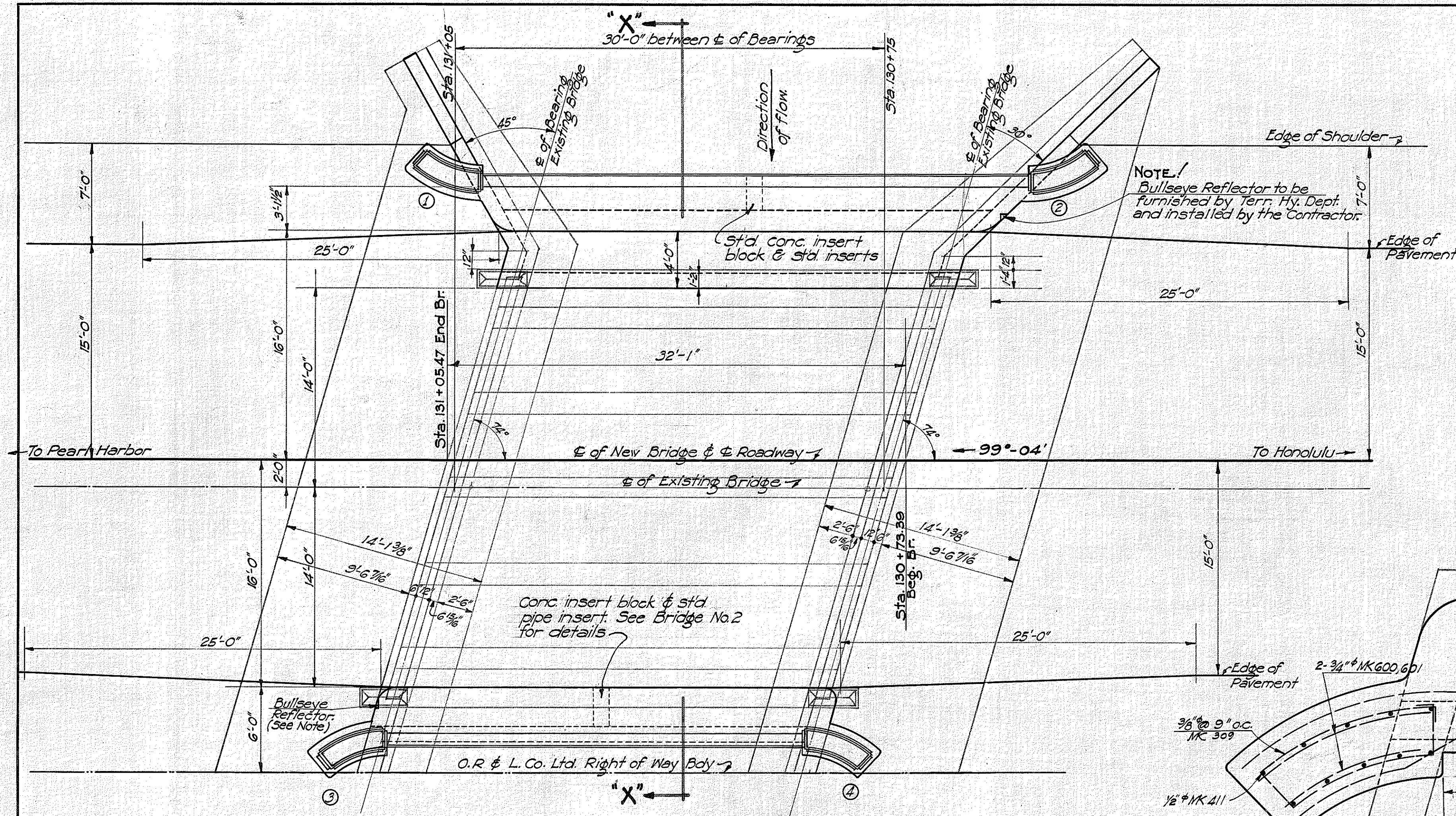
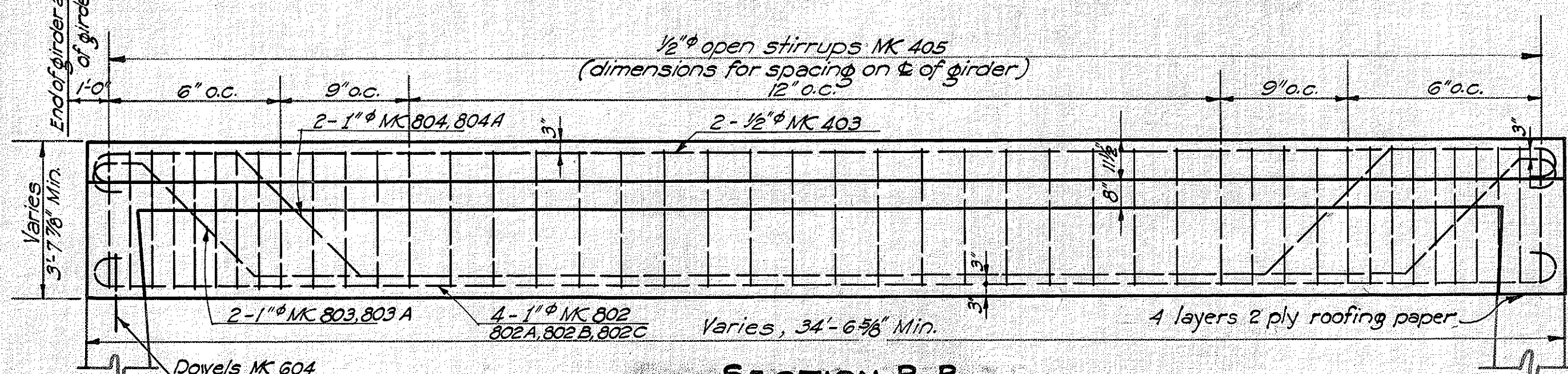
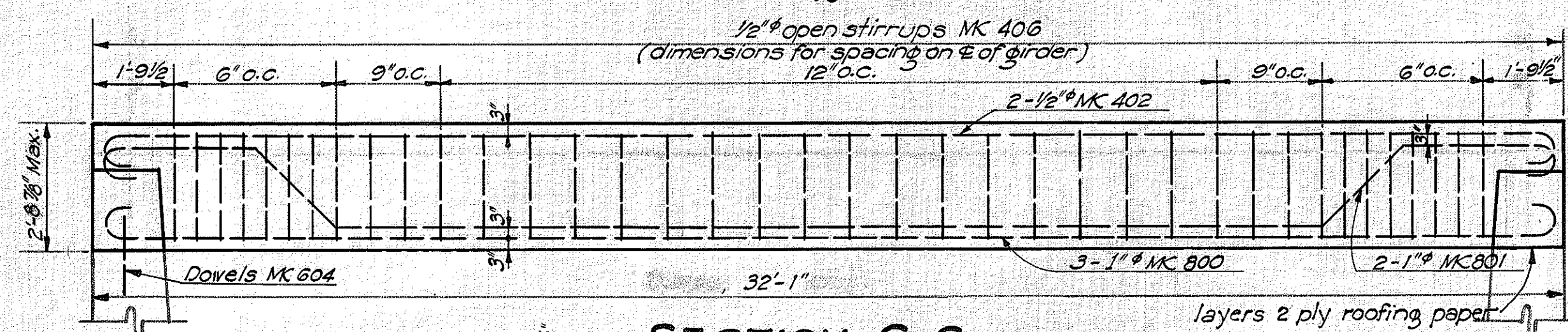




