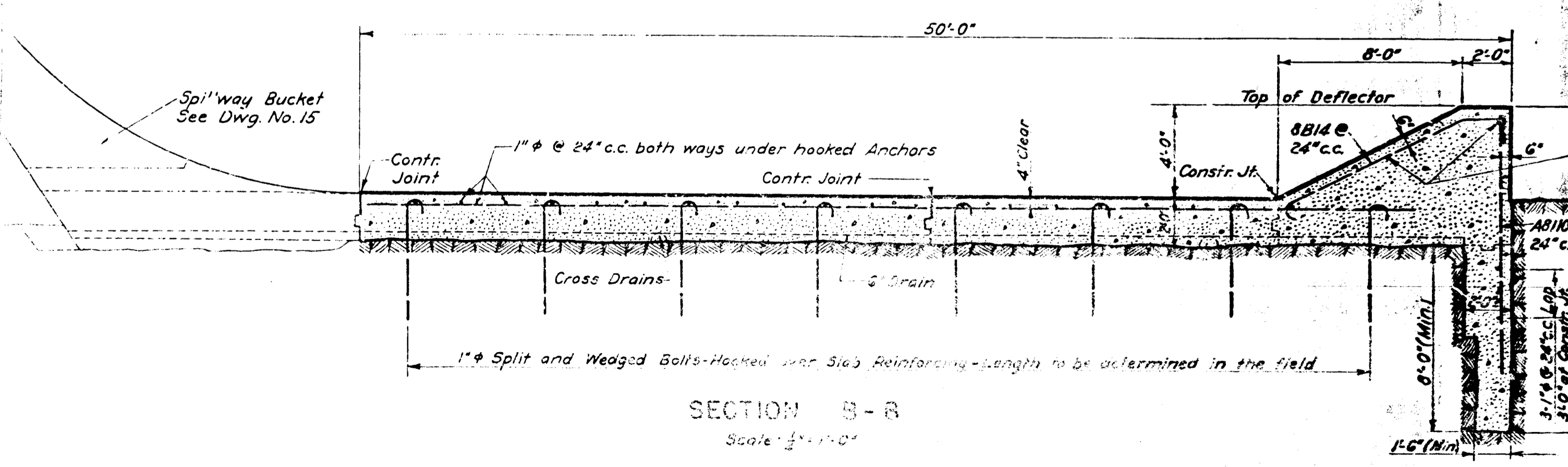
11" 0.5" 11" 17" 22"



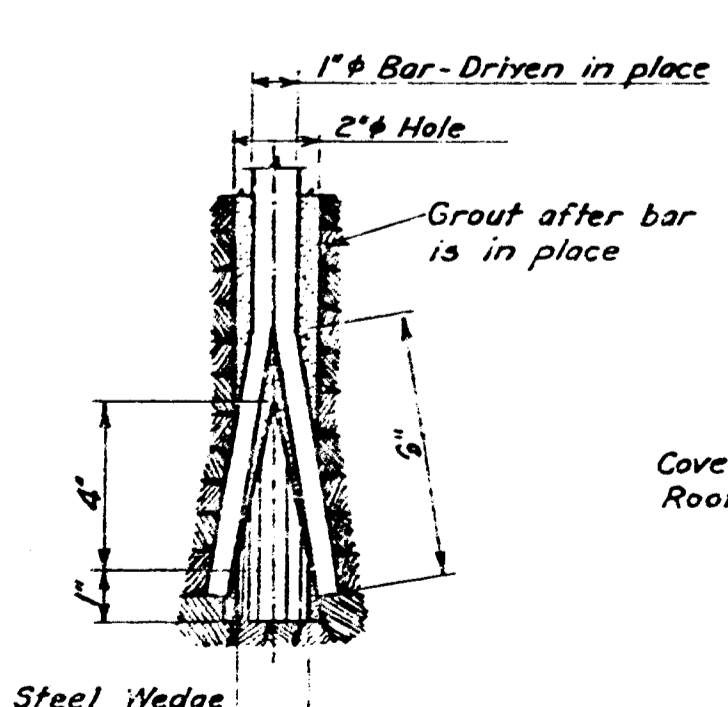
PLAN OF HEARTH AND TAILRACE PAVING
Scale: 1" = 10'-0"



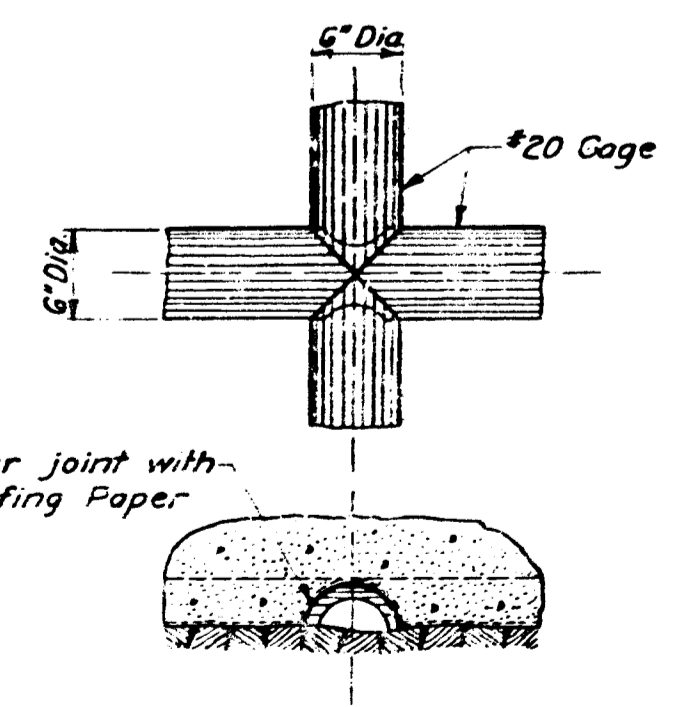
SECTION A-A
Scale: 1" = 10'-0"



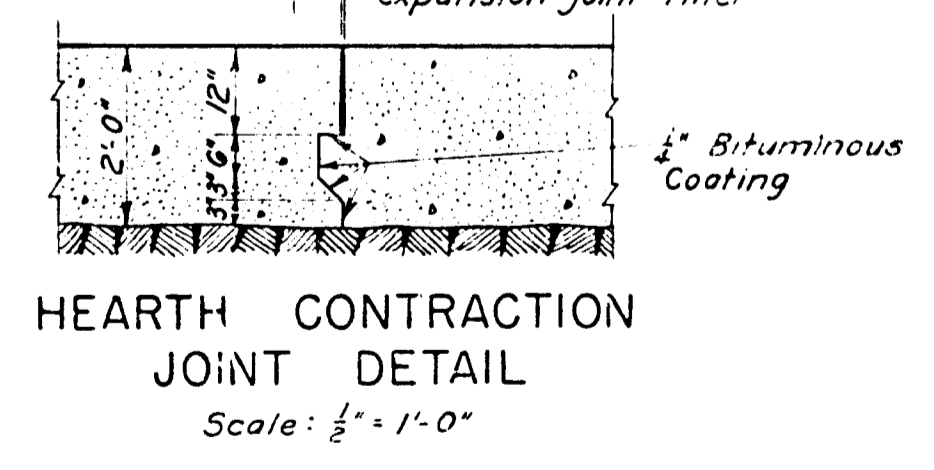
SECTION B-B
Scale: 1/2" = 1'-0"



DETAIL OF SPLIT AND WEDGED BOLTS
Scale: 3" = 1'-0"



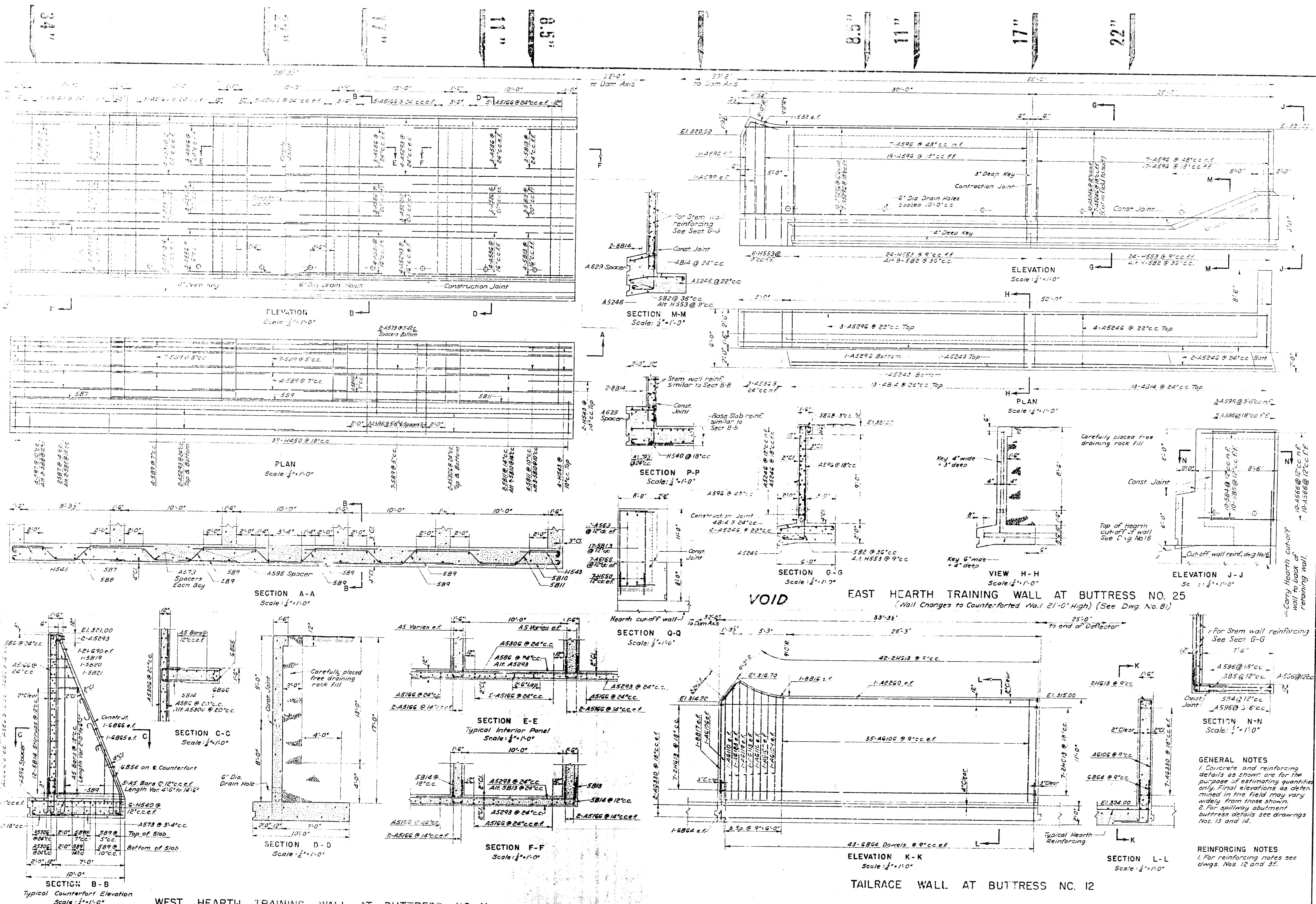
DETAIL OF CORRUGATED METAL DRAINS
Scale: 1" = 1'-0"



HEARTH CONTRACTION JOINT DETAIL
Scale: 1/2" = 1'-0"

- GENERAL NOTES**
1. Elevations shown are for the purpose of estimating quantities only. Final elevations as determined in the field may vary widely from those shown.
 2. For details of hearth training walls see dwg. No. 17.
 3. For power house substructure details see dwg. No. 22.
 4. For details of bucket see drawing No. 15.
 5. For reinforcing bar bend details see drawing No. 35.

DATE: 6-22-1947 DRAWN: R.B.A. CHECKED: L.C. PROJECT: 127-0	REV. 1: 7-23-1947 REV. 2: 7-23-1947 REV. 3: 9-30-1947	REV. 1: 8-10-1947 REV. 2: 12-24-1947	JOB NUMBER: 4002 AMBURGEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	HEARTH AND TAILRACE PLAN AND DETAILS	APPROVED: <i>Harry H. Hall</i> Sept. 26, 1947 CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER: 16	SCALE: As Shown
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GENERAL NOTES
 1. Concrete and reinforcing details as shown are for the purpose of estimating quantities only. Final elevations as determined in the field may vary widely from those shown.
 2. For spillway abutment buttress details see drawings Nos. 13 and 14.

REINFORCING NOTES
 1. For reinforcing notes see dwgs. Nos. 12 and 35.

WEST HEARTH TRAINING WALL AT BUTTRESS NO. 11

TAILRACE WALL AT BUTTRESS NO. 12

VOID EAST HEARTH TRAINING WALL AT BUTTRESS NO. 25
 (Wall Changes to Counterforted Wall 21'-0" High) (See Dwg. No. 81)

9-10-1947	REV. 114	114
8-2-1947	REV. 114	114
8-10-1947	REV. R. S. A.	8-11-1942 East Training Wall changed to a counterforted wall
7-30-1947	REV. L. C. W. A.	12-22-1941 Revised, & Reissued; Secs. M, N, P, & Q added

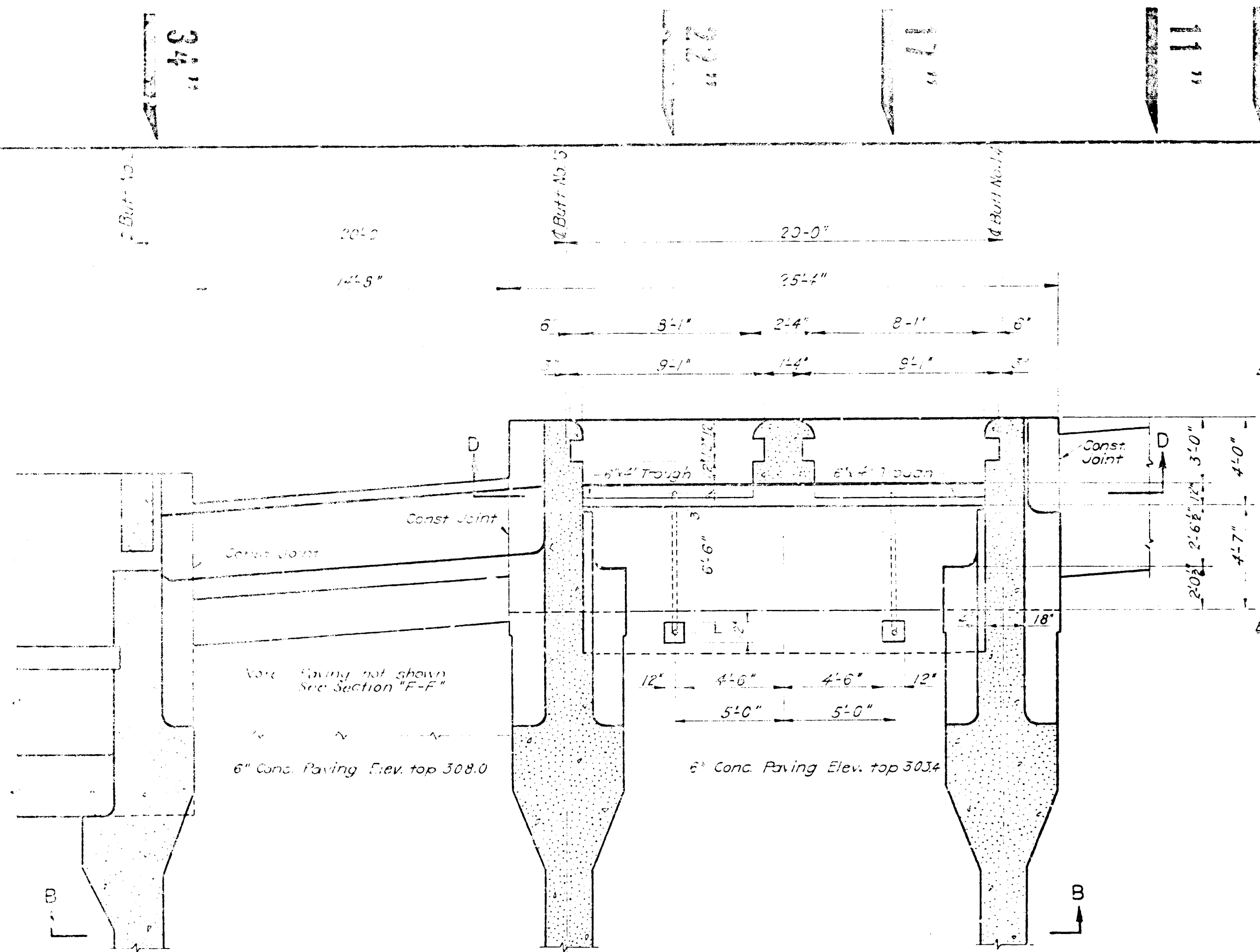
TOP NUMBER	4002
AMBURSEN ENGINEERING CORPORATION	CONSULTING ENGINEERS
NEW YORK	

WASHINGTON SUBURBAN SANITARY COMMISSION
BRIGHTON DAM - CONTRACT 127-W

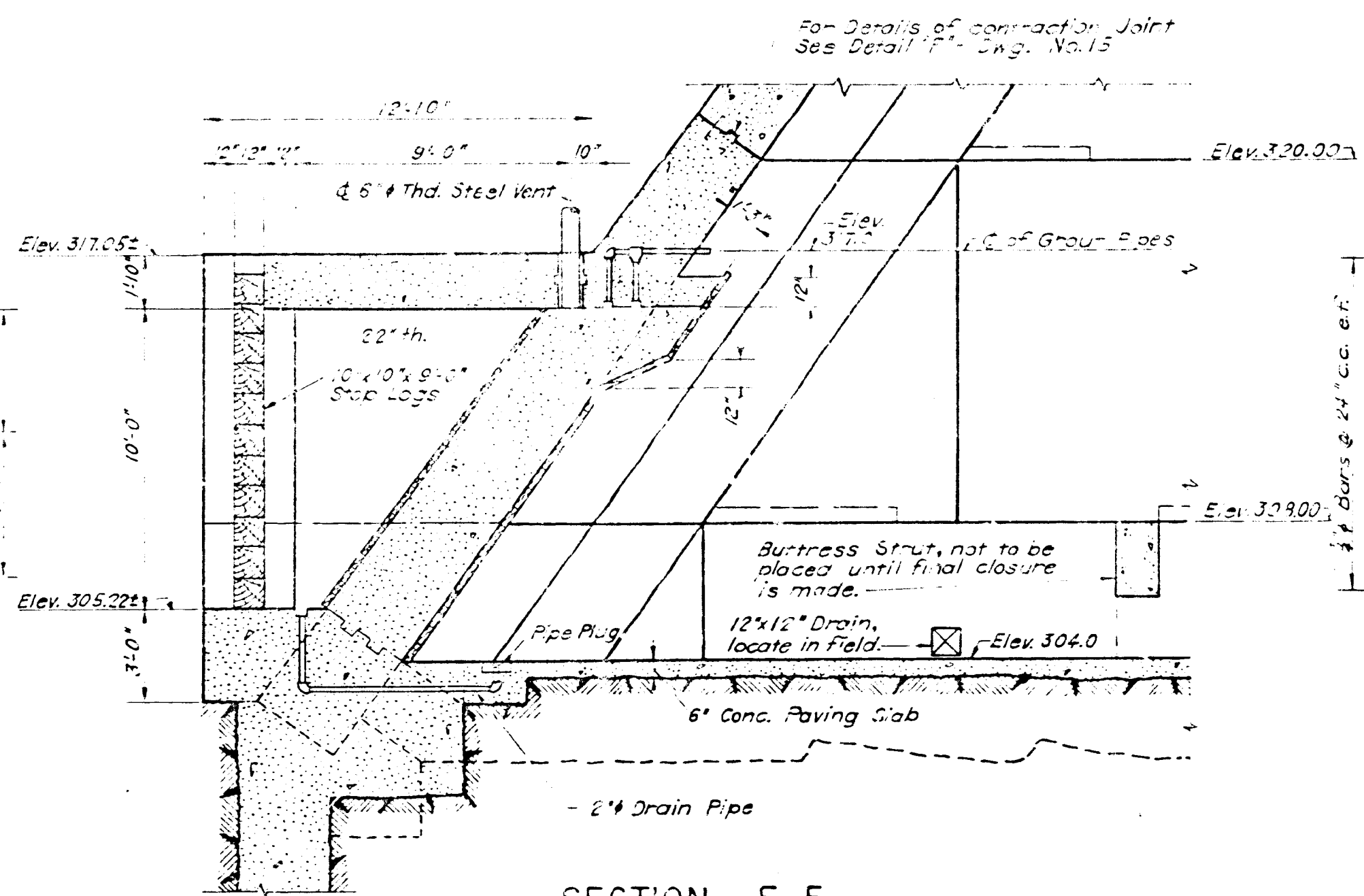
HEARTH TRAINING WALL DETAILS

APPROVED	Sept. 26, 1947	1947
<i>Henry R. Lee</i>	CHIEF ENGINEER	
WASHINGTON SUBURBAN SANITARY COMMISSION		

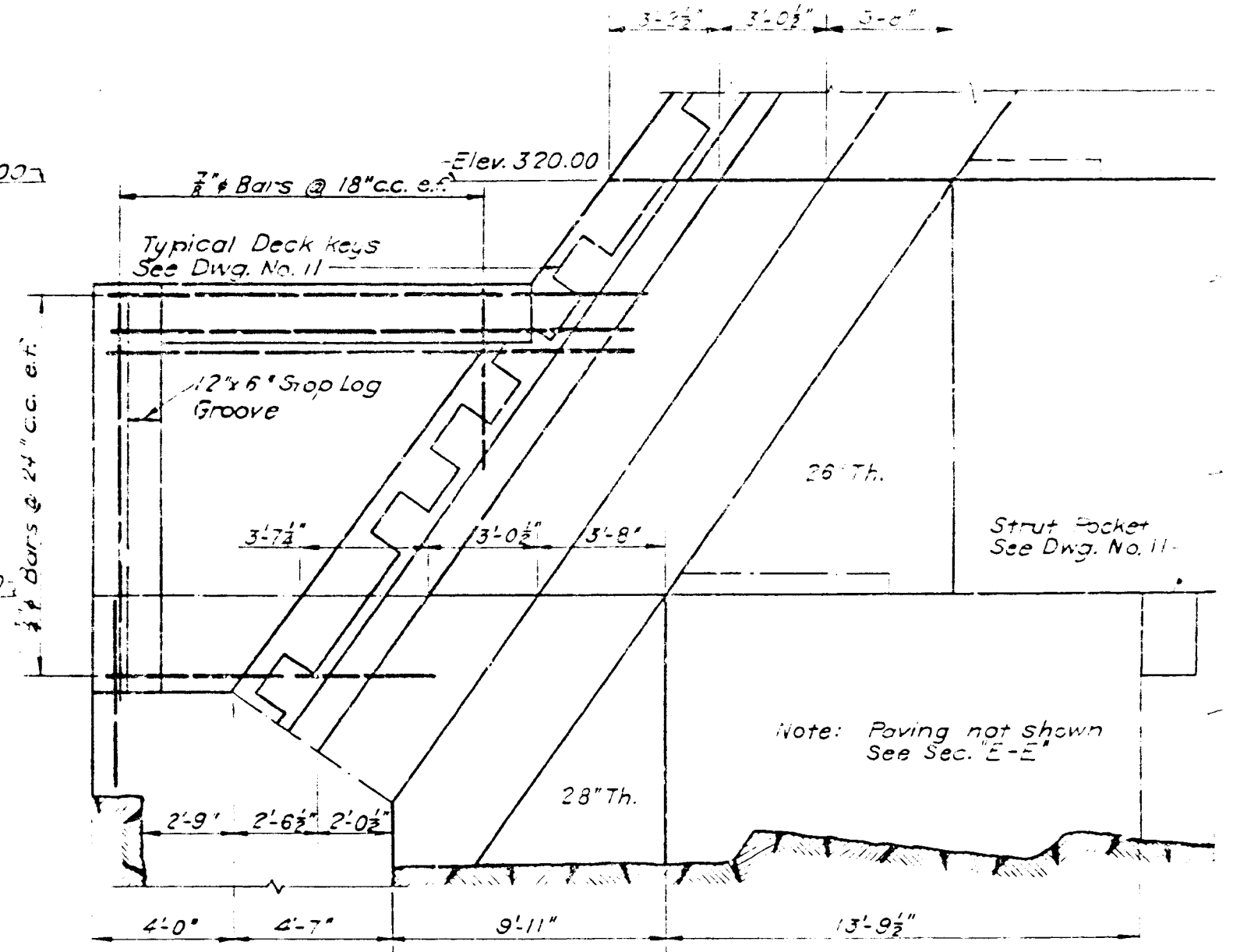
SCALE	As Shown
DRAWING NUMBER	17



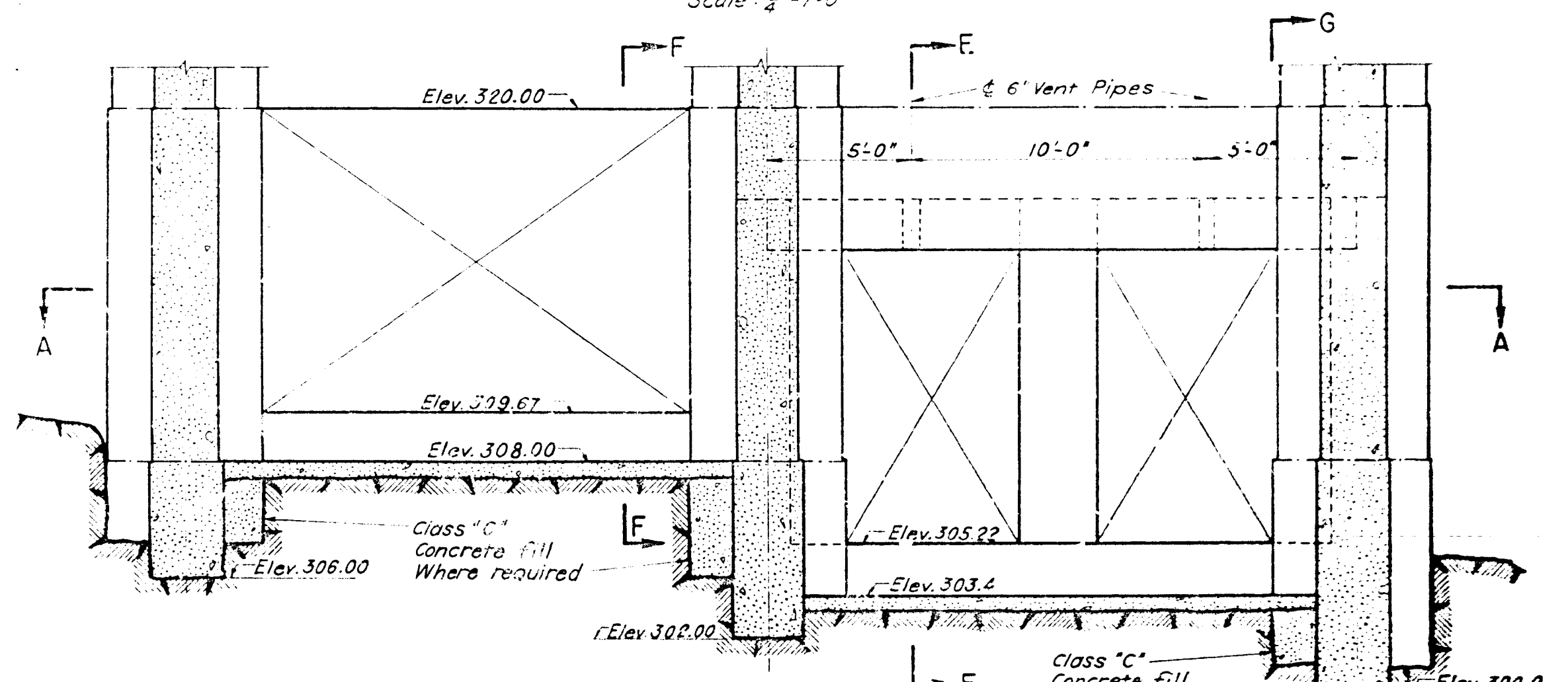
SECTION A-A
Scale: 1/4" = 1'-0"



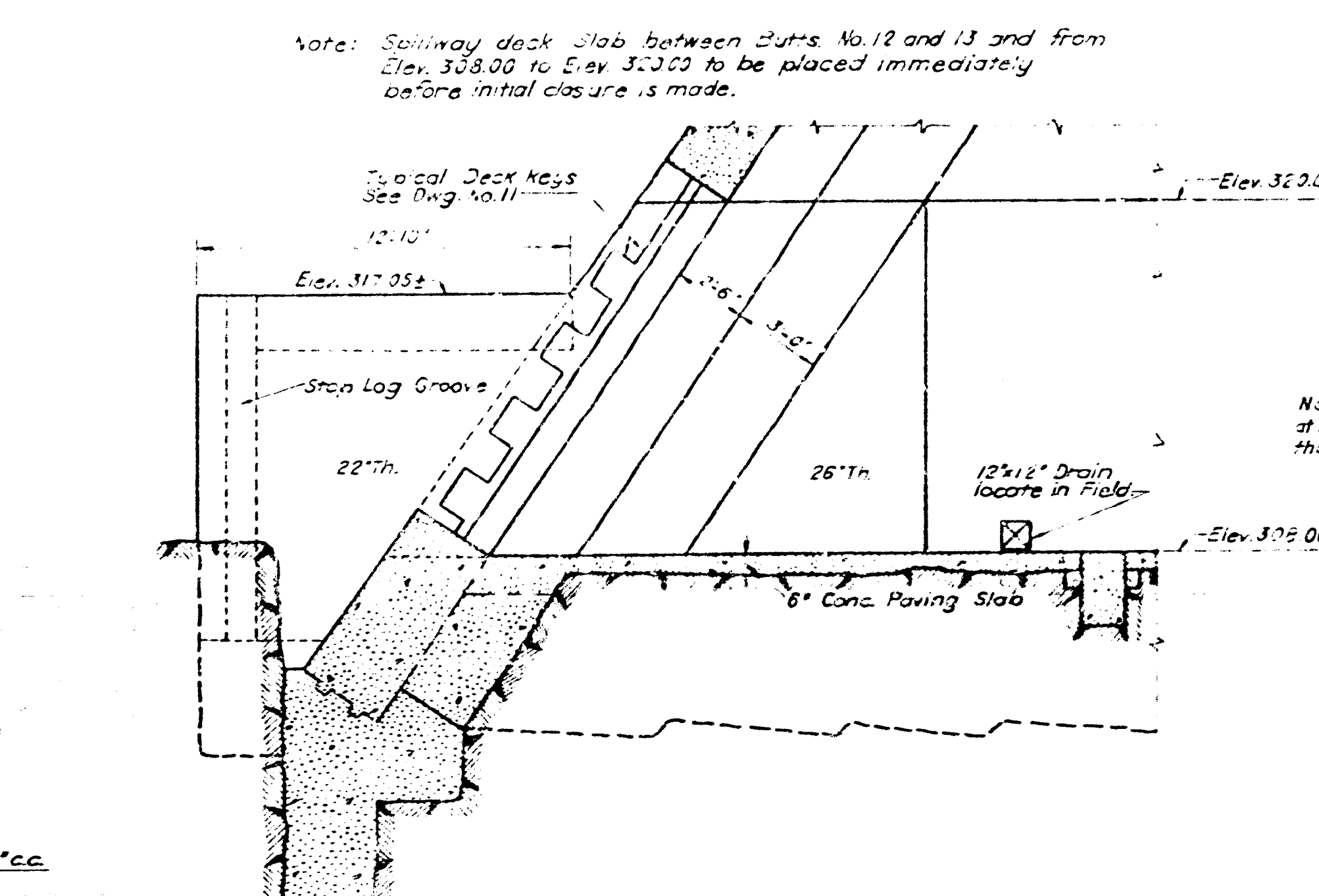
SECTION E-E
Scale: 1/4" = 1'-0"



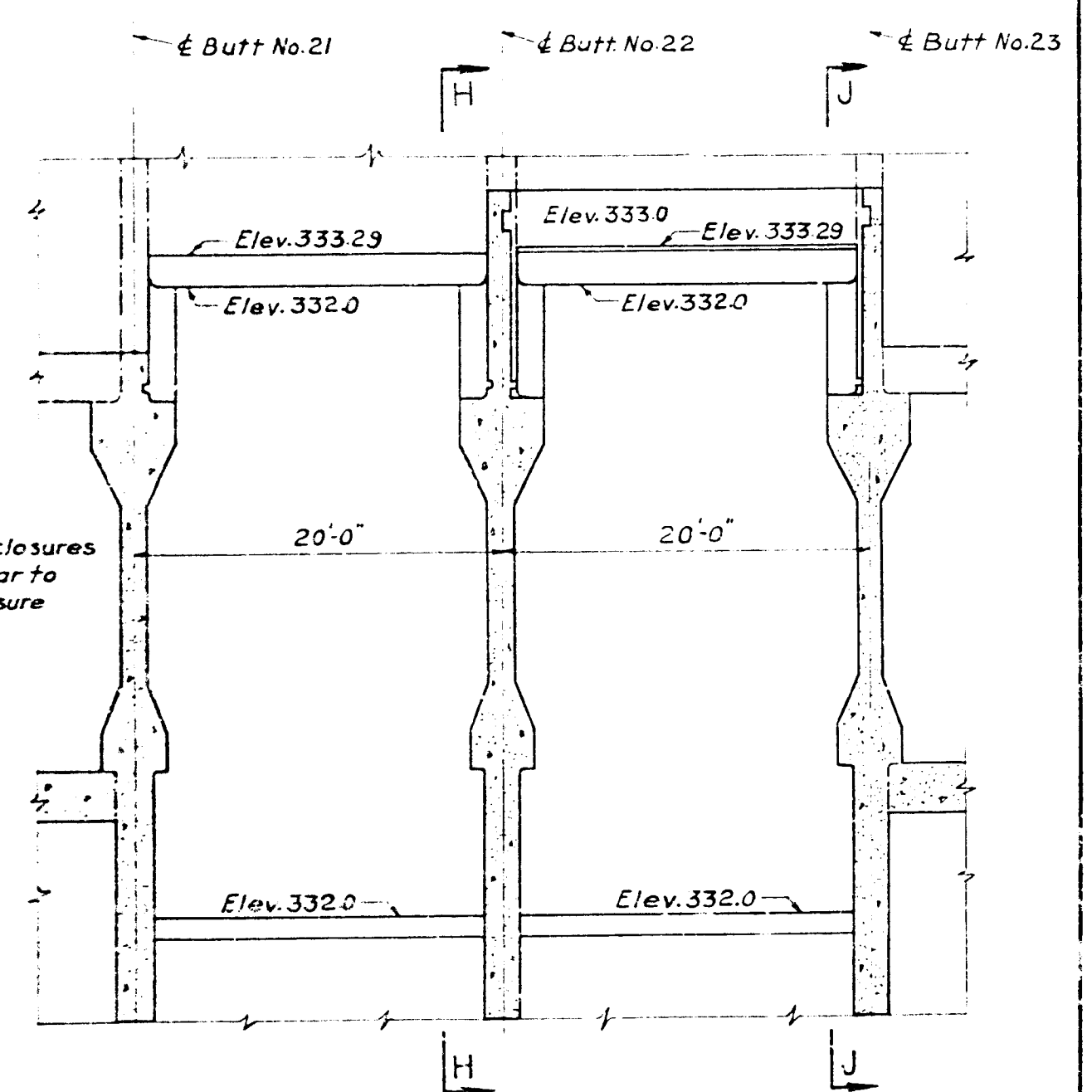
SECTION G-G
DETAILS OF UPSTREAM END OF BUTTRESS NO. 14
BUTTRESS NO. 13 OPPOSITE HAND
Scale: 1/4" = 1'-0"



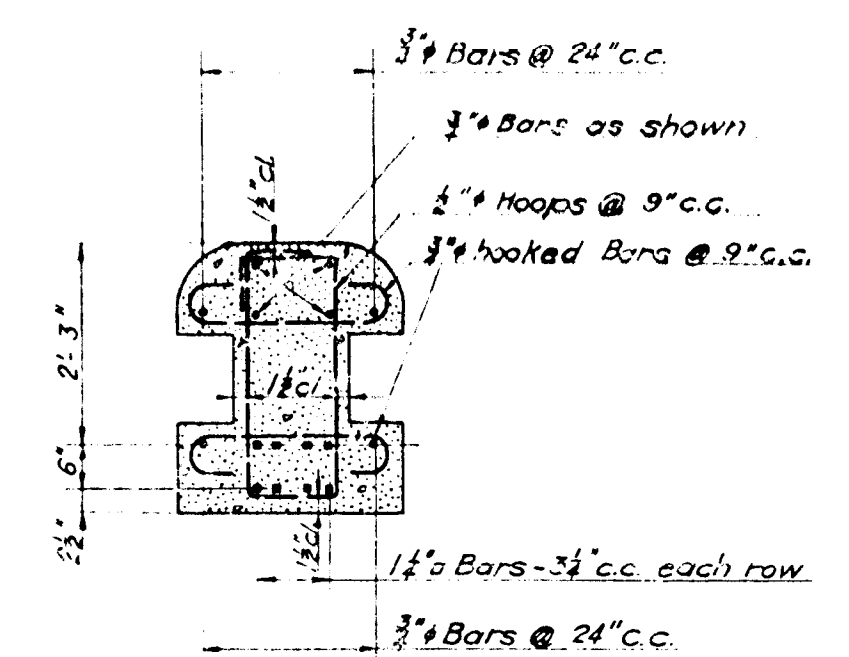
SECTION B-B
Scale: 1/4" = 1'-0"



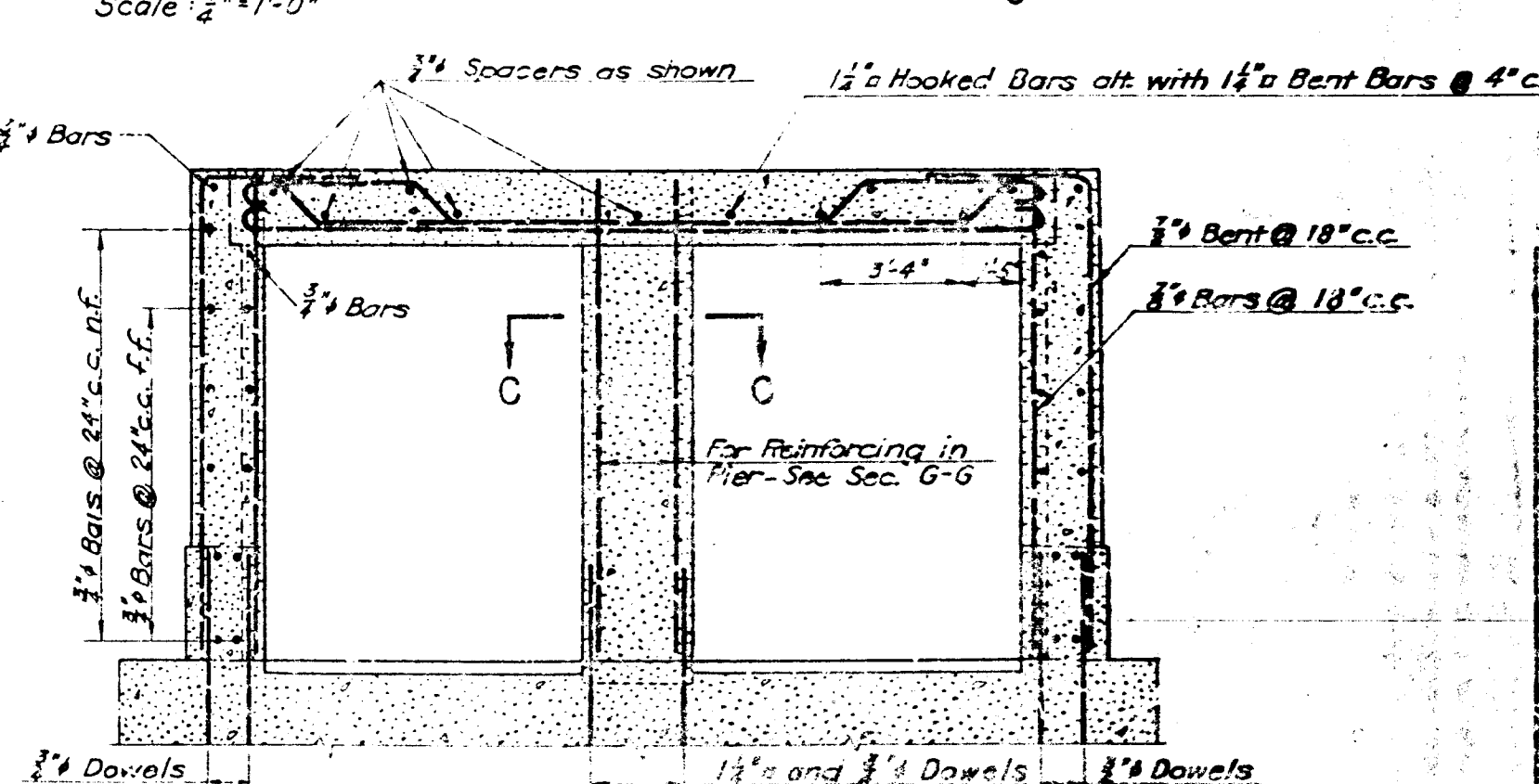
SECTION F-F
Scale: 1/4" = 1'-0"



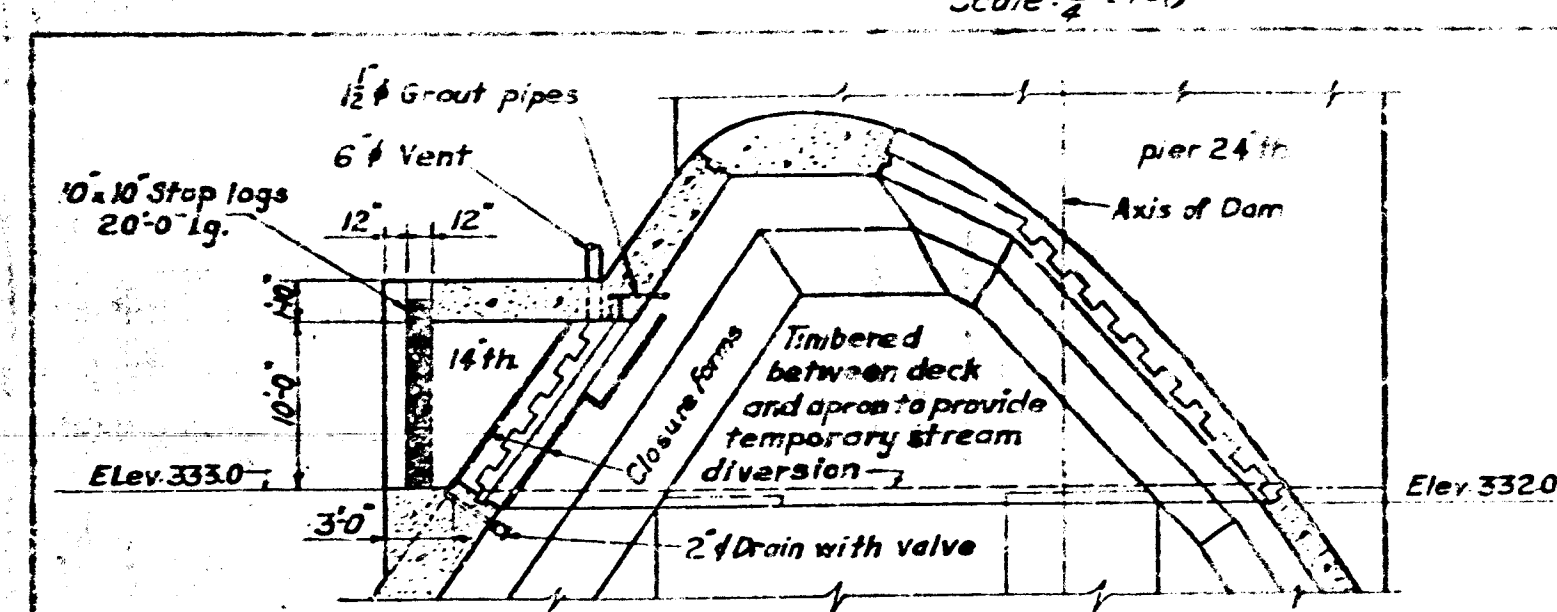
PLAN SECTION EL. 340.5
Scale: 1/8" = 1'-0"



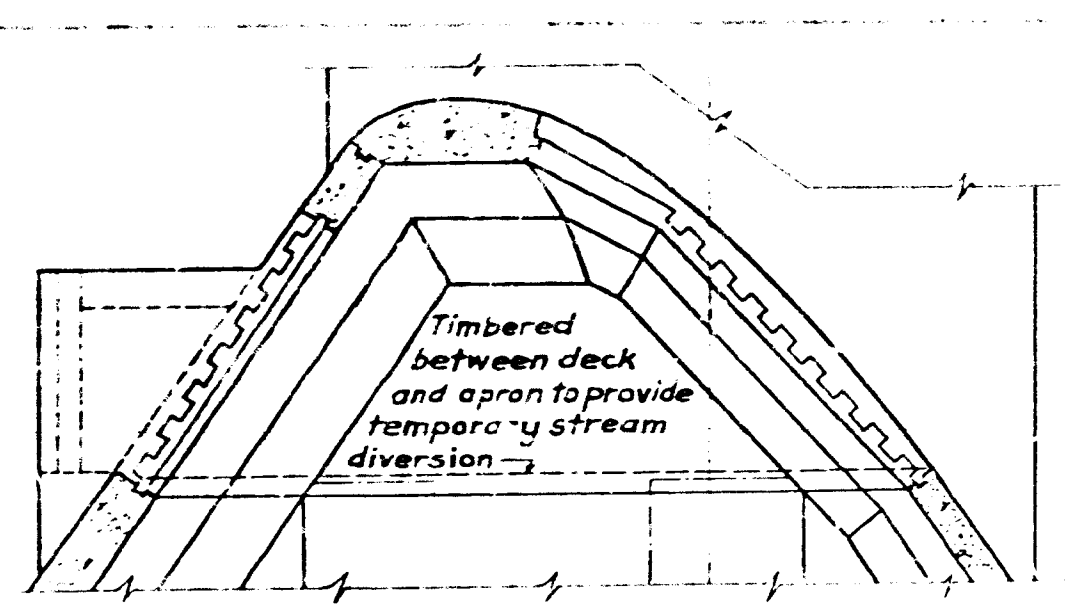
SECTION C-C
Scale: 1/2" = 1'-0"



SECTION D-D
Scale: 1/4" = 1'-0"



SECTION J-J
Scale: 1/8" = 1'-0"



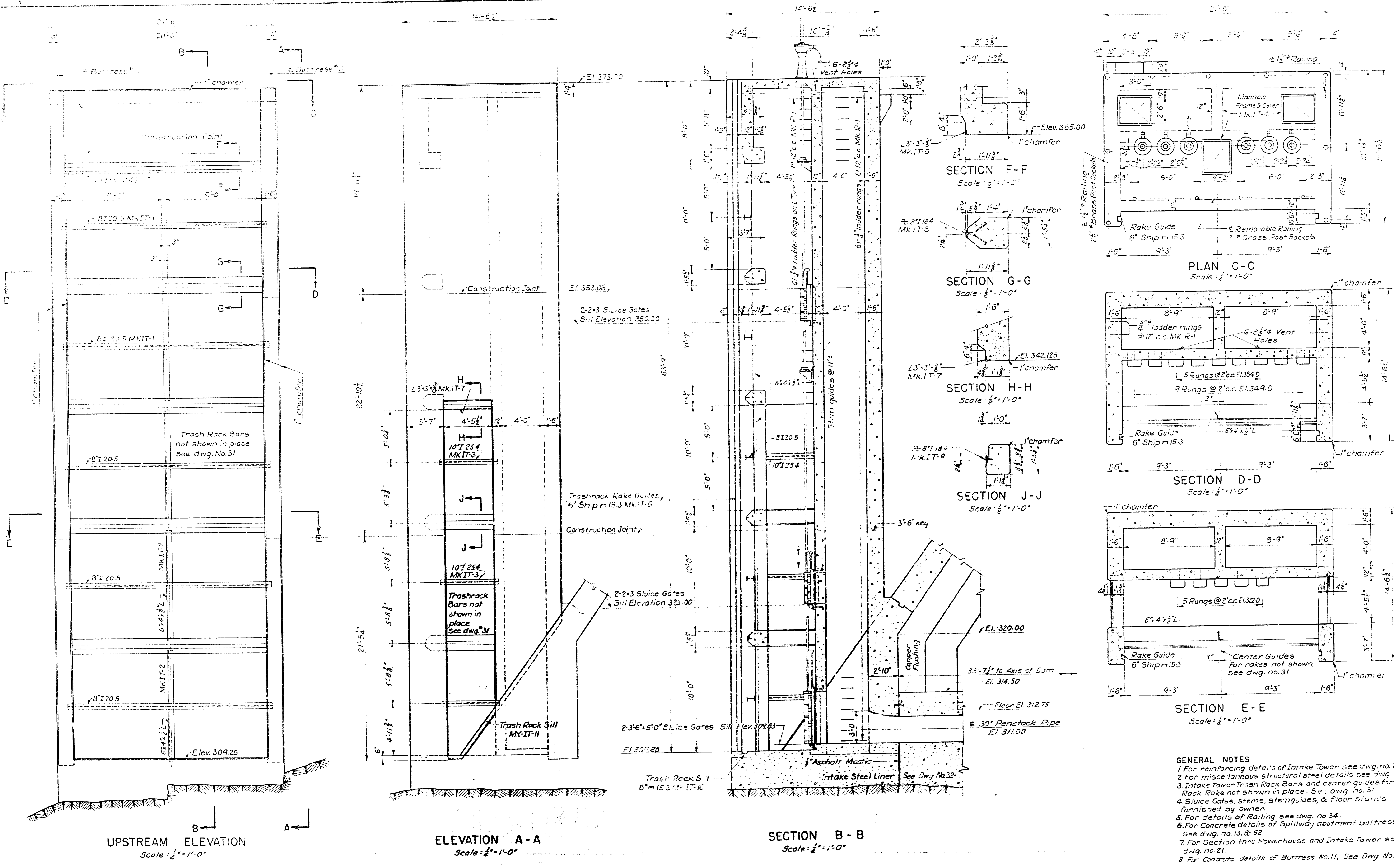
SECTION H-H
Scale: 1/8" = 1'-0"

GENERAL NOTES
 1. Closure details as shown apply for elevations as finally established in the field.
 2. For details of spillway buttresses see drawings Nos. 11 and 12.
 3. For details of spillway abutment buttress see drawings Nos. 13 and 14.

REINFORCING NOTES
 1. Reinforcing bar bends and details to conform to bent bar reinforcing schedule drawing No. 35.
 2. For reinforcing notes see drawing No. 12.

DRAWN: F.C. 8-25-1941 CHECKED: J.K. 9-8-1941 APPROVED: E.B. 9-8-1941 APPROVED: R.B.A. 9-30-1941	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	DETAILS OF CLOSURE	APPROVED: <i>Henry D. Hall</i> 8-26-1941 CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 18	SCALE As Shown
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MICROFILMED 29:1



- GENERAL NOTES**
- 1 For reinforcing details of Intake Tower see dwg. no. 20.
 - 2 For miscellaneous structural steel details see dwg. no. 32.
 - 3 Intake Tower Trash Rack Bars and center guides for Trash Rack Rake not shown in place. See dwg. no. 31.
 - 4 Sluice Gates, stems, stem guides, & Floor Braces furnished by owner.
 - 5 For details of Railing see dwg. no. 34.
 - 6 For concrete details of Spillway abutment buttress #12 see dwg. no. 13 & 62.
 - 7 For Section thru Powerhouse and Intake Tower see dwg. no. 21.
 - 8 For concrete details of Buttress No. 11, See Dwg No. 60.

Rev. B.B.A. 8-17, 1943 Concr. Jts at Elev. 353.00 and 322.00 changed to Elev. 349.00 and 319.50 respectively. Concr. Jt. elev. at Elev. 320.00 and wing changes.

DRAWN	H.A.A.	7-15-1941
TRACED	G.D.	8-14-1941
CHECKED	H.E.B.	8-5-1941
APPROVED	H.F.P.	1-31-1941

REV.	134	8-22-1941	Added Vent. Holes in Sec. B-B.
REV.	P.S.A.	7-19-1941	Sec. H-H, D-D, & G-G changed to suit revised details.
REV.	W.A.-CLP.	7-19-1941	Revised Details changed for Steel as ordered.
REV.	W.A.-L.G.		

JOB NUMBER
4002

AMBURSEN ENGINEERING CORPORATION
CONSULTING ENGINEERS
NEW YORK

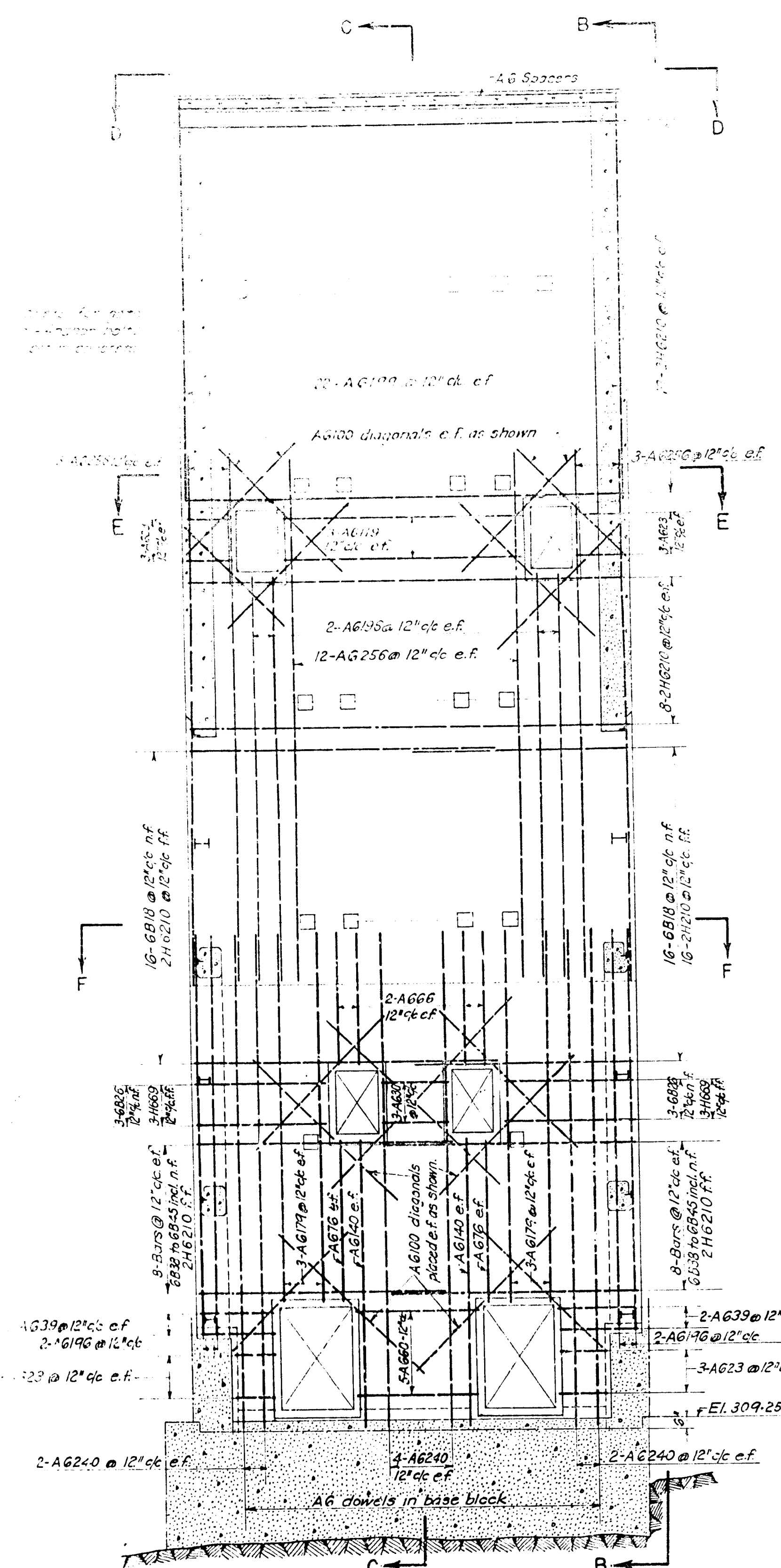
WASHINGTON SUBURBAN SANITARY COMMISSION
BRIGHTON DAM - CONTRACT 127-W

INTAKE TOWER
CONCRETE DETAILS

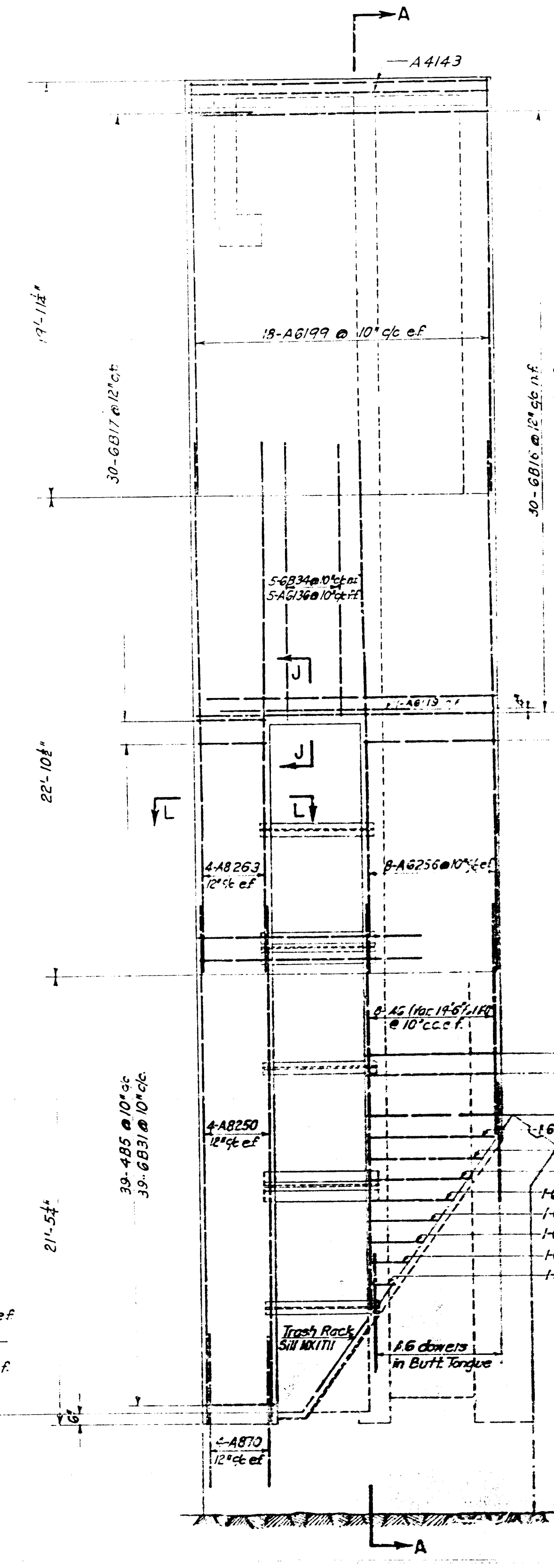
APPROVED *Sept. 26, 1941*
H. H. Hall CHIEF ENGINEER
WASHINGTON SUBURBAN SANITARY COMMISSION

DRAWING NUMBER
19
SCALE
As Shown

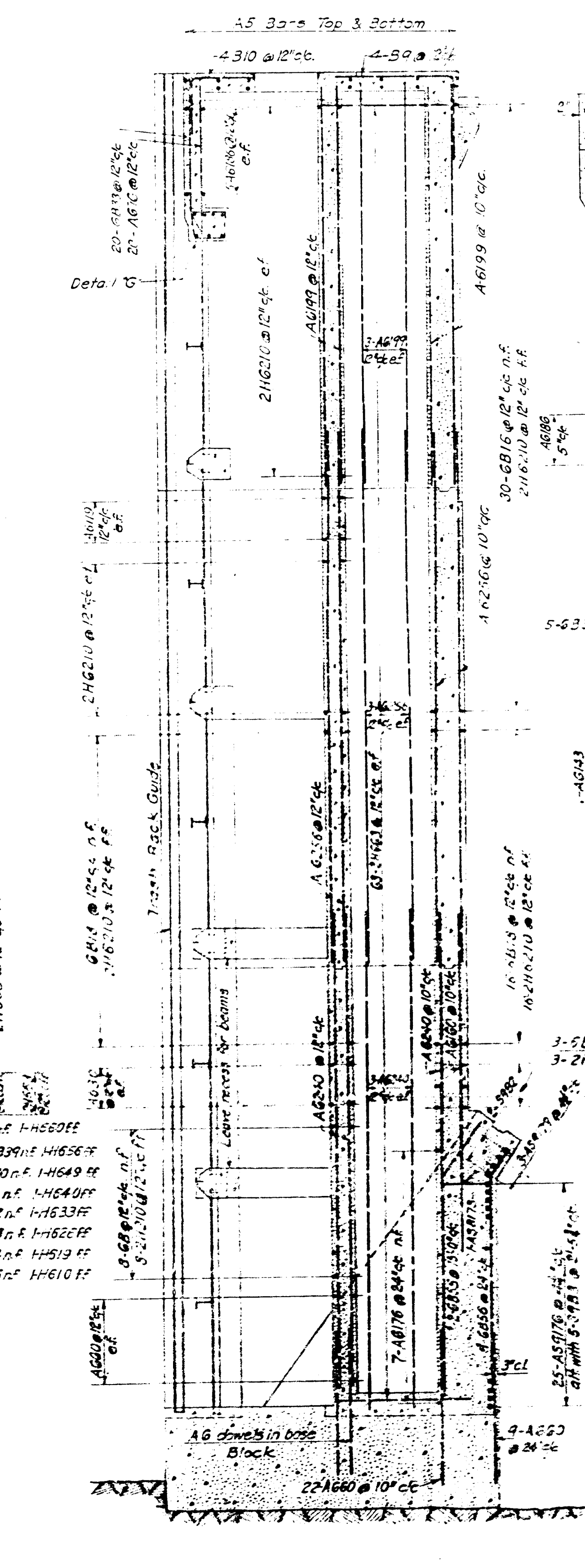
MICROFILMED 20:1
Reduction Ratio



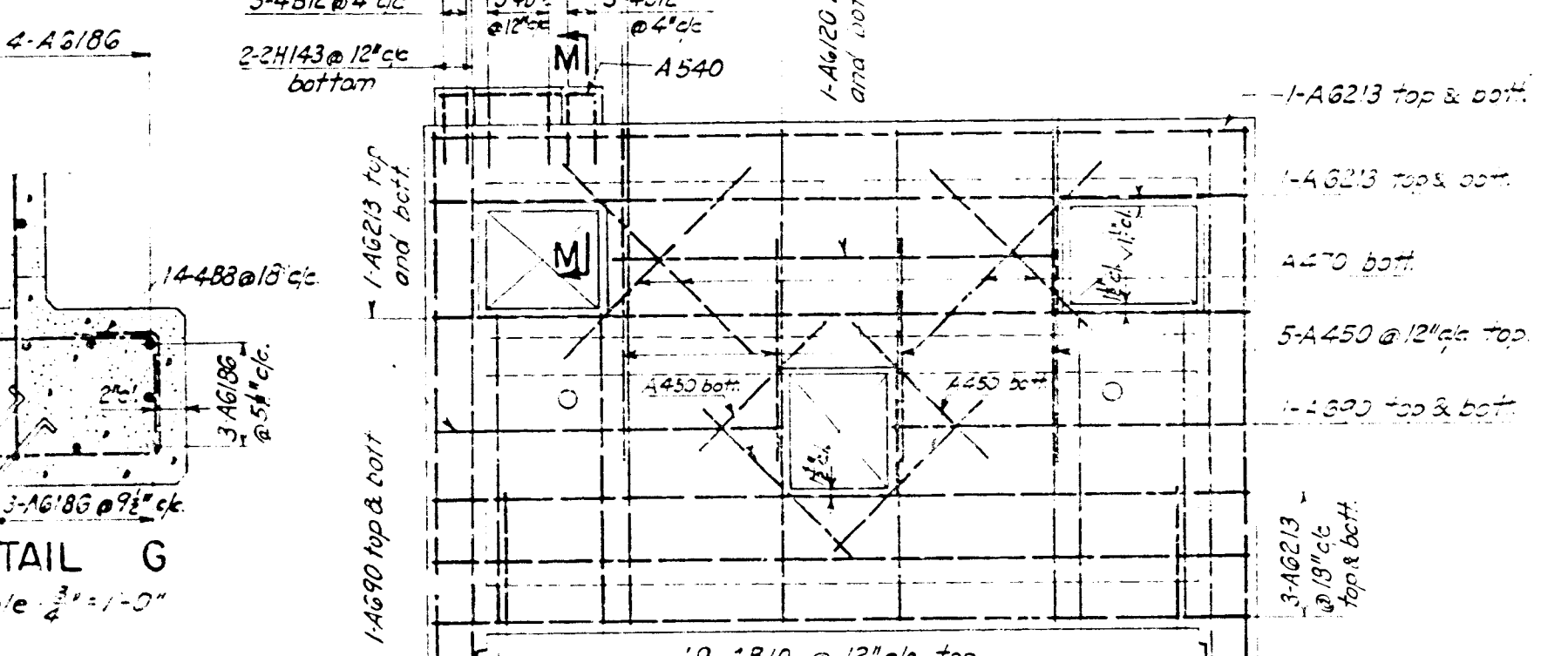
SECTION A-A
Scale: 1/4" = 1'-0"



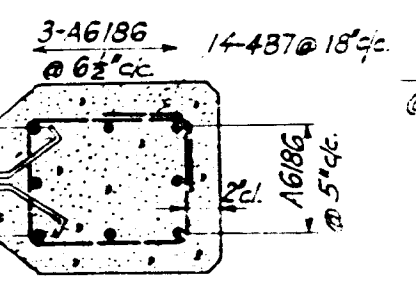
ELEVATION B-B
Scale: 1/4" = 1'-0"



SECTION C-C
Scale: 1/4" = 1'-0"



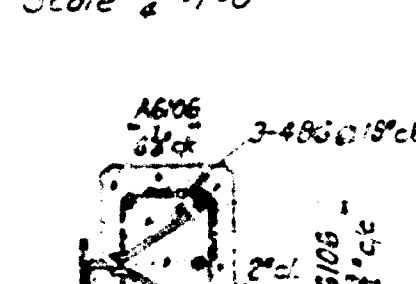
DETAIL G
Scale: 1/2" = 1'-0"



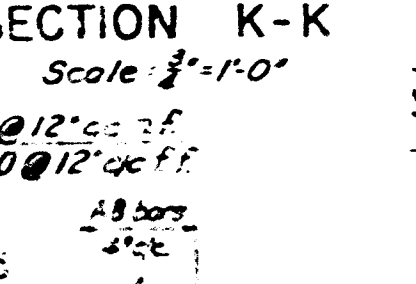
SECTION H-H
Scale: 1/2" = 1'-0"



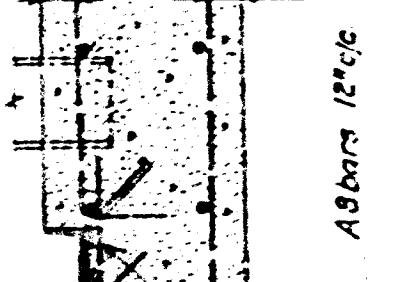
SECTION J-J
Scale: 1/2" = 1'-0"



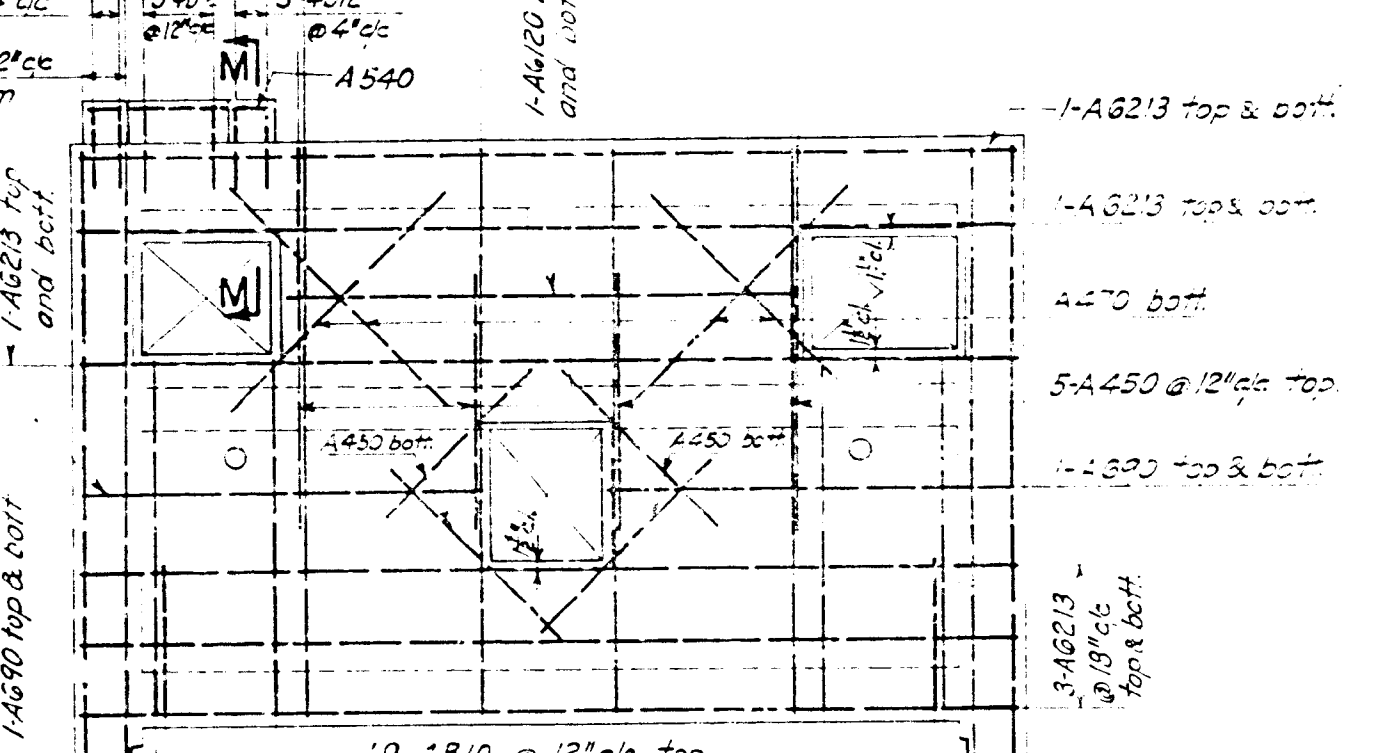
SECTION K-K
Scale: 1/2" = 1'-0"



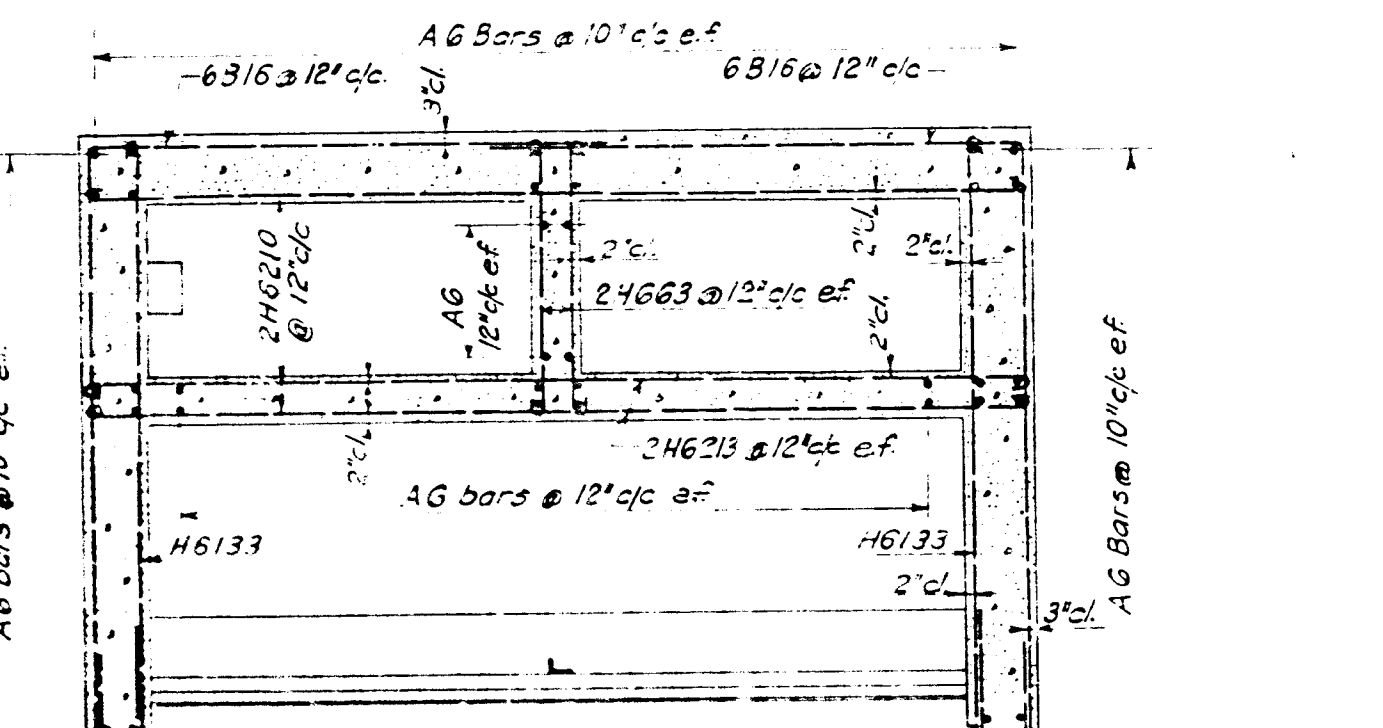
SECTION L-L
Scale: 1/2" = 1'-0"



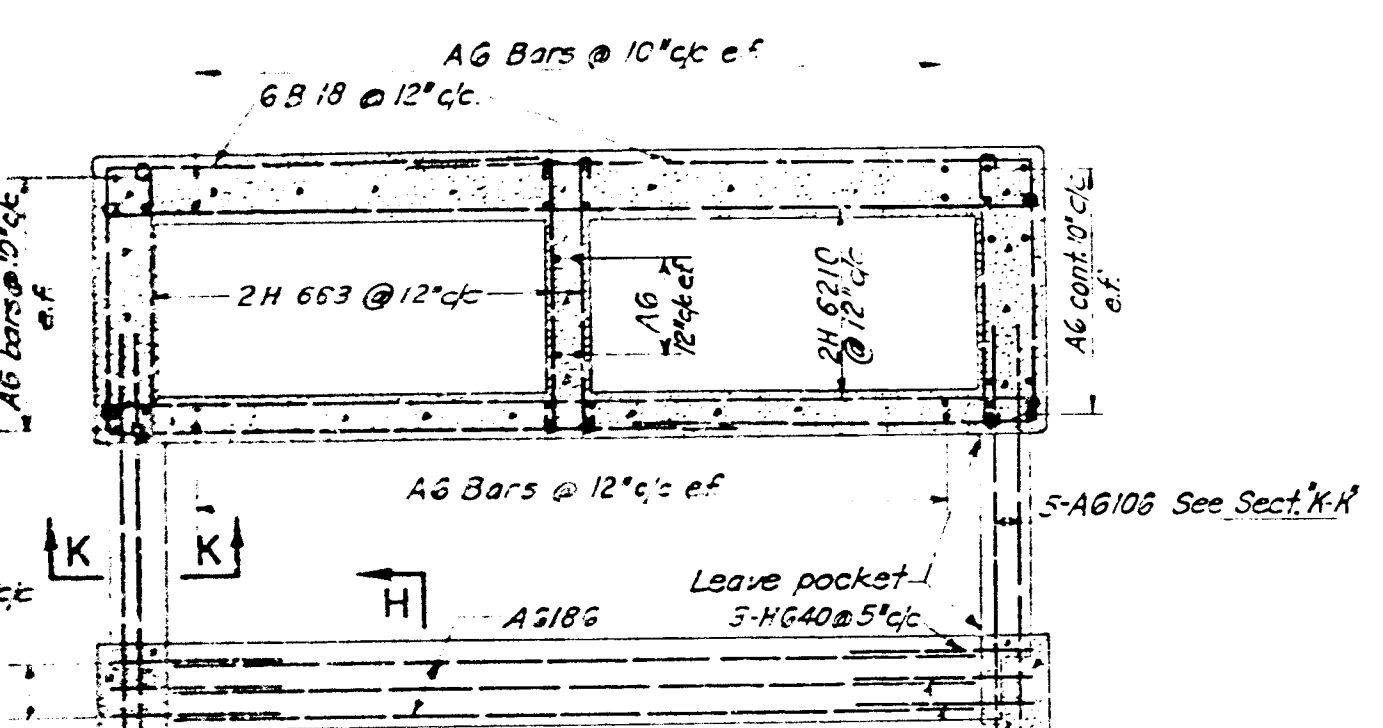
SECTION M-M
Scale: 1/2" = 1'-0"



PLAN D-D
Scale: 1/2" = 1'-0"



SECTION E-E
Scale: 1/2" = 1'-0"



SECTION F-F
Scale: 1/2" = 1'-0"

GENERAL NOTES
1. For concrete details of Intake Tower see drawing No. 19.
2. For reinforcing details of spillway abutment buttress see drawing No. 12.

REINFORCING NOTES
1. For reinforcing notes see drawings Nos. 12 and 25.

REV.	DATE	BY	DESCRIPTION
1	7-30-1941		
2	8-20-1941		
3	8-14-1941		
4	9-13-1941		

JOB NUMBER
4002

AMBURSEN ENGINEERING CORPORATION
CONSULTING ENGINEERS
NEW YORK

WASHINGTON SUBURBAN SANITARY COMMISSION
BRIGHTON DAM - CONTRACT 127-W

INTAKE TOWER
REINFORCING DETAILS

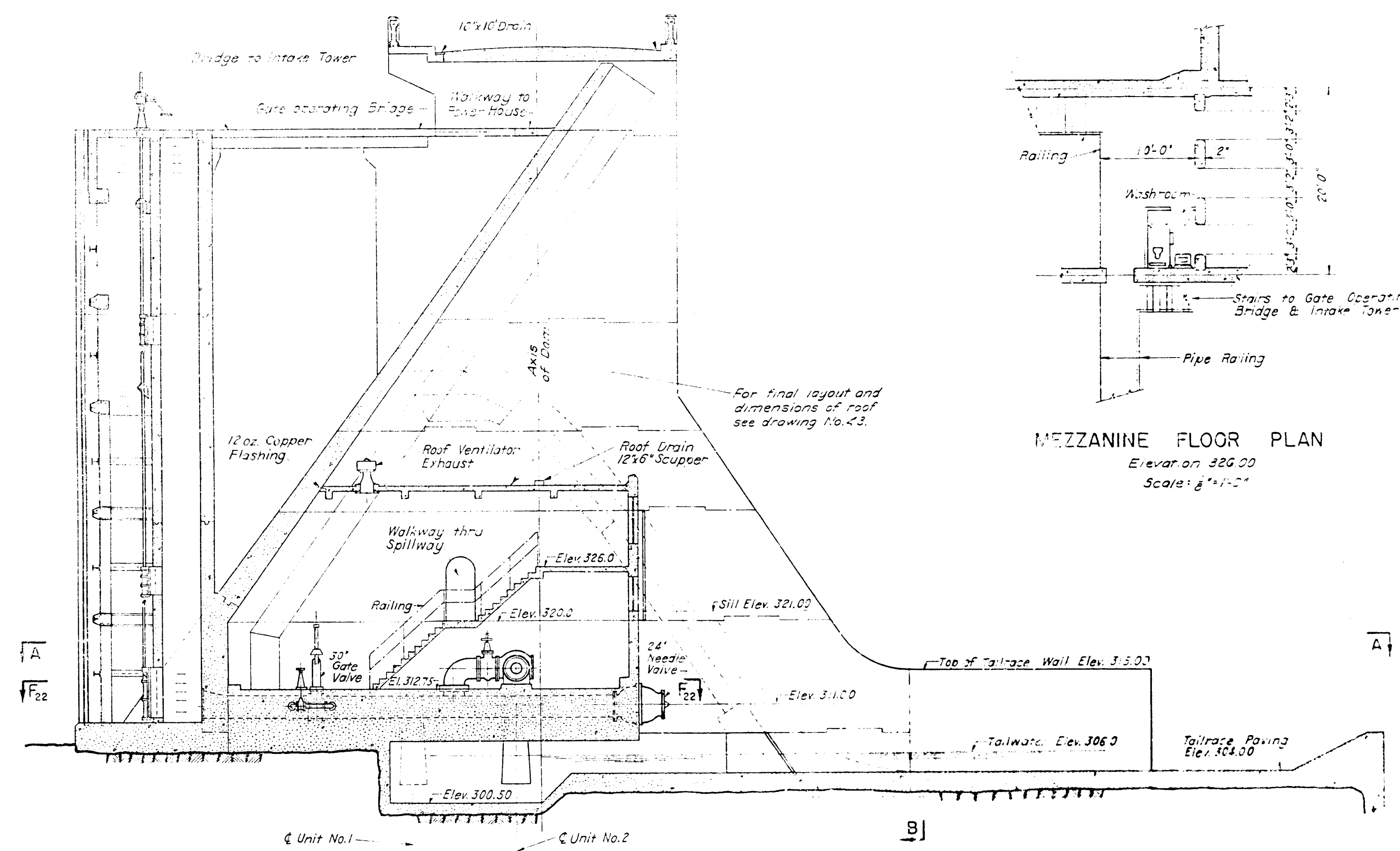
APPROVED: *[Signature]* CHIEF ENGINEER
WASHINGTON SUBURBAN SANITARY COMMISSION

DRAWING NUMBER
20

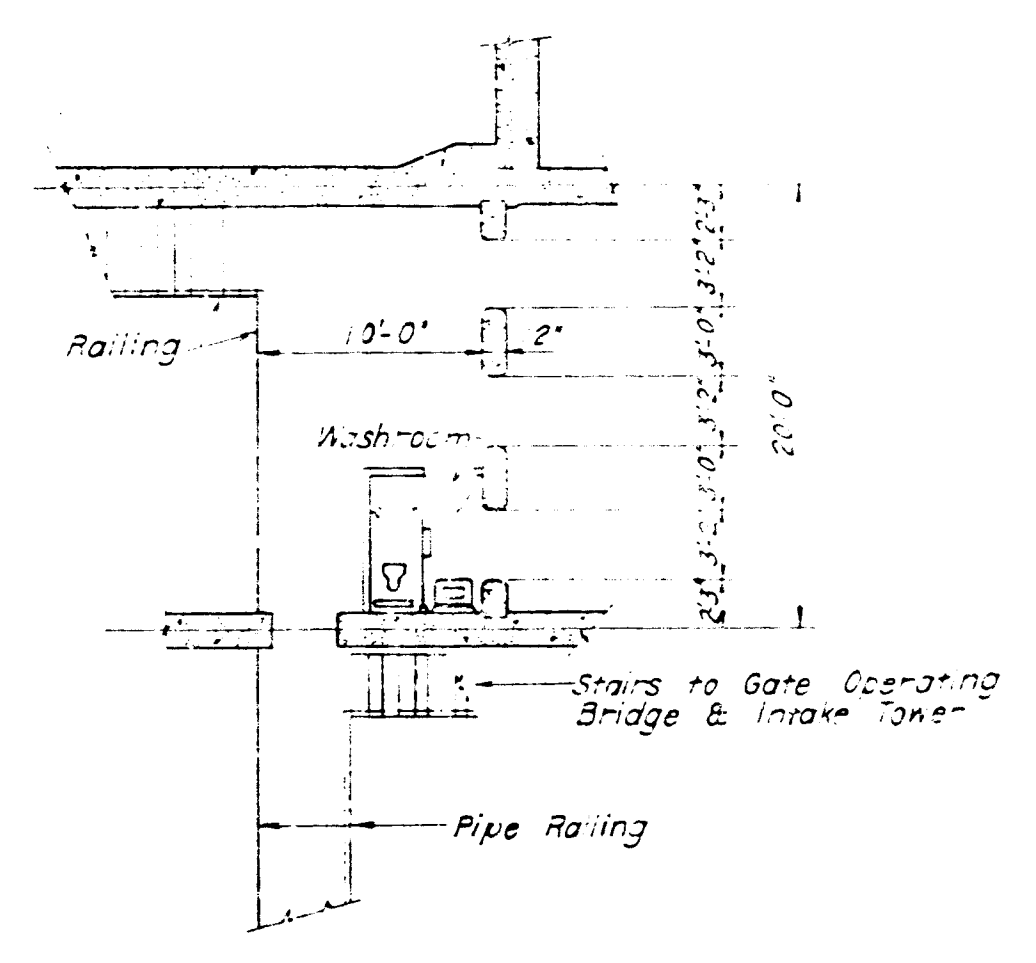
SCALE
AS SHOWN

Note:
Omit 10"x10" Cast Iron Bridge Drain
on downstream side in Powerhouse
Bay.

