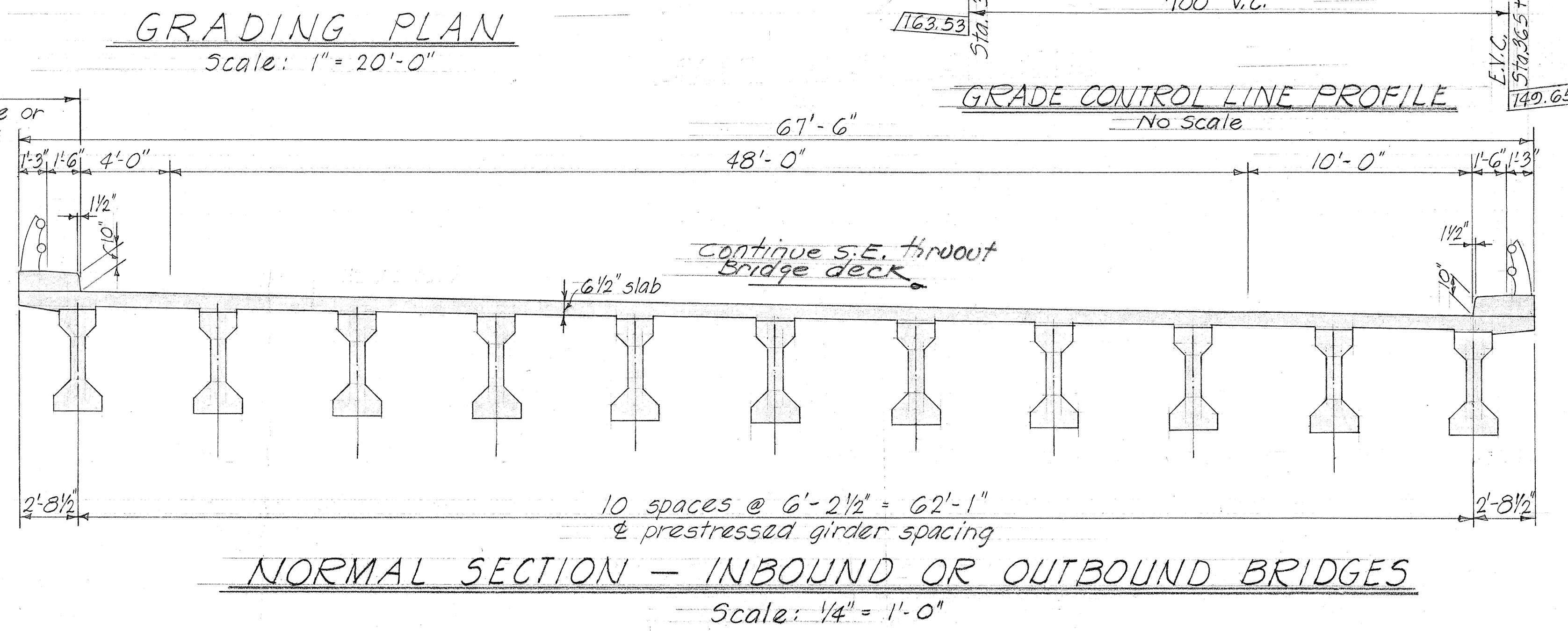
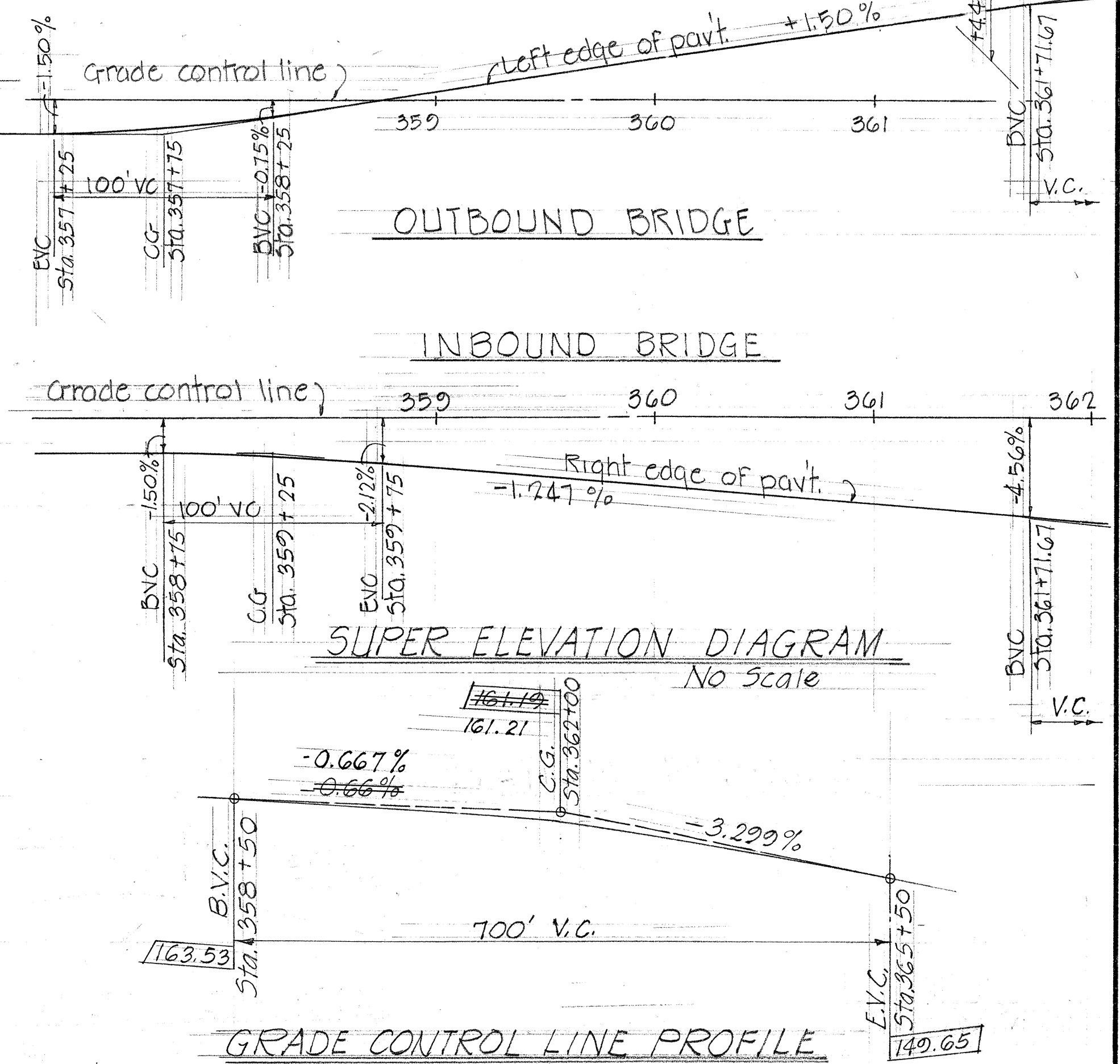
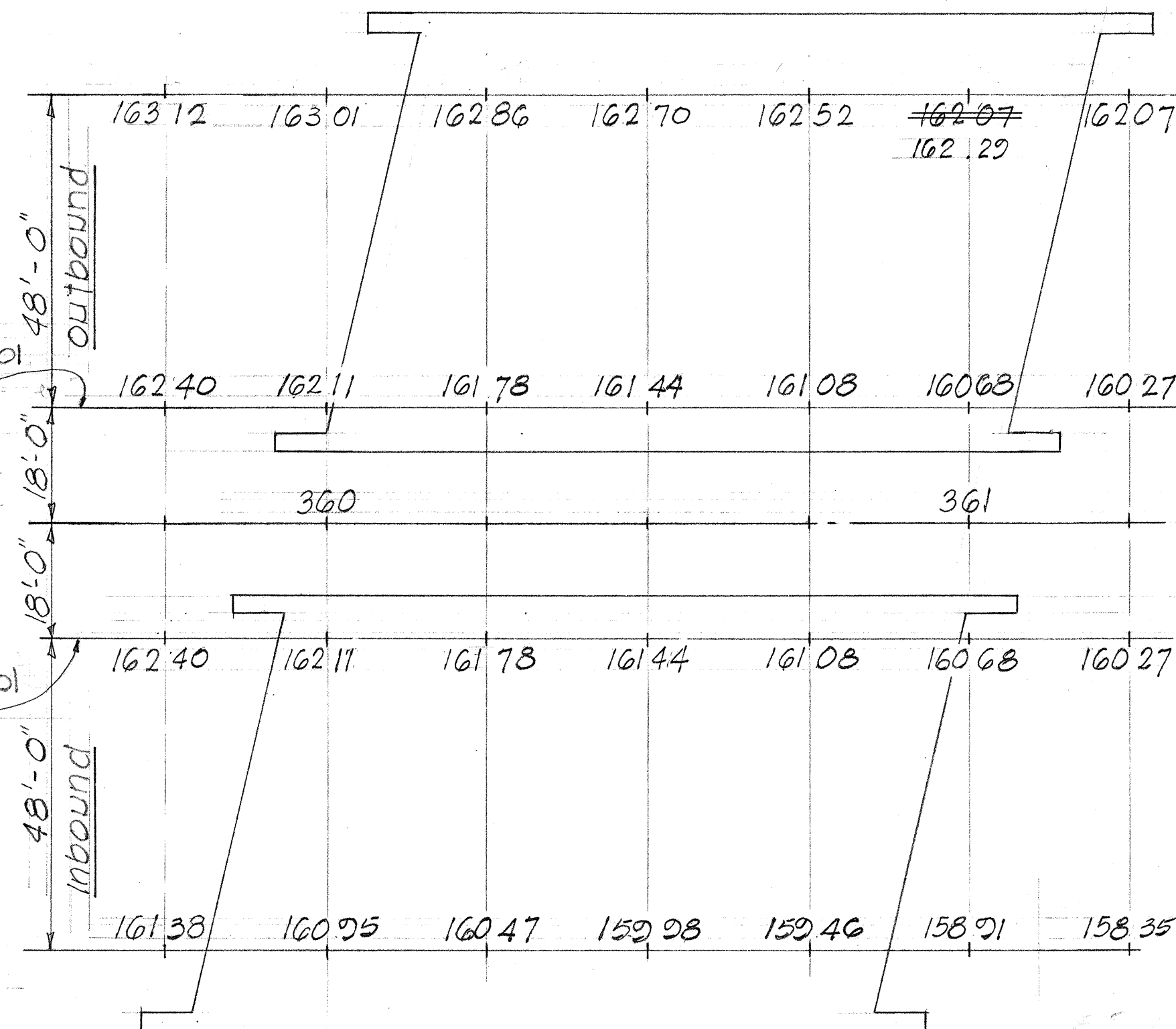
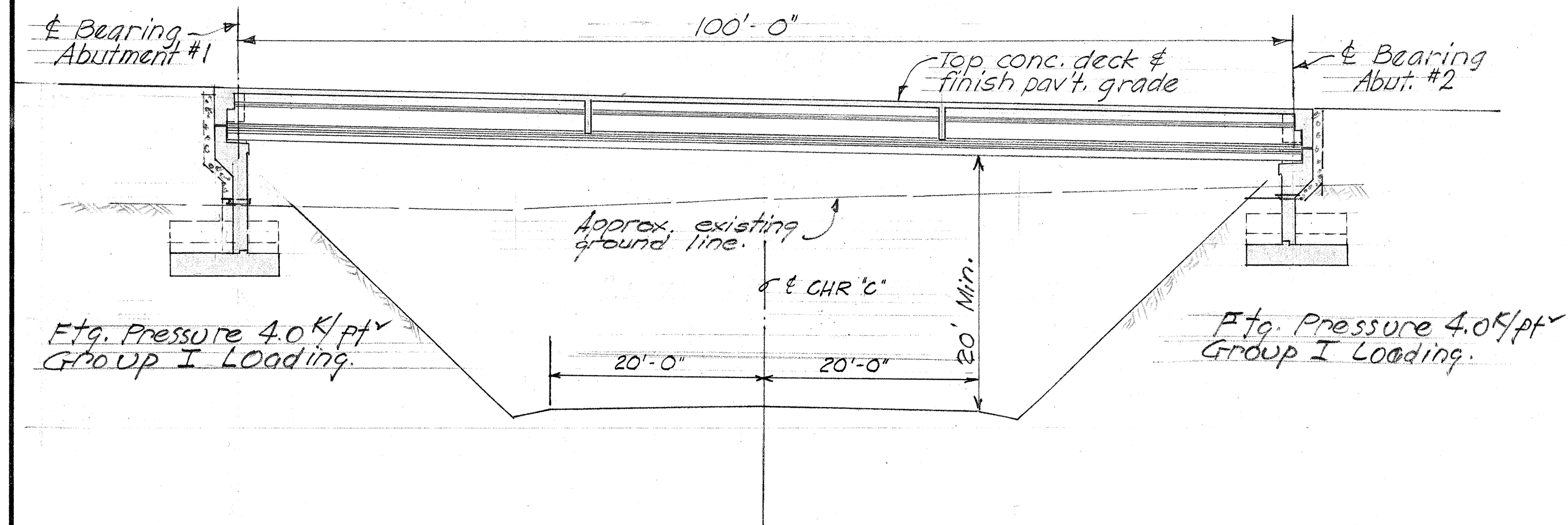