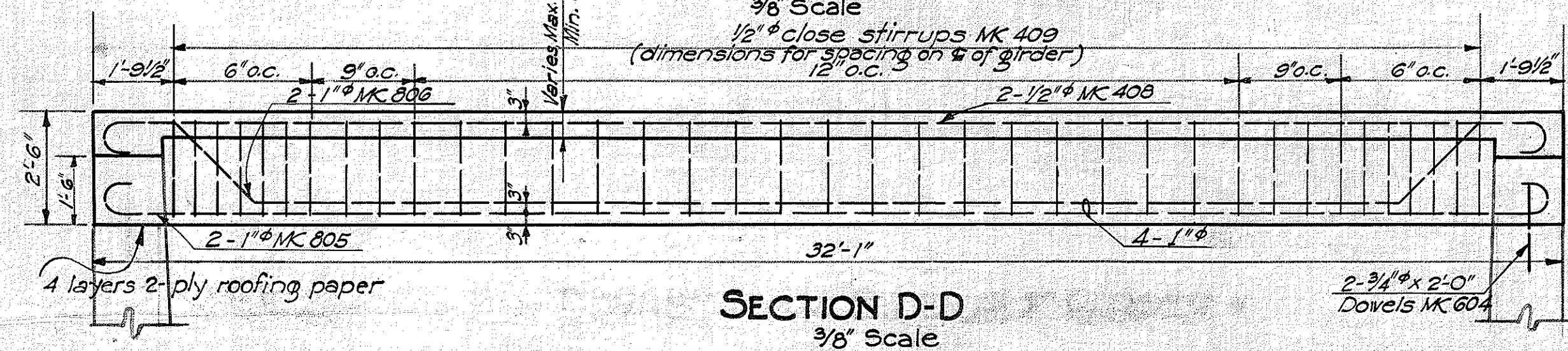
• LAYOUT PLAN •
3/16" Scale



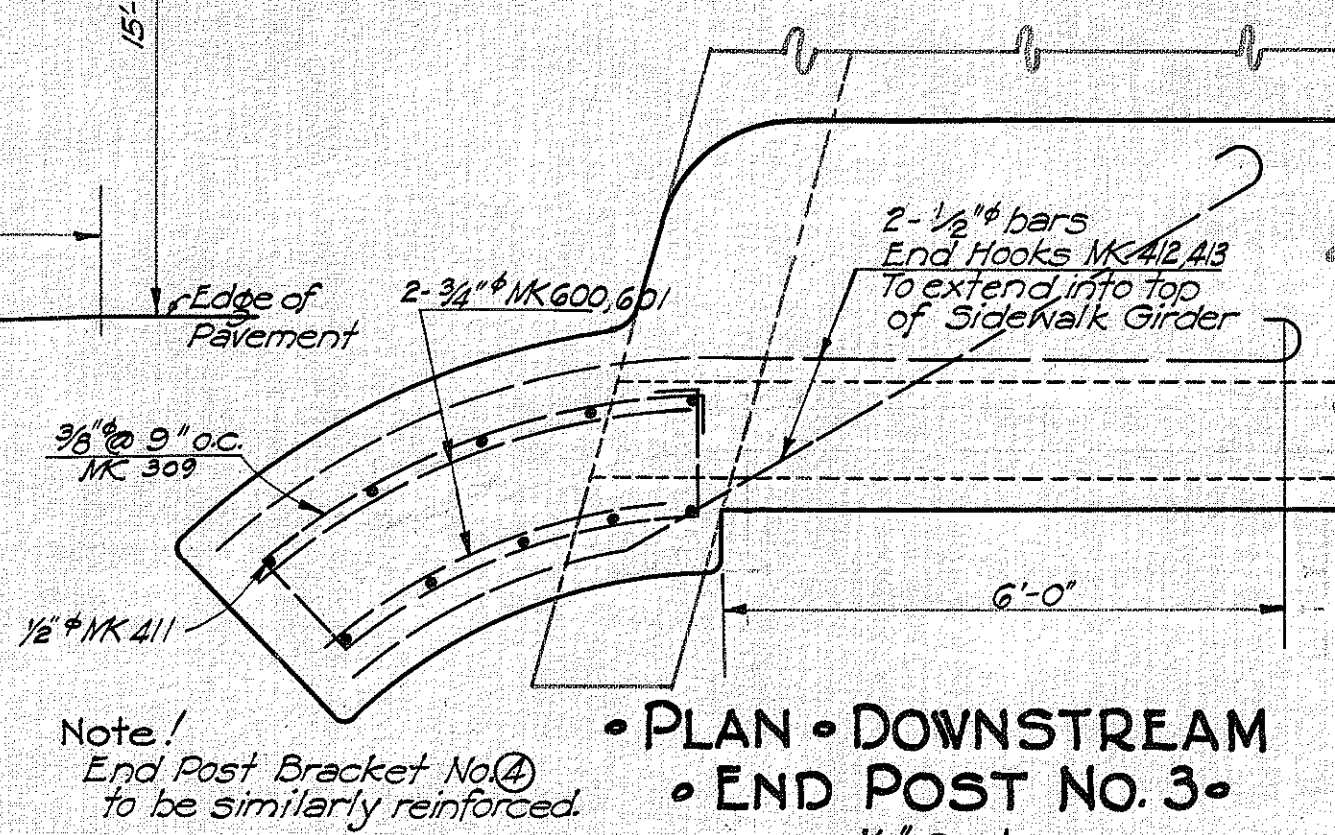
SECTION B-B
3/8" Scale



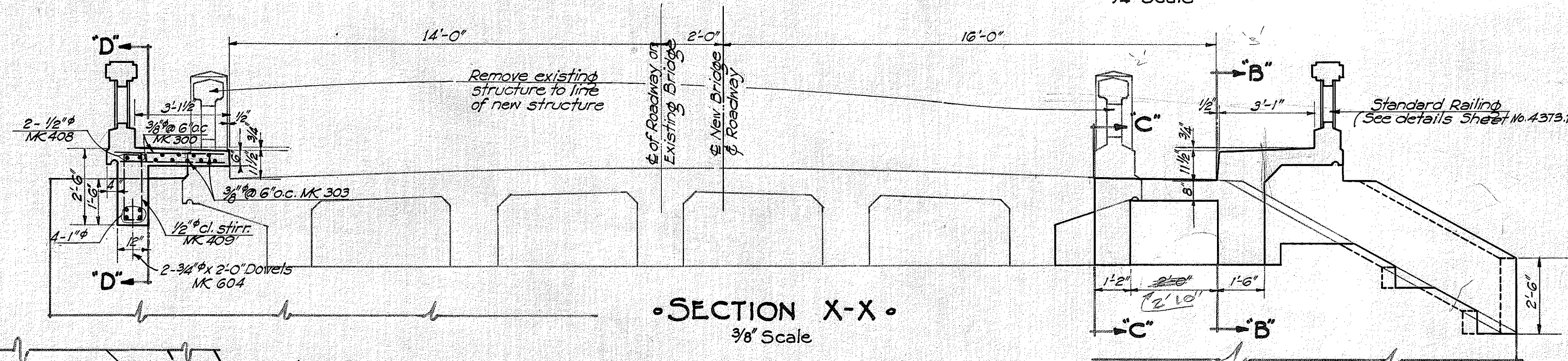