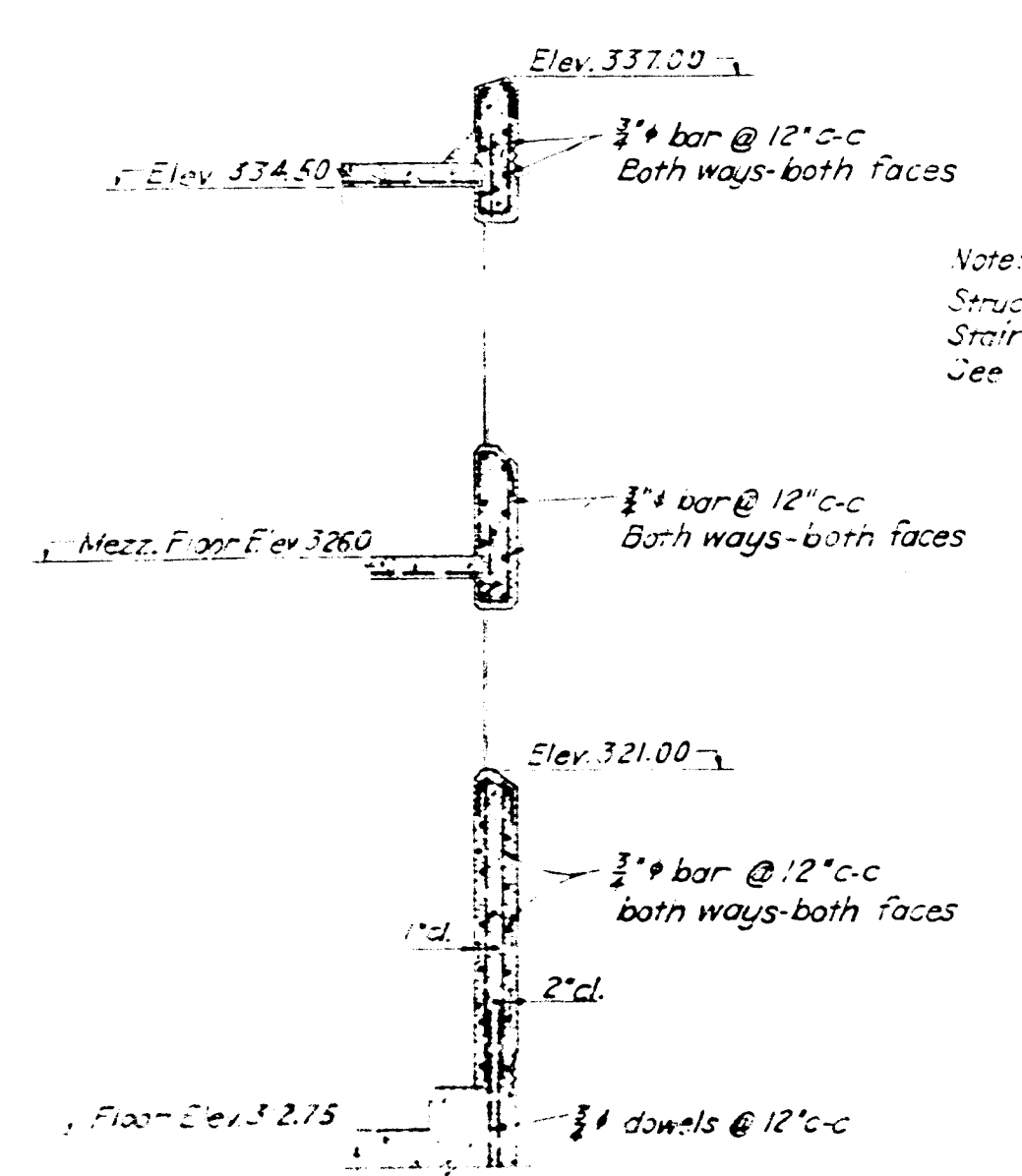
- C Buttress No.11 - C Buttress No.12



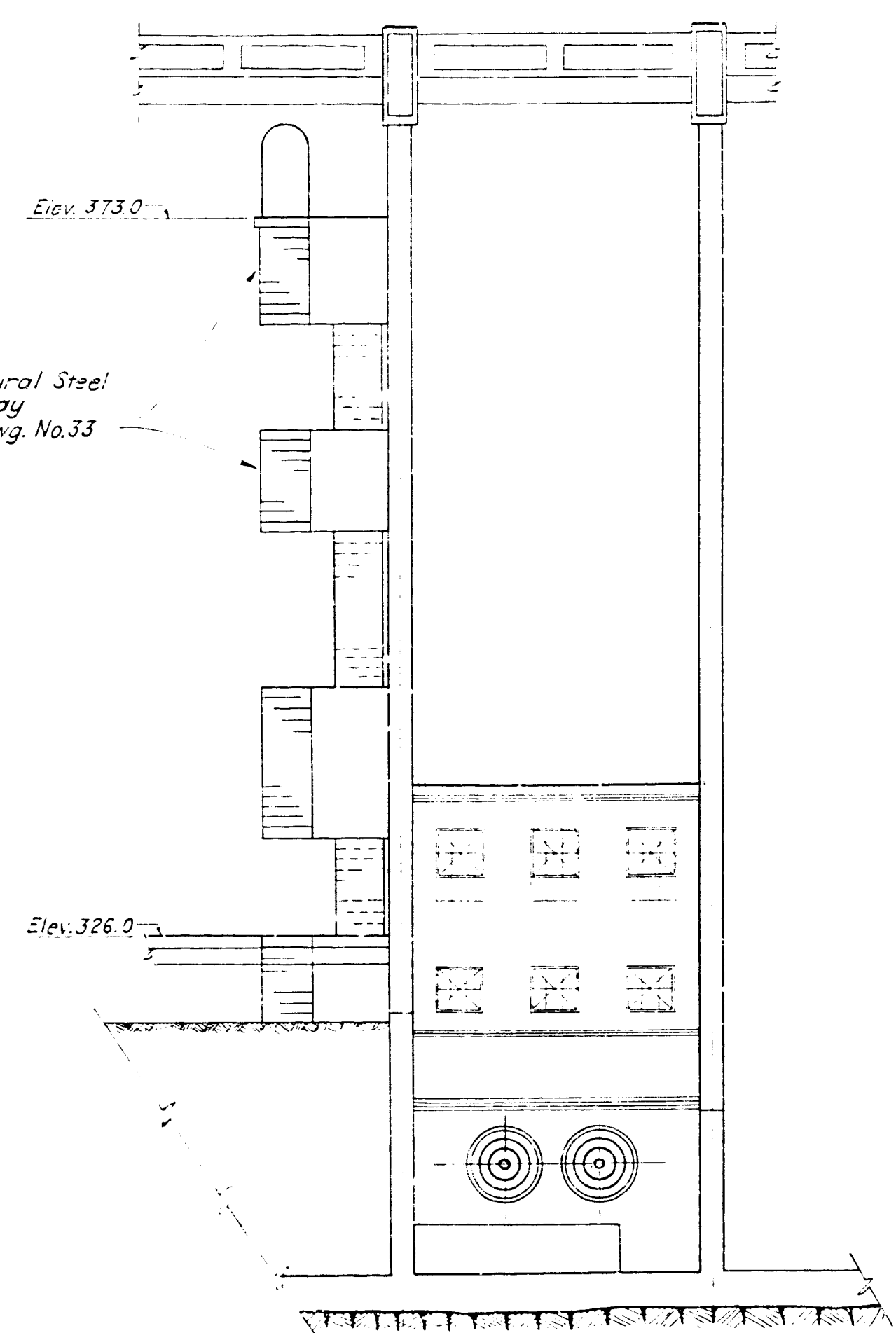
SECTION THROUGH POWERHOUSE
Scale: 1/4" = 1'-0"



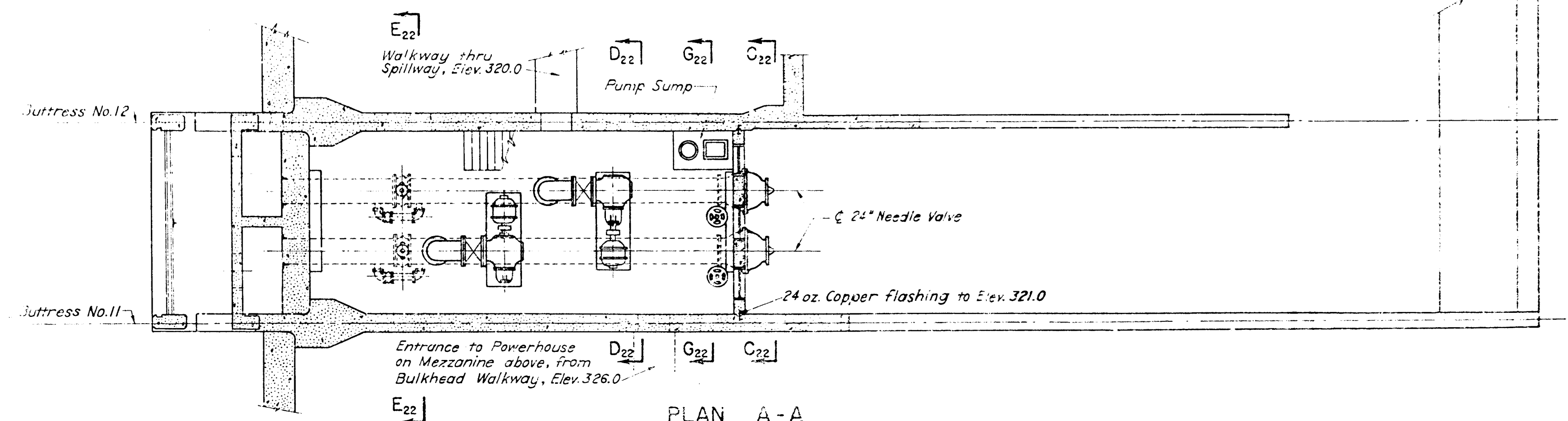
MEZZANINE FLOOR PLAN
Elevation 326.00
Scale: 1/8" = 1'-0"



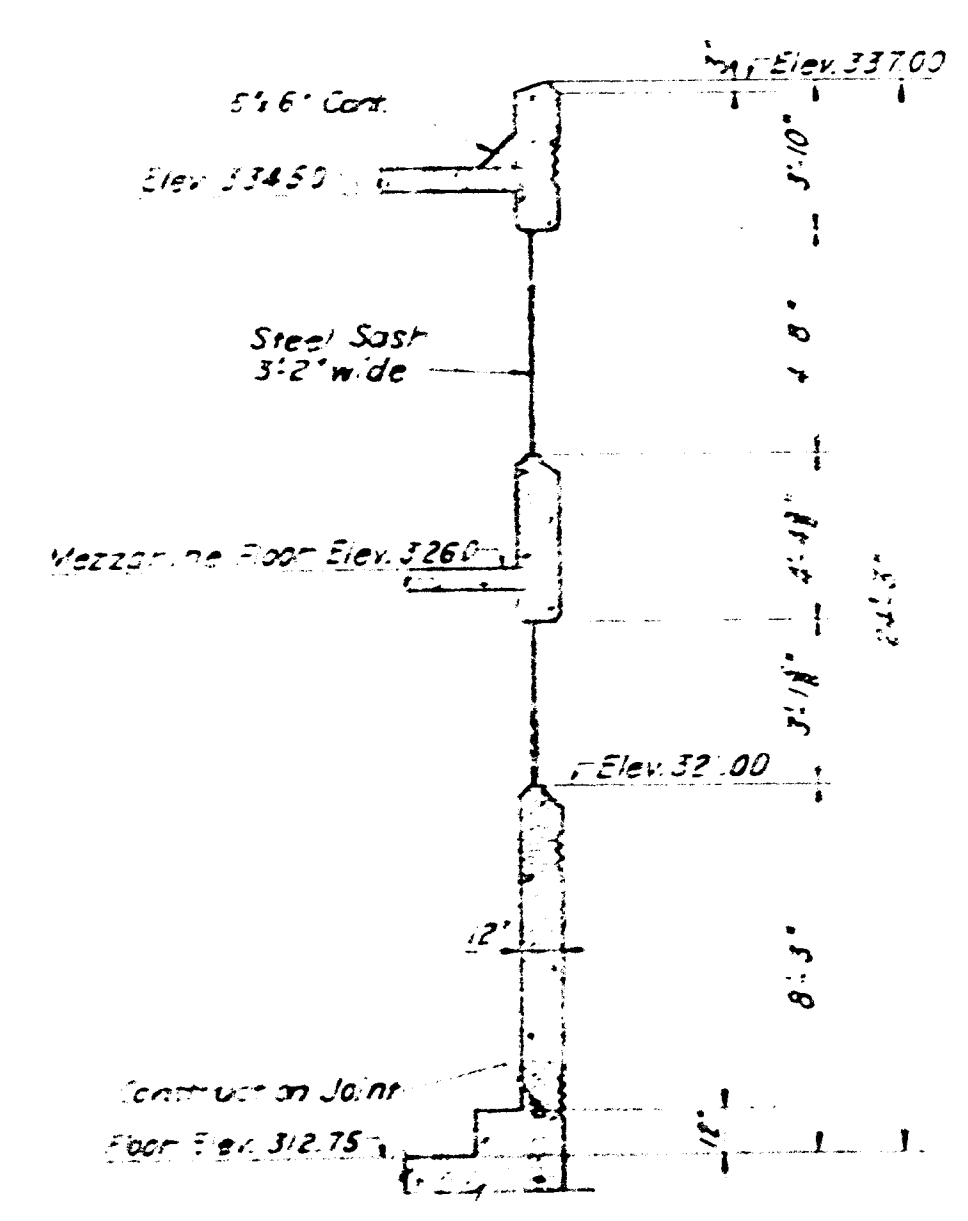
TYPICAL WALL SECTION
REINFORCING
Scale: 1/4" = 1'-0"



ELEVATION B-B
Scale: 1/4" = 1'-0"



PLAN A-A
Scale: 1/8" = 1'-0"

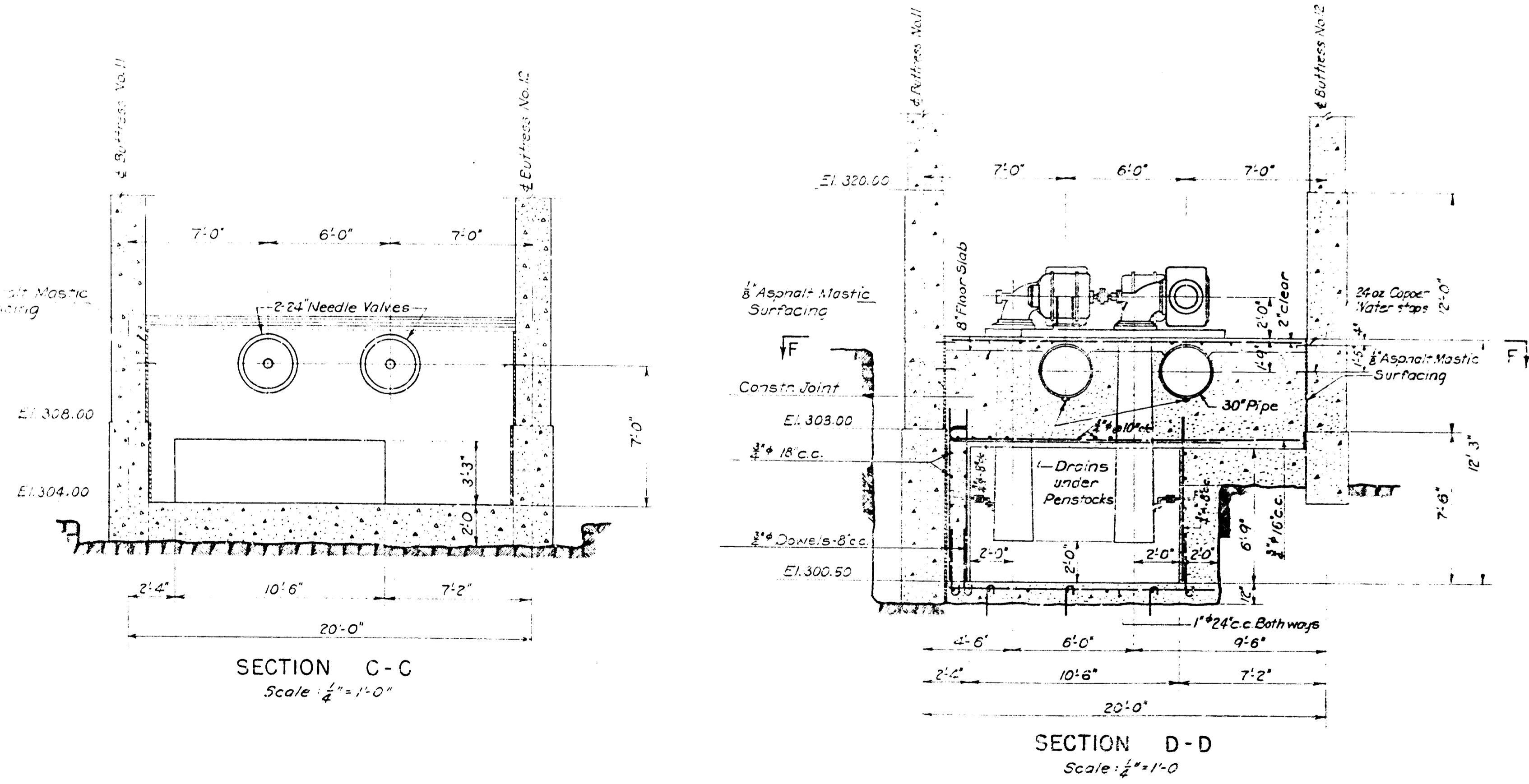
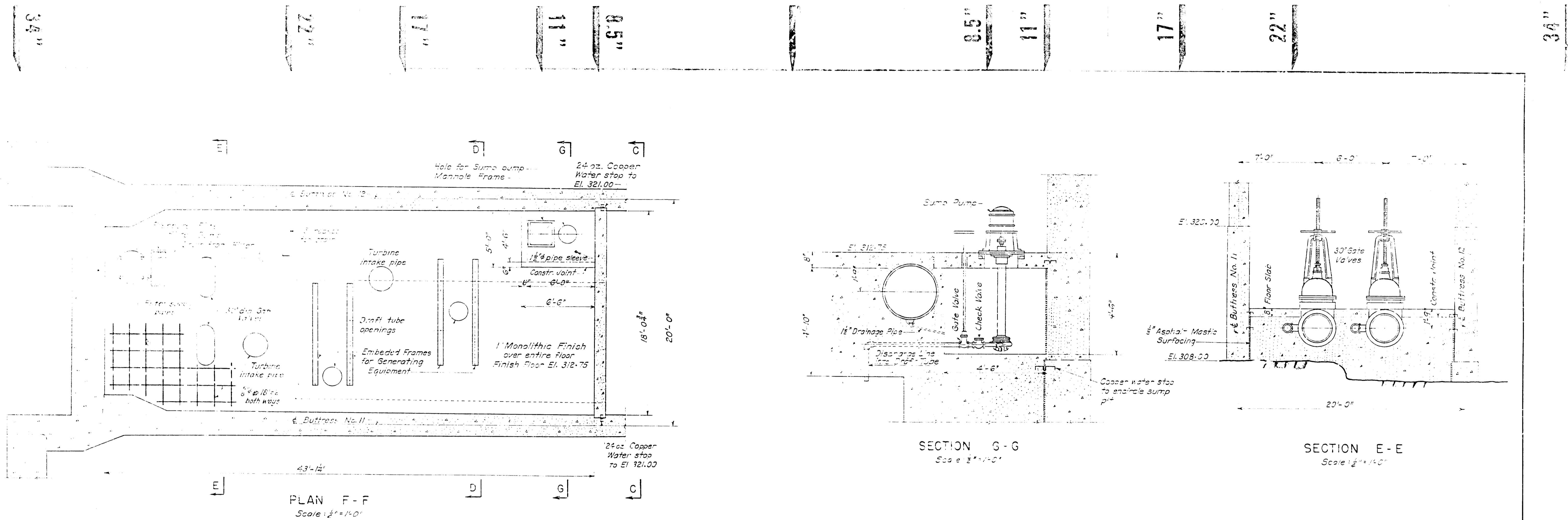


TYPICAL WALL SECTION
Scale: 1/4" = 1'-0"

- GENERAL NOTES
1. For concrete and reinforcing details below elevation 312.75 see drawings Nos. 41 and 42.
 2. For details of Intake Tower see drawings Nos. 19 and 20.
 3. For details of Spillway Abutment Buttress No. 12 see drawings Nos. 62 and 63.
 4. For details of walkway and stair see drawing No. 27.
 5. For details of structural steel stairway see drawing No. 31.
 6. For details of railing see drawing No. 34.
 7. For details of washroom see drawings Nos. 30, 43, 44.

7-26-1941 REV. 194	7-31-1941 REV. 194	7-26-1941 REV. 194	8-11-1942 REV. R.B.A.	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	POWERHOUSE SUPERSTRUCTURE DETAILS	APPROVED: <i>Sept 25, 1941</i> <i>Henry Schell</i> CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 21	SCALE As Shown
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MICROFILMED 201



GENERAL NOTES

1. For details of Powerhouse above El. 312.75 see drawings Nos 41 and 42.
2. Reinforcing bar bends and details to conform to bent bar reinforcing schedule, drawing No. 35.

8-13-1941 9-30-1941 9-22-1941 9-30-1941	REV REV REV REV	194 194 194 194	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	POWERHOUSE SUBSTRUCTURE DETAILS	APPROVED: Sept 22, 1941 <i>Henry Hall</i> CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 22	SCALE As Shown
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34"

22"

17"

11"

6.5"

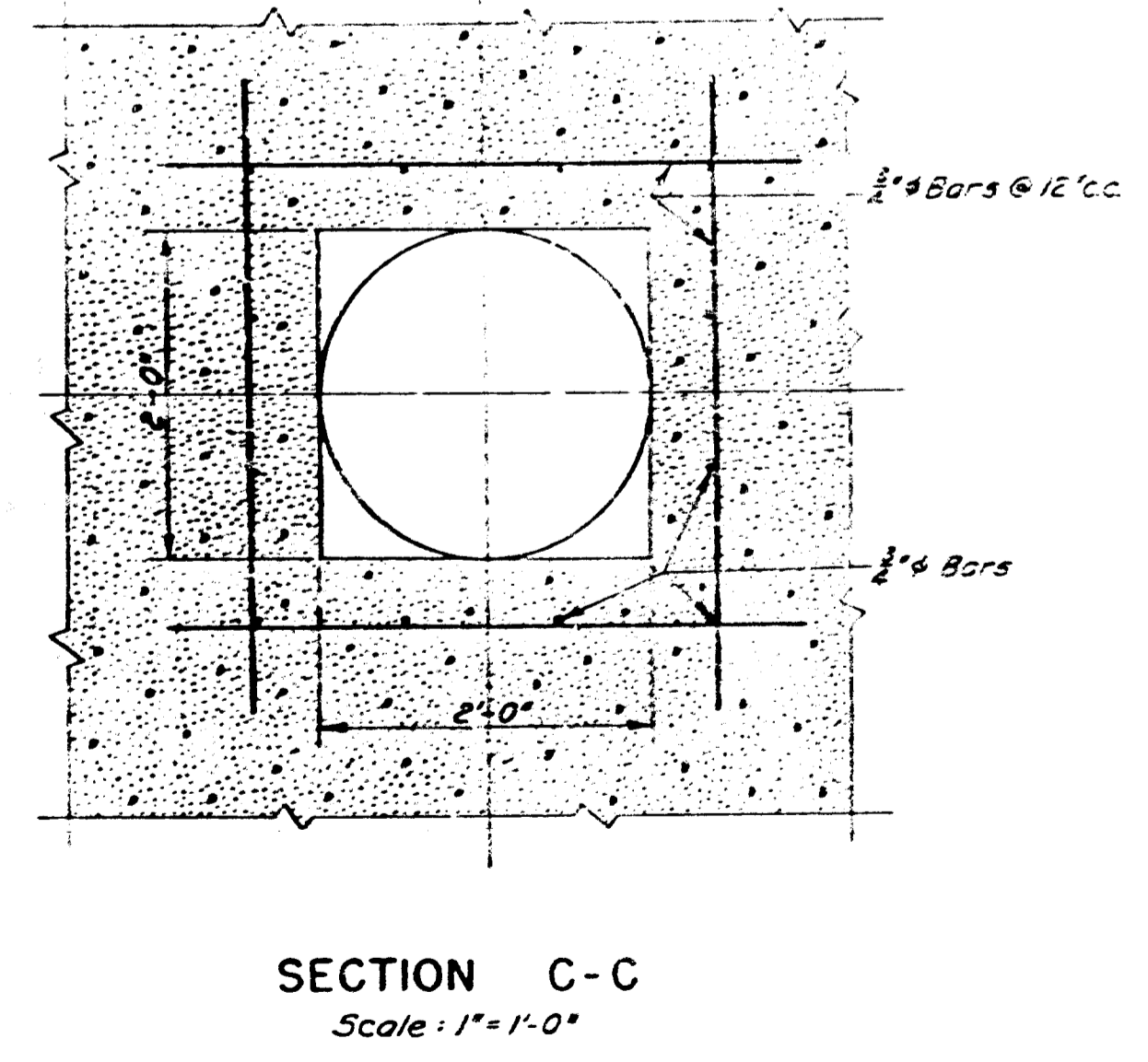
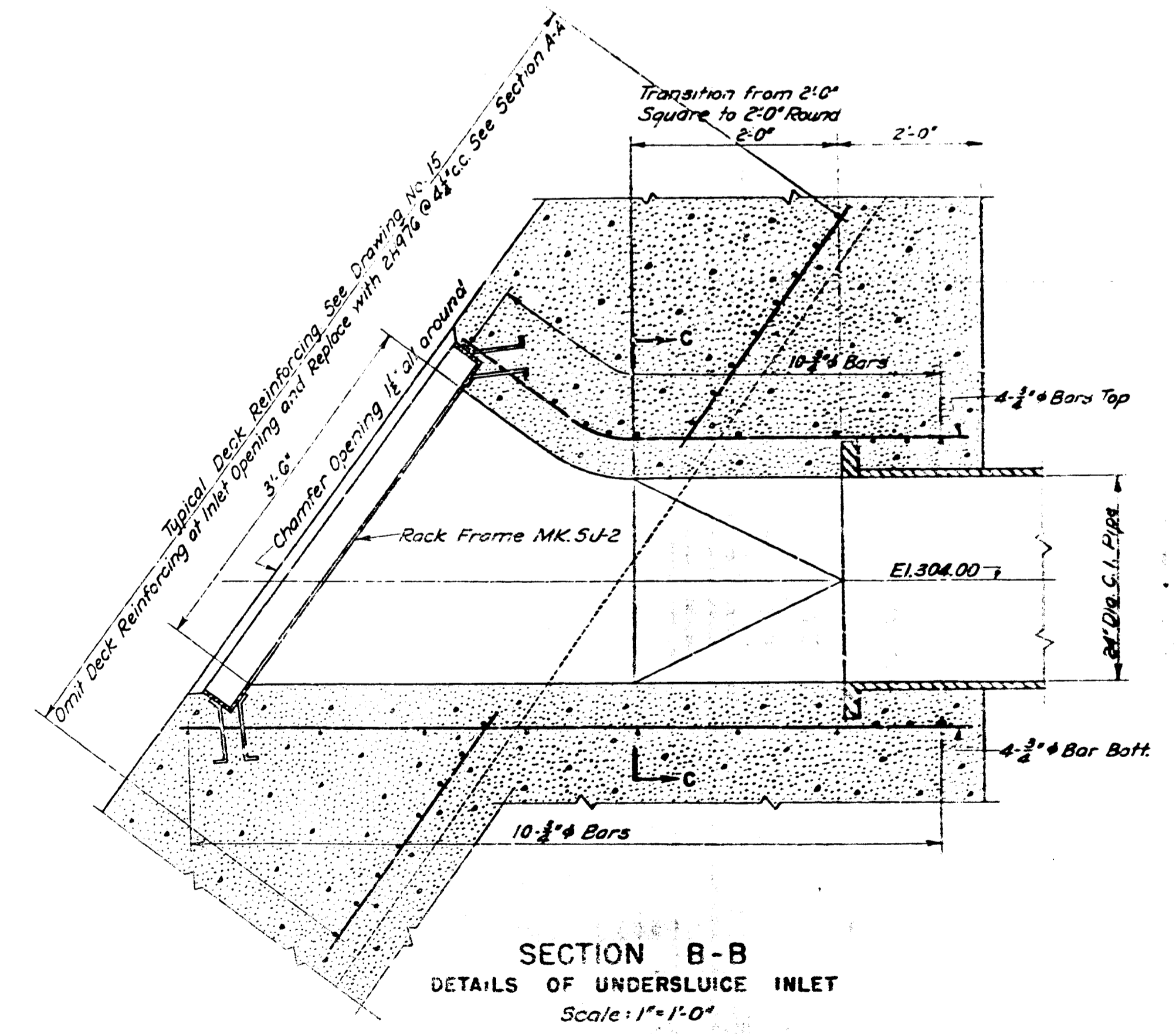
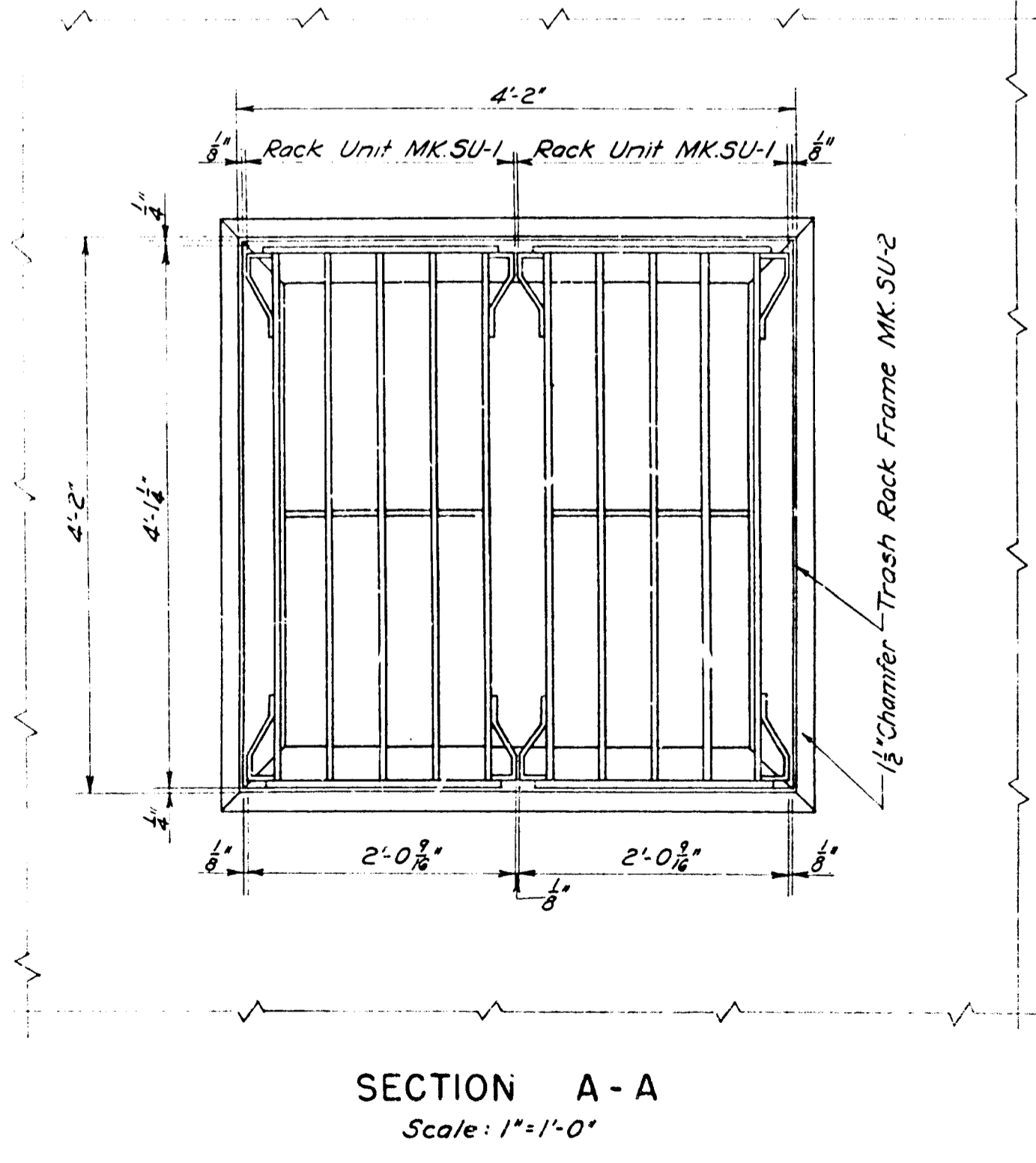
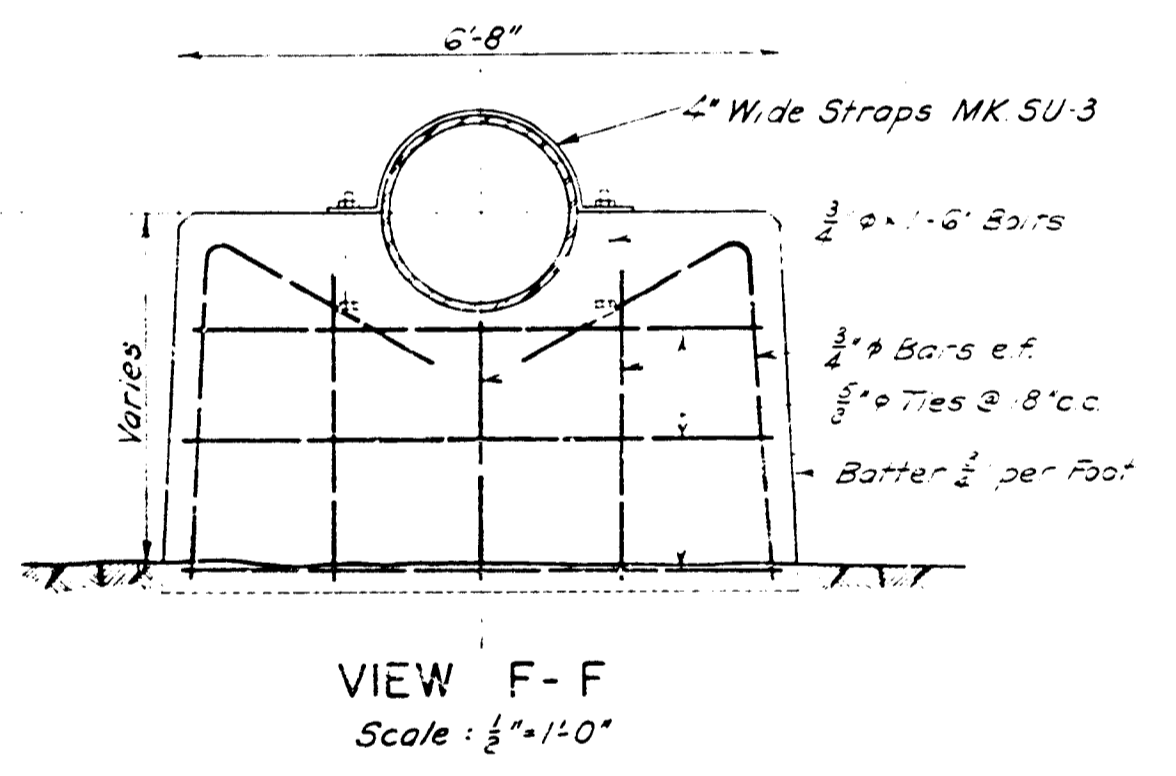
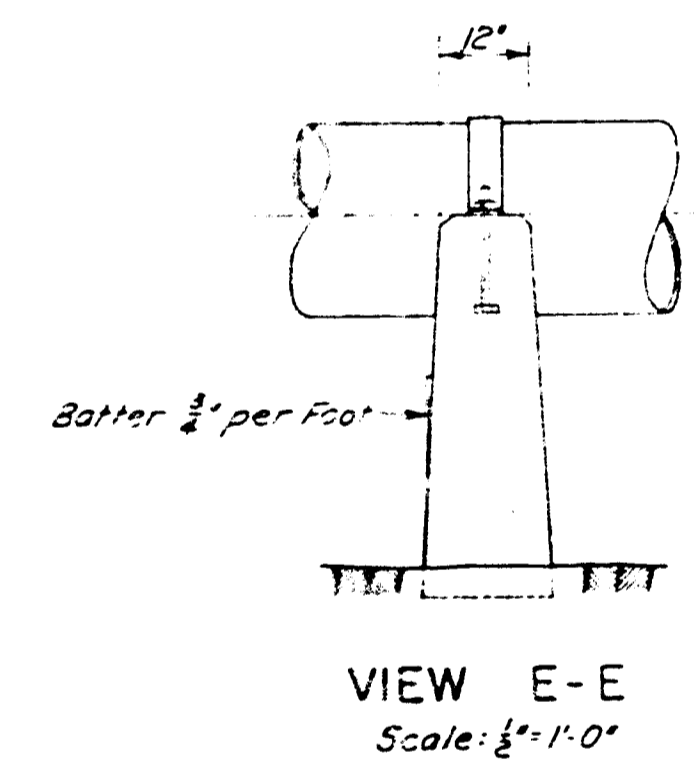
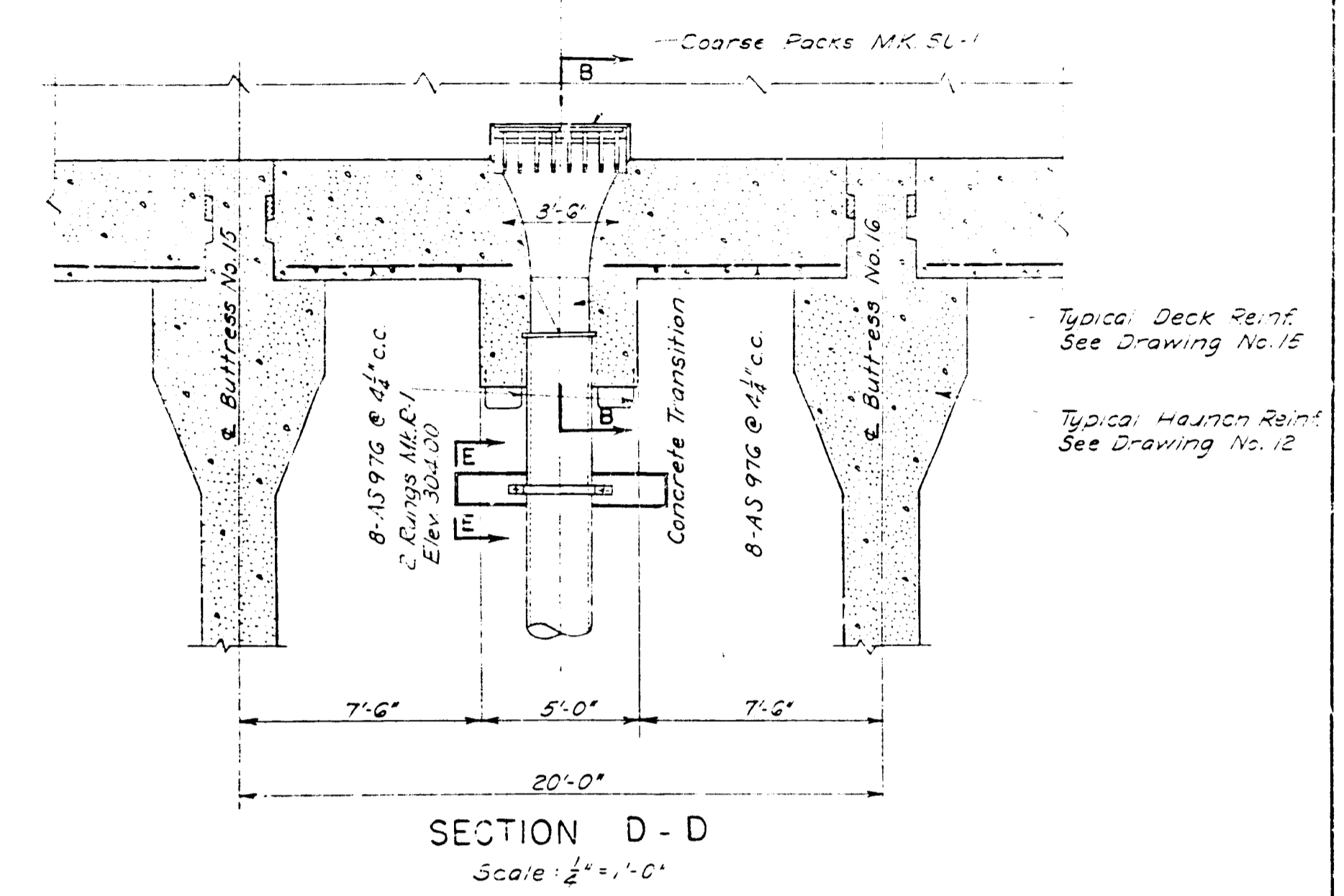
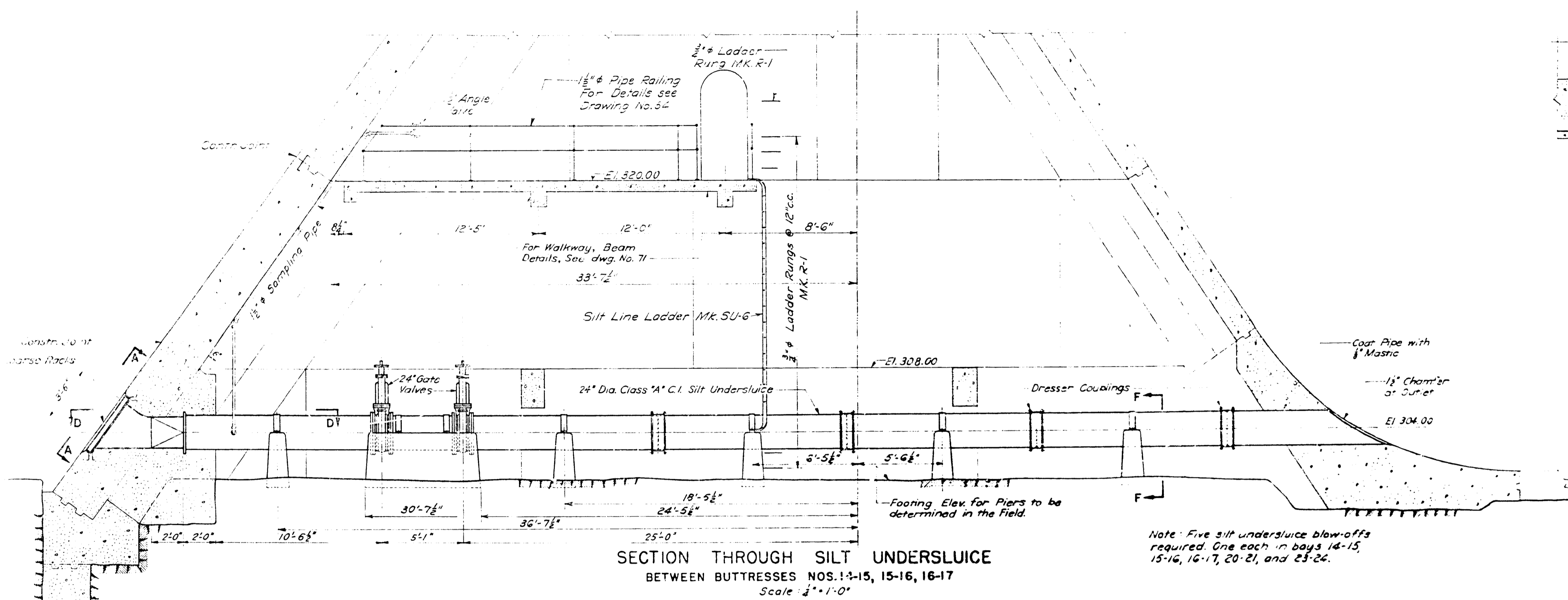
8.5"

11"

17"

22"

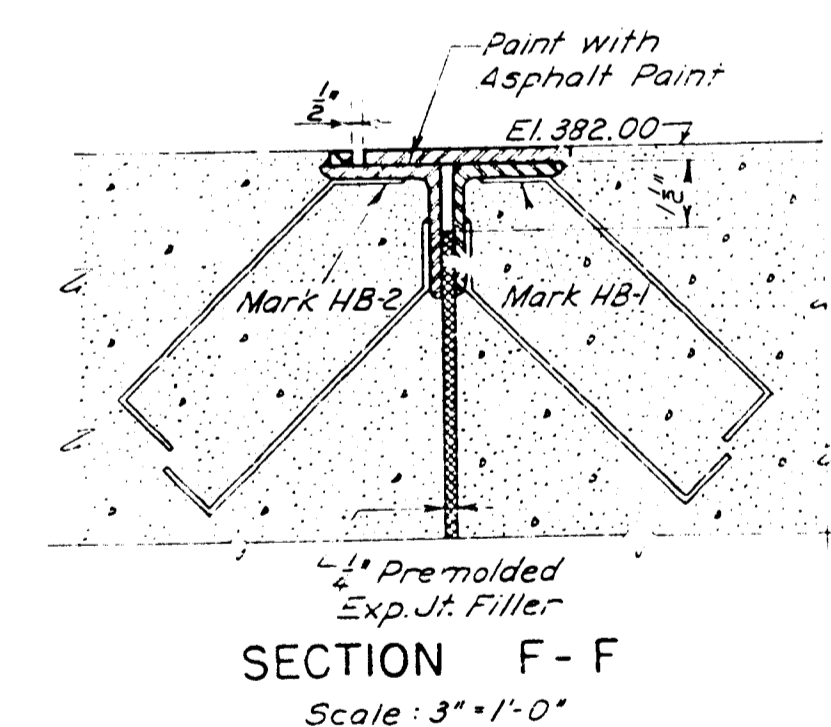
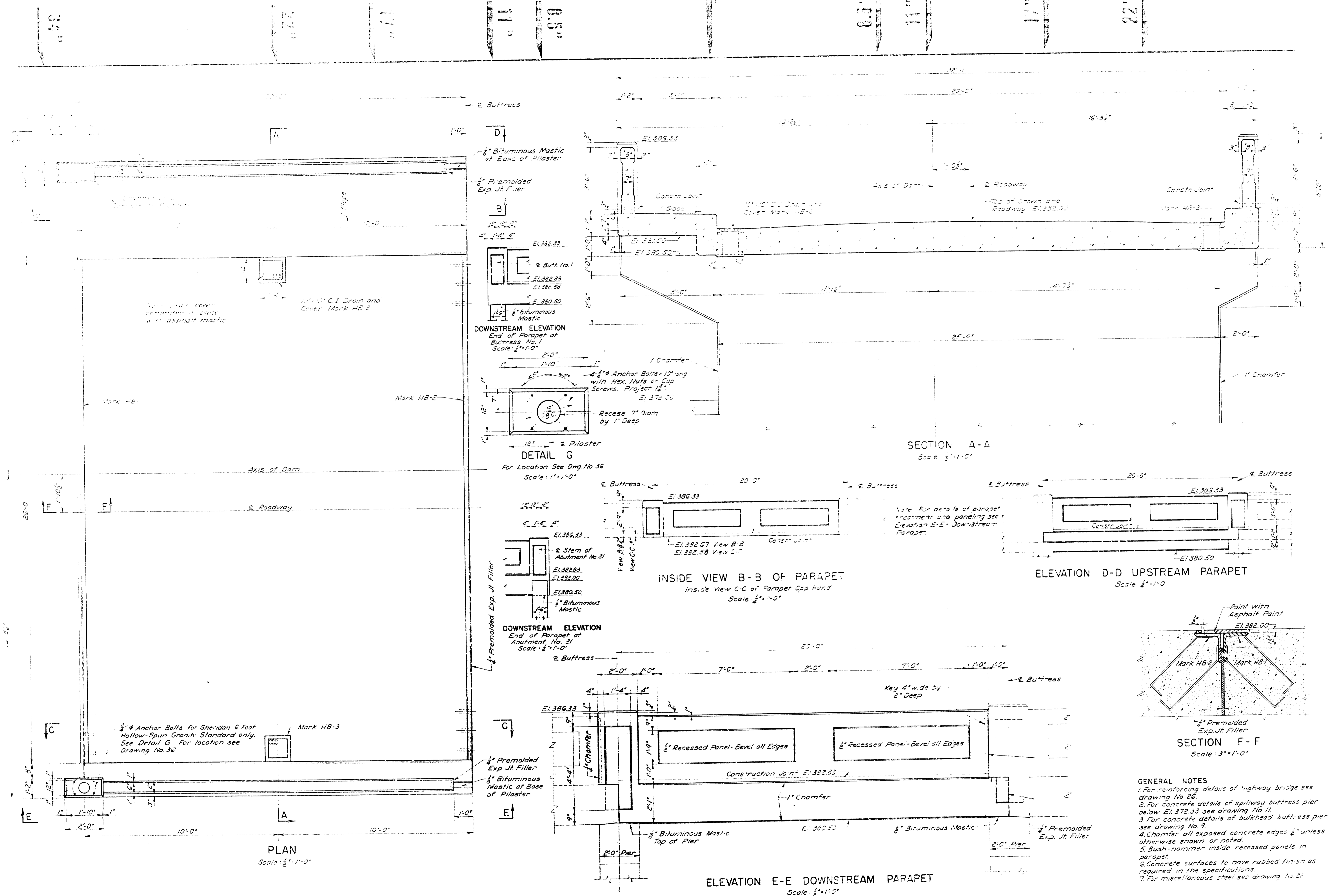
34"



GENERAL NOTES

- Concrete and reinforcing details as shown are for the purpose of estimating quantities only. Final elevations may vary widely from those shown.
- For typical spillway buttress details see drawings Nos. 11 and 12.
- For typical deck details see drawing No. 15.
- For miscellaneous structural steel details see drawings Nos. 32 and 80.
- For "Silt Undersluice Details, Drawing No. 2 of 2" showing Bays 20-21, and 23-24, see dwg No. 71.

DWG. E.S. 8-20-1941 REV. R.B.A. 8-26-1941 CHECKED H.E.B. 8-28-1941 APPROVED C.H.B. 9-36-1941	REV. 184 REV. R.B.A. 9-24-1942 REV. R.D.S.:L.C. 3-15-1942	JOR NUMBER 4032	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	SILT UNDERSLUICE DETAILS DRAWING NO. 1 OF 2	APPROVED <i>Sept. 26, 1942</i> <i>Amey Hall</i> CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 23	SCALE As Shown
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- GENERAL NOTES**
1. For reinforcing details of highway bridge see drawing No. 26.
 2. For concrete details of spillway buttress pier below El. 372.33 see drawing No. 11.
 3. For concrete details of bulkhead buttress pier see drawing No. 9.
 4. Chamfer all exposed concrete edges 1/2" unless otherwise shown or noted.
 5. Bush-hammer inside recessed panels in parapet.
 6. Concrete surfaces to have rubbed finish as required in the specifications.
 7. For miscellaneous steel see drawing No. 33.

REV. A	7-28, 1941	REV. A. B. A.	10-8, 1942	Removed Jt. 13, Sect. A-1, Changed Sect. 5.5.
REV. B	9-12, 1941	REV. B. B. A.	10-7, 1942	Revised Det. G & D.S. Elev. End of Parapet of Abutment 31.
REV. C	9-6, 1941	REV. C. B. A.	9-18, 1942	Added D.S. Elev. End of Parapet of Butts. & Abutment 31.
REV. D	1-30, 1940	REV. D. B. A.	5-25, 1942	Rev. & Reissued. Light Standard Anchor Bolt Detailed.

NUMBER: 4002
 AMBURSEN ENGINEERING CORPORATION
 CONSULTING ENGINEERS
 NEW YORK

WASHINGTON SUBURBAN SANITARY COMMISSION
 BRIGHTON DAM - CONTRACT 127-W

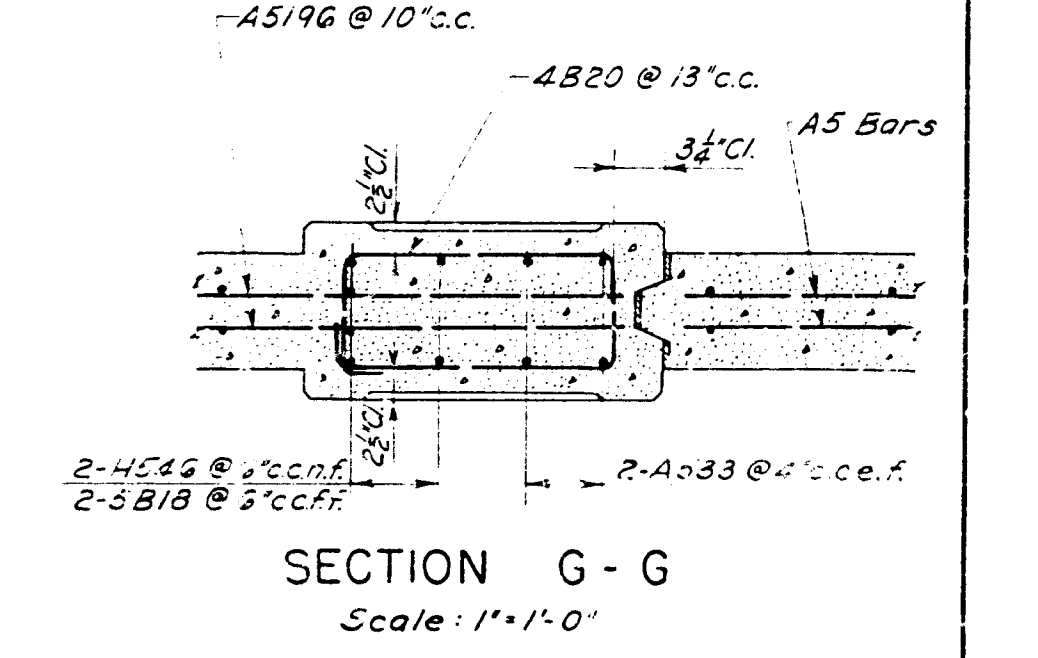
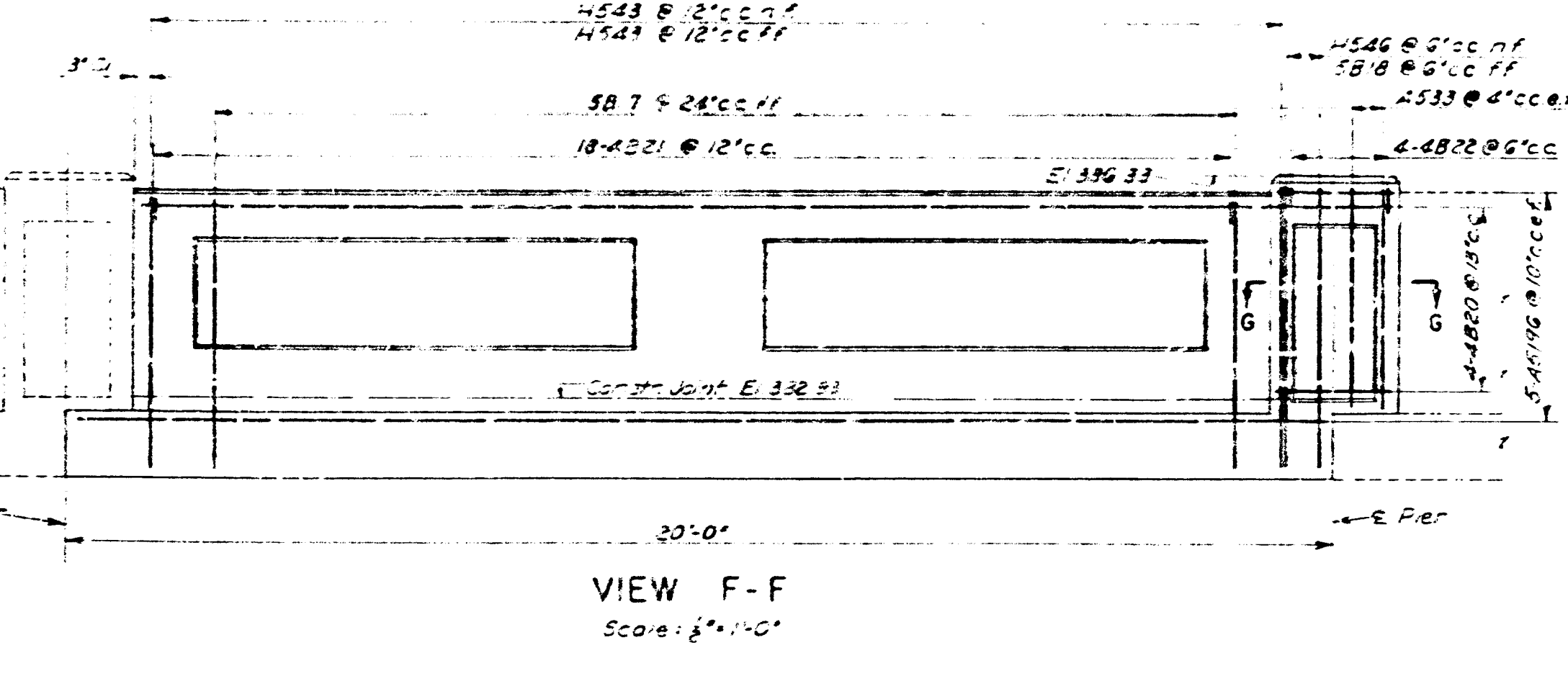
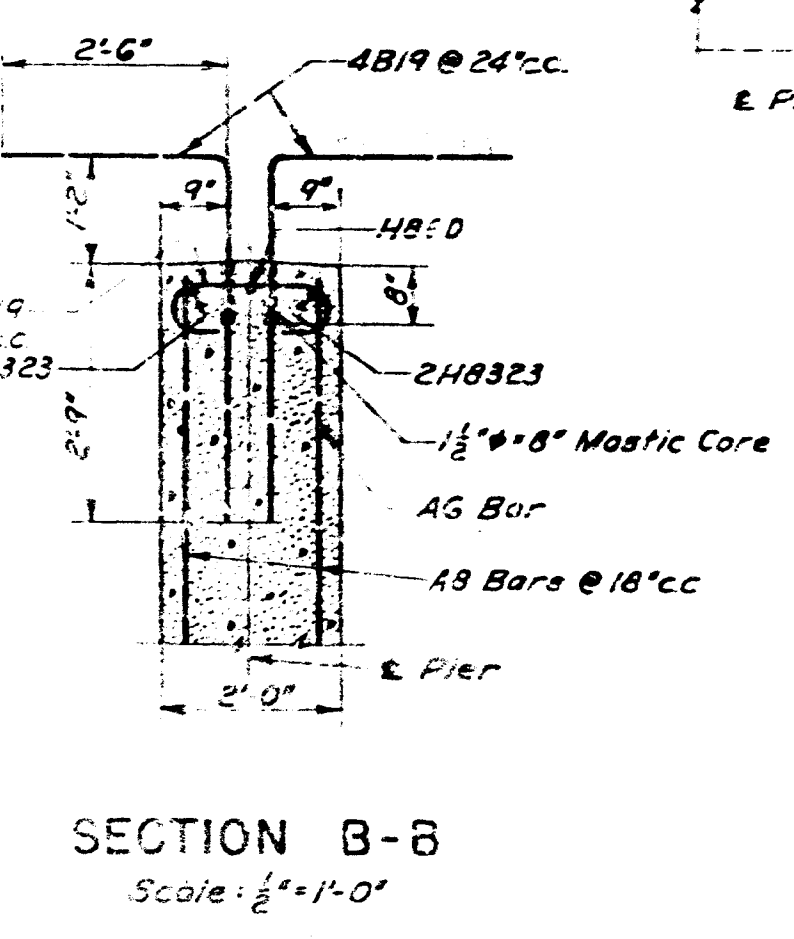
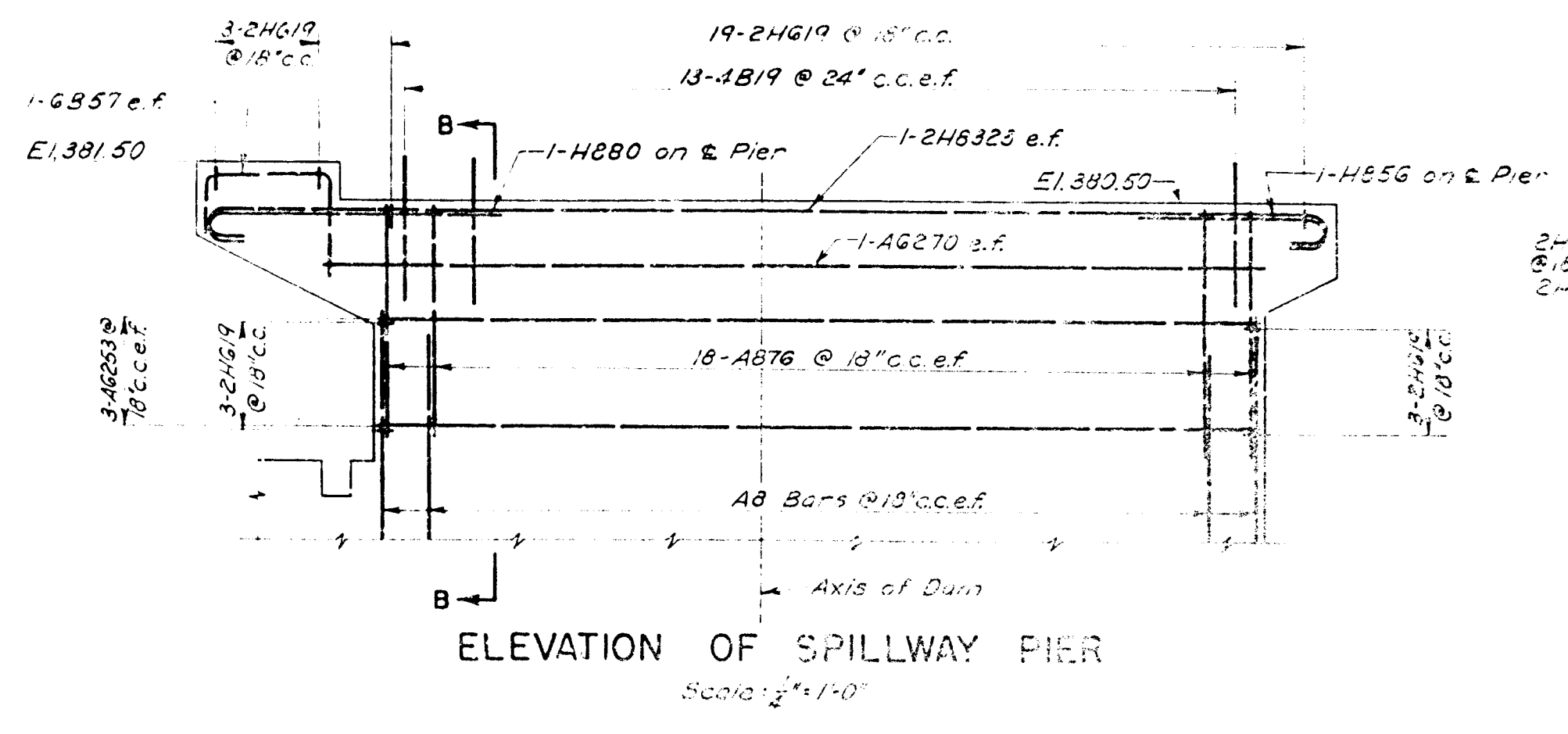
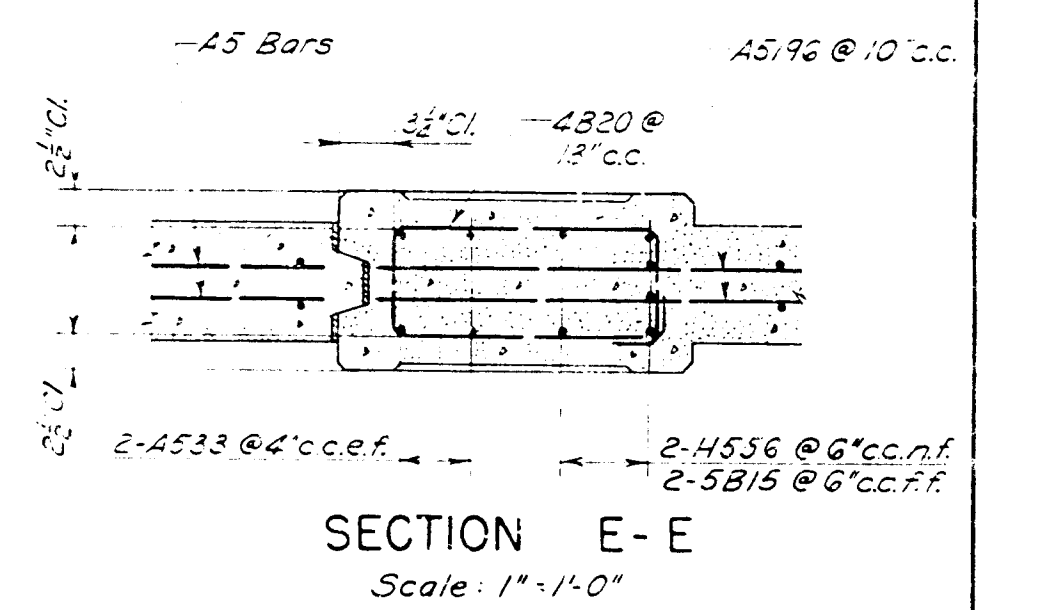
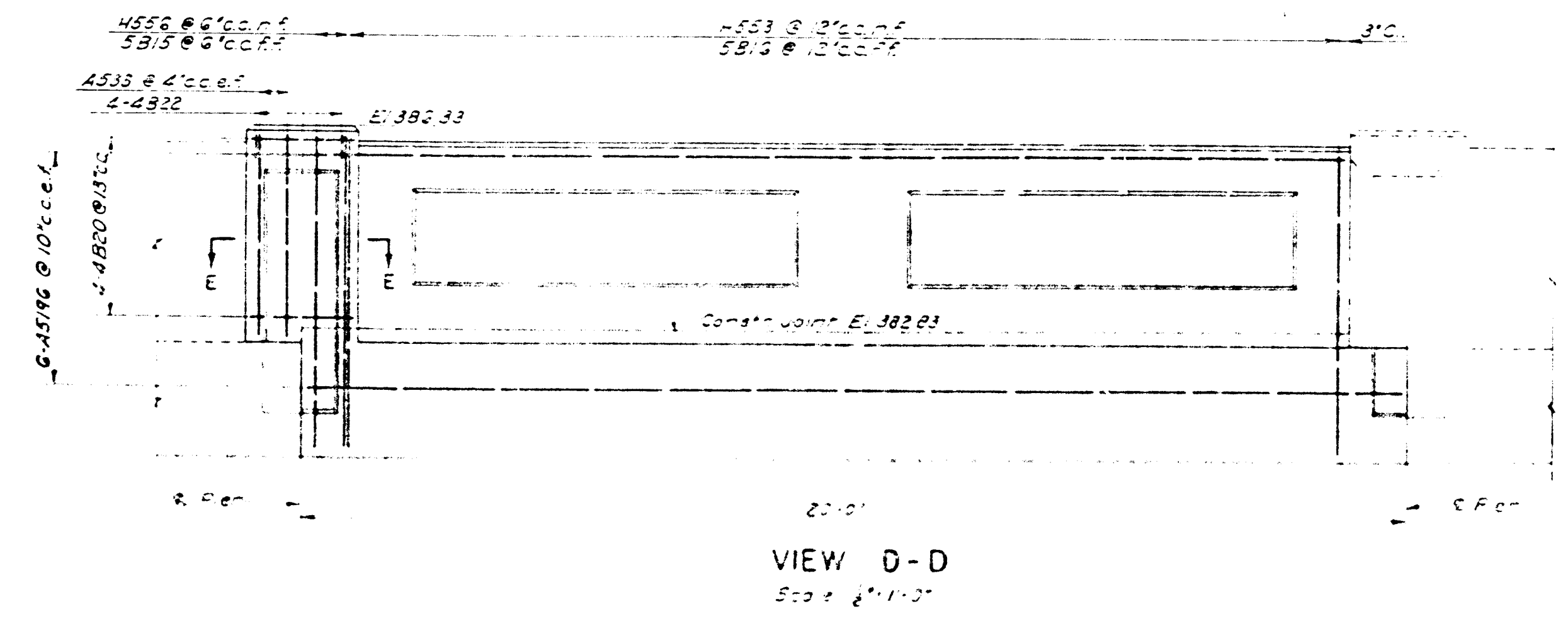
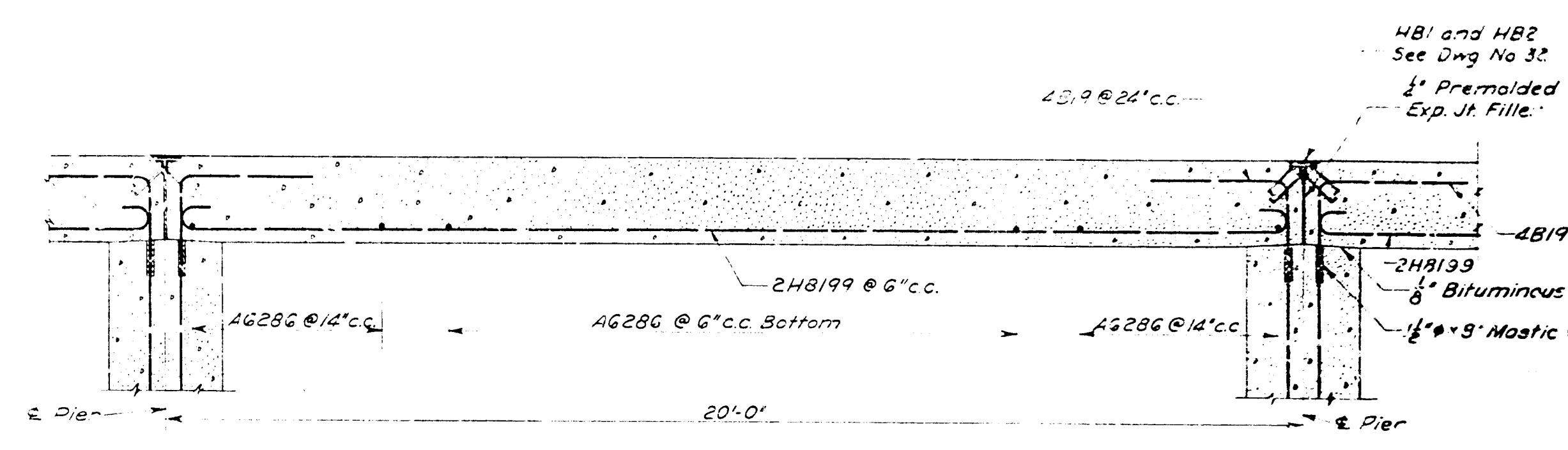
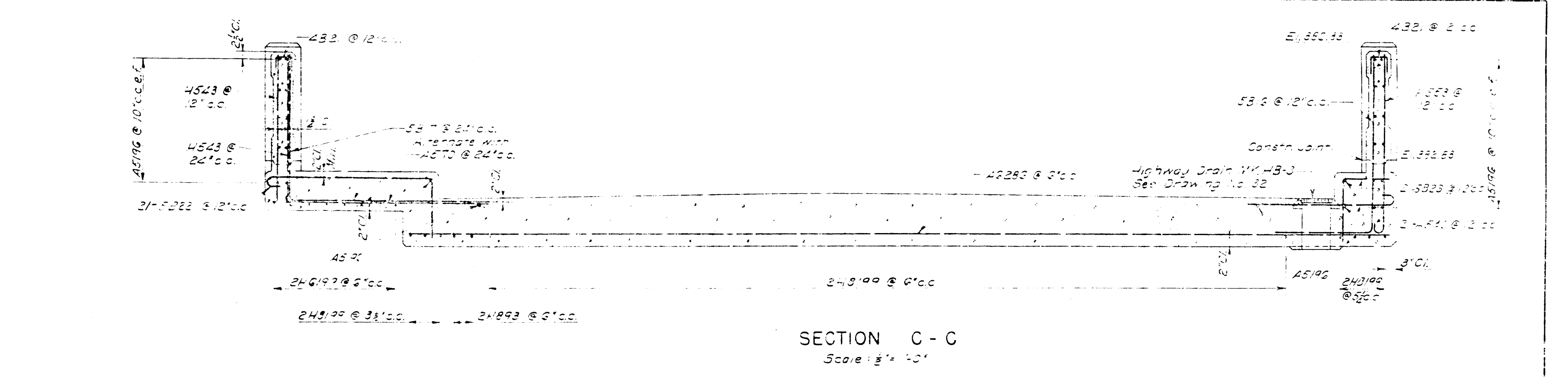
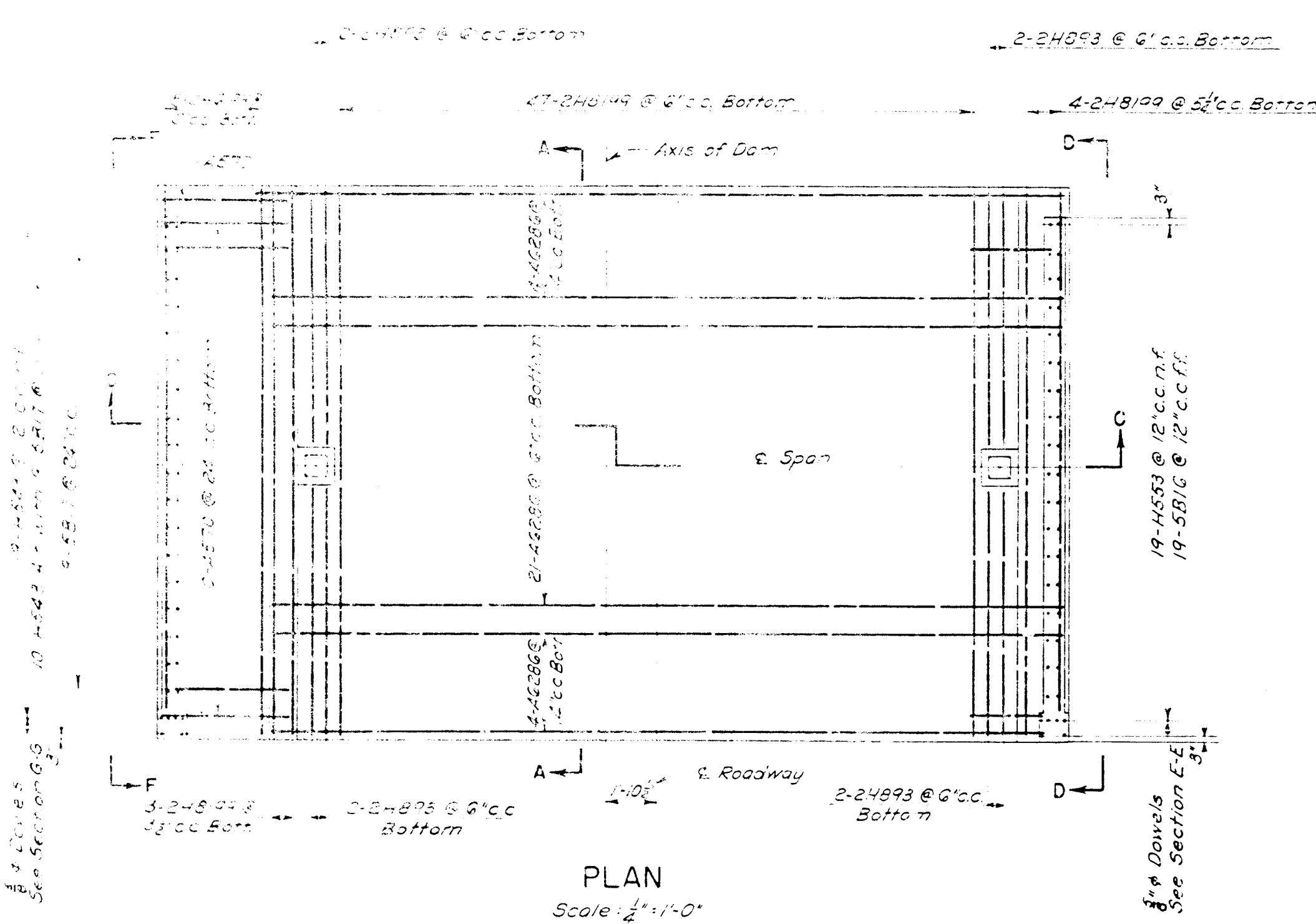
HIGHWAY BRIDGE
 CONCRETE DETAILS

APPROVED: *Sept. 26, 1942*
 Chief Engineer
 WASHINGTON SUBURBAN SANITARY COMMISSION

SCALE: As Shown
 DRAWING NUMBER: 25

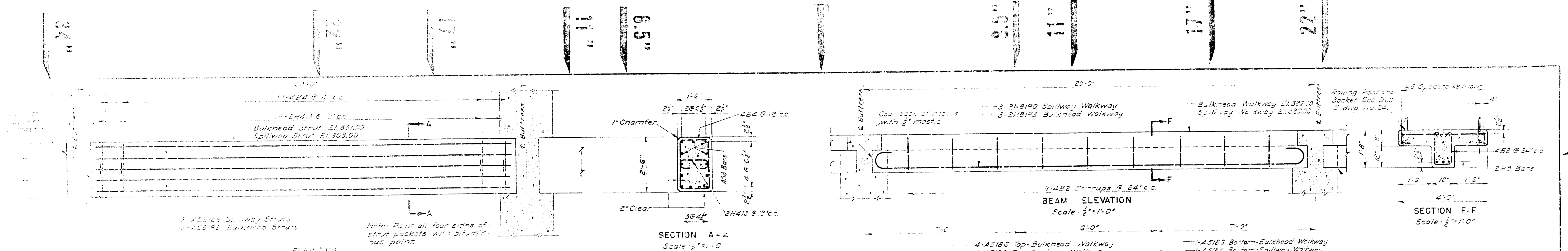
MICROFILMED 24:1

34" 22" 17" 11" 8.5" 8.5" 11" 17" 22" 34"

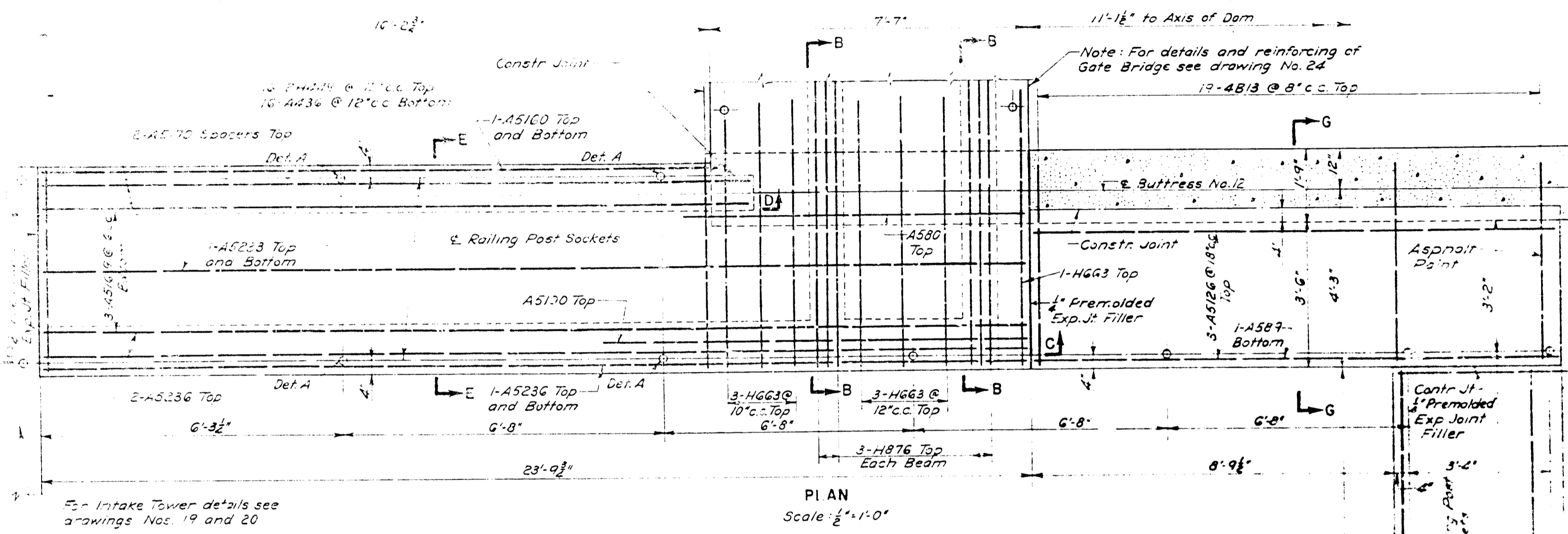


GENERAL NOTES
 1. For concrete details of highway bridge see drawing No. 25.
 2. For reinforcing details of spillway buttress pier below E1.372.33 see drawing No. 12.
 3. For reinforcing details of bulkhead buttress pier see drawing No. 13.