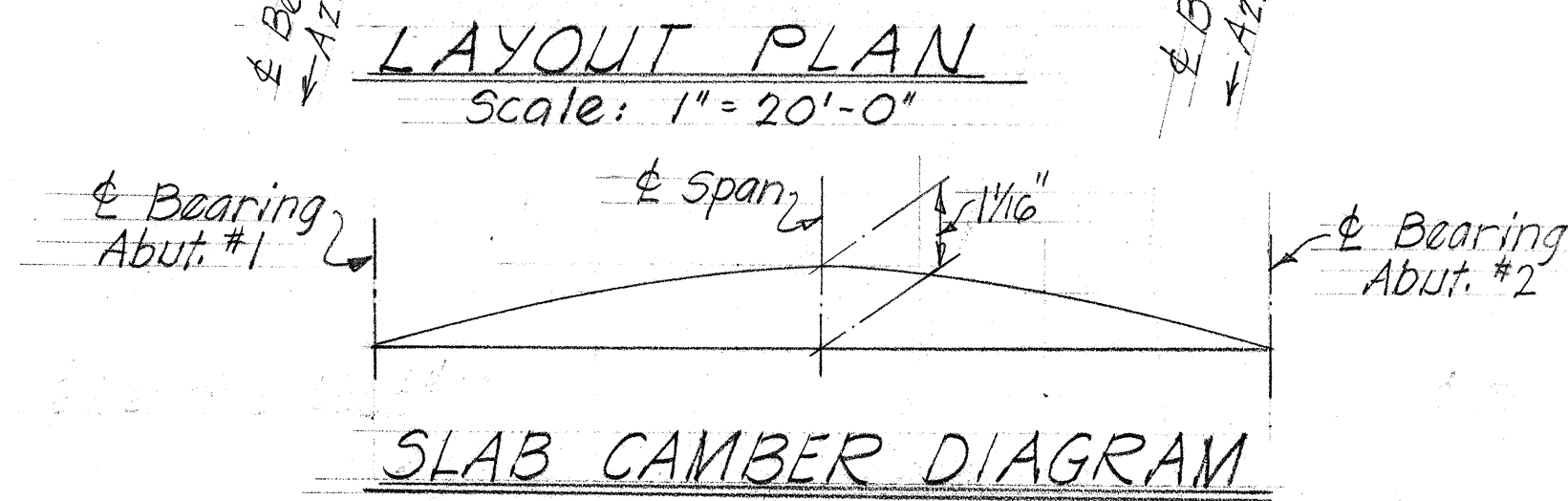
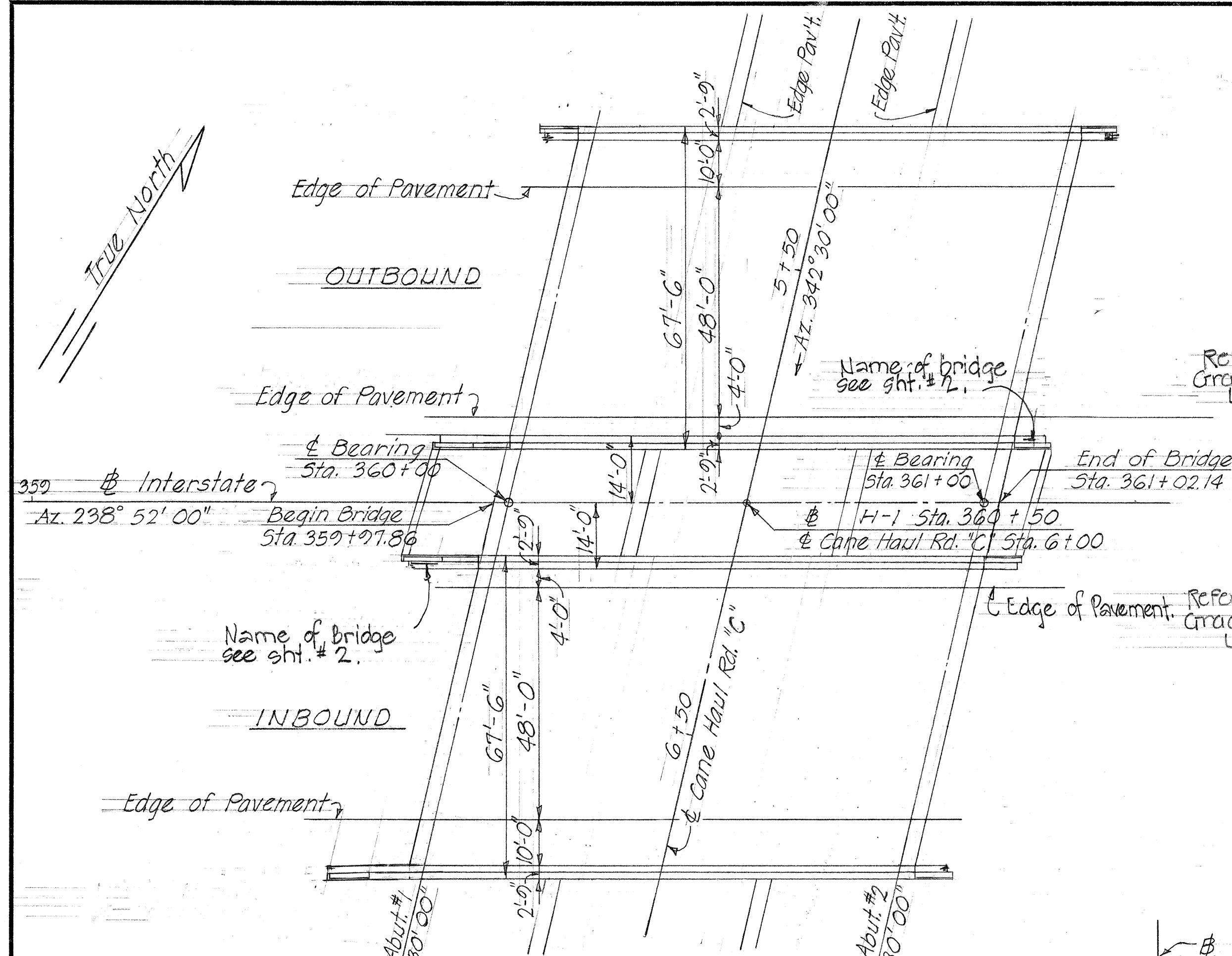
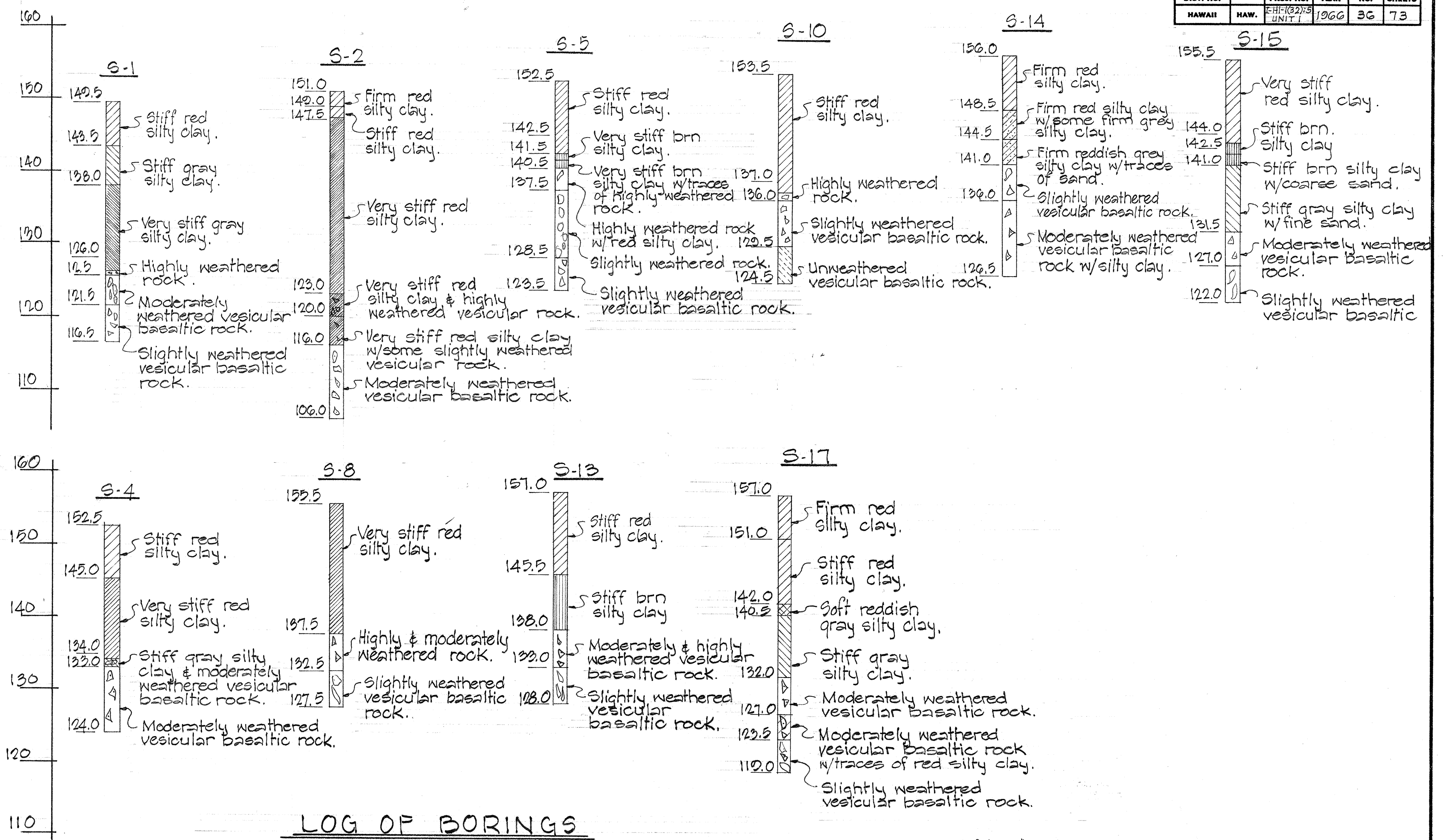
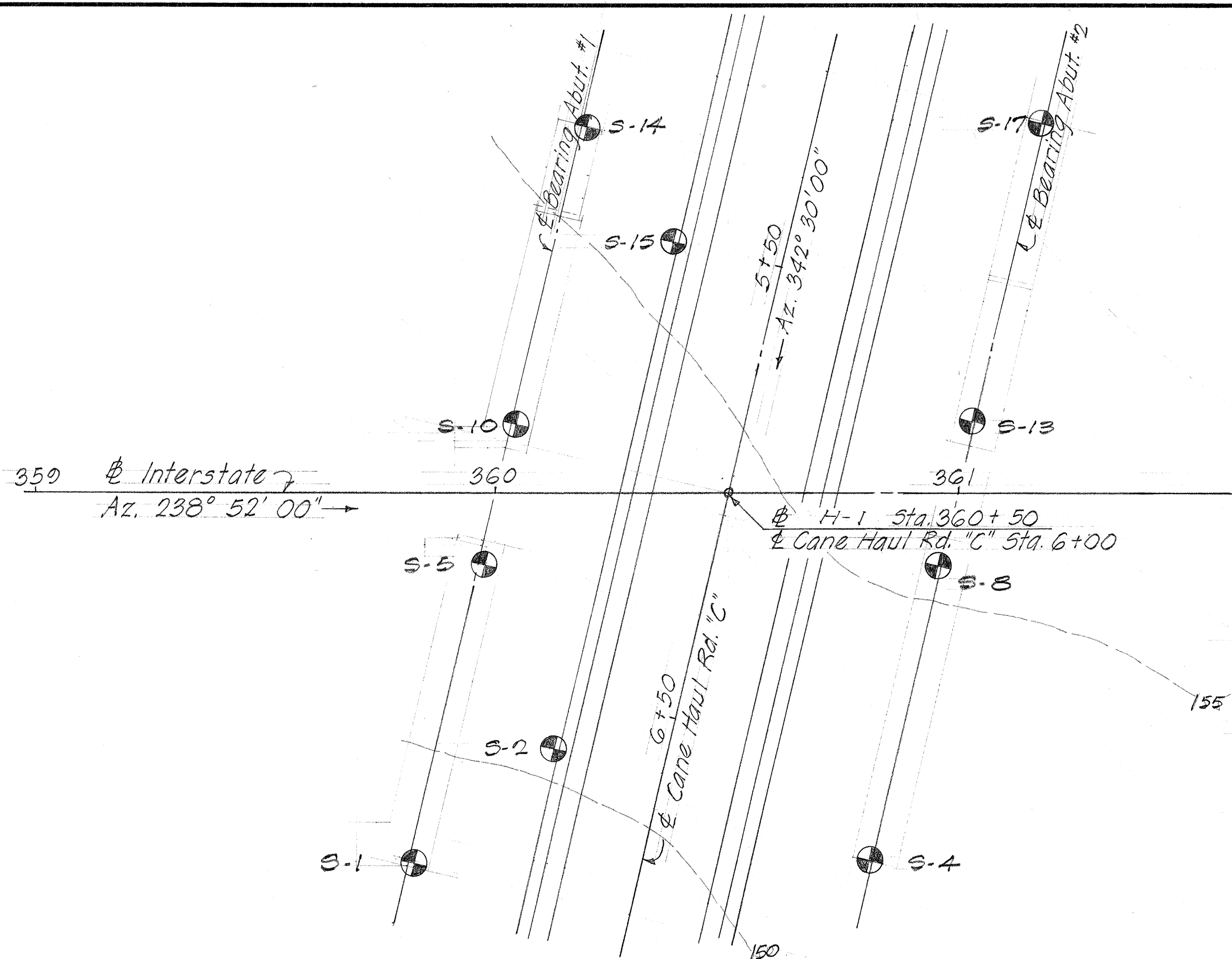