• SECTION C-C •
3/8" Scale



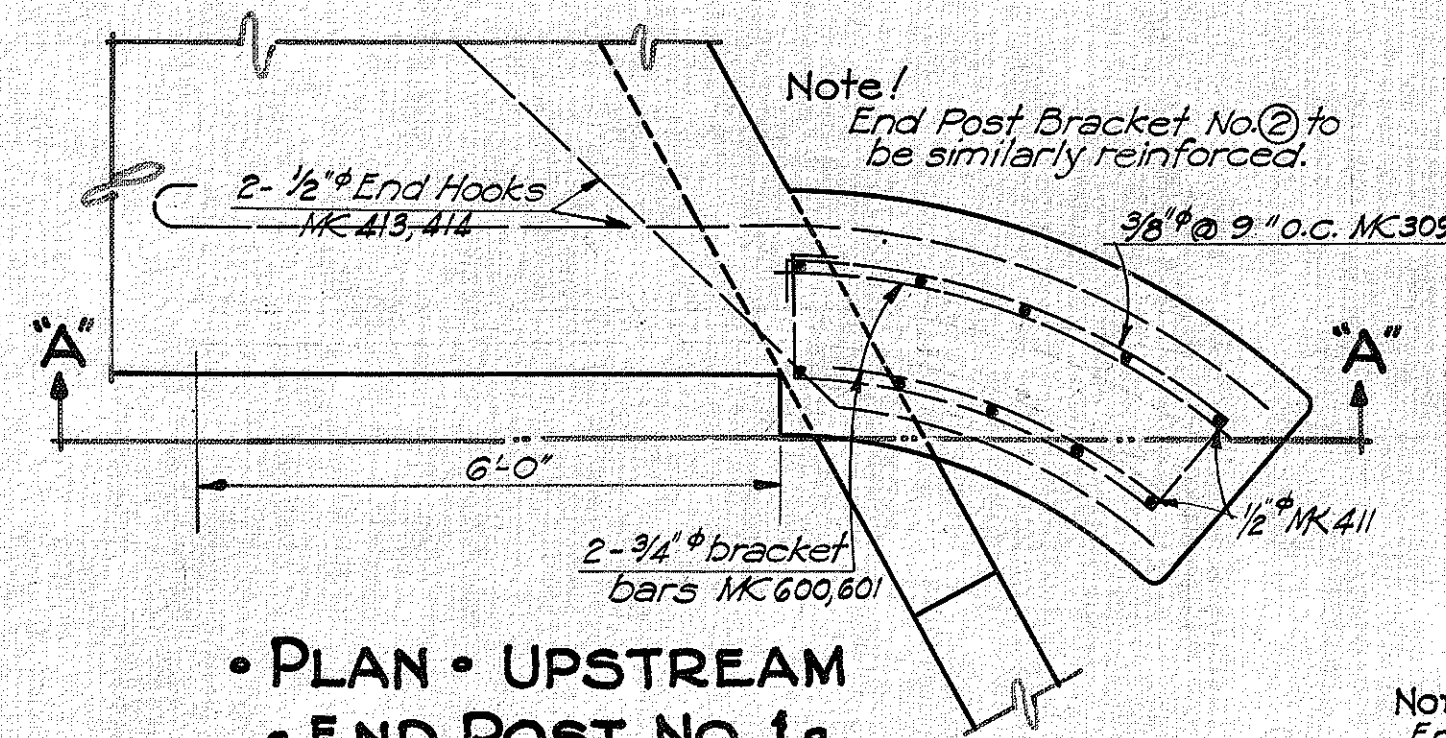
SECTION D-D
3/8" Scale



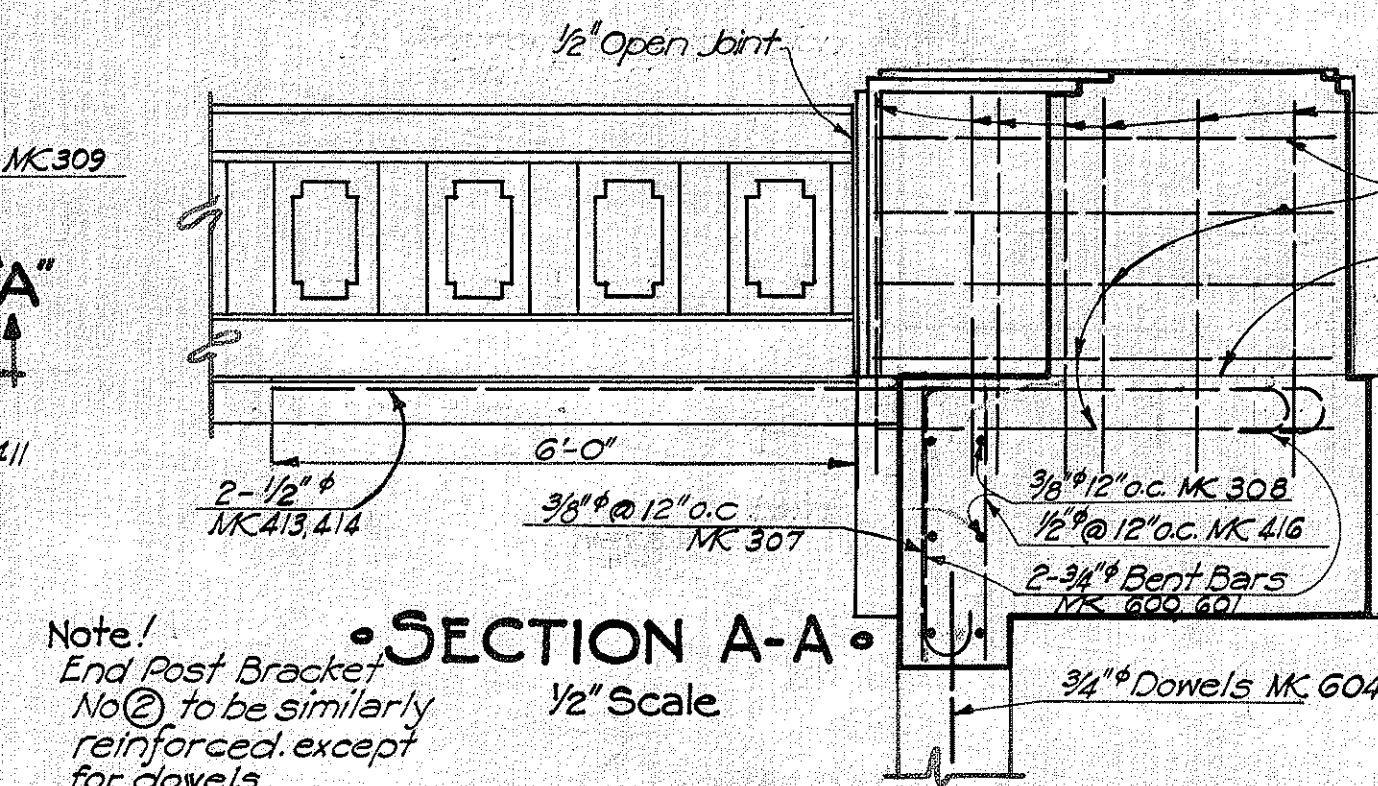
• PLAN - DOWNSTREAM •
• END POST NO. 3 •
1/2" Scale