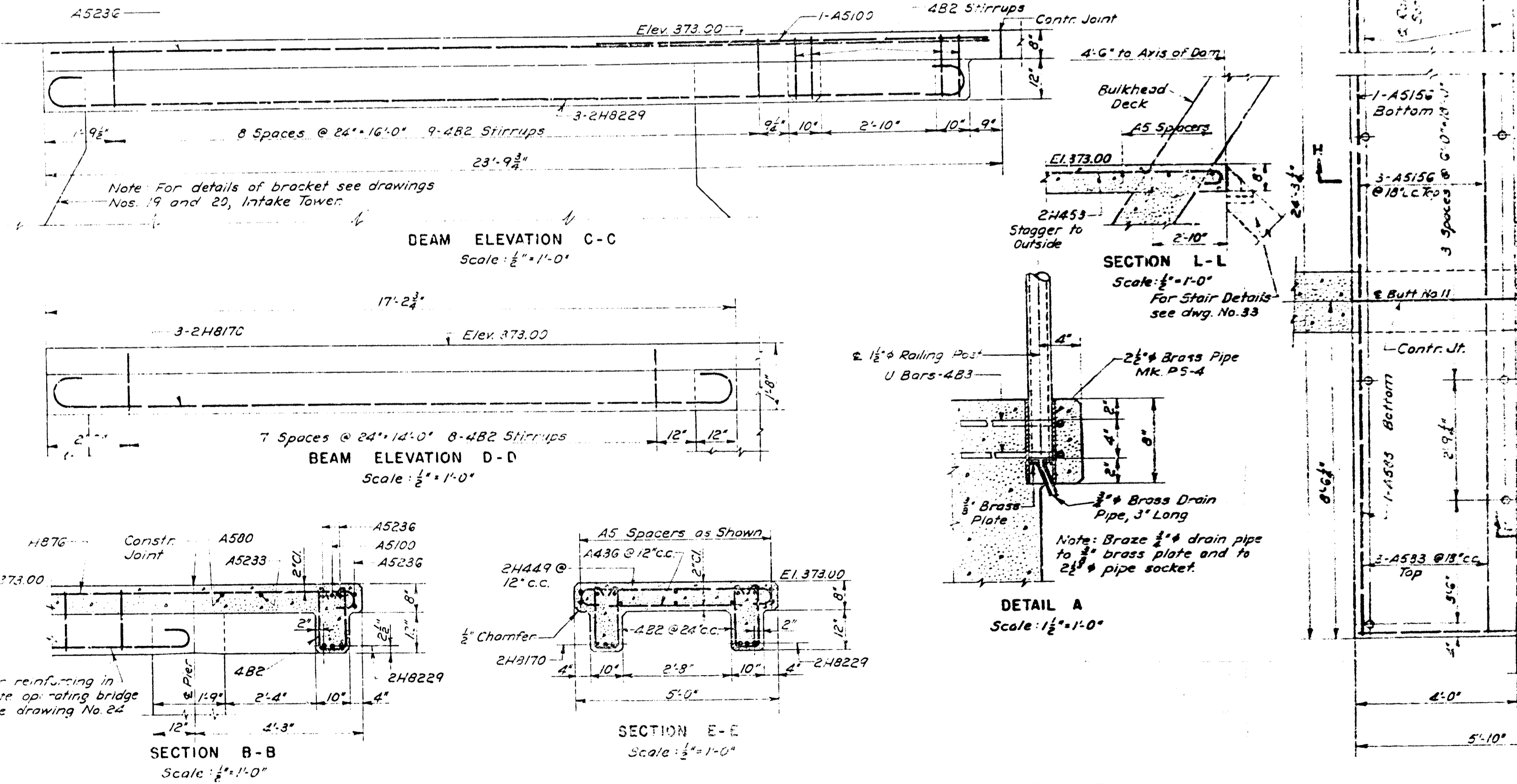
REINFORCING NOTES
 1. For reinforcing notes see drawings Nos. 12 and 35.



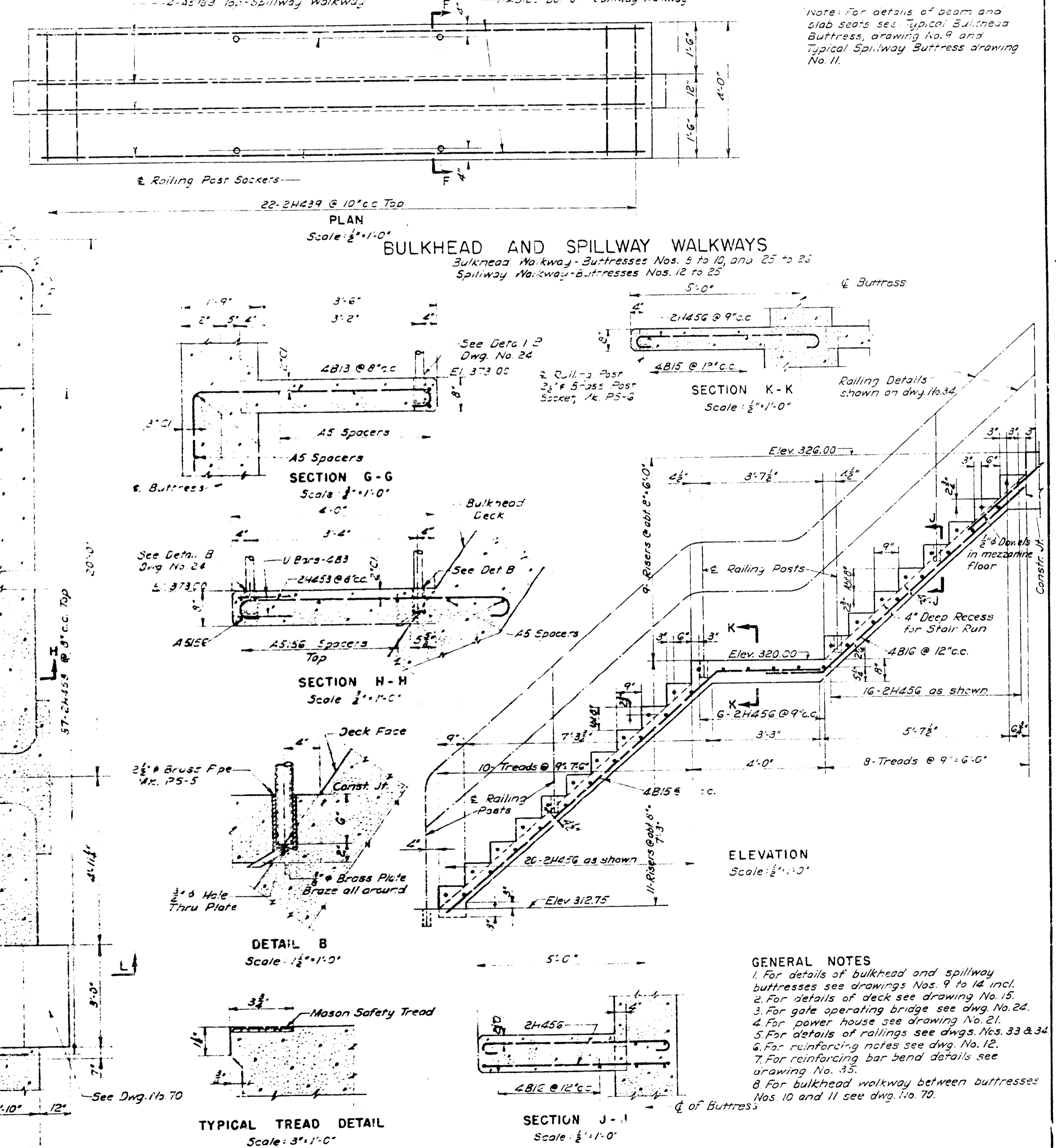
BULKHEAD AND SPILLWAY BUTTRESS STRUTS
 Bulkhead Struts - Buttresses Nos. 4 to 12 and 25 to 31
 Spillway Struts - Buttresses Nos. 12 to 25



BULKHEAD AND SPILLWAY WALKWAYS
 Bulkhead Walkway - Buttresses Nos. 9 to 12, and 25 to 28
 Spillway Walkway - Buttresses Nos. 12 to 25



WALKWAY FROM GATE BRIDGE TO INTAKE TOWER



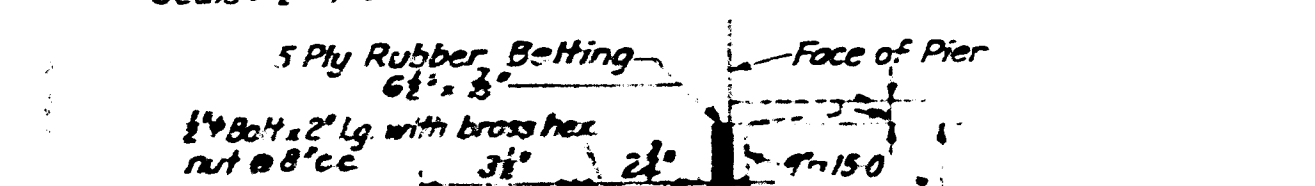
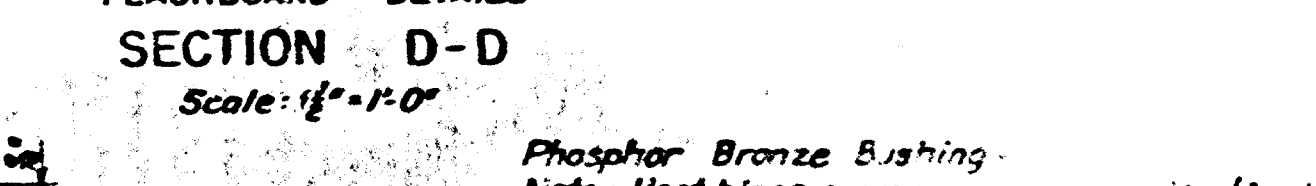
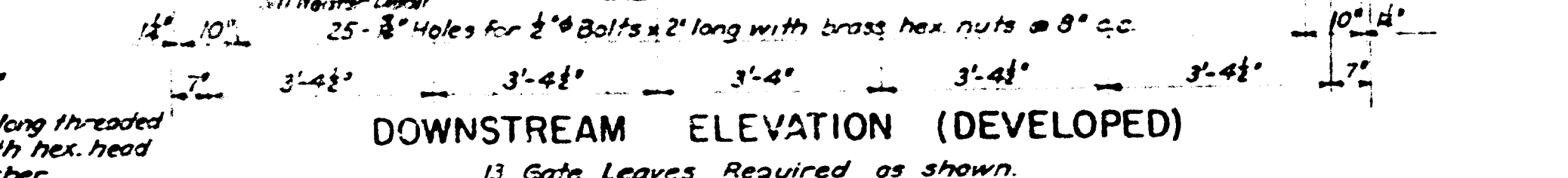
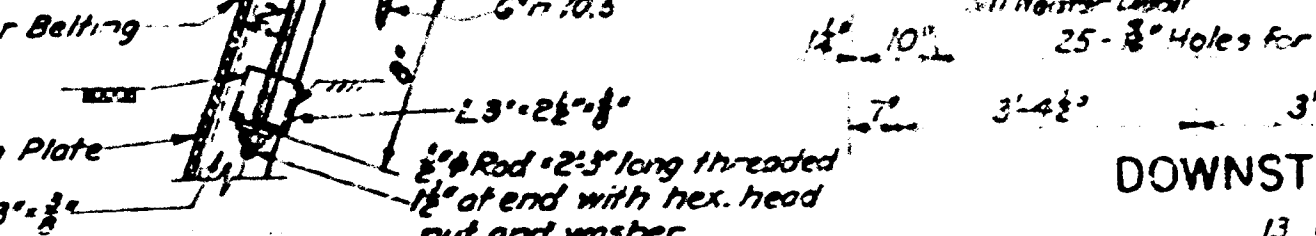
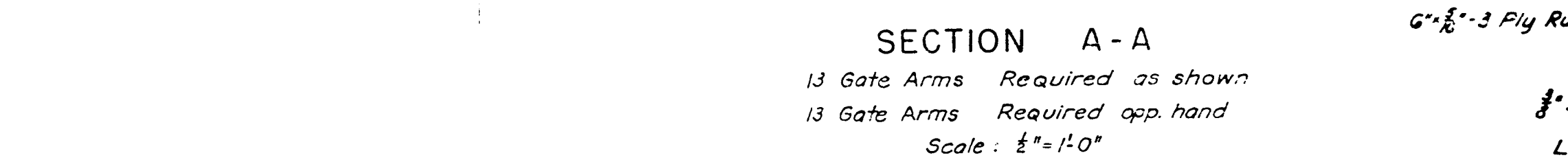
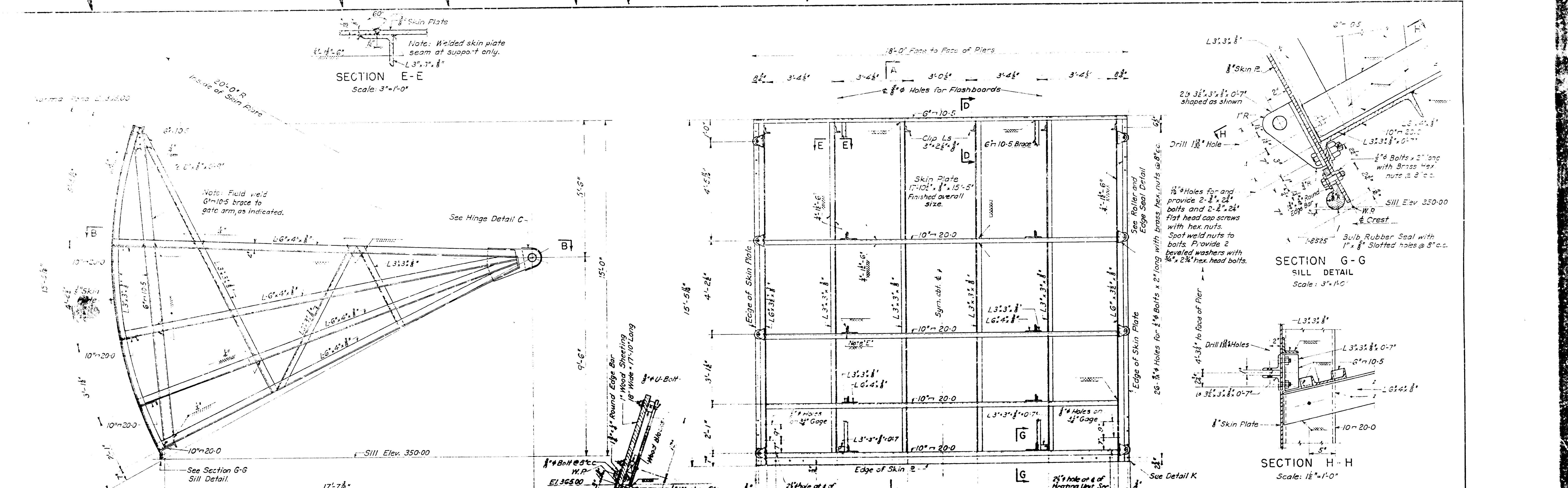
POWER HOUSE STAIRS
 From Operating Floor Elev. 312.75
 to Mezzanine Floor Elev. 326.00

- GENERAL NOTES**
1. For details of bulkhead and spillway buttresses see drawings Nos. 9 to 14 incl.
 2. For details of deck see drawing No. 15.
 3. For gate operating bridge see drawing No. 24.
 4. For power house see drawing No. 21.
 5. For details of railings see drawing No. 33 & 34.
 6. For reinforcing notes see drawing No. 12.
 7. For reinforcing bar bend details see drawing No. 35.
 8. For bulkhead walkway details between buttresses Nos. 10 and 11 see drawing No. 70.

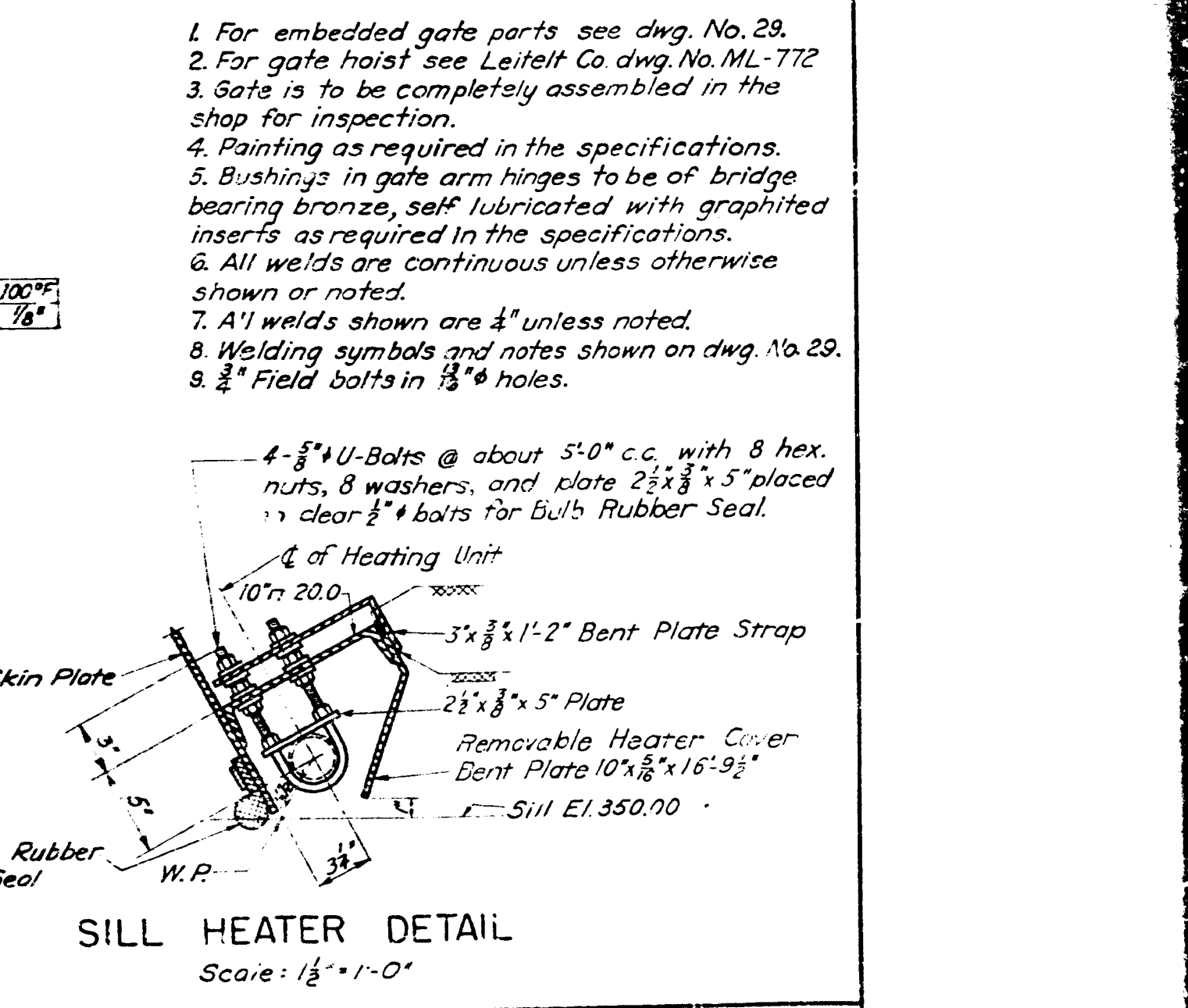
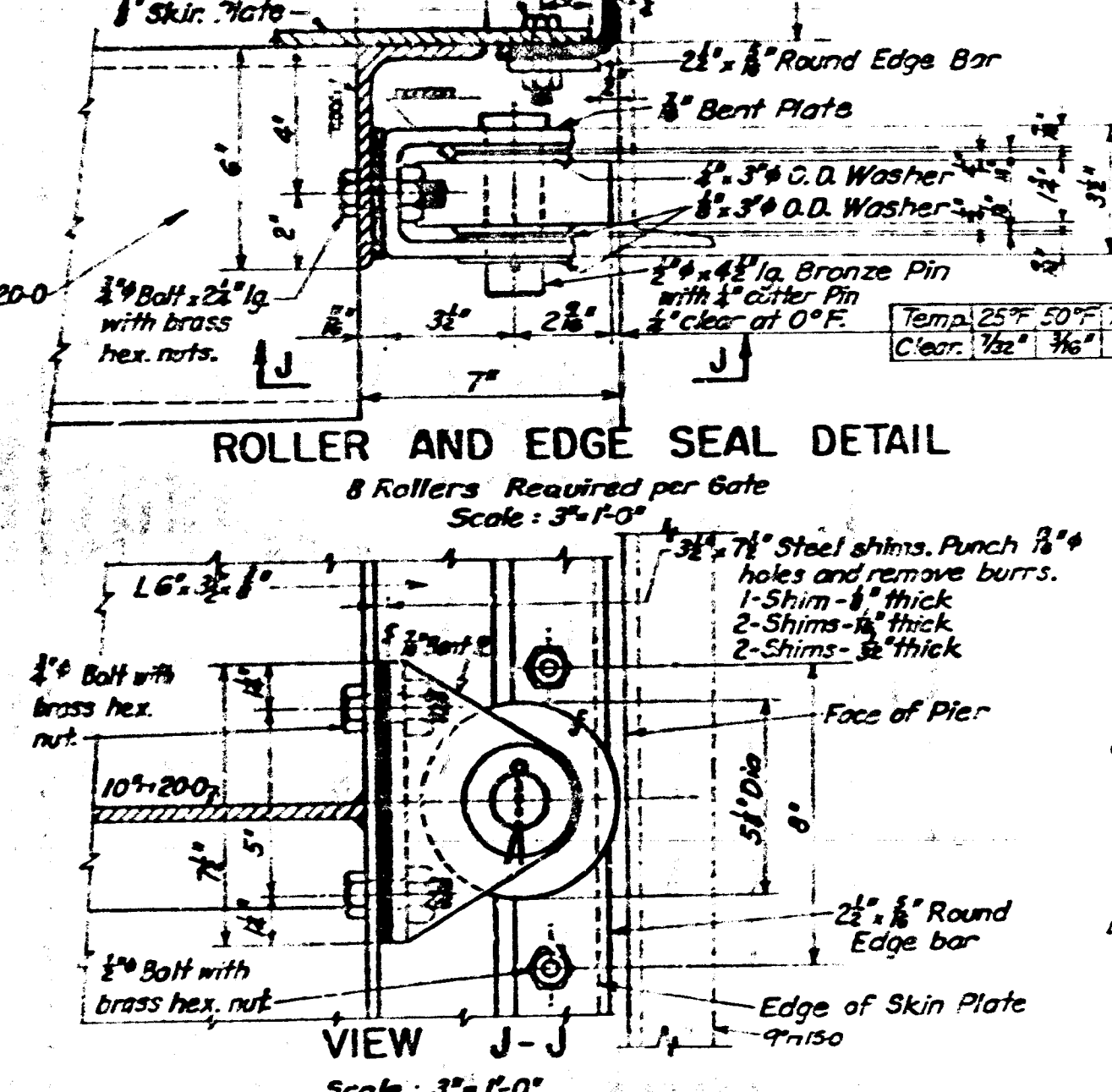
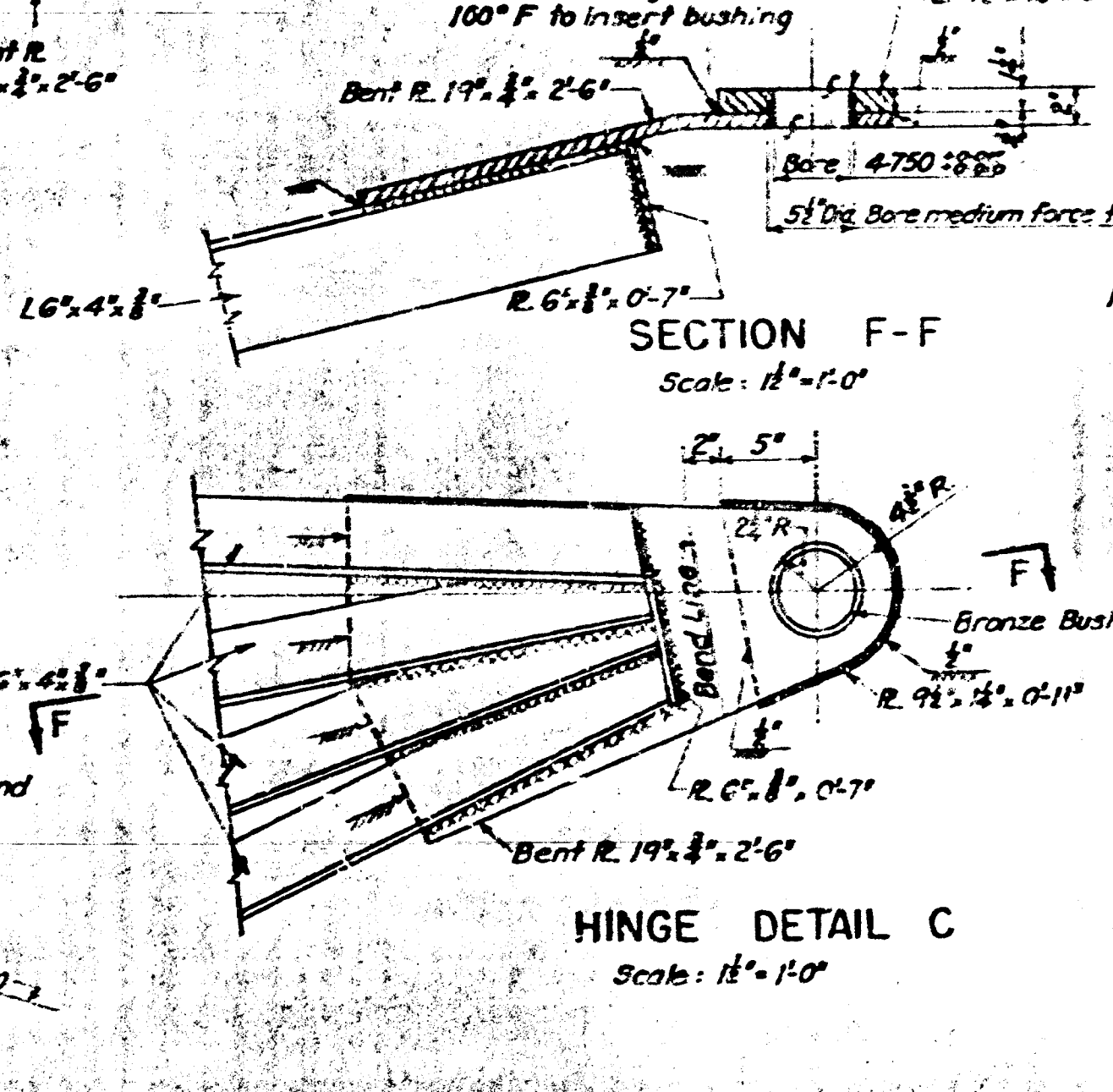
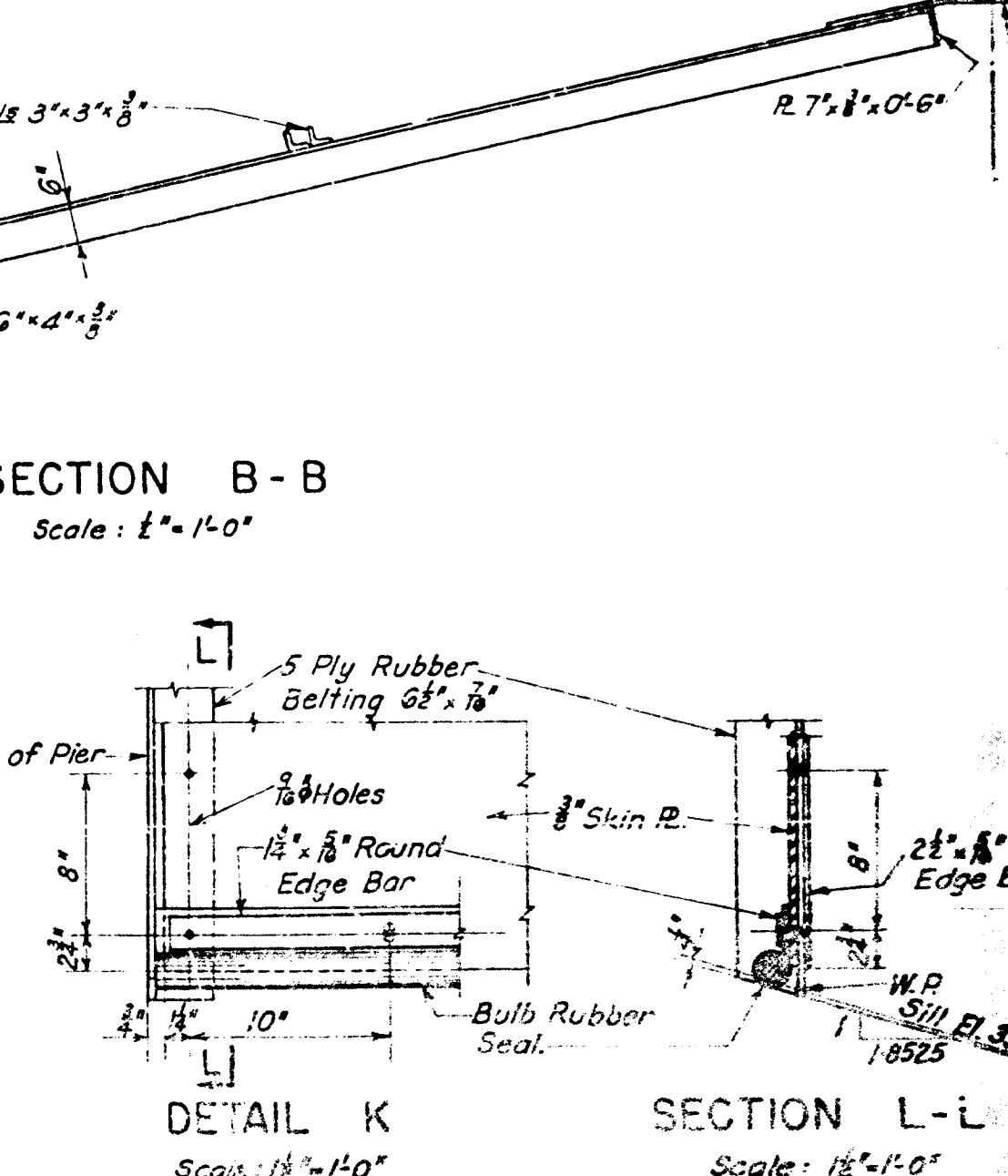
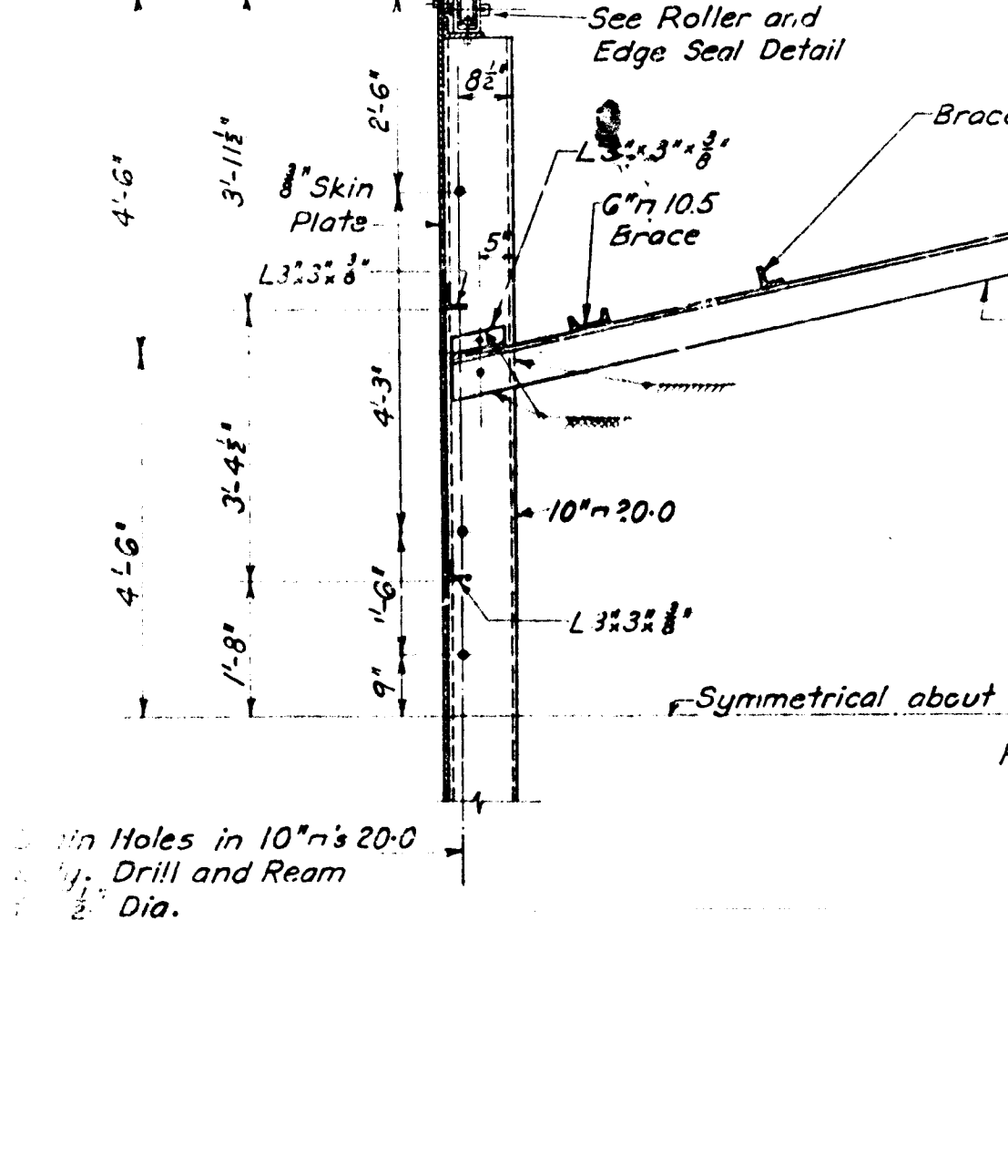
DRAWN: H. E. B. 7-9-1941 CHECKED: R. E. A. 9-10-1941 REVISION: C. C. 8-29-1941 APPROVED: J. H. D. 1-30-1941	REV. 1: 1-3-1942 REV. 2: B. A. 3-22-1942 Revised as per Field Letter of 3-20-42 REV. 3: A. S. W. 2-26-1942 Walkway to P.H. Stair Run changed to suit Railing Details	JOB NUMBER: 4002 AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	STRUT, WALKWAY, AND STAIR DETAILS	APPROVED: Sept. 26, 1941 H. H. Hall, CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER: 27 SCALE: As Shown
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M. C. PROFILED 20"

34" 22" 17" 11" 8.5" 9.5" 11" 17" 22" 34"



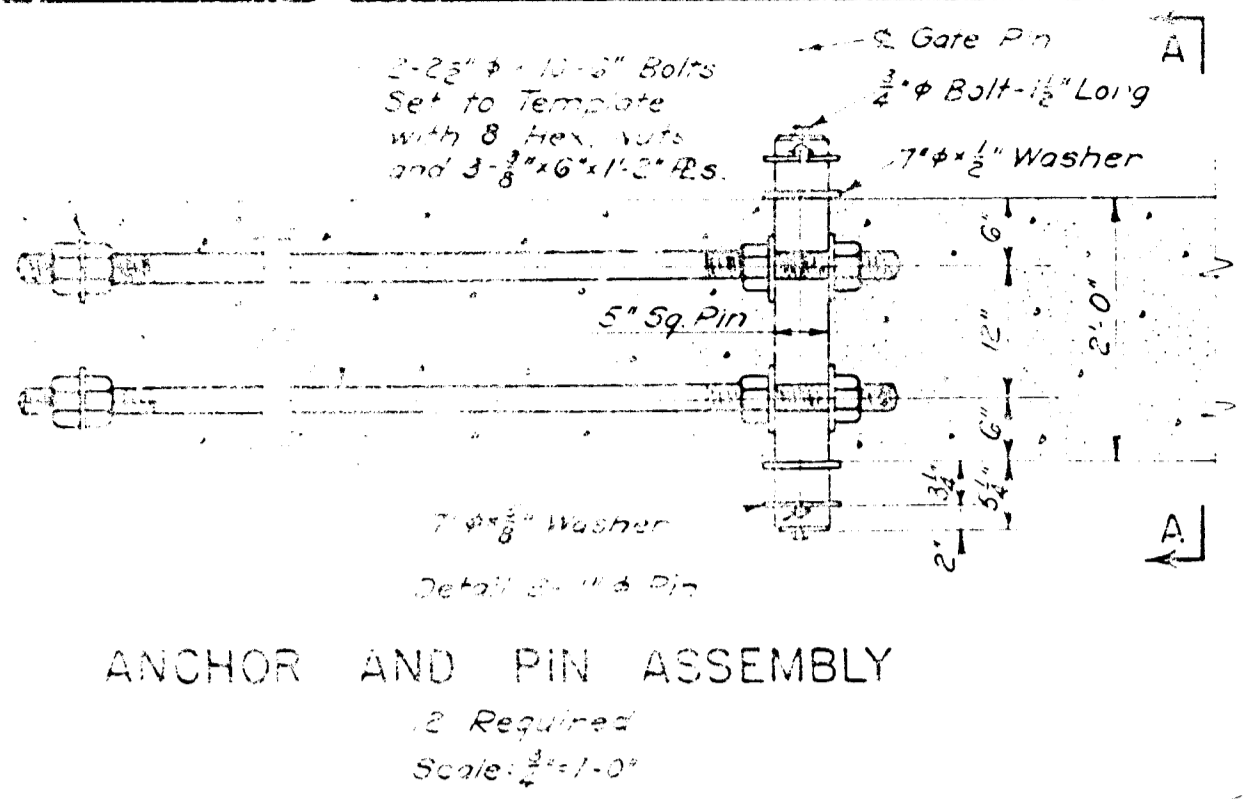
- GENERAL NOTES**
1. For embedded gate parts see dwg. No. 29.
 2. For gate hoist see Leflett Co. dwg. No. ML-772.
 3. Gate is to be completely assembled in the shop for inspection.
 4. Painting as required in the specifications.
 5. Bushings in gate arm hinges to be of bridge bearing bronze, self lubricated with graphited inserts as required in the specifications.
 6. All welds are continuous unless otherwise shown or noted.
 7. All welds shown are 1/2" unless noted.
 8. Welding symbols and notes shown on dwg. No. 29.
 9. 3/8" field bolts in 1 1/2" holes.



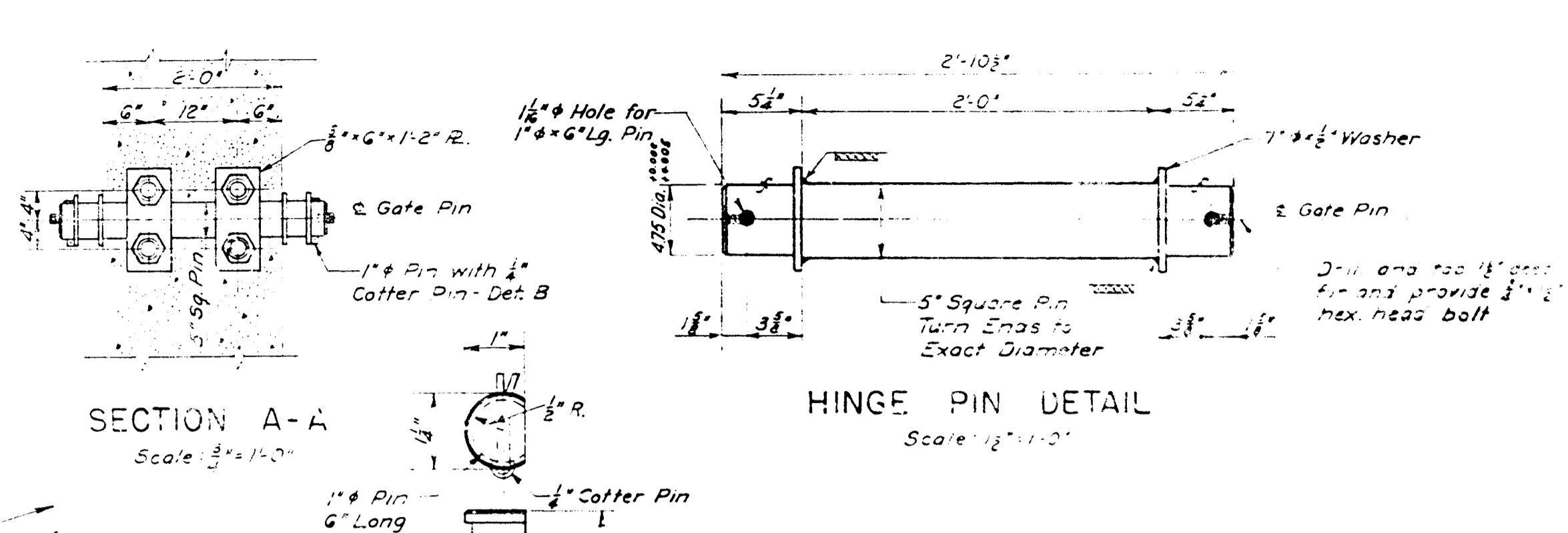
R.B.A. 6-27-1947 W.S.C. 6-25-1947 W.A.C. 6-22-1947 W.A.L.C. 6-20-1947	REV. 111 W.A.-CLP Dec. 28, 1941 W.A.-L.C. Nov. 18, 1941	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	18'-0" x 15'-0" TANTER GATES DRAWING NO. 1 OF 2	APPROVED Sept. 26, 1941 Chief Engineer WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 28	SCALE As Shown
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MICROFILMED 24:1
 Reduction Ratio: 24:1

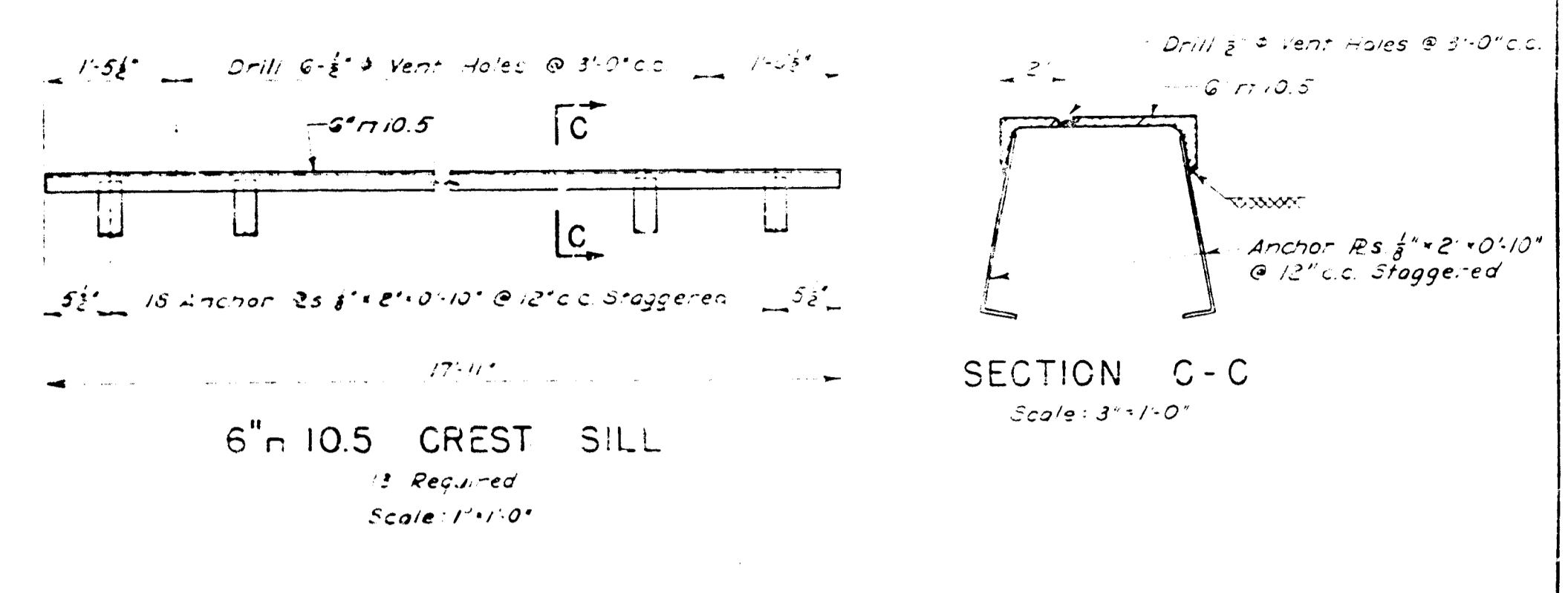
34" 22" 17" 11" 8.5" 8.5" 11" 17" 22" 34"



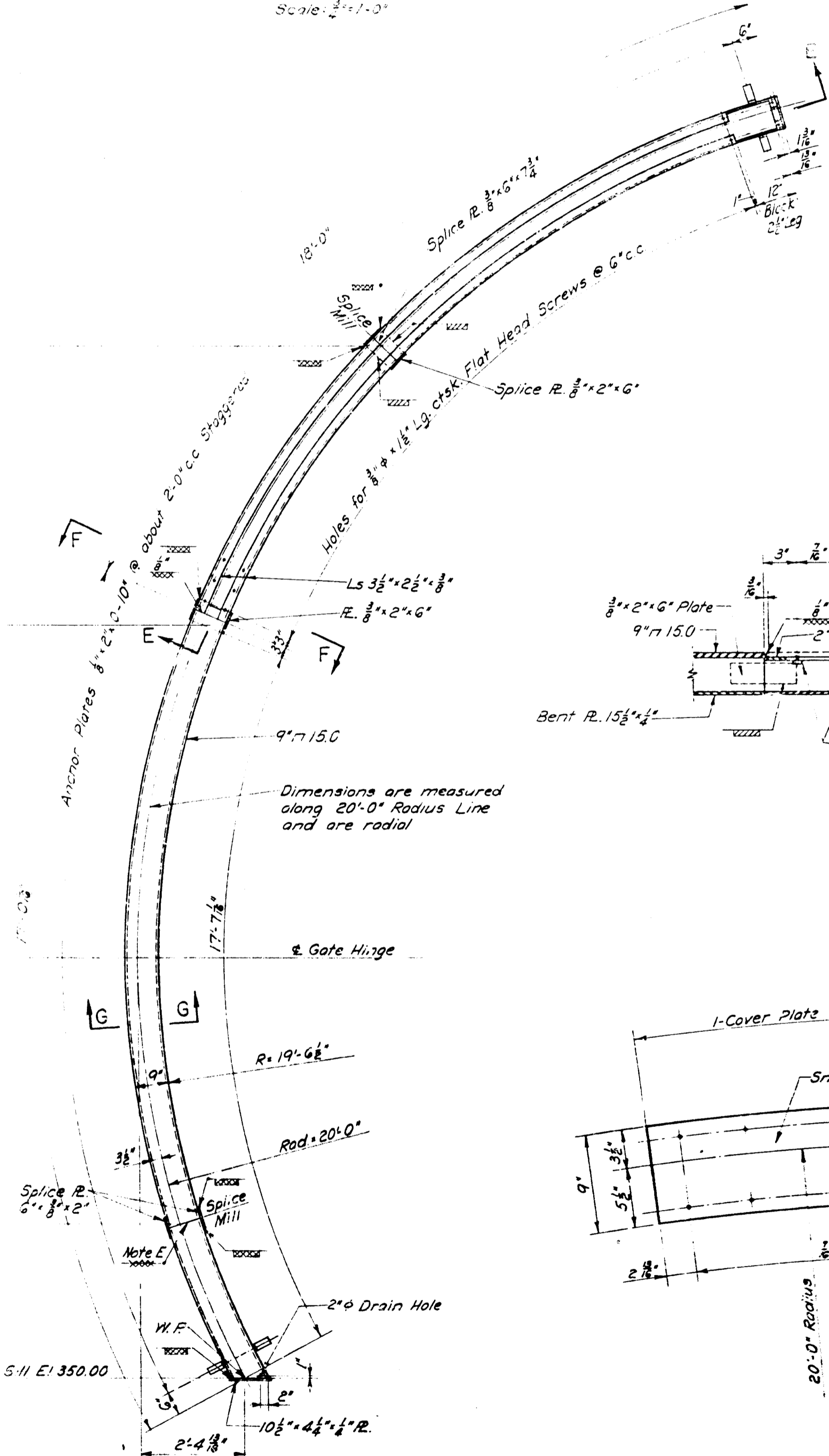
ANCHOR AND PIN ASSEMBLY
2 Required
Scale: 1/2"=1'-0"



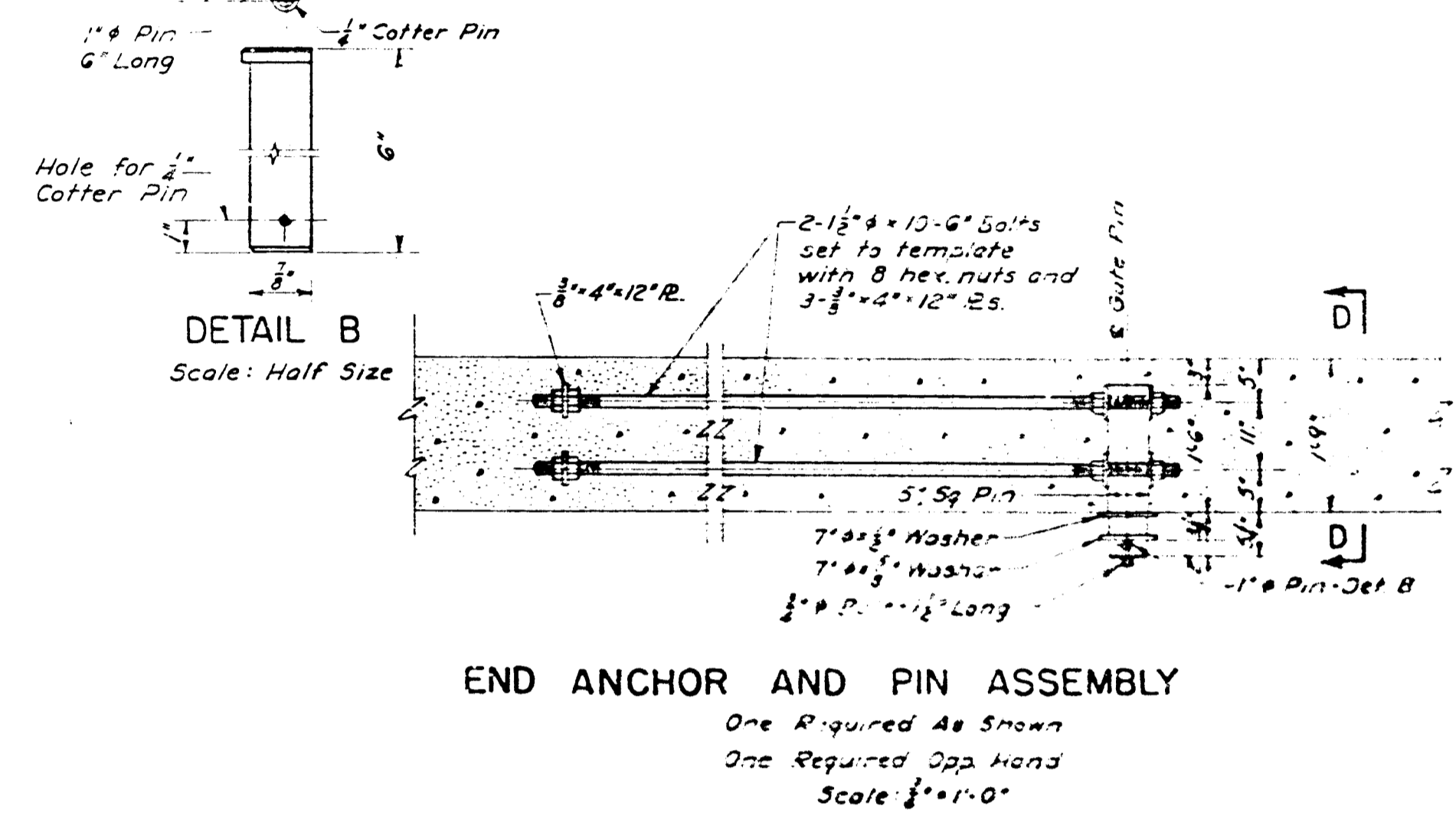
HINGE PIN DETAIL
Scale: 1/2"=1'-0"



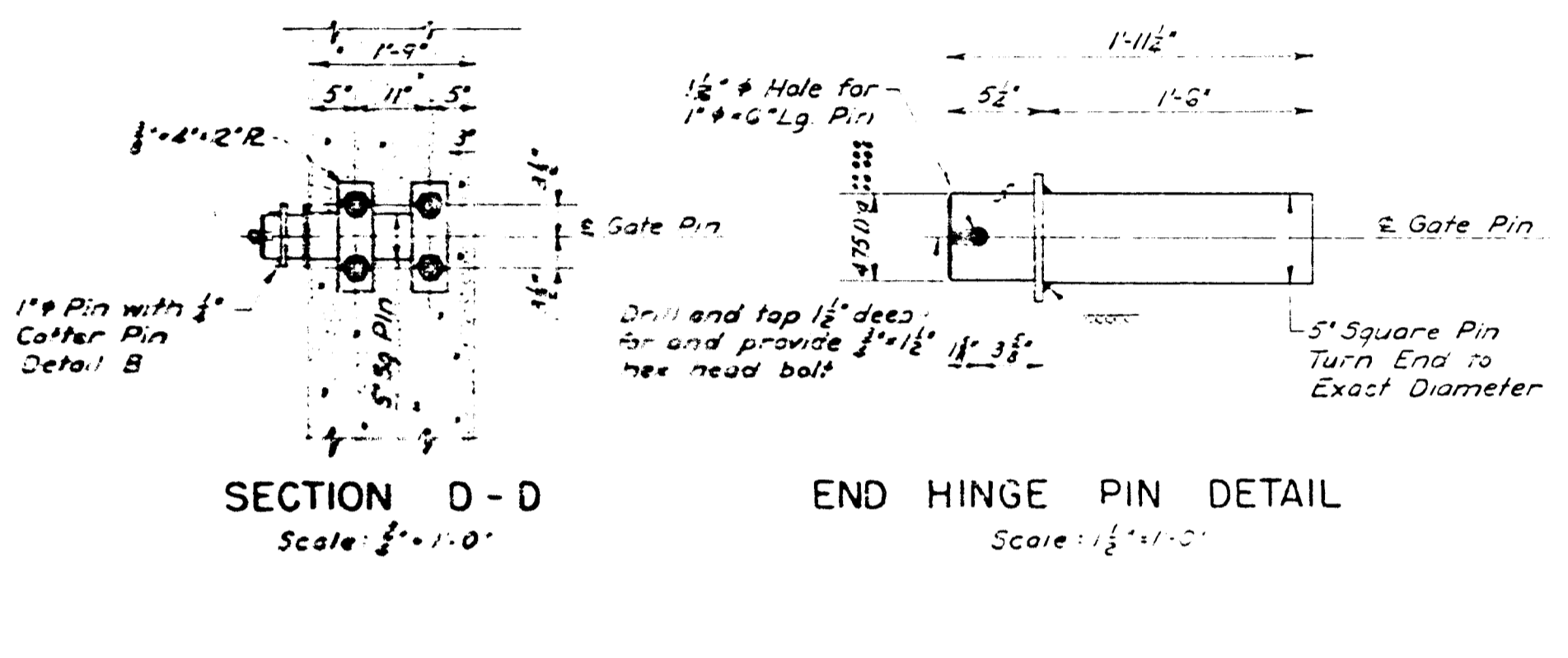
6" 10.5 CREST SILL
13 Required
Scale: 1"=1'-0"



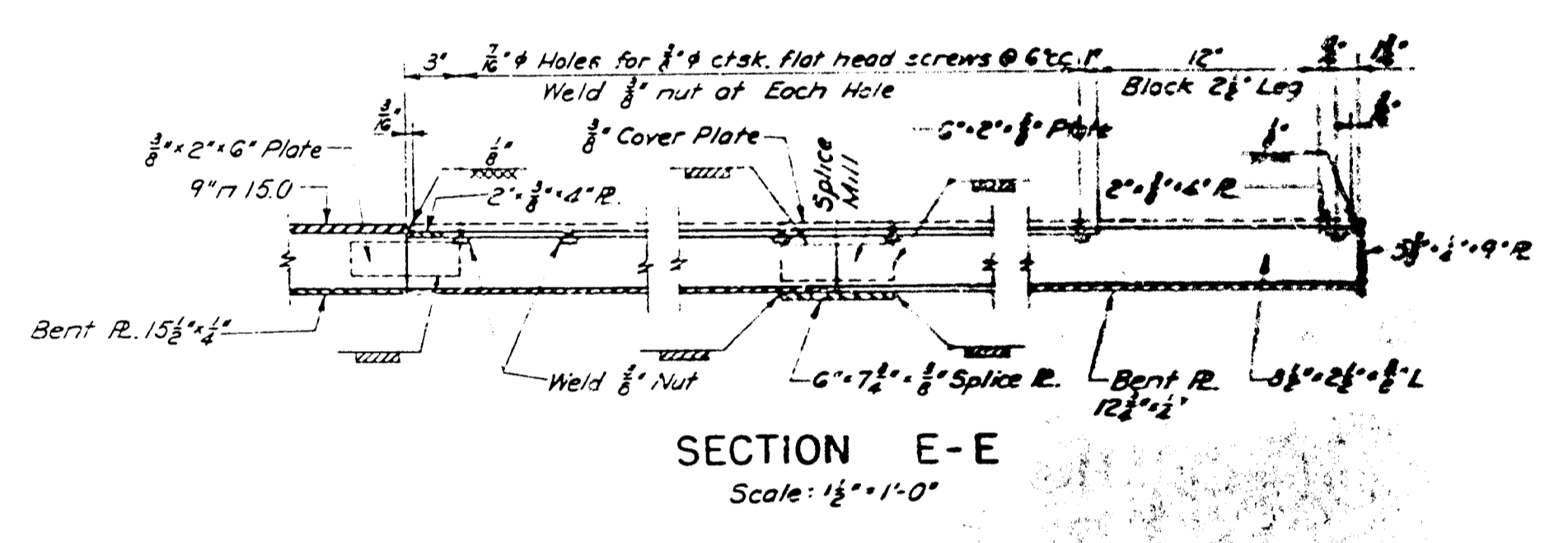
Tainter Gate Pier Plate Seal
13 Required As Shown
13 Required Opp. Hand
Scale: 1/2"=1'-0"



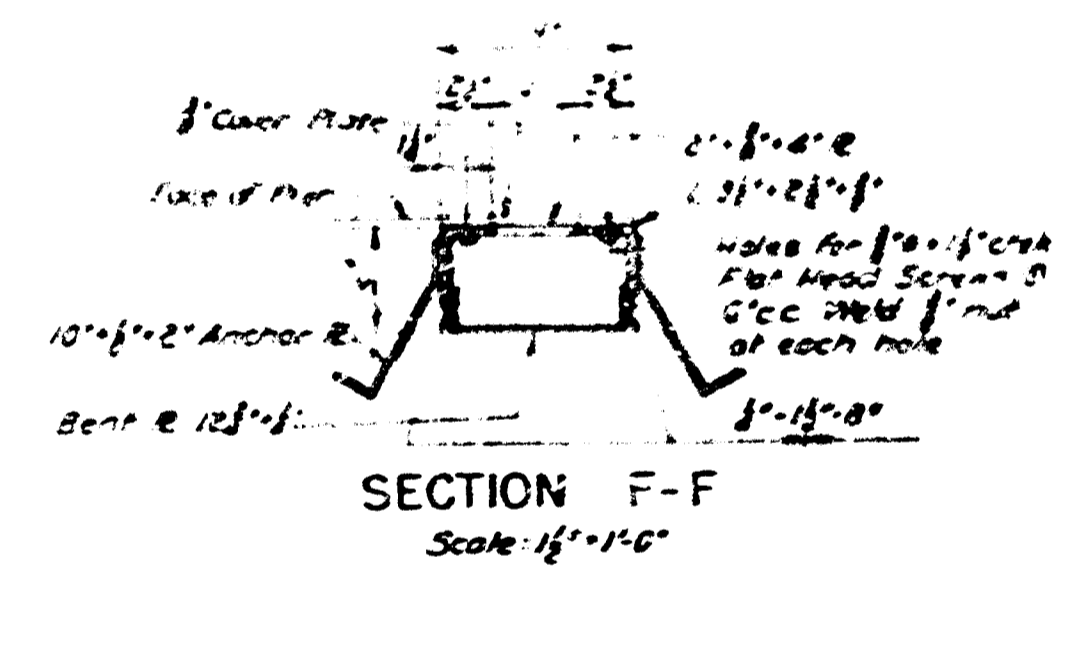
END ANCHOR AND PIN ASSEMBLY
One Required As Shown
One Required Opp. Hand
Scale: 1/2"=1'-0"



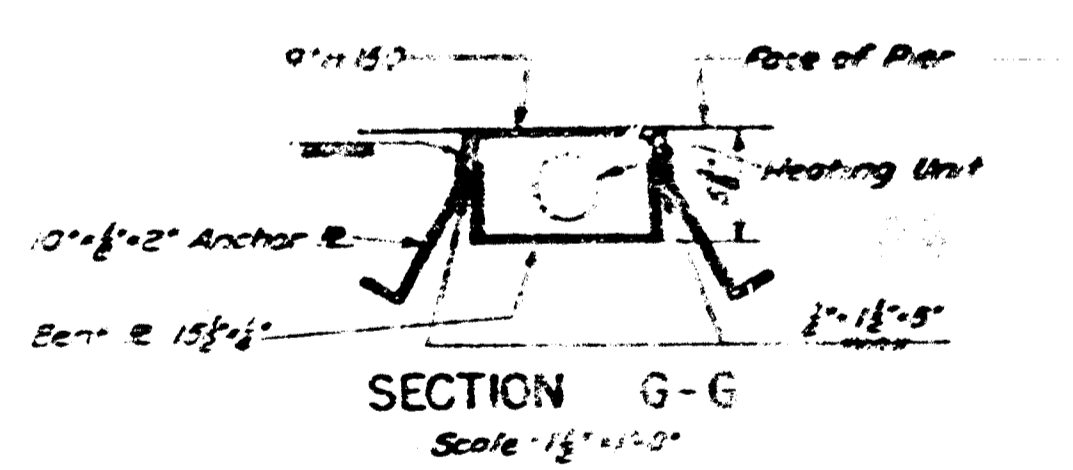
END HINGE PIN DETAIL
Scale: 1/2"=1'-0"



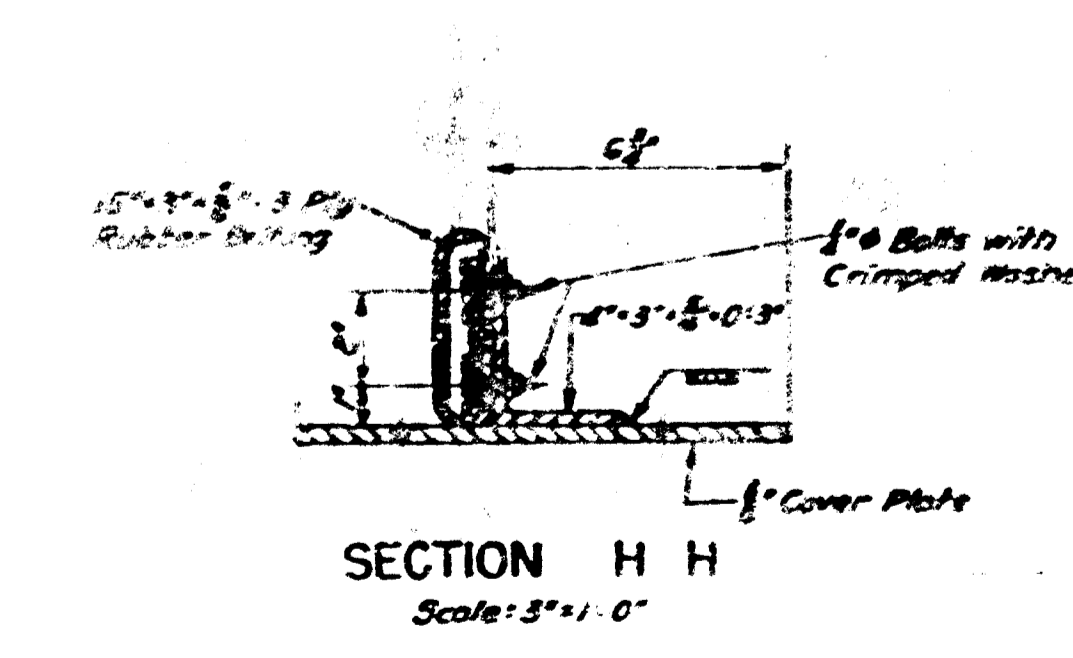
SECTION E-E
Scale: 1/2"=1'-0"



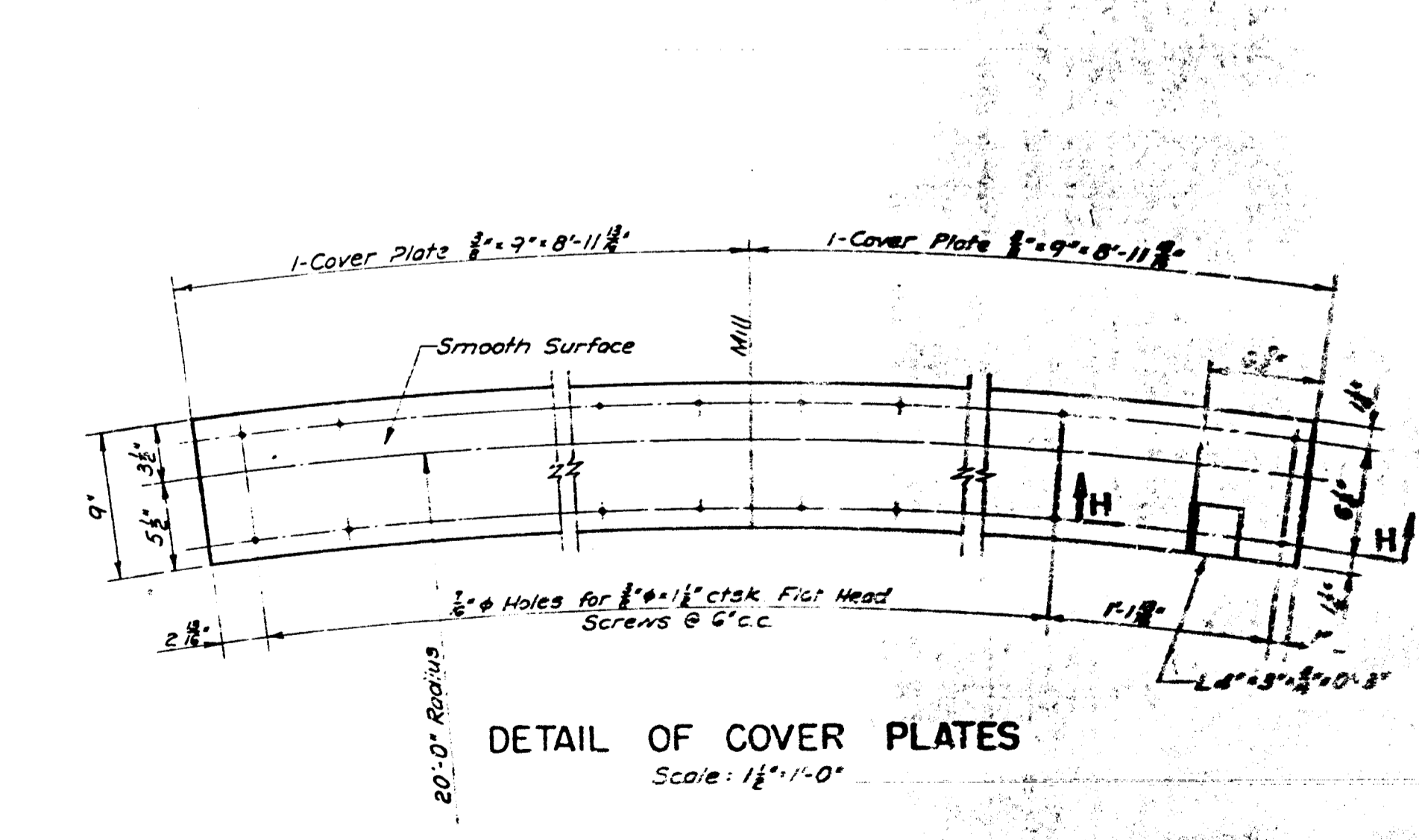
SECTION F-F
Scale: 1/2"=1'-0"



SECTION G-G
Scale: 1/2"=1'-0"



SECTION H H
Scale: 3"=1'-0"



DETAIL OF COVER PLATES
Scale: 1/2"=1'-0"

GENERAL NOTES
1. Painting as required in the specifications.
2. For 18'-0" x 16'-0" tainter gate details see dwg. No. 28.
3. All welds shown are 1/2" unless noted.
4. All welds are continuous unless otherwise shown or noted.
5. 1/2" field bolts in 1 1/2" holes.

WELDING SYMBOLS			
SYMBOL	SYMBOL AS USED IN PLAN AND ELEVATION	ALTERNATE METHODS	SECTION
FILLET WELDS			
NEAR SIDE	NOTE A	NOTE B	
FAR SIDE	NOTE A	NOTE B	
BOTH SIDES	NOTE A	NOTE B	
ALL AROUND	NOTE A	NOTE B	
FIELD WELD	NOTE A	NOTE B	
BUTT WELDS (NOTE D)			
NEAR SIDE			
FAR SIDE			
BOTH SIDES			
ALL AROUND			
FIELD WELD			

Note A: Size of weld must be shown or noted.
Note B: Give size of weld, length of weld and spacing of welds, if intermittent. Where size of weld only is given weld is continuous. Thus 1/2" fillet weld 2" long @ 6" c.c.
Note C: Welds staggered each "5".
Note D: Butt welds are continuous unless otherwise shown or noted. Typical special preparation for butt or seam weld should be detailed and shown in section.
Note E: Weld and grind flush and/or smooth.