ESTIMATED QUANTITIES		
Class A-1 Concrete	Lump Sum	(855 CY)
Reinforcing Steel	Lump Sum	(137,070 LBS)
Prestressed Girder		2,237 LF
Structural Excavation		1,115 CY
Filter Material		71 98 CY
C.R.M.		34 15 CY
Metal Bridge Railing (Traffic Type)		441 442 LF

REFERENCE NOTES
For general notes see sheet #2
Refer to Hwy. drawings for details.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	103273	1966	36	73



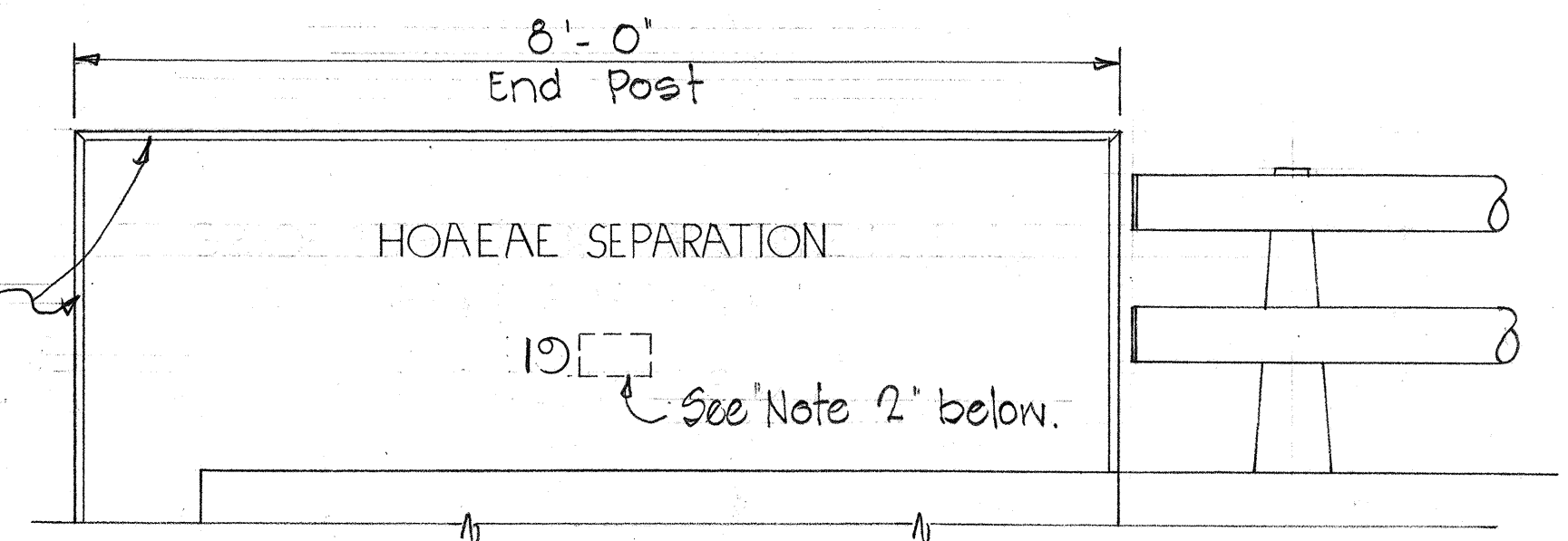
LOG OF BORINGS
Scale: 1" = 10'-0"

GENERAL NOTES

SYMBOLS

- (A) = Alphabet section no. description
- (No) = Sheet no. detail is drawn on
- ⊗ = Boring
- W.P. = Working point

For additional details and general notes not covered by these drawings, refer to Standard Drawings Shts. #5-1, S-5, & S-6



- Note: 1-Place name of structure as shown. For location see layout plan.
2-Year shown will be year structure is completed.
3-Letter size & detail - see Standard Bridge drawing sht. #5-1

TYPICAL BRIDGE NAME & YEAR LOCATIONS

AT END POST
Scale: 3/4" = 1'-0"

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GRADE SEPARATION STRUCTURE NO. 360	
PROJ. NO. I-HI-1(32):5, UNIT 1 SEPT. 1966	
SHEET No. 2 OF 10 SHEETS	

GENERAL NOTES

SPECIFICATIONS: AASHO

Standard Specifications for Highway Bridges (8th Edition) with subsequent additions and modifications.

DESIGN STRESSES

1. R.C. Beams & Slabs

See AASHO specifications except as otherwise noted and see Special Provisions.

$$f_c = 3,000 \text{ psi} \quad n = 10$$

$$f_c = 1,200 \text{ psi} \quad f_s = 20,000 \text{ psi tension}$$

2. Prestressed Beams

$$f_c = 5,500 \text{ psi}$$

$$f_{ci} = 4,000 \text{ psi}$$

1/2" dia. 7 wire strands

Tensioning Load = 25,200 lb. per strand.

Design Load = 20,160 lb. per strand.

Forms must be removed and the beam inspected before the strands are cut.

MATERIALS

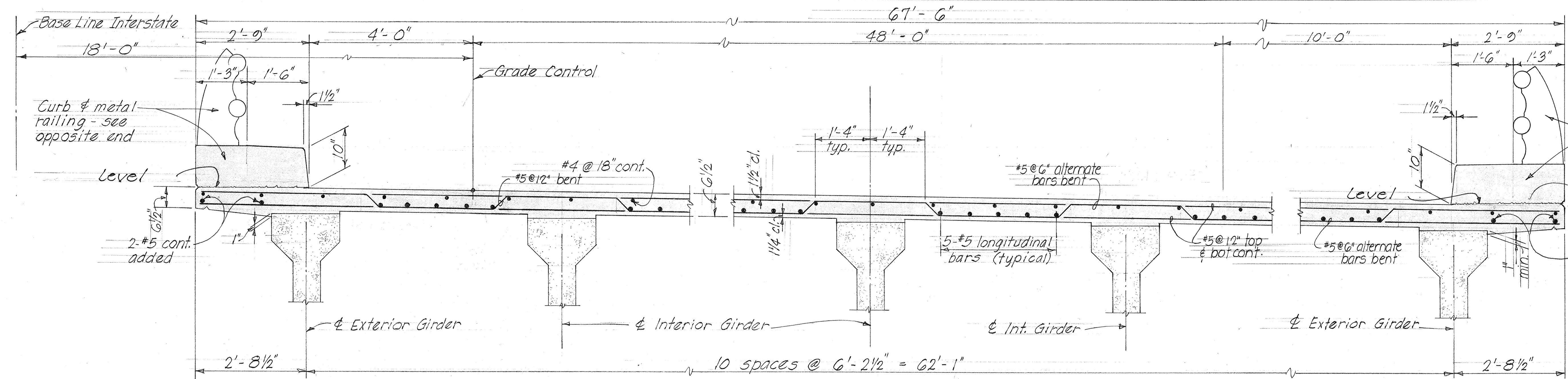
- All concrete shall be Class A-1 except as otherwise noted on plans. Concrete for prestressed concrete girders see Special Provisions and as noted above.
- Neoprene pads are incidental to prestressed concrete girders and will not be paid for separately.
- See Special Provisions for admixture in concrete.

CONSTRUCTION METHODS

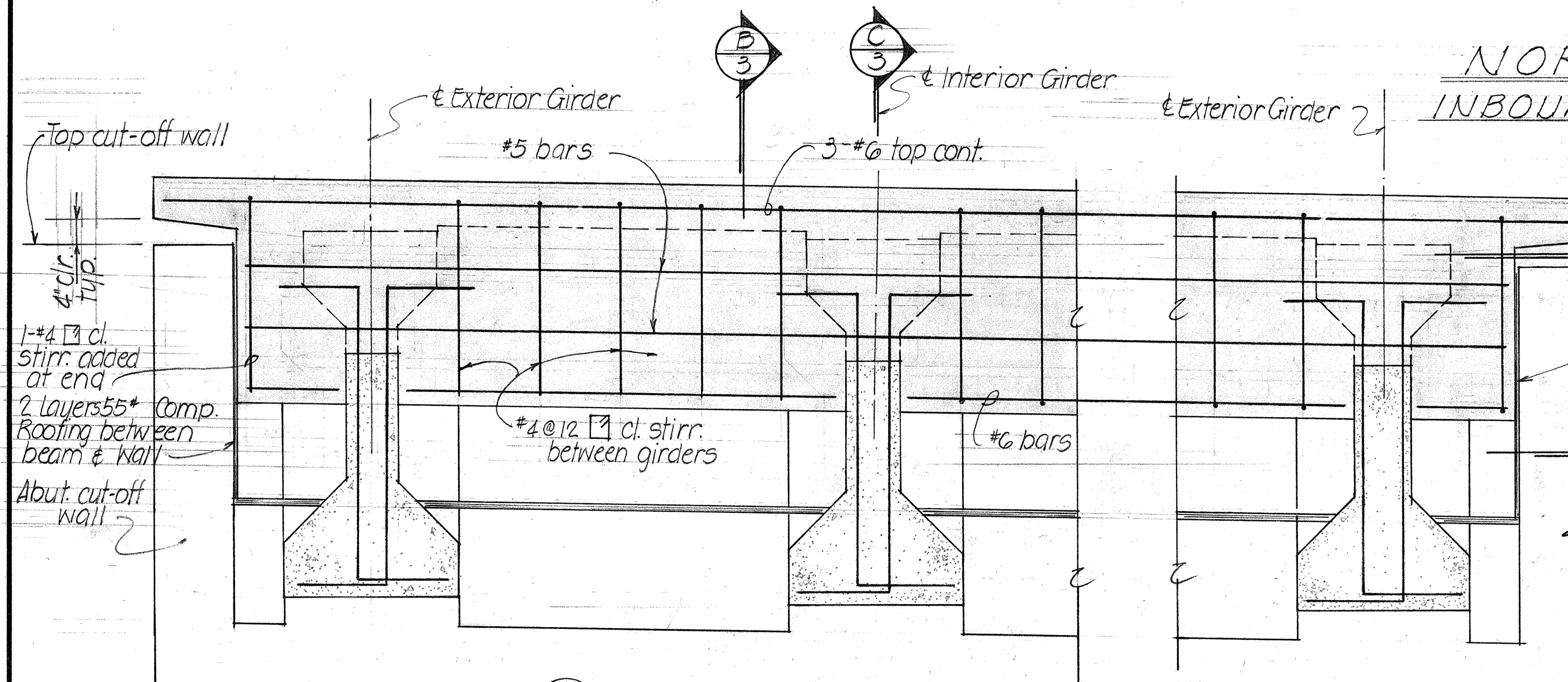
- See Standard Specifications and Special Provisions.
- All footings shall be excavated and poured to neat lines. In case of over excavation, space between footing and ground shall be filled with concrete at Contractors expense. The fill concrete shall have a minimum quality of Class D-1.
- The Contractor shall verify the location of all existing utility lines and notify the respective owners before commencing work of excavation.
- All fill behind abutments and wingwalls shall be complete in place before placing superstructure and prestressed concrete girders.
- For concrete finish see Special Provisions. Concrete seats and creep blocks to be poured monolithically with pier or abutment sections. Seats shall receive a hard trowel finish, level & true elevations.
- Neoprene pads shall be secured against displacement by adhesives, which shall be approved by the Engineer.

DATE	SY	BY
PLAN	SY	BY
DESIGNED BY	D.O.	BY
QUANTITIES BY	II & PY	BY
CHECKED BY	II & PY	BY
ORIGINAL	PLAN	NO
NOTE BOOK	NO	BY

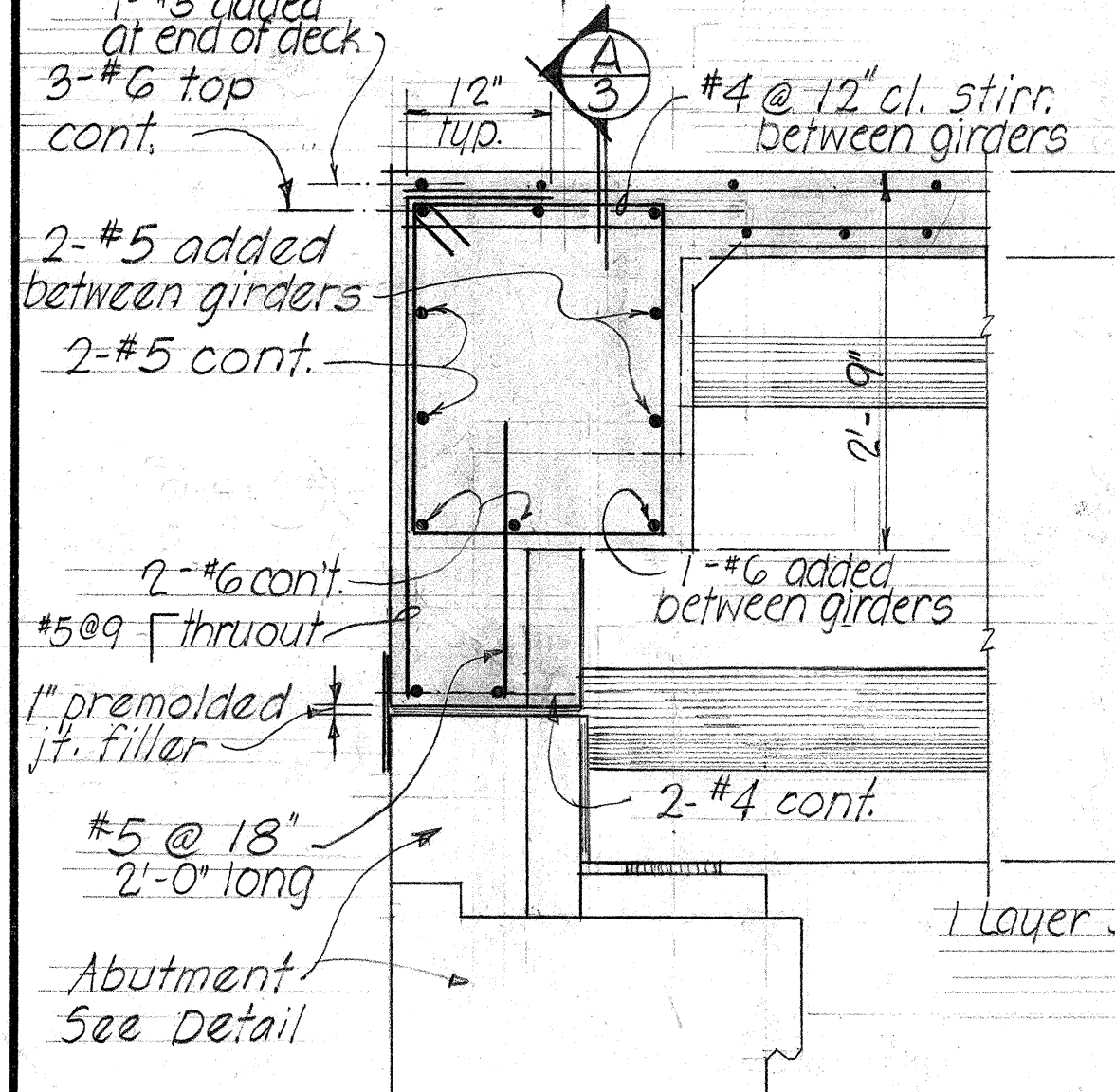
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	171-1(32)	1966	37	73