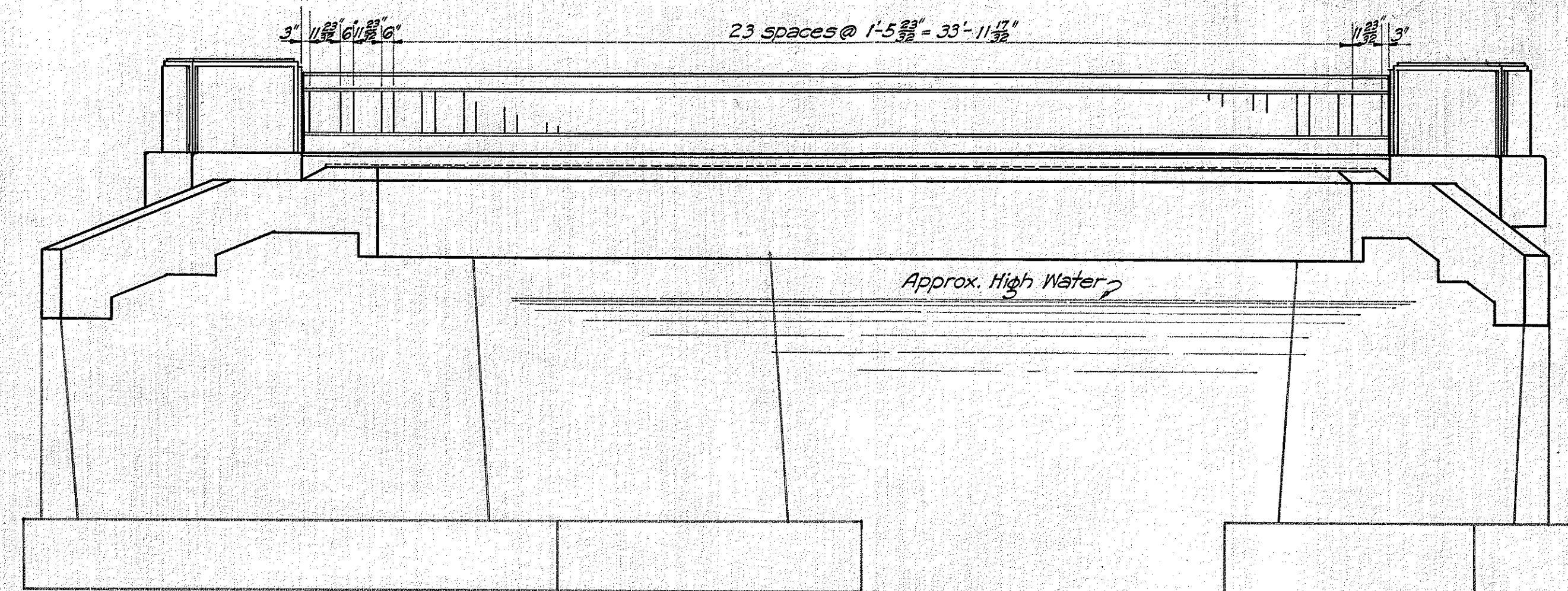
• SECTION X-X •
3/8" Scale



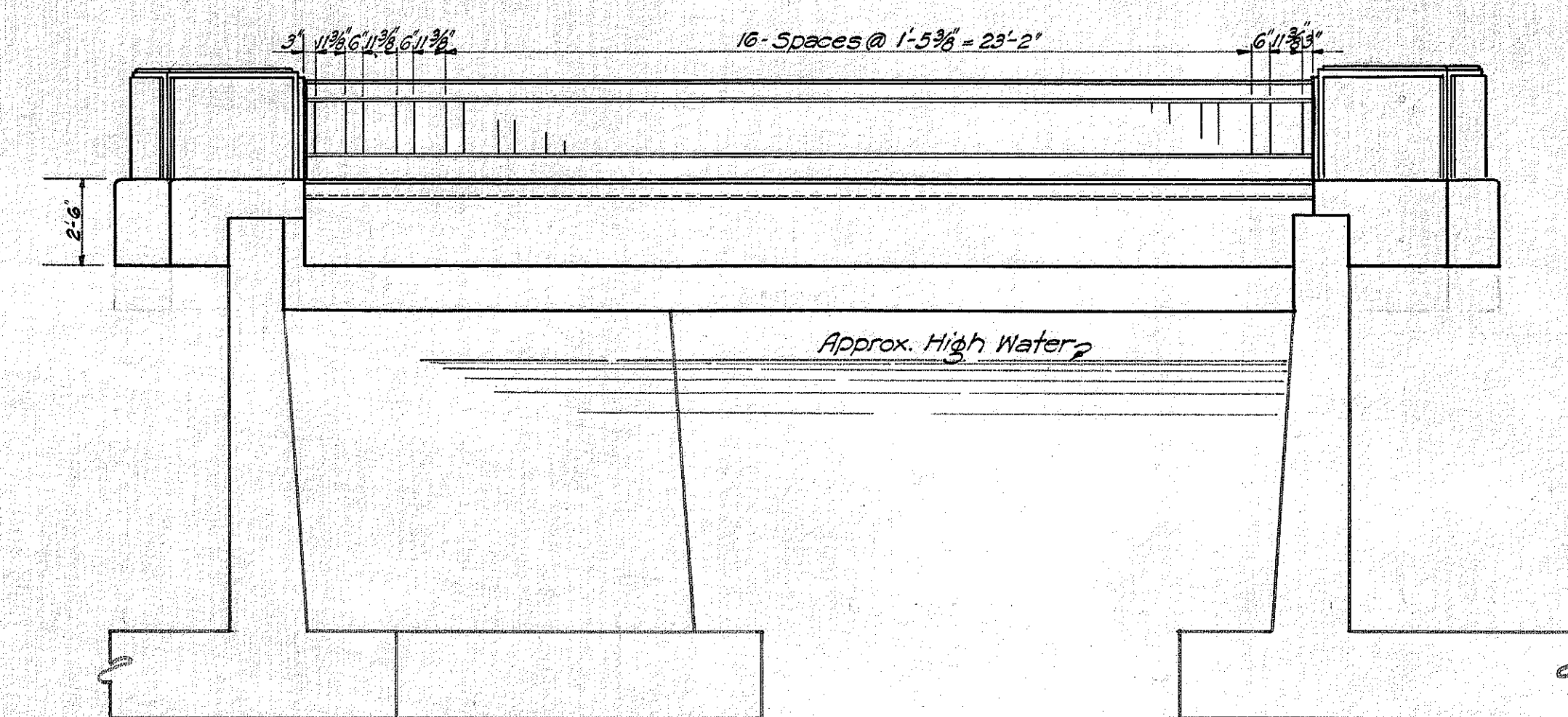
• PLAN - UPSTREAM •
• END POST NO. 1 •
1/2" Scale



• SECTION A-A •
1/2" Scale



• UPSTREAM ELEVATION •
1/4" Scale



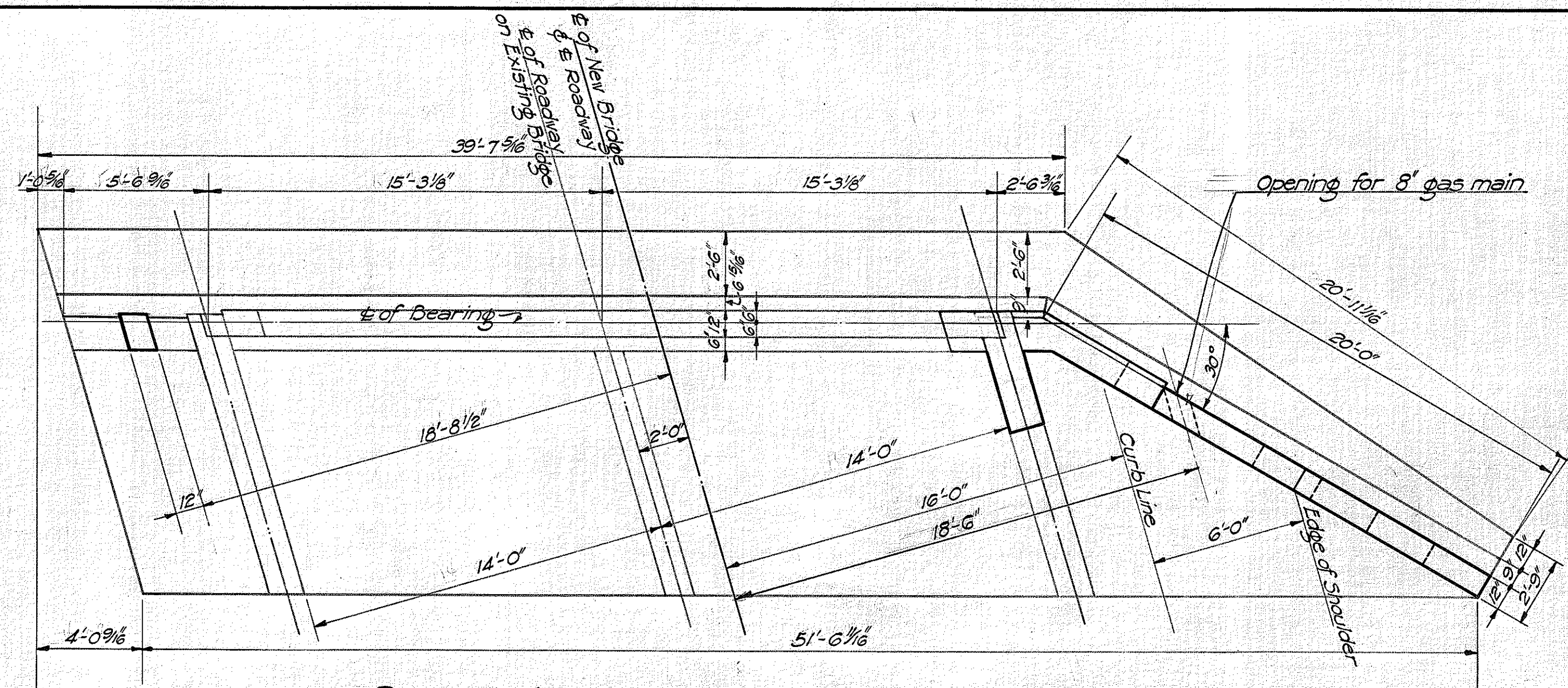
• DOWNSTREAM ELEVATION •
1/4" Scale

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
• BRIDGE NO. 3 •
STA. 130+73.39 TO STA. 131+05.47
KAMEHAMEHA HIGHWAY F.A.P. 9-G