34"

22"

17"

11"

8.5"

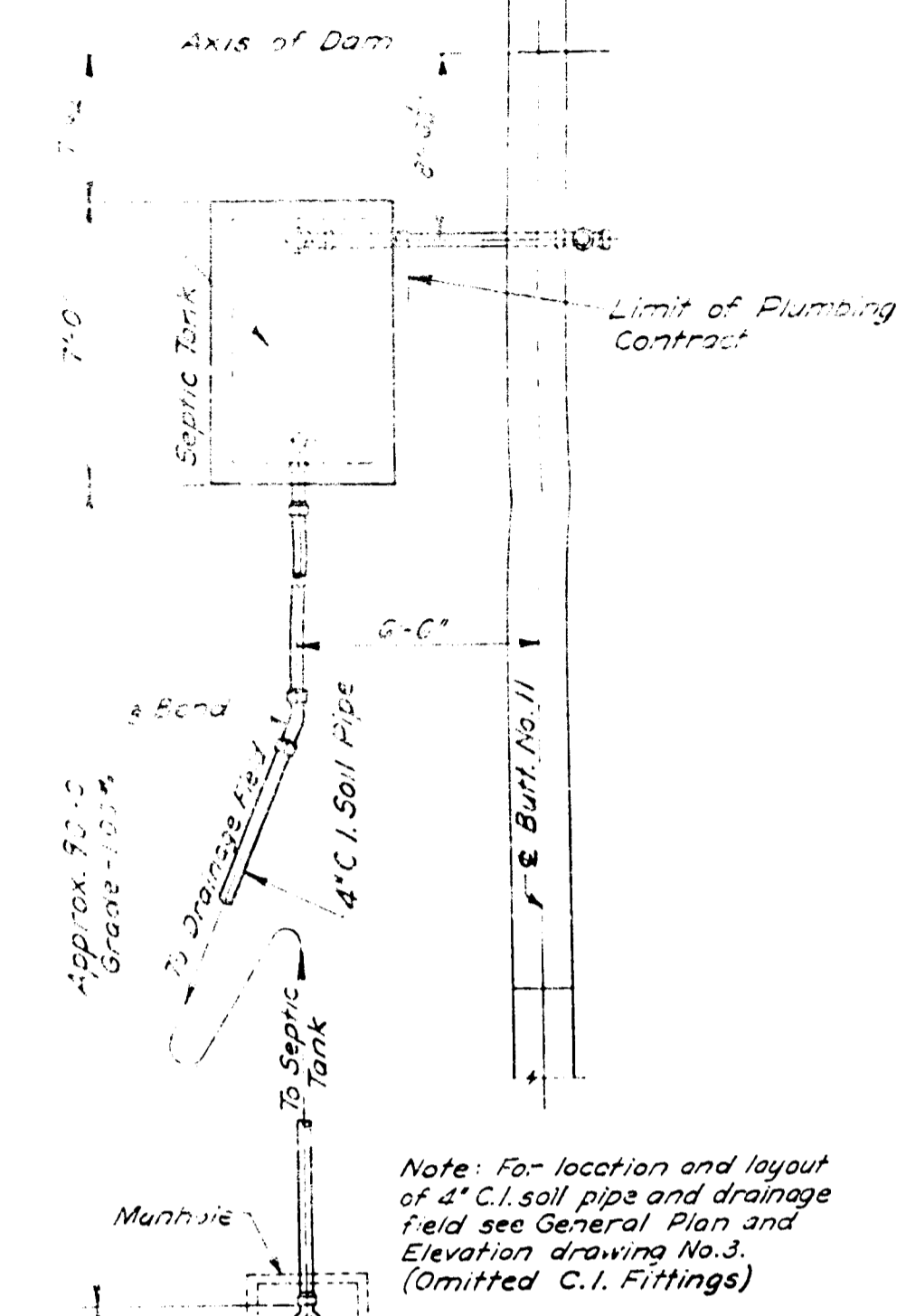
8.5"

11"

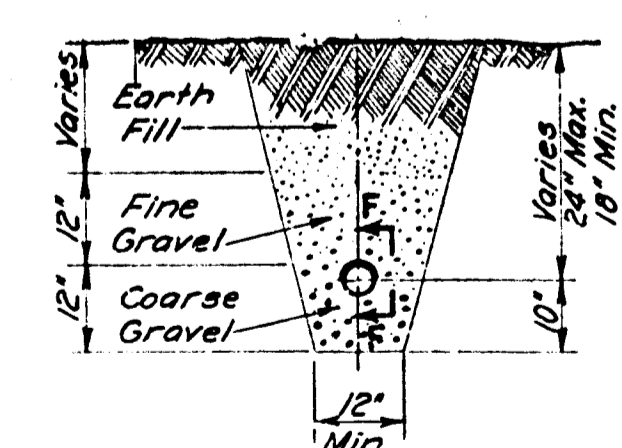
17"

22"

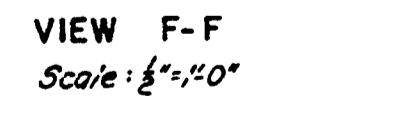
34"



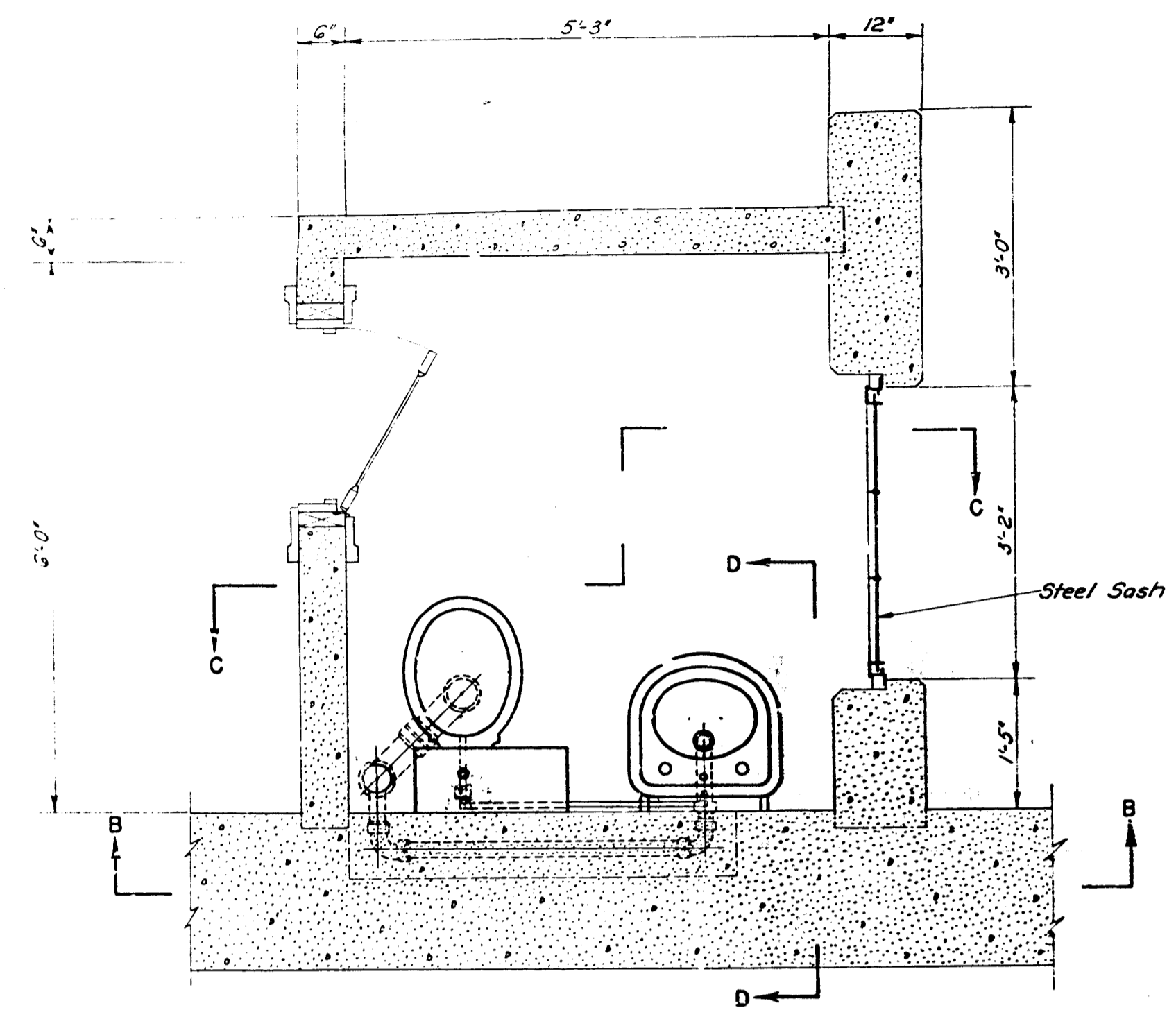
LAYOUT AND PLAN OF SEPTIC TANK AND DRAINAGE FIELD
Scale: 1/4" = 1'-0"



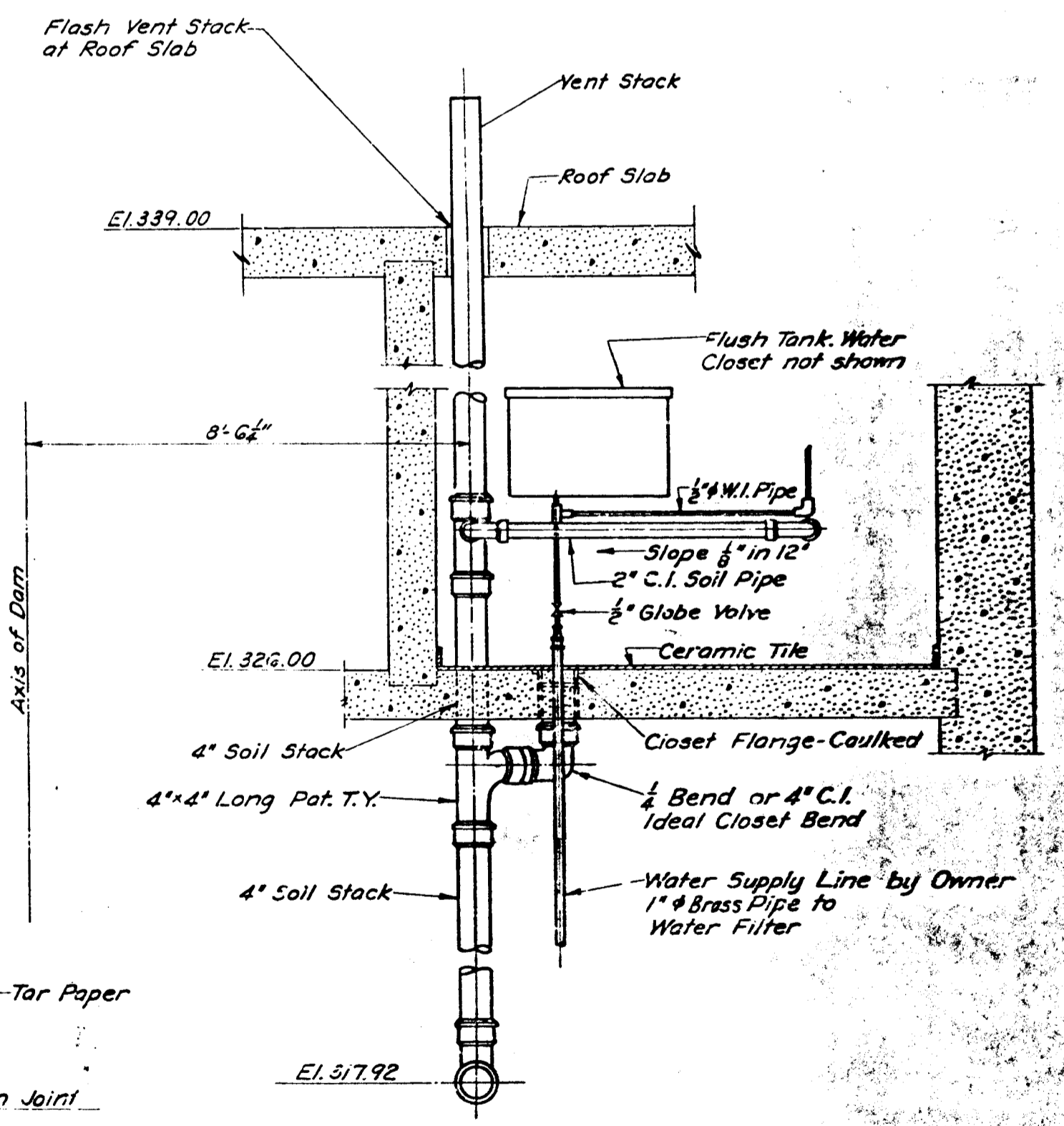
SECTION A-A
Scale: 1/2" = 1'-0"



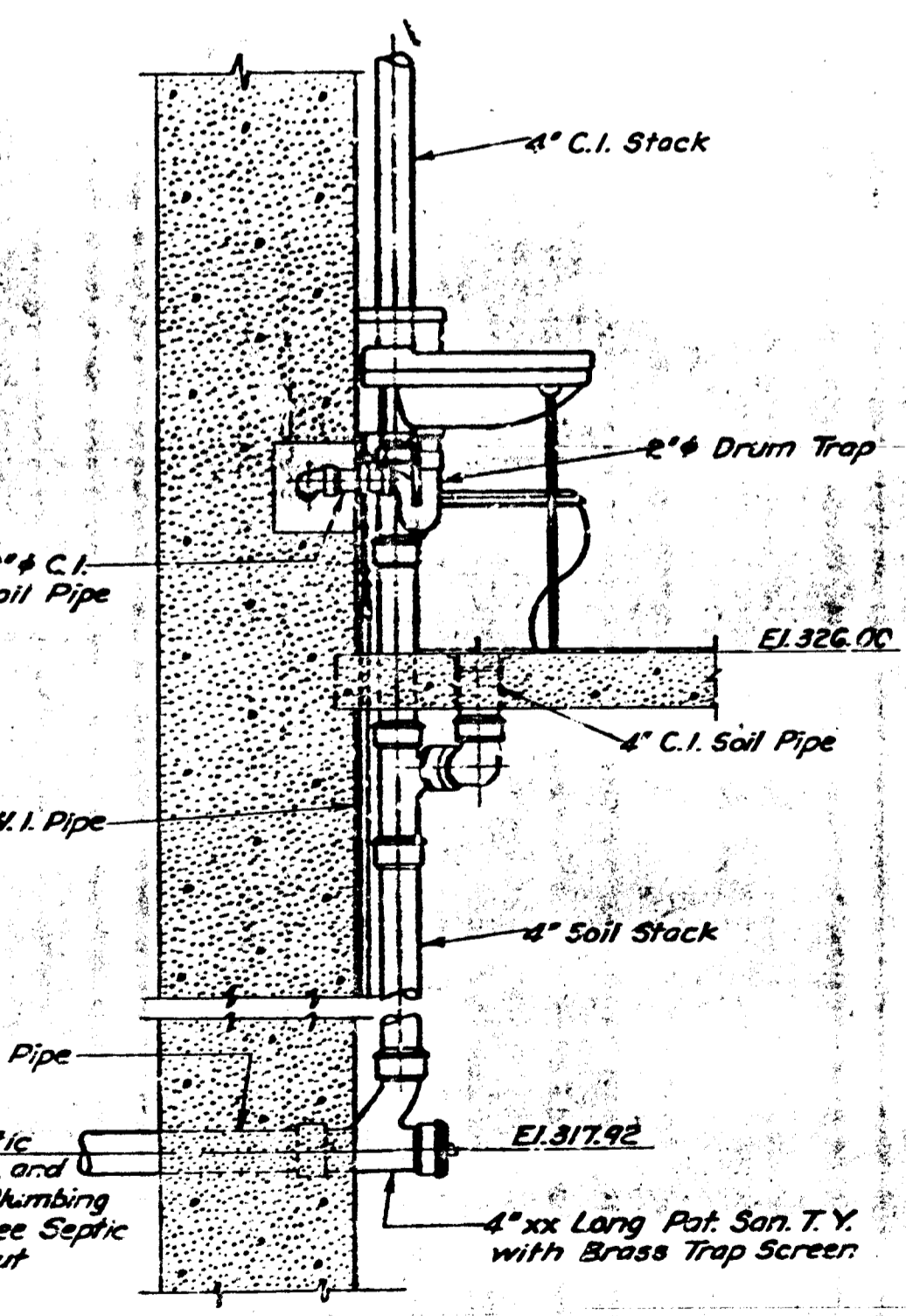
VIEW F-F
Scale: 1/2" = 1'-0"



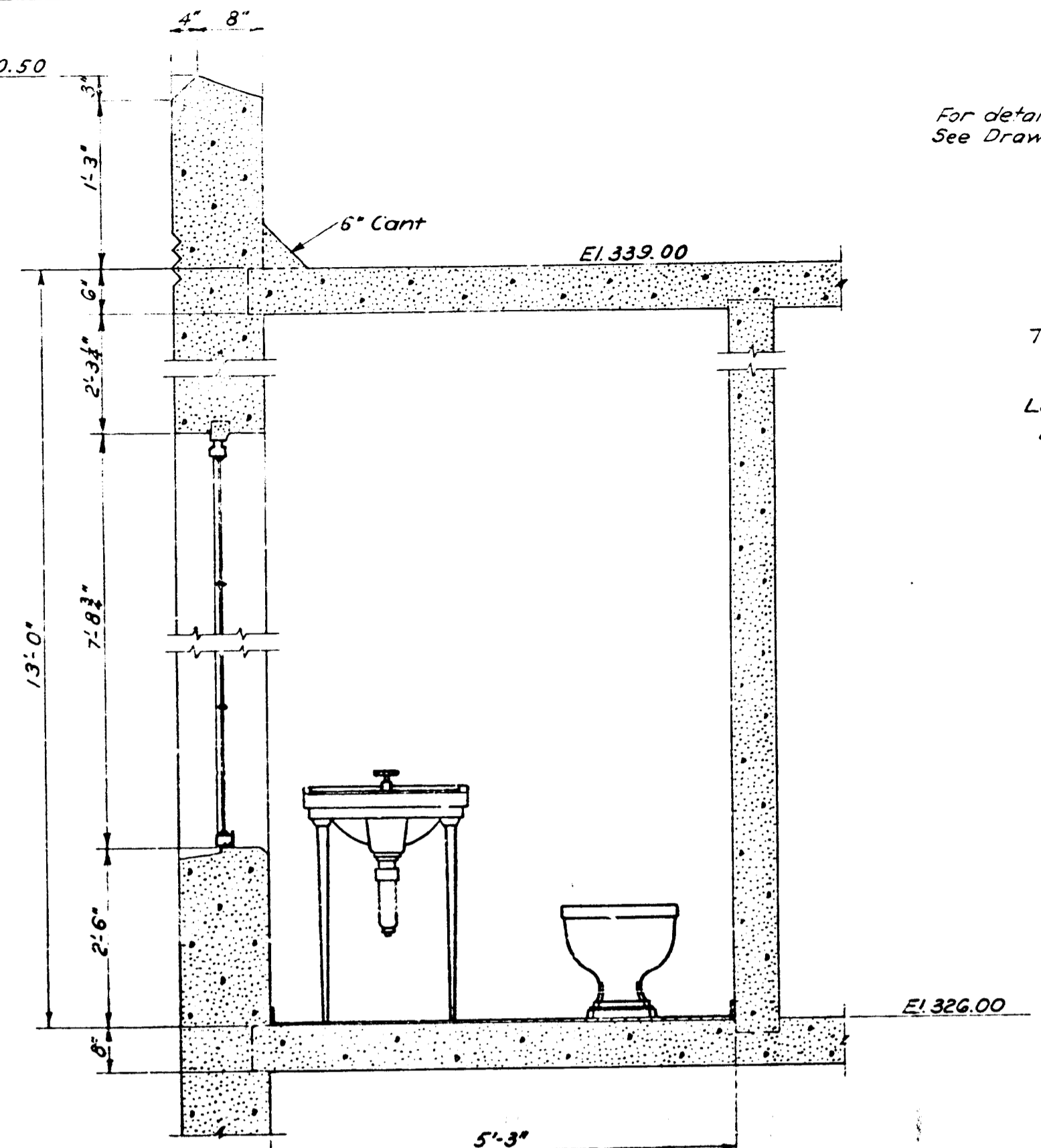
PLAN
Scale: 1/4" = 1'-0"



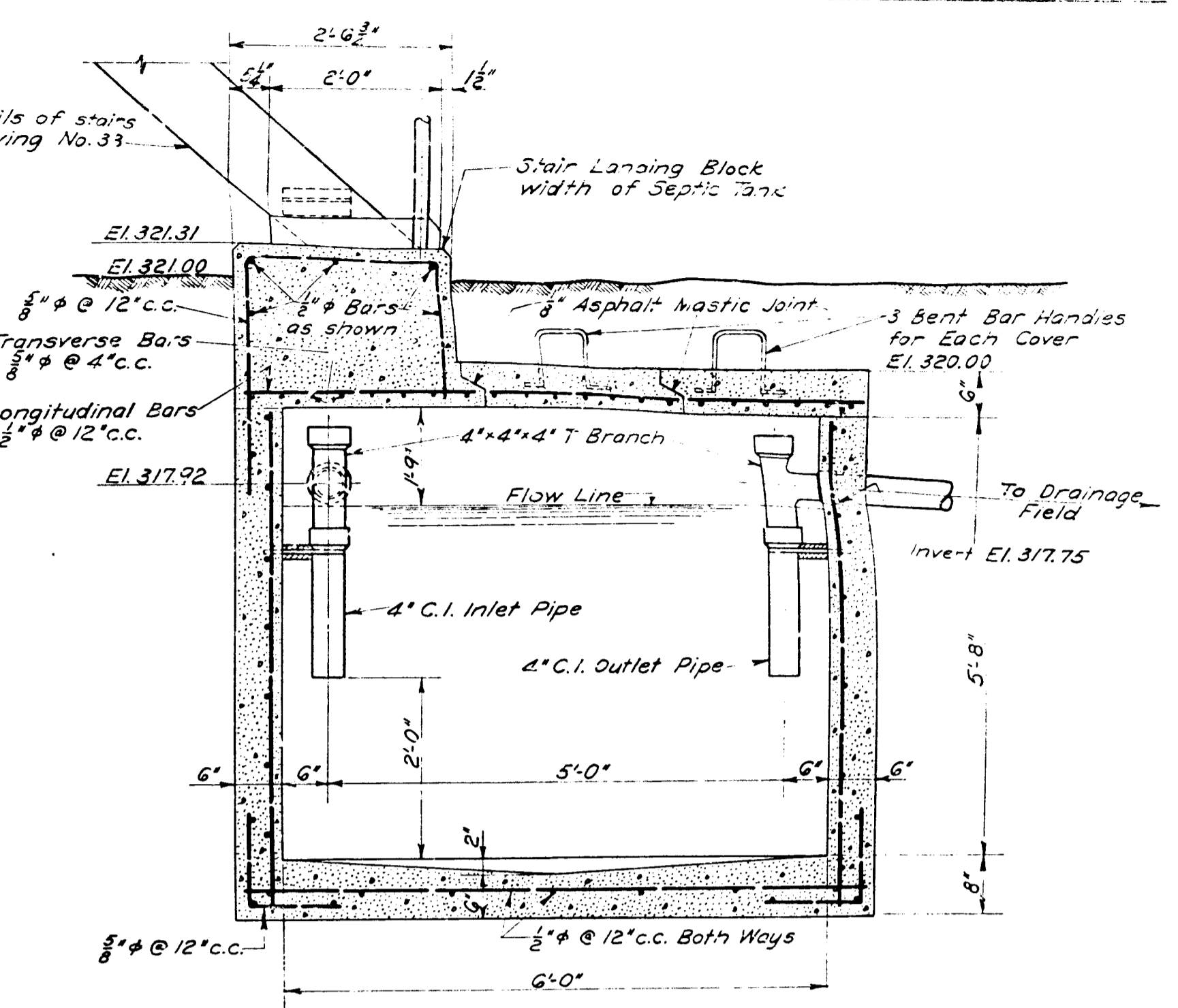
SECTION B-B
Scale: 1/2" = 1'-0"



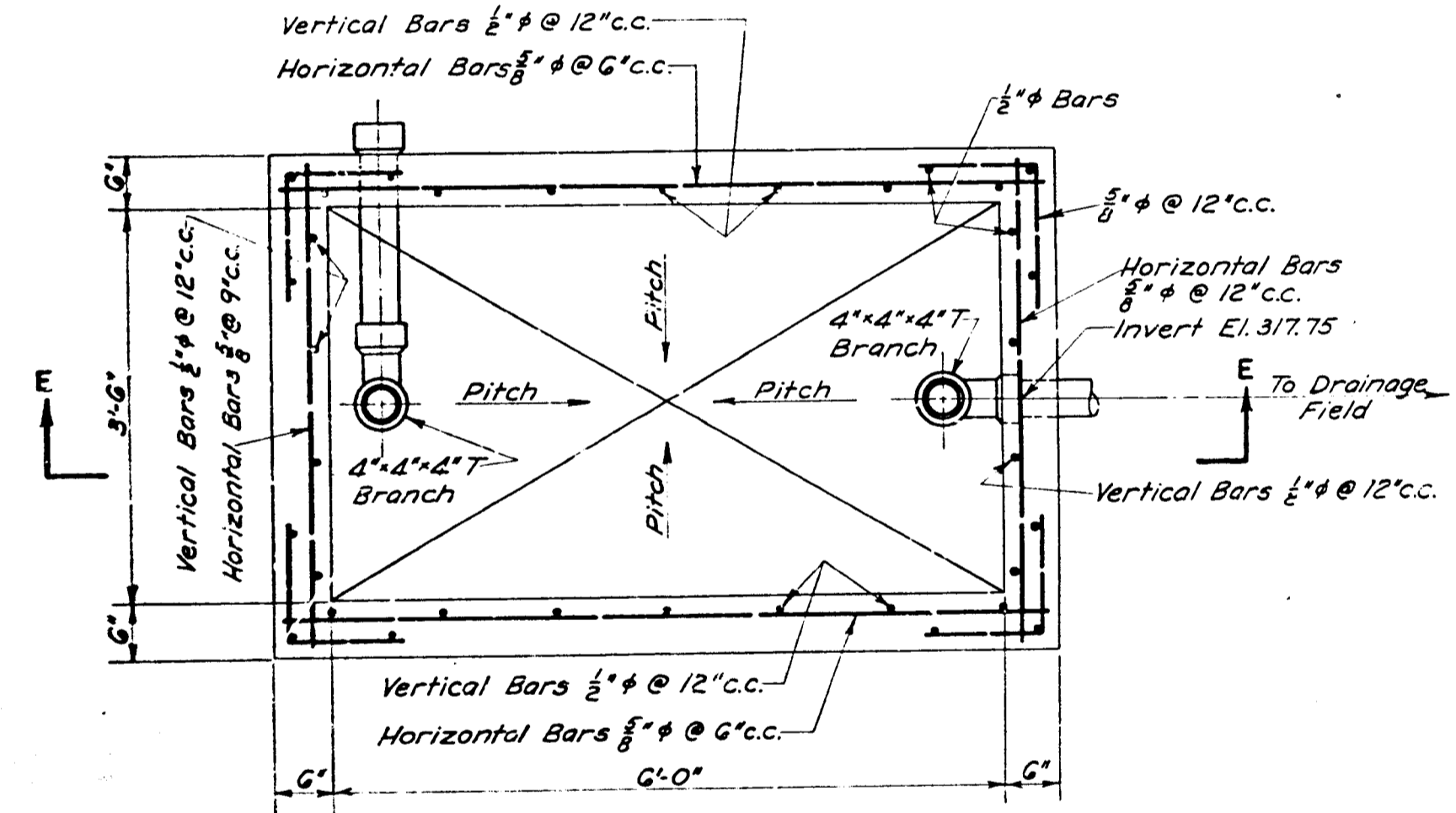
SECTION D-D
Scale: 1/2" = 1'-0"



SECTION C-C
Scale: 1/2" = 1'-0"



SECTION E-E
Scale: 1/2" = 1'-0"



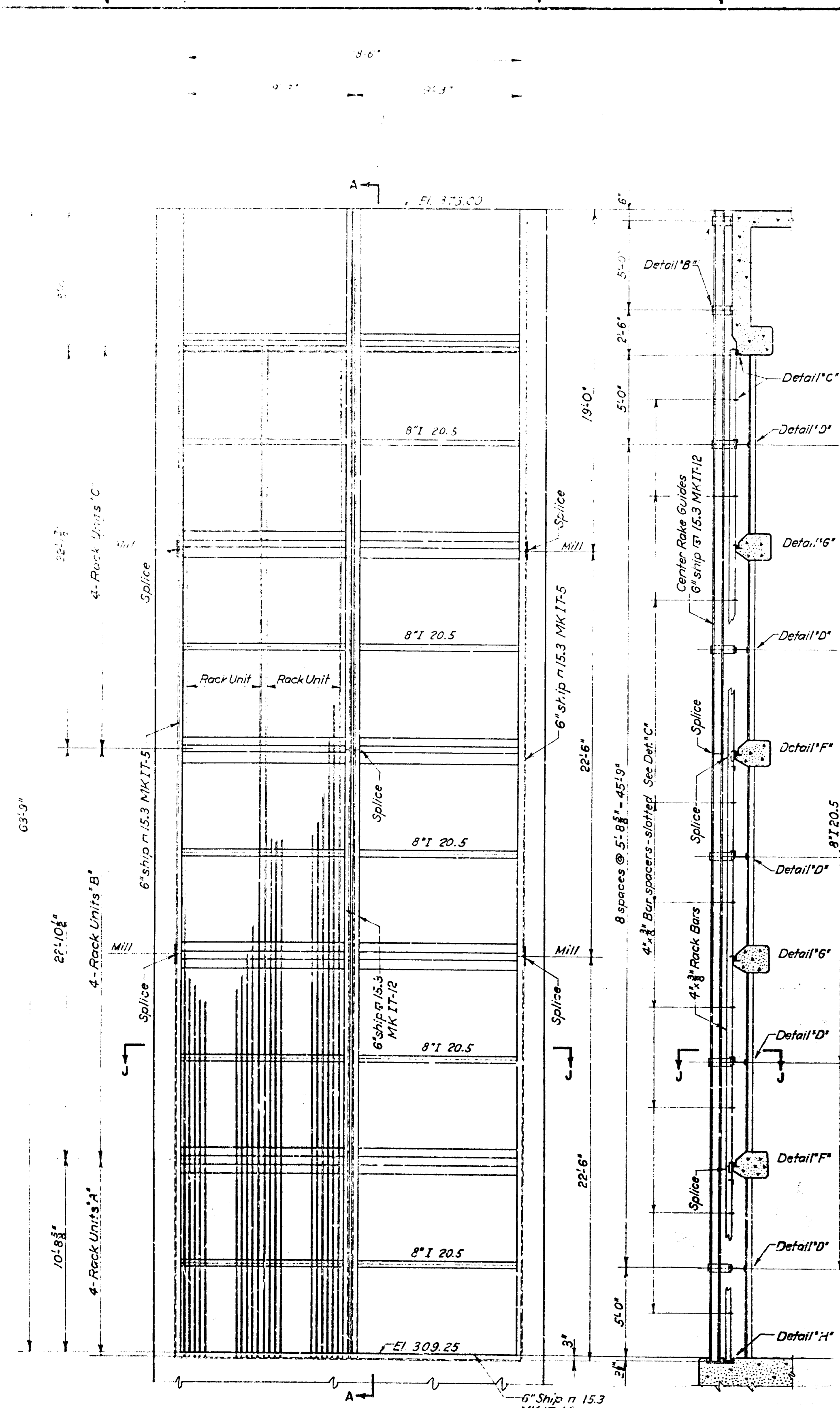
PLAN
Scale: 1/4" = 1'-0"

SEPTIC TANK DETAILS

- GENERAL NOTES
1. For Powerhouse see drawings Nos. 21, 43 and 44.
 2. All plumbing and piping details to conform to the Plumbing Regulations of the Washington Suburban Sanitary Commission.
 3. Reinforcing bar bends and details to conform to bent bar reinforcing schedule drawing No. 35.
 4. Limit of Plumbing Contract shown on this dwg.

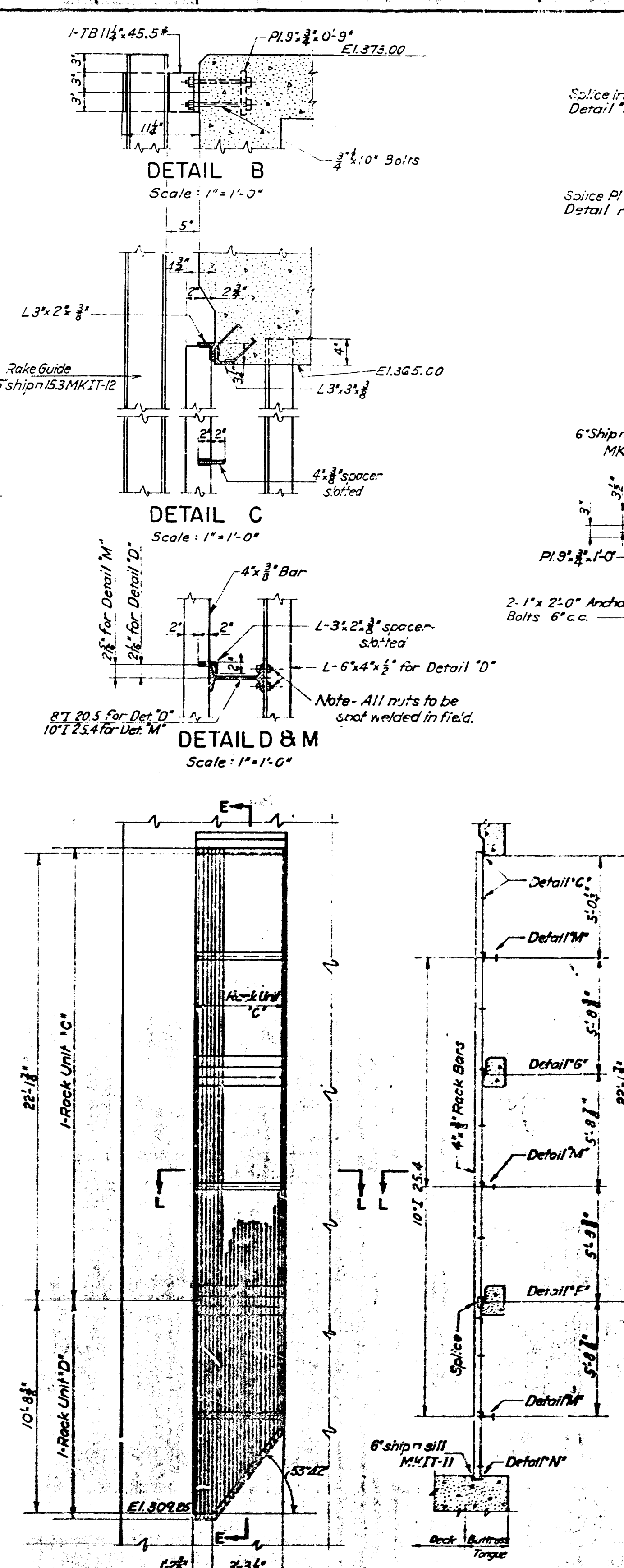
WASHROOM LAYOUT AND PLUMBING DETAILS

DRAWN: E.S. TRACED: J.K. CHECKED: H.E.B. APPROVED: [Signature] 9-9-1947 9-12-1947 9-16-1947 9-22-1947	REV. 1: R.B.A. REV. 2: R.B.A. REV. 3: R.B.A. 10-20-1948 8-9-1948 Revised Plan of Drainage Field Washroom Layout, Revised & Septic Tank Location changed	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	SEPTIC TANK AND PLUMBING DETAILS	APPROVED: Sept. 26, 1947 [Signature] CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 30	SCALE As Shown
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FRONT ELEVATION
Scale: 1/4" = 1'-0"

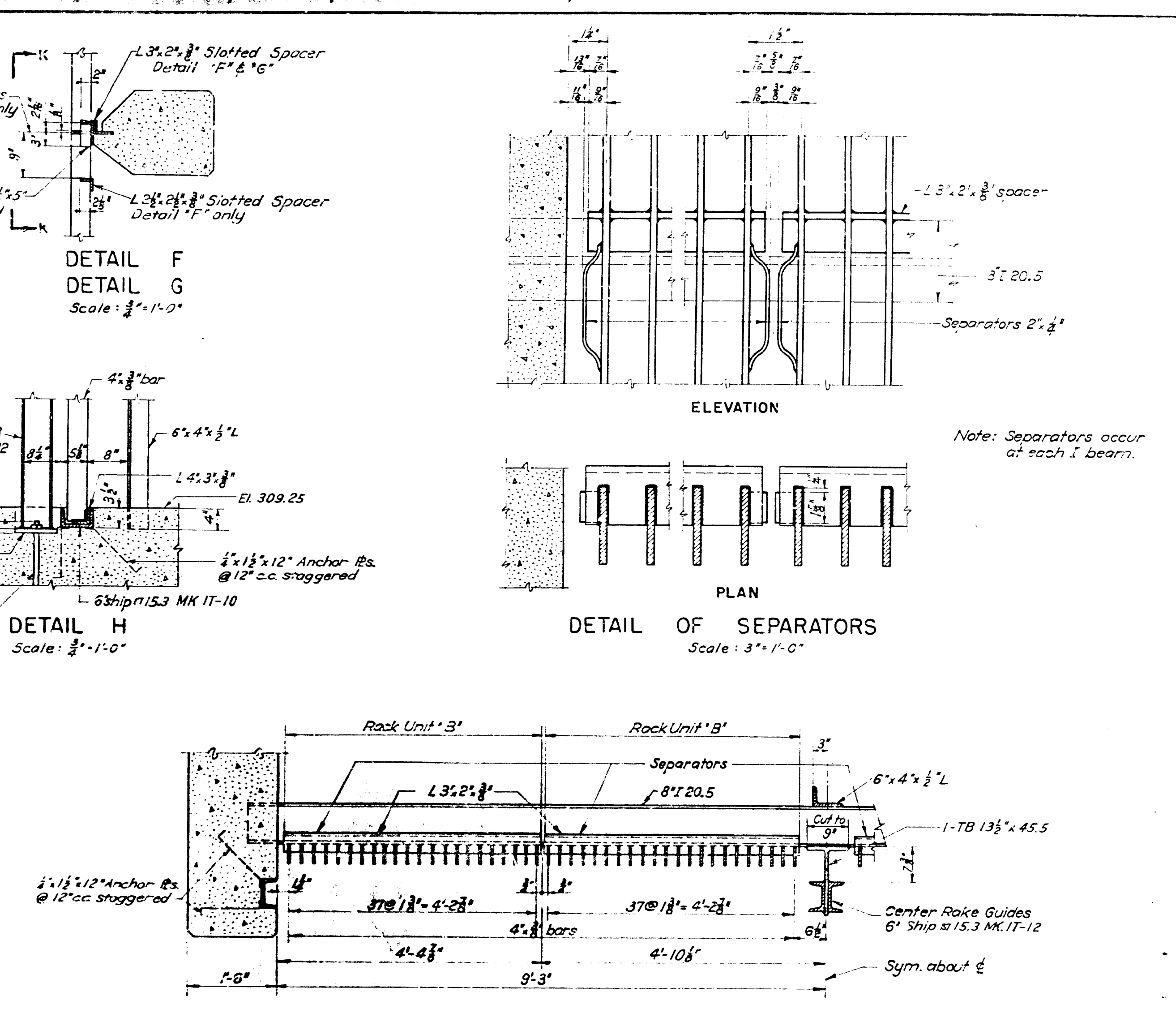
SECTION A-A
Scale: 1/2" = 1'-0"



SIDE ELEVATION
Scale: 1/2" = 1'-0"

SECTION E-E
Scale: 1/2" = 1'-0"

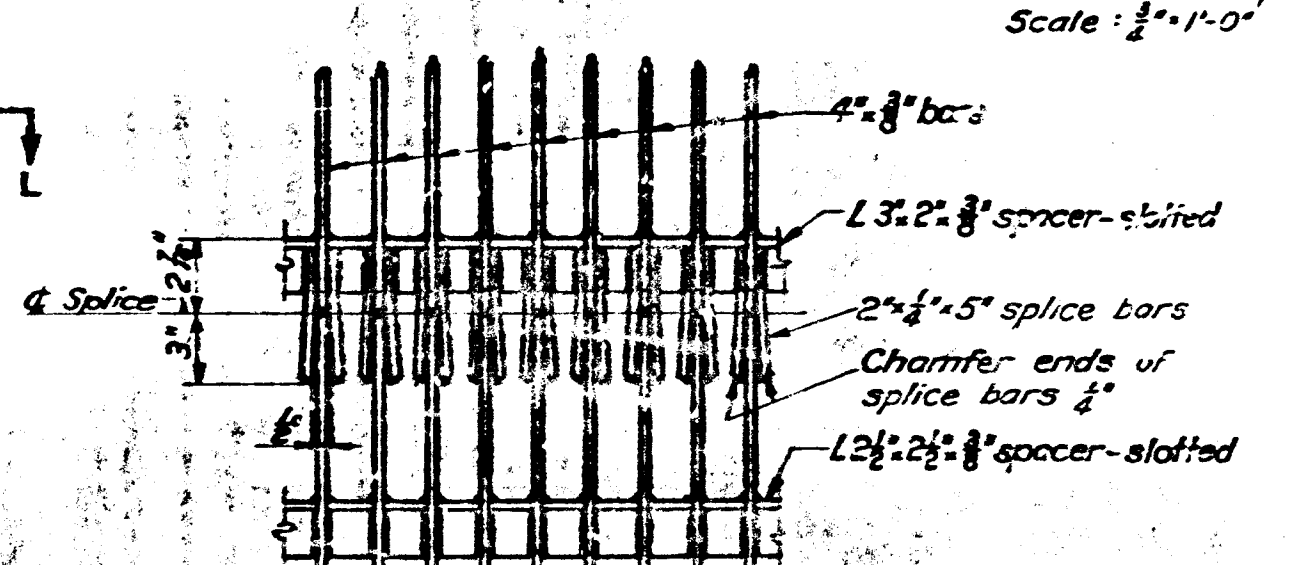
Rack bar units mark "C" 2 required 22'-5" long
 Rack bar units mark "D" 1 required as shown
 Rack bar units mark "E" 1 required app. hand.



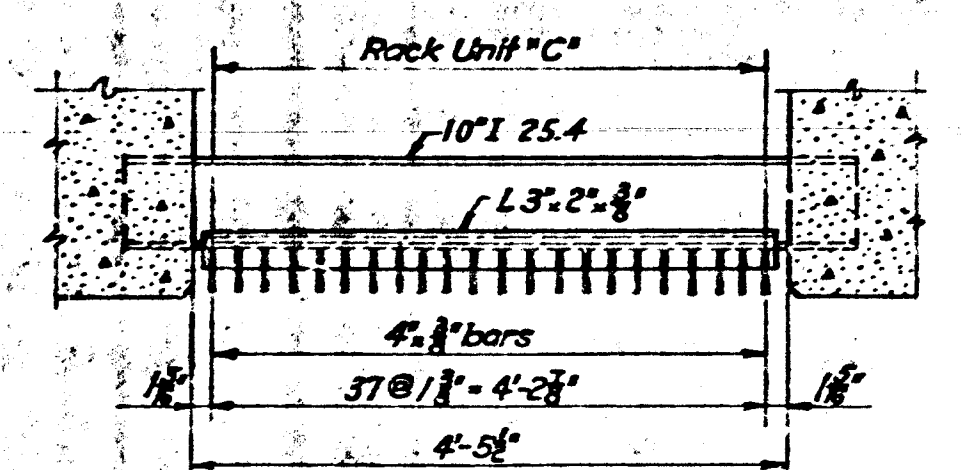
DETAIL OF SEPARATORS
Scale: 3/8" = 1'-0"

SECTION J-J

Rack bar units mark "A" 4 required 10'-11 1/2" long
 Rack bar units mark "B" 4 required 22'-10 1/2" long
 Rack bar units mark "C" 4 required 22'-5" long
 Scale: 3/8" = 1'-0"



VIEW K-K
For Detail "F" Only
No Scale



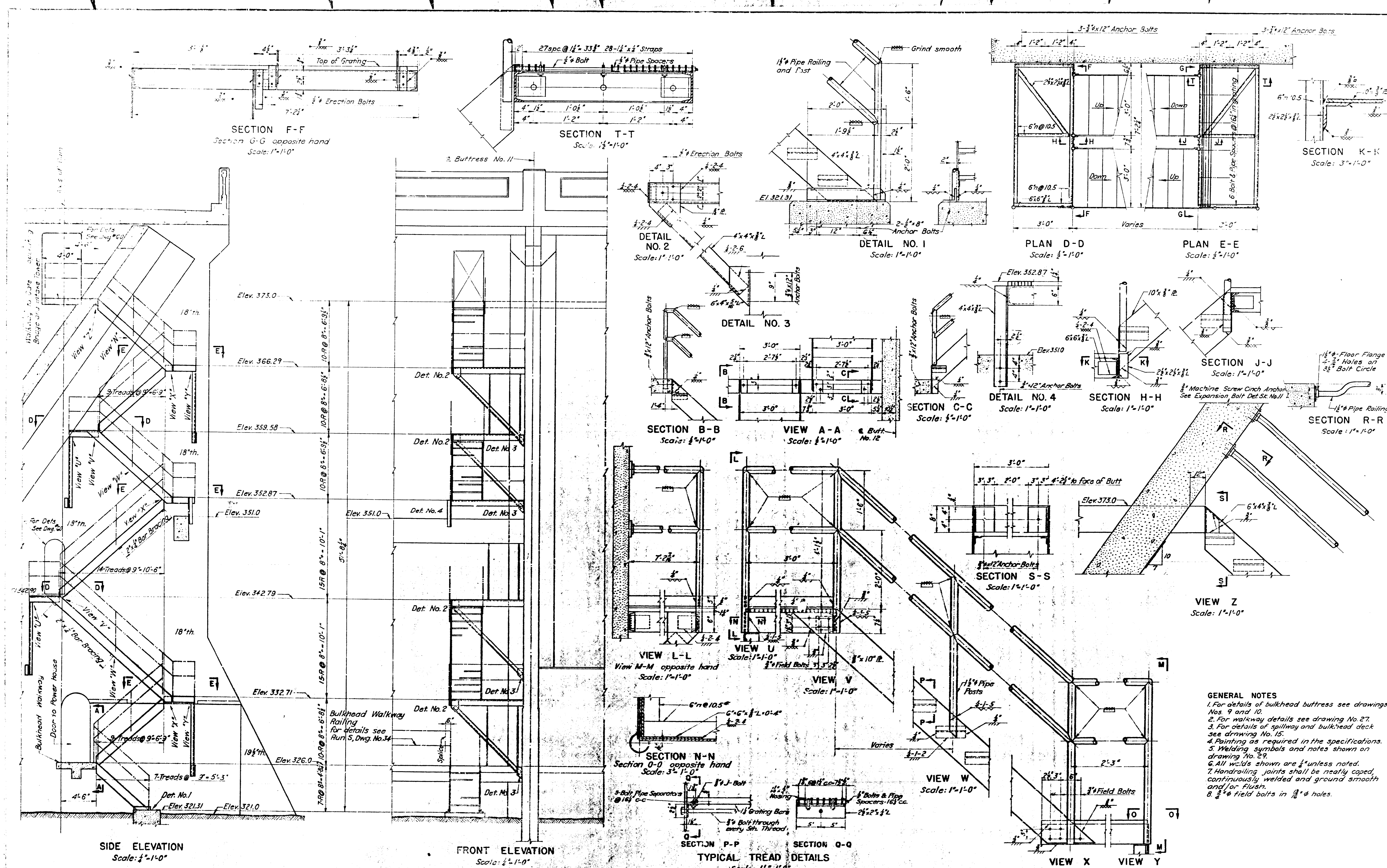
SECTION L-L
Scale: 1/2" = 1'-0"

DETAIL N
Scale: 1/2" = 1'-0"

GENERAL NOTES
 1. For concrete and reinforcing details of Intake Tower see drawings No. 19 and No. 20.
 2. For details of rack support beams not shown on this drawing see drawing No. 32.
 3. Painting as required in the specifications.
 4. Welding symbols and notes shown on drawing No. 29.
 5. All welds shall be 1/4" continuous welds unless otherwise shown or noted.

DRAWN L.C. 7-1-1947 TRACKED E.T. 9-5-1947 CHECKED H.S.B. 8-22-1947 APPROVED H.A.L. 9-3-1947	REV. M.A.-L.C. 2-19-1947 Detail N added, Dimensions, Detail G, changed. REV. M.A.-L.C. 2-4-1947 Changed and revised for steel as ordered. REV. L.C. 10-29-1947 Rack bar spacing changed to 1" clear.	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	INTAKE TRASH RACKS, SUPPORTS, AND RAKE GUIDES	APPROVED Sept. 26, 1947 H.A.L. CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 31	SCALE As Shown
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34" 22" 17" 11" 8.5" 11" 17" 22" 34"



GENERAL NOTES

1. For details of bulkhead buttress see drawings Nos. 9 and 10.
2. For walkway details see drawing No. 27.
3. For details of spillway and bulkhead deck see drawing No. 15.
4. Painting as required in the specifications.
5. Welding symbols and notes shown on drawing No. 29.
6. All welds shown are 1/2" unless noted.
7. Handrailing joints shall be neatly coped, continuously welded and ground smooth and/or flush.
8. 3/8" field bolts in 1/2" holes.

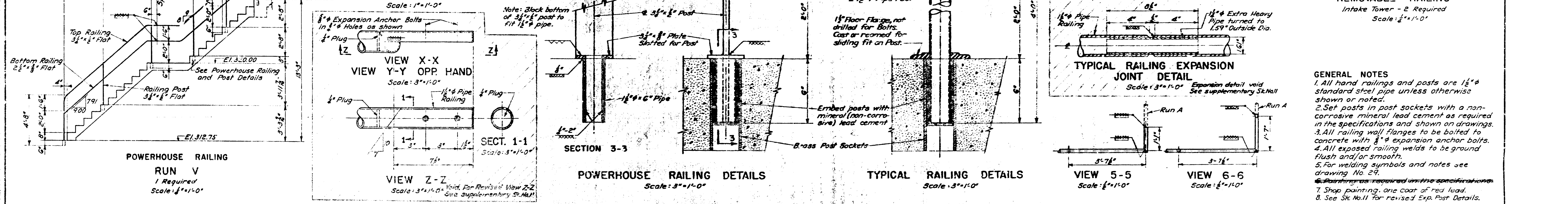
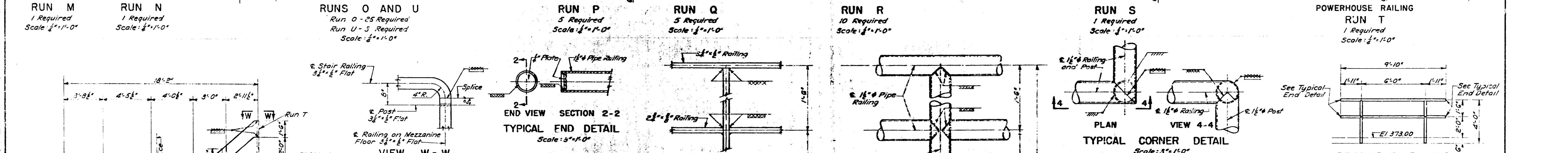
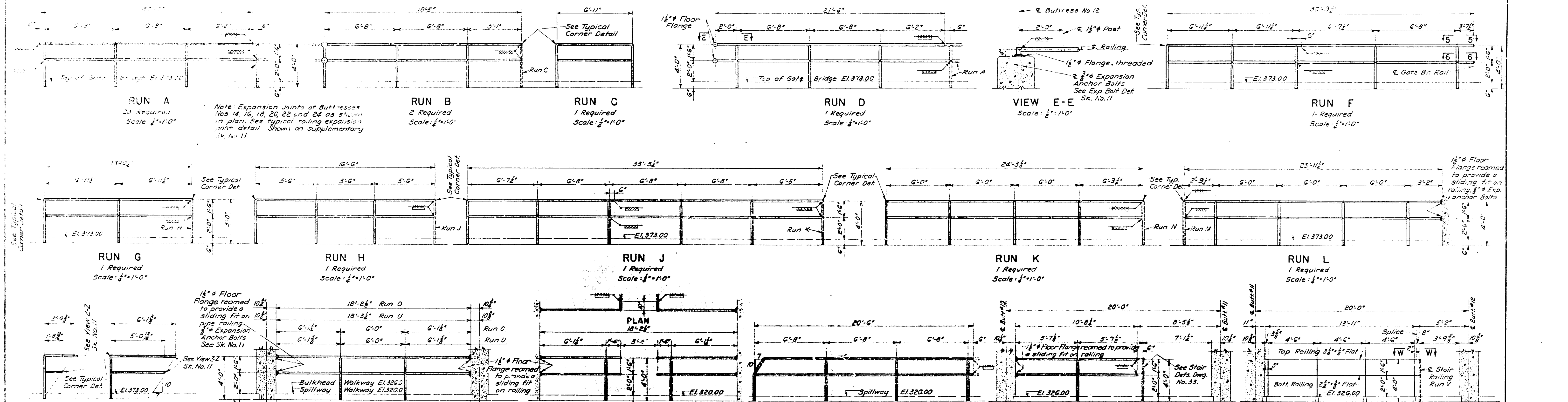
DRAWN H.E.B. 7-23-1941 TRACED W.A. 9-13-1941 CHECKED L.C. 9-3-1941 APPROVED J.P. 9-30-1941	REV. 104 REV. 104 REV. B.A. 8-12-1942 Revised and reissued. REV. B.A. 3-11-1942 Steel run location changed to suit P.D. on Spec. B. & J. Unit 2.	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	MISCELLANEOUS STEEL DETAILS DRAWING NO. 2 OF 3	APPROVED Sept. 26, 1941 CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 33	SCALE As Shown
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34" 22" 17" 11" 8.5" 9.5" 11" 17" 22" 34"

HANDRAILING LAYOUT PLAN - GATE OPERATING BRIDGE - EL 373.00
Scale: 1/4" = 20'-0"

POWERHOUSE MEZZANINE AND BULKHEAD WALKWAYS - EL 326.00

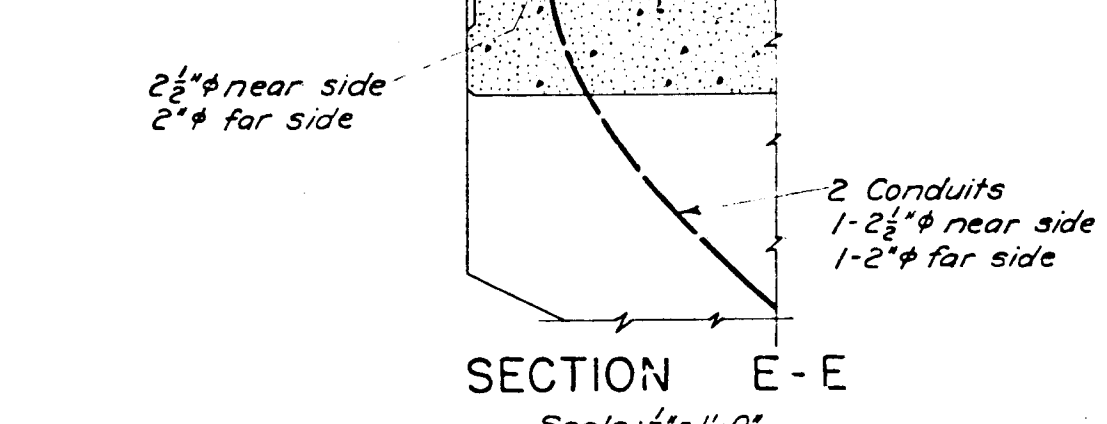
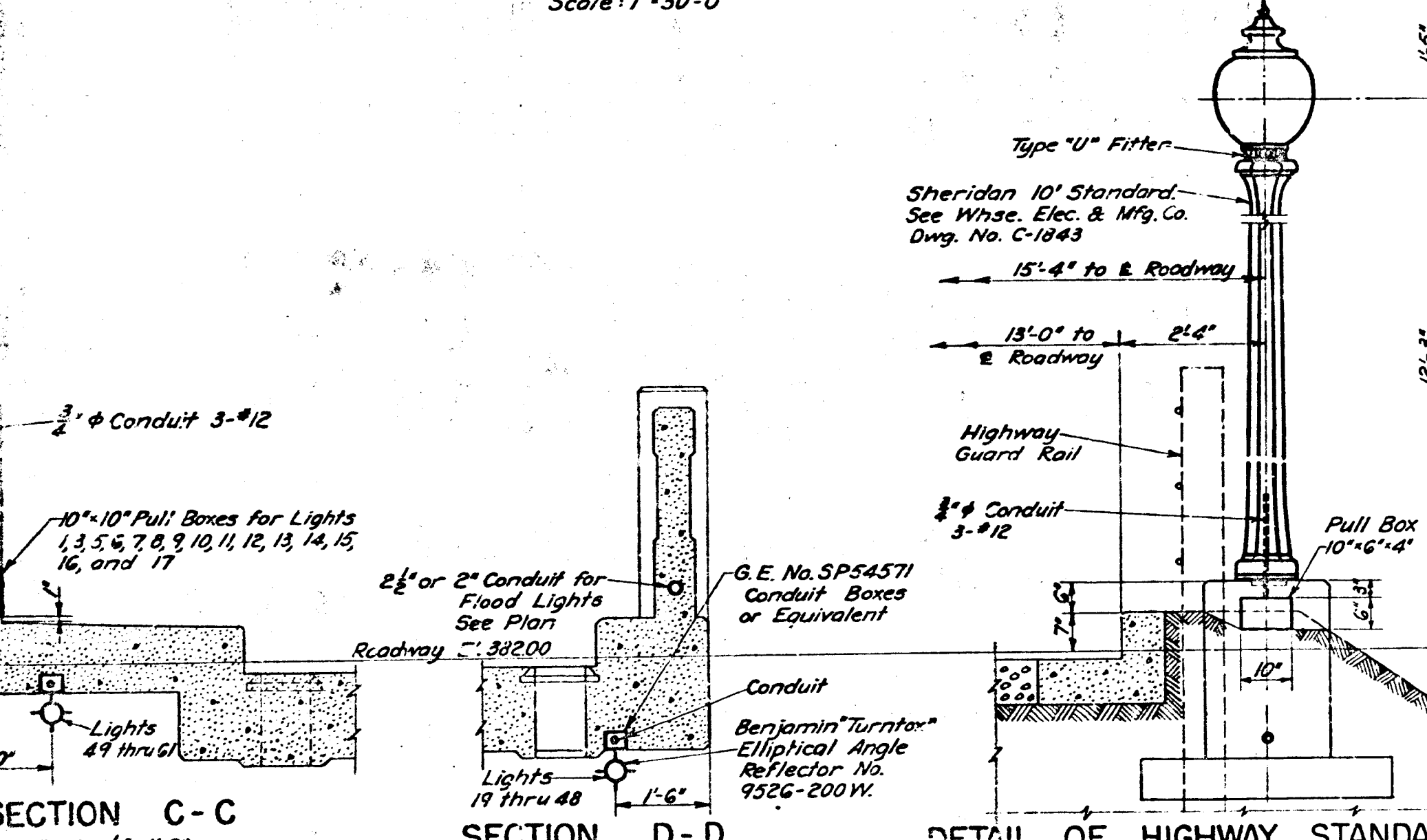
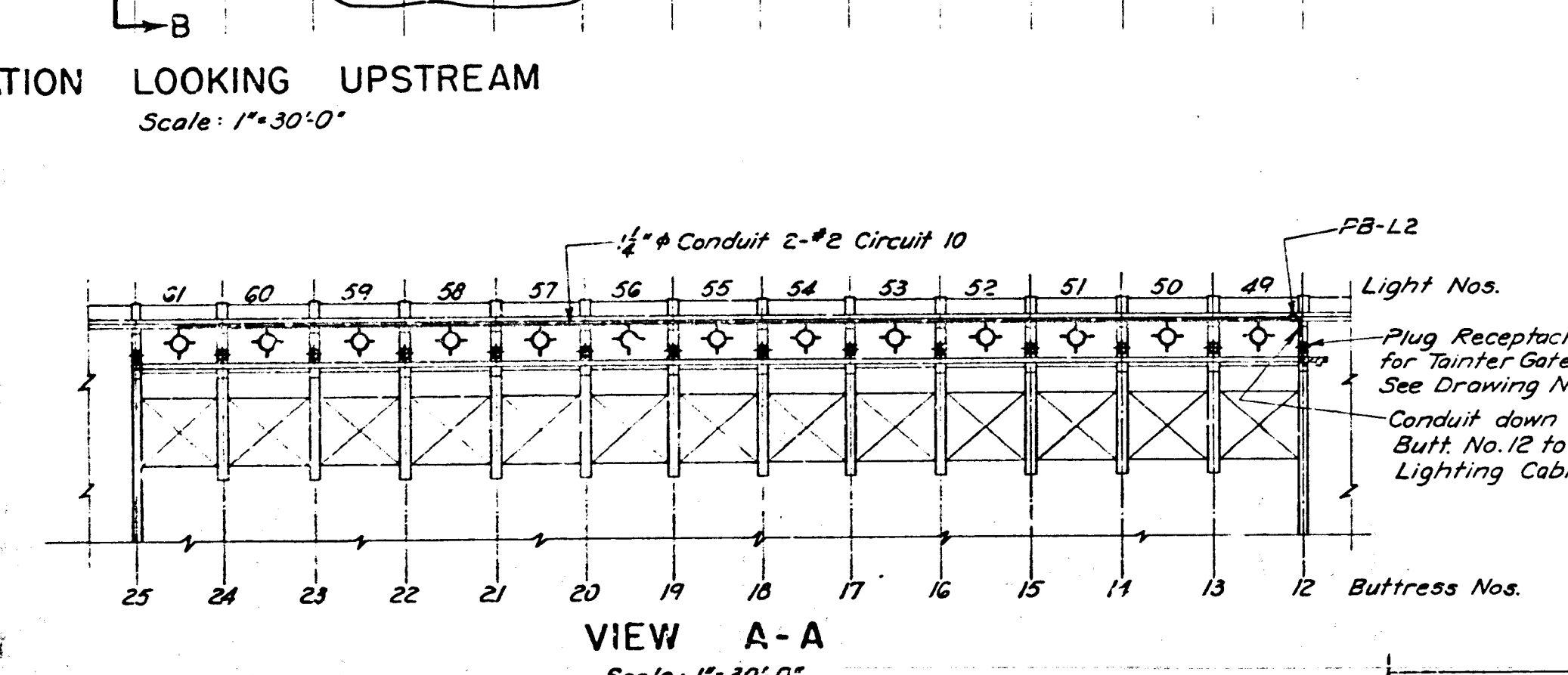
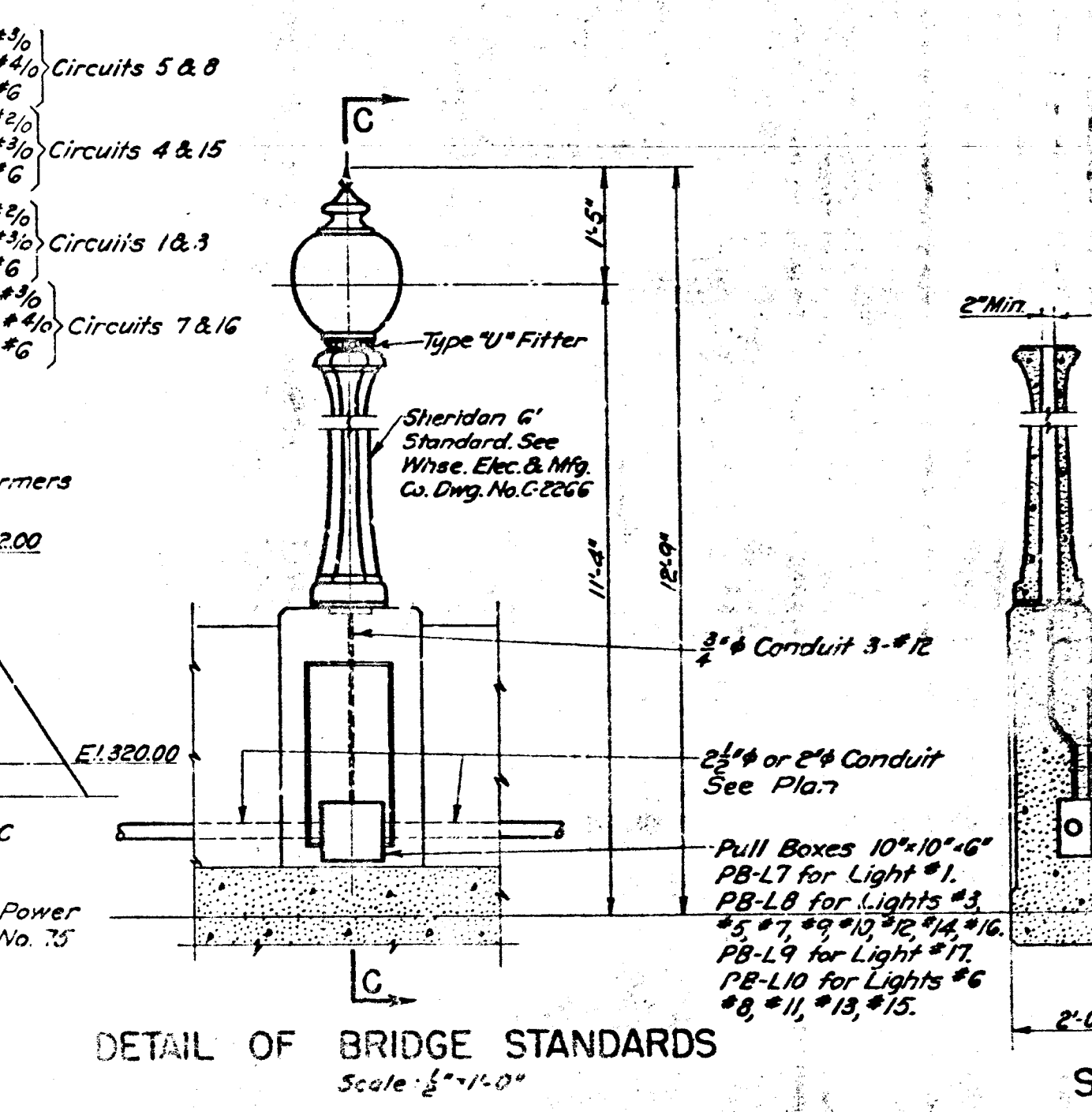
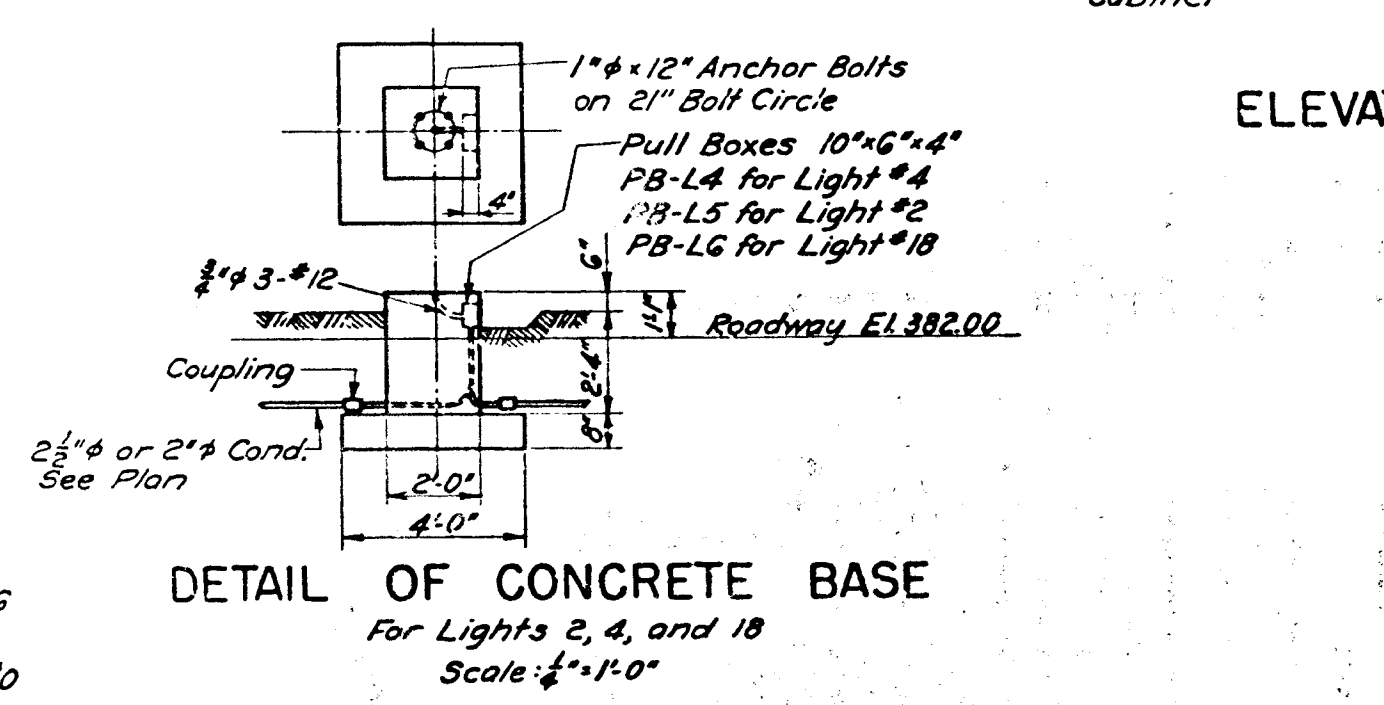
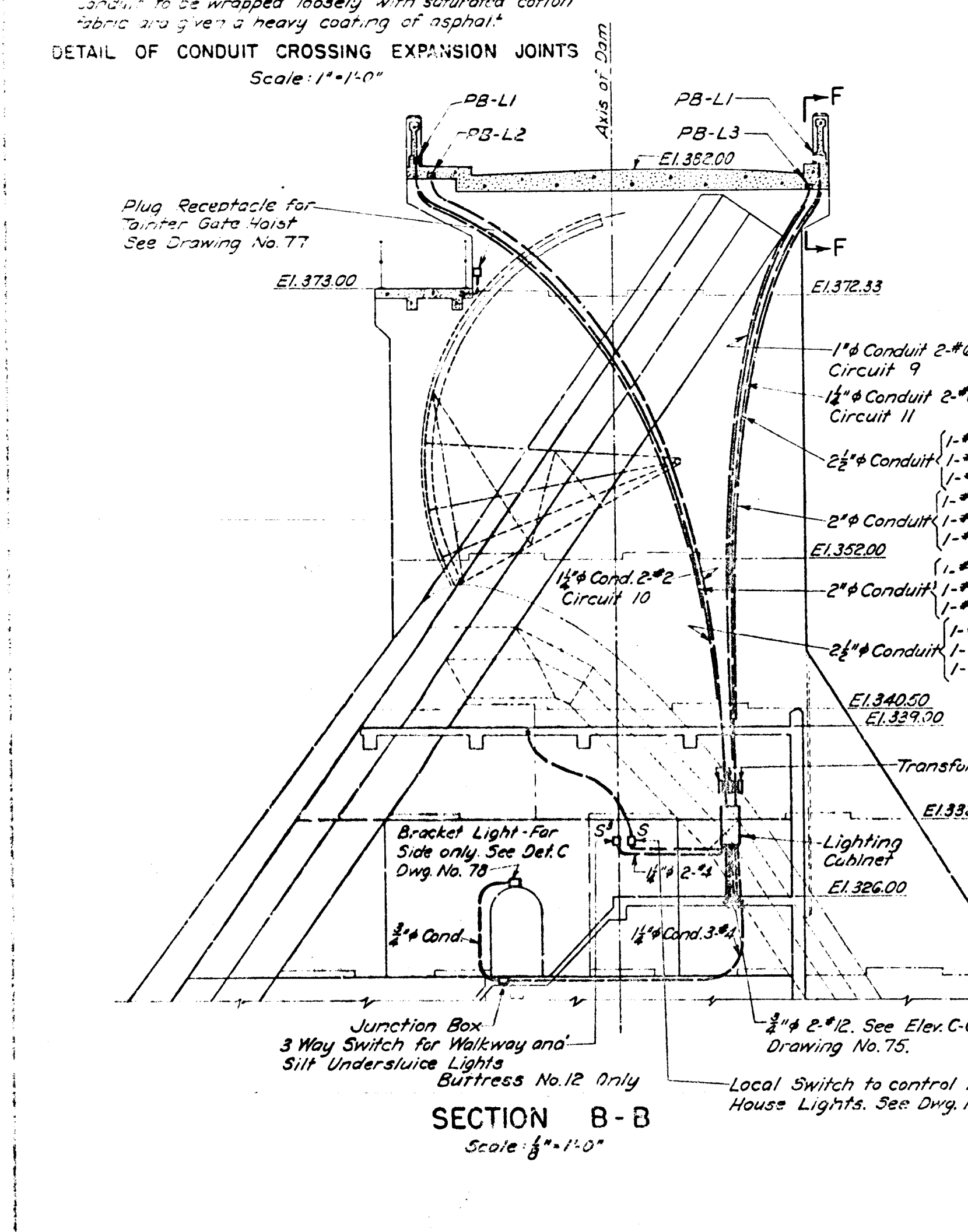
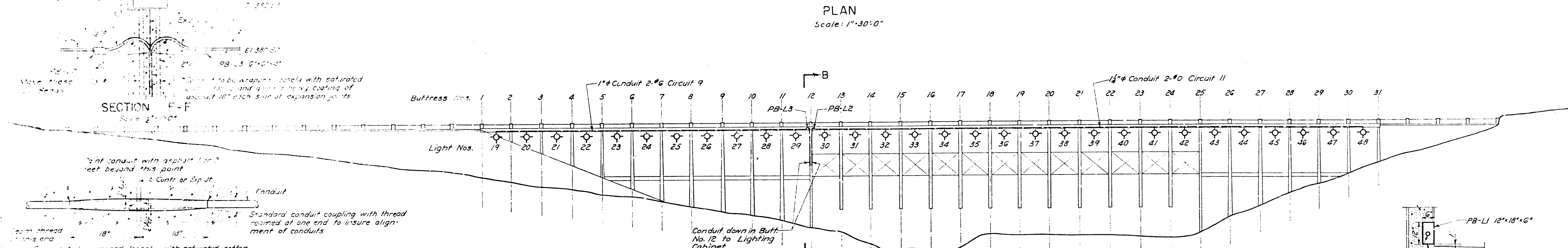
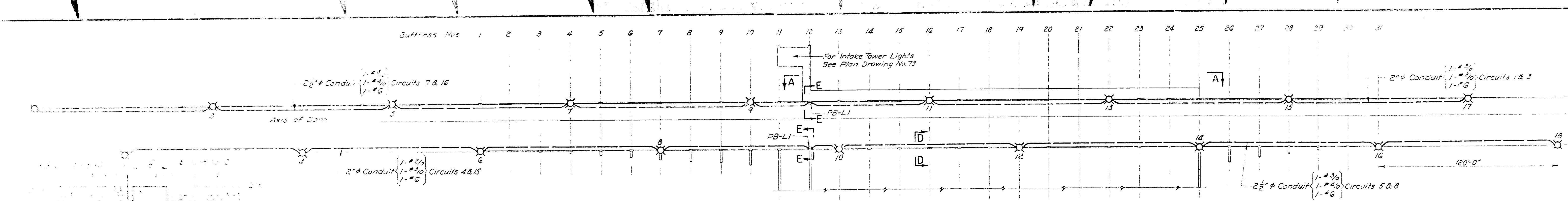
HANDRAILING LAYOUT PLAN - SPILLWAY WALKWAYS - EL 320.00
Scale: 1/4" = 20'-0"



- GENERAL NOTES**
1. All hand railings and posts are 1 1/2" standard steel pipe unless otherwise shown or noted.
 2. Set posts in post sockets with a non-corrosive mineral lead cement as required in the specifications and shown on drawings.
 3. All railing wall flanges to be bolted to concrete with 3/4" expansion anchor bolts.
 4. All exposed railing welds to be ground flush and/or smooth.
 5. For welding symbols and notes see drawing No. 29.
 6. Railing posts to be galvanized with the standard finish.
 7. Shop painting, one coat of red lead.
 8. See Sk No. 11 For revised Exp. Post Details.

DRAWN: H.E.B. 8-4-1941 CHECKED: L.C. 9-24-1941 APPROVED: E.H.C. 9-30-1941	REV. R.B.A. 10-31-1942 Extended Spillway Walkway to Butt. No. 27. REV. M.A.A. 3-30-1943 Railing design Rev. Run 3, 7, 8 & 11. View W-W. REV. M.A.-S.M.S. 2-25-1942 Railing Exp. Detail changed. 2 runs 9 & 7 removed. U added. REV. L.C. 10-30-1941 Note No. 11 from changed to read "Steel".	JOB NUMBER: 4002 AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	MISCELLANEOUS STEEL DETAILS DRAWING NO. 3 OF 3	APPROVED: Sept. 26, 1941 H. H. HALL, CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER: 34 SCALE: As Shown
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MICROFILMED 200 1



- SYMBOLS:-**
- Embedded Conduit.
 - - - Embedded Conduit in Ceiling or Slab above.
 - Exposed Conduit.
 - Conduit bending toward observer.
 - Conduit bending away from observer.
 - ⊙ Bridge and Highway Lighting Standard.
 - ⊙ Outdoor Lighting Standard.
 - ⊕ Plug Receptacle.
 - ⊙ Ceiling Outlet.
 - ⊙ Bracket Outlet.

GENERAL NOTES

1. Westinghouse Washington Medium 500W. No. 3523.59 Floodlights mounted on Westinghouse Sheridan hollow-spun Granite Standards, with Spider Base.
2. Lights 1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17, Sheridan 6' Standards. Lights 2, 4, and 18, Sheridan 10' Standards.
3. Lights 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60 and 61, Benjamin Turnax Elliptical Angle Reflector No. 9526-200W. (Sections C-C and D-D).
4. Lights 1, 3, 5, 7, and 9 on 3" Conduit - 2 No. 0, 1 No. 4. Lights 2, 4, 6, and 8 on 3" Conduit - 2 No. 0, 1 No. 4. Lights 11, 13, 15, and 17 on 3" Conduit - 2 No. 0, 1 No. 2. Lights 10, 12, 14, 16, and 18 on 3" Conduit - 2 No. 0, 1 No. 2. Use Type RW Wire.
5. Lights 19 thru 29 on 1" conduit containing 2 No. 0's. Lights 30 thru 39 on 1" conduit containing 2 No. 0's. Lights 40 thru 48 on 1" conduit containing 2 No. 0's. Lights 49 thru 51 on 1" conduit containing 2 No. 0's. Use Type RW Wire.
6. Install expansion couplings in all embedded conduits of expansion joints.
7. For Pull Box details see dwg. No. 79.

COPIES: A.A.A. 8-1, 1941 TRACED: R.B.A. 8-3, 1941 CHECKED: L.C. 8-3, 1941 APPROVED: J.H.D. 9-30, 1941	REV. R.B.A. 11-26, 1942 Changed Conduit Sizes and Section B-B REV. R.B.A. 12-7, 1942 Rev. Bridge, Highway & Concrete Base Sigs. See Note 1 REV. A.G.K. 5-15, 1942 Revised and Checked for W.S.S.C. REV. R.B.A., L.C. 8-26, 1942 Lighting Plan revised and resubmitted	JOB NUMBER 4002	AMBROSE ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	LIGHTING PLAN	APPROVED: Sept. 25, 1941 <i>Harvey Hill</i> CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 36	SCALE As Shown
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MICROFILMED 24:1

34"

27"

17"

11"

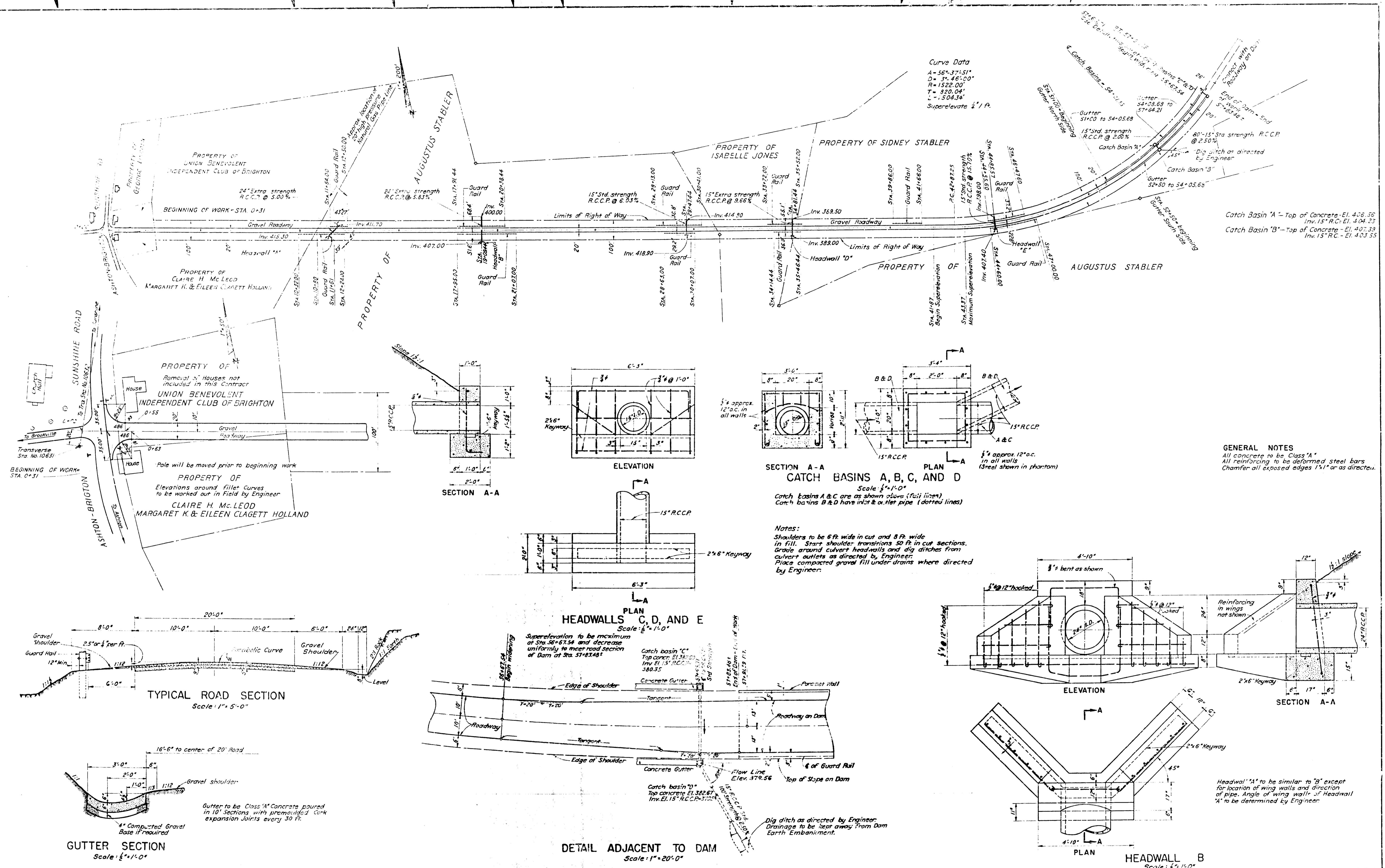
8.5"

3.5"

11"

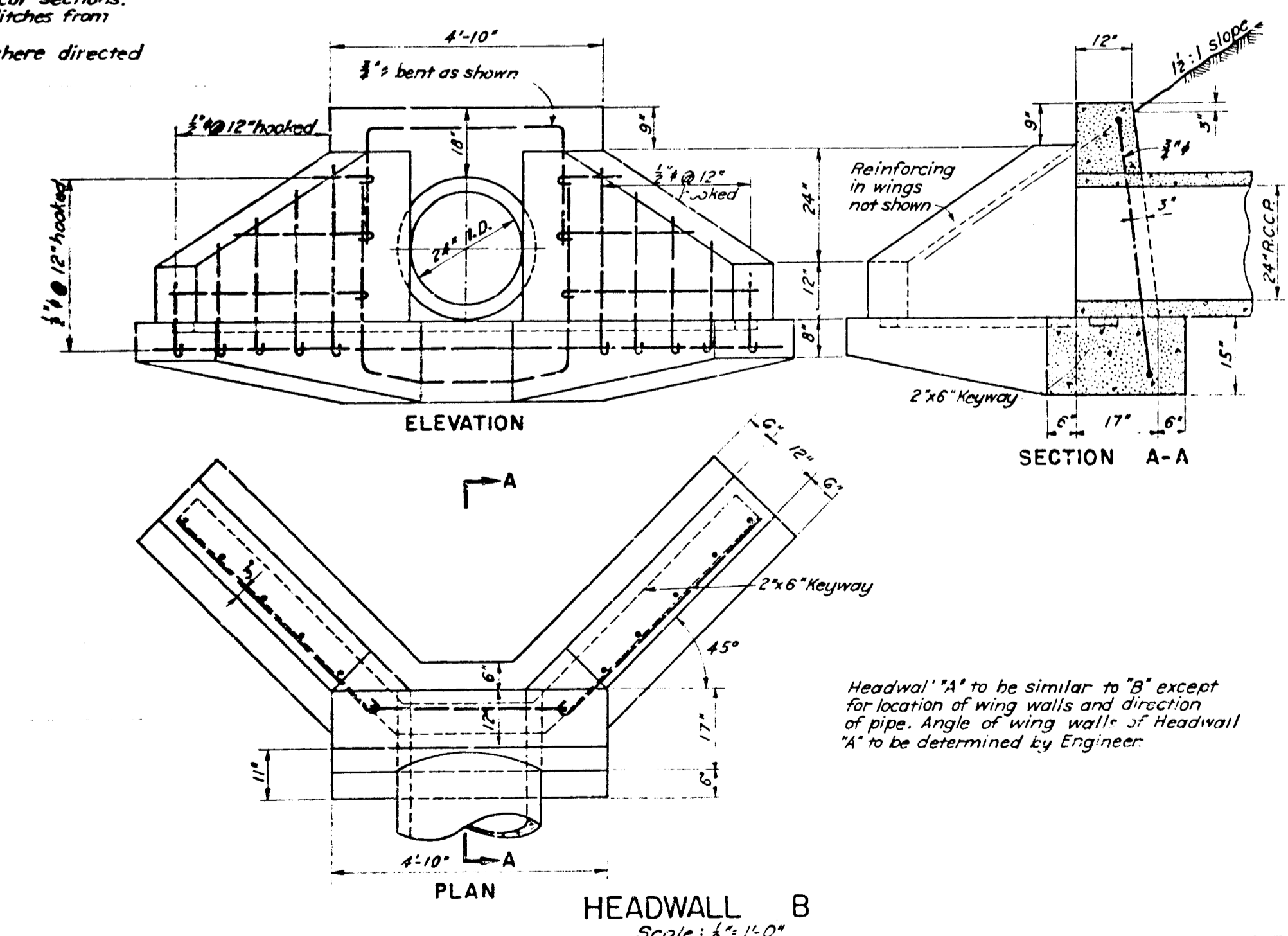
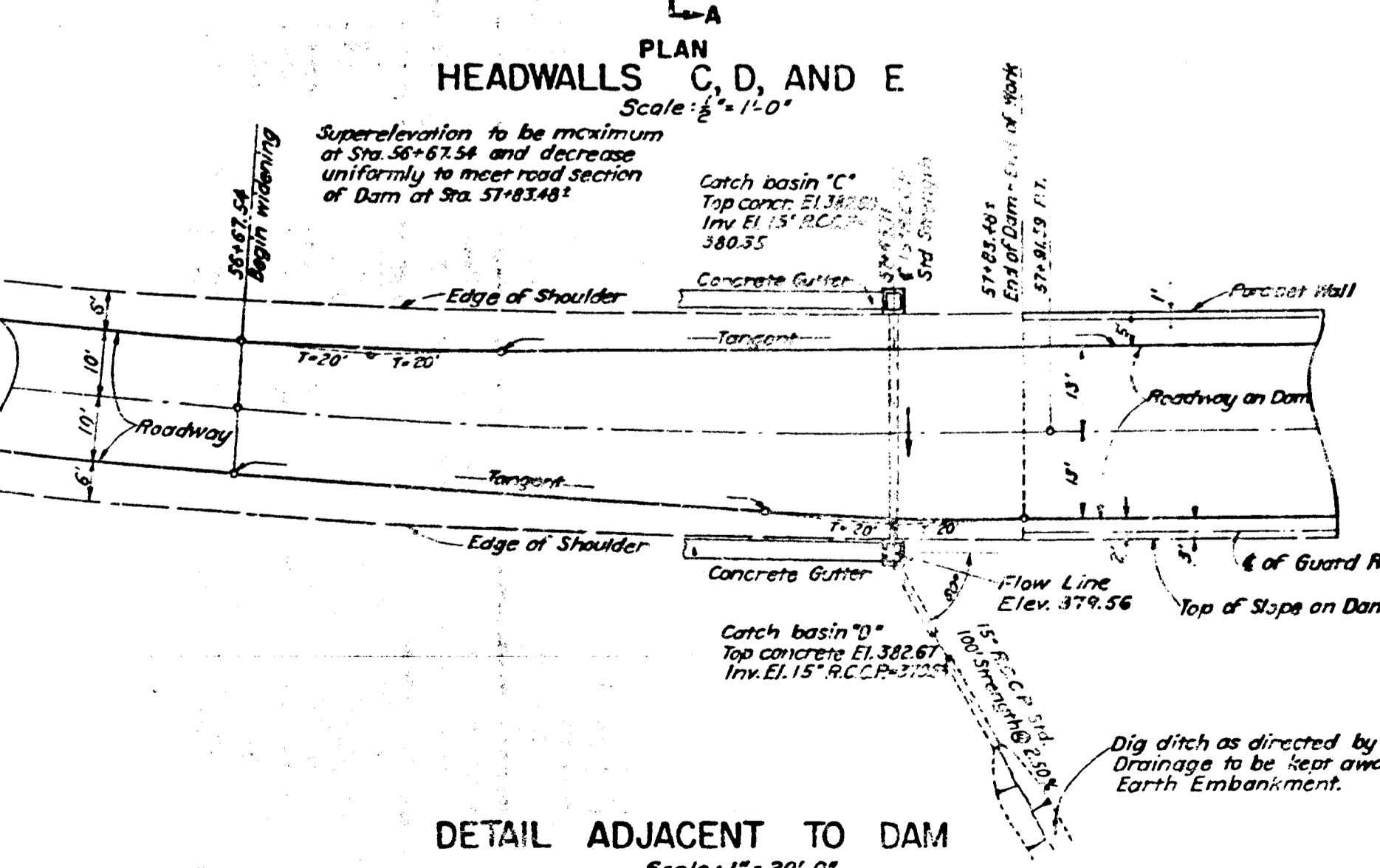
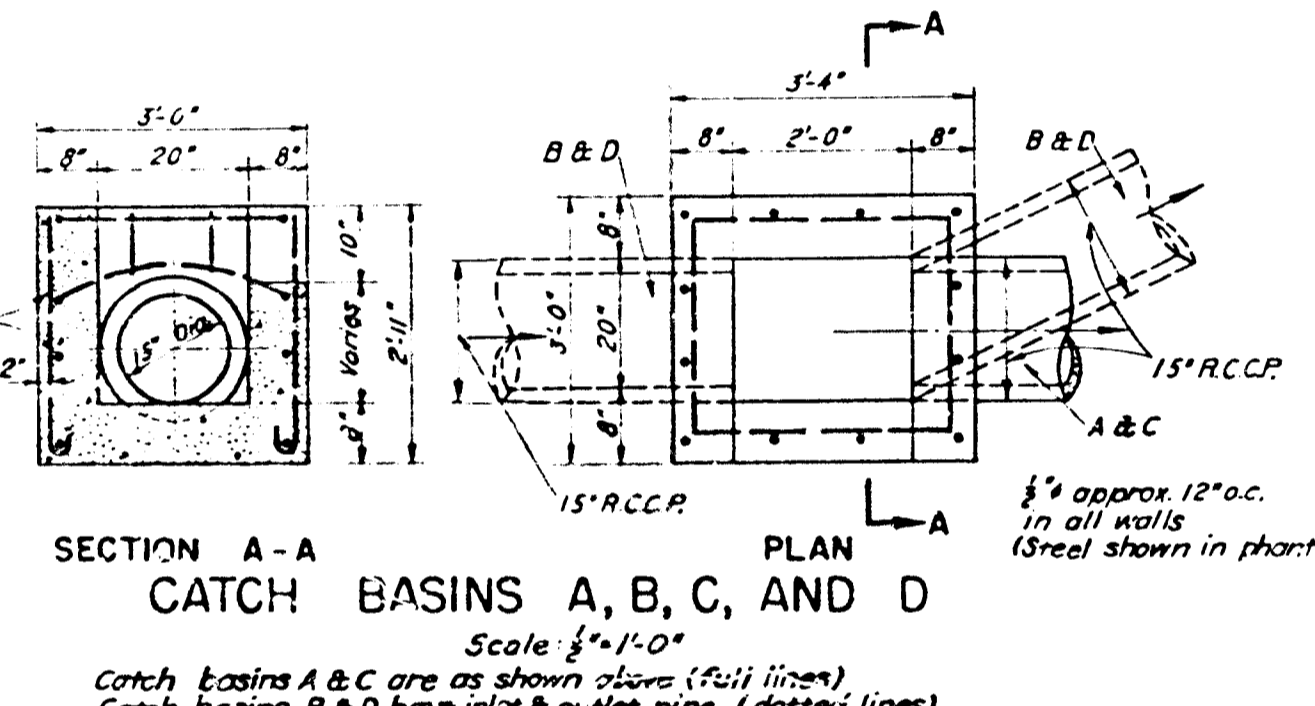
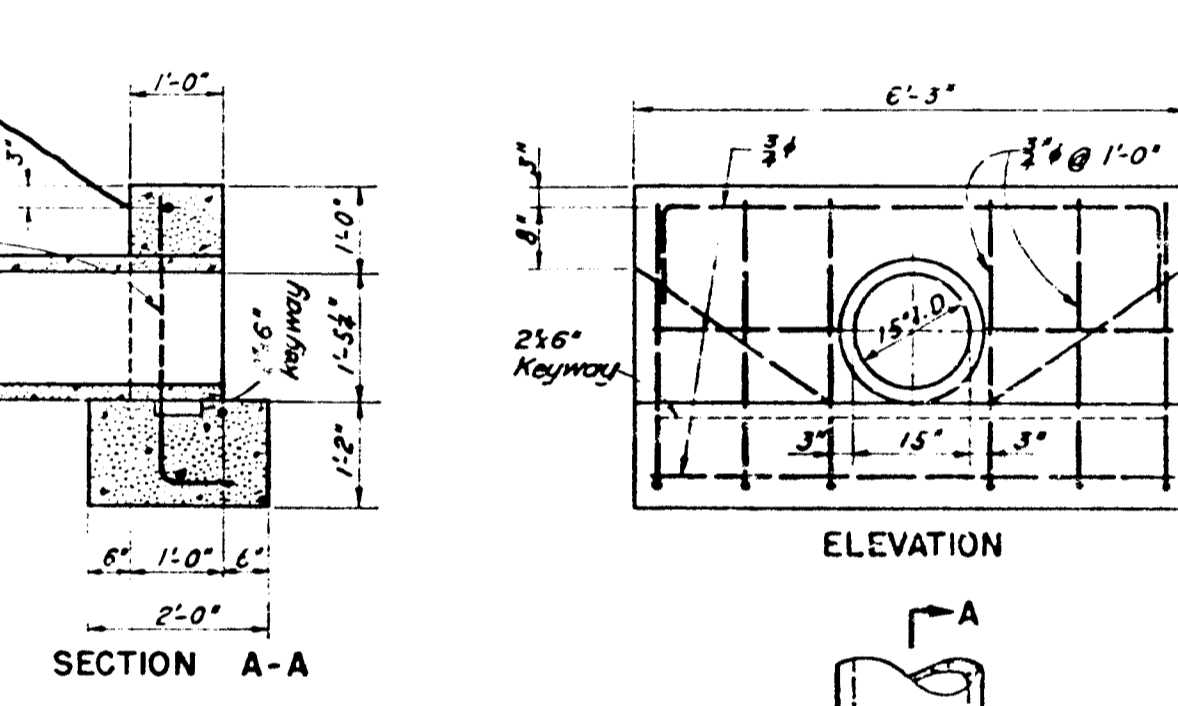
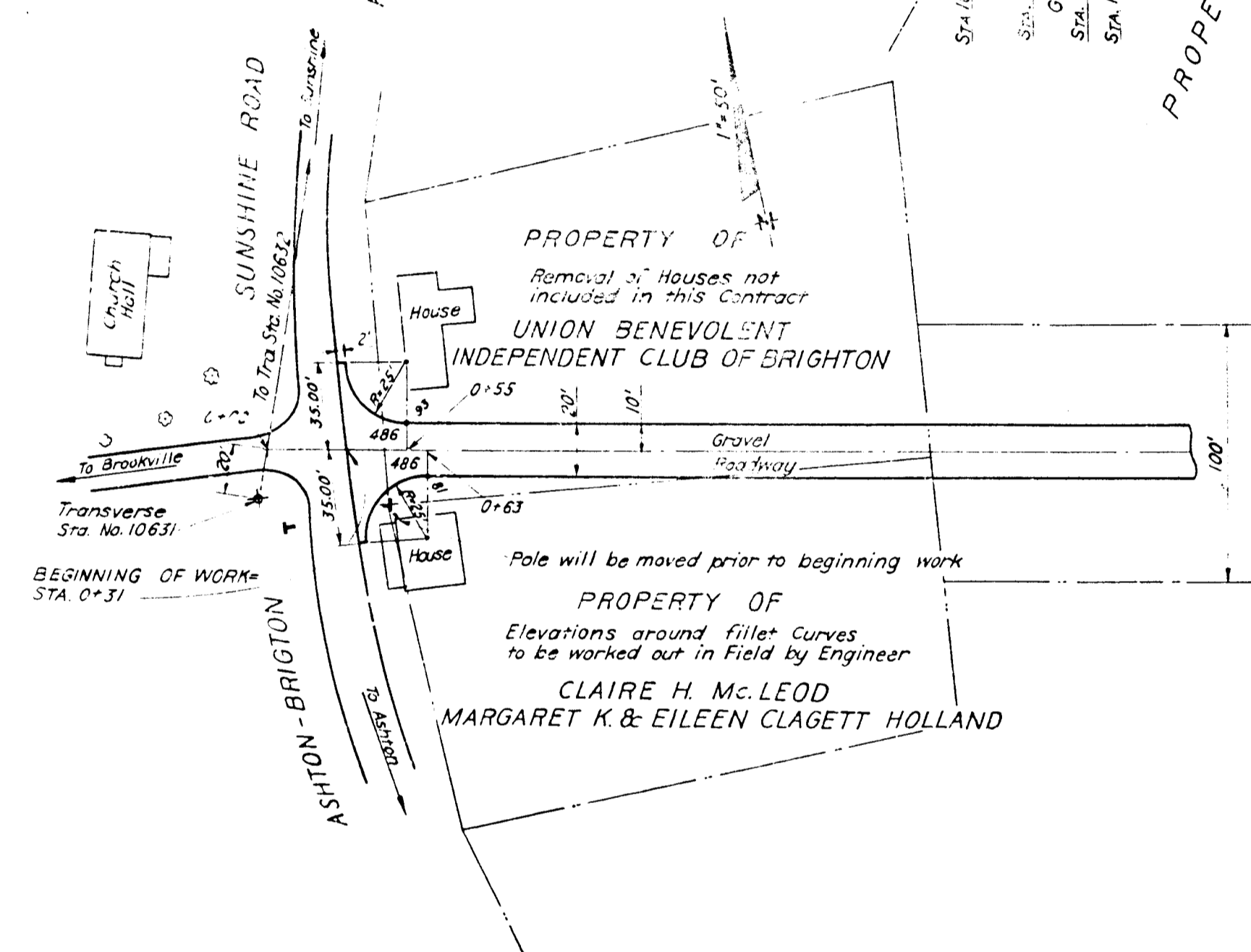
17"

34"



Curve Data
 A-56°-37'-51"
 D=35,46'-00"
 R=1522.00'
 T=820.04'
 L=504.34'
 Superelevate 1/2" ft.