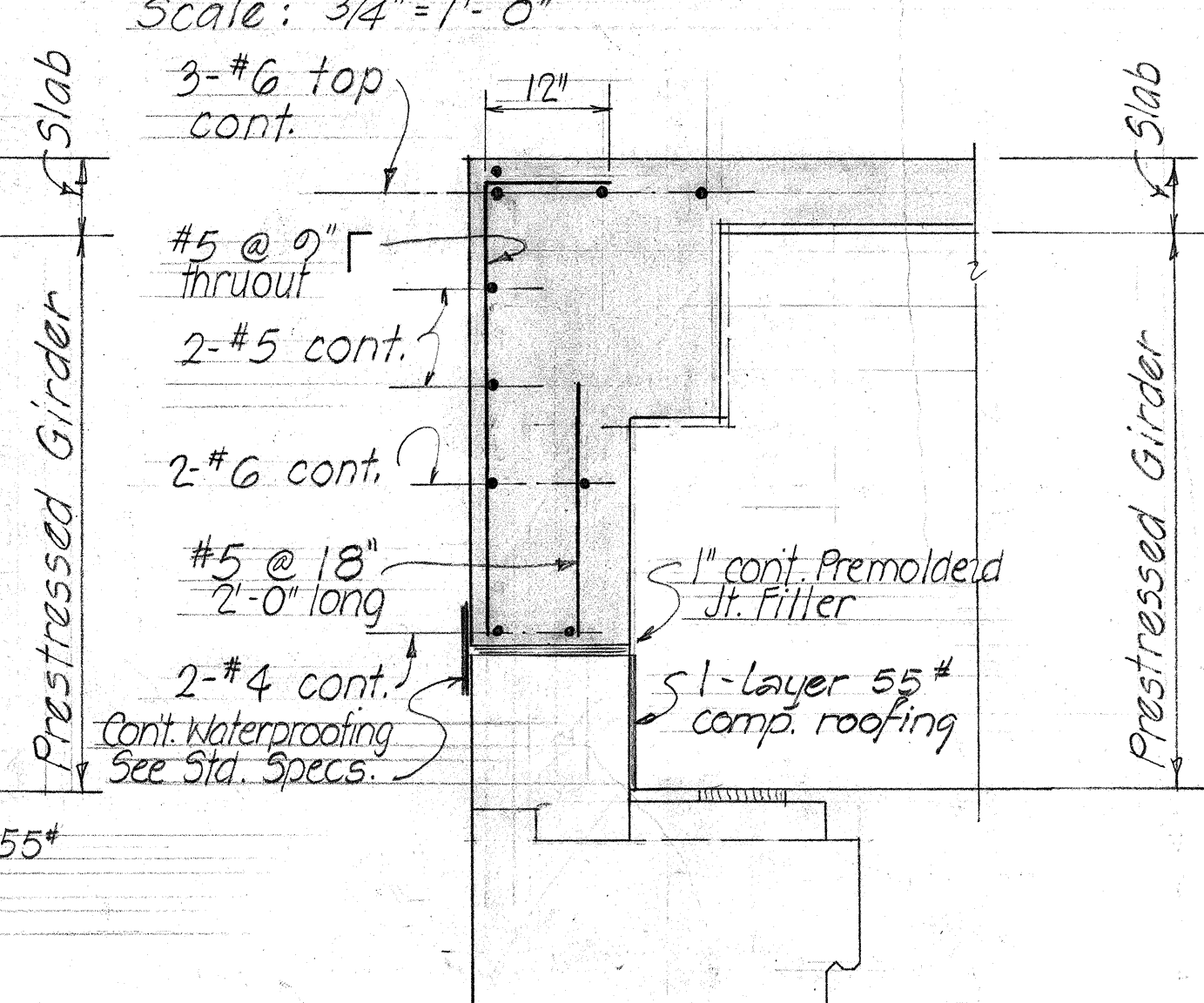
NORMAL DECK SECTION
INBOUND AND OUTBOUND BRIDGES
Scale: 3/4" = 1'-0"



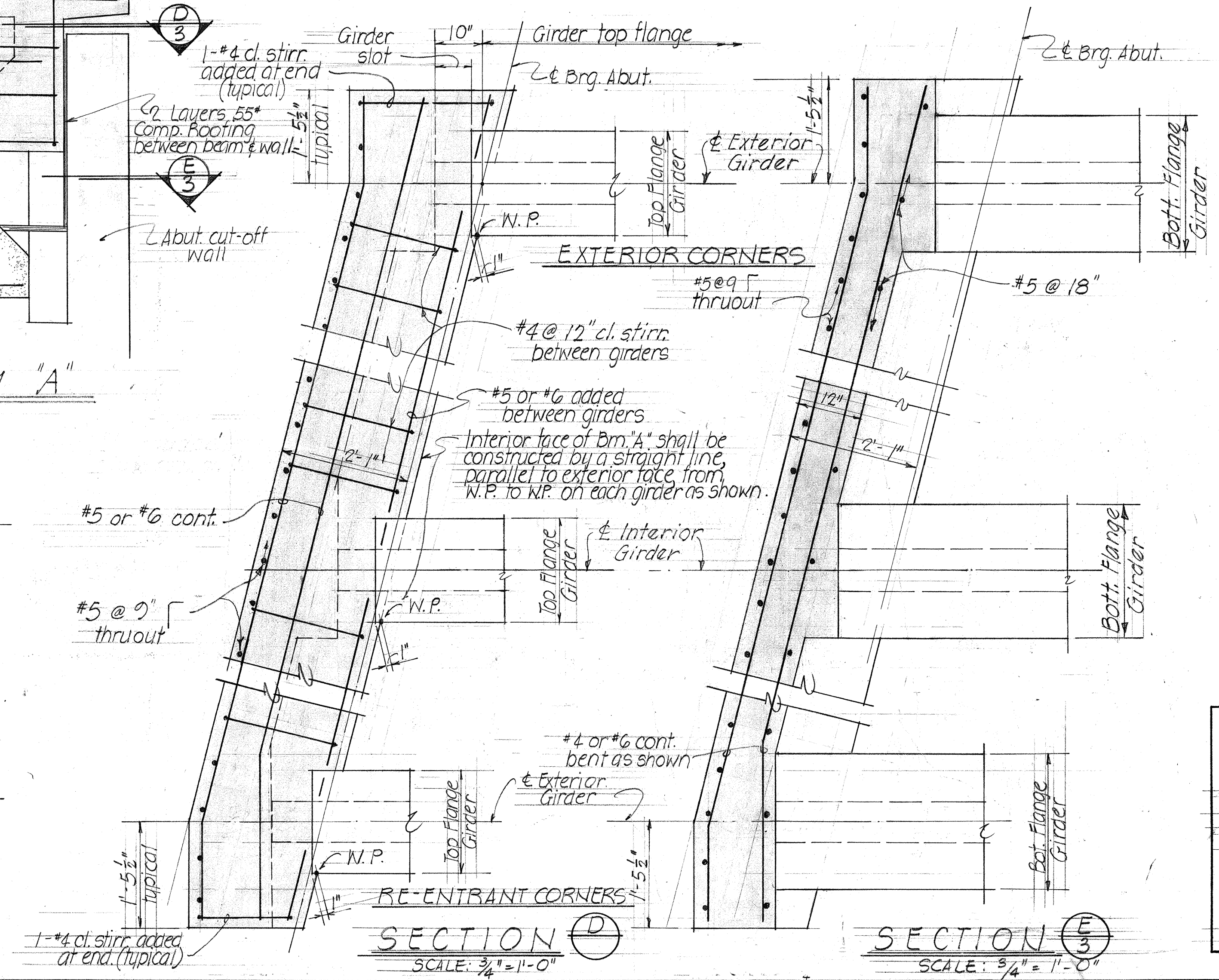
ELEVATION (A) TYPICAL TRANSVERSE BEAM "A"
Scale: 3/4" = 1'-0"



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



SECTION (C)
Scale: 3/4" = 1'-0"



SECTION (D)
Scale: 3/4" = 1'-0"

SECTION (E)
Scale: 3/4" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**GRADE SEPARATION
STRUCTURE NO. 360**

PROJ. NO. IHI-1(32):5, UNIT 1 SEPT. 1966
SHEET No. 3 OF 10 SHEETS

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
ORIGINAL PLAN	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(32)5 CENVT	1966	38	73