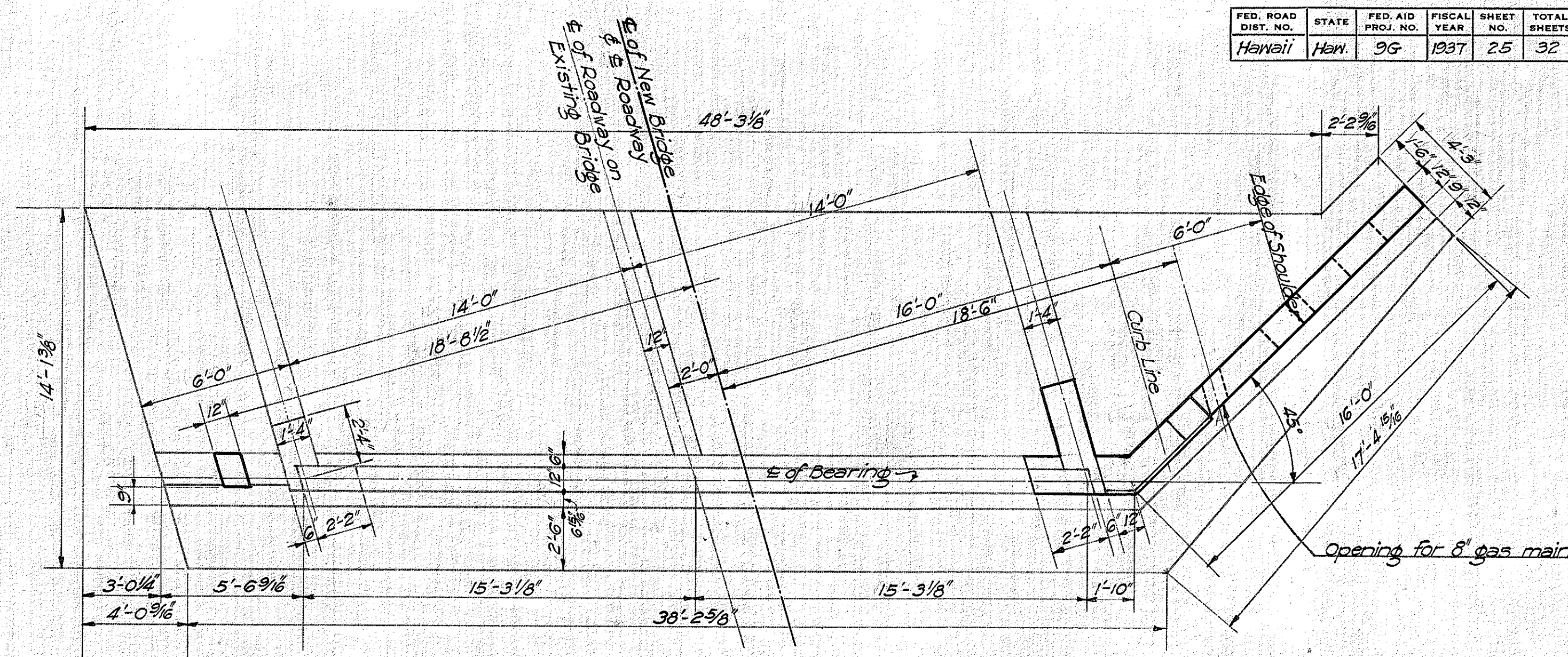
SHEET NO. 1 OF 6 SHEETS

4373.24

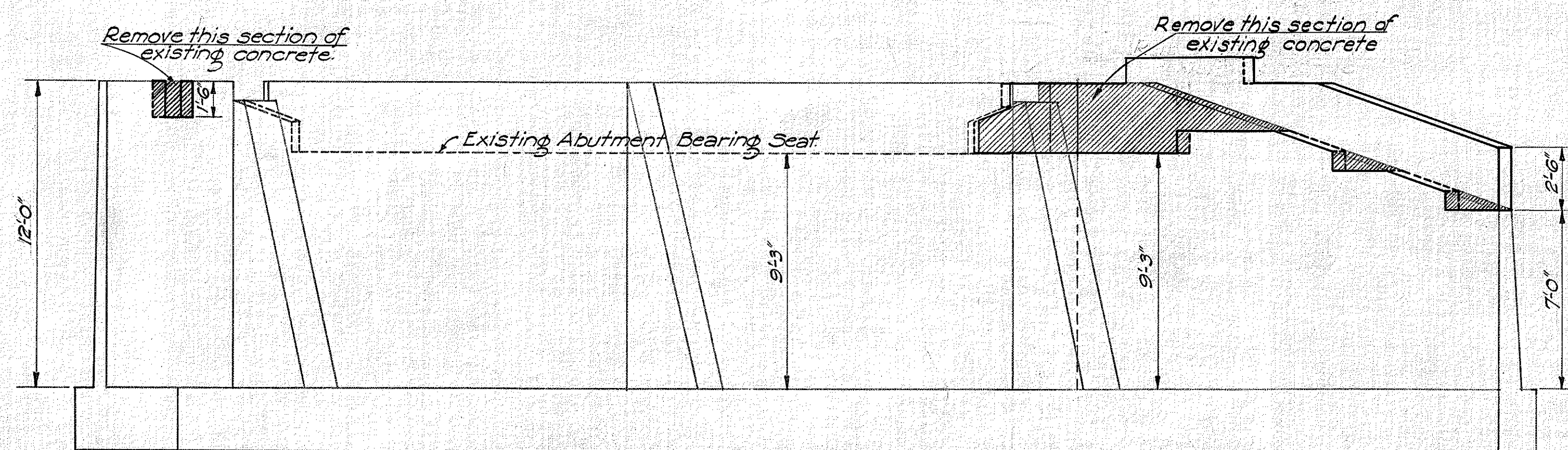
DESIGNED BY: W.R.D.
DRAWN BY: J.C.M.
CHECKED BY: J.C.M.
DATE: July 12, 1937
Revised as per Bureau letter dated July 12, 1937, C.F.M.



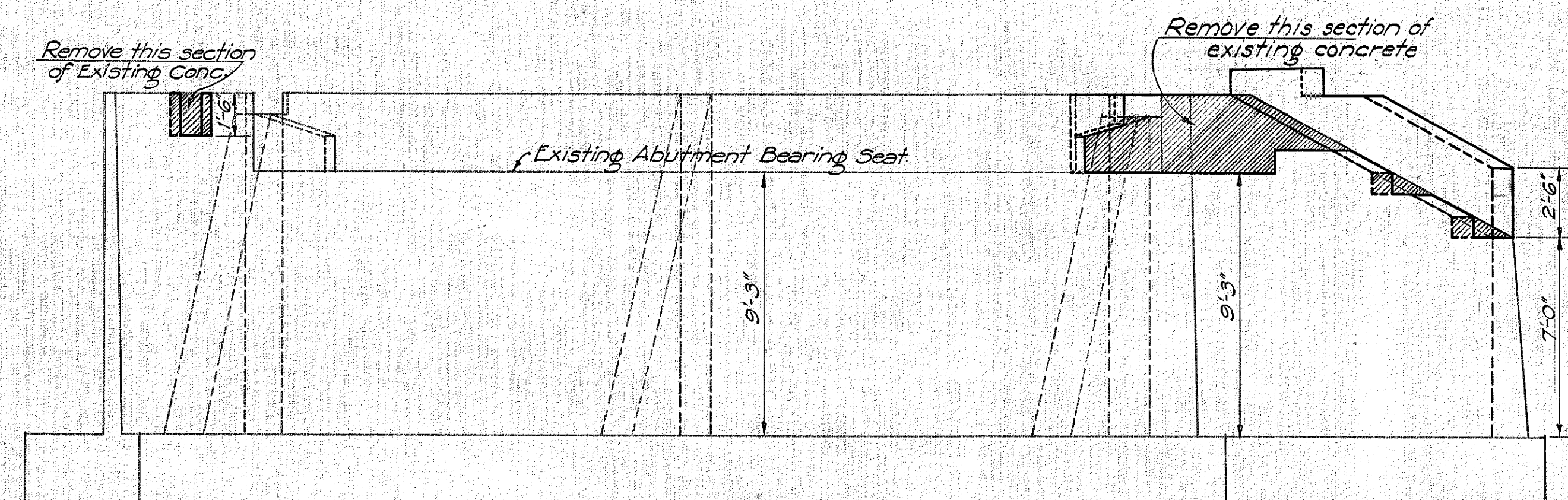
• PLAN OF ABUTMENT - BEGINNING OF BRIDGE •
1/4" Scale



• PLAN OF ABUTMENT - END OF BRIDGE •
1/4" Scale



• ELEV. OF ABUTMENT - BEGINNING OF BRIDGE •
1/4" Scale



• ELEVATION OF ABUTMENT - END OF BRIDGE •
1/4" Scale

ESTIMATED QUANTITIES			
LOCATION	STR. EXC. CUYD.	CLASS A CONC. CY	REINF. STL. LB.
Wingwalls		4.9	491
Superstructure		22.3	3655
Posts & Railing	5.0	8.1	607
TOTAL	5.0	35.3	4753