Catch Basin "A" - Top of Concrete - El. 406.56
 Inv. 15" R.C.C.P. - El. 404.23
 Catch Basin "B" - Top of Concrete - El. 407.39
 Inv. 15" R.C.C.P. - El. 403.55



GENERAL NOTES
 All concrete to be Class "A"
 All reinforcing to be deformed steel bars
 Chamfer all exposed edges 1"x1" or as directed.

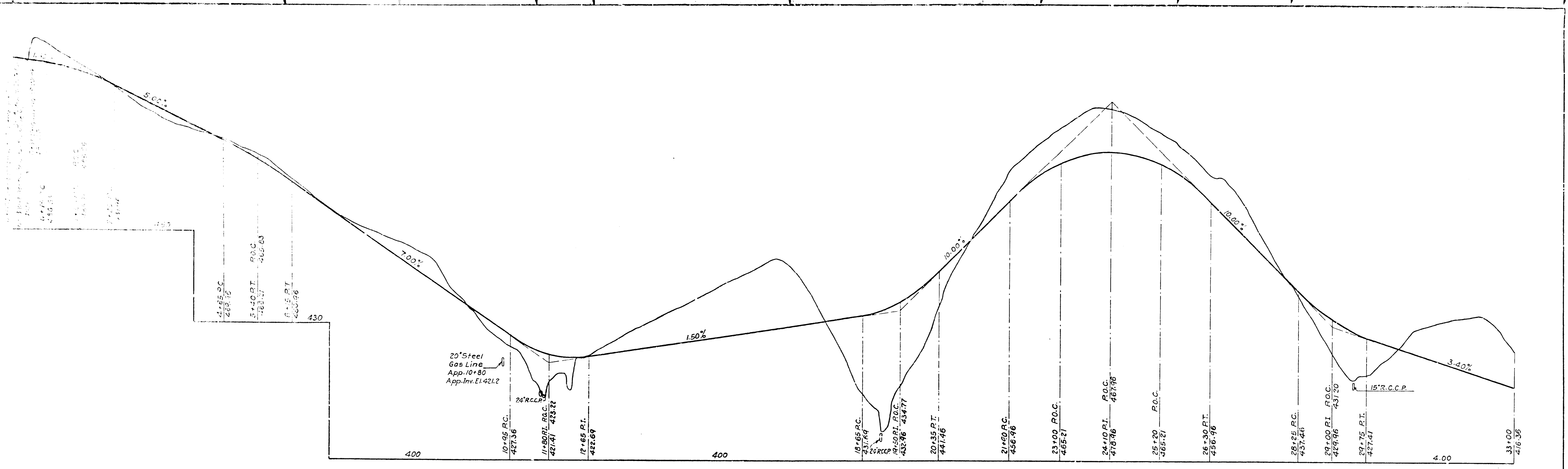
Notes:
 Shoulders to be 6 ft wide in cut and 8 ft wide in fill. Start shoulder transitions 50 ft in cut sections. Grade around culvert headwalls and dig ditches from culvert outlets as directed by Engineer. Place compacted gravel fill under drains where directed by Engineer.

Headwall "A" to be similar to "B" except for location of wing walls and direction of pipe. Angle of wing walls of Headwall "A" to be determined by Engineer.

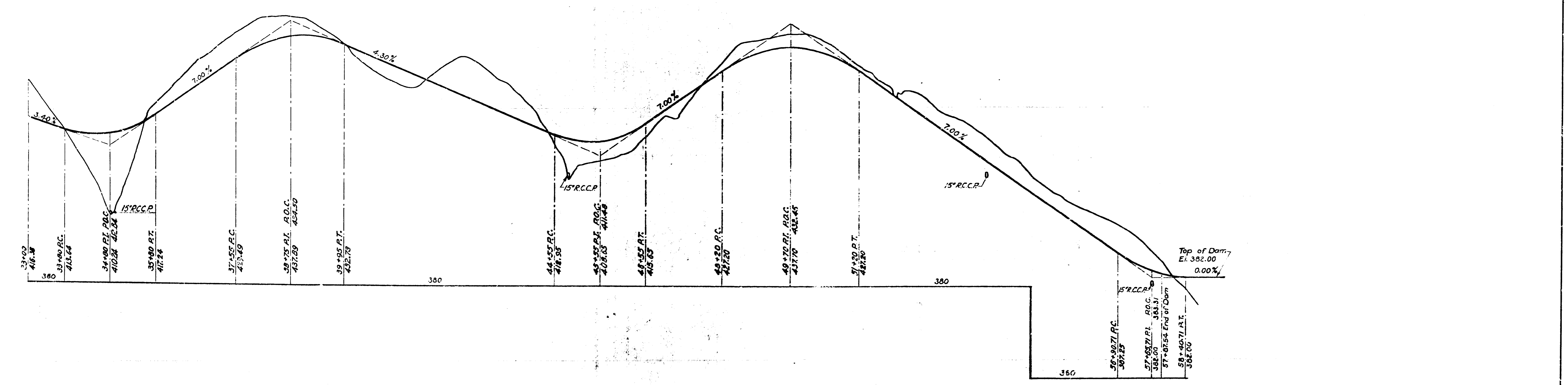
DRAWN C.V. 7-6-1941	REV. 100
TRACED W.A. 9-29-1941	REV. 100
CHECKED B.B.A. 9-24-1941	REV. 100
APPROVED T.P.D. 9-30-1941	REV. B.B.A. 11-16-1942

JOB NUMBER 4002	ENGINEERING CORPORATION AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	HIGHWAY AND APPURTENANT STRUCTURES ALIGNMENT AND DETAILS	APPROVED Sept. 25, 1941 Harold Hall, CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 37	SCALE As Shown
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34" 22" 17" 11" 0.5" 11" 17" 22" 34"



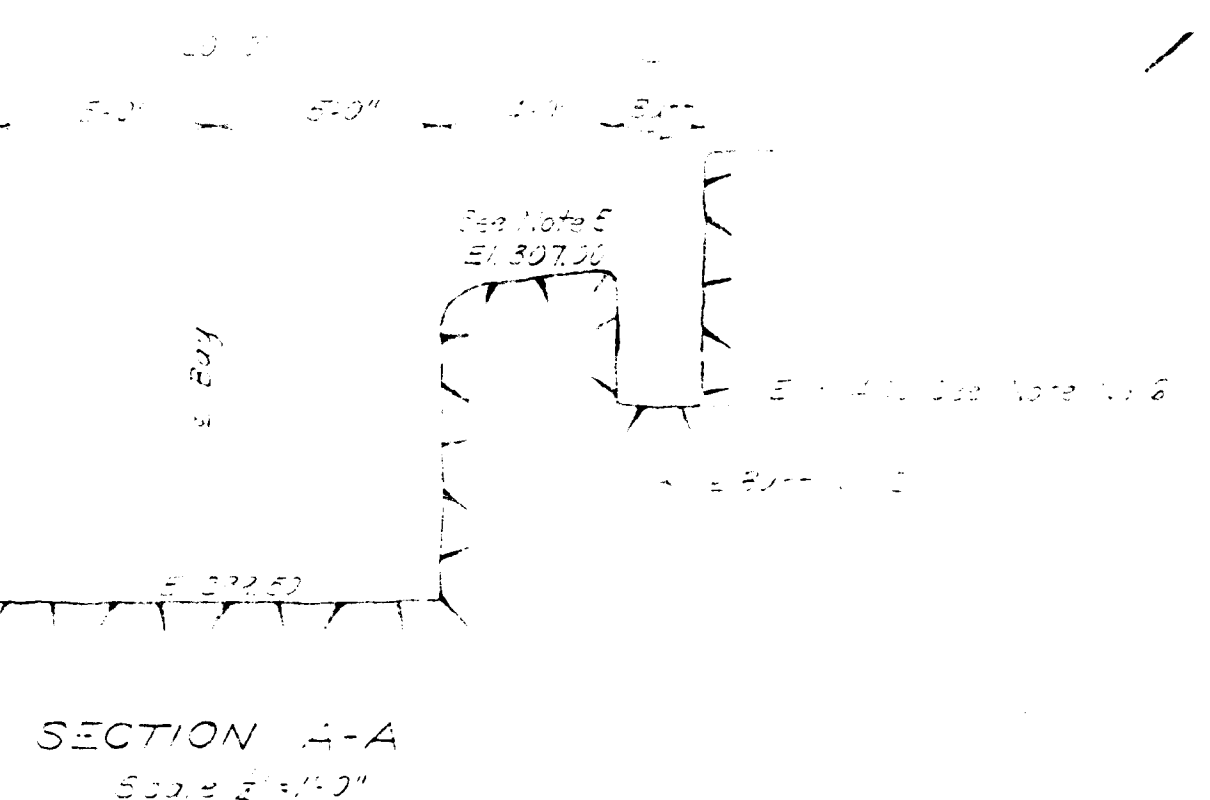
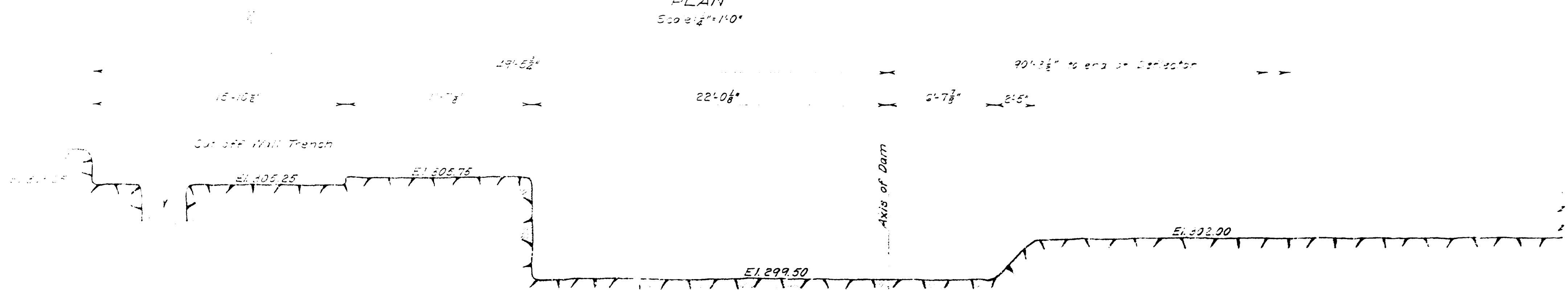
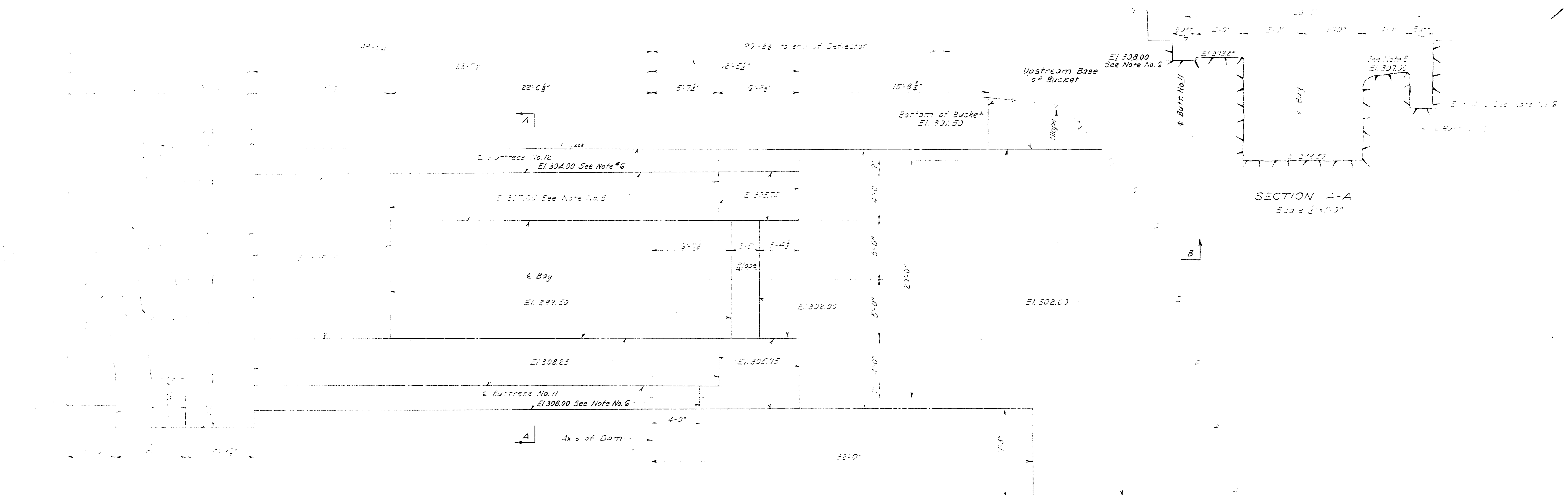
ROADWAY PROFILE
 Horizontal: 1"=100'
 Vertical: 1"=10'



DRAWN <u>L.M.</u> 6-5-1947 CHECKED <u>H.A.</u> 9-24-1947 APPROVED <u>R.B.A.</u> 9-10-1947 APPROVED <u>Z.H.</u> 9-2-1947	REV. _____ 194 _____ REV. _____ 194 _____ REV. _____ 194 _____ REV. _____ 194 _____	JOB NUMBER 4902	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	HIGHWAY AND APPURTENANT STRUCTURES PROFILE	APPROVED <u>Sept 26, 1947</u> <u>Harvey Hall</u> CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 38	SCALE As Shown
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MICROFILMED 2001

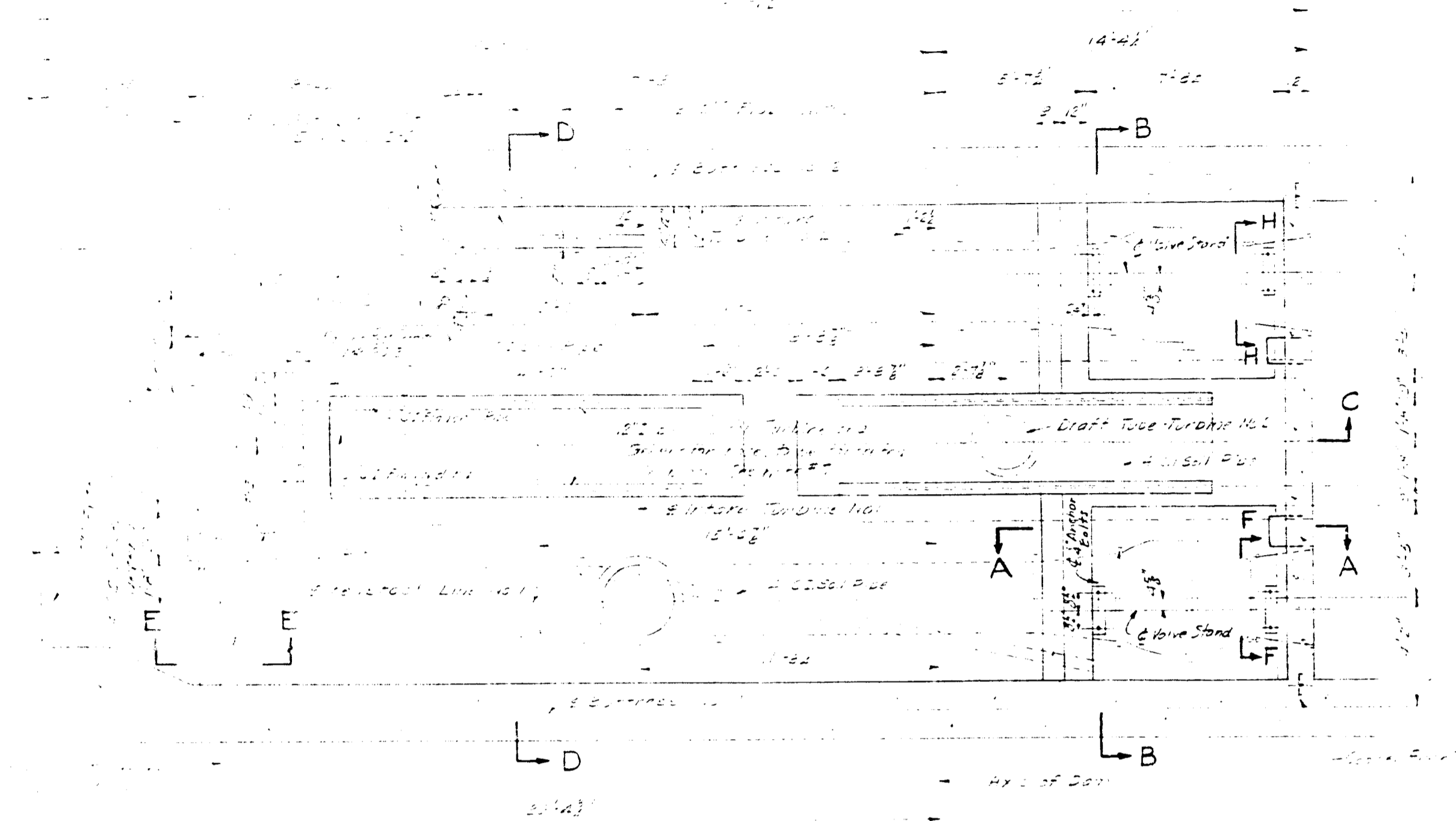
34" 22" 17" 11" 8.5" 11" 17" 22" 34"



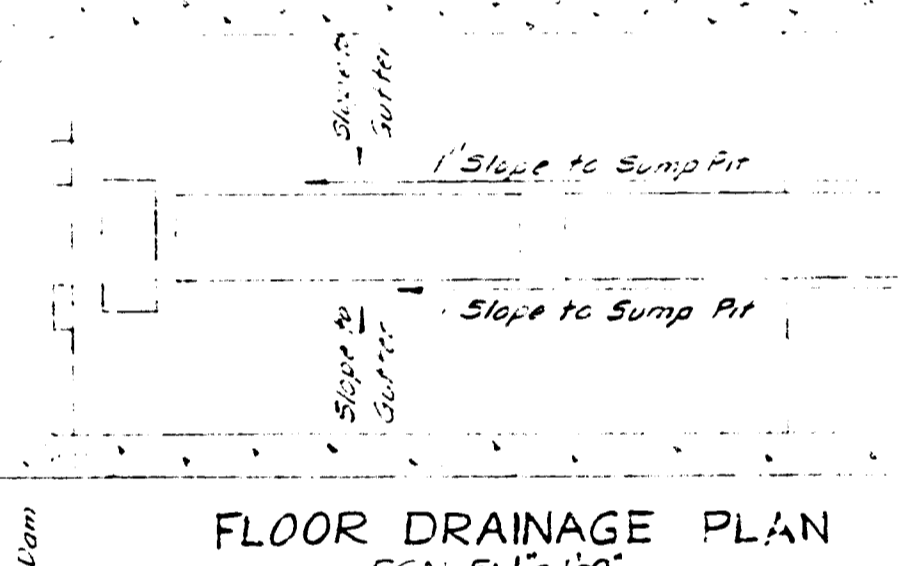
GENERAL NOTES

1. For general excavation plan see drawing No. 10.
2. For data on concrete bucket bases see drawing No. 10.
3. For details of Power House structure see drawing No. 11.
4. For details of concrete wall at buttress No. 1 see drawing No. 11.
5. Excavation to existing rock level shown and broken rock below Elevation 301.50 to be removed.
6. Final Footing Elevations to be determined in the field.

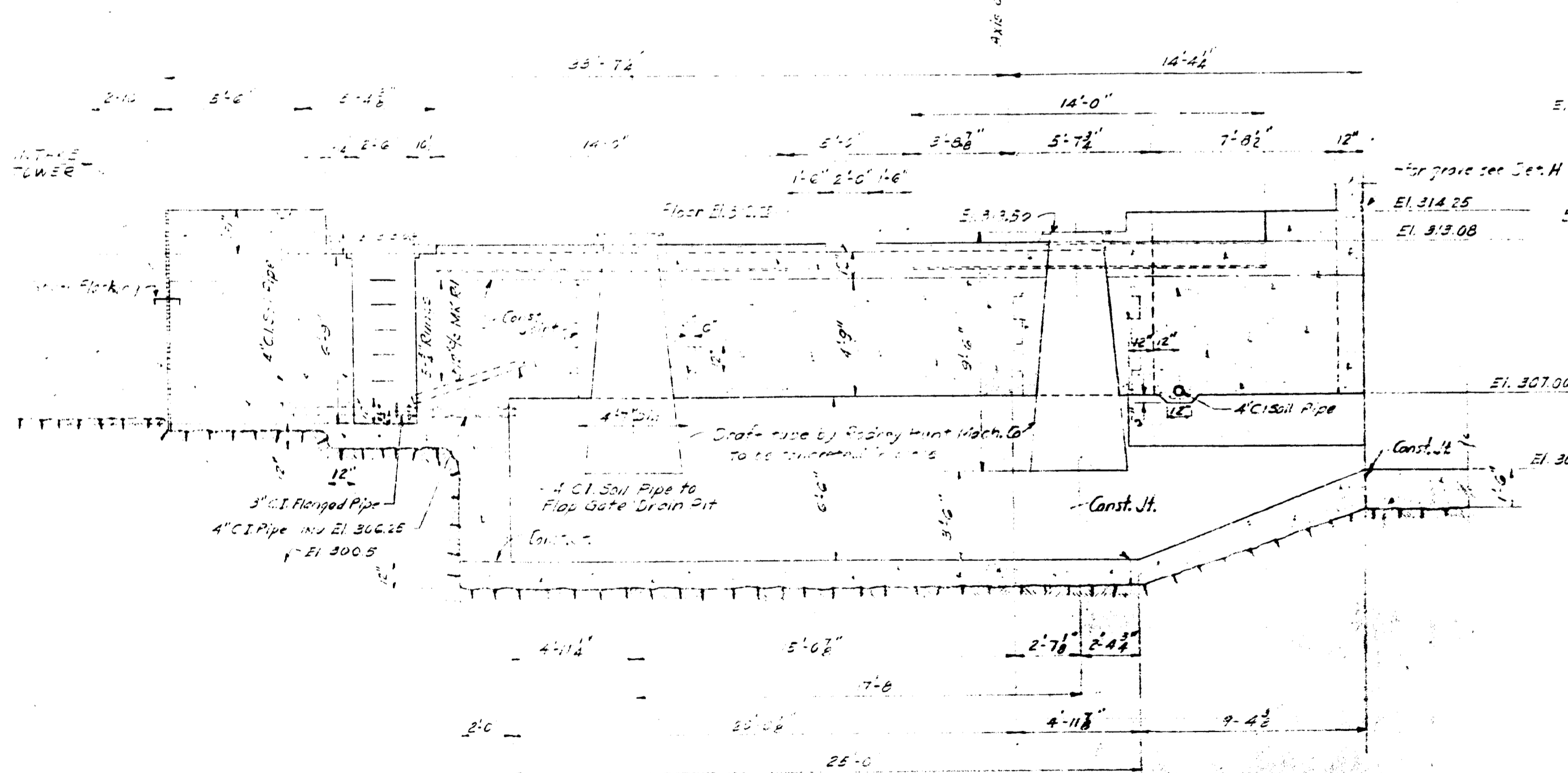
DRAWN: S.C.G. 1947 CHECKED: J.S. 1947 APPROVED: J.S. 1947	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	POWER HOUSE - EXCAVATION PLAN	APPROVED: J.S. 1947 WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 10	SCALE 1" = 10'
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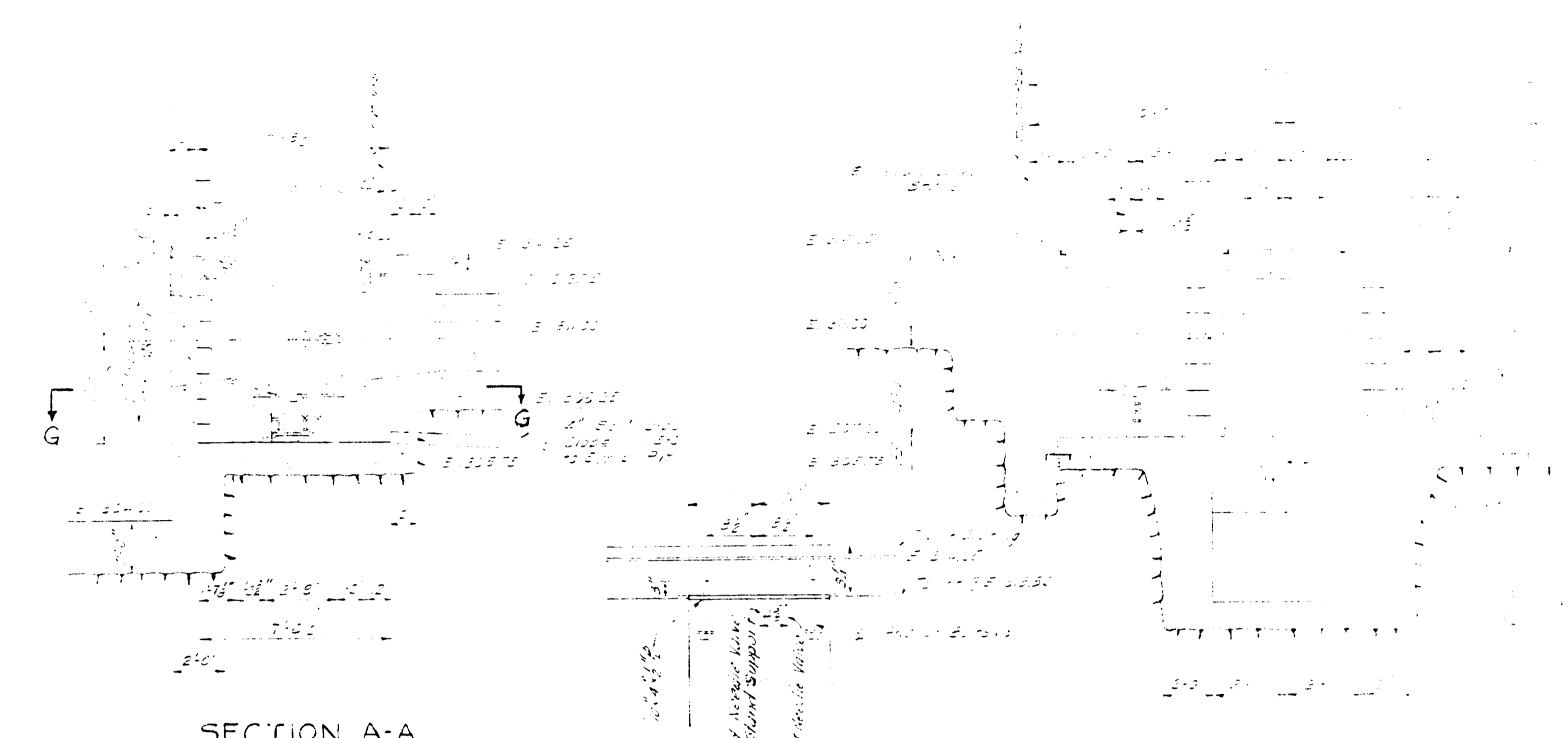
FLOOR PLAN



FLOOR DRAINAGE PLAN
SCALE: 1/8" = 1'-0"



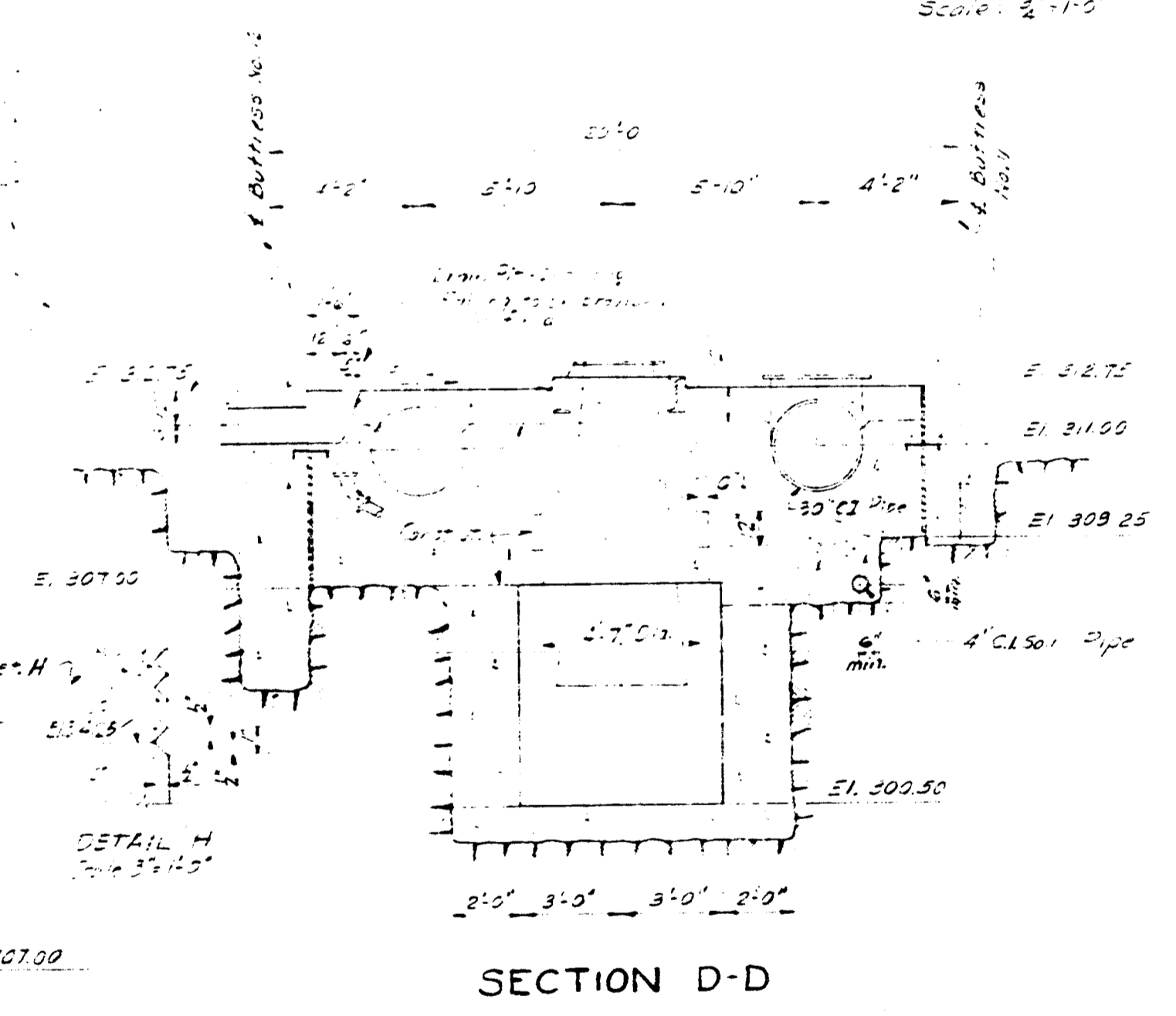
SECTION C-C



SECTION A-A

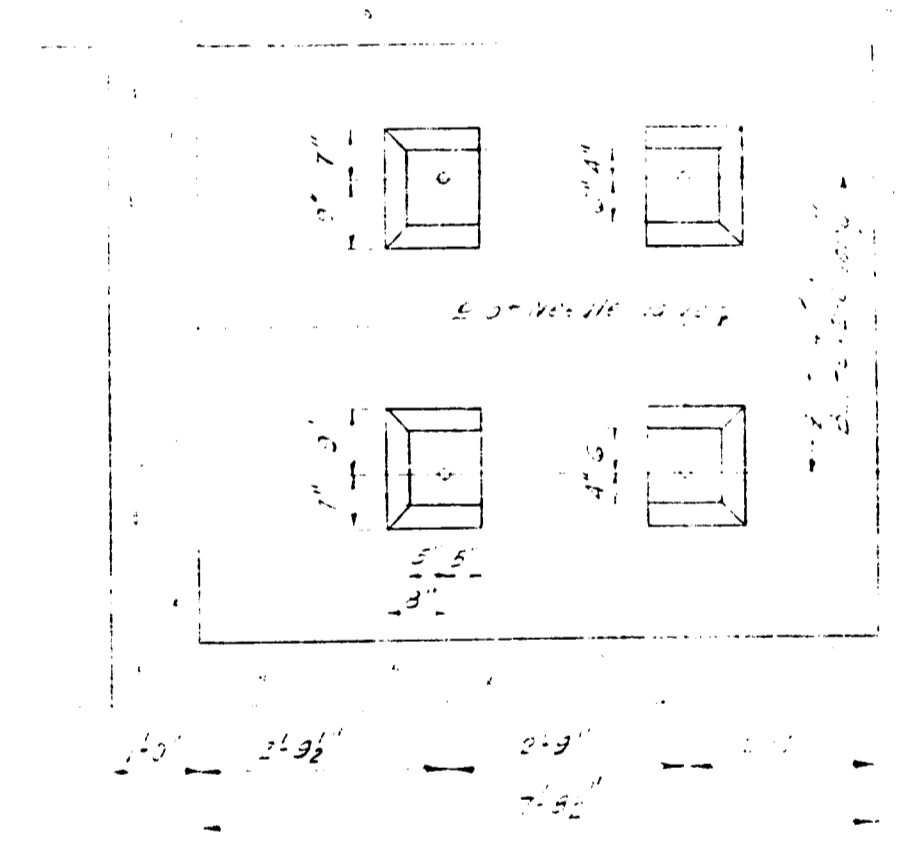
SECTION B-B

SECTION H-H
SECTION F-F
SCALE: 1/4" = 1'-0"



SECTION D-D

SECTION E-E



SECTION G-G
SCALE: 1/4" = 1'-0"

- GENERAL NOTES
1. For substructure, see... (text partially illegible)
 2. For... (text partially illegible)
 3. For... (text partially illegible)
 4. For... (text partially illegible)
 5. For... (text partially illegible)
 6. For... (text partially illegible)
 7. For... (text partially illegible)
 8. For... (text partially illegible)
 9. For... (text partially illegible)
 10. For... (text partially illegible)

REV. 1947 1948 1949 1950	194 194 194 194	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	POWERHOUSE SUBSTRUCTURE - CONCRETE DETAILS	APPROVED: _____ CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 41	SCALE _____
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34"

22"

17"

11"

8.5"

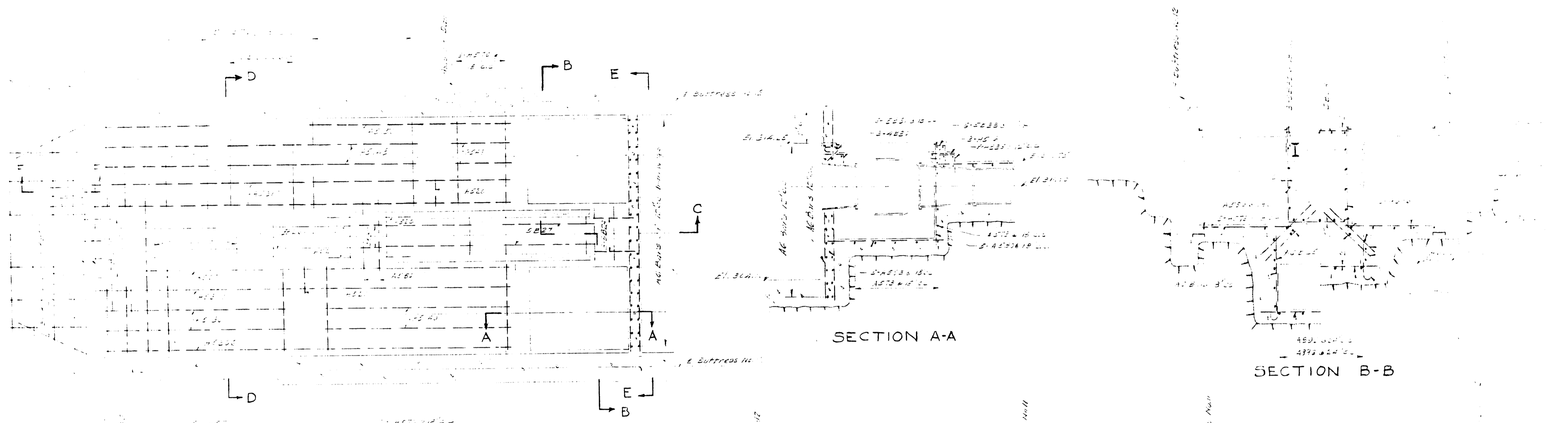
8.5"

11"

17"

22"

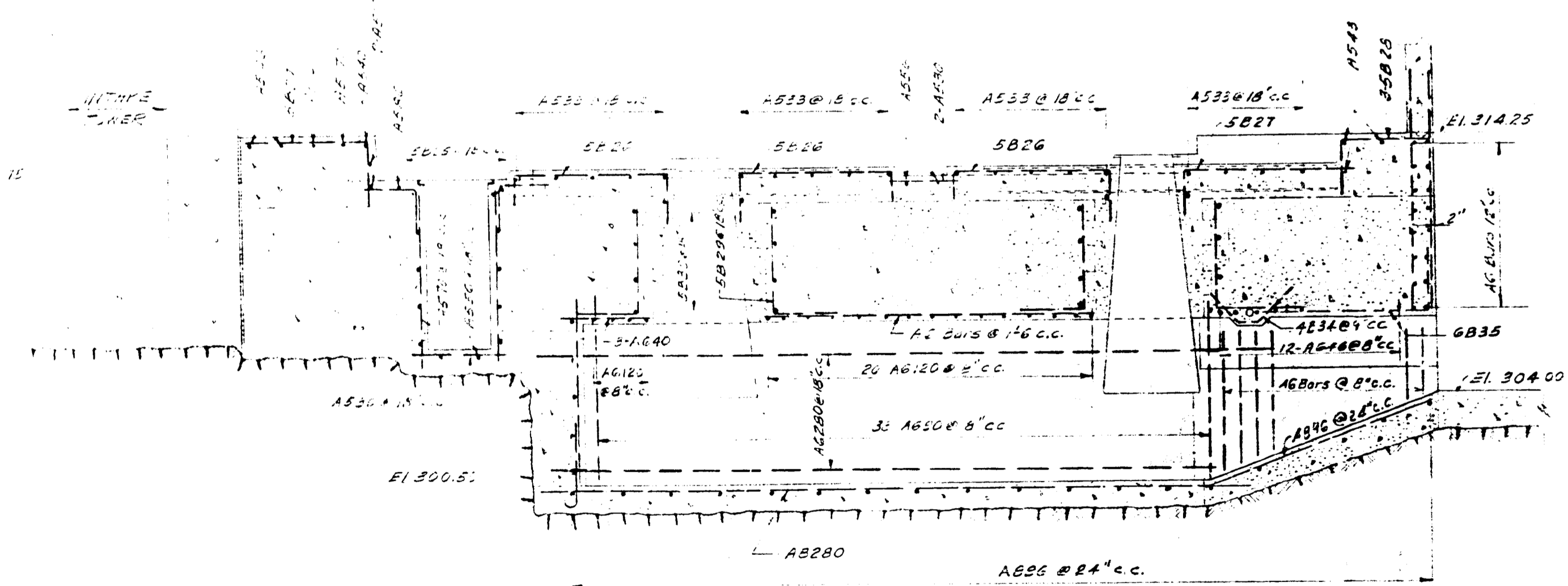
34"



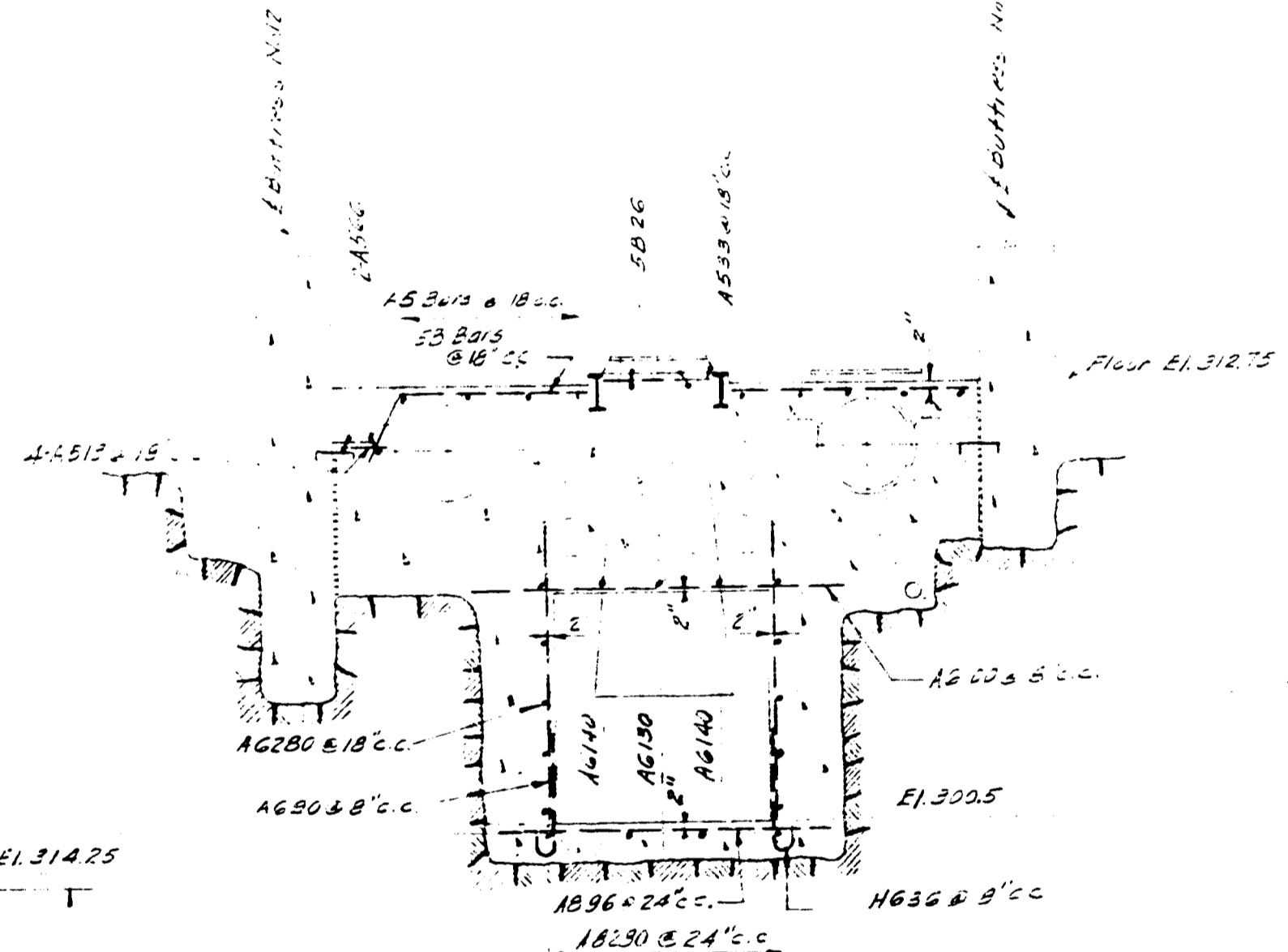
FLOOR PLAN

SECTION A-A

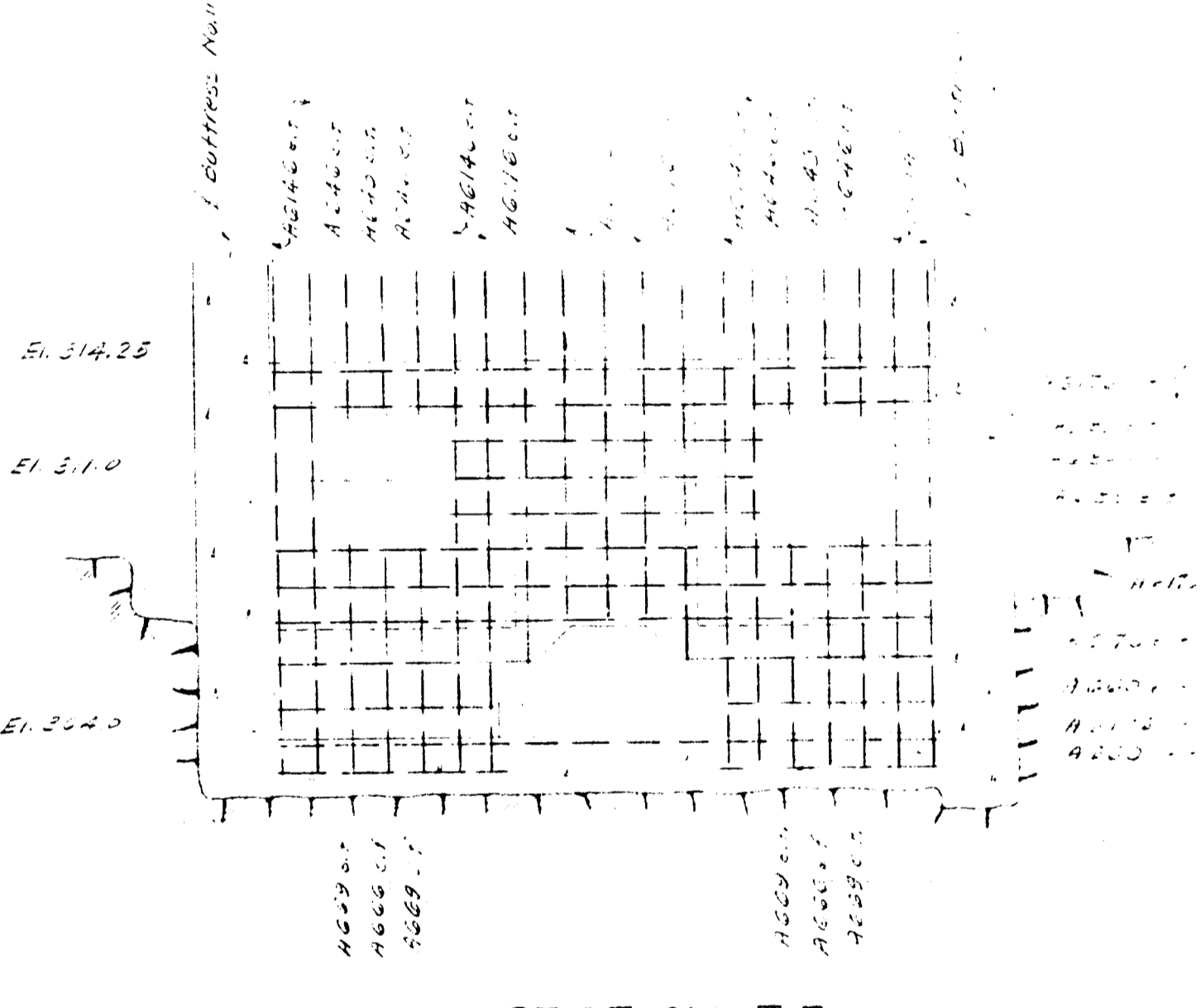
SECTION B-B



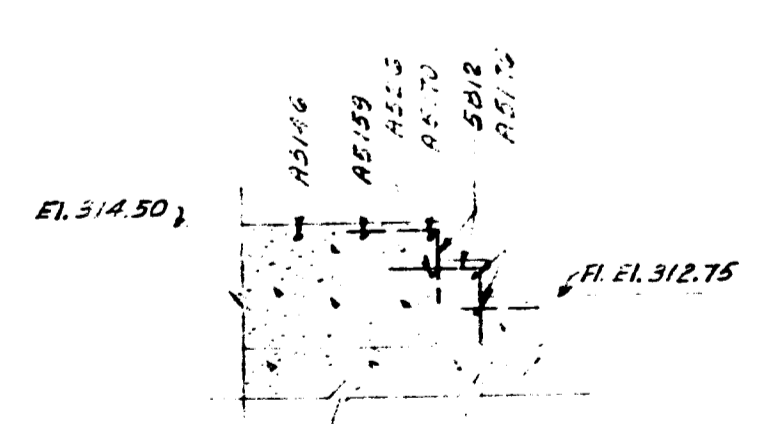
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

DRAWN	REV. 194
CHECKED	REV. 194
APPROVED	REV. 194

JOB NUMBER
4002

AMBURSEN ENGINEERING CORPORATION
CONSULTING ENGINEERS
NEW YORK

WASHINGTON SUBURBAN SANITARY COMMISSION
BRIGHTON DAM - CONTRACT 127-W

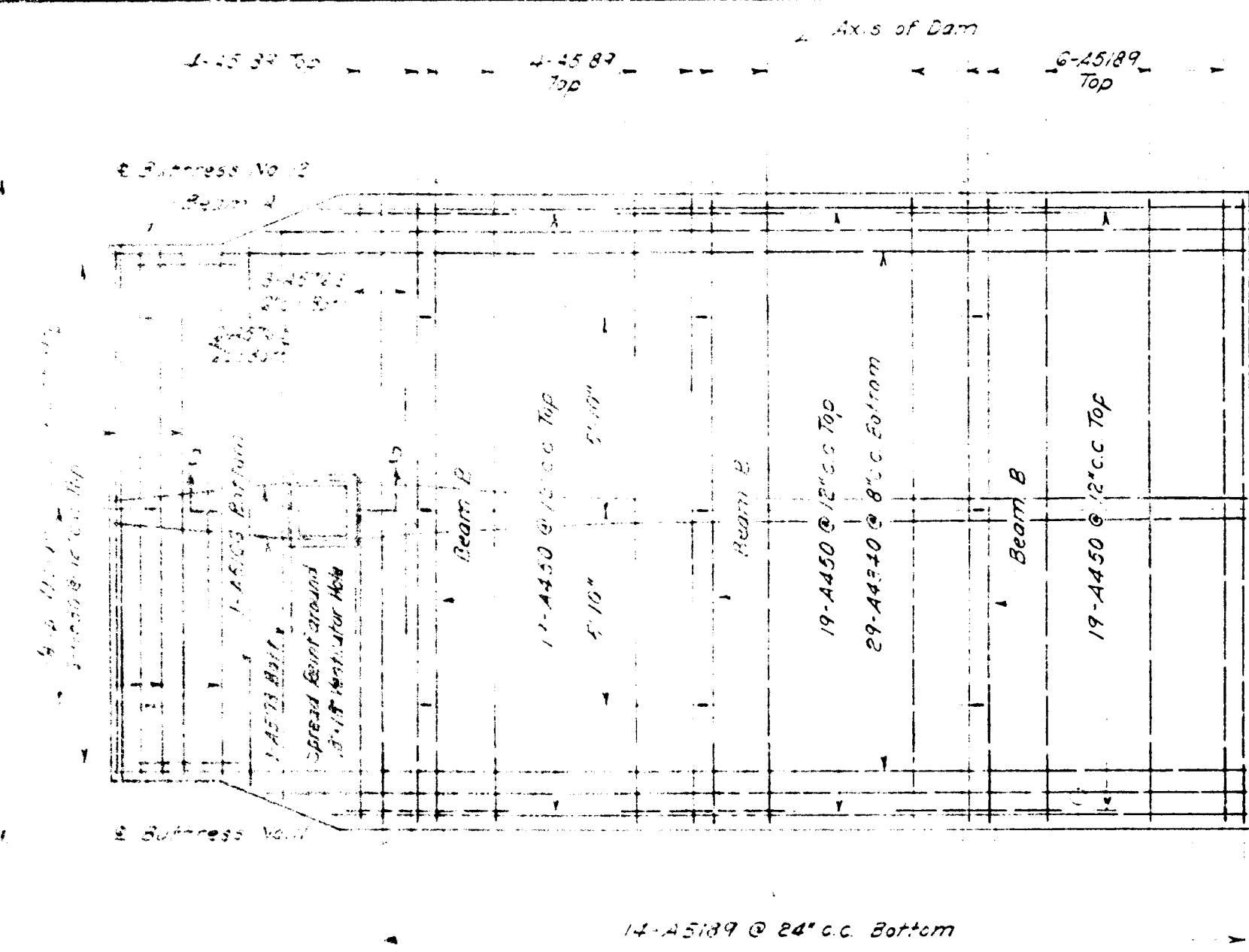
POWERHOUSE
SUBSTRUCTURE-REINFORCING DETAILS

APPROVED: _____ CHIEF ENGINEER
WASHINGTON SUBURBAN SANITARY COMMISSION

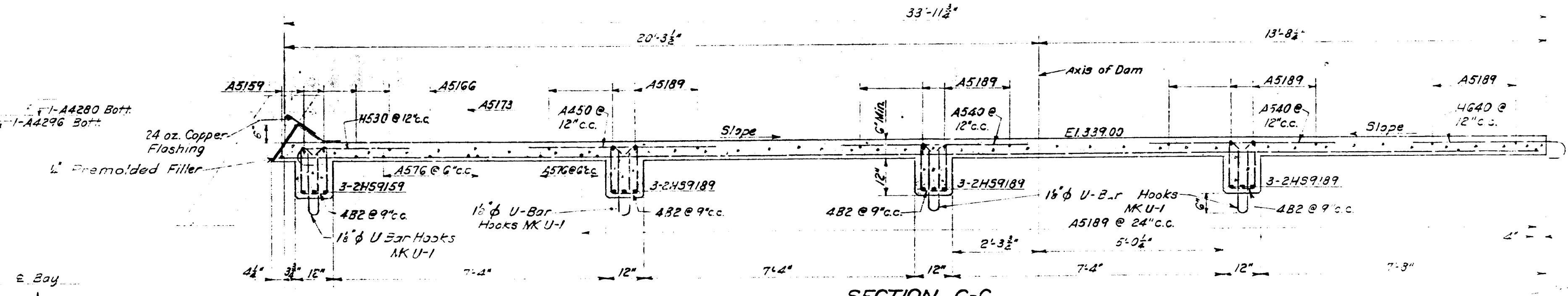
DRAWING NUMBER
42

SCALE

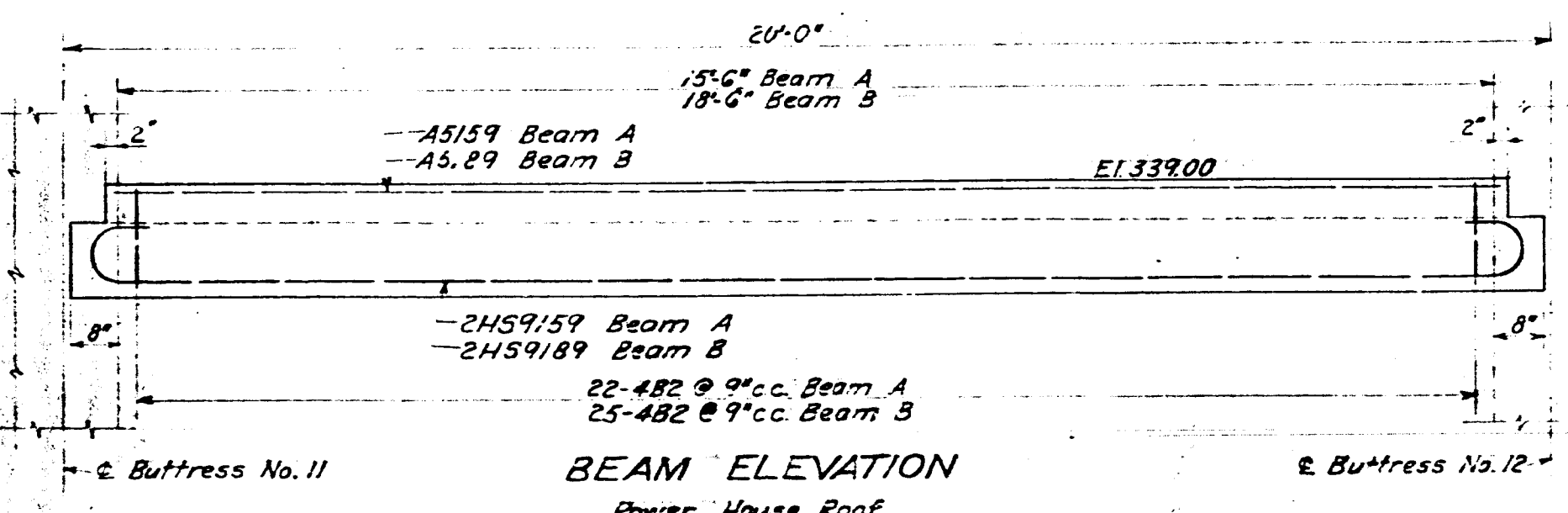
34" 22" 17" 11" 8.5" 8.5" 11" 17" 22" 34"



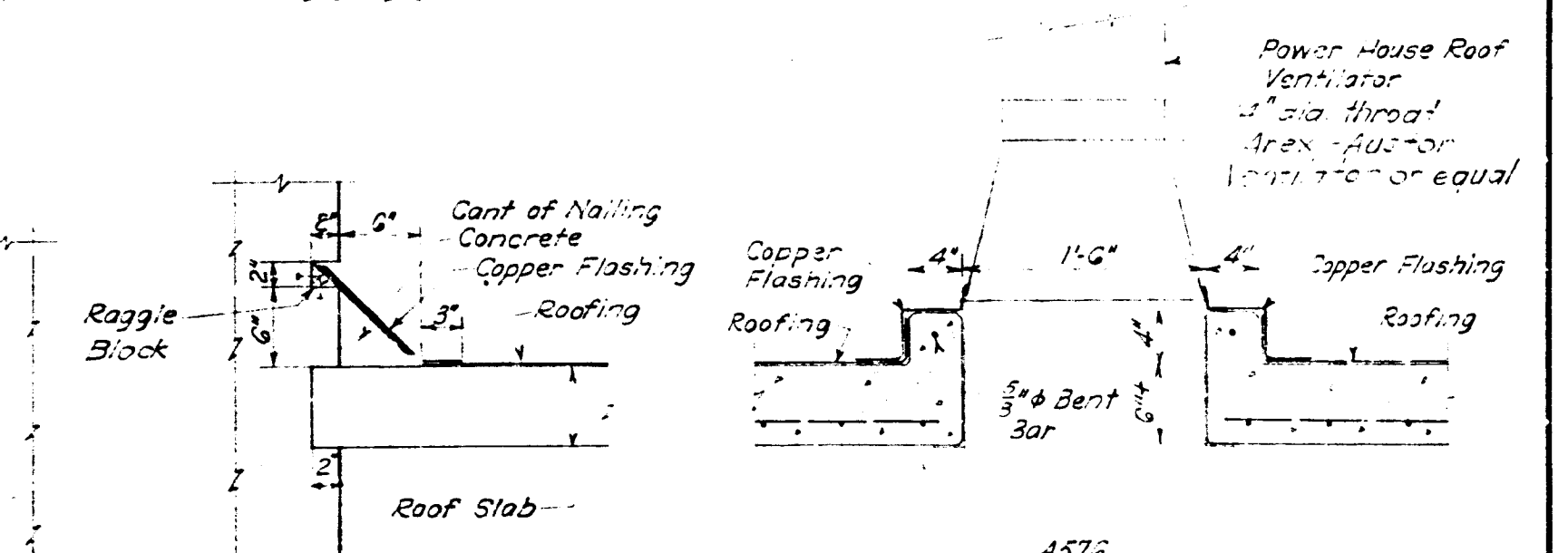
POWER HOUSE ROOF REINFORCING PLAN
Scale: 1/2" = 1'-0"



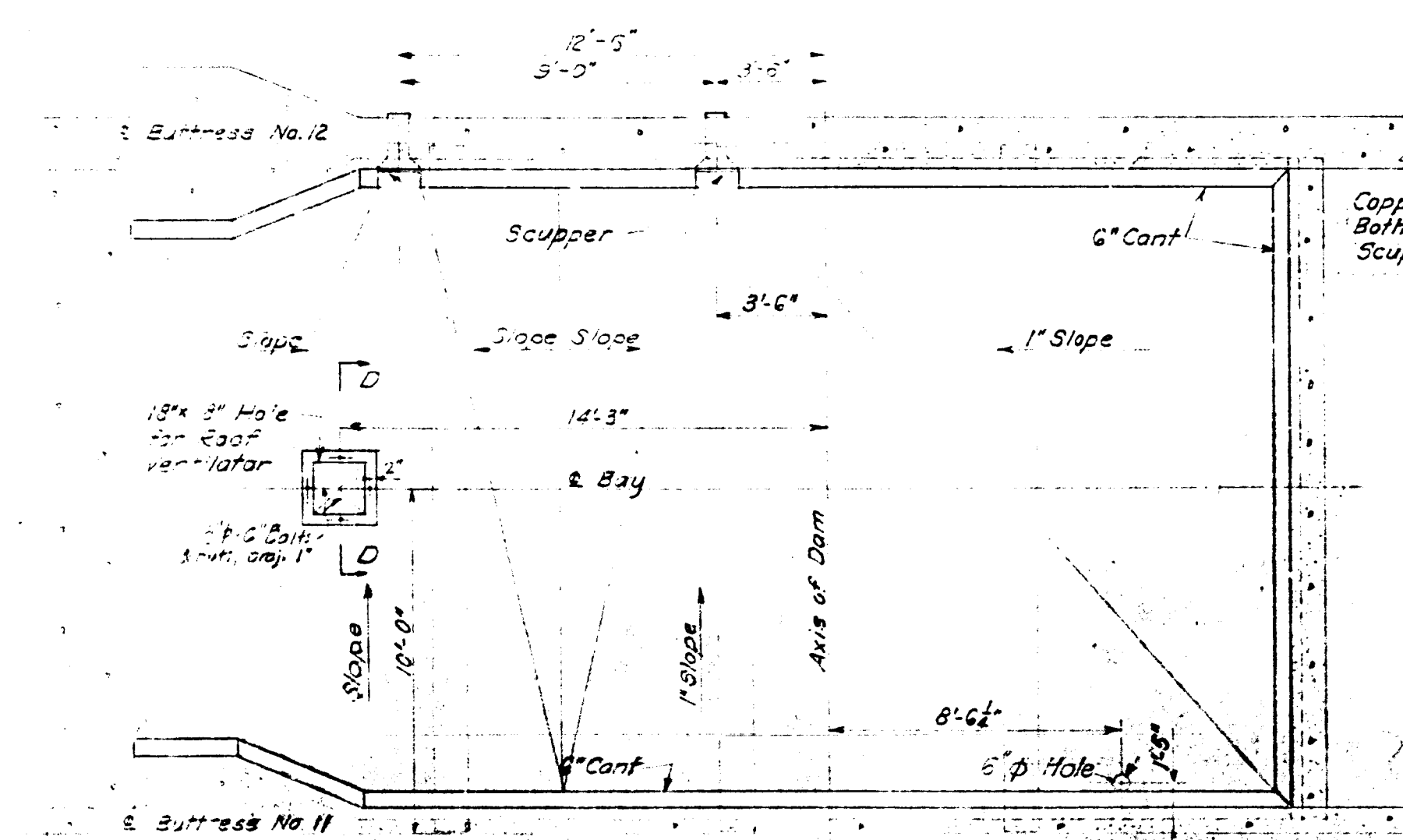
SECTION C-C
Scale: 1/2" = 1'-0"



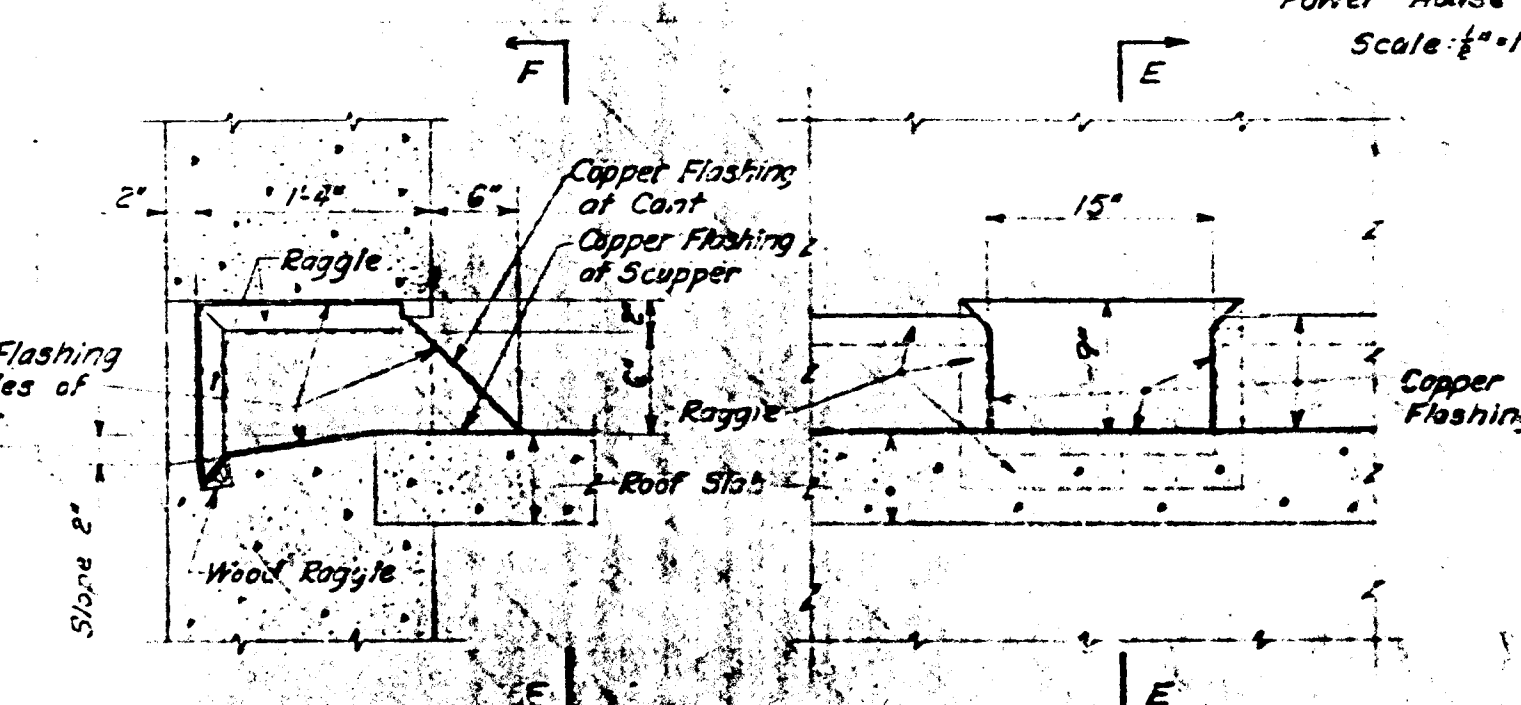
BEAM ELEVATION
Scale: 1/2" = 1'-0"



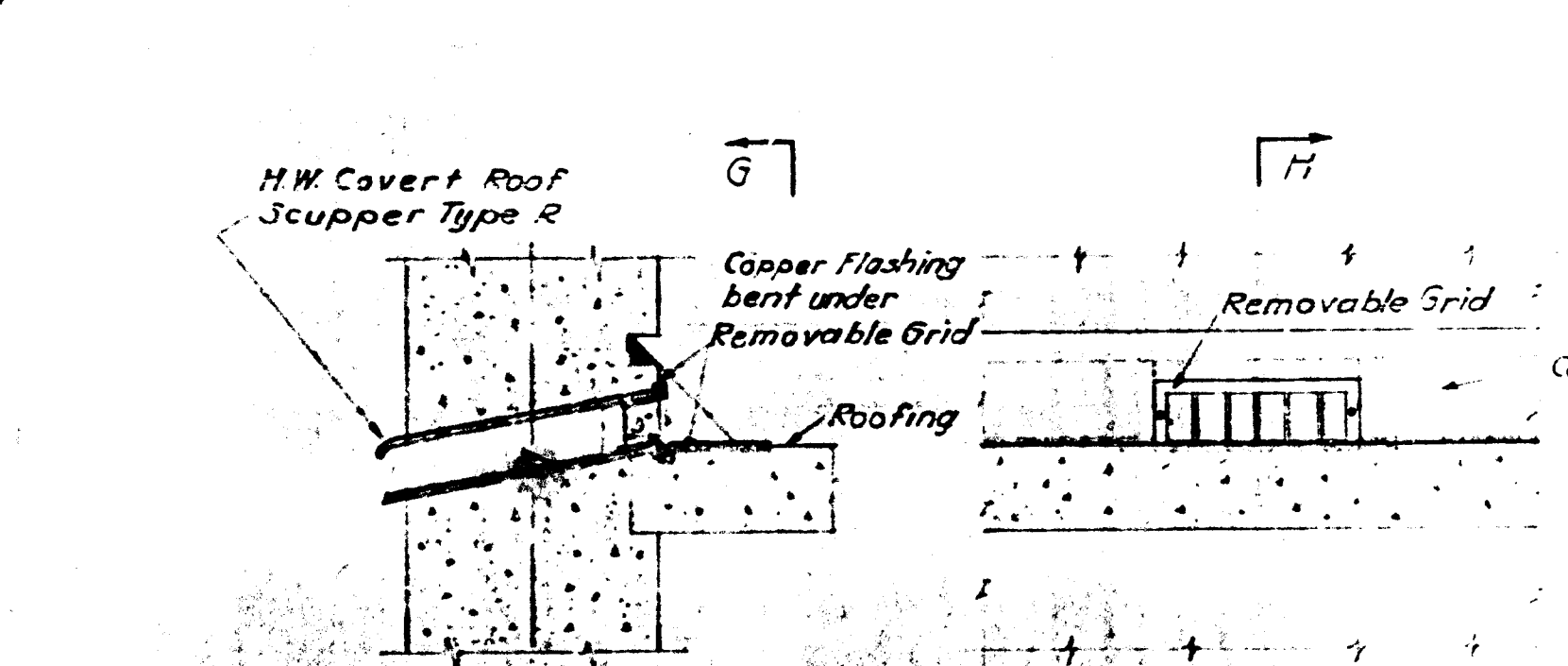
DETAIL OF TYPICAL CANT
Scale: 1" = 1'-0"



POWER HOUSE ROOF LAYOUT
Scale: 3/8" = 1'-0"



SECTION E-E
Scale: 1" = 1'-0"

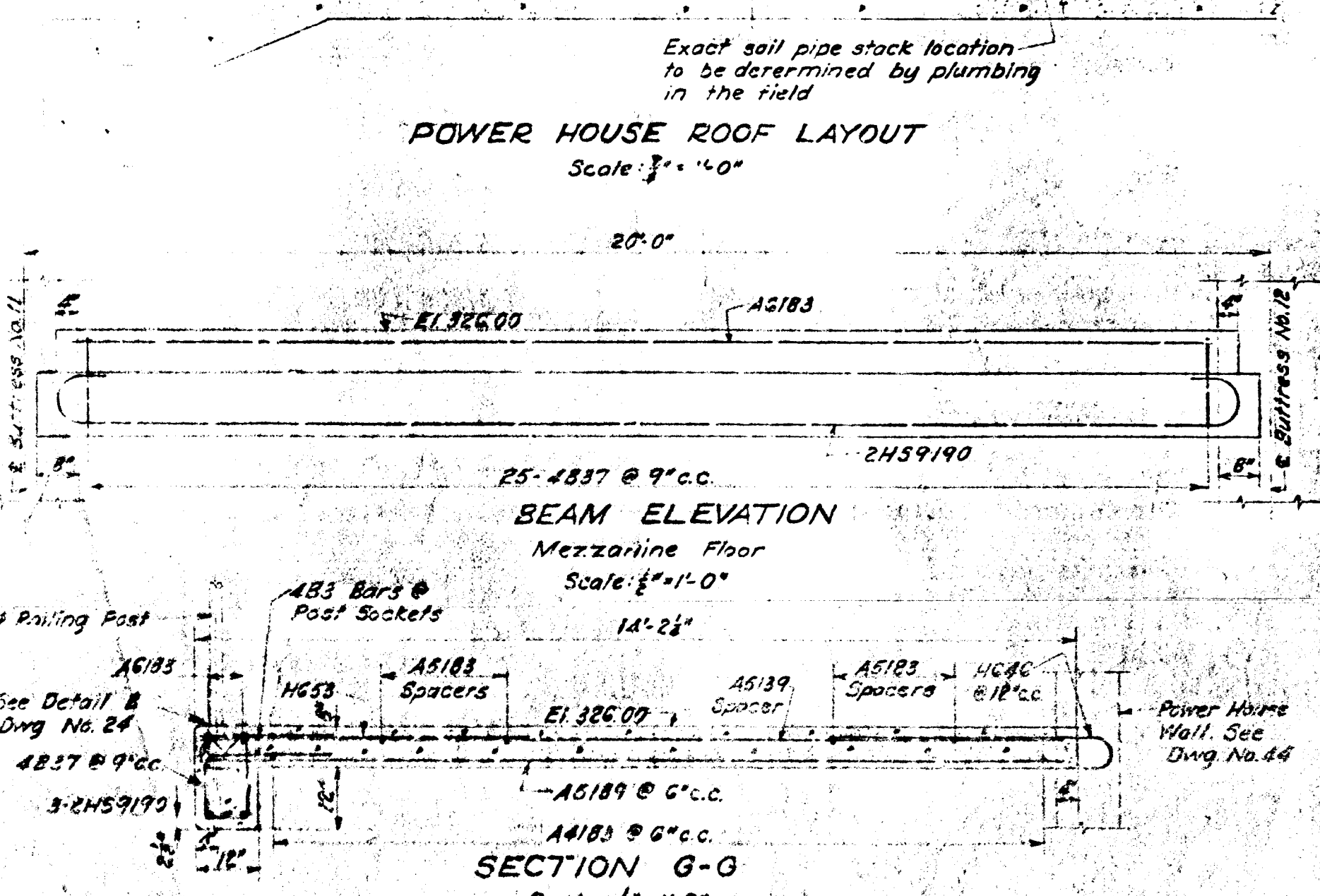


SECTION F-F
Scale: 1" = 1'-0"

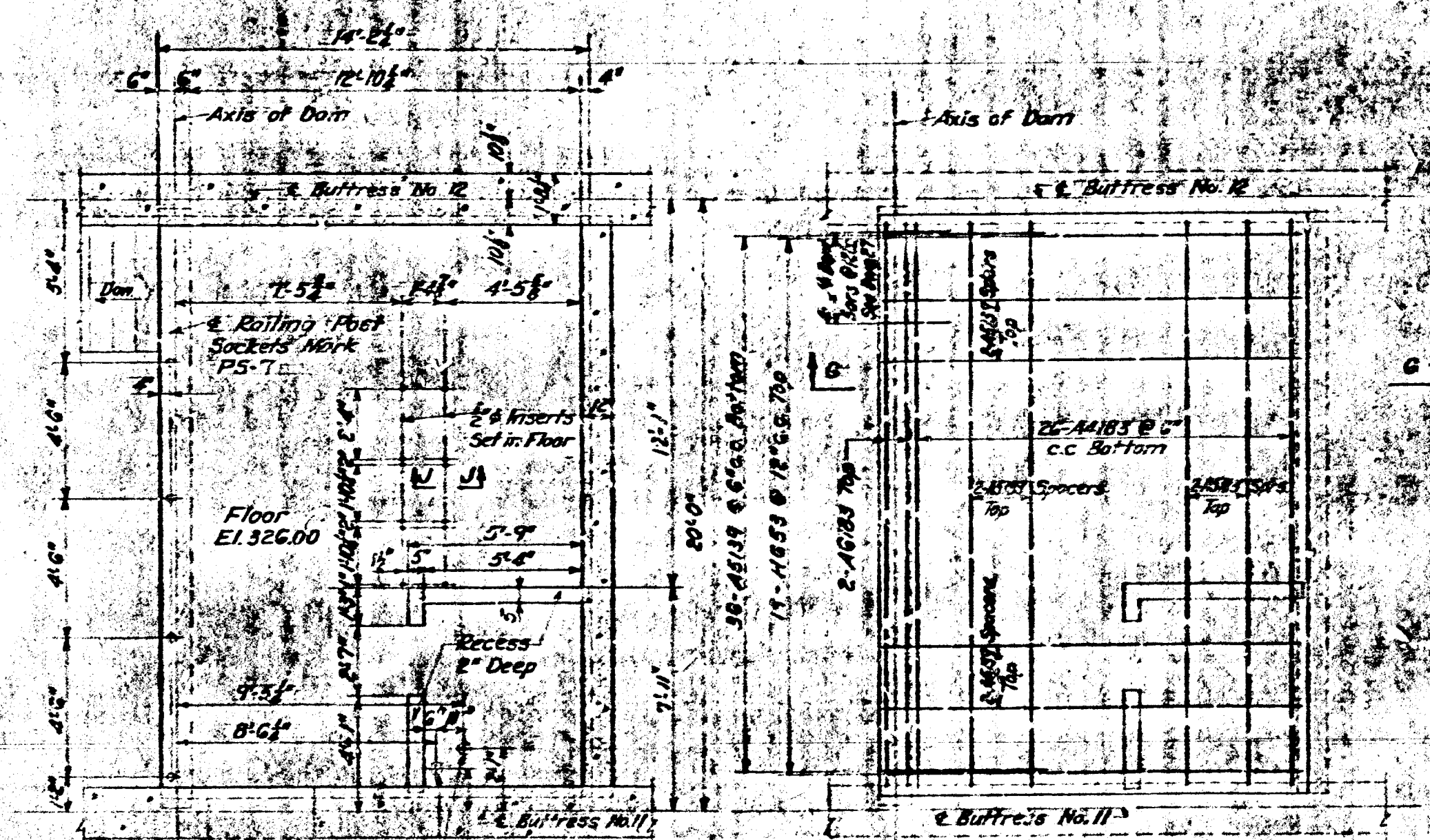
SECTION H-H
Scale: 1" = 1'-0"

SECTION G-G
Scale: 1" = 1'-0"

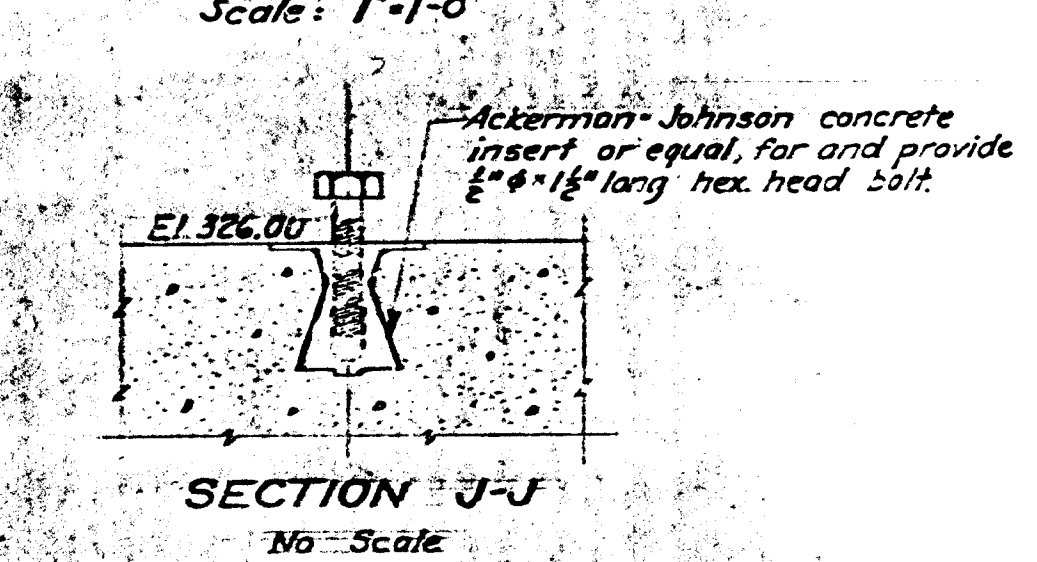
DETAIL OF U-BAR HOOK
Scale: 1" = 1'-0"



MEZZANINE FLOOR REINFORCING PLAN
Scale: 1/2" = 1'-0"



MEZZANINE FLOOR LAYOUT
Scale: 1/2" = 1'-0"



SECTION J-J
No Scale

- GENERAL NOTES**
1. For Power House downstream wall and architectural details see drawing No. 44.
 2. For Power House substructure details see drawings Nos. 41 and 42.
 3. For reinforcing details of buttresses Nos. 11 and 12 see drawings Nos. 51 and 63.
 4. For concrete details of Power House wall recesses and openings in buttresses Nos. 11 and 12 see drawings Nos. 60 and 62.
 5. For plumbing details see drawing No. 30.