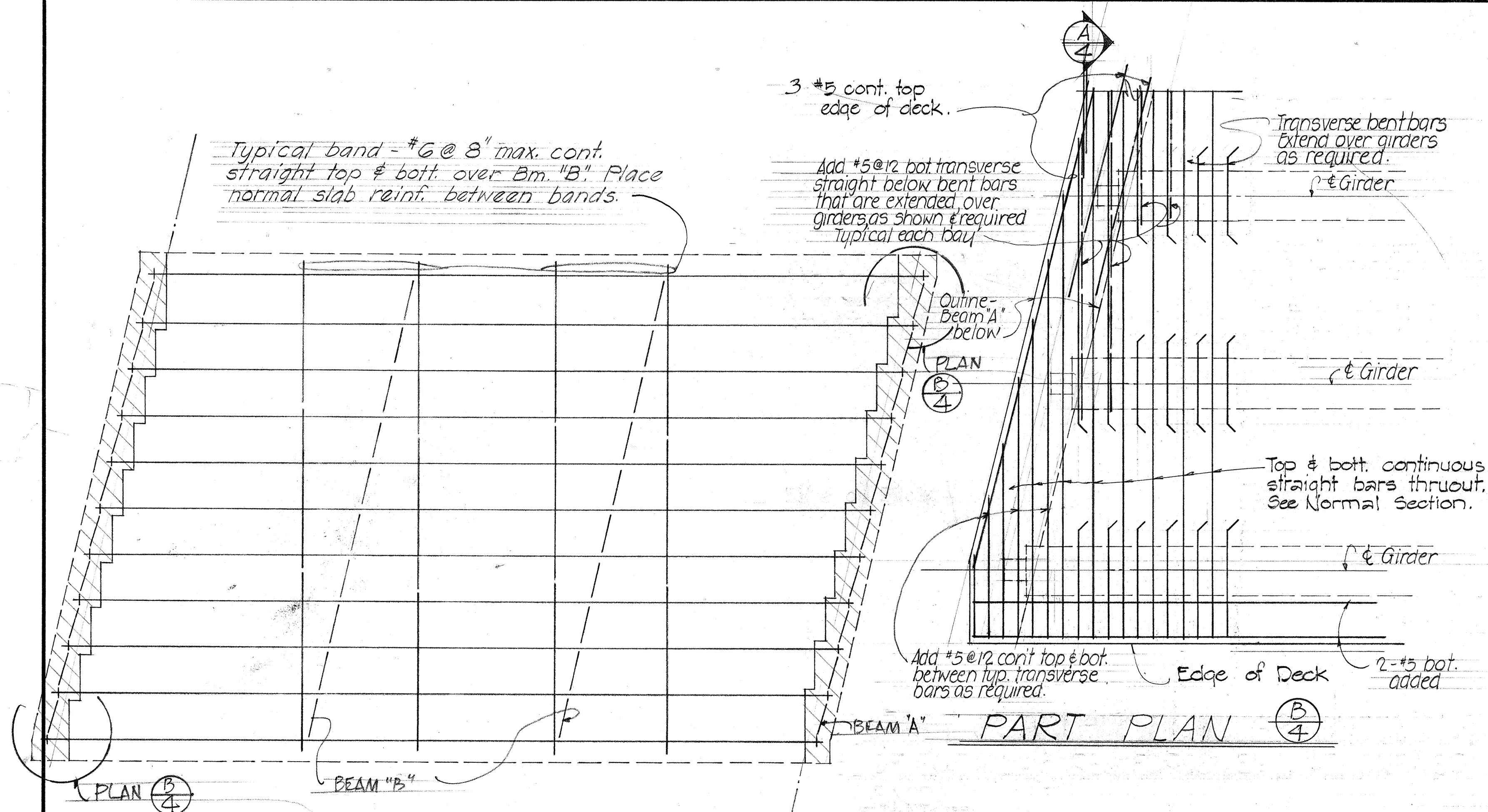
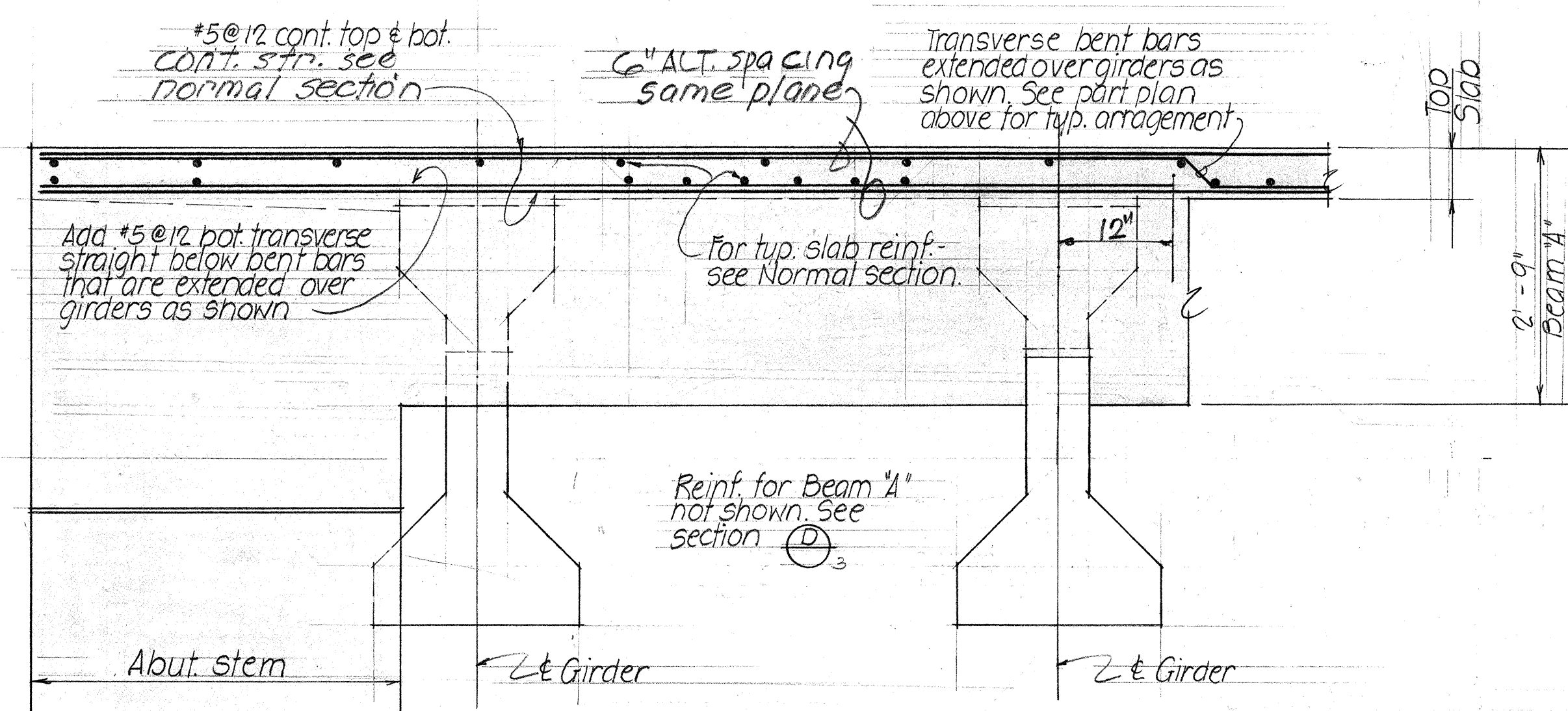
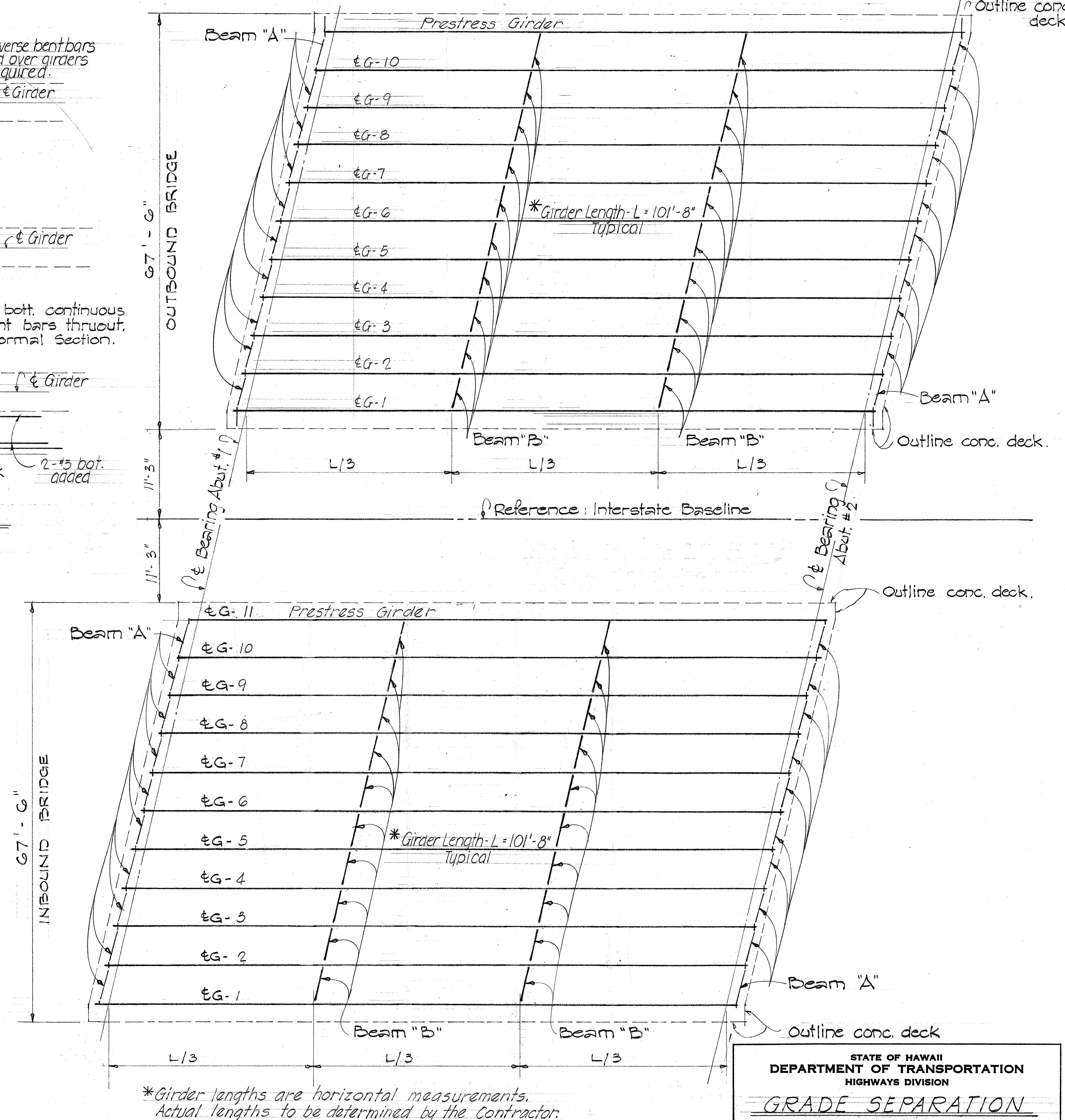


DIAGRAM - TYPICAL ARRANGEMENT OF
SPECIAL TRANSVERSE DECK REINFORCEMENT
INBOUND OR OUTBOUND BRIDGES



TYPICAL SECTION $\frac{A}{4}$ THRU TOP SLAB - SHOWING
ARRANGEMENT OF SPECIAL TRANSVERSE DECK REINFORCING



DECK FRAMING PLAN

INBOUND & OUTBOUND BRIDGES

Scalare: $1'' = 10' - 0''$

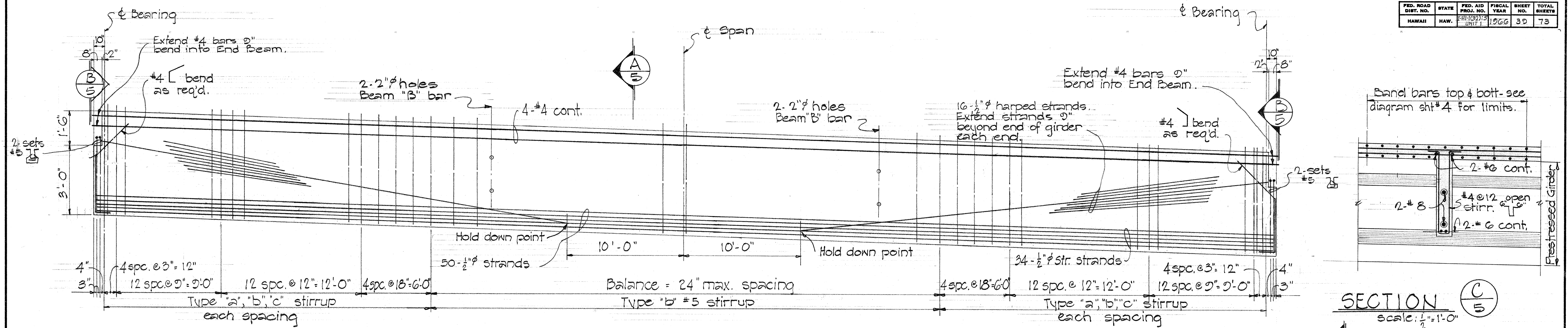
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADE SEPARATION
STRUCTURE NO. 360

PROJ. NO. I-HI-1(32):5, UNIT 1 SEPT. 1966

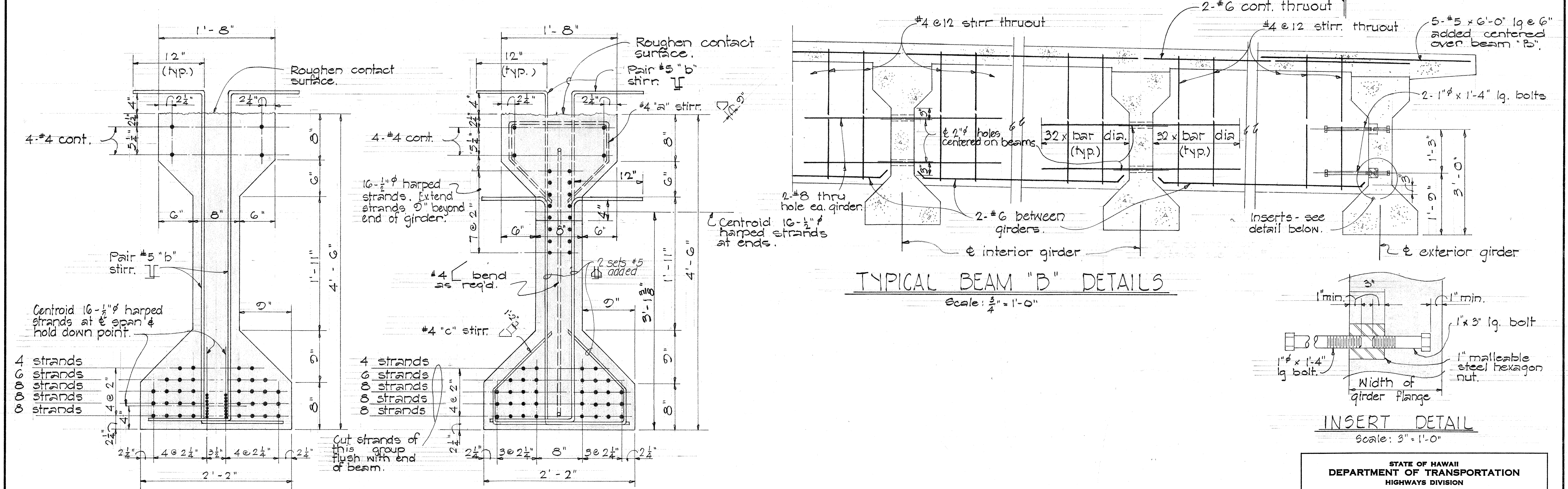
SHEET No. 4 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1000000000	1966	39	73



TYPICAL PRESTRESSED GIRDER DETAIL

No Scale



INSERT DETAIL

Scale: 3" = 1'-0"

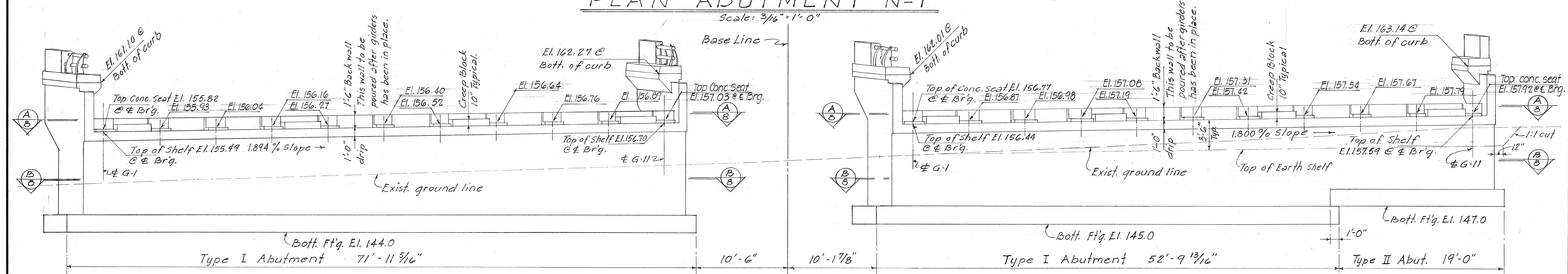
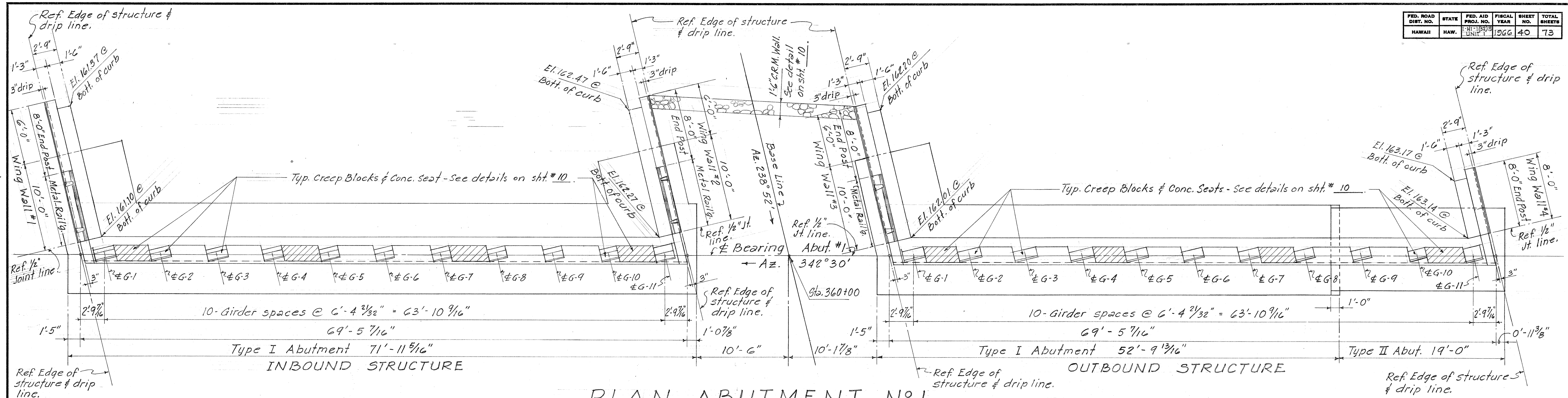
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**GRADE SEPARATION
STRUCTURE NO. 360**