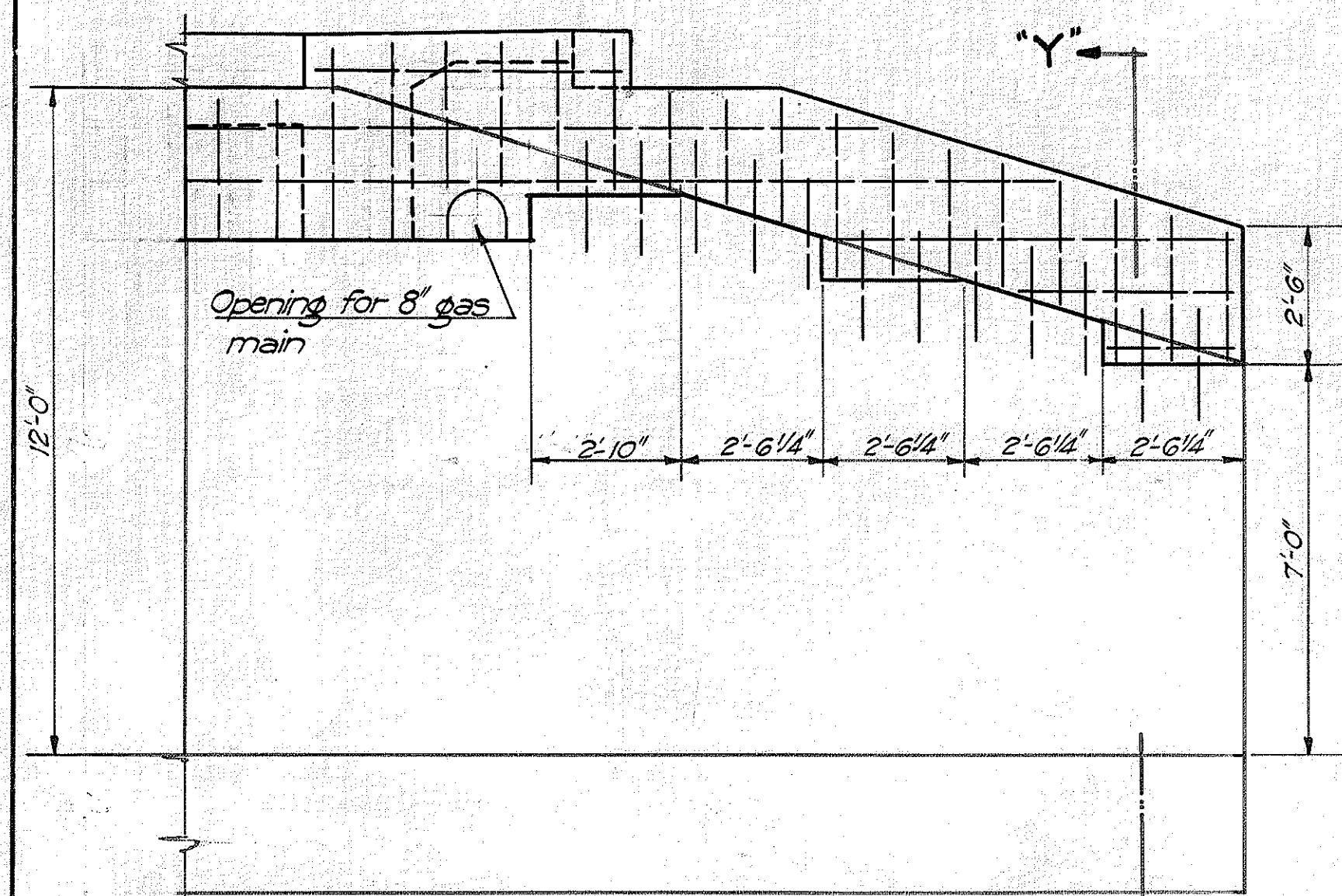
GENERAL NOTES /
For General Notes, See Sheet No. 4373.2
Parabolic Crown Ordinates, See Sheet No. 4373.13
Letters & Figures at Both Approaches, and
Diagram of Typical 15 Ton Truck.
See Sheet No. 4373.2

~~All existing pavement on present bridge to be removed and concrete deck to be cleaned before placing new pavement. This work to be considered incidental to new pavement.~~

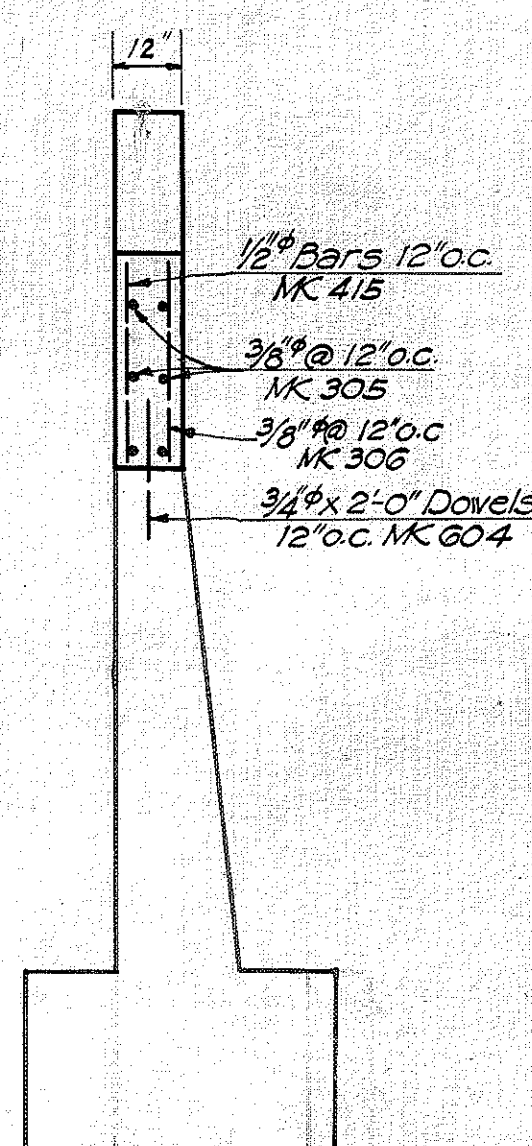
SPECIAL NOTES /
Details for widening of this bridge have been based upon the original plans which are included herein as Sheets No. 4373.2 to 4373.25.

The new construction may be varied slightly in the field to compensate for any discrepancies between the original plans and the bridge as constructed.

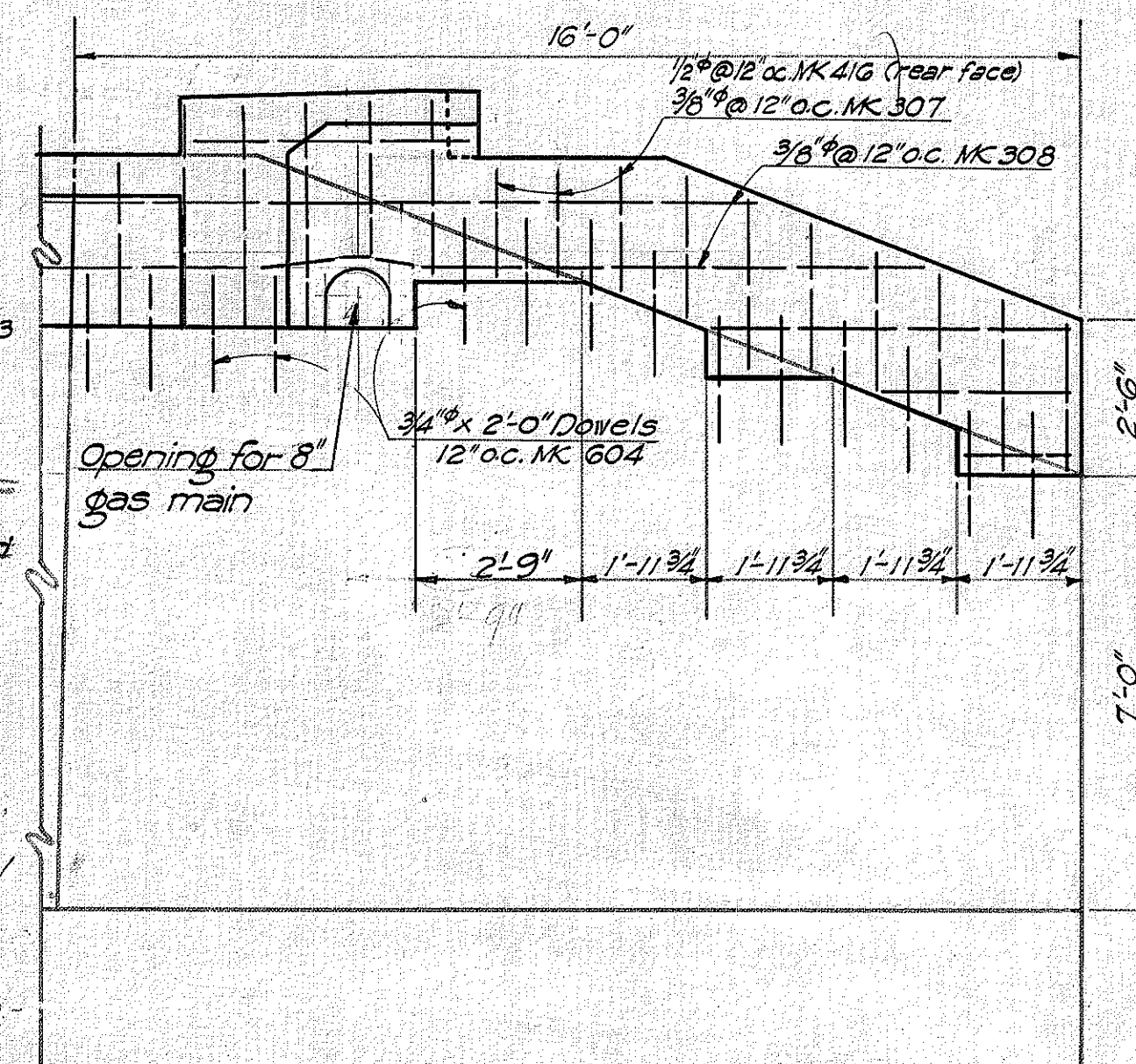
Removing of portions of the existing structure as detailed on the plans shall be considered as incidental to the new construction and shall not be paid for separately.