REV. 2-22-1942 REV. 3-26-1942 REV. 4-21-1942 WASHINGTON WALL CHANGED FROM 8" CONCRETE TO 4" HIGH TIE WITH CEMENT STUCCO FINISH.	REV. 194 REV. 194 REV. 194	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	POWER HOUSE SUPERSTRUCTURE CONCRETE AND REINFORCING DETAILS	APPROVED: _____ CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 43	SCALE 1/2" = 1'-0"
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34"

22"

17"

11"

8.5"

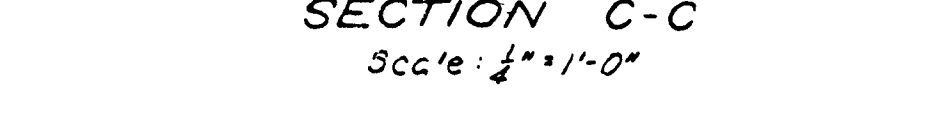
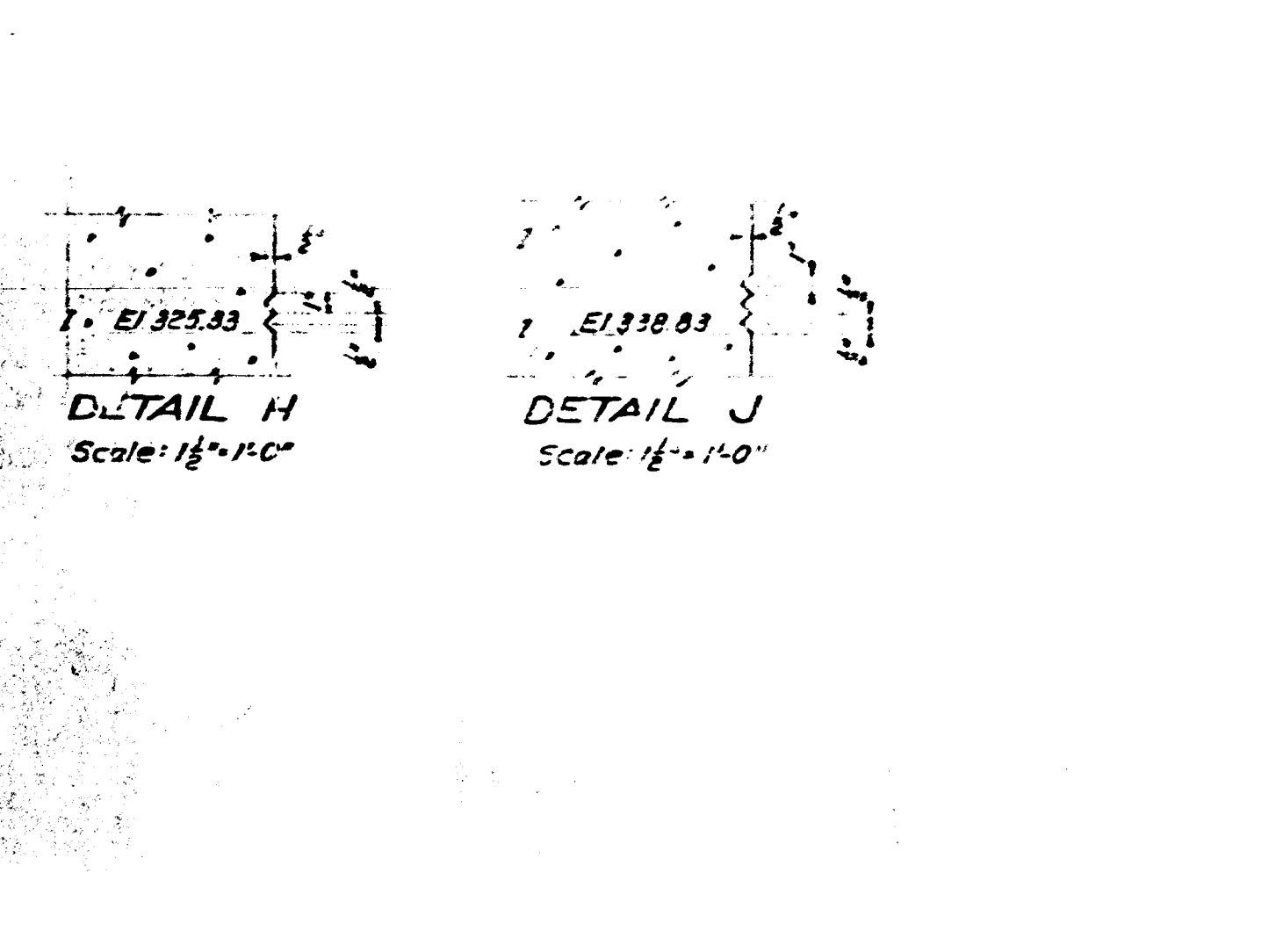
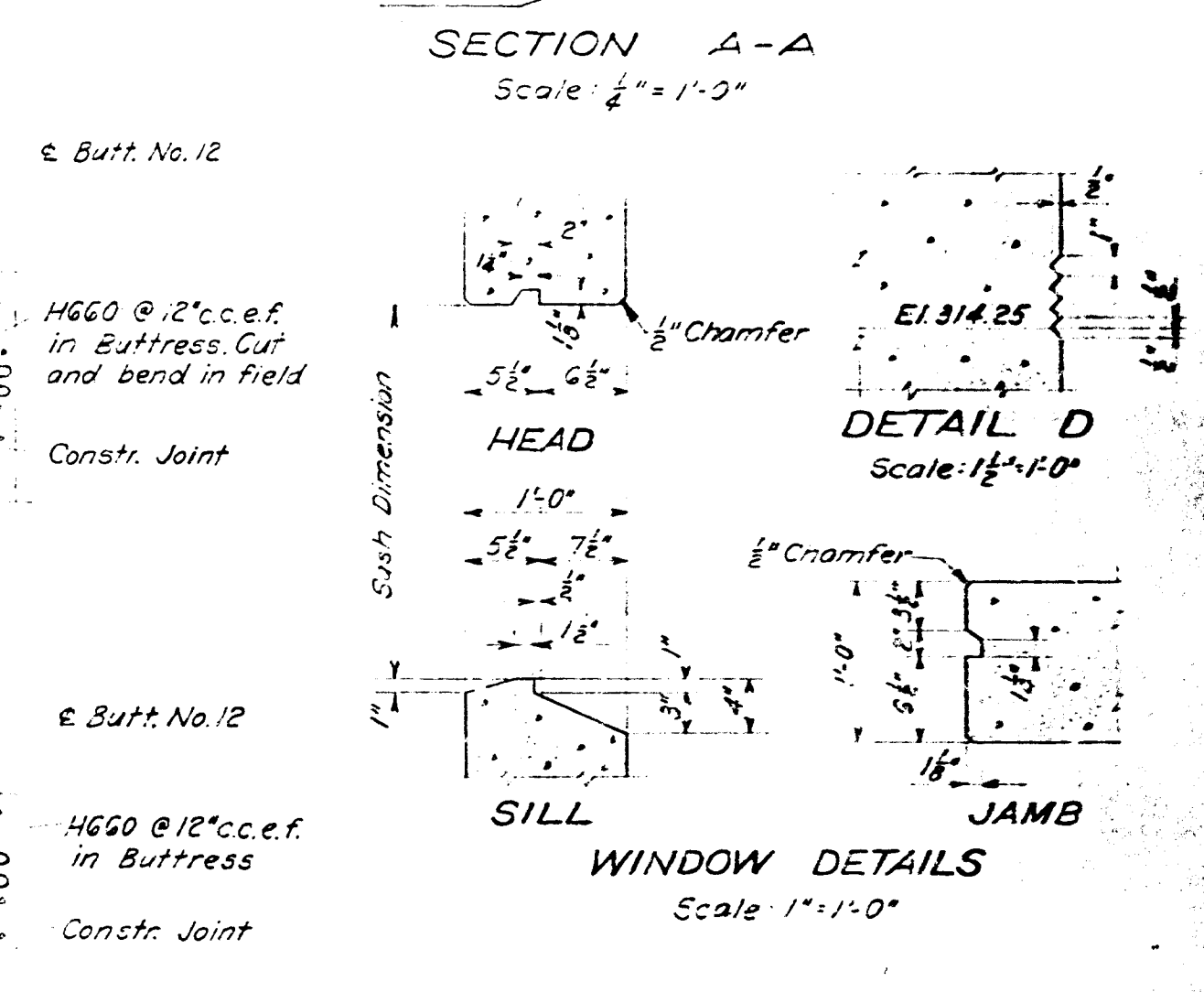
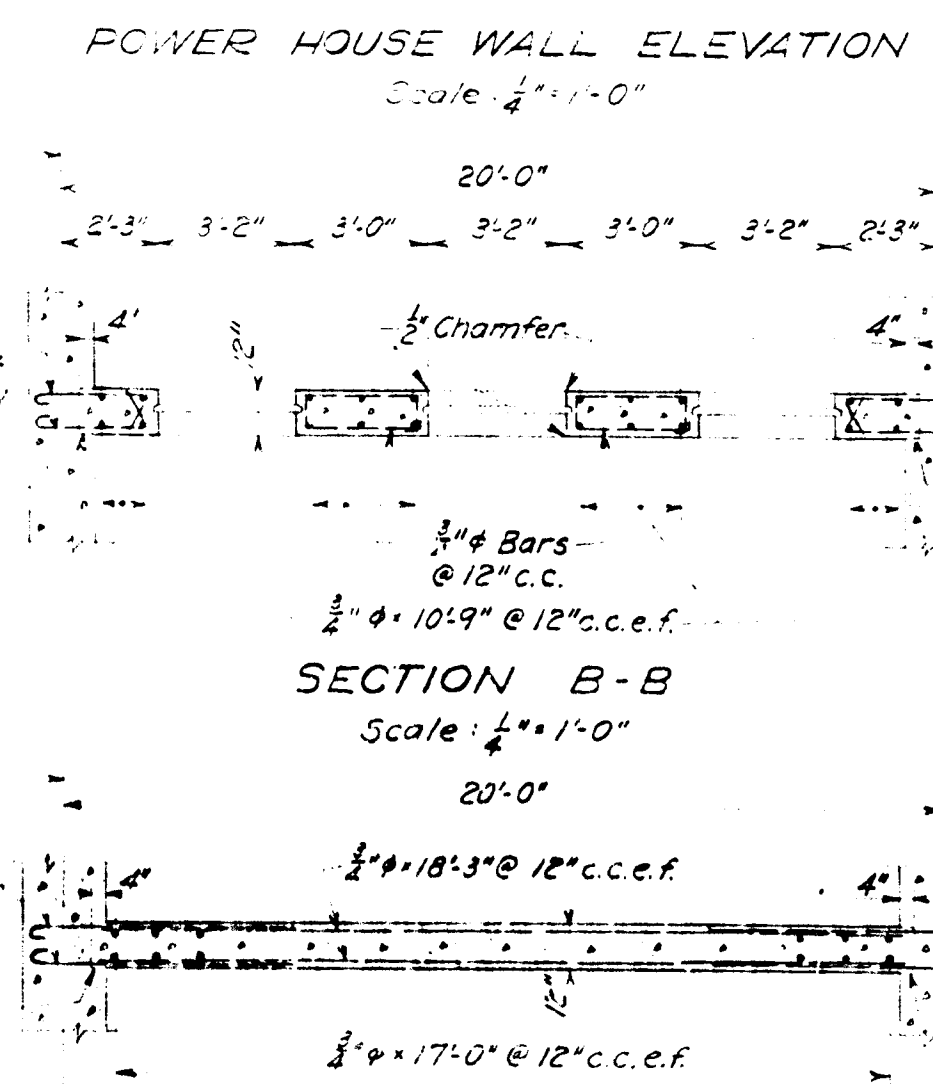
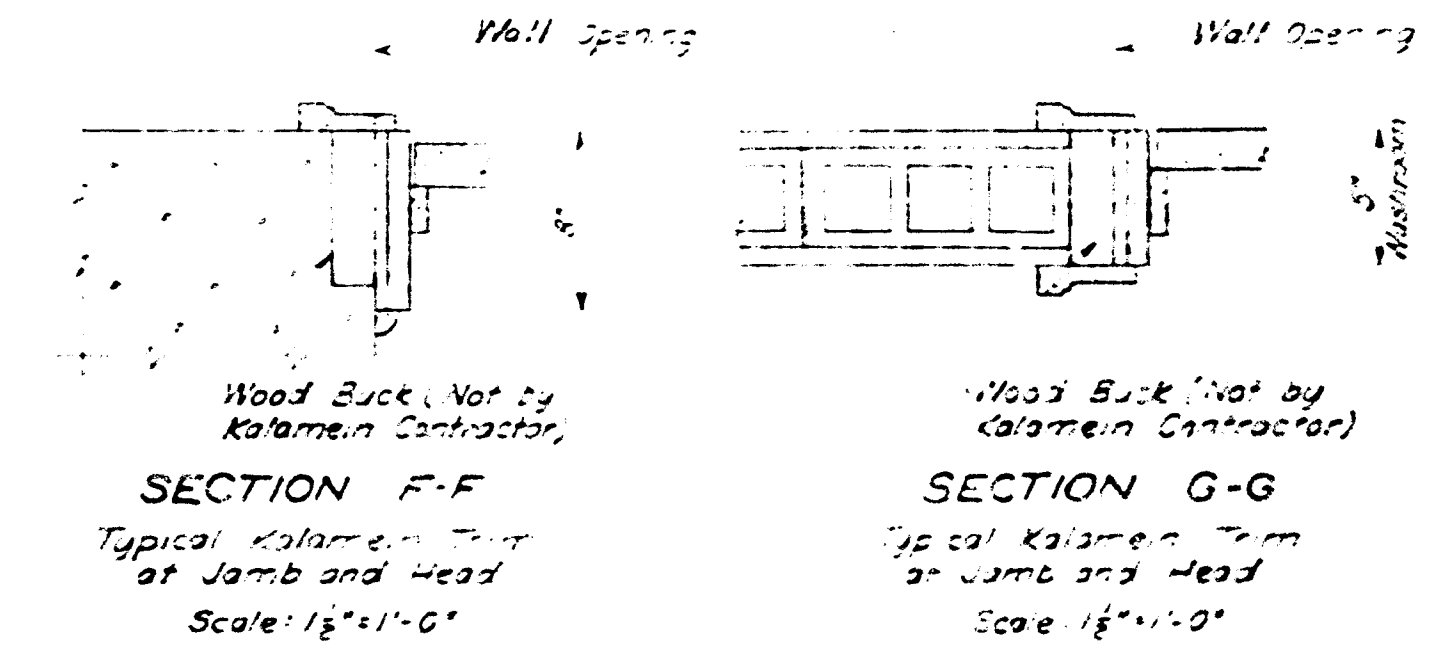
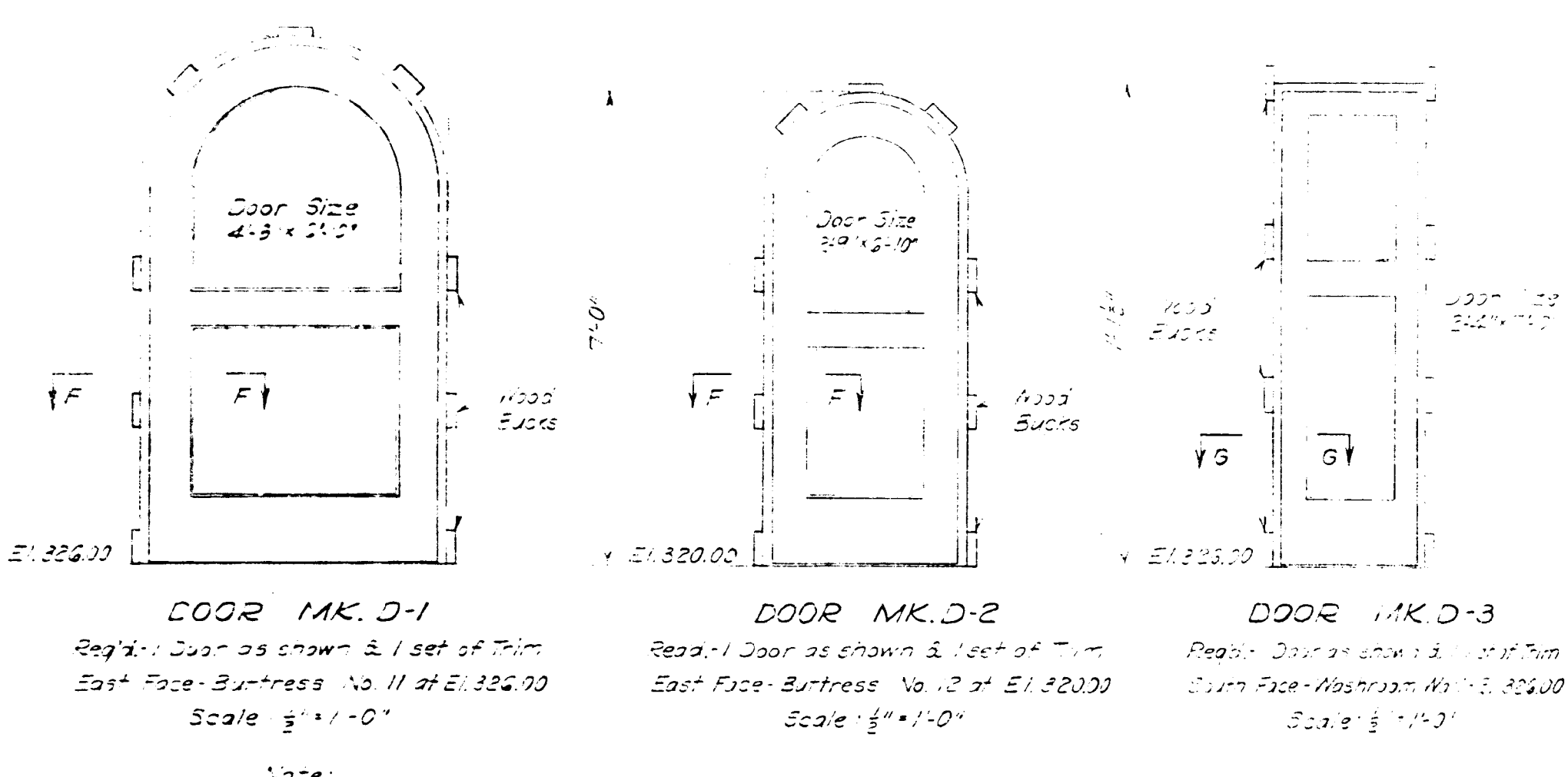
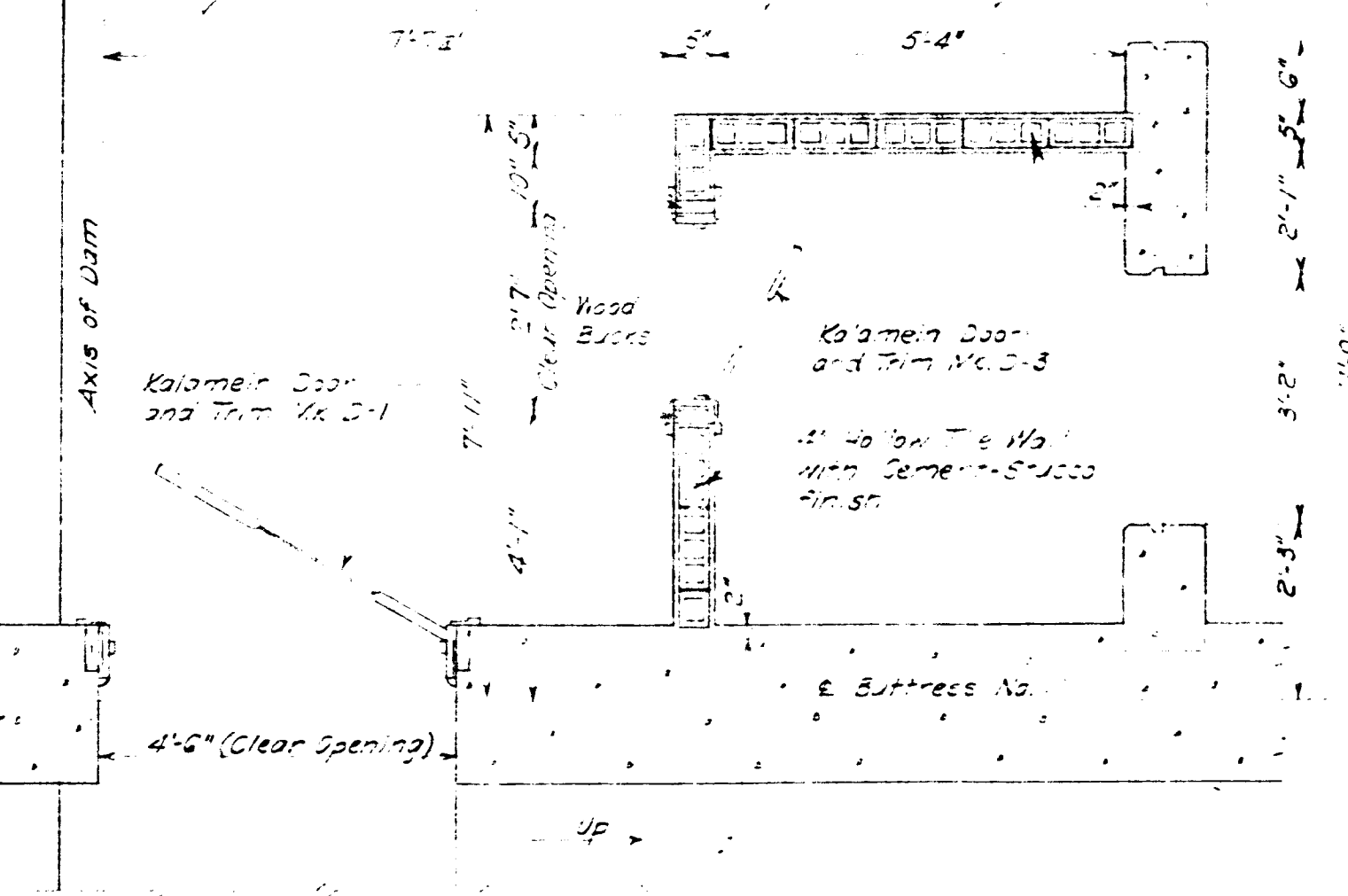
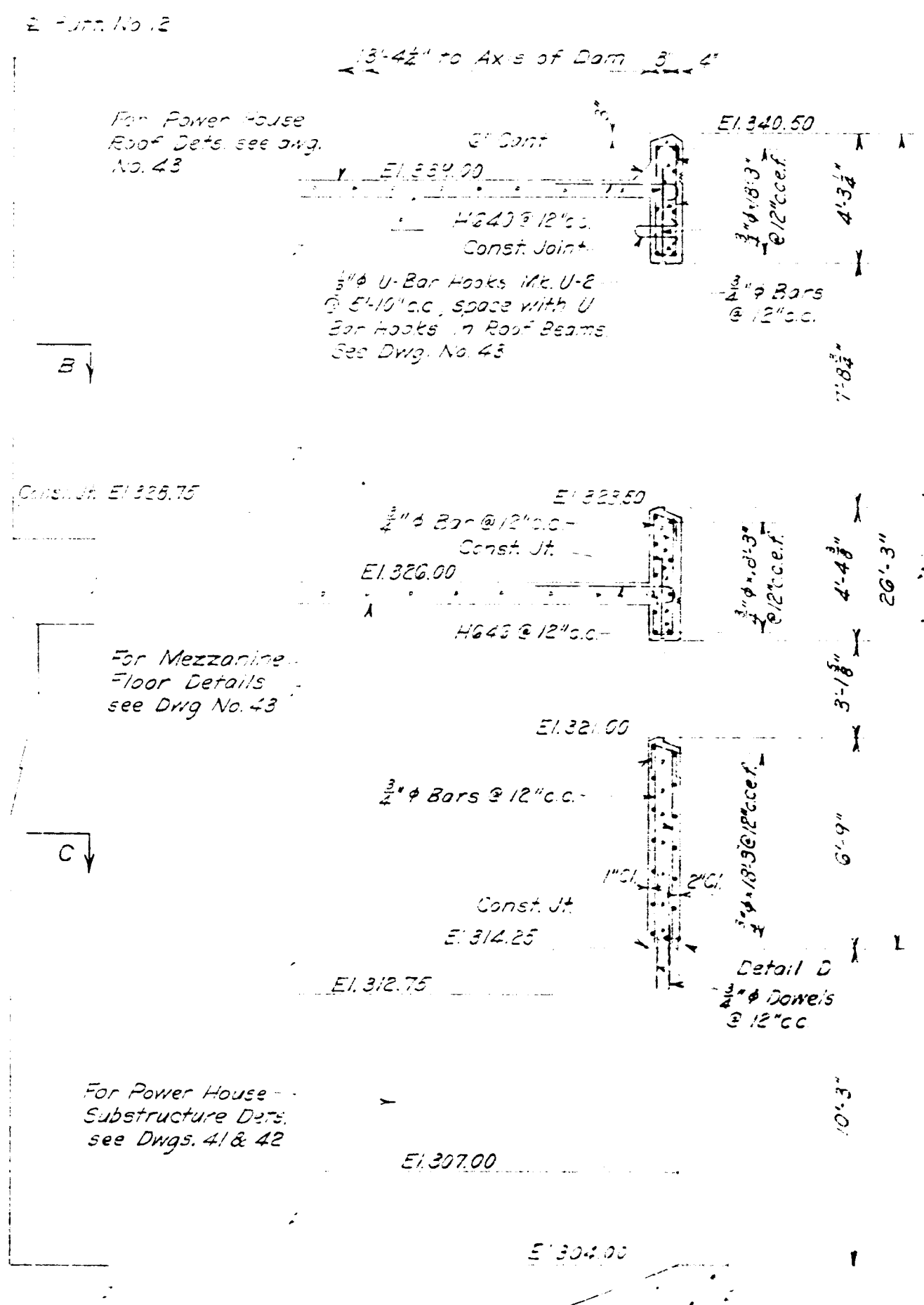
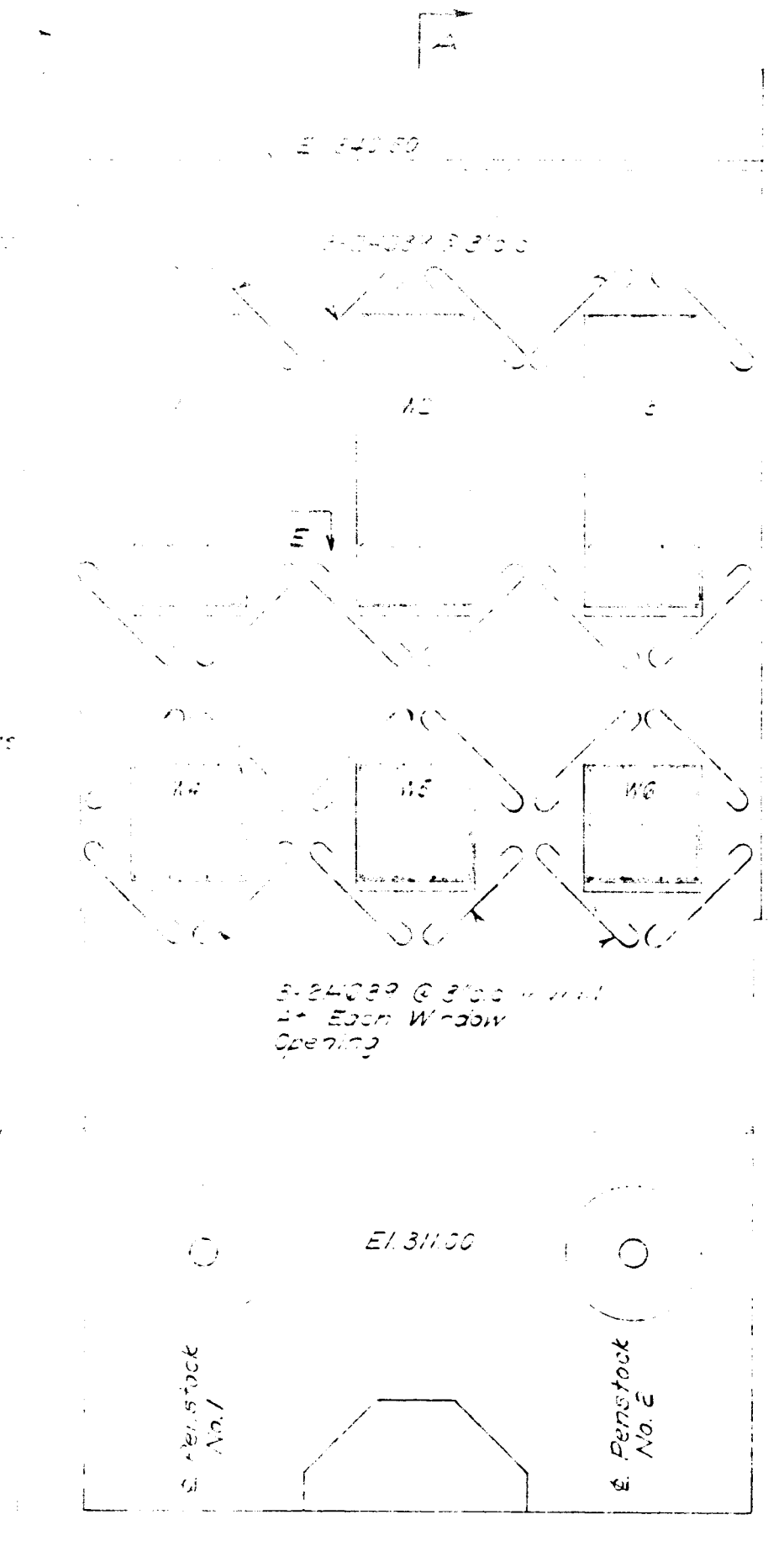
8.5"

11"

17"

22"

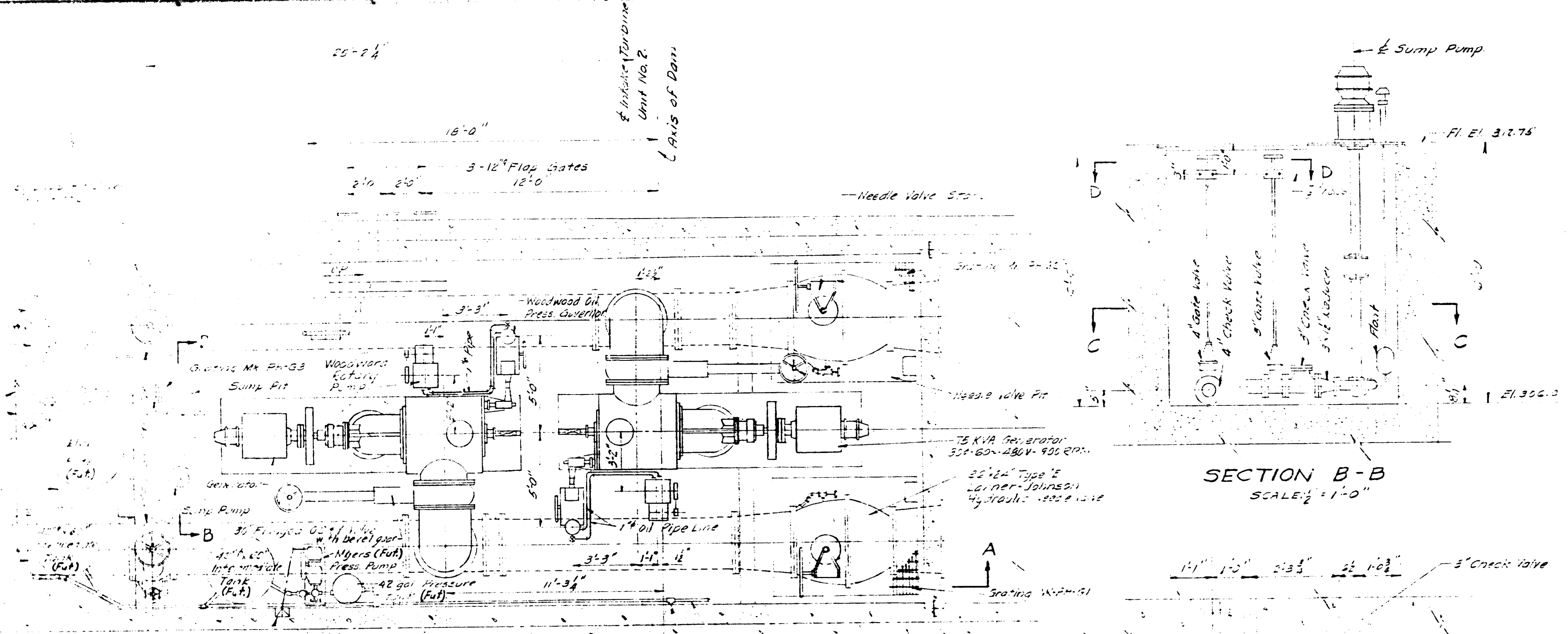
34"



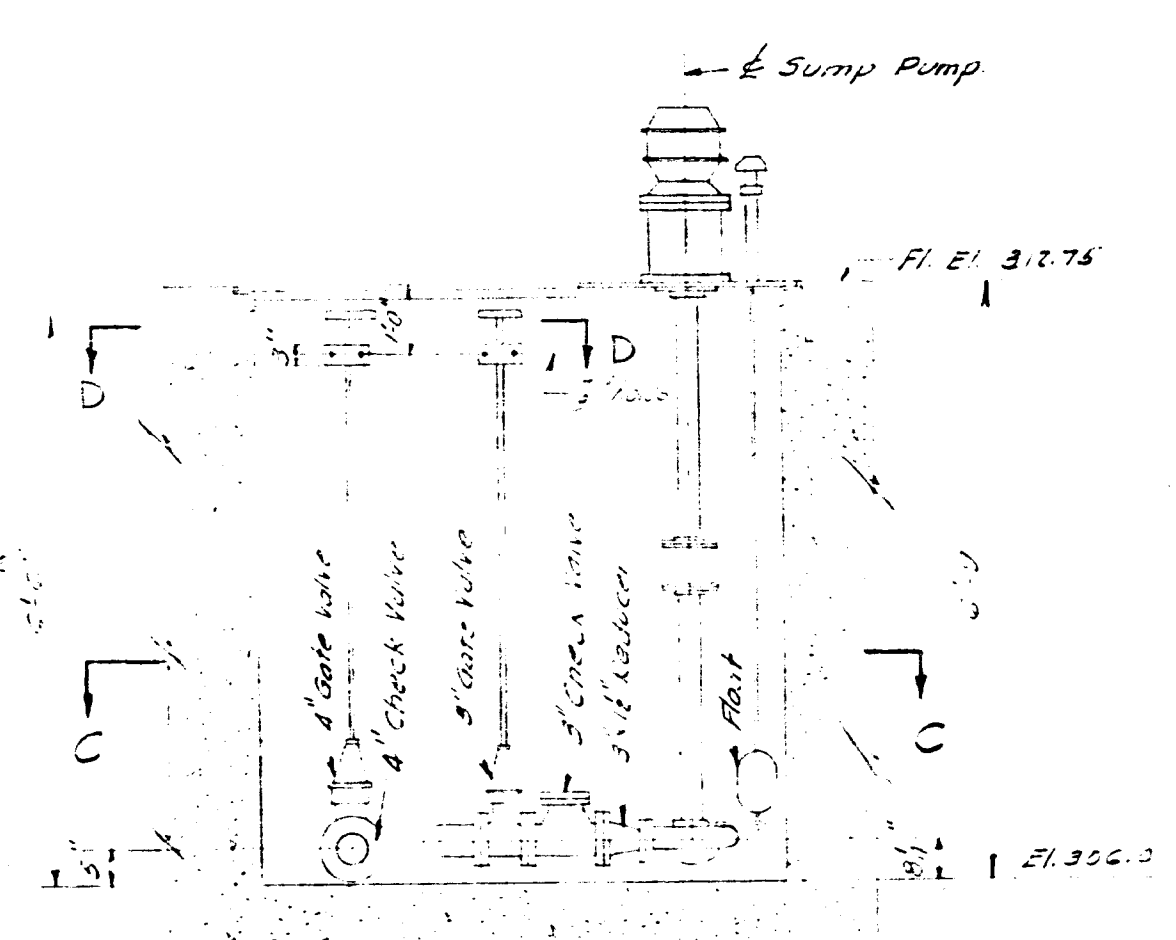
GENERAL NOTES

1. For Power House mezzanine floor and roof details see drawing No. 43.
2. For plumbing details see drawing No. 30.
3. For Power House substructure details see drawings Nos. 41 and 42.
4. For concrete details of Power House wall recesses and openings in buttresses Nos. 11 and 12 see drawings Nos. 60 and 62.
5. For reinforcing details of buttresses Nos. 11 and 12 see drawings Nos. 61 and 63.
6. Windows W1, W2, W3, W4, W5, and W6 are steel sash Fenestra Standard Type or equal, with 2" wide by 18" high glass panes. Ventilator lights as shown.

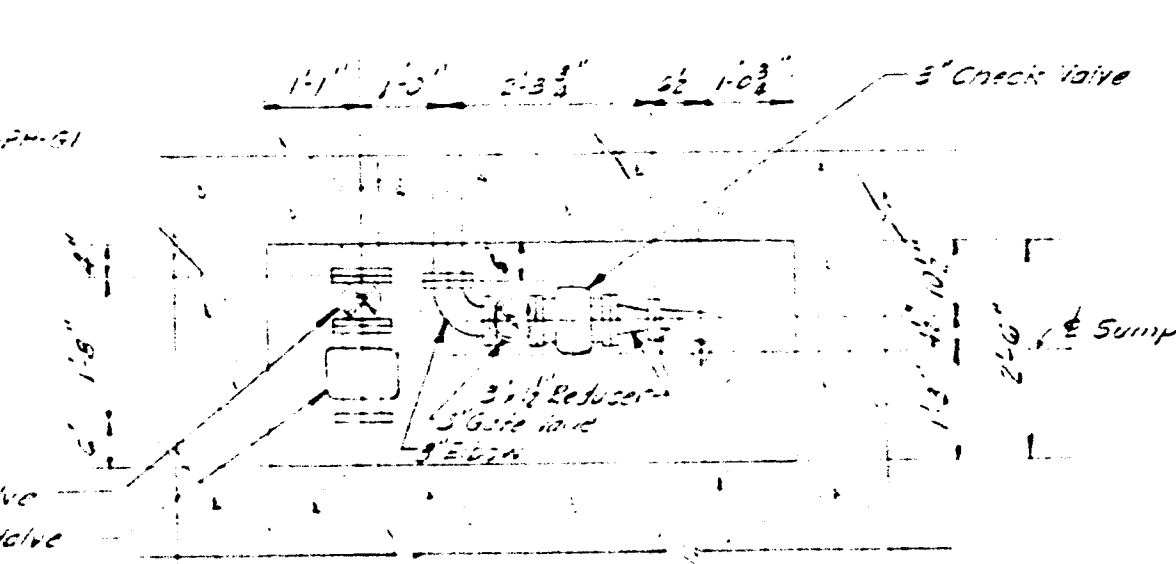
34" 22" 17" 11" 8.5" 8.5" 11" 17" 22" 34"



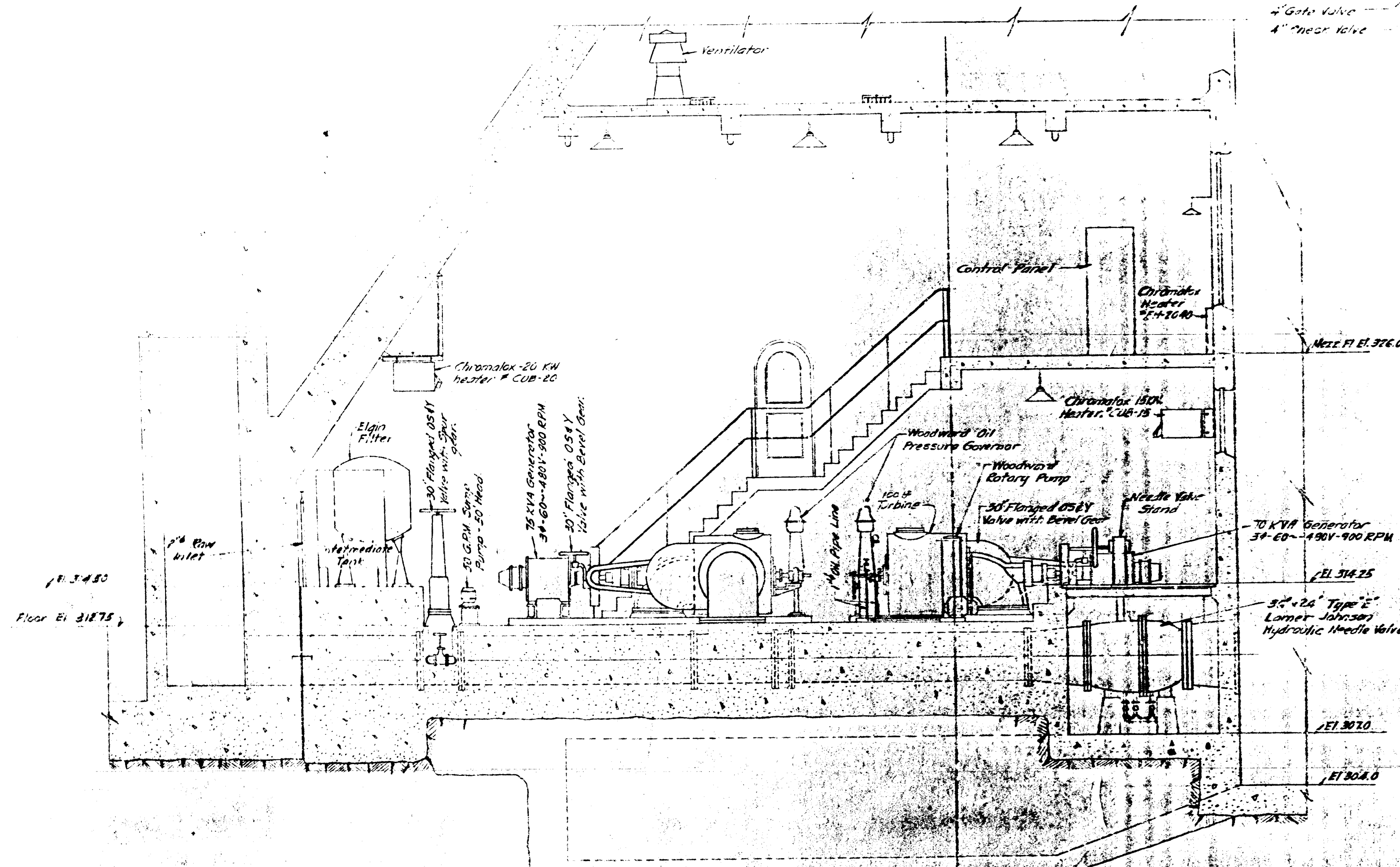
FLOOR PLAN
SCALE: 1/4"=1'-0"



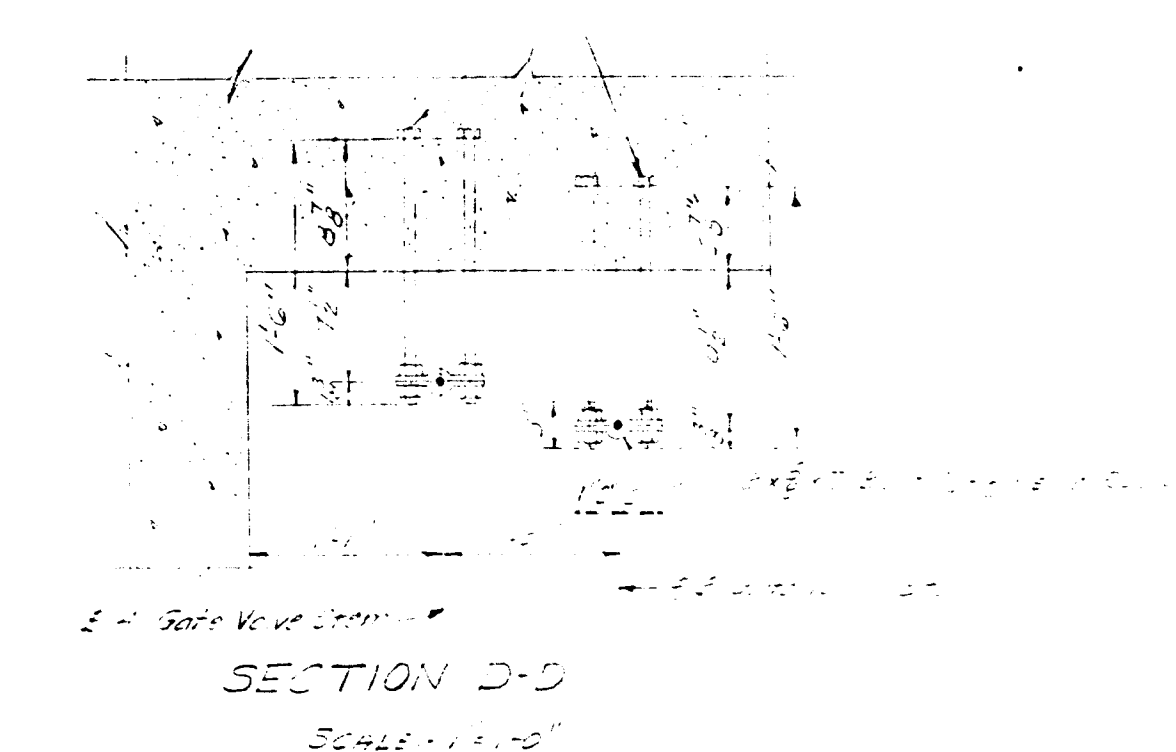
SECTION B-B
SCALE: 1/4"=1'-0"



SECTION C-C
SCALE: 1/4"=1'-0"



SECTION A-A
SCALE: 1/4"=1'-0"



SECTION D-D
SCALE: 1/4"=1'-0"

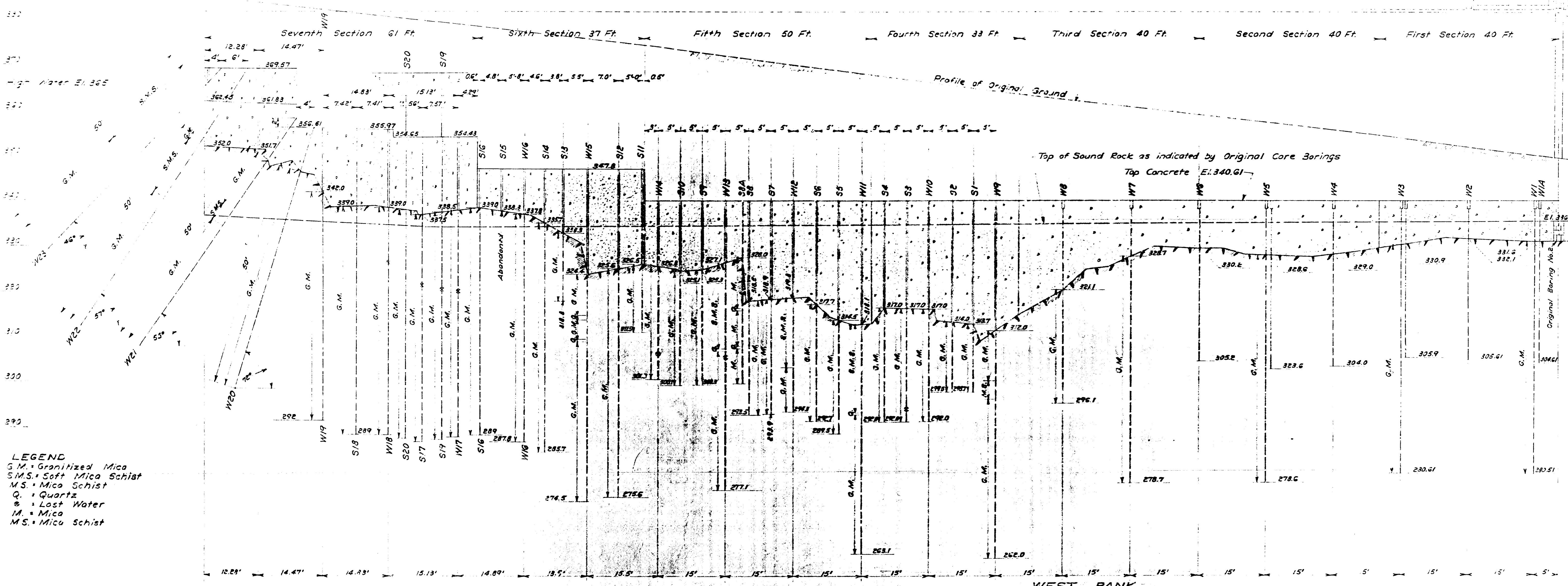
- GENERAL NOTES
1. For Powerhouse substructure and structure details see Drawings Nos. 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
 2. For details of ductress Nos. 11 and 12 see Dwg. Nos. 30 and 31.
 3. For Miscellaneous Steel see Dwg. Nos. 77 and 80.
 4. For Lighting and Heating details see Dwg. No. 75.
 5. For Railing Details see Dwg. No. 52.
 6. For Turbine & 75 KVA Generator layout see Rodney Hunt Machine Co. Dwg. No. 2-2079.
 7. For 75 KVA Gen. Control & Distribution Panel see Elect. Machinery W.P. Co. Dwg. No. 7133.
 8. For Lamer Johnson Hydraulic Needle Valve see Rodney-Southward Dwg. No. 22-3-3.
 9. For Sump Pump see Tabor Pump Co. Dwg. No. 4-173.
 10. For Oil Pressure Governor see Woodward Governor Co. Dwg. No. LR-2-3-C.
 11. For Rotary Pump see Woodward Governor Co. Dwg. No. P.H. 21-E.

DRAWN BY: E.H. 1047 CHECKED BY: 104 APPROVED BY: 104	REV. 1: IM REV. 2: IM REV. 3: IM REV. R.E.A.: 2-7-1942 Changed Slope of Downstream End of Dr. Pipe Pit	JOB NUMBER: 4002 AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	POWERHOUSE EQUIPMENT & PIPING LAYOUT	APPROVED: _____ 104 CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER: 45	SCALE:
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RECORD OF WATER TESTS AND PRESSURE GROUTING

BOREING NO.	FIRST STAGE				SECOND STAGE			REMARKS	
	WATER TESTS		PRESS. POUNDS	GROUT. CUBIC FEET	PRESSURE GROUTING				
	DEPTH	WATER LOSS			DEPTH	POUNDS	CUBIC FEET		
W14	25	82	Yes	82	23	25	100	1	
W15	25	See Remarks	—	—	—	50	108	2	No Water Test was made
W16	15	80	None	—	—	25	115	1.5	Hole made by Wagon Drill
W17	25	80	None	—	—	50	102	1.5	
W18	15	80	None	—	—	25	102	1.5	Hole made by Wagon Drill
W19	15	80	None	—	—	50	110	2	
W20	15	80	None	—	—	25	110	2	Hole made by Wagon Drill
W21	25	80	None	—	—	50	108	5	
W22	15	70	None	—	—	25	109	1	
W23	25	60	None	—	—	50	98	2	
S1	15	85	None	—	—	15	101	1.5	
S2	15	85	None	—	—	15	116	1.5	
W24	15	82	Yes	100	2.5	25	102	2	
S3	15	See Remarks	Yes	80	2	25	112	1.5	No Water Test was made
S4	15	85	Yes	110	2	25	112	2	
W25	15	85	Yes	110	2	50	102	2	
W26	15	82	None	—	—	25	108	4	
W27	15	85	Yes	112	2	25	112	2	
W28	15	80	Yes	108	2	25	98	2	

S7	15	80	Yes	104	4	25	106	1.5	
S8	15	See Remarks	Yes	90	10	25	102	1	No Water Pressure under test. Water backed up in W13.
W13	25	80	Yes	102	3	50	92	1.5	
S9	15	80	Yes	102	3	25	89	2	
S10	15	80	Yes	97	2	25	92	1.5	
W14	15	80	None	—	—	25	92	2	
S11	15	?	None	—	—	15	102	2	
S12	15	?	None	—	—	15	93	2	
W15	25	90	None	—	—	50	110	2.8	
S13	15	92	Yes	—	—	15	108	2	
S14	15	92	Yes	—	—	15	108	2	
W16	25	92	Yes	108	6	50	103	1	
W17	25	See Remarks	—	122	40	50	120	2	No Water Test made
W18	15	See Remarks	—	106	14	50	120	4	No Water Test made
W19	25	See Remarks	—	104	22	50	132	3	No Water Test made
W20	50	See Remarks	—	—	—	50	134	7	No Water Test
W21	50	See Remarks	—	—	—	50	152	12	No Water Test
W22	50	See Remarks	—	—	—	50	120	5	No Water Test
W23	50	See Remarks	—	—	—	50	104	3	No Water Test
S14	25	See Remarks	—	—	—	25	102	2	No Water Test made
S15	50	See Remarks	—	—	—	50	120	2	No Water Test made
S16	50	See Remarks	—	—	—	50	126	13	No Water Test made
S17	50	See Remarks	—	—	—	50	129	3	No Water Test made
S18	50	See Remarks	—	—	—	50	125	3	No Water Test
S19	50	See Remarks	—	—	—	50	119	4	No Water Test
S20	50	See Remarks	—	—	—	50	119	4	No Water Test



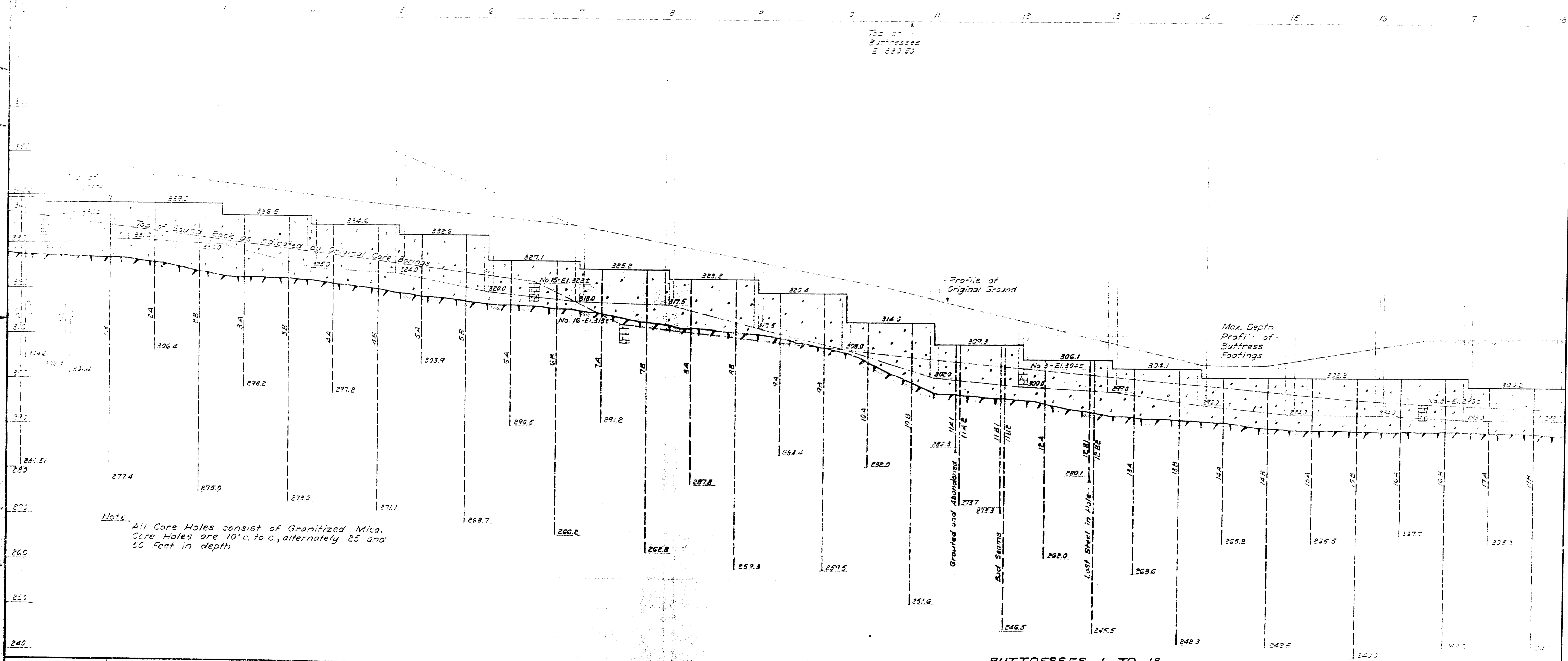
LEGEND
 G.M. - Granitized Mica
 S.M.S. - Soft Mica Schist
 M.S. - Mica Schist
 Q. - Quartz
 % - Lost Water
 M. - Mica
 M.S. - Mica Schist

34" 22" 17" 11" 8.5" 8.5" 11" 17" 22" 34"

RECORD OF WATER TESTS AND PRESSURE GROUTING

BORING	FIRST STAGE				SECOND STAGE				REMARKS
	WATER TESTS		PRESS. GROUT.		PRESSURE GROUTING		PRESSURE GROUTING		
	DEPTH	POUNDS	WATER LOSS	POUNDS	CUBIC FEET	DEPTH	POUNDS	CUBIC FEET	
1	10	10	10	10	10	10	10	10	
2	10	10	10	10	10	10	10	10	
3	10	10	10	10	10	10	10	10	
4	10	10	10	10	10	10	10	10	
5	10	10	10	10	10	10	10	10	
6	10	10	10	10	10	10	10	10	
7	10	10	10	10	10	10	10	10	
8	10	10	10	10	10	10	10	10	
9	10	10	10	10	10	10	10	10	
10	10	10	10	10	10	10	10	10	
11	10	10	10	10	10	10	10	10	
12	10	10	10	10	10	10	10	10	
13	10	10	10	10	10	10	10	10	
14	10	10	10	10	10	10	10	10	
15	10	10	10	10	10	10	10	10	
16	10	10	10	10	10	10	10	10	
17	10	10	10	10	10	10	10	10	
18	10	10	10	10	10	10	10	10	

32	30.0	47	None	---	---	34.0	102	2	
34	34.0	48	None	---	---	36.0	87	1	
38	37.0	44	None	---	---	60.9	35	1.5	
101	39.0	48	None	---	---	32.0	92	1.5	
108	39.0	40	None	---	---	32.4	88	2	
111	33.0	48	None	---	1.0	---	---	---	Abandoned
112	35.5	40	None	---	1.0	35.5	93	1	
121	35.7	40	Lost	---	---	30.0	20	30	
122	35.5	40	None	---	---	32.9	90	1.5	
124	33.1	40	None	---	---	34	32	1	
128	26.0	40	None	---	1.5	---	---	---	Steel in hole
132	25.0	40	None	---	---	60.6	31	2	
141	34.4	40	None	---	---	35.5	40	1	
142	32.7	40	None	---	---	31.2	3	1.5	
144	34.5	40	None	---	---	37.0	32	1.5	
148	35.0	49	None	---	---	52.7	40	18	
151	26	40	None	---	---	25.7	38	1.5	
153	35.0	40	None	---	---	32.8	90	4	
154	25.0	40	None	---	---	35.5	35	1	
158	27.0	42	None	---	---	30.0	35	1.5	
171	24.0	20	Lost	---	1.5	25.0	35	2	Sump Hole
172	23.0	27	Lost	---	1.5	53.5	40	1.5	



No's. All Core Holes consist of Granitized Mica. Core Holes are 10' c. to c., alternately 25 and 50 feet in depth.

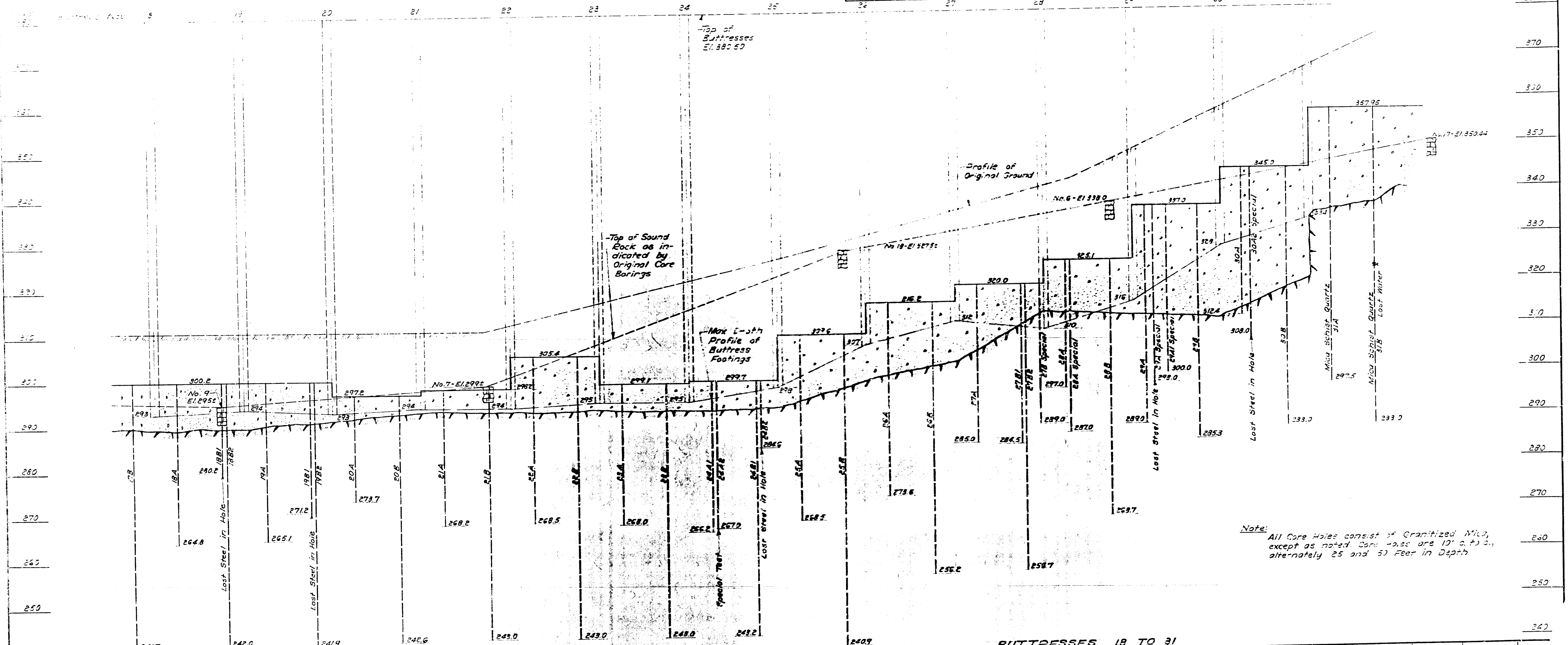
DRAWN S.P.A. 9-15-1943 CHECKED 134 APPROVED F.A.H. 9-17-1943	REV 134 REV 134 REV 134	JOB NUMBER 4002	AMBUPSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	FINAL DRAWING SHOWING FOUNDATION ELEVATIONS FOR BUTTRESSES AND CUT-OFF WALL, AND GROUTING RECORDS	APPROVED _____ CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 17	SCALE 1" = 10'-0"
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MICROFILMED 29:1
 Reduction Ratio: 29:1

RECORD OF WATER TESTS AND PRESSURE GROUTING

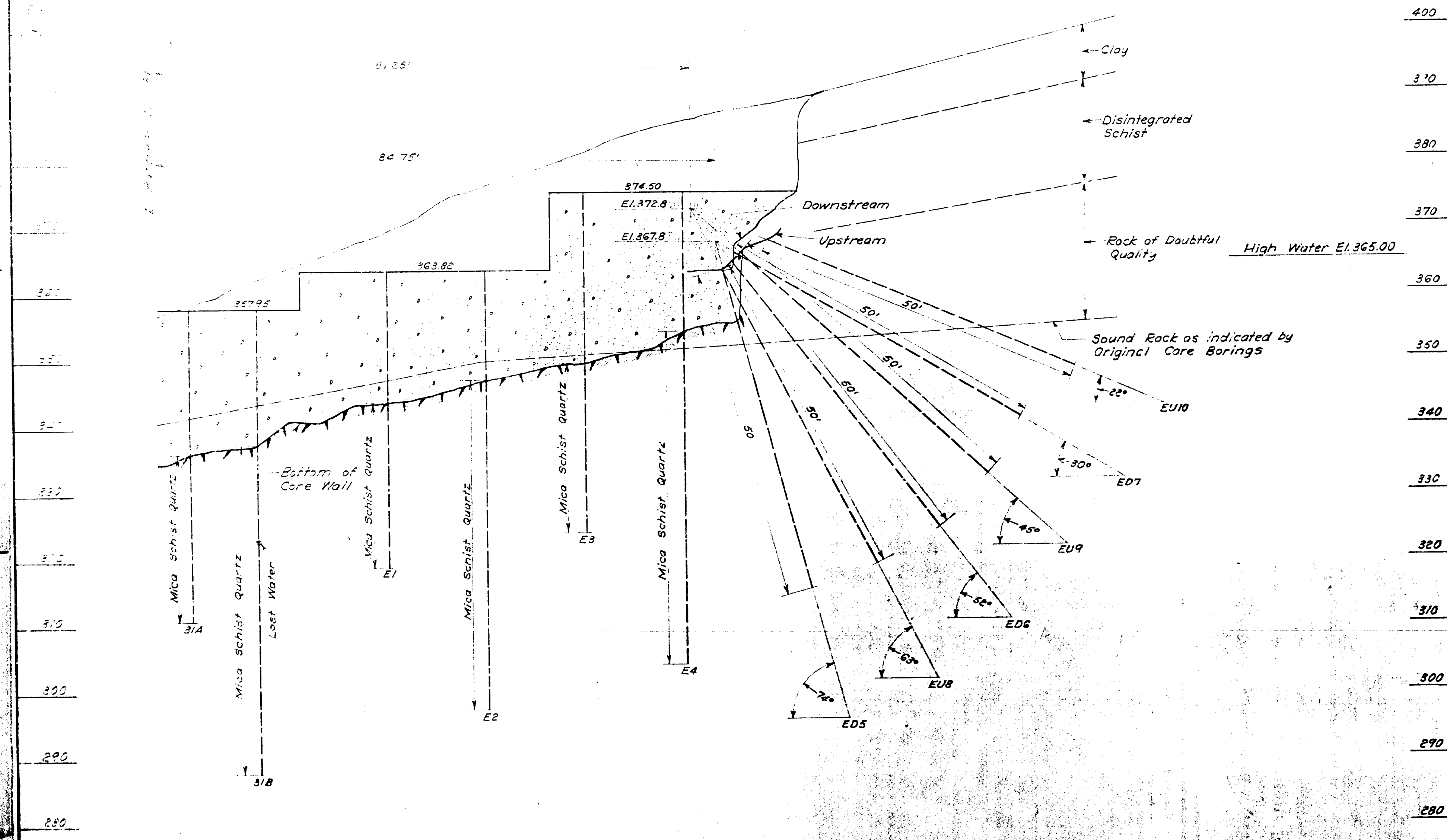
SPRINGS NO.	FIRST STAGE				SECOND STAGE				REMARKS
	WATER TESTS		PRESS. GROUT.		PRESSURE GROUTING		CUBIC FEET	CUBIC FEET	
	DEPTH	POUNDS	POUNDS	CUBIC FEET	DEPTH	POUNDS			
18A	28.5	40	None	1.0	35.4	33	1.5		
18B	10.4	40	None	1.0	29.0	—	—	Lost Steel in Hole	
18BB	38.5	50	None	—	58.2	38	1.5		
19	24.5	40	None	—	35.1	95	2		
20	29.0	40	None	1.0	29.0	35	1.5	Steel in Hole	
14B2	35.0	40	None	—	58.3	90	2		
20A	3.0	40	None	4.0	23.5	20	1	Steel in Hole	
20E	20.0	40	None	3.0	54.6	95	2.5		
20A	20.0	40	None	1.0	30.0	95	2		
20E	20.0	40	None	1.0	55.2	90	3		
20B2	18.0	60	None	2.0	24.0	90	1	Steel in Hole	
22A	27.0	40	None	1.0	37.0	90	2		
22B	37.0	40	None	1.0	32.0	90	1.5		
23A	2.0	40	None	4.0	40.2	90	1.5		
23B	20.0	40	None	1.0	56.2	92	1.5		
23B2	—	—	None	—	—	—	2	Pipe set in Rack	
24A1	2.6	60	None	1.0	33.4	90	1.5		

24A2	20.5	40	None	—	—	—	—	23.2	70	1	
24B1	19.7	40	None	—	—	—	—	1.0	—	—	Steel in Hole
24B2	37.0	55	None	—	—	—	—	1.5	67.0	97	1.5
25A	1.4	40	None	—	—	—	—	1.0	41.5	80	2
25A2	—	—	None	—	—	—	—	—	—	—	No Tests
25B	1.4	40	None	—	—	—	—	—	59.6	33	1.5
26A	17.0	40	None	—	—	—	—	—	42.6	38	2
26B	25.0	40	None	—	—	—	—	—	60.0	45	2
27A	18.0	55	None	—	—	—	—	—	34.0	86	1
27B1	17.0	90	None	—	—	—	—	2.0	35.0	—	Lost Water
27B2	25.0	20	None	—	—	—	—	—	53.9	40	2
27B3	—	—	None	—	—	—	—	—	37.6	37	1
27B4	—	—	None	—	—	—	—	—	23.6	93	2
28A1	5.0	40	None	—	—	—	—	—	35.0	20	1
28A2	—	—	—	—	—	—	—	—	—	—	Water Test
28B	25.0	40	None	—	—	—	—	—	57.0	30	1
28A1	30.0	30	—	—	—	—	—	1.0	29.0	79	1
28A2	15.0	20	Lost	—	—	—	—	3.5	24.0	100	1
29A1 Steel	5.0	40	None	—	—	—	—	—	37.0	26	1
29B	17.0	37	Loss	—	—	—	—	27.0	59.7	86	4
29A	24.0	40	None	—	—	—	—	—	32.6	90	1
29A2	—	—	—	—	—	—	—	—	37.0	26	2
30B	37.0	40	Loss	—	—	—	—	1.0	57.0	30	1
31A	25.0	40	None	—	—	—	—	—	25.0	72	2
31B	50.0	10 Tests	Yes	7.0	27.0	50.0	100	4	—	—	—



DRAWN E.R.A. 7-17-1948 CHECKED ... 194 APPROVED E.H.R. 7-15-1948	REV. 194 REV. 194 REV. 194 REV. 194	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	FINAL DRAWING SHOWING FOUNDATION ELEVATIONS FOR BUTTRESSES AND CUT-OFF WALL, AND GROUTING RECORDS	APPROVED ... 194 CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 48	SCALE 1" = 10'
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MICROFILMED 24" Reduction Ratio: 24"



RECORD OF WATER TESTS AND PRESSURE GROUTING

BORING NO.	FIRST STAGE				SECOND STAGE			REMARKS	
	WATER TESTS			PRESS. GROUT.	PRESSURE GROUTING				
	DEPTH	POUNDS	WATER LOSS	POUNDS	CUBIC FEET	DEPTH	POUNDS		CUBIC FEET
E1	25	40	None	—	—	25	96	1	
E2	50	40	None	—	—	50	42	1	
E3	25	40	None	—	—	25	90	2	
E4	50	40	None	—	—	50	93	5	
ED5	50	None	—	—	—	50	118	2	
ED6	50	None	—	—	—	50	113	5	
ED7	50	None	—	—	—	50	122	4	
EU8	50	None	—	—	—	50	100	4	
EU9	50	None	—	—	—	50	105	2	
EU10	50	None	—	—	—	50	83	3	