PROJ. NO. I-HI-1(32)-5, UNIT 1 SEPT. 1966

SHEET No. 5 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HI-1(32)	1966	40	73



ELEVATION ABUTMENT NO. 1

Scale: 3/16" = 1'-0"

ORIGINAL PLAN	DATE
DESIGNED BY	
DRAWN BY	
CHECKED BY	
NOTED BY	
NO. 1	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

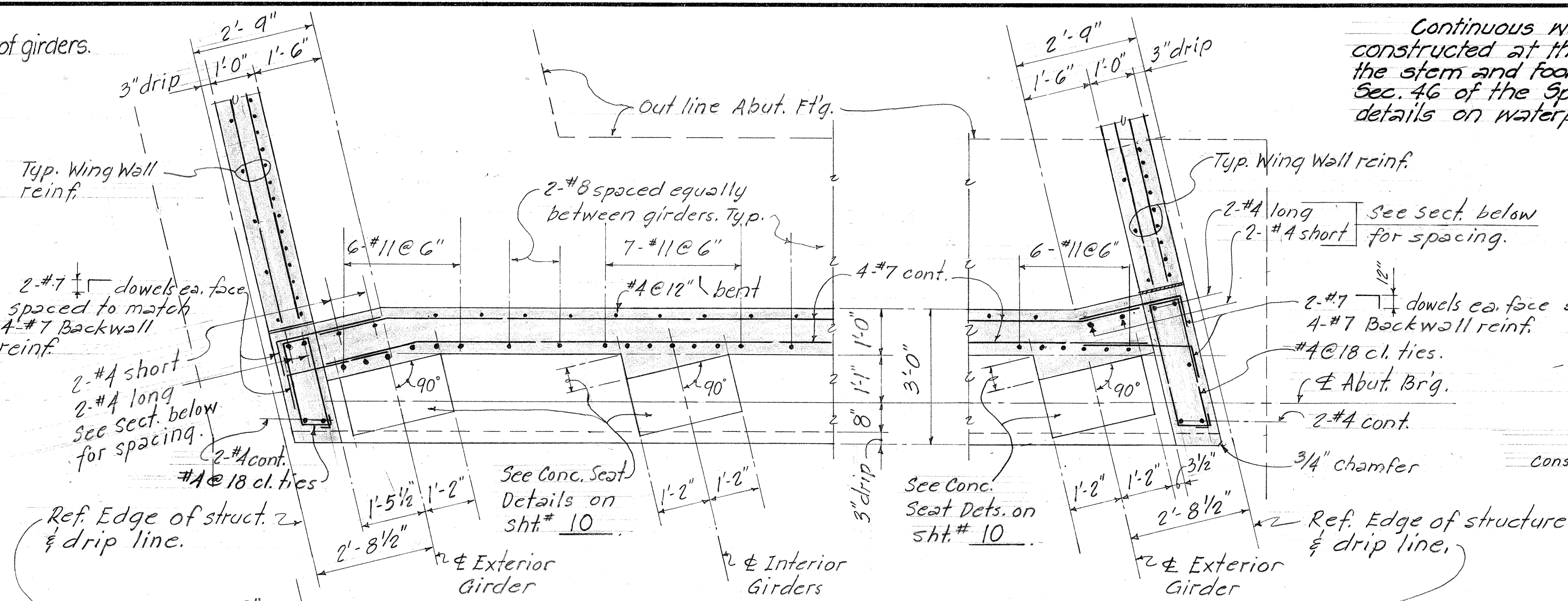
GRADE SEPARATION
STRUCTURE NO. 360

PROJ. NO. I-HI-1(32): 5 UNIT 1 SEPT. 1966

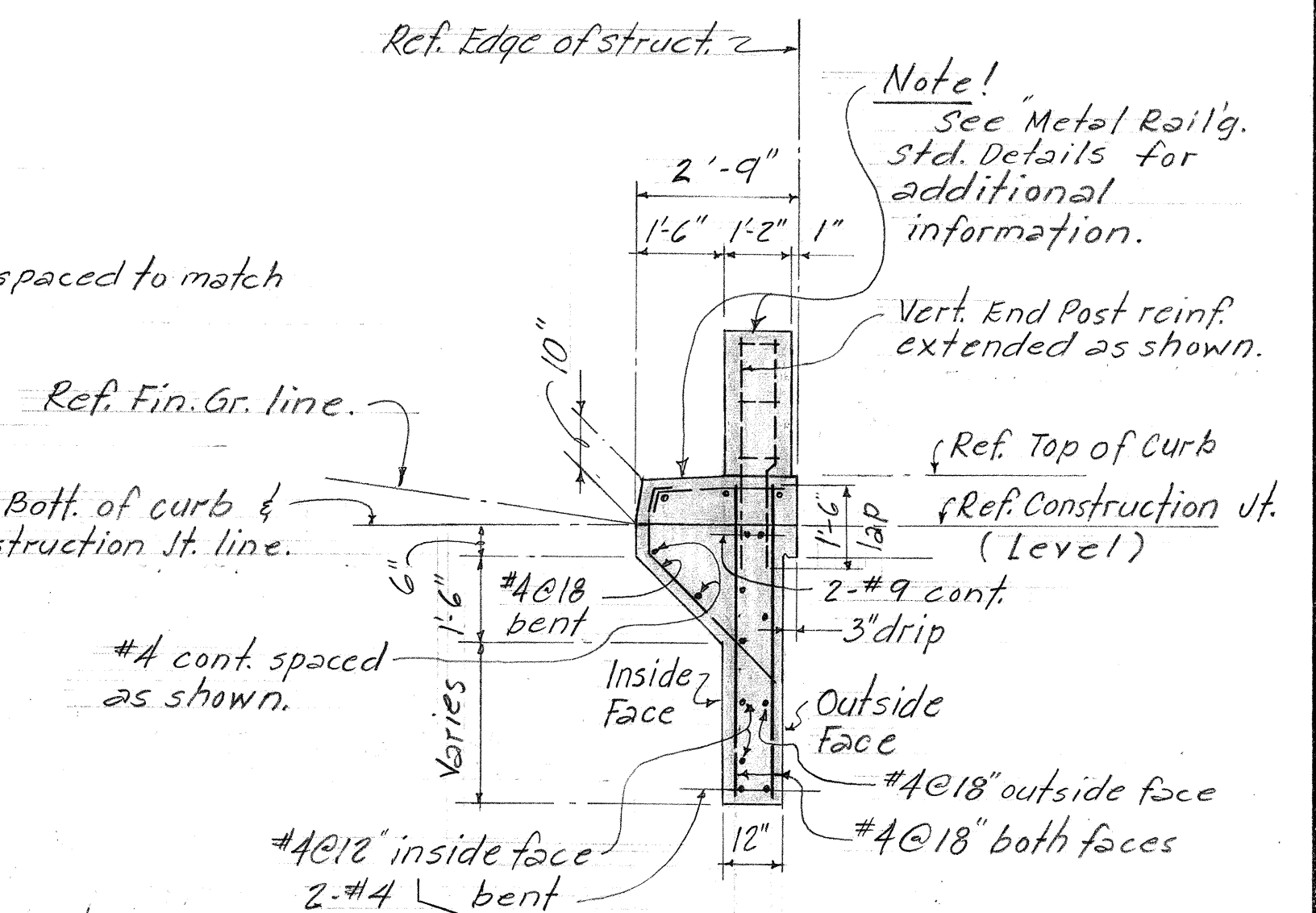
SHEET No. 6 OF 10 SHEETS

1. Place backfill to within 1'-0" of 3" cont. key before placement of girders.
2. Place prestressed concrete girders.
3. Pour abut. stem above key after girders are in place.

Continuous waterproofing 18" wide shall be constructed at the backface of the joint between the stem and footing for all abutment. See Sec. 46 of the Special Provisions for further details on waterproofing.