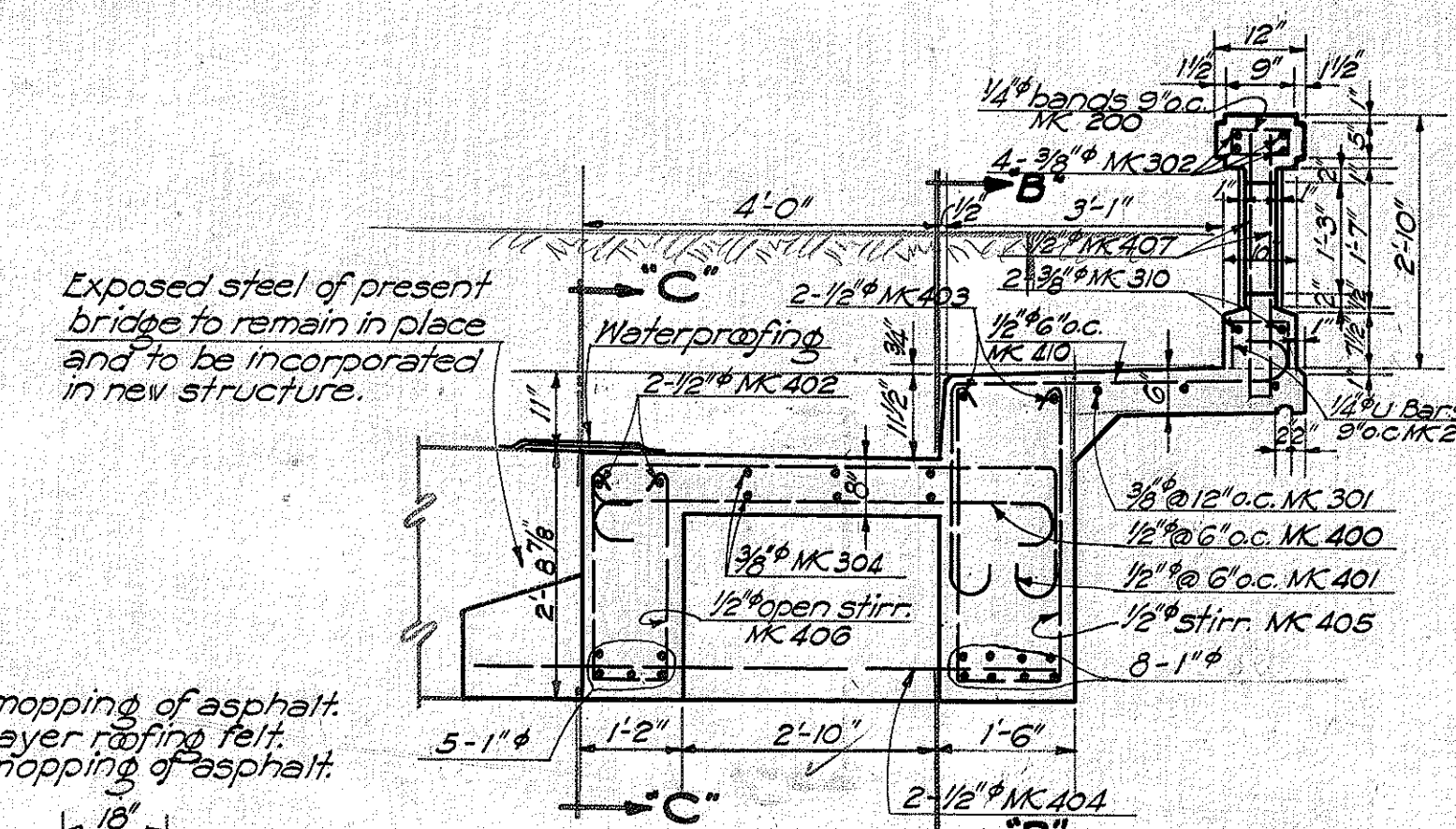
• REAR ELEVATION •
• WINGWALL FOR BEGINNING OF BRIDGE •
3/8" Scale



SECT. Y-Y
3/8" Scale



• FRONT ELEVATION •
• WINGWALL FOR END OF BRIDGE •
3/8" Scale



• SECT. UPSTREAM SIDEWALK GIRDER •
1/2" Scale

DETAIL OF WATERPROOFING

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
• BRIDGE NO. 3 •
STA. 130+73.39 TO STA. 131+05.47
KAMEHAMEHA HIGHWAY F.A.P. 9-G