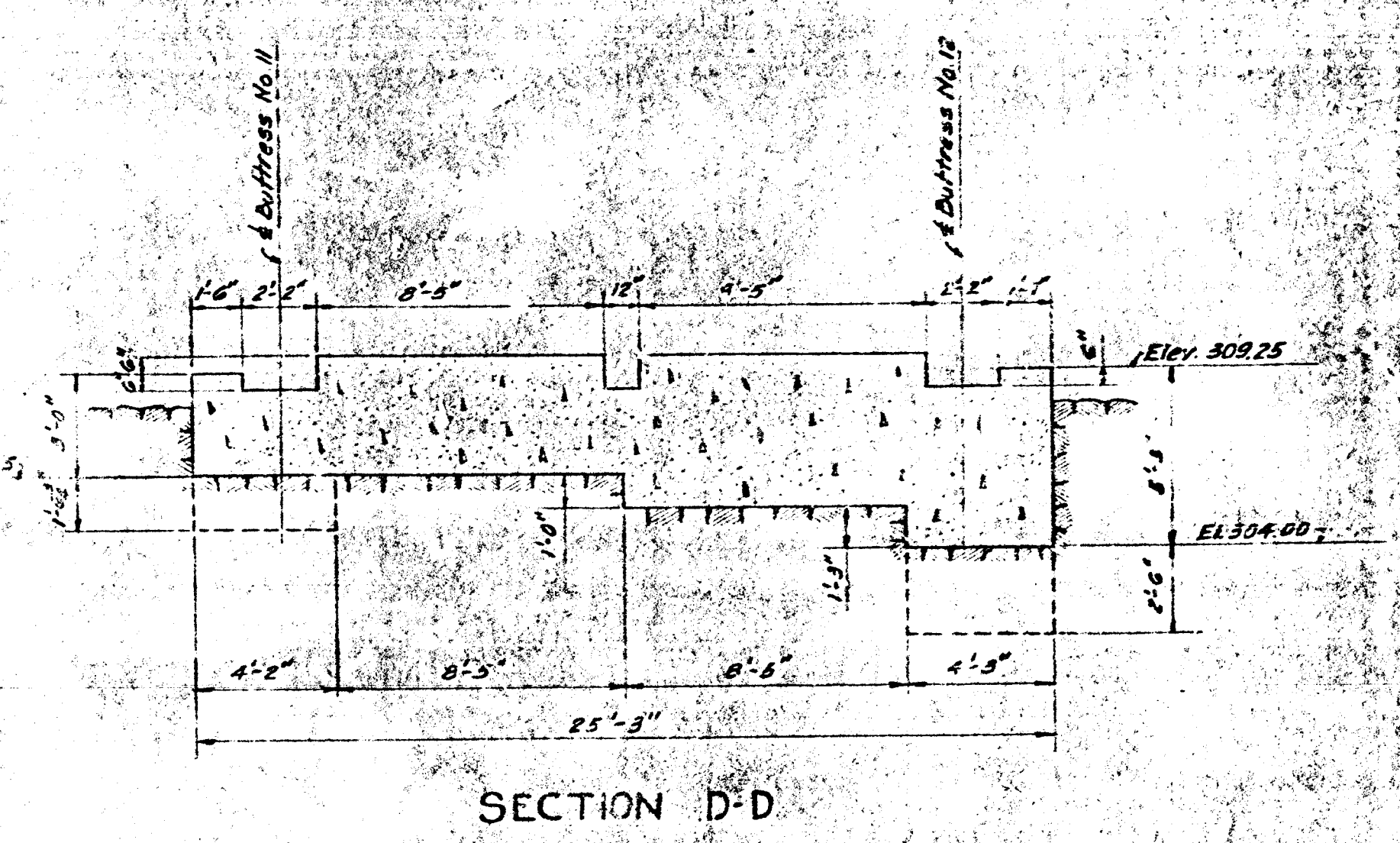
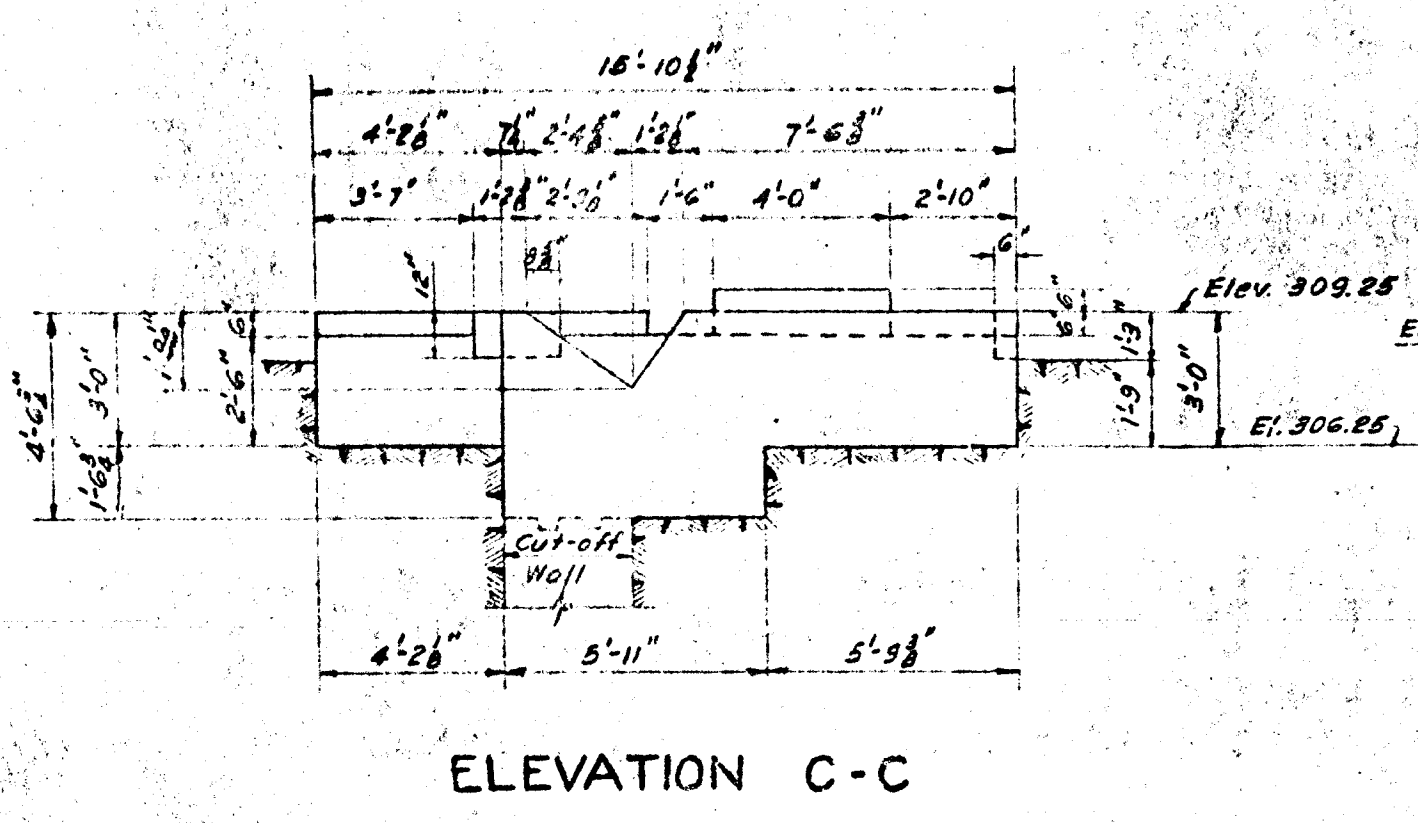
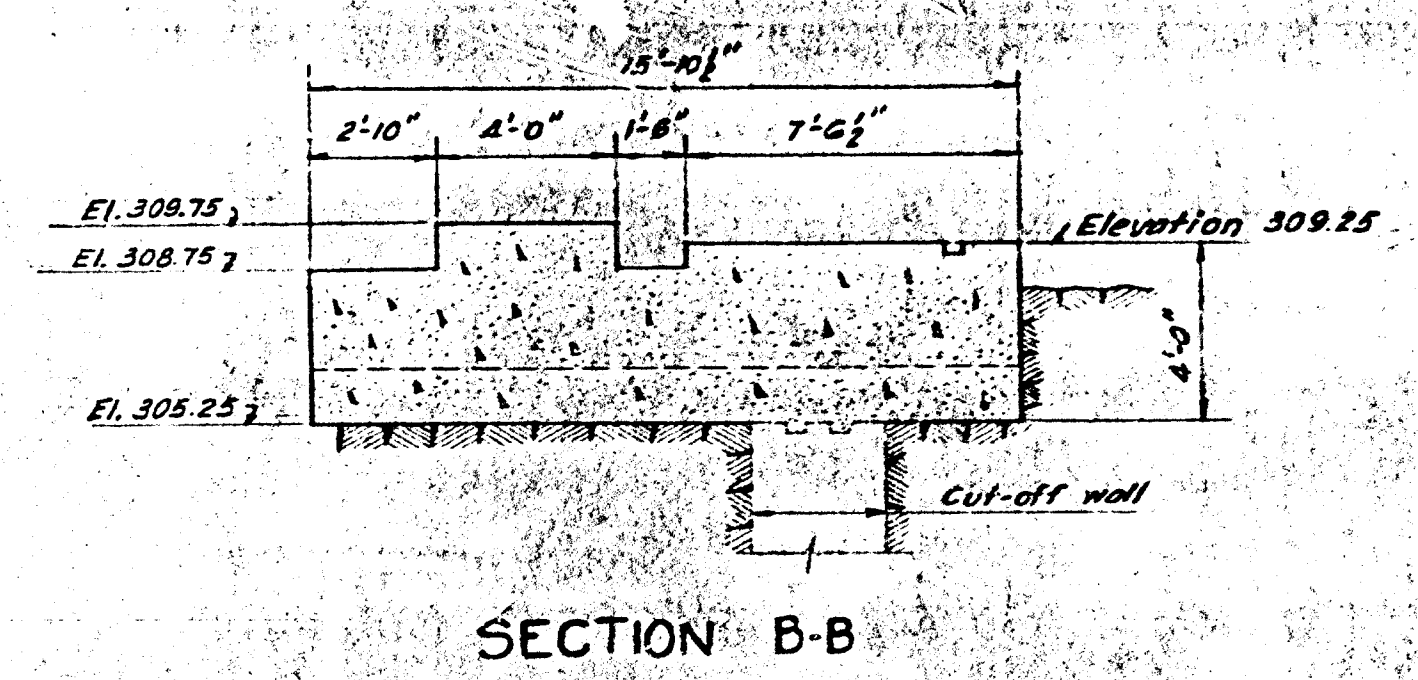
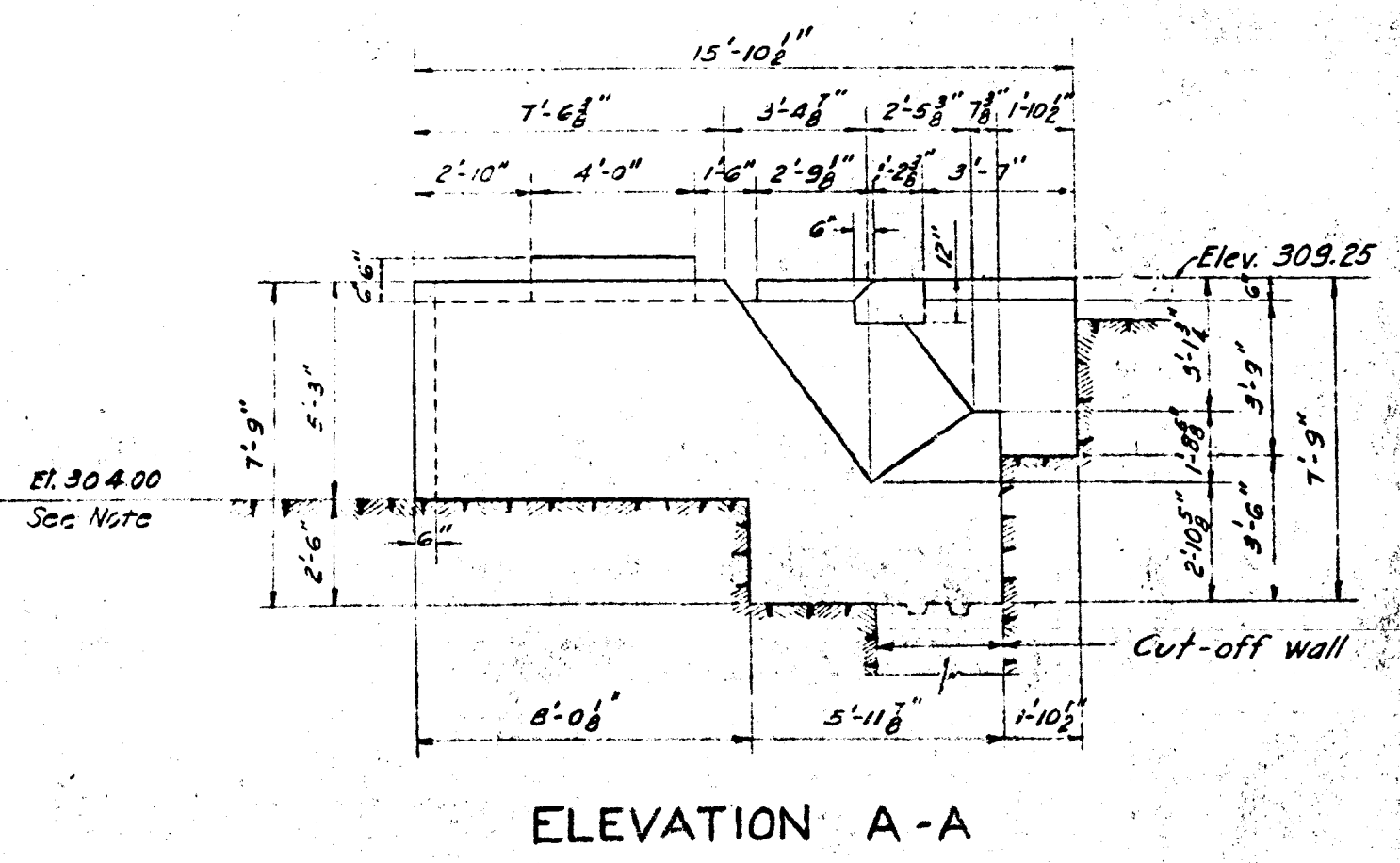
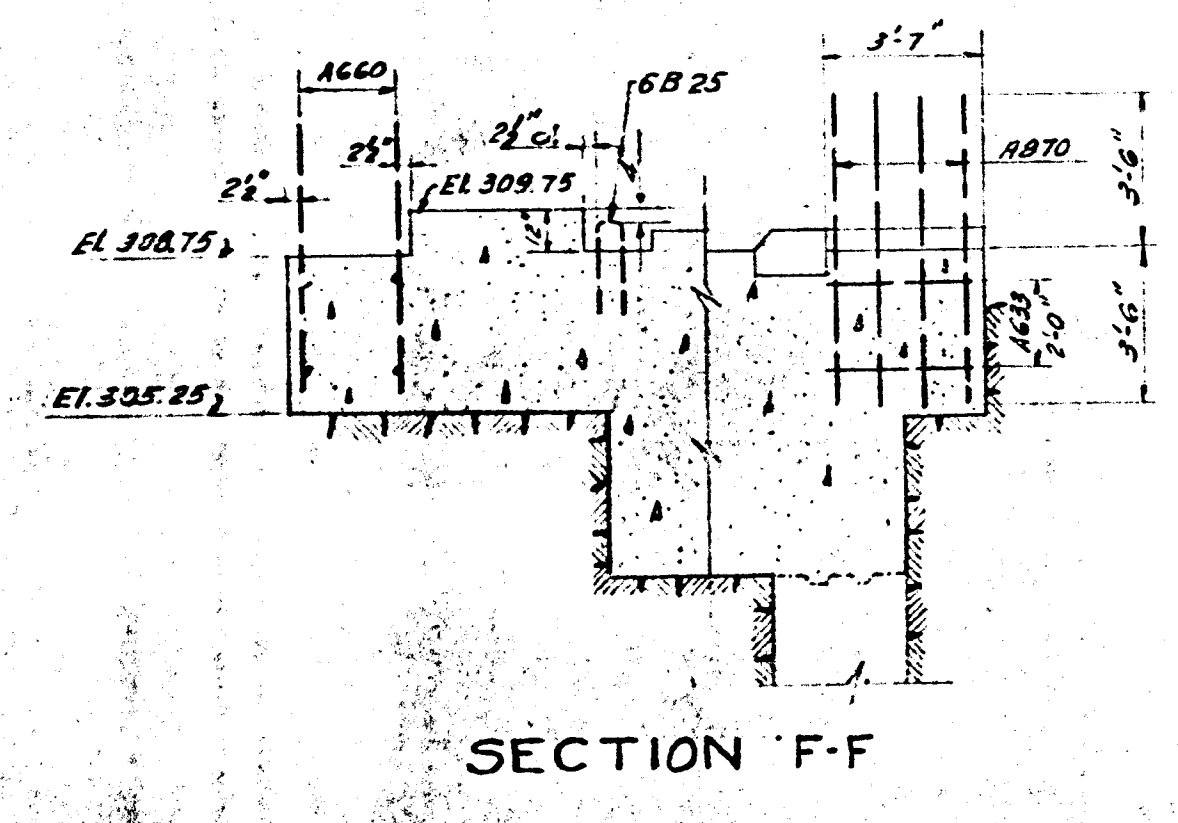
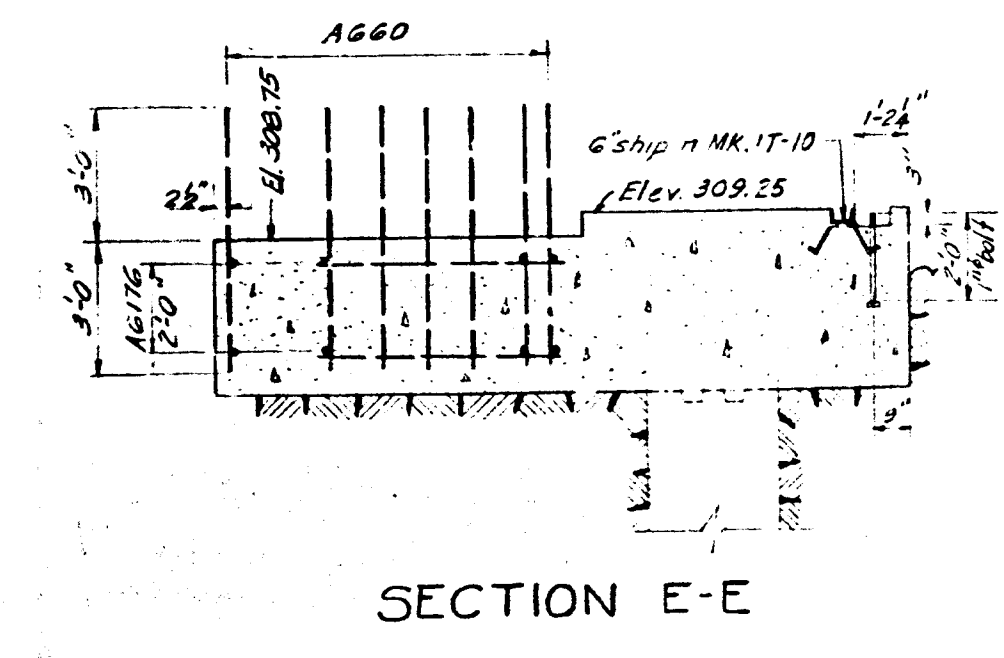
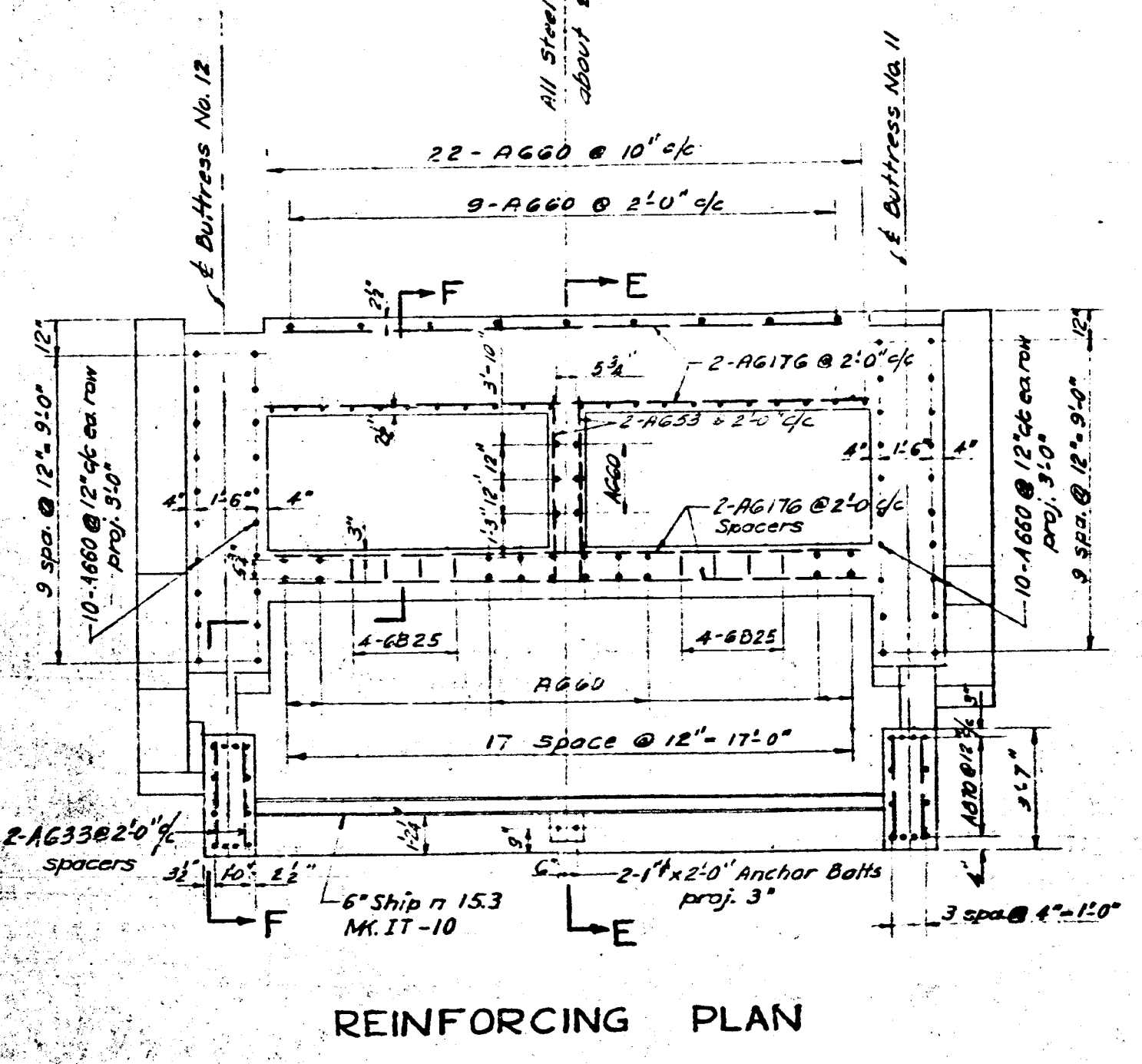
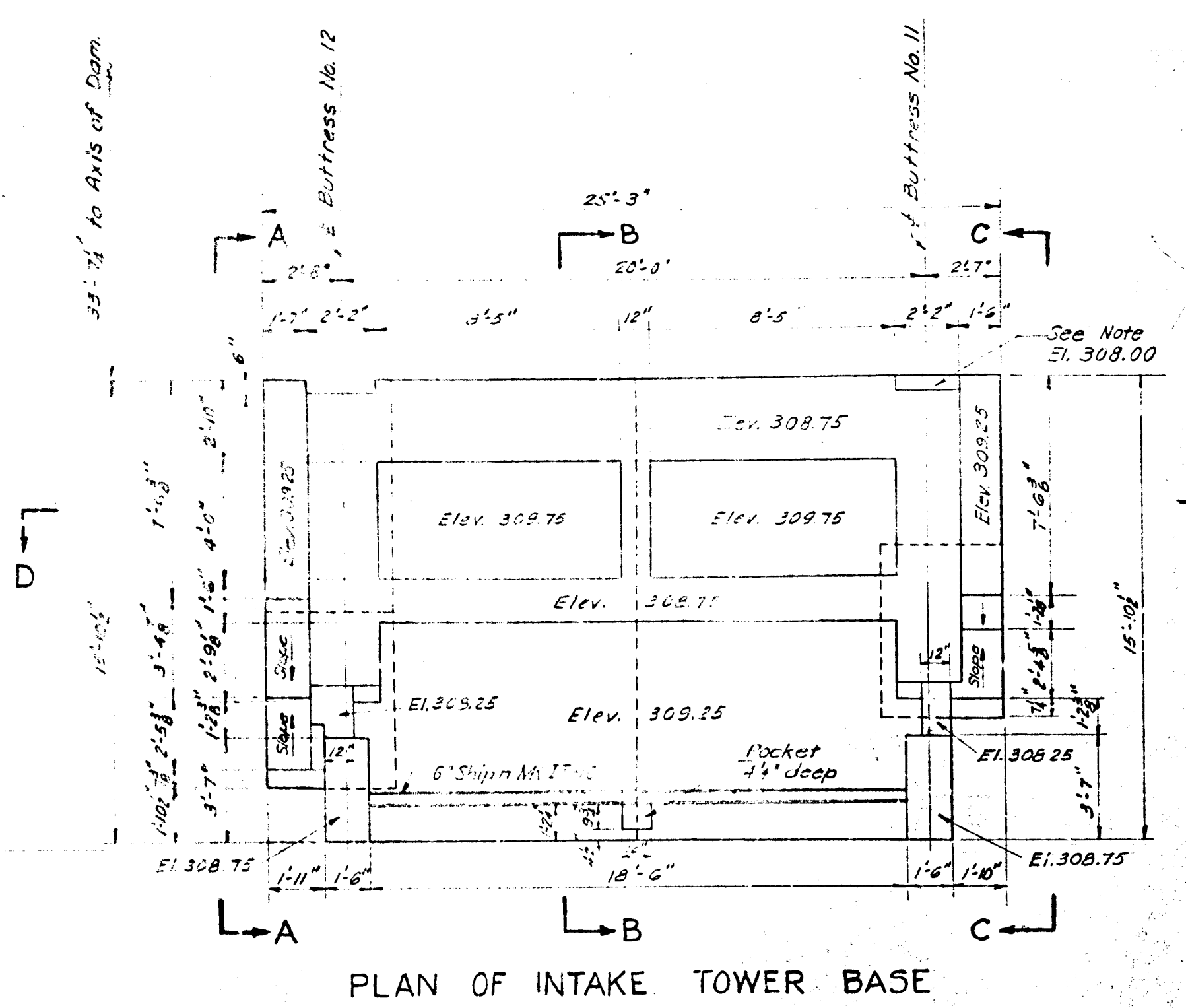
LOG OF ANGLE BORINGS

BORING NO.	CLASSIFICATION
ED5	Soft Mica Schist 0+0 to 4'-0" - Granitized Mica 4'-0" to 50'-0"
ED6	Soft Mica Schist 0+0 to 6'-8" - Granitized Mica 6'-8" to 50'-0" - Lost Water at 3'-6"
ED7	Soft Mica Schist 0+0 to 22'-6" - Granitized Mica 22'-6" to 50'-0" - Lost Water at 13'-6" and 44'-6"
EU8	Soft Mica Schist 0+0 to 4'-9" - Granitized Mica 45'-3"
EU9	Soft Mica Schist 0+0 to 4'-0" - Granitized Mica 4'-0" to 30'-0" - Granitized Mica Quartz 30'-0" to 30'-4" Granitized Mica with Streaks of Quartz 30'-4" to 50'-0"
EU10	Soft Mica Schist 0+0 to 24'-10" - Granitized Mica 24'-10" to 50'-0"

EAST BANK

DRAWN <u>R.B.A.</u> 7-19-1948 TRACED _____ CHECKED _____ APPROVED <u>E.H.E.</u> 7-20-1948	REV. _____ NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	FINAL DRAWING SHOWING FOUNDATION ELEVATIONS FOR CORE WALL AND GROUTING RECORDS	APPROVED _____ CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER <u>47</u>	SCALE <u>1"=10'-0"</u>
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MICROFILMED 20:1



DRAWN: S.C. L. B.	REV. 11-22-1941	104
TRACED: S.C. L. B.	REV. 11-22-1941	104
CHECKED: S.C. L. B.	REV. 2-6-1942	104
APPROVED: S.C. L. B.	REV. 11-22-1941	104

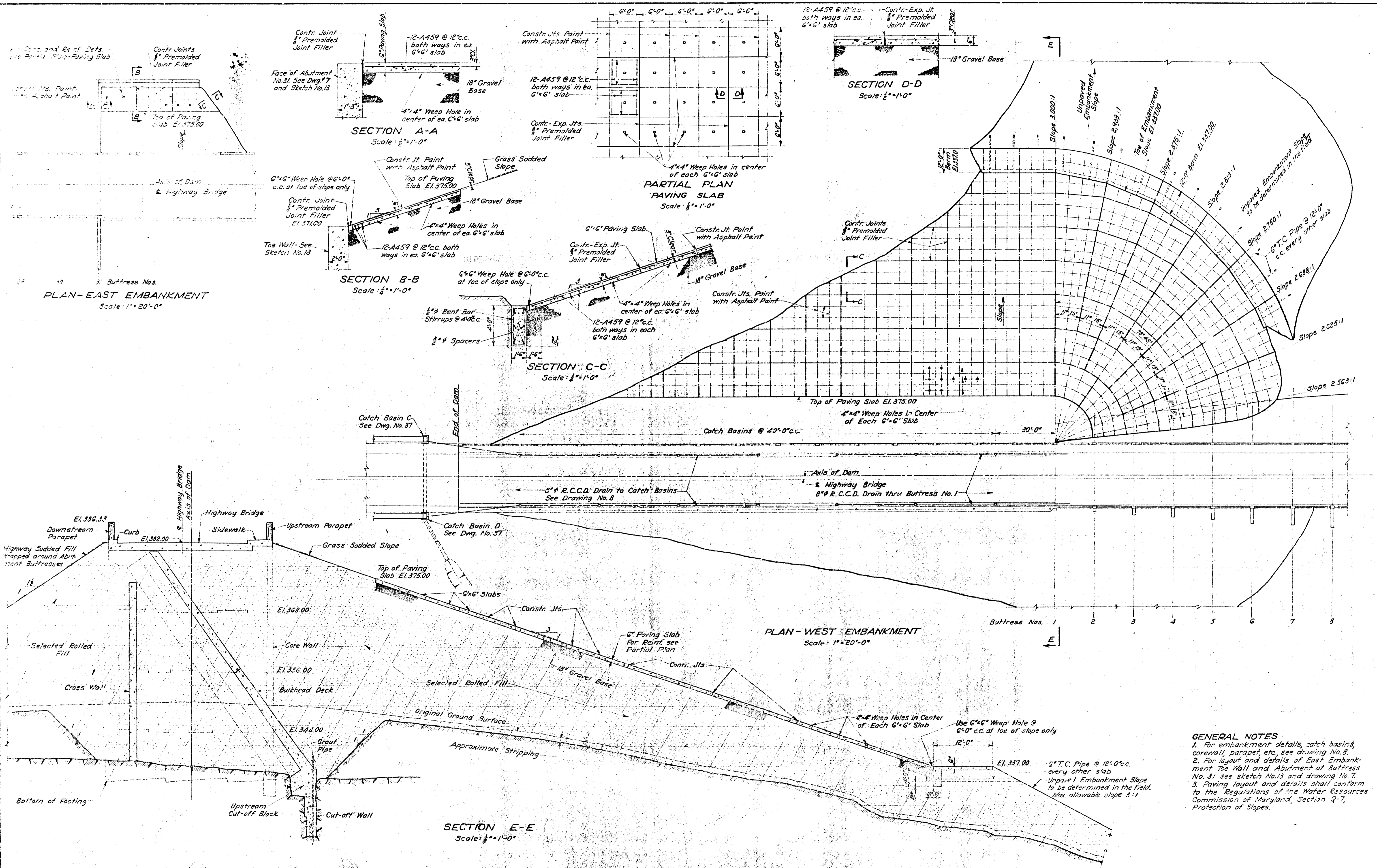
JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W
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INTAKE TOWER BASE BLOCK CONCRETE & REINFORCING DETAILS

APPROVED: _____ 194	CHIEF ENGINEER
WASHINGTON SUBURBAN SANITARY COMMISSION	

DRAWING NUMBER 50	SCALE 1" = 1'-0"
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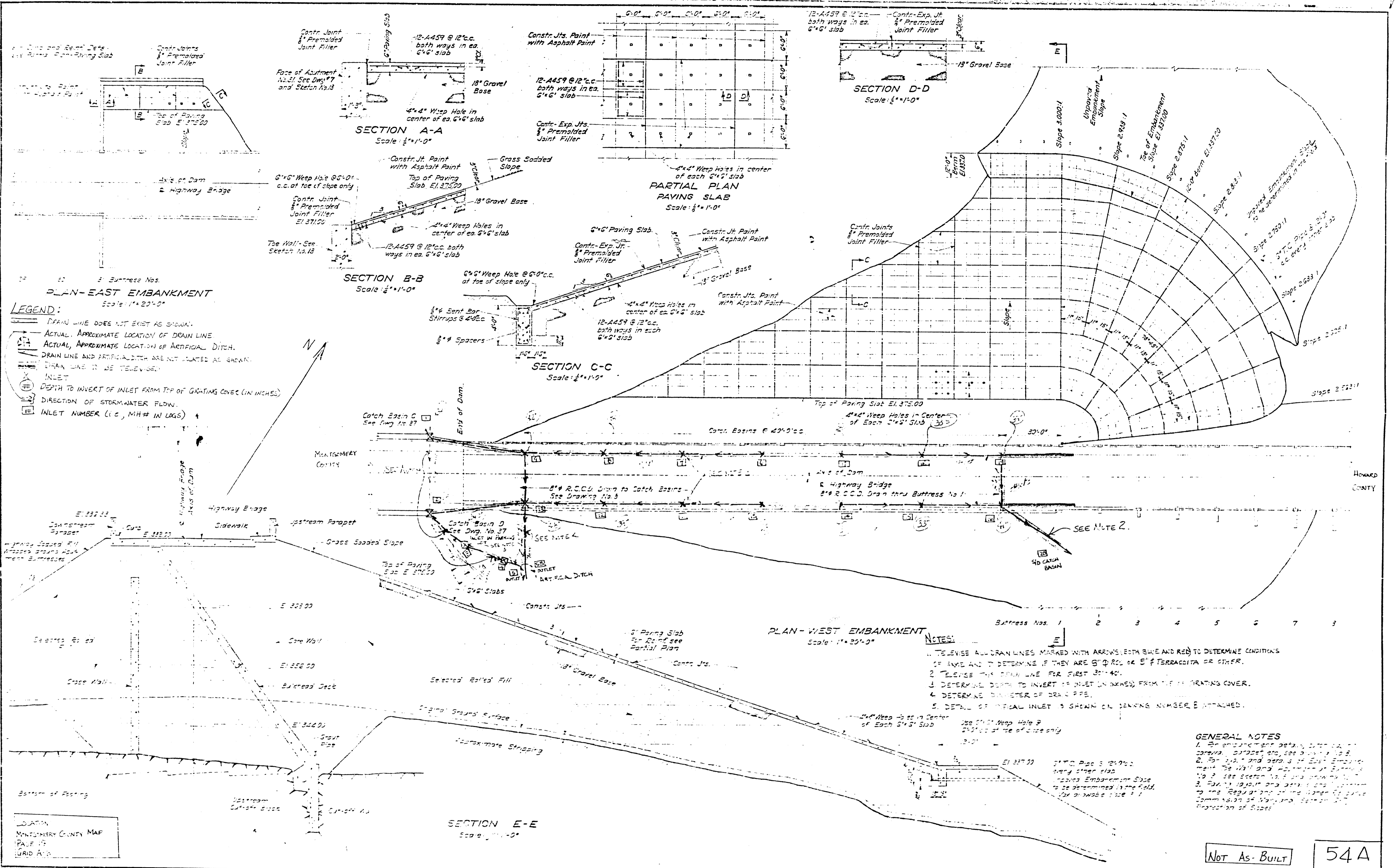
MICROFILMED 20:1



GENERAL NOTES

1. For embankment details, catch basins, corewall, parapet, etc., see drawing No. 8.
2. For layout and details of East Embankment Toe Wall and Abutment at Buttress No. 31 see sketch No. 13 and drawing No. 7.
3. Paving layout and details shall conform to the Regulations of the Water Resources Commission of Maryland, Section 9-7, Protection of Slopes.

DRAWN: G.S.A. 4-27-1942 FRAC. D. 194 CHECKED: C.C. 4-28-1942 APPROVED: H.V. 7-29-1942	REV. 194 REV. 194 REV. 194	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	UPSTREAM SLOPE PAVING EAST AND WEST EMBANKMENT CONCRETE AND REINFORCING DETAILS	APPROVED: _____ 194 CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 54	SCALE As Shown
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LEGEND:

- DRAIN LINE DOES NOT EXIST AS SHOWN.
- ACTUAL, APPROXIMATE LOCATION OF DRAIN LINE.
- ACTUAL, APPROXIMATE LOCATION OF ARTIFICIAL DITCH.
- DRAIN LINE AND ARTIFICIAL DITCH ARE NOT RELATED AS SHOWN.
- DRAIN LINE TO BE TELEVISION.
- ⊕ INLET
- ⊕ DEPTH TO INVERT OF INLET FROM TOP OF GRATING COVER (IN INCHES)
- DIRECTION OF STORMWATER FLOW.
- ⊕ INLET NUMBER (I.C., M.H.# IN LOGS)

NOTES:

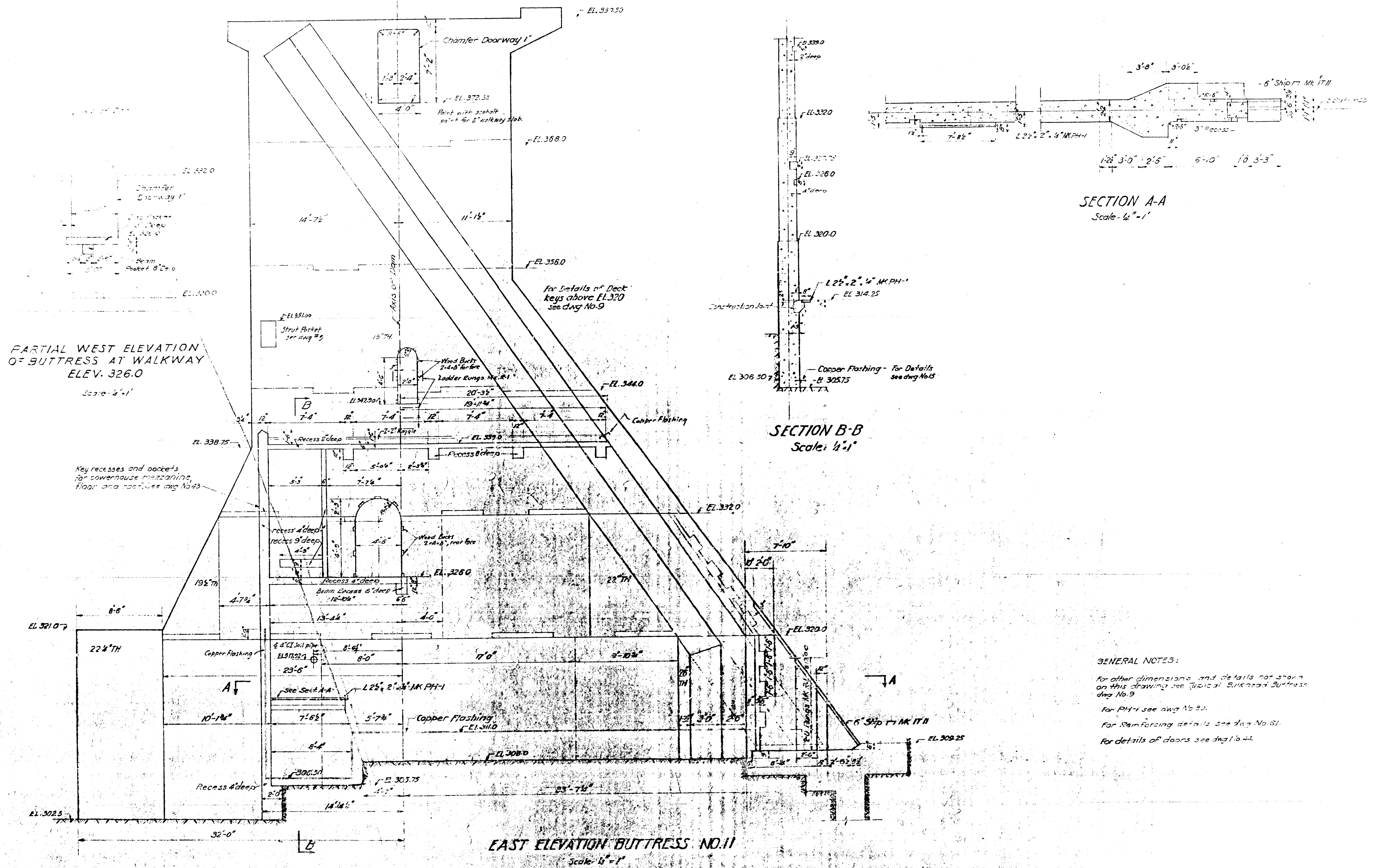
1. TELEVISION ALL DRAIN LINES MARKED WITH ARROWS (EITHER BLUE AND RED) TO DETERMINE CONDITIONS OF EXIST AND TO DETERMINE IF THEY ARE 6" Ø R.C. OR 6" Ø TERRACOTTA OR OTHER.
2. TELEVISION THIS DRAIN LINE FOR FIRST 30'-40'.
3. DETERMINE DEPTH TO INVERT OF INLET (IN INCHES) FROM THE GRATING COVER.
4. DETERMINE DIAMETER OF DRAIN PIPE.
5. DETAILS OF ARTIFICIAL INLET IS SHOWN ON DRAWING NUMBER 5 ATTACHED.

GENERAL NOTES

1. For embankment details, refer to drawings, etc. See drawing No. 5.
2. For 12-A459 and bars in East Embankment, refer to Wall and Reinforcement Drawings No. 3, see section 12-A459 and drawing No. 5.
3. Reinforcement and details of concrete to be determined in the field. See drawing No. 5.
4. Projection of Slopes.

PREPARED BY: J. J. ... CHECKED BY: ... DATE: ... APPROVED BY: ...	NUMBER: 4002 ANDERSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	UPSTREAM SLOPE PAVING EAST AND WEST EMBANKMENT CONCRETE AND REINFORCING DETAILS	APPROVED: ... CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER: 54A SCALE:
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NOT AS-BUILT 54A



PARTIAL WEST ELEVATION OF BUTTRESS AT WALKWAY ELEV. 326.0
Scale: 1/4" = 1'

SECTION A-A
Scale: 1/4" = 1'

SECTION B-B
Scale: 1/4" = 1'

EAST ELEVATION BUTTRESS NO. 11
Scale: 1/8" = 1'

GENERAL NOTES:
 For other dimensions and details not shown on this drawing see Typical Suburban Buttress dwg No. 9
 For PH-I see dwg No. 20.
 For Reinforcing details see dwg No. 61.
 For details of doors see dwg No. 44.

DRAWN: H.A.A. 1/25/51 CHECKED: C.A.P. 1/25/51 APPROVED: 1/25/51	REV. 1/25/51 REV. 1/25/51 REV. 1/25/51	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	CONCRETE DETAILS - BUTTRESS NO. II	APPROVED: 1/25/51 CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER 60	SCALE 1/8" = 1'
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34"

22"

17"

11"

8.5"

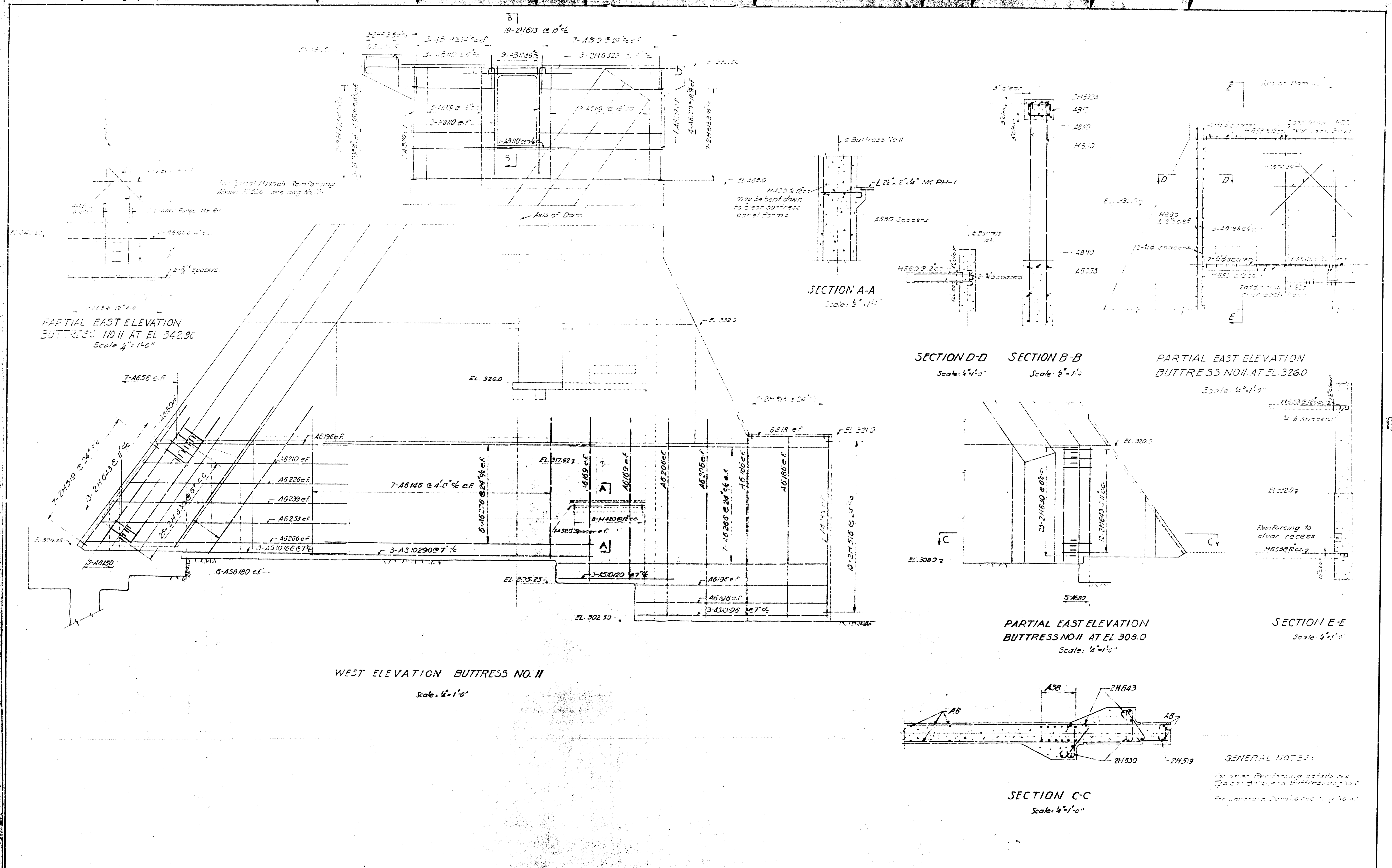
8.5"

11"

17"

22"

34"



GENERAL NOTES:
 For other Reinforcing details see
 The Reinforcing Details for
 The General Dam & Retaining Wall

DRAWN H.A.A. 10/13/51 TRACED 10/13/51 CHECKED S.P. 10/13/51	REV. 154 REV. 154 REV. 154	JOB NUMBER AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127.W	REINFORCING DETAILS - BUTTRESS NO. II	APPROVED 154 CHIEF ENGINEER	DRAWING NUMBER 2-1	SCALE
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34"

22"

17"

11"

8.5"

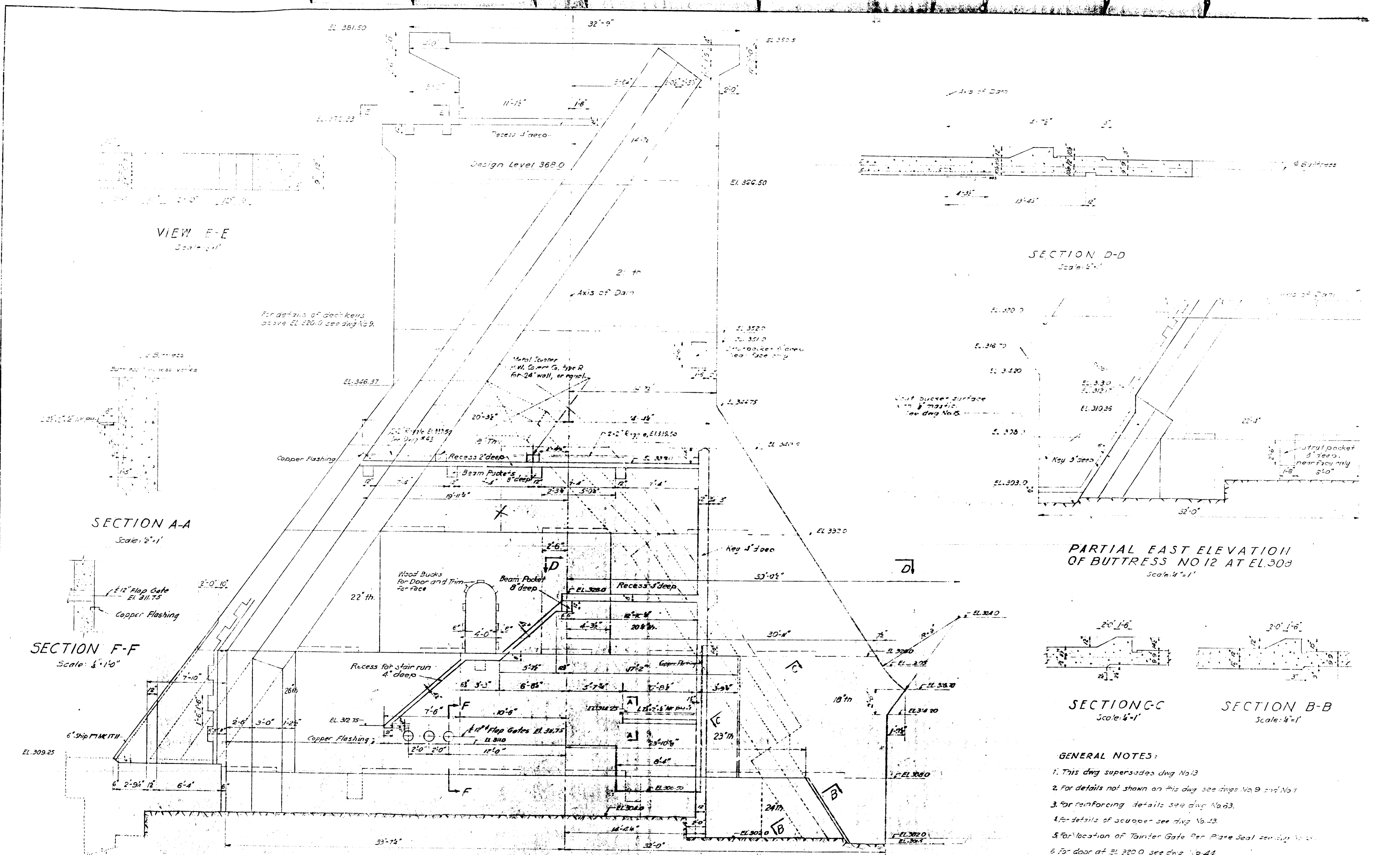
8.5"

11"

17"

22"

34"



VIEW E-E
Scale: 1/4" = 1'

SECTION D-D
Scale: 1/4" = 1'

SECTION A-A
Scale: 1/2" = 1'

PARTIAL EAST ELEVATION
OF BUTTRESS NO 12 AT EL. 300
Scale: 1/4" = 1'

SECTION F-F
Scale: 1/4" = 1'

SECTION C-C
Scale: 1/4" = 1'

SECTION B-B
Scale: 1/4" = 1'

GENERAL NOTES:

1. This dwg supersedes dwg No 13
2. For details not shown on this dwg see dwgs No 9 and No 1
3. For reinforcing details see dwg No 63.
4. For details of scooper see dwg No 43.
5. For location of Tainter Gate Per Plate Seal see dwg No 15.
6. For door at EL 320.0 see dwg No 44.

WEST ELEVATION BUTTRESS NO 12
Scale: 1/4" = 1'

DRAWN	P.A.A.	REV	194
TRACED	194	REV	194
CHECKED	194	REV	194
APPROVED	194	REV	194

JOB NUMBER: 4002
 AMBURSEN ENGINEERING CORPORATION
 CONSULTING ENGINEERS
 NEW YORK

WASHINGTON SUBURBAN SANITARY COMMISSION
 BRIGHTON DAM - CONTRACT 127-W

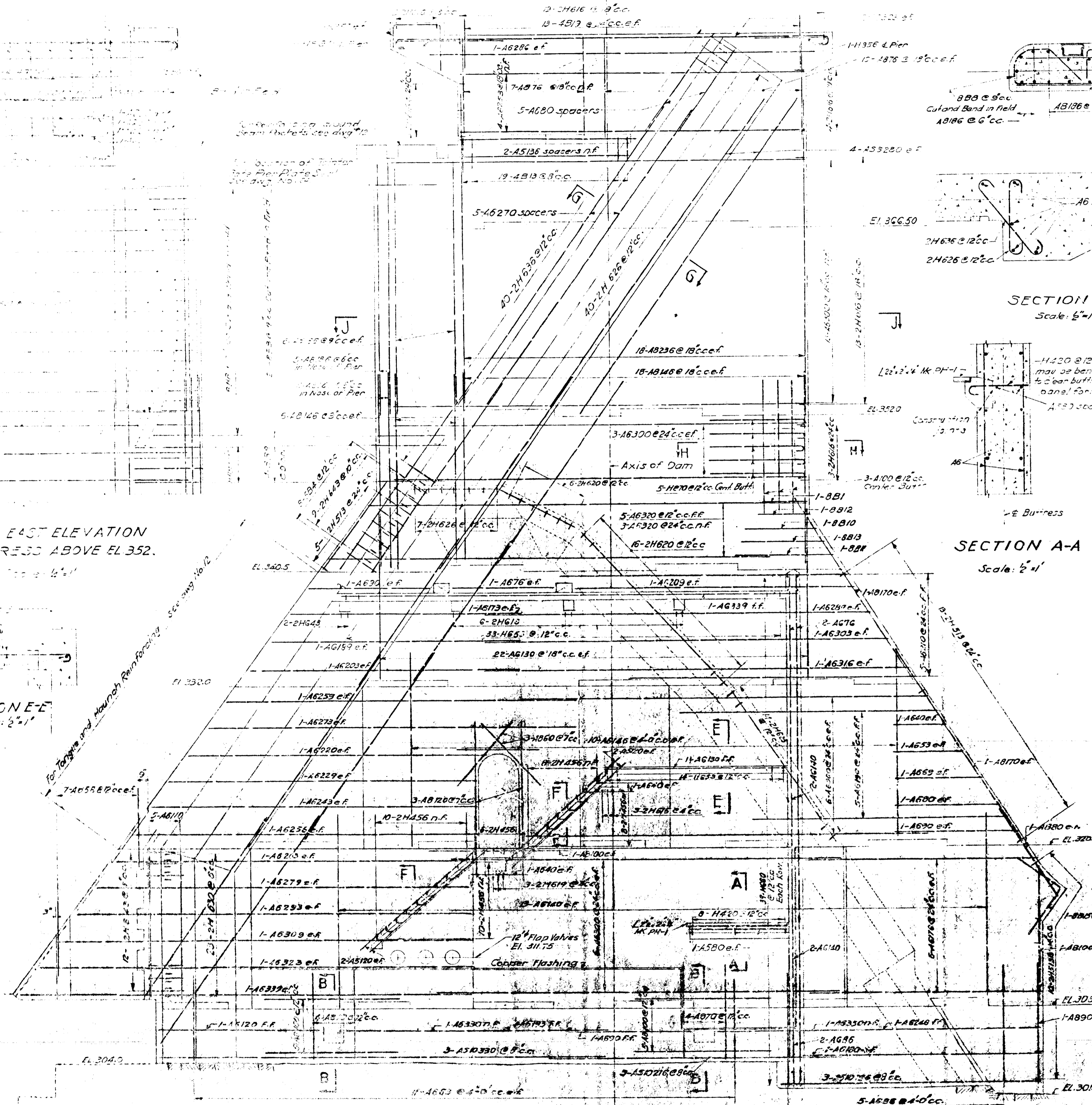
CONCRETE DETAILS BUTTRESS NO 12

APPROVED	194	CHIEF ENGINEER
DRAWING NUMBER	63	SCALE
WASHINGTON SUBURBAN SANITARY COMMISSION		

34" 22" 17" 11" 8.5" 11" 17" 22" 34"

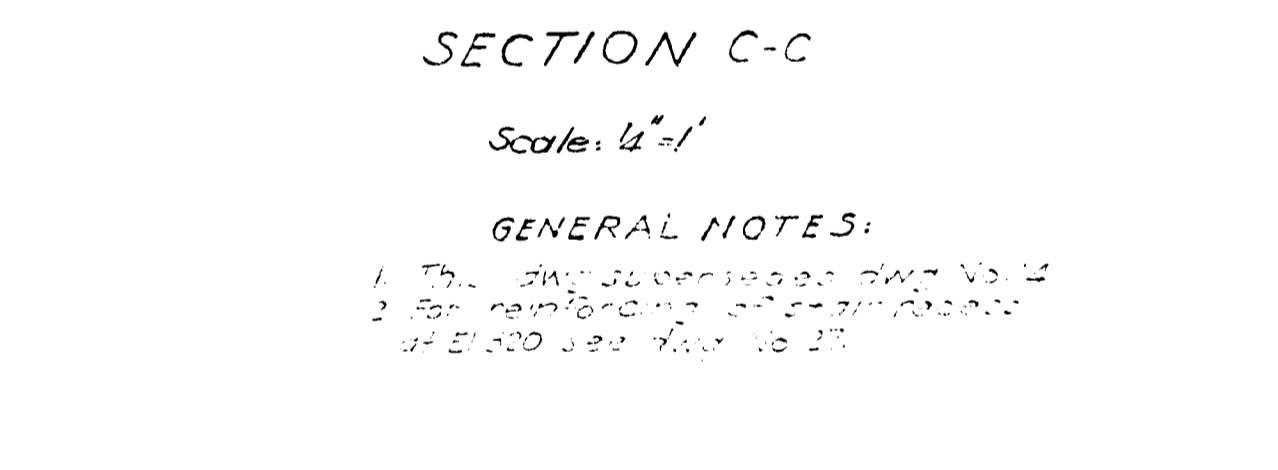
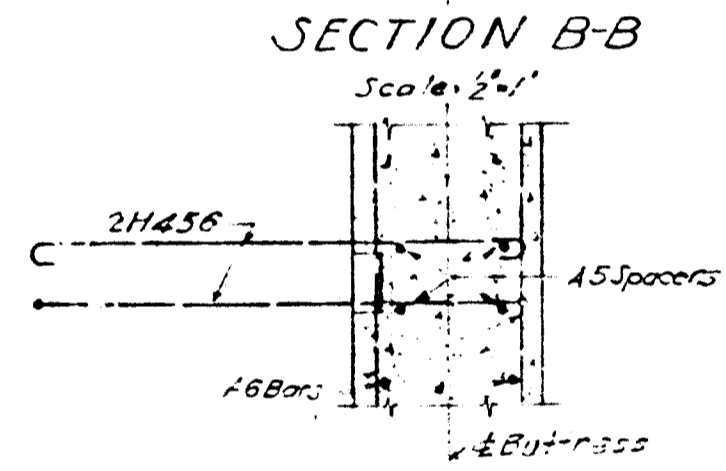
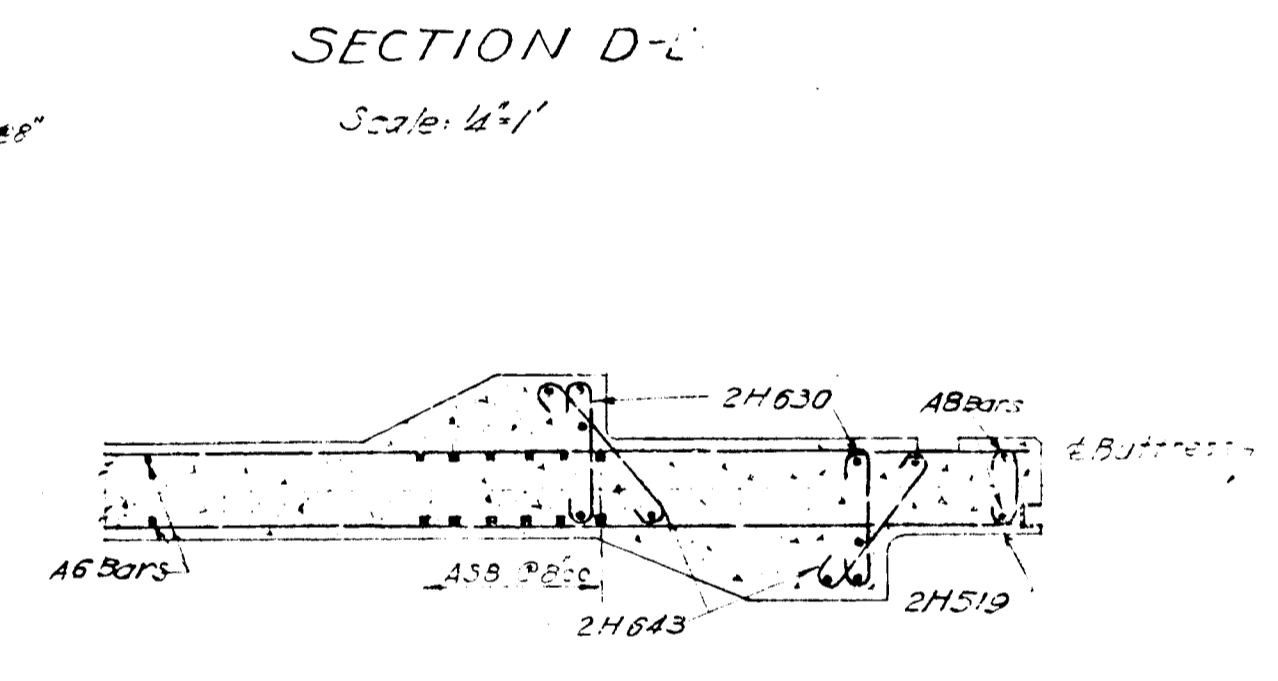
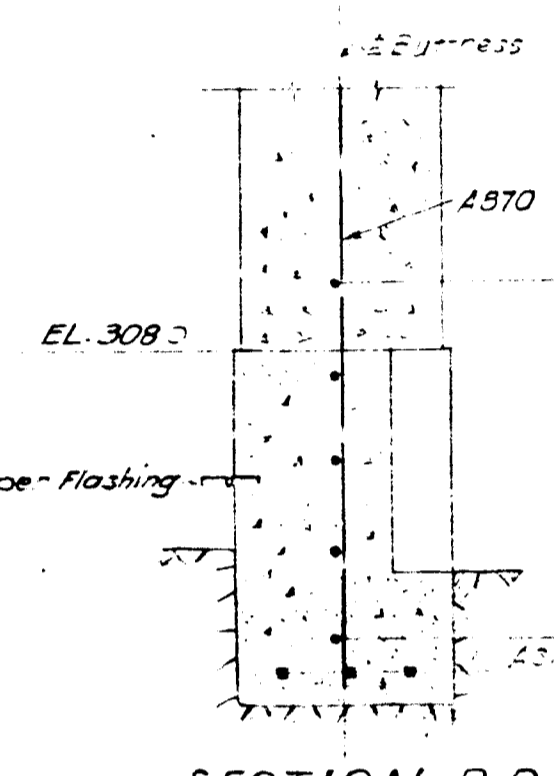
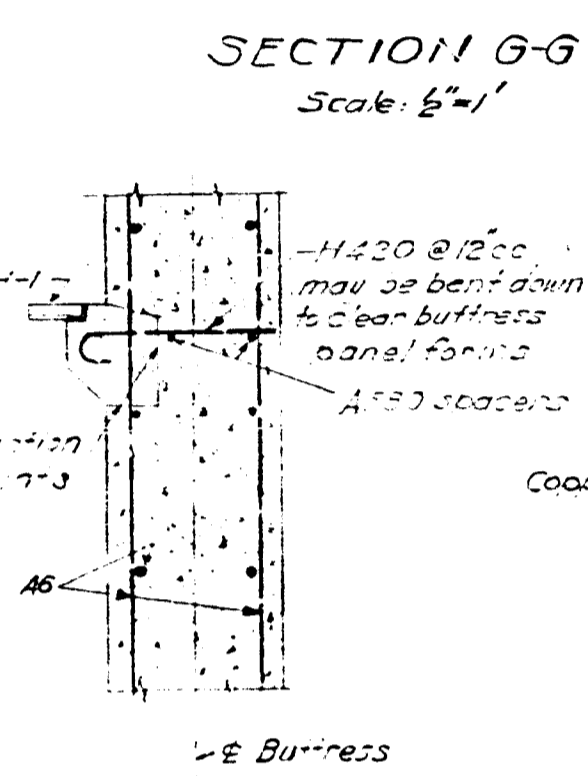
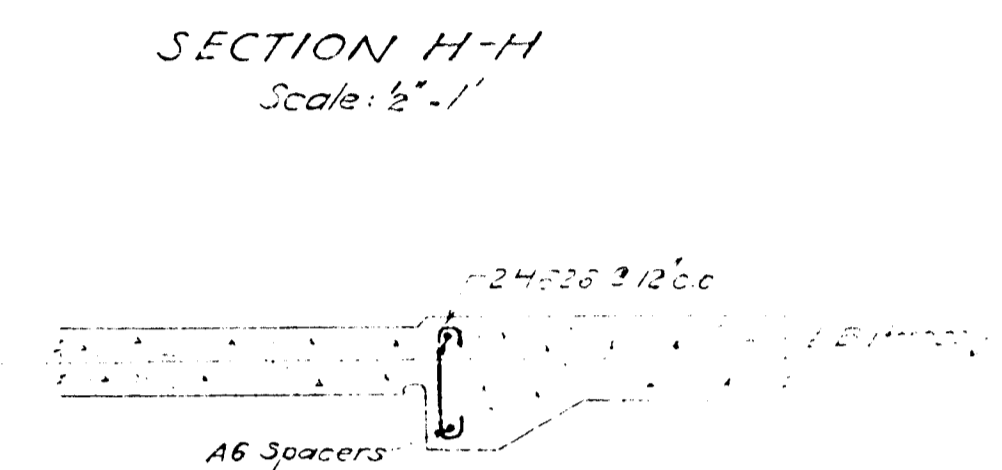
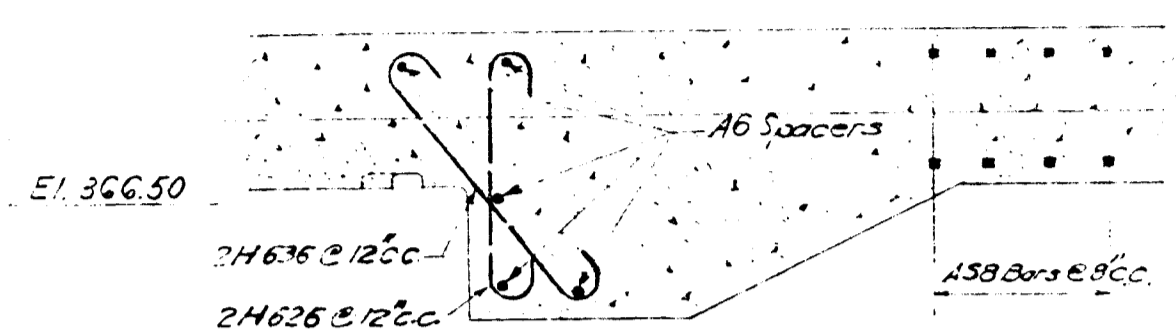
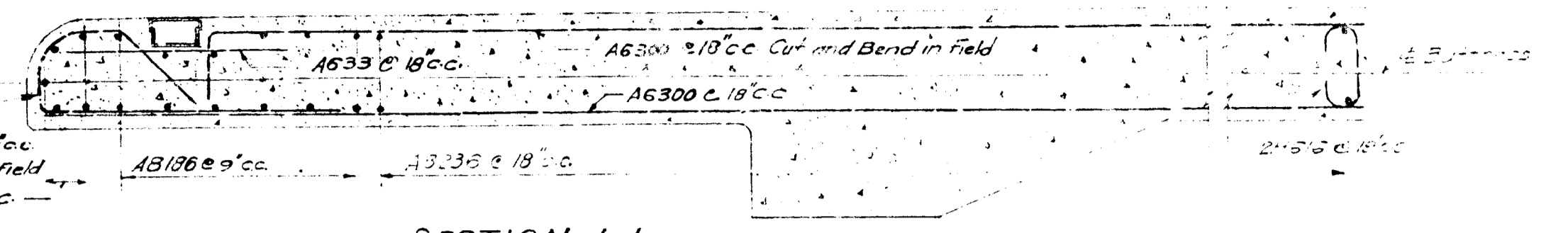
PARTIAL EAST ELEVATION OF BUTTRESS ABOVE EL. 352.

SECTION E-E Scale: 1/2"=1'



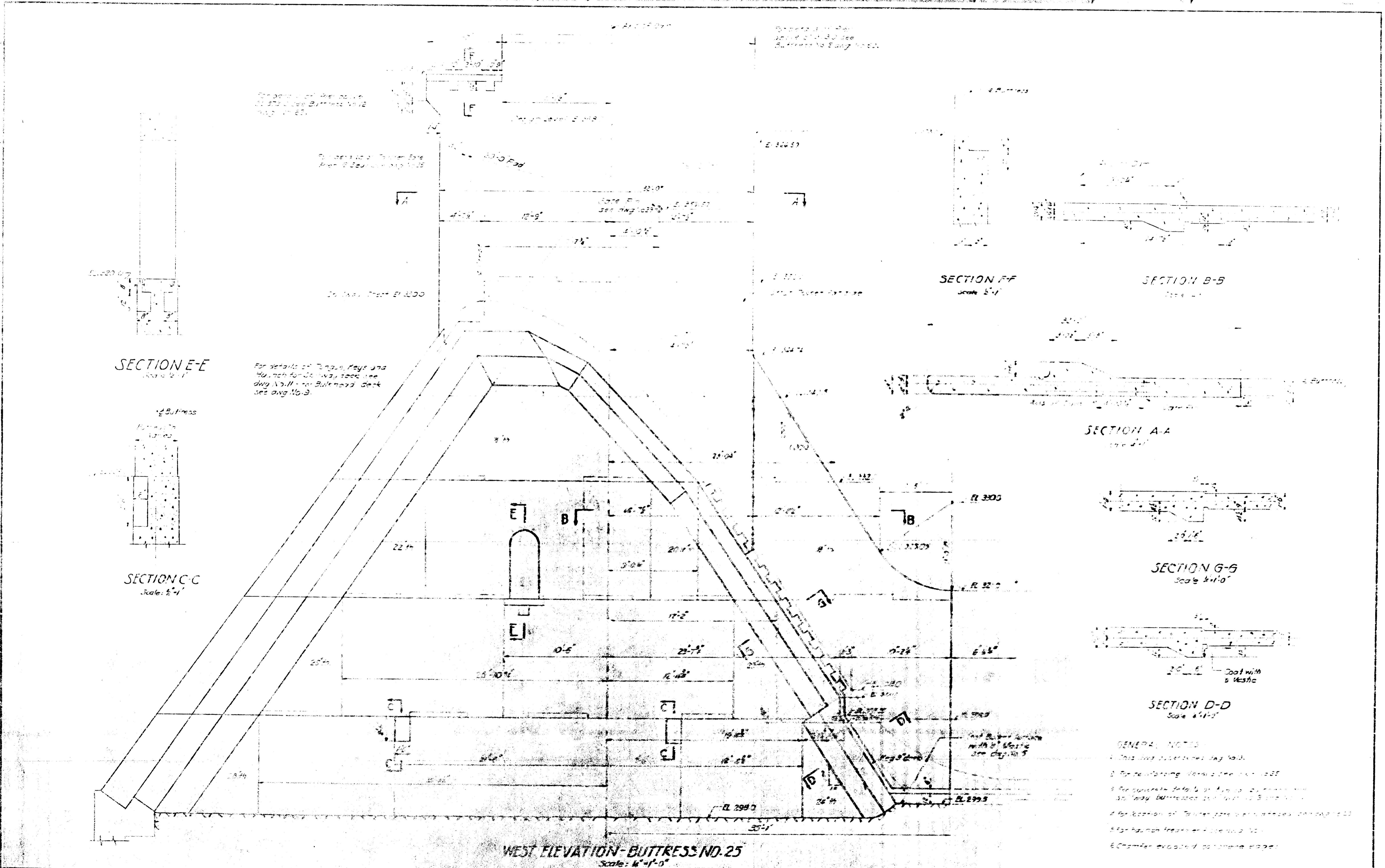
WEST ELEVATION BUTTRESS NO. 12. Scale: 1/4"=1'-0"

PARTIAL EAST ELEVATION OF BUTTRESS BELOW EL. 320. Scale: 1/4"=1'



GENERAL NOTES:
 1. The drawings are prepared in accordance with the specifications for Reinforcing Steel Bars and Welding.
 2. All dimensions are in feet and inches unless otherwise noted.

DRAWN: 1/14/54 TRACED: 1/14/54 CHECKED: 1/14/54 APPROVED: 1/14/54	REV: 1/14/54 REV: 1/14/54 REV: 1/14/54 REV: 1/14/54	JOB NUMBER: 4002 AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	REINFORCING DETAILS BUTTRESS NO. 12	APPROVED: 1/14/54 WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER: 63	SCALE: 1/4"=1'-0"
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SECTION E-E
Scale: 1/4"=1'-0"

For details of Tongue, Key and
Haunch for the wall, see
divg No. 11 - for Buttress deck
see divg No. 9.

SECTION C-C
Scale: 1/4"=1'-0"

SECTION F-F
Scale: 1/4"=1'-0"

SECTION B-B
Scale: 1/4"=1'-0"

SECTION A-A
Scale: 1/4"=1'-0"

SECTION G-G
Scale: 1/4"=1'-0"

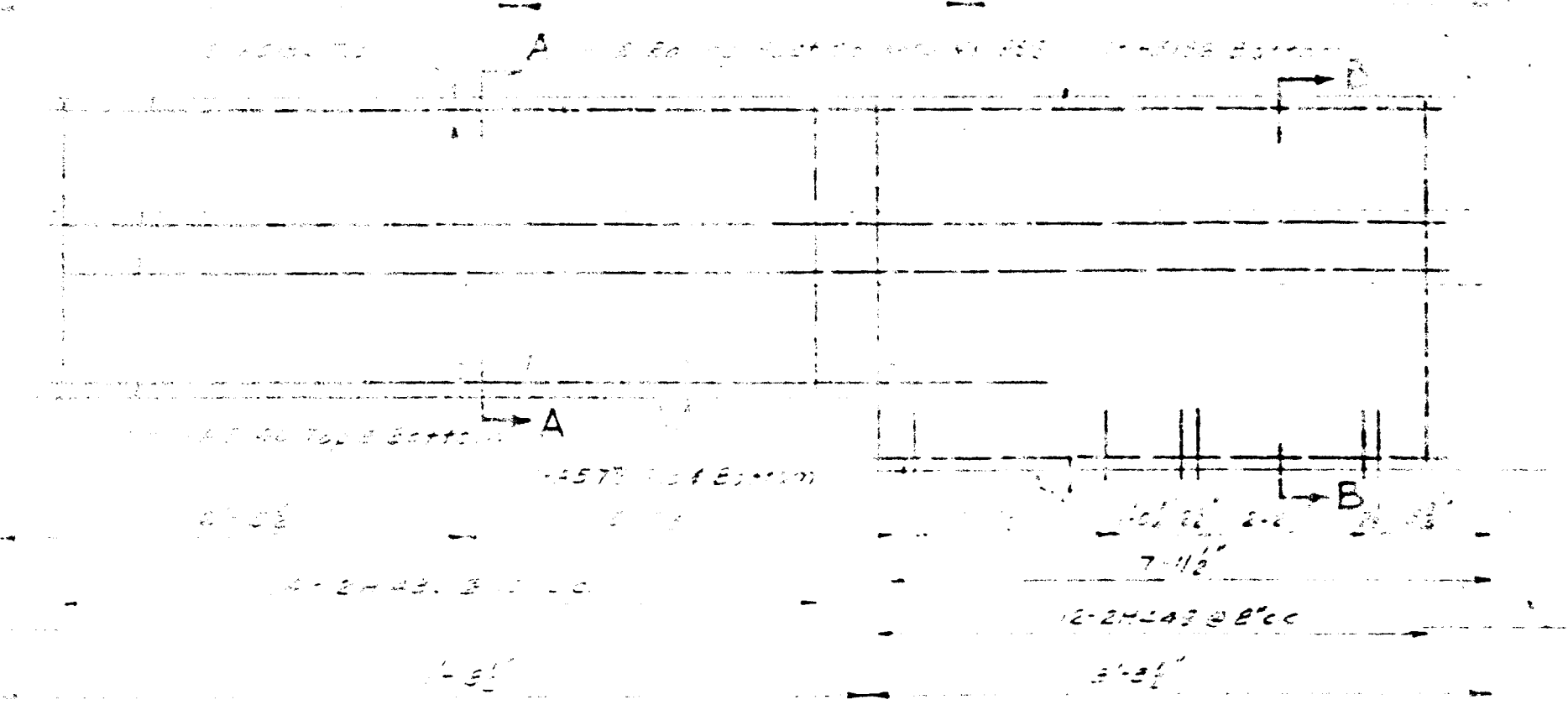
SECTION D-D
Scale: 1/4"=1'-0"

WEST ELEVATION-BUTTRUSS NO. 25
Scale: 1/4"=1'-0"

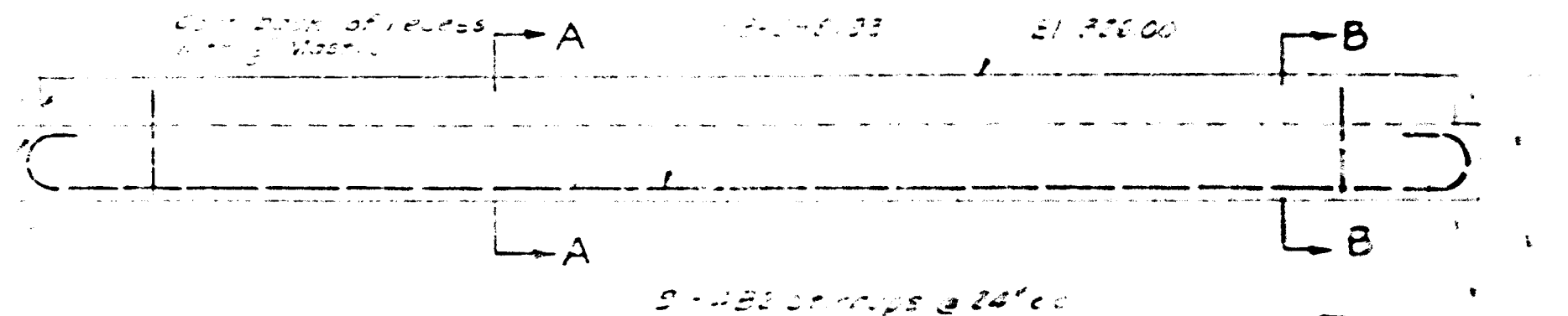
GENERAL NOTES

1. This drawing is intended for day work.
2. For rebar details, see drawing No. 255.
3. For concrete details, see drawing No. 256.
4. For location of Tension joints, see drawing No. 257.
5. For location of Tension joints, see drawing No. 258.
6. Chamber exposed to atmosphere.