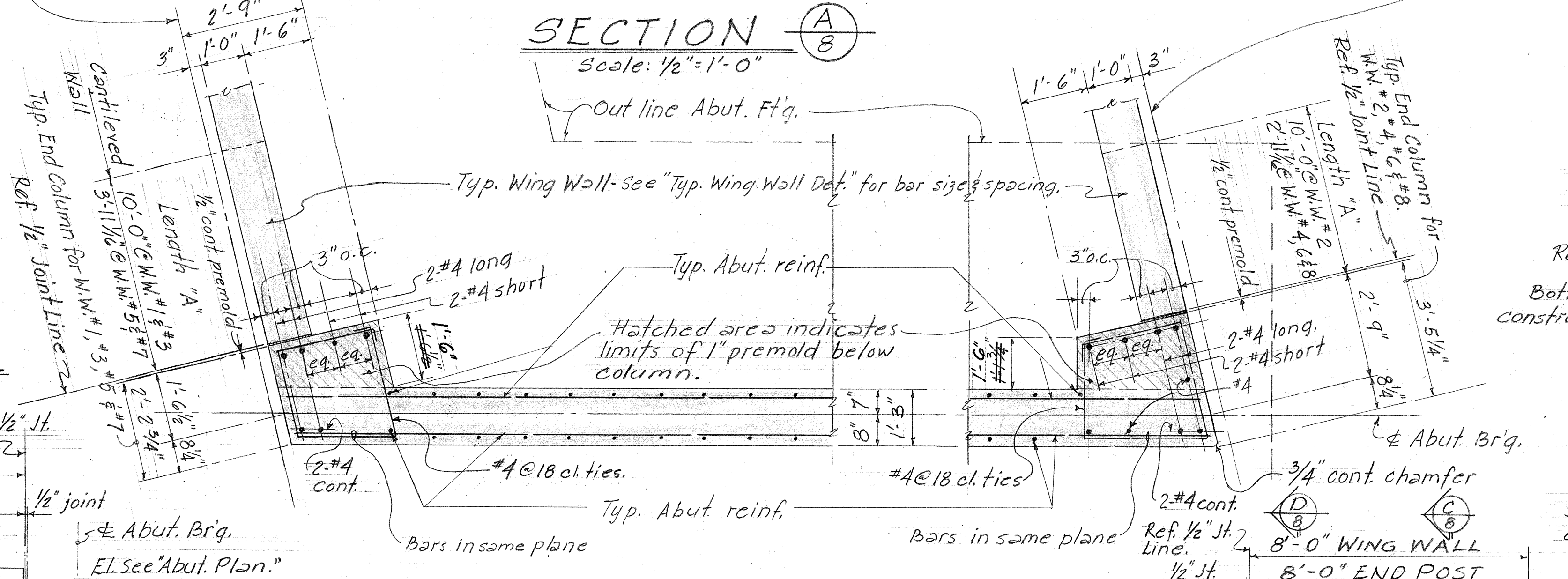


SECTION A
8
Scale: $\frac{1}{2}" = 1' - 0"$

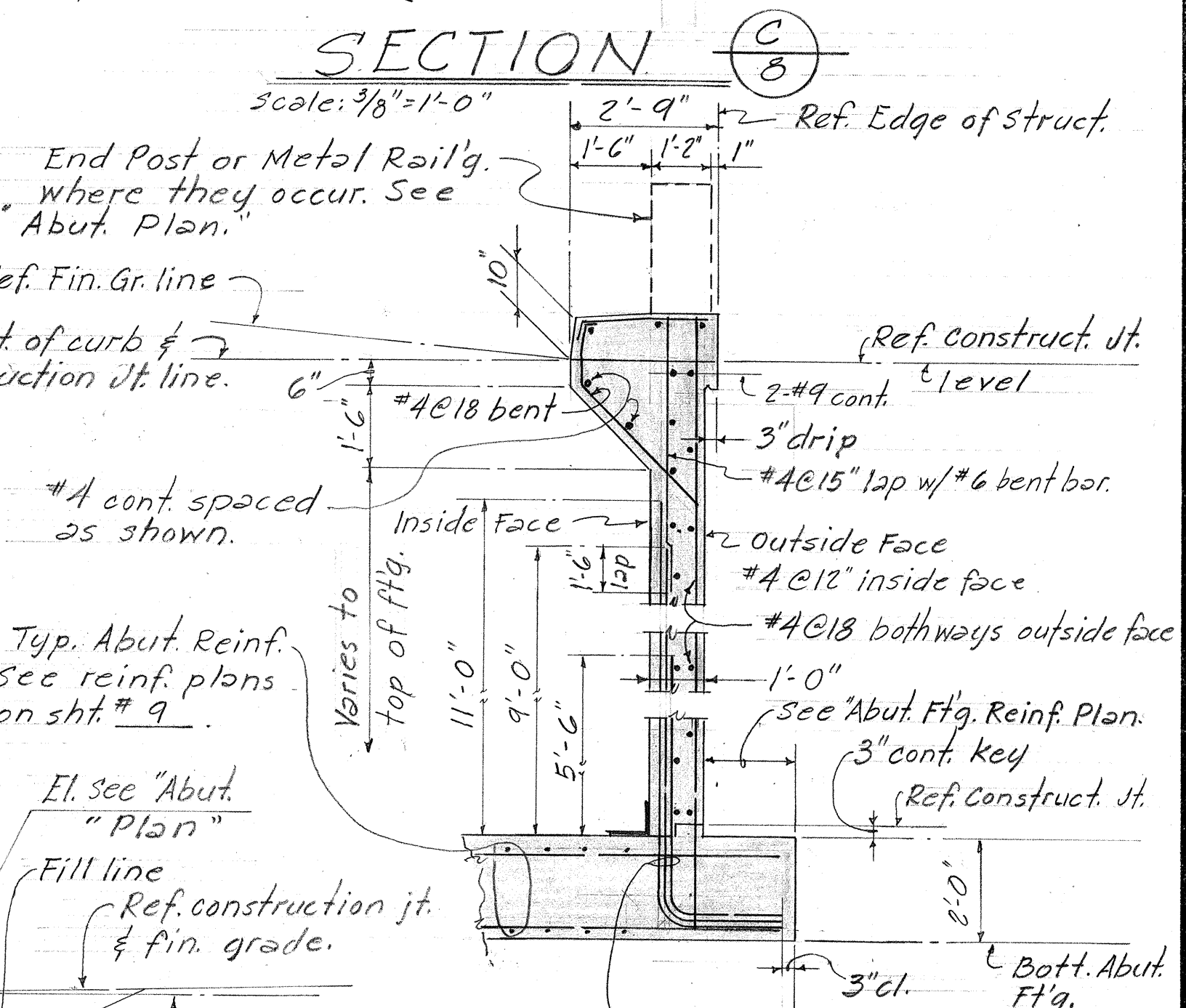


SECTION 

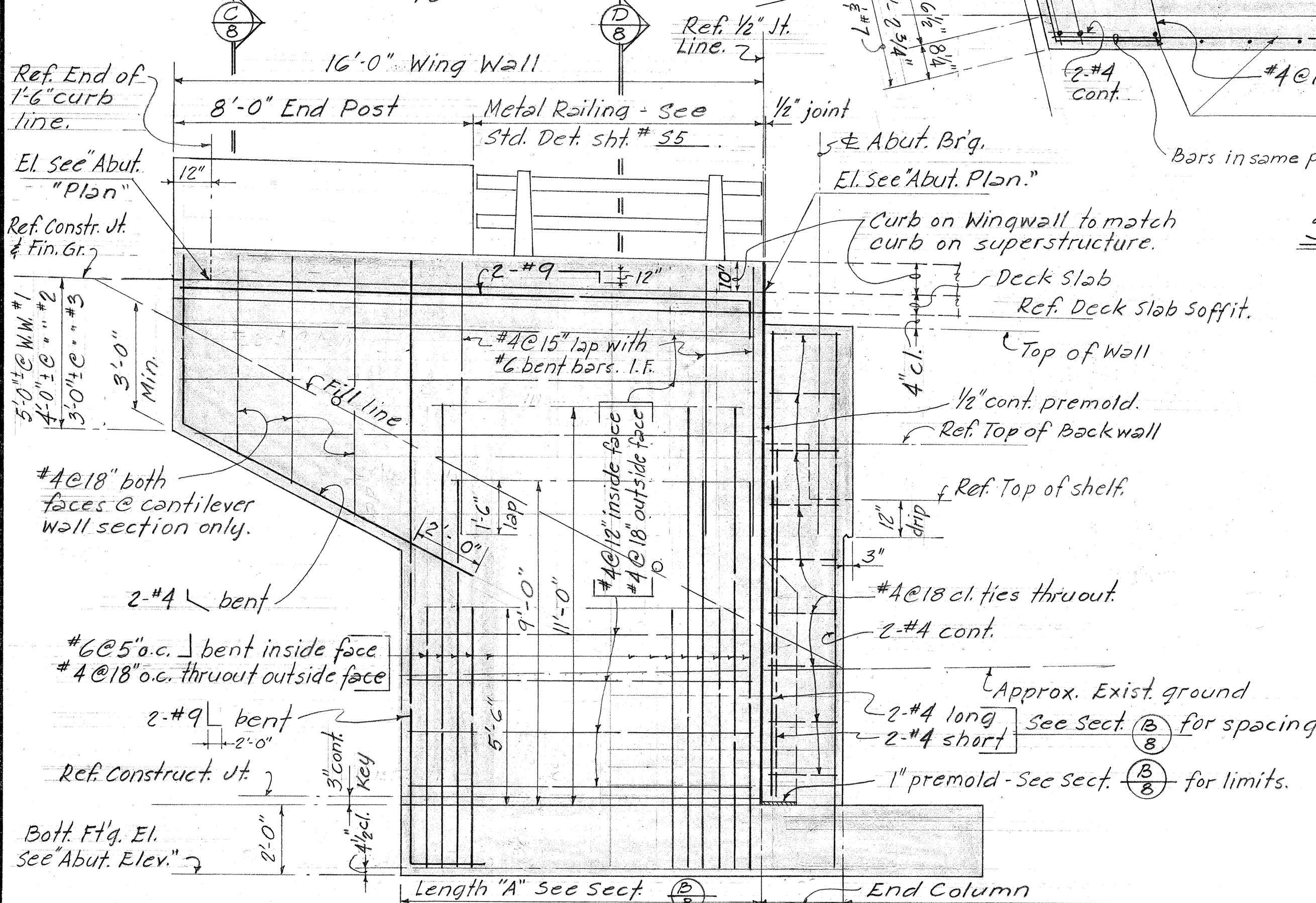
scale: $\frac{3}{8}'' = 1'-0''$ | 2'-9" | 2'-0"



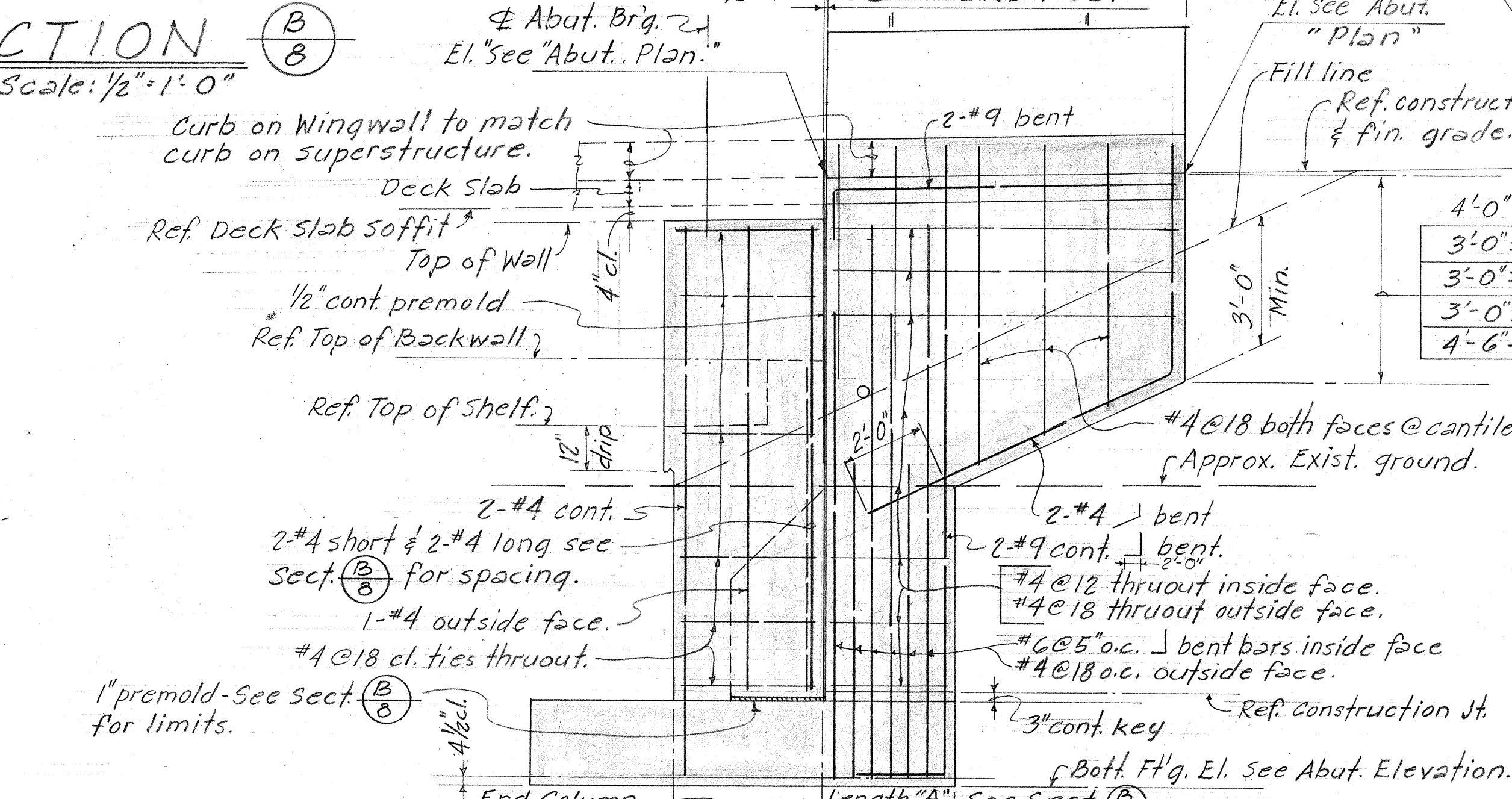
SECTION 
Scale: $\frac{1}{2}'' = 1'-0''$



SECTION $\frac{D}{8}$
Scale: $3/8" = 1'-0"$

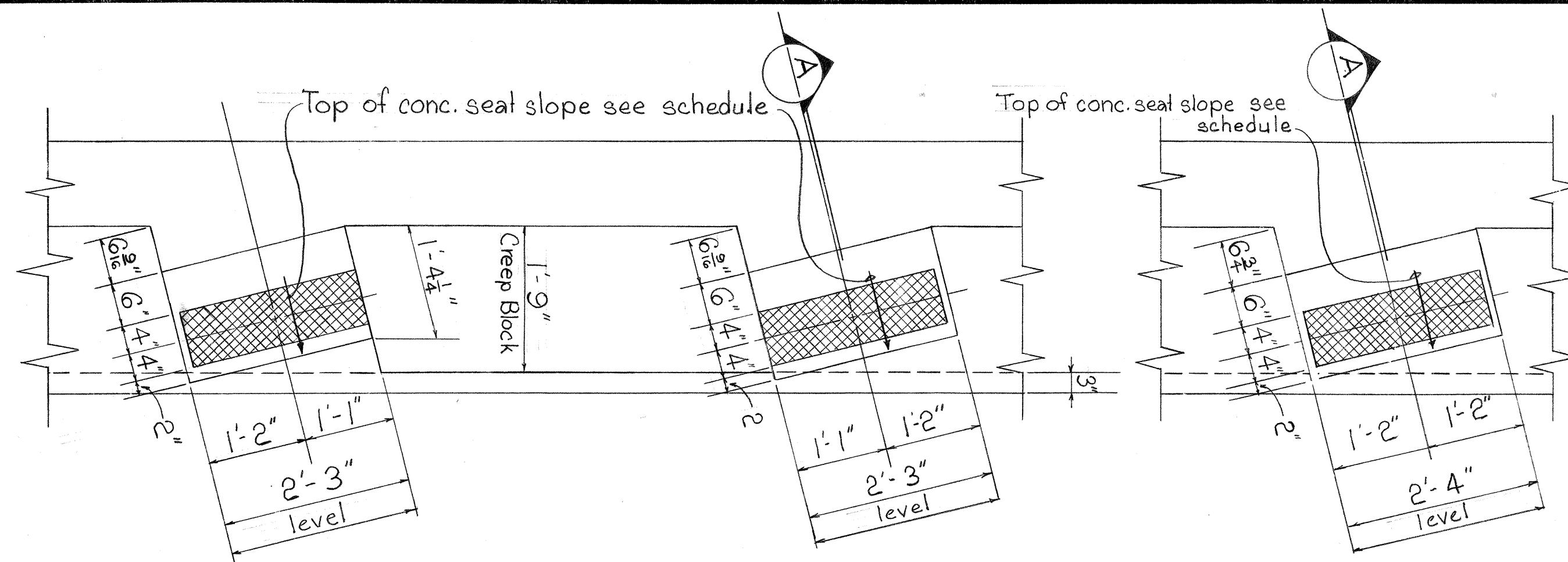


TYP. WING WALL ELEVATION FOR WINGWALL #1, #2 & #3



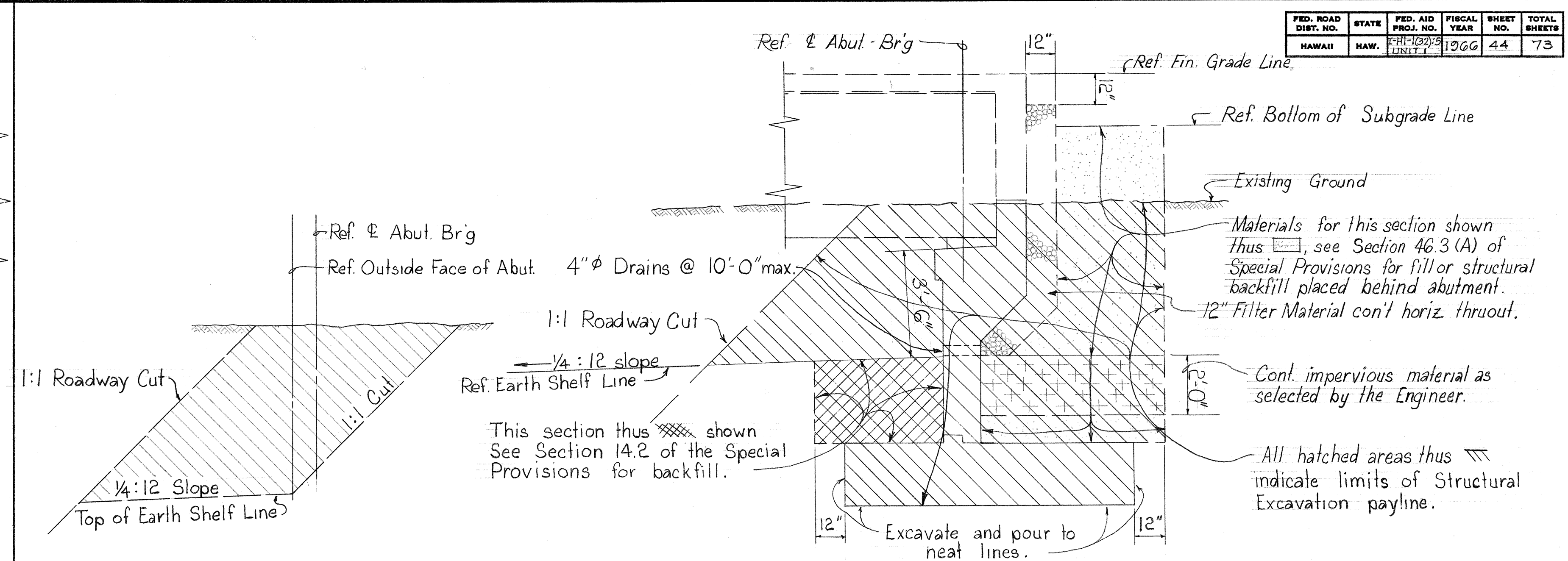
TYP. WINGWALL ELEVATION FOR
WINGWALL #4, #5, #6, #7 & #8
Scale: 3/8" = 1'-0"

PROJ. NO. 1-HI-1(32)-5, UNIT 1 SEPT. 1966
SHEET No. 8 OF 10 SHEETS



AT GIRDERS 1, 2, 4, 5, 7, 8 & 10 & 11

AT GIRDERS 3, 6 & 9

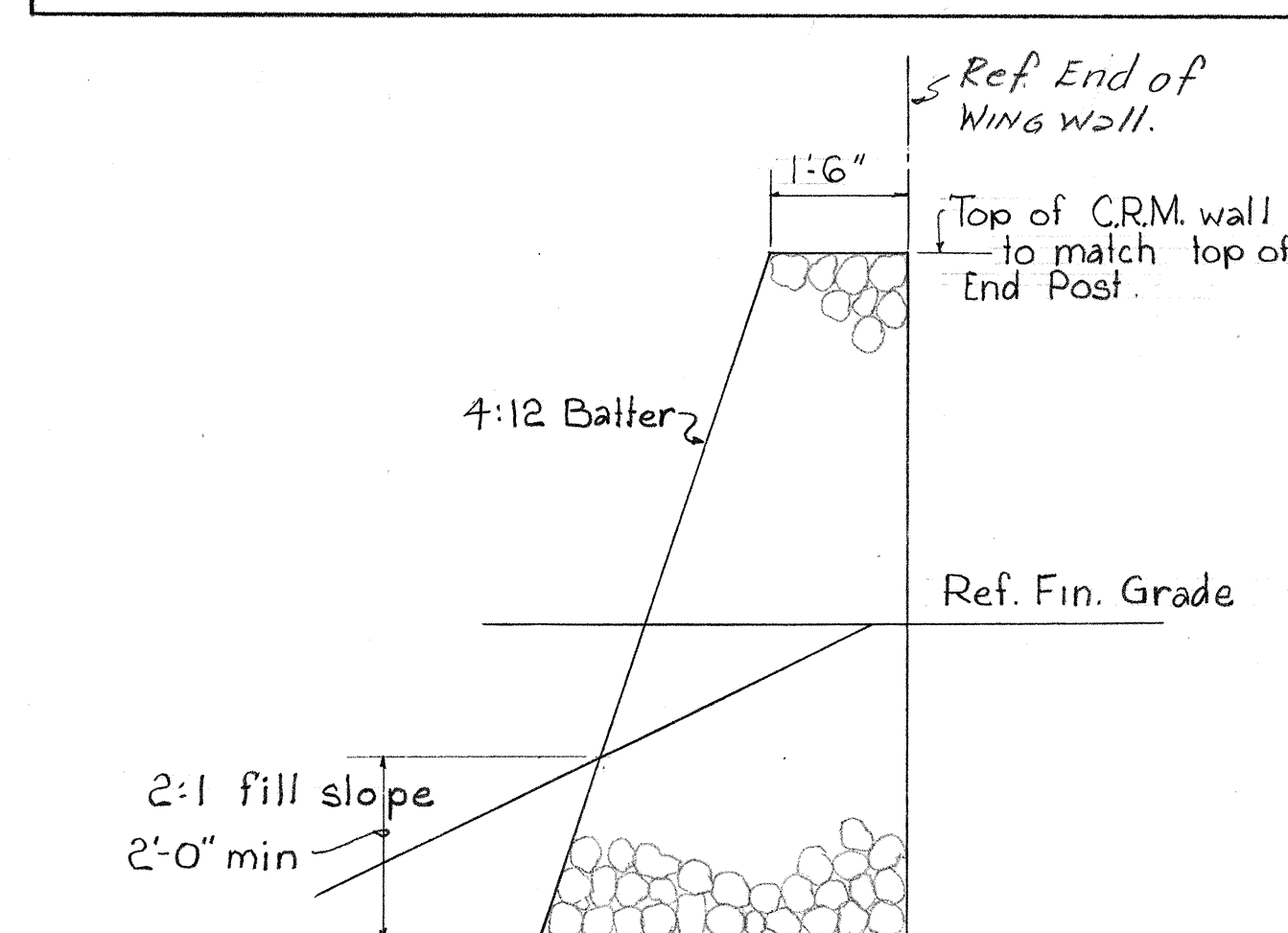


BETWEEN I.B. & O.B. STRUCTURE

AT ABUTMENTS

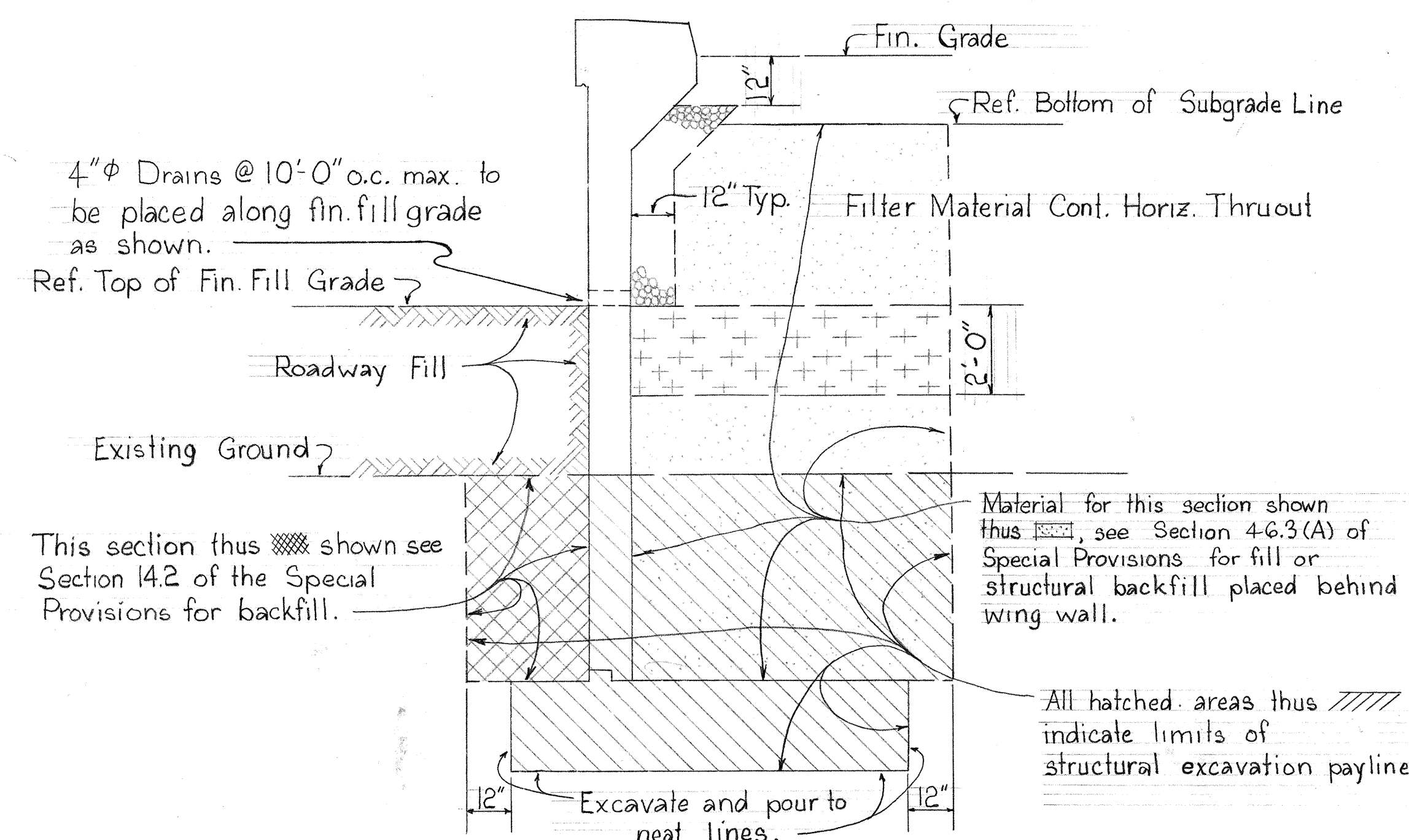
EXCAVATION PAY-LINE & BACKFILL DETAIL

Scale 3/8" = 1'-0"

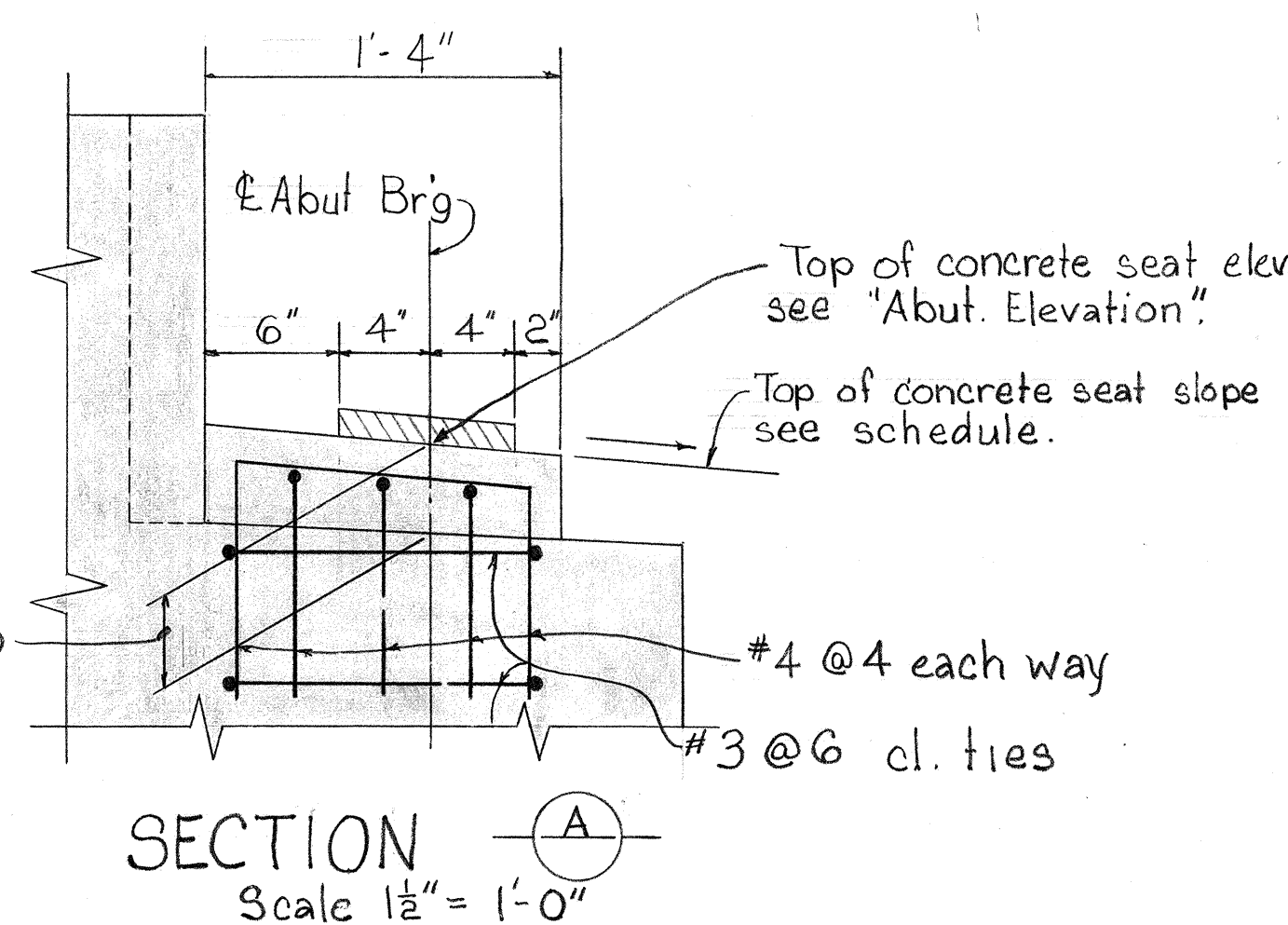


TYPICAL CRM. WALL SECTION

Scale 1/2" = 1'-0"



AT WING WALLS



SECTION A-A

Scale 1 1/2" = 1'-0"

TOP OF CONCRETE SEAT SLOPE SCHEDULE

INBOUND STRUCTURE		OUTBOUND STRUCTURE	
Girder No.	% Slope	Girder No.	% Slope
1	2.07	1	1.35
2	1.99	2	1.42
3	1.91	3	1.49
4	1.85	4	1.56
5	1.77	5	1.64
6	1.71	6	1.71
7	1.64	7	1.77
8	1.56	8	1.85
9	1.49	9	1.91
10	1.42	10	1.99
11	1.35	11	2.07

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADE SEPARATION
STRUCTURE NO. 360

PROJ. NO. I-HI-1(32):5, UNIT 1 SEPT. 1966

SHEET No. 10 OF 10 SHEETS