SHEET No 2 OF 6 SHEETS

4373.25

STEEL SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw.	36	1937	26	32

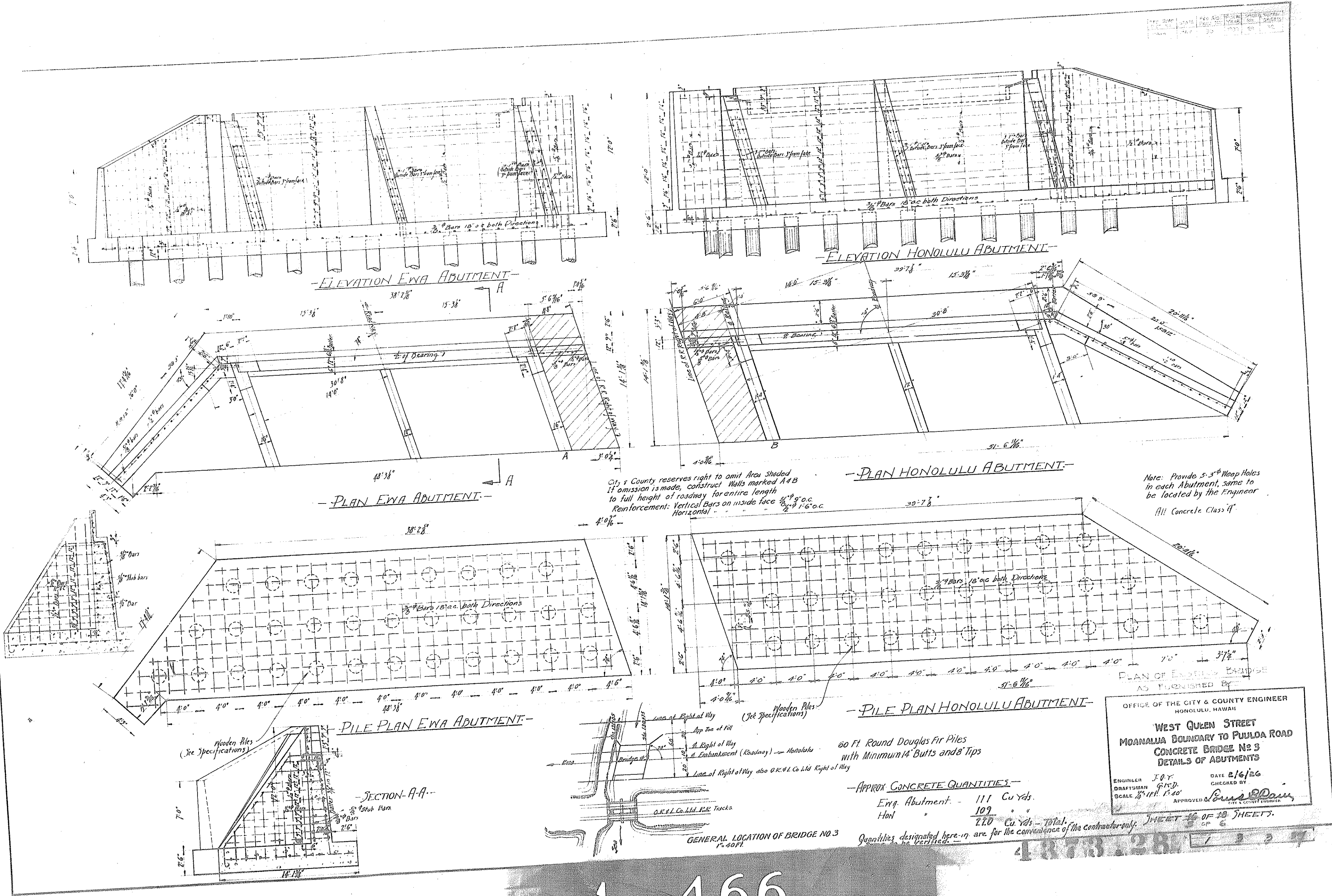
MK	DESCRIPTION	LOCATION	SIZE	LENGTH	No. OF BARS IN EA. UNIT	No. OF UNITS	TOTAL No. OF BARS	TOTAL LENGTH	WT. PER FT.	TOTAL WEIGHT
800		SUPERST. Interior Girder (Rt)	1"φ	33'-9"	3	1	3	101.25	2.67	270
801		" " "	"	35'-2"	2	1	2	70.33	"	188
402		" " "	1/2"φ	32'-7"	2	1	2	63.17	0.67	44
406		" " "	"	6'-3"	38	1	38	237.50	"	159
802		Sidewalk Girder (Rt)	1"φ	36'-7"	1	1	1	36.58	2.67	98
802A		" " "	"	37'-2"	1	1	1	37.17	"	99
802B		" " "	"	37'-8"	1	1	1	37.67	"	101
802C		" " "	"	38'-3"	1	1	1	38.25	"	102
803		" " "	"	39'-4"	1	1	1	39.33	"	105
803A		" " "	"	39'-11"	1	1	1	39.92	"	107
804		" " "	"	39'-11"	1	1	1	39.08	"	104
804A		" " "	"	40'-8"	1	1	1	40.67	"	109
403		" " "	1/2"φ	33'-0"	2	1	2	66.00	0.67	44
405		" " "	"	8'-6"	45	1	45	382.50	0.67	256
805		" " Lt.	1"φ	33'-9"	2	1	2	67.50	2.67	180
806		" " "	"	35'-3"	2	1	2	70.50	"	188
408		" " "	1/2"φ	30'-11"	2	1	2	61.83	0.67	41
409		" " "	"	6'-4"	37	1	37	234.33	"	157
304		Deck top & bot	3/8"φ	32'-9"	6	1	6	196.50	0.38	75
401		" top	1/2"φ	7'-5"	65	1	65	482.08	0.67	323
400		" bot	"	6'-0"	65	1	65	390.00	"	261
301		Sidewalk Rt.	3/8"φ	Varies Av. 38'-0"	3	1	3	114.00	0.38	43
410		" "	1/2"φ	6'-10"	70	1	70	478.33	0.67	320
303		" Lt.	3/8"φ	31'-7"	9	1	9	284.25	0.38	108
300		" "	"	3'-6"	65	2	130	455.0	"	173
413		WINGWALL Post Brackets	1/2"φ	12'-10"	1	4	4	51.33	0.67	34
414		" "	"	12'-5"	1	2	2	24.83	"	17
412		" "	"	12'-0"	1	2	2	24.00	"	16

MK	DESCRIPTION		LOCATION	SIZE	LENGTH	No. OF BARS IN EA. UNIT	No. OF UNITS	TOTAL No. OF BARS	TOTAL LENGTH	WT PER FT.	TOTAL WEIGHT
600			Post Brackets	3/8"	10'-0"	1	4	4	40.00	1.50	60
601			" "	"	9'-0"	1	4	4	36.00	"	54
604			Doves	"	2'-0"	14 2	2 3	34	68.00	"	102
306		Max. 3'-6" Min. 1'-9" Av. 2'-7"	Wingwall Beg.	3/8"	Varies Av. 2'-7"	21	1	21	54.25	0.38	21
415		Max. 3'-6" Min. 1'-9" Av. 2'-7"	" "	1/2"	Varies Av. 2'-7"	21	1	21	54.25	0.67	36
305		Max. 17'-6" Min. 1'-9" Av. 9'-10"	" "	3/8"	Varies Av. 9'-10"	6	2	12	118.00	0.38	45
307		Max. 3'-6" Min. 1'-9" Av. 2'-7"	" End	"	Varies Av. 2'-7"	18	1	18	46.50	"	18
416		Max. 3'-6" Min. 1'-9" Av. 2'-7"	" "	1/2"	Varies Av. 2'-7"	18	1	18	46.50	0.67	31
308		Max. 15'-6" Min. 1'-6" Av. 8'-6"	" "	3/8"	Varies Av. 8'-6"	6	2	12	102.00	0.38	39
404			Bot. of end wall bet. girders	1/2"	6'-0"	2	1	2	12.00	0.67	8
404A			" "	"	7'-4"	2	1	2	14.67	"	10
310			RAILING & Post Rail top & bot.	3/8"	37'-6"	2	1	2	75.00	0.38	29
310A			" " "	"	28'-6"	2	1	2	57.00	"	22
201			" " bot.	1/4"	1'-5"	51 39	1 1	90	127.50	0.17	22
407			" "	1/2"	6'-3"	1 1	27 21	48	300.0	0.67	201
200			" top	1/4"	2'-0"	51 39	1 1	90	180.00	0.67	31
411			End Posts	1/2"	4'-0"	10	4	40	160.00	"	107
309			" "	3/8"	12'-6"	5	4	20	250.00	0.38	95
302			Railing	"	37'-6"	4	1	4	150.00	"	57
302A			" "	"	28'-6"	4	1	4	114.00	"	43
GRAND TOTAL											4753

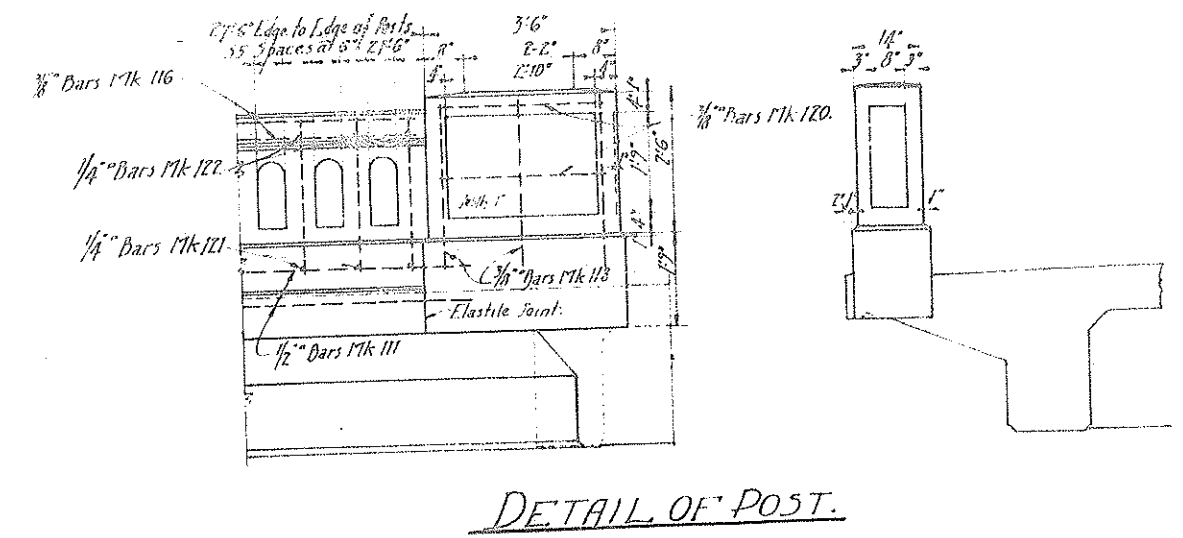