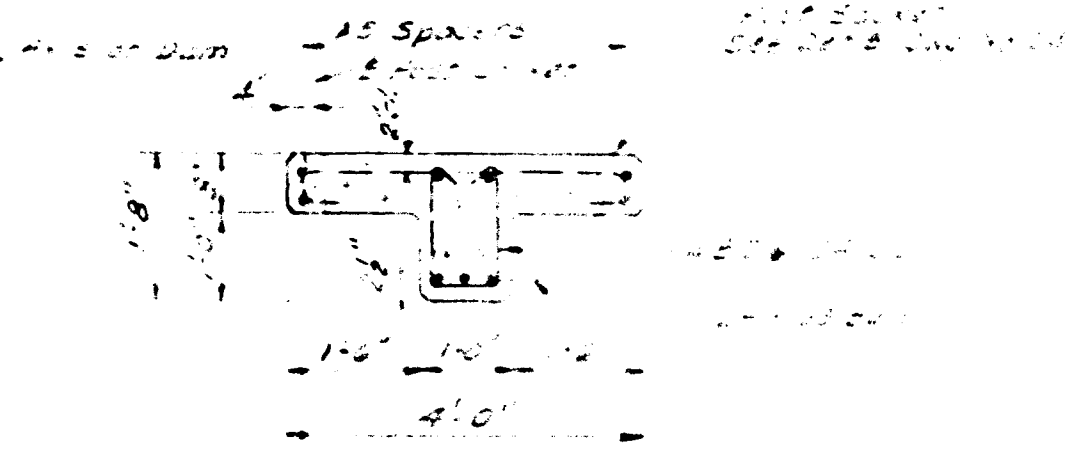
DRAWN: H.A.A. 05/21/40 CHECKED: J.H.C. 05/21/40 DATE: 05/21/40	REV. NO. 1 DATE 05/21/40 BY H.A.A.	SHEET NO. 4002 AMBUSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	CONCRETE DETAILS - BUTTRUSS NO. 25	SCALE 1/4"=1'-0"
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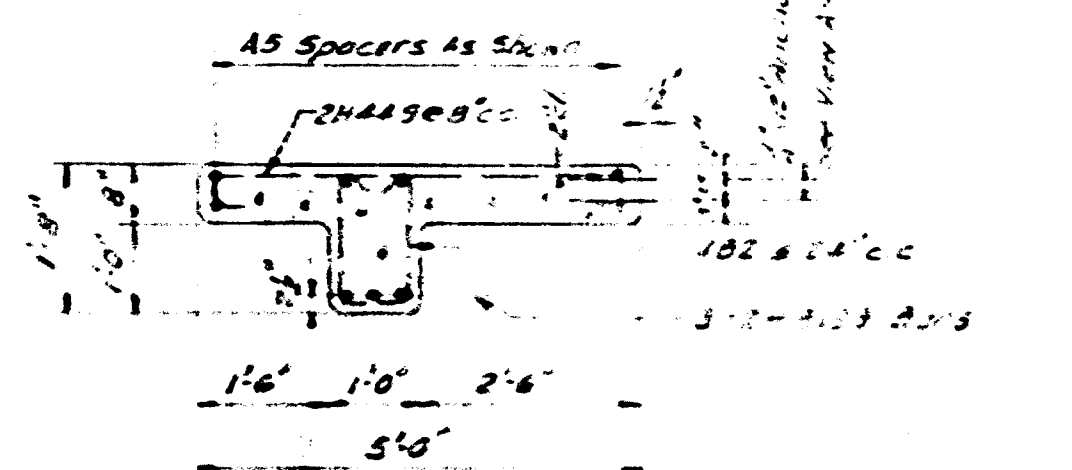
PLAN OF WALKWAY BET. BUTTRESS NOS 10 & 11
SCALE: 1/4" = 1'-0"



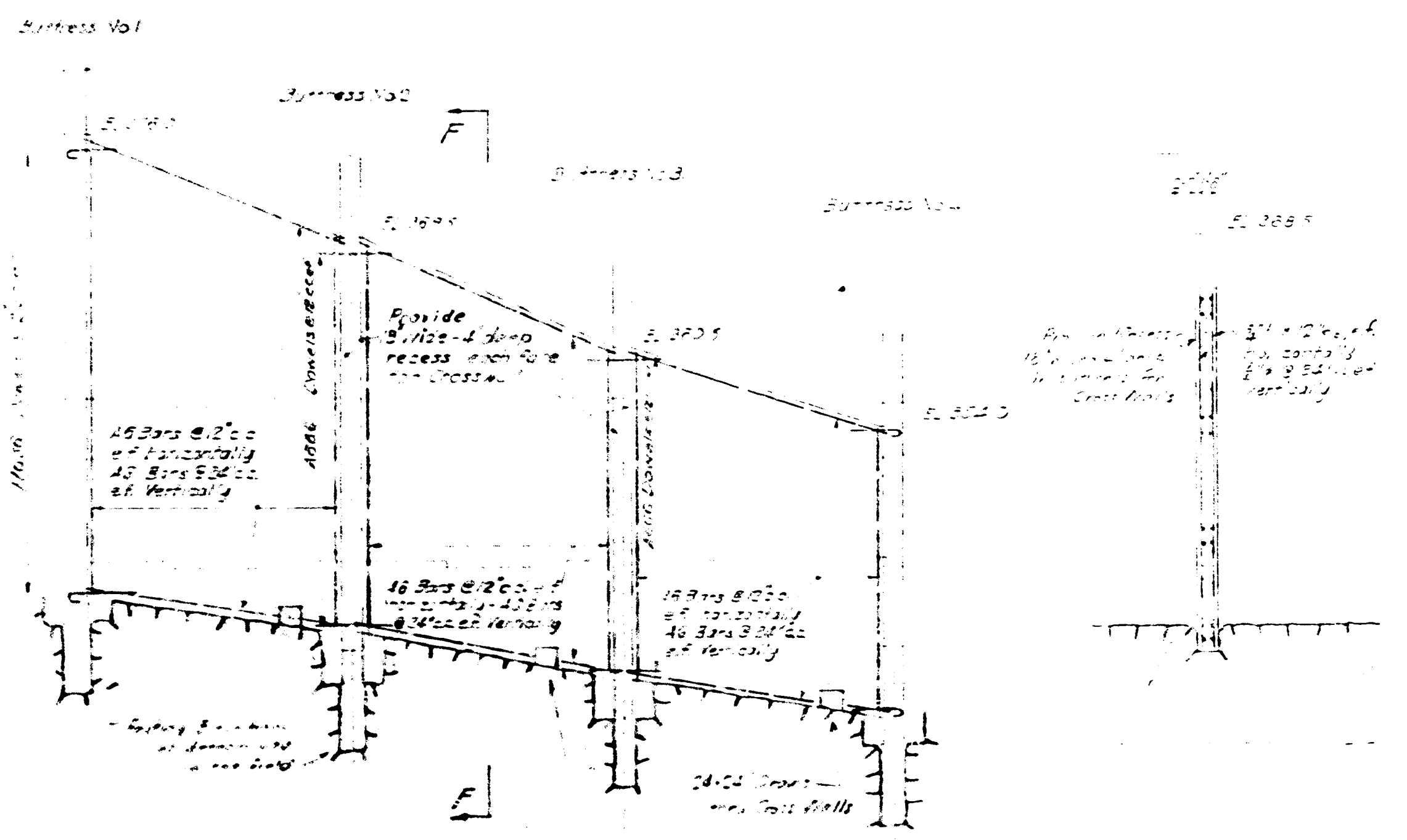
BEAM ELEVATION
SCALE: 1/4" = 1'-0"



SECTION A-A
SCALE: 1/4" = 1'-0"

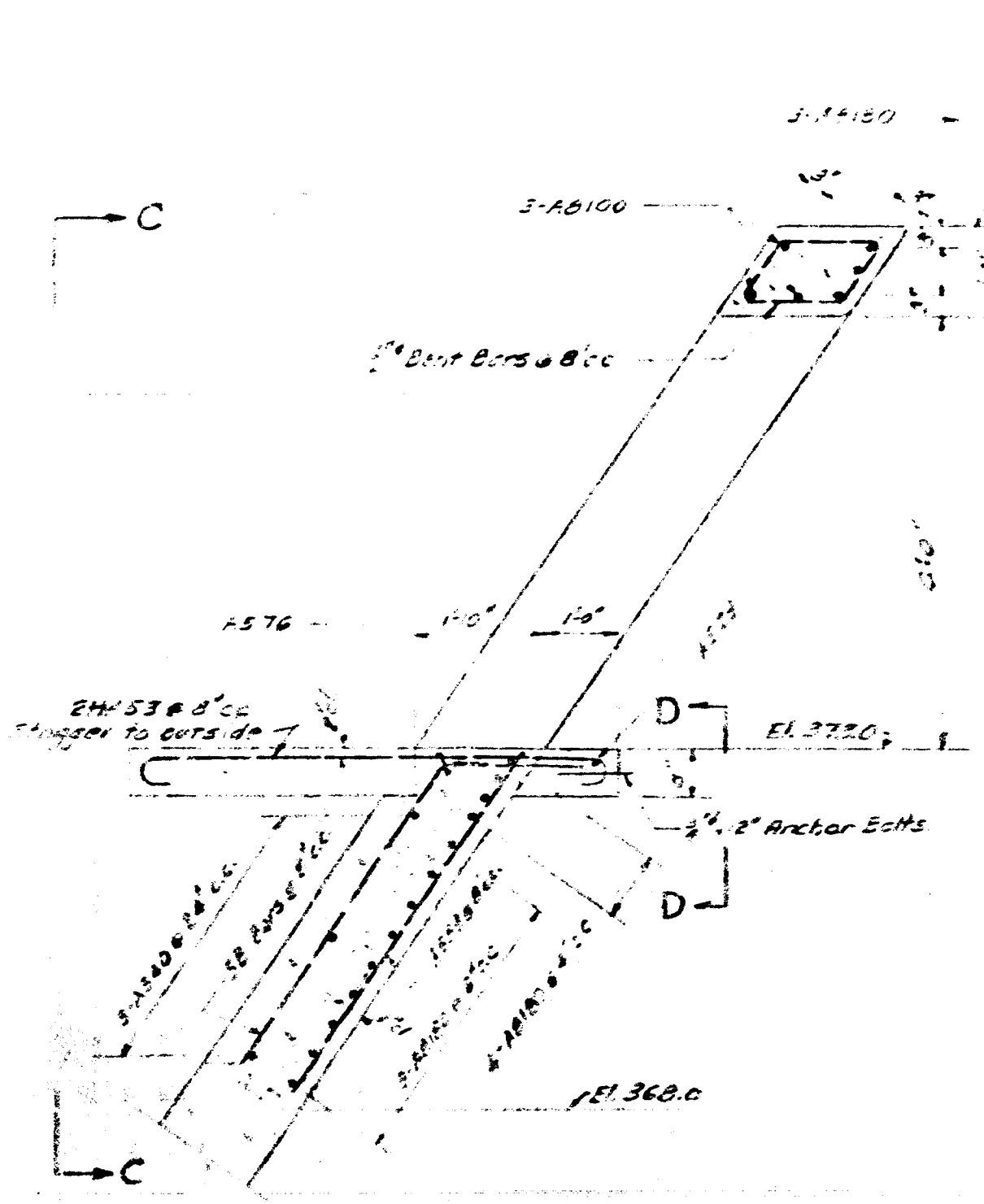


SECTION B-B
SCALE: 1/4" = 1'-0"

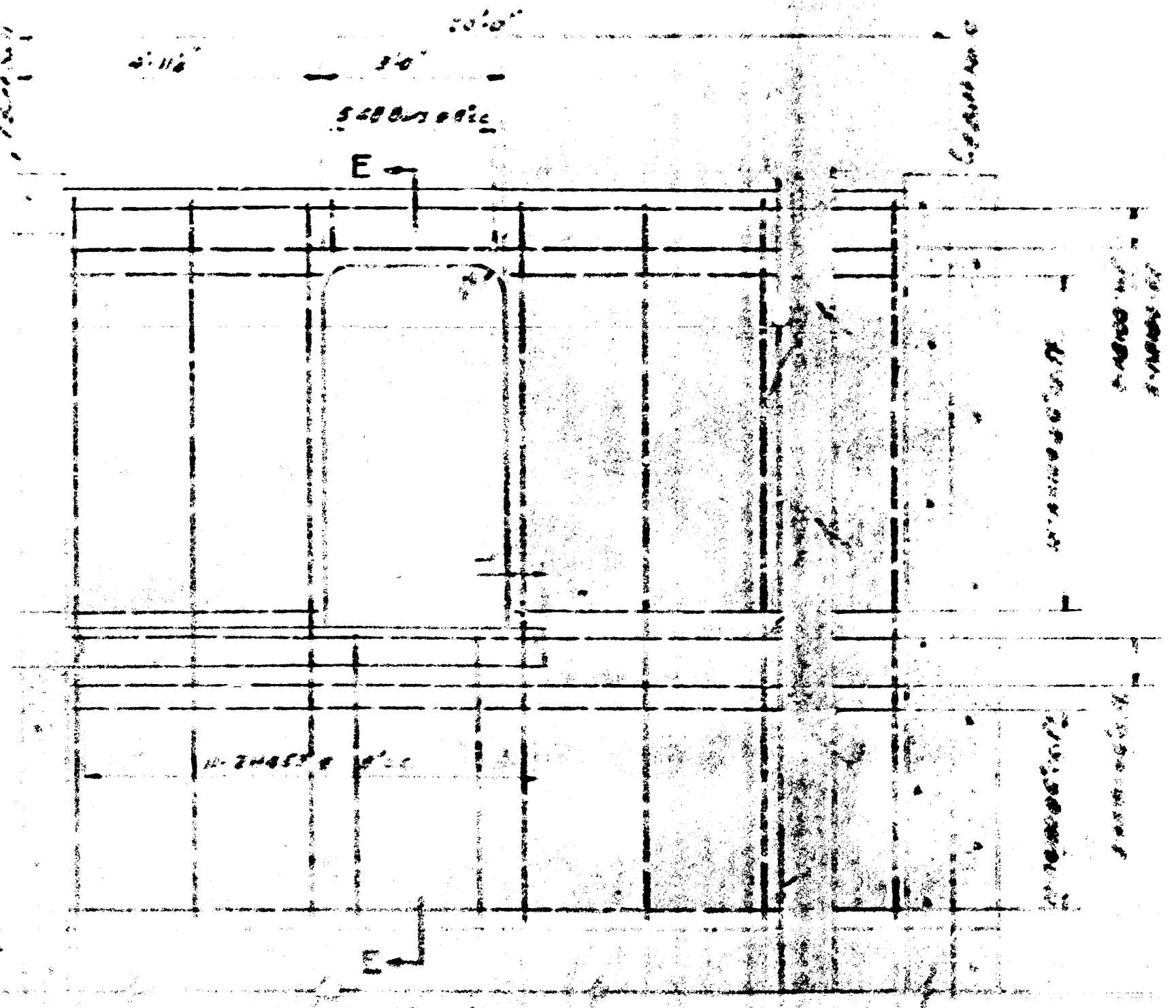


ELEVATION OF C.P. WALLS
BETWEEN BUTTRESS NOS 10 & 11
SCALE: 1/4" = 1'-0"

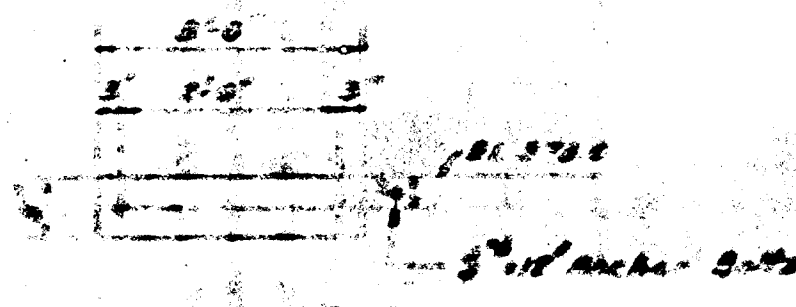
SECTION F-F
SCALE: 1/4" = 1'-0"



SECTION E-E
WALKWAY DECK DETAILS BET. BUTTRESS NOS 10 & 11
ELEV. 3580 TO ELEV. 36025
SCALE: 1/4" = 1'-0"



ELEVATION C-C
SCALE: 1/4" = 1'-0"



VIEW D-D
SCALE: 1/4" = 1'-0"

DESIGNED BY: [Name] CHECKED BY: [Name] DATE: [Date]	REV. NO. 1 REV. DATE [Date] REV. DESCRIPTION [Description]	NO. 4002 AMBUREN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	MISCELLANEOUS STRUCTURAL DETAILS CONCRETE & REINFORCING	APPROVED BY: [Name] DATE: [Date]	DRAWING NUMBER: 70	SCALE: [Scale]
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22"

17"

11"

8.5"

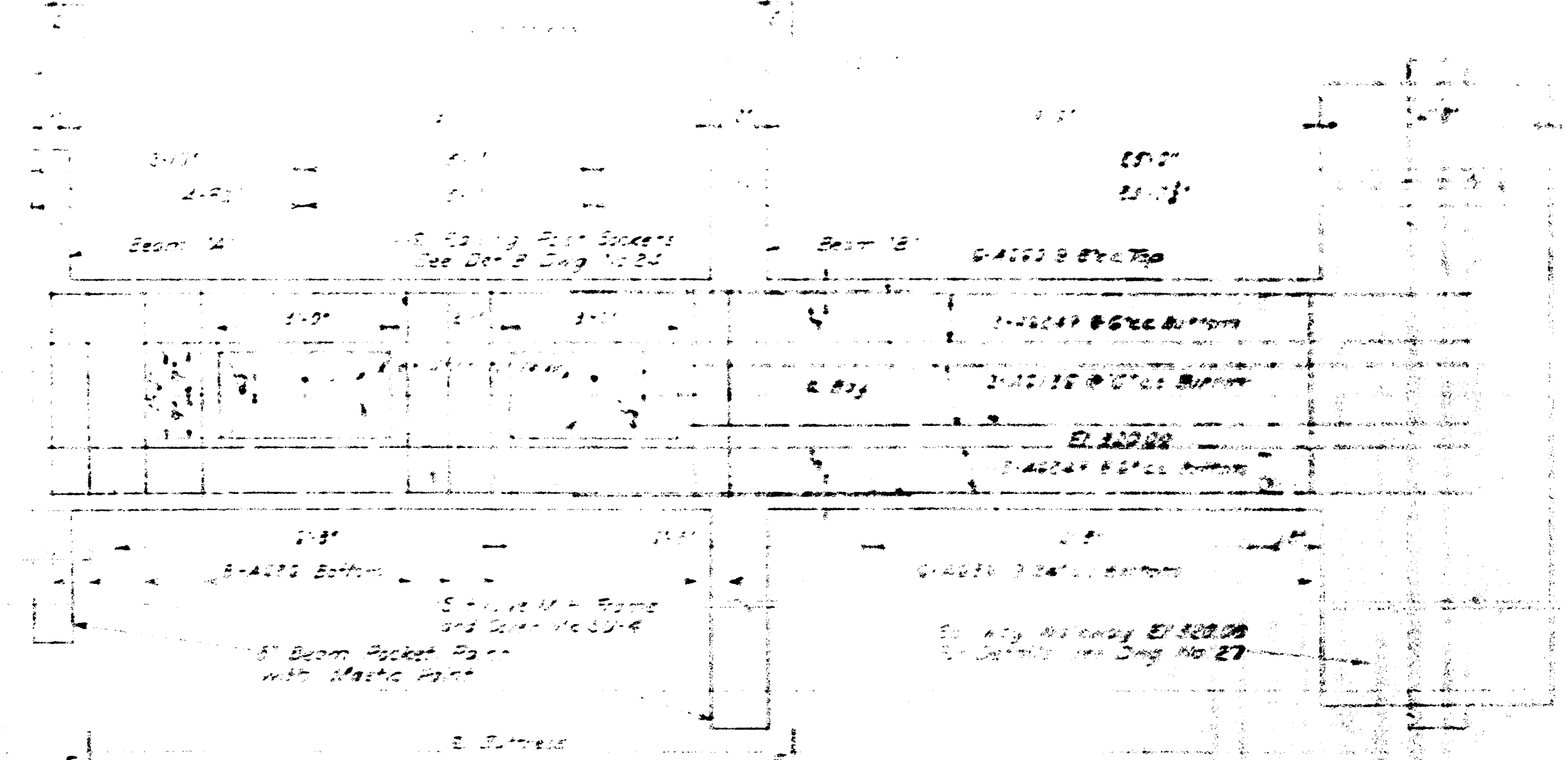
8.5"

11"

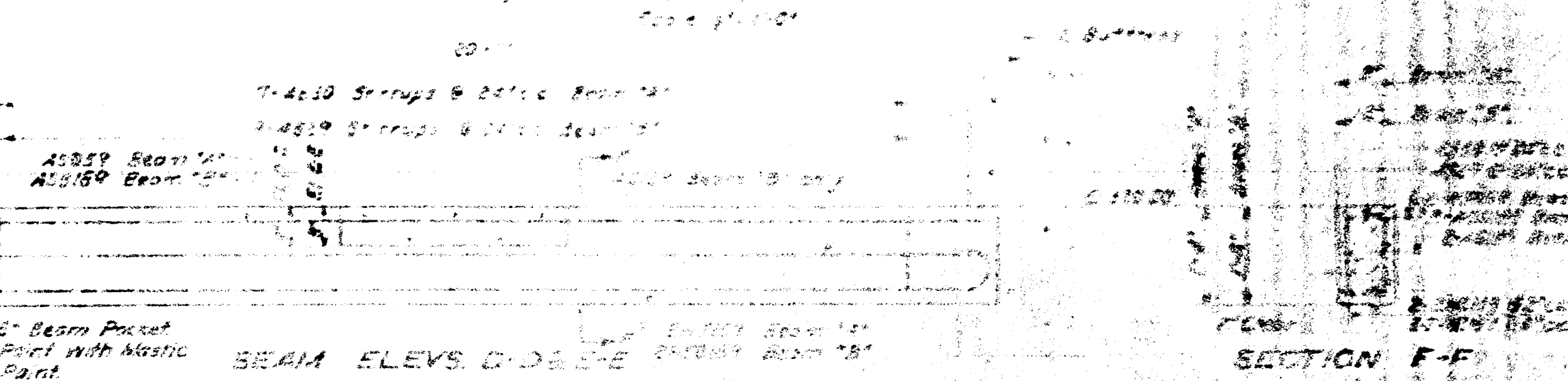
17"

22"

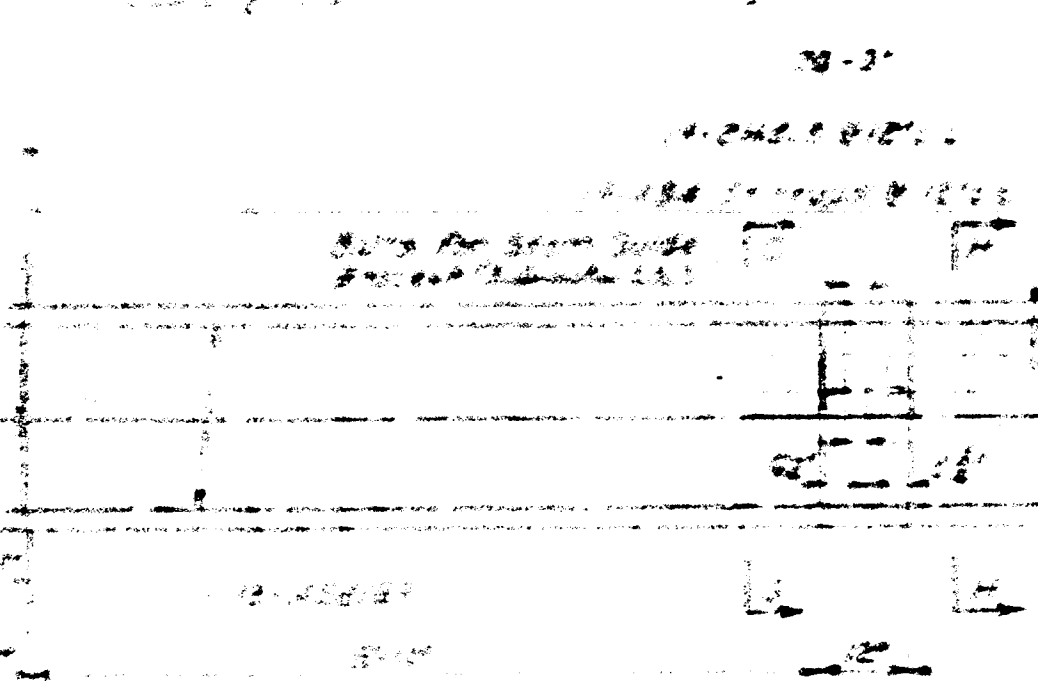
SECTION THROUGH SILT UNDERSLUICE
BETWEEN BUTTRESSES 20-21, 21-22



SILT UNDERSLUICE WALKWAY - ELEV 100.00



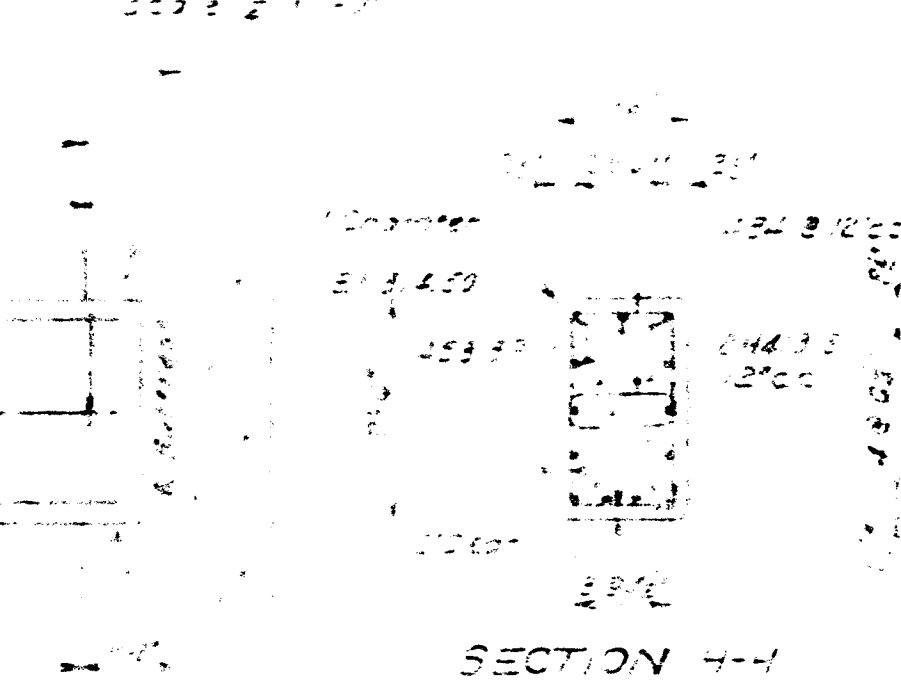
SECTION G-G



ELEVATION LOOKING DOWNSTREAM



SECTION H-H



SECTION H-H

GENERAL NOTES

1. All concrete shall be cast in place.
2. All steel reinforcement shall be lap welded.
3. All steel reinforcement shall be protected with a minimum of 2 inches of concrete cover.
4. All steel reinforcement shall be bent to the required shape.
5. All steel reinforcement shall be tied together.
6. All steel reinforcement shall be bent to the required shape.
7. All steel reinforcement shall be tied together.
8. All steel reinforcement shall be bent to the required shape.
9. All steel reinforcement shall be tied together.
10. All steel reinforcement shall be bent to the required shape.
11. All steel reinforcement shall be tied together.
12. All steel reinforcement shall be bent to the required shape.
13. All steel reinforcement shall be tied together.
14. All steel reinforcement shall be bent to the required shape.
15. All steel reinforcement shall be tied together.
16. All steel reinforcement shall be bent to the required shape.
17. All steel reinforcement shall be tied together.
18. All steel reinforcement shall be bent to the required shape.
19. All steel reinforcement shall be tied together.
20. All steel reinforcement shall be bent to the required shape.

DESIGNED BY: _____ CHECKED BY: _____ DATE: _____	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS 4002	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	SILT UNDERSLUICE DETAILS DRAWING NO. 2 OF 2	APPROVED BY: _____ DATE: _____ WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER: _____ SCALE: _____
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34"

22"

17"

11"

8.5"

8.5"

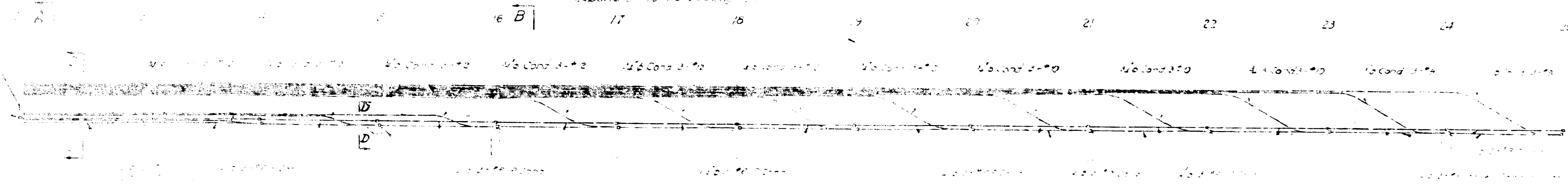
11"

17"

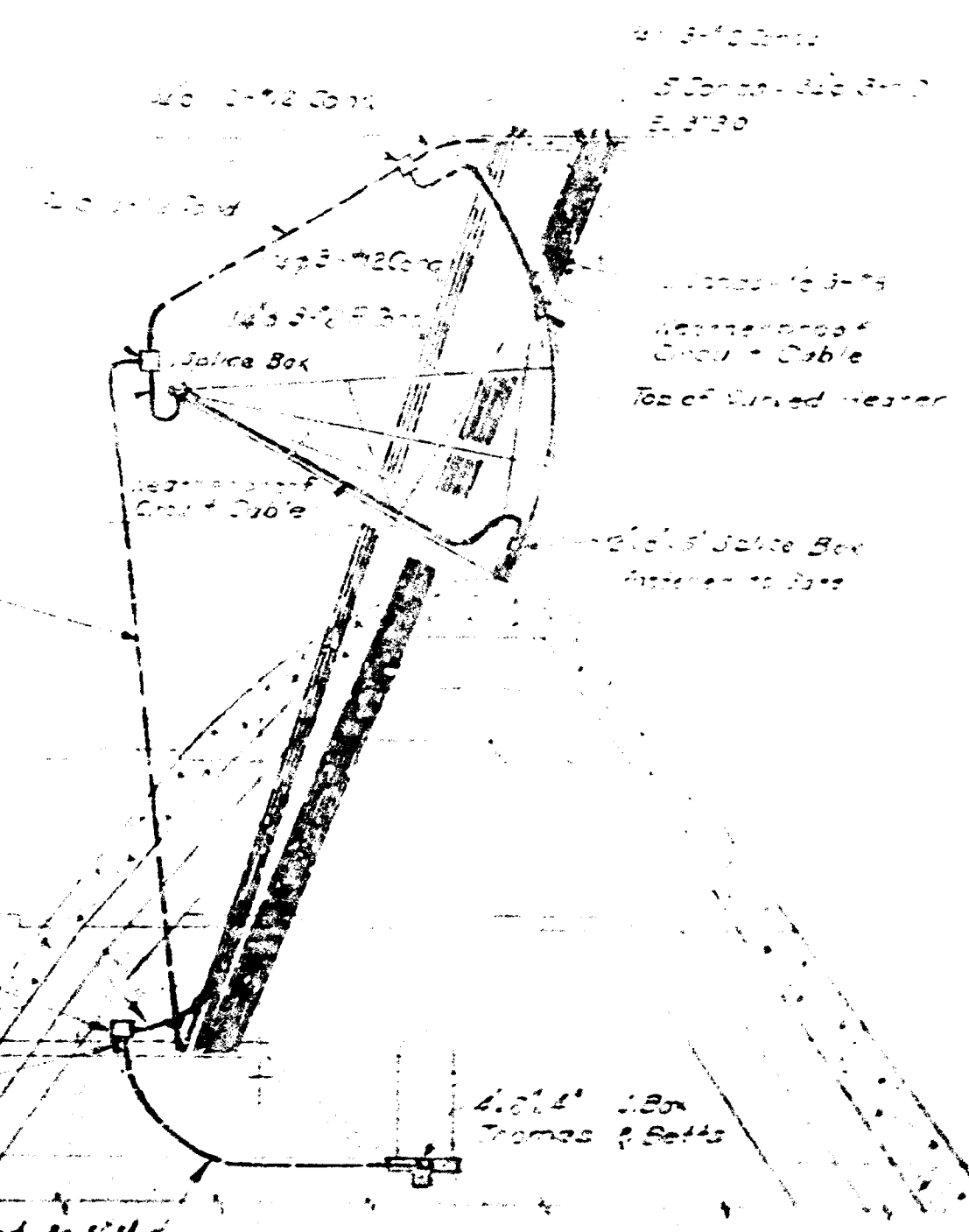
22"

34"

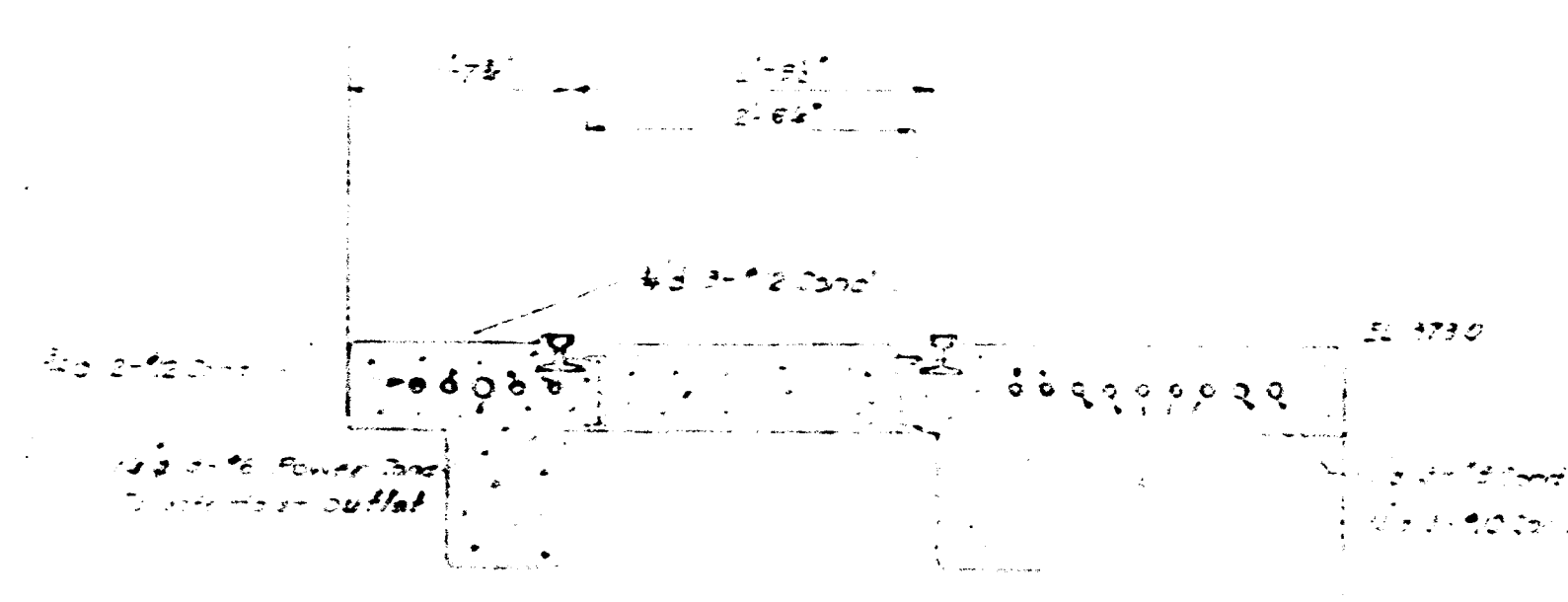
EXPANDED VIEW OF THE HEATER CONDUIT



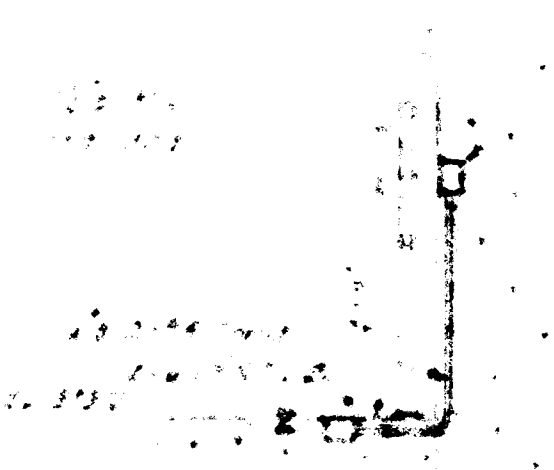
PLAN - HEATER AND HOIST CONDUITS IN GATE OPERATING BRIDGE
Scale: 1/8" = 1'-0"



SECTION A-A
Scale: 6" = 1'

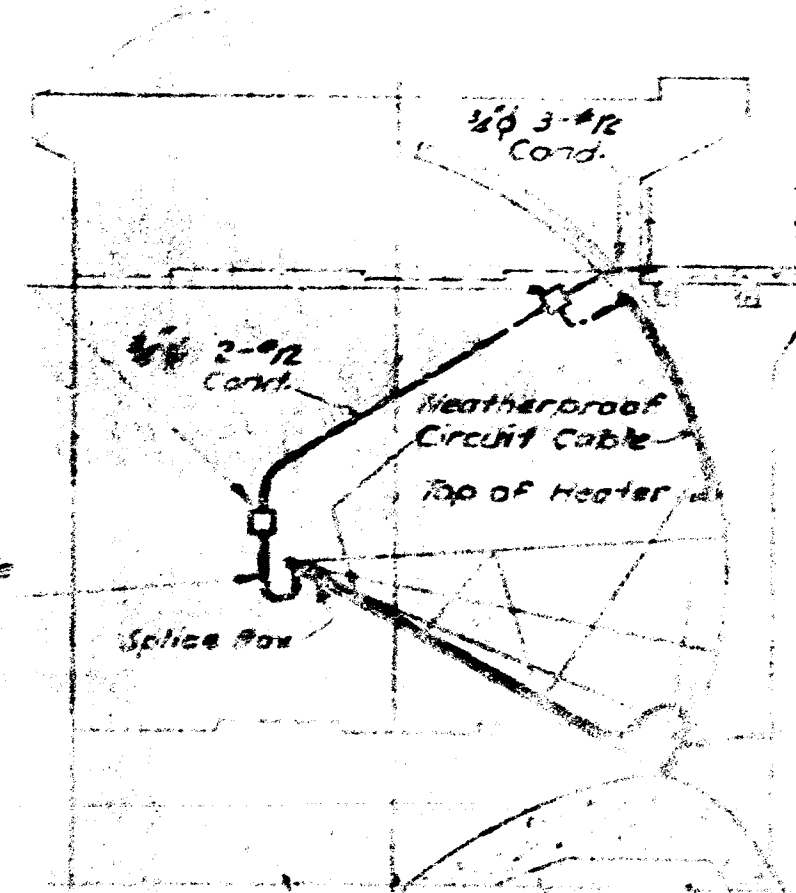


SECTION C-C
Scale: 1/2" = 1'-0"

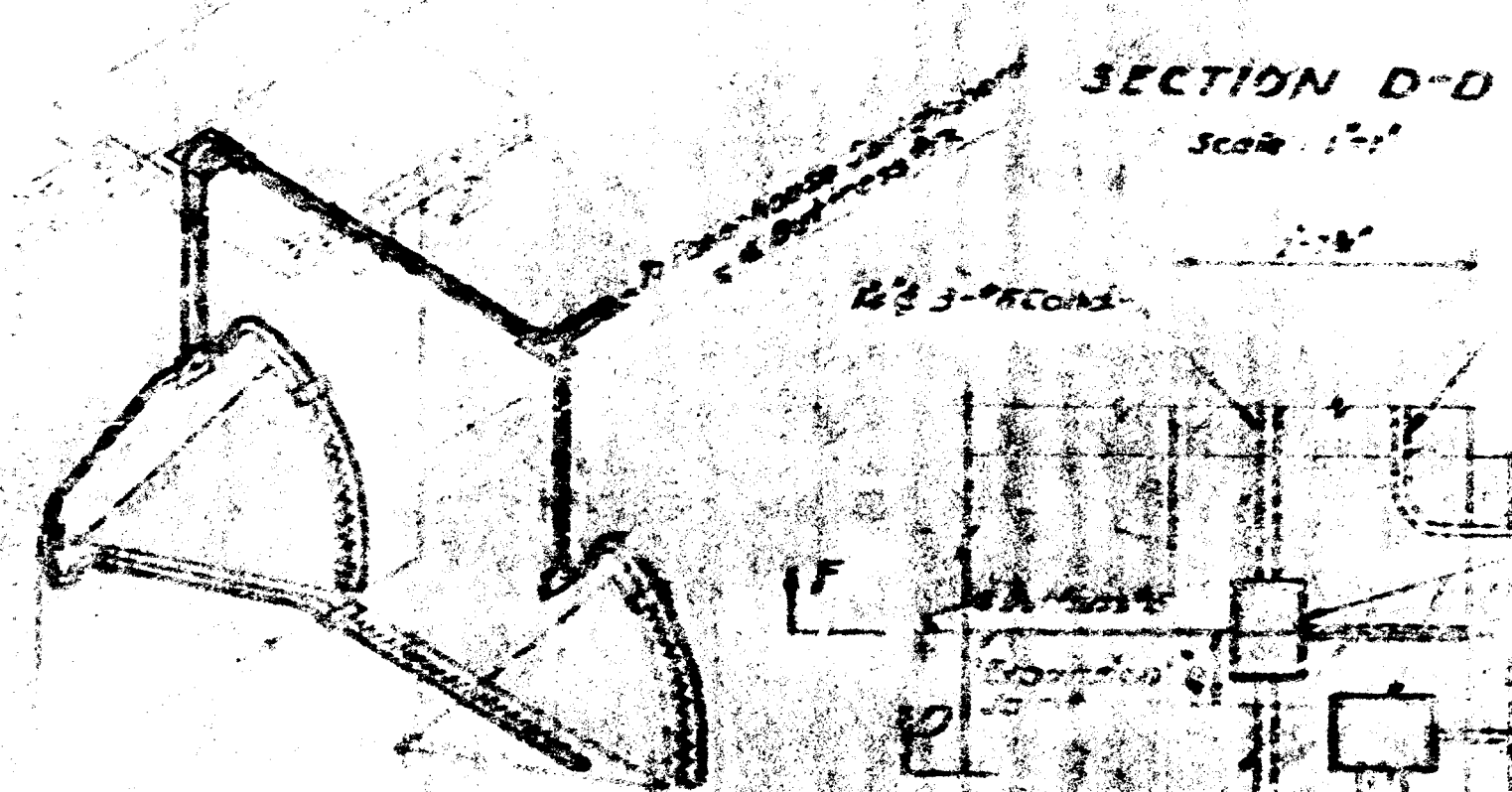


SECTION F-F
Scale: 1/2" = 1'-0"

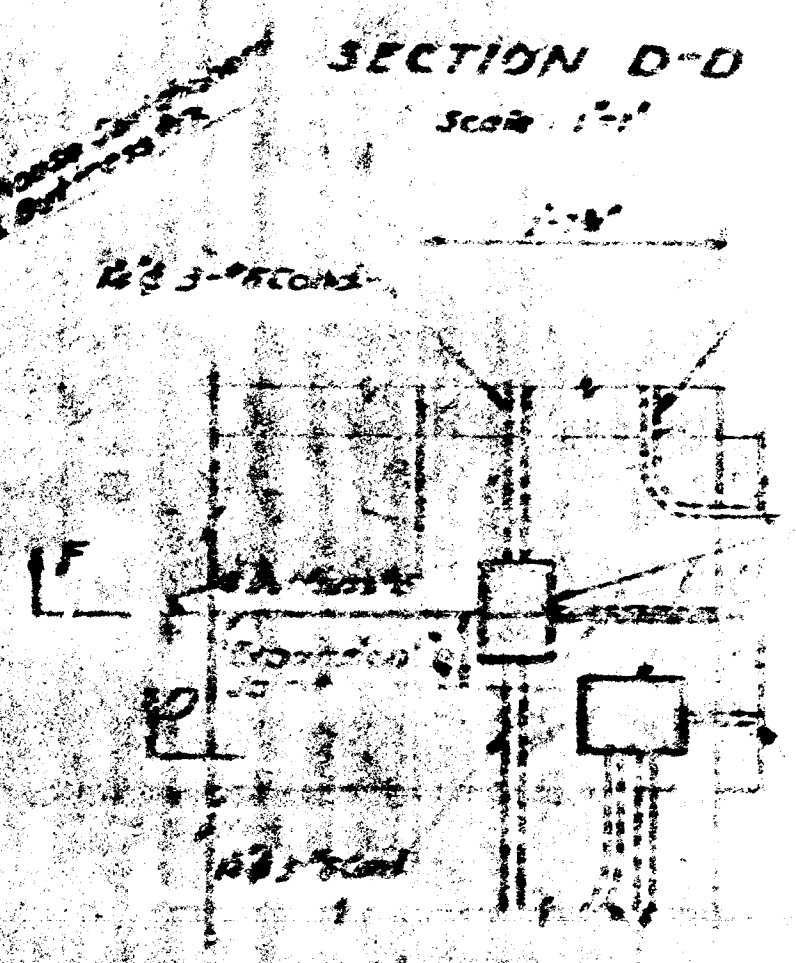
- GENERAL NOTES:**
1. For Silt valve hoist conduit layout - see details not shown on this sheet, See also #78.
 2. For Heater See the general notes on the details not shown on this sheet, See also #78.



SECTION B-B
Scale: 1/2" = 1'-0"



TYPICAL WIRING SKETCH GATE HEATER



DETAIL E-E
Scale: 1/2" = 1'-0"

- GENERAL NOTES:**
1. For Silt valve hoist conduit layout - see details not shown on this sheet, See also #78.
 2. For Heater See the general notes on the details not shown on this sheet, See also #78.

DATE: 1/24/44 DRAWN: P.A.S. CHECKED: E.B.A.	REV: 106 107 108 109 110	SHEET NUMBER: 4002 PROJECT: Pull Box located in Plan, Sections A-A, B-B, & D-D	AMBURSON ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	GATE HOIST, SILT-VALVE HOIST AND GATE HEATER CONDUIT	APPROVED: _____ CHIEF ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER: 77	SCALE: 1/8" = 1'-0"
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34"

22"

17"

11"

8.5"

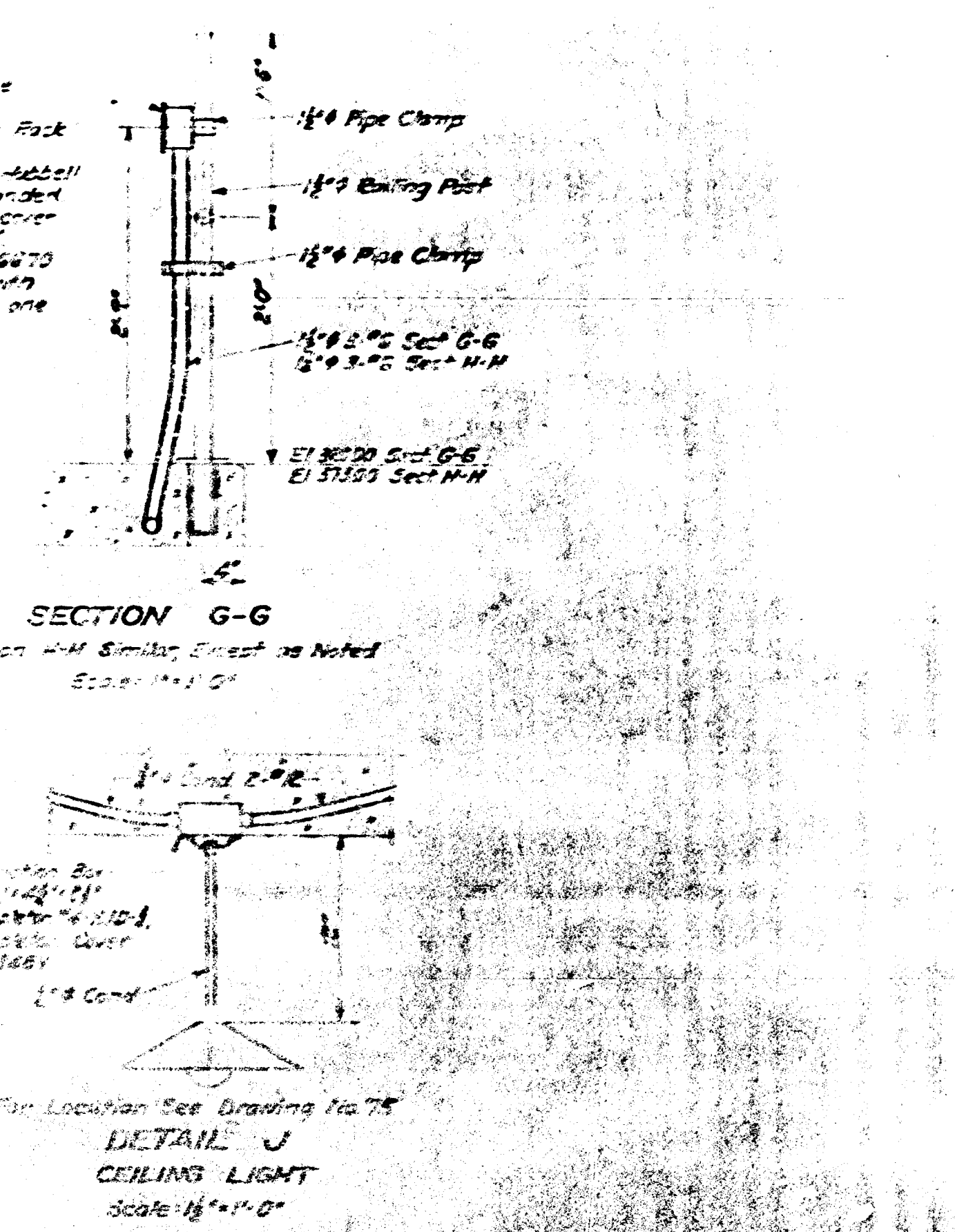
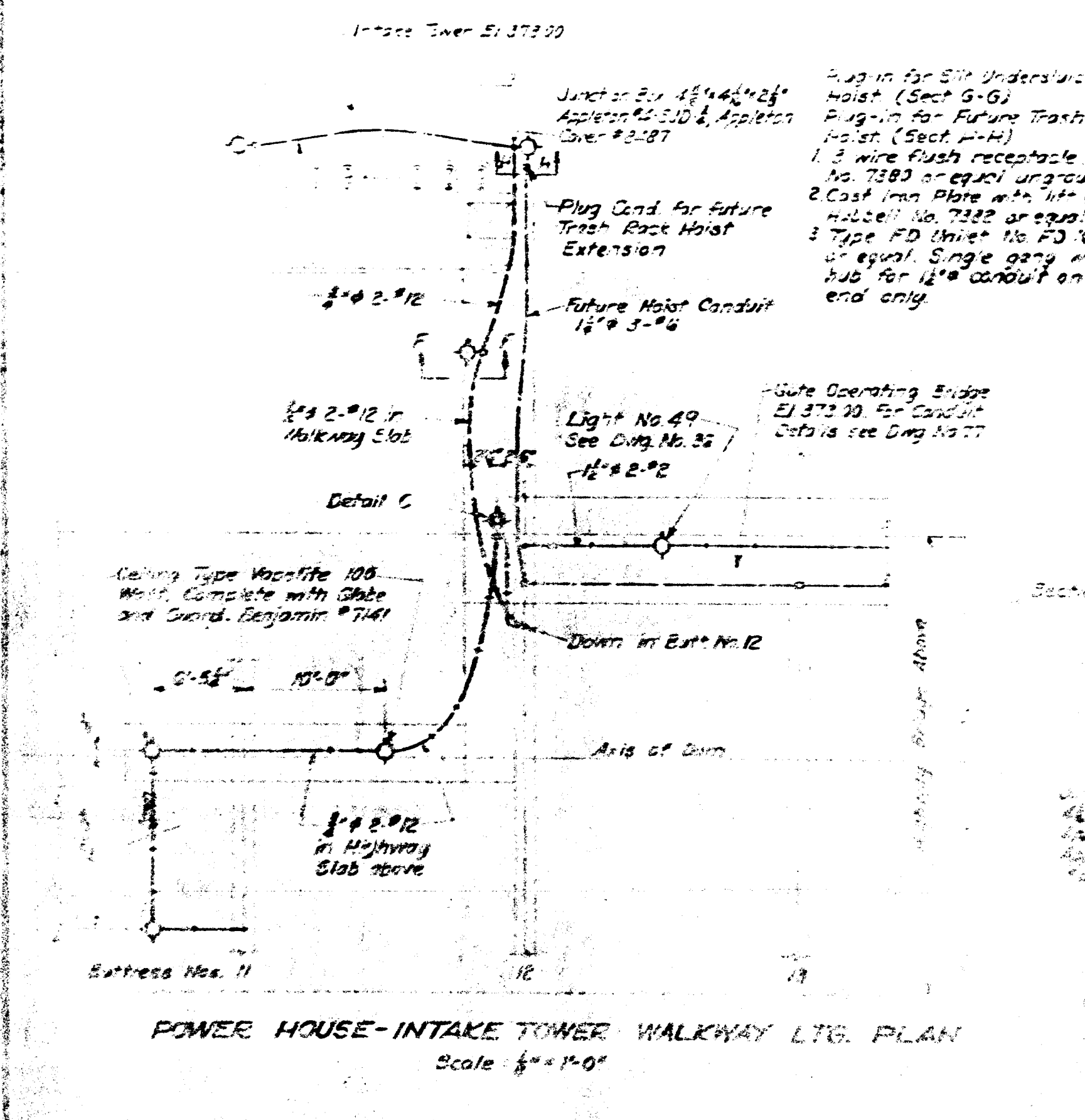
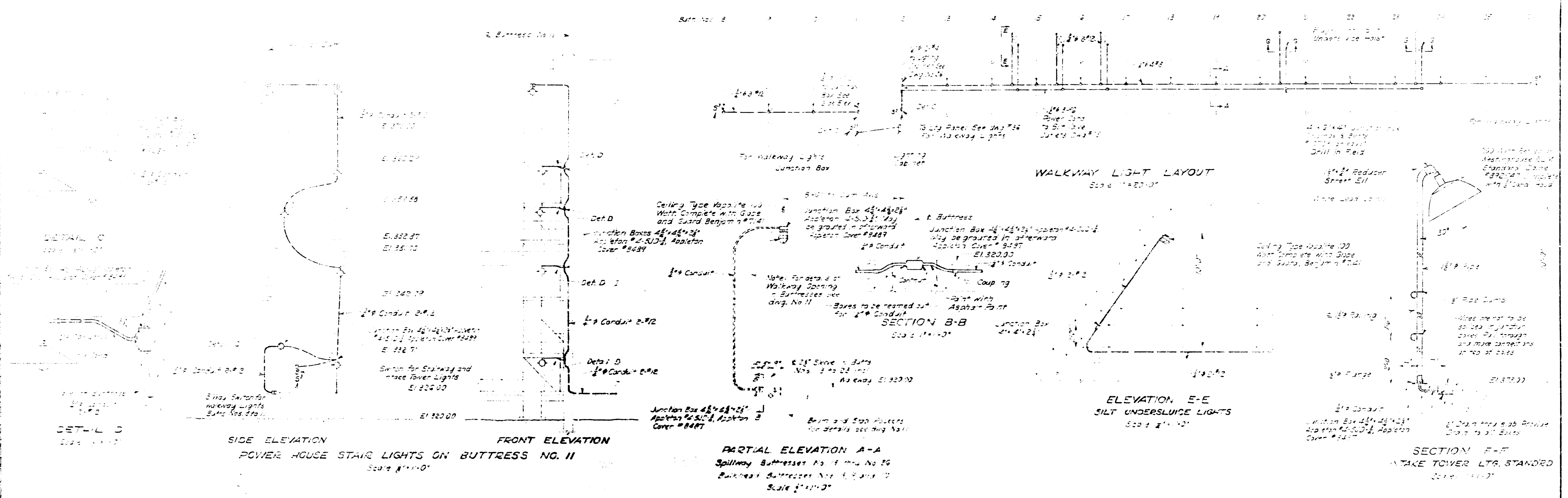
9.5"

11"

17"

22"

34"



DIRECTOR ENGINEER CONSULTING ENGINEERS APPROVED	DATE 12-16-1942 1942	JOB NUMBER 4002	AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	DRAWING NUMBER 78	SCALE AS SHOWN
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34"

22"

17"

11"

8.5"

11"

11"

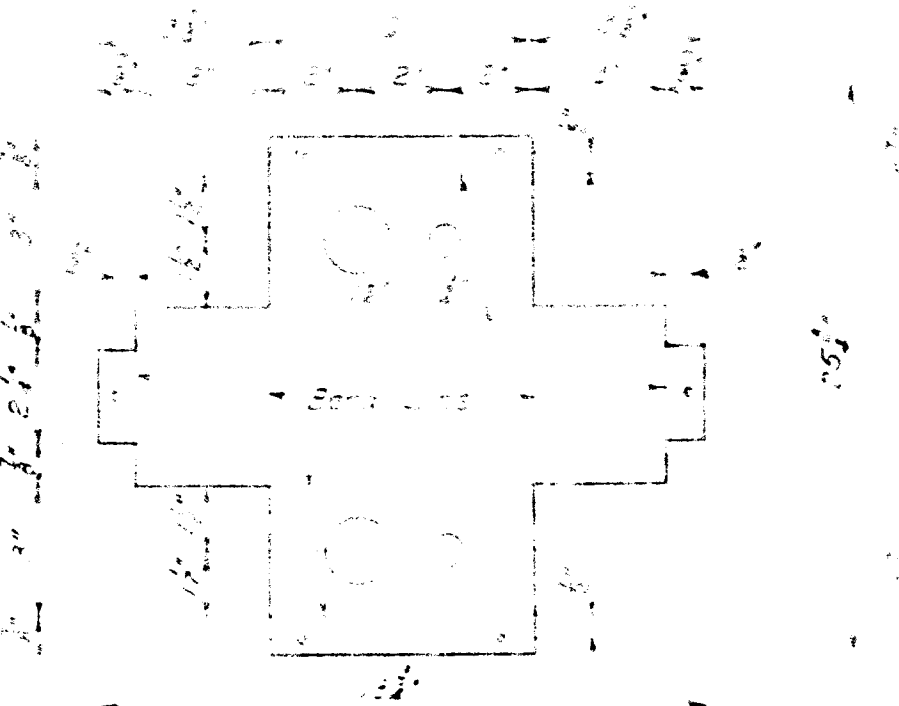
17"

22"

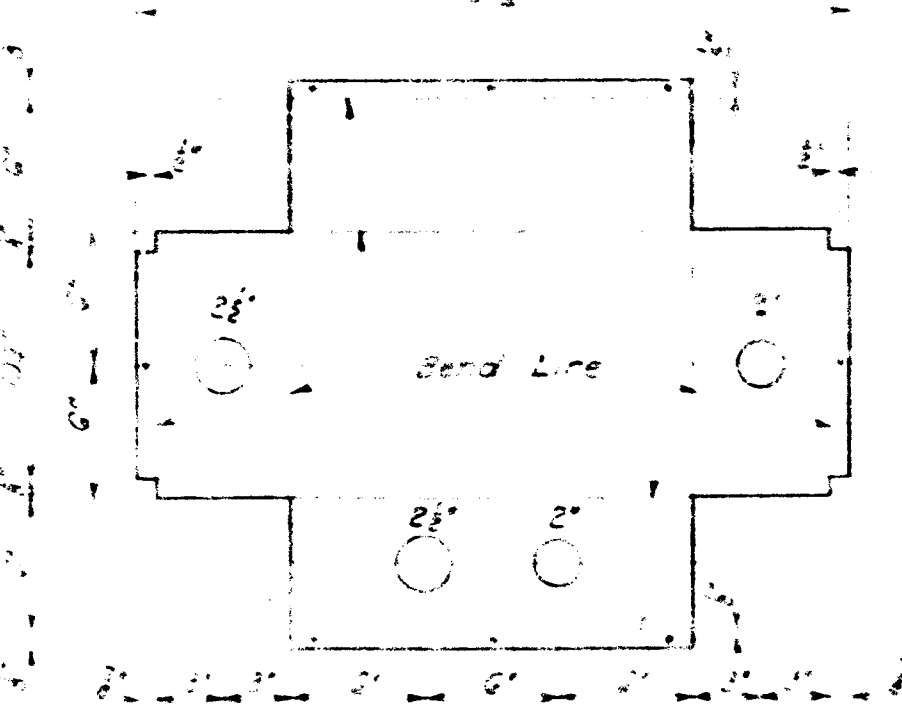
34"



Required
PULL BOX PB-G1
 Scale 3/4"=1'-0"



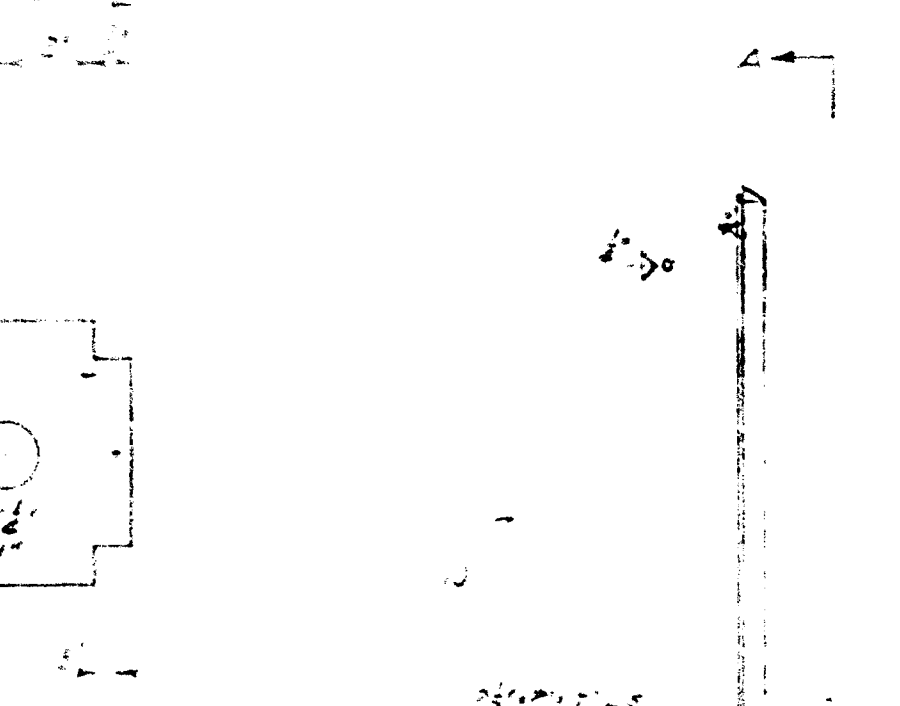
Required
PULL BOX PB-G3
 Scale 3/4"=1'-0"



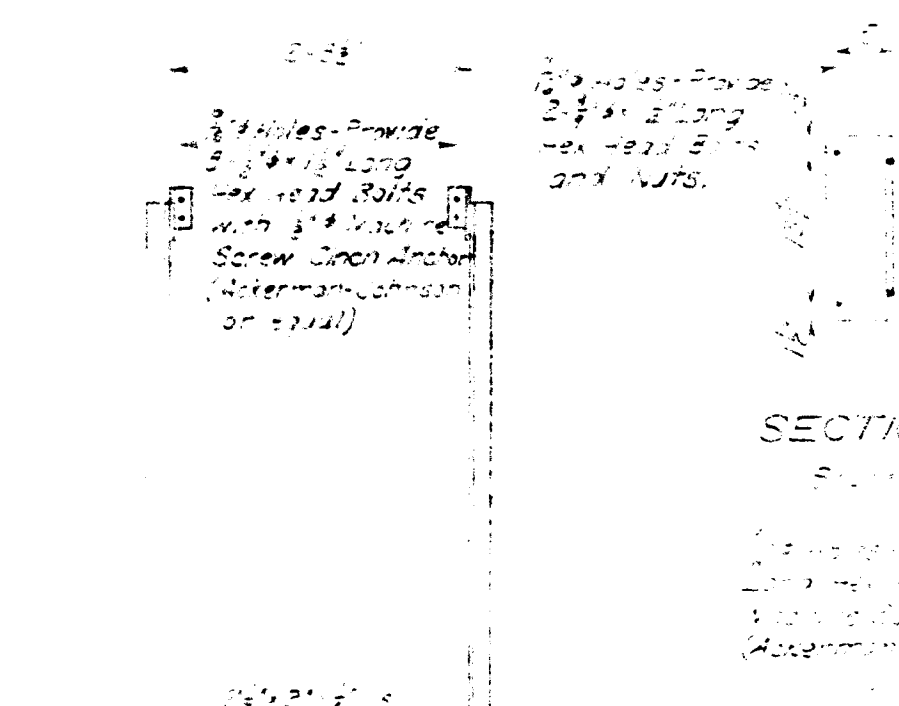
2 Required
PULL BOX PB-L1
 Scale 1 1/2"=1'-0"



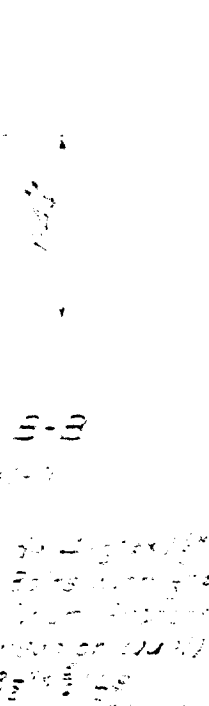
2 PB-L2 Req'd, 1 PB-L3 Req'd
PULL BOX PB-L2
 Pull Box PB-L3 similar except as noted
 Scale 3/4"=1'-0"



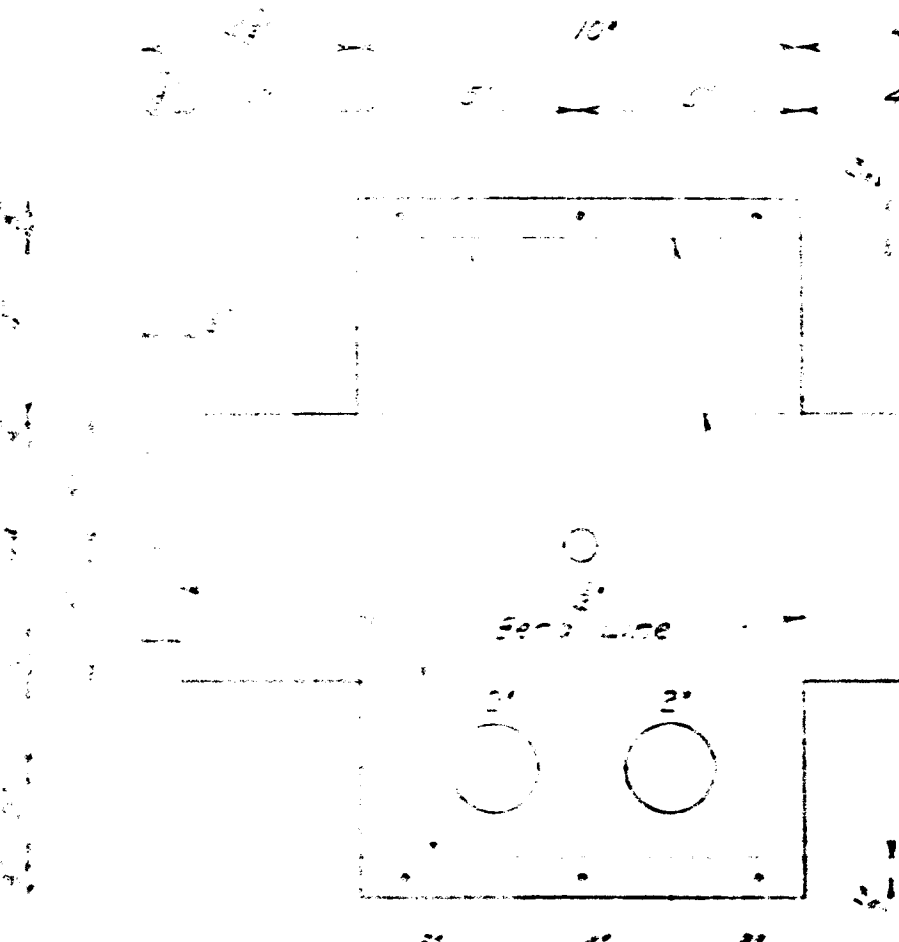
1 Required
HEATER SUPPORT MK HS-1
 Scale 3/4"=1'-0"



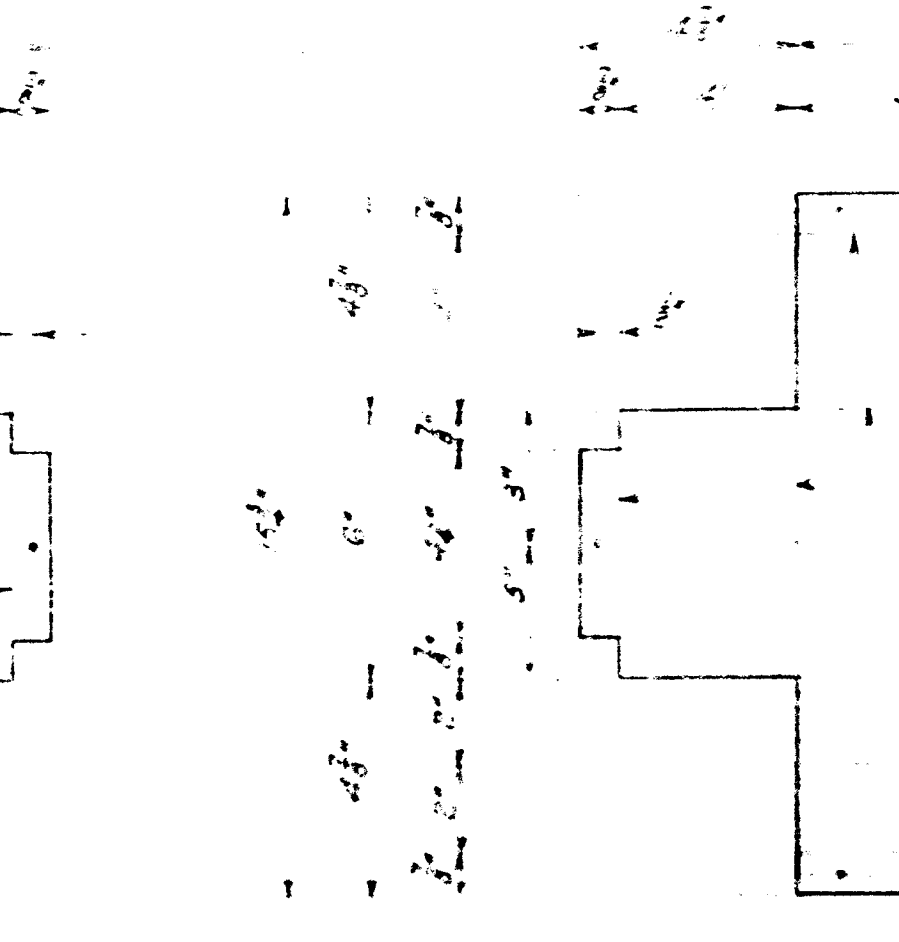
SECTION B-B
 Scale 3/4"=1'-0"



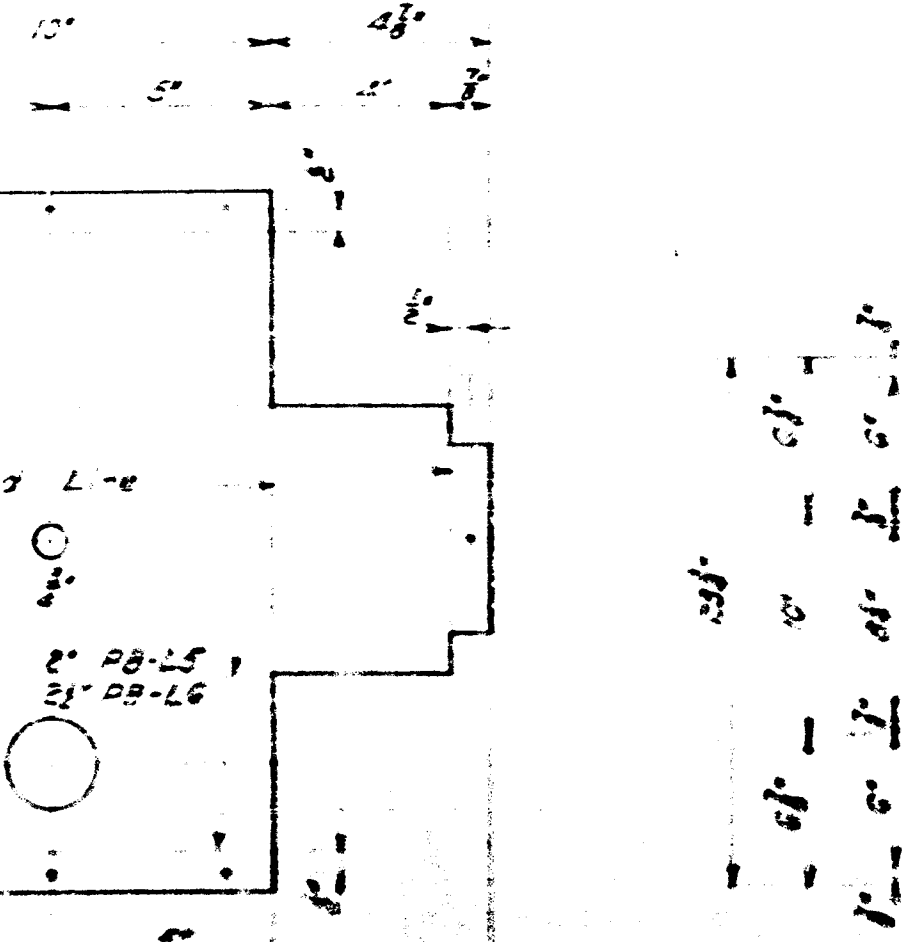
1 Required
HEATER SUPPORT MK HS-2
 Scale 3/4"=1'-0"



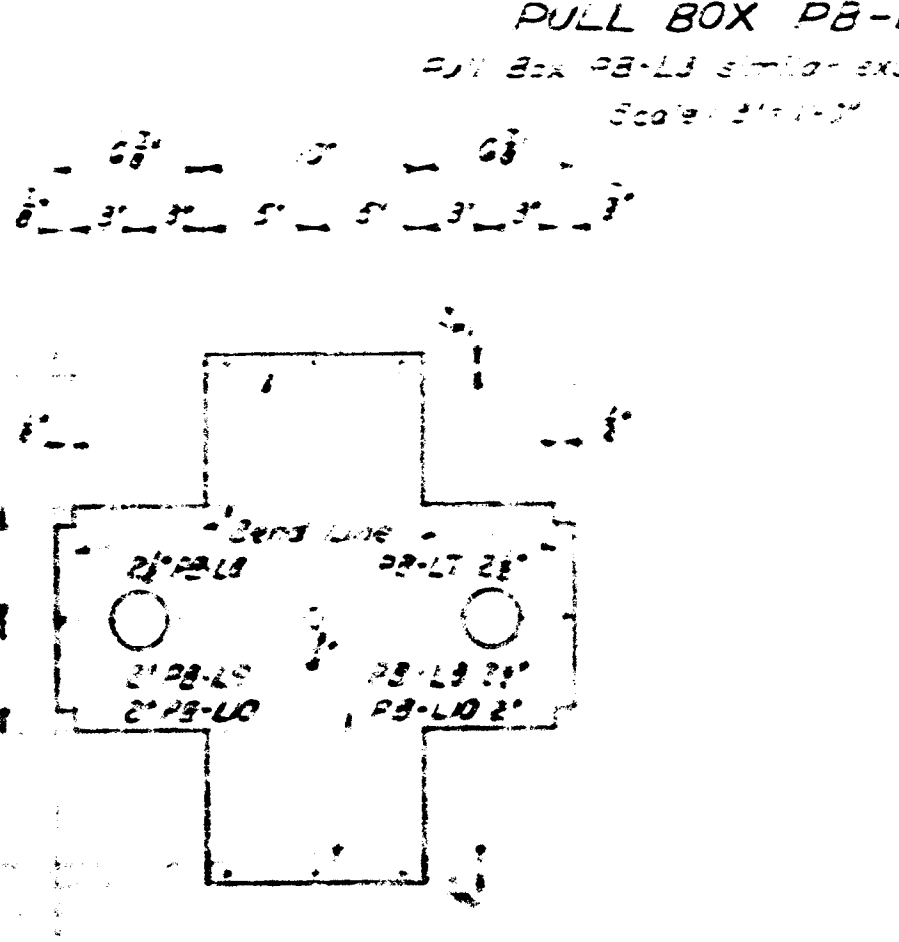
Required
PULL BOX PB-L4
 Scale 3/4"=1'-0"



1 PB-L5 Req'd, 1 PB-L6 Req'd
PULL BOX PB-L5
 Pull Box PB-L6 similar except as noted
 Scale 3/4"=1'-0"



1 PB-L5 Req'd, 1 PB-L6 Req'd
PULL BOX PB-L5
 Pull Box PB-L6 similar except as noted
 Scale 3/4"=1'-0"



1 PB-L7 Req'd, 1 PB-L8 Req'd
 1 PB-L9 Req'd, 1 PB-L10 Req'd
PULL BOX PB-L7
 Pull Boxes PB-L8, PB-L9 and PB-L10 similar except as noted
 Scale 3/4"=1'-0"

GENERAL NOTES

- All Pull Boxes and Covers are to be made of #12 U.S. Std Gauge Sheet Steel. Pull Boxes formed by bending sides up.
- Weld all joints. Pull Boxes and Covers are to be hot dipped galvanized after construction.
- Provide cover plates with 1/4" round brass head bolts.
- Sizes shown on knockouts are nominal inside diameters of conduits used in each location.

34"

22"

17"

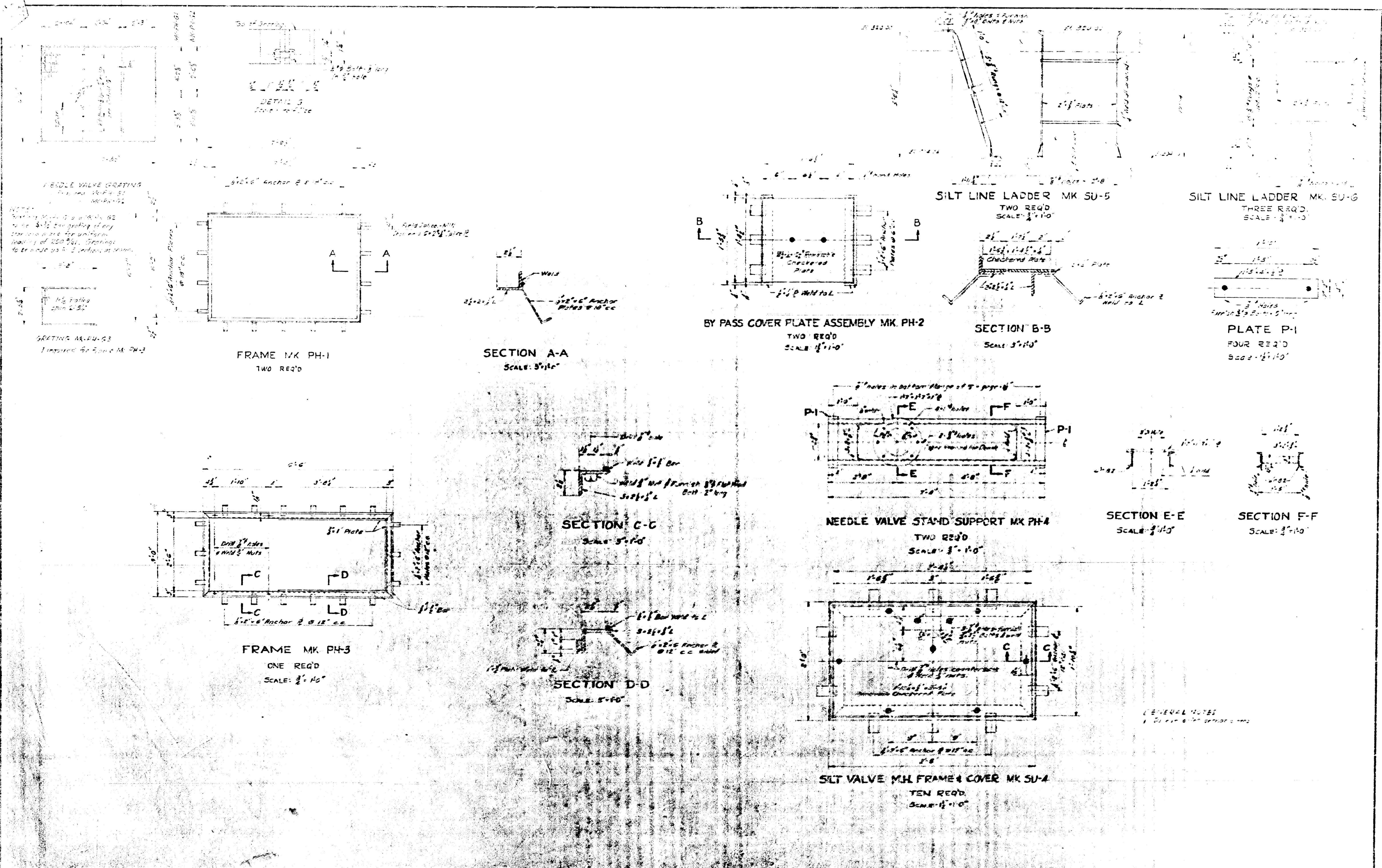
11"

8.5"

17"

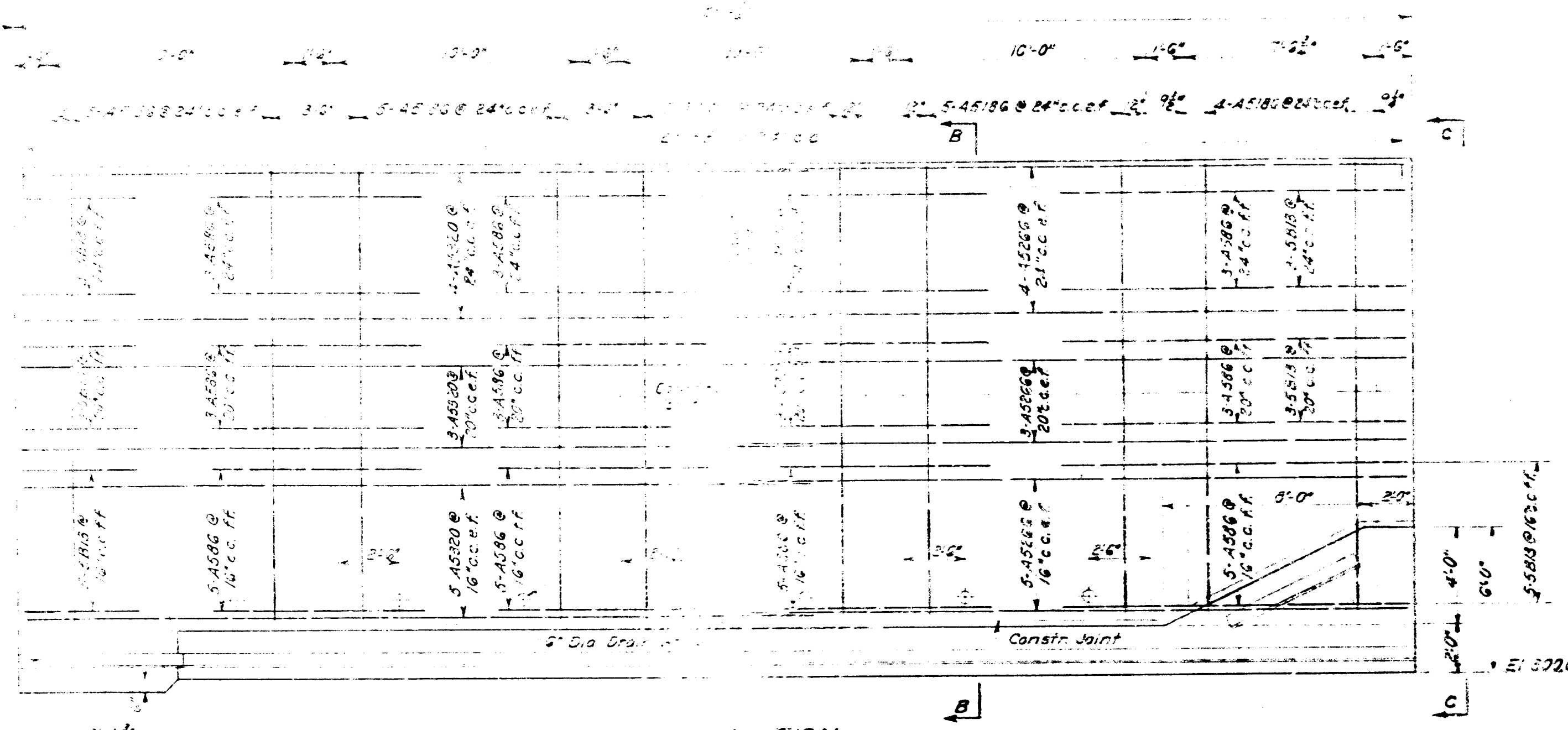
22"

34"

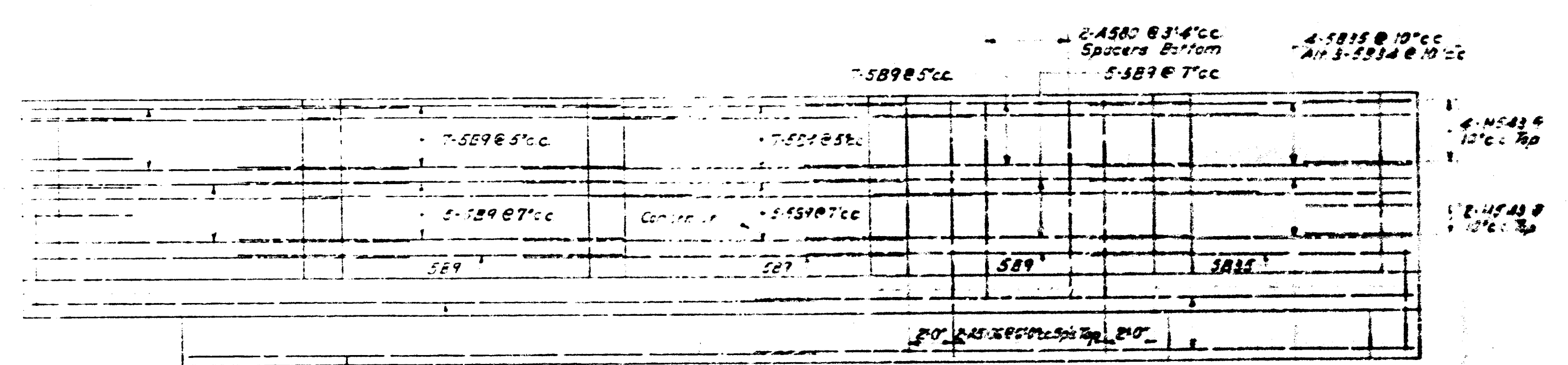


DRAWN: C.L.P. (R.L.S. 100) CHECKED: L.S. (L.S. 100) DATE: 1-26-1947 APPROVED: L.S. (L.S. 100)	REV. 104 REV. 105 REV. 106 REV. 107 REV. 108	JOB NUMBER: 4002 AMBURGEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	MISCELLANEOUS STEEL DETAILS	APPROVED: _____ CIVIL ENGINEER WASHINGTON SUBURBAN SANITARY COMMISSION	DRAWING NUMBER: 30	SCALE: _____
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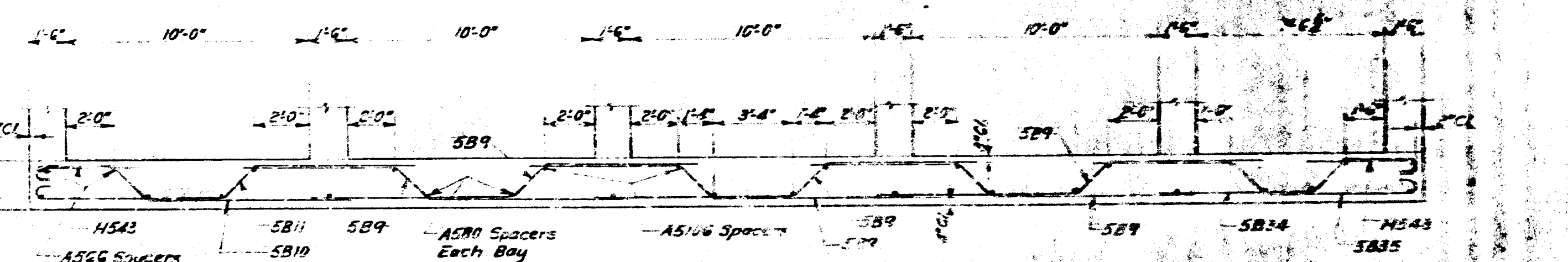
MICROFILMED BY N.S.P.



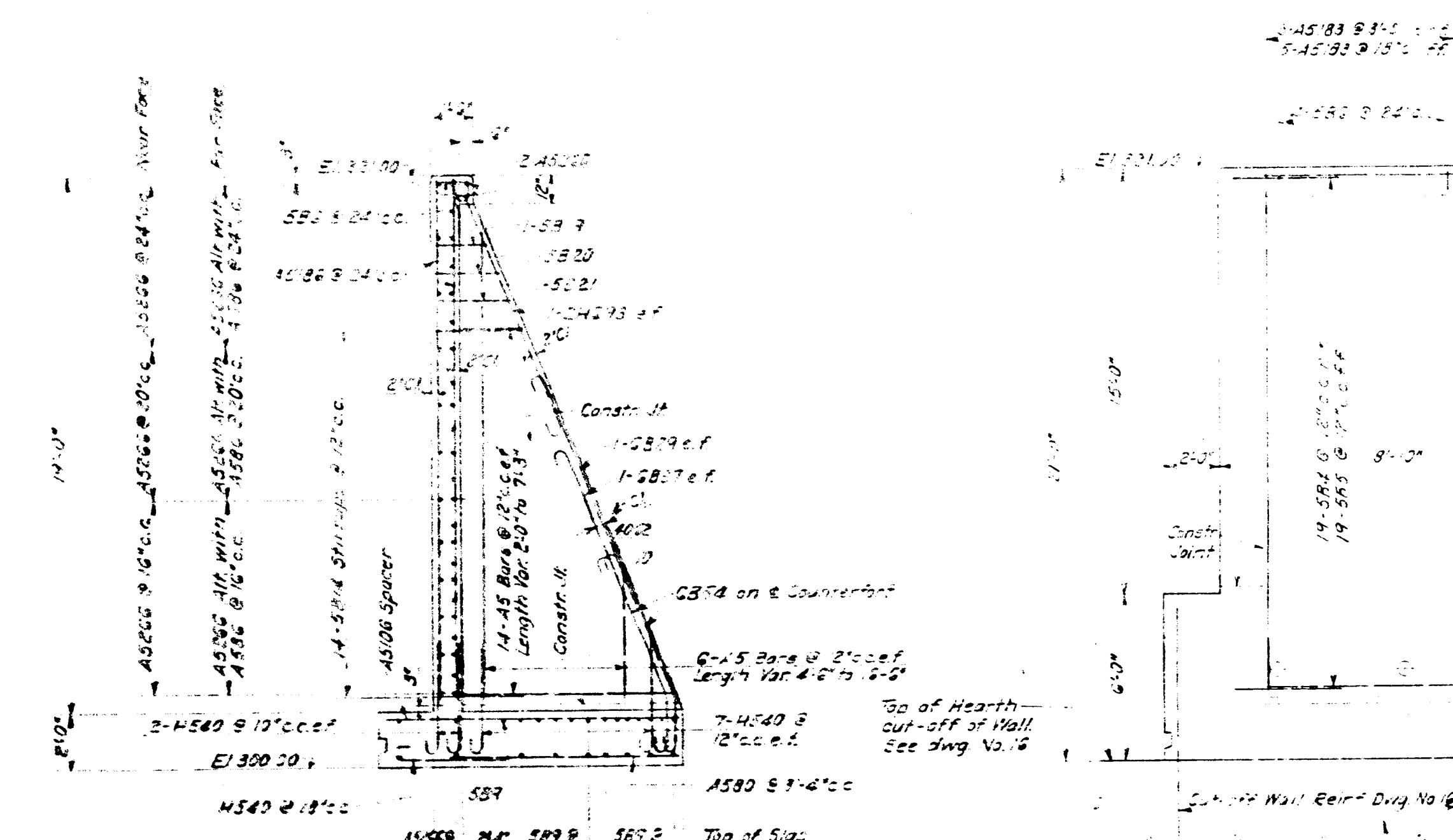
SECTION A-A
Scale 1/4" = 1'-0"



PLAN
Scale 1/4" = 1'-0"



SECTION B-B
Scale 1/4" = 1'-0"



ELEVATION C-C
Scale 1/4" = 1'-0"

DRAWN: P.B.A. CHECKED: S. APPROVED:	REV: 154 154 154 154	SHEET: 4002 AMBURSEN ENGINEERING CORPORATION CONSULTING ENGINEERS NEW YORK	WASHINGTON SUBURBAN SANITARY COMMISSION BRIGHTON DAM - CONTRACT 127-W	EAST HEARTH TRAINING WALL AT BUTTRESS NO. 25	DRAWING NUMBER: 61 SCALE: 1/4" = 1'-0"
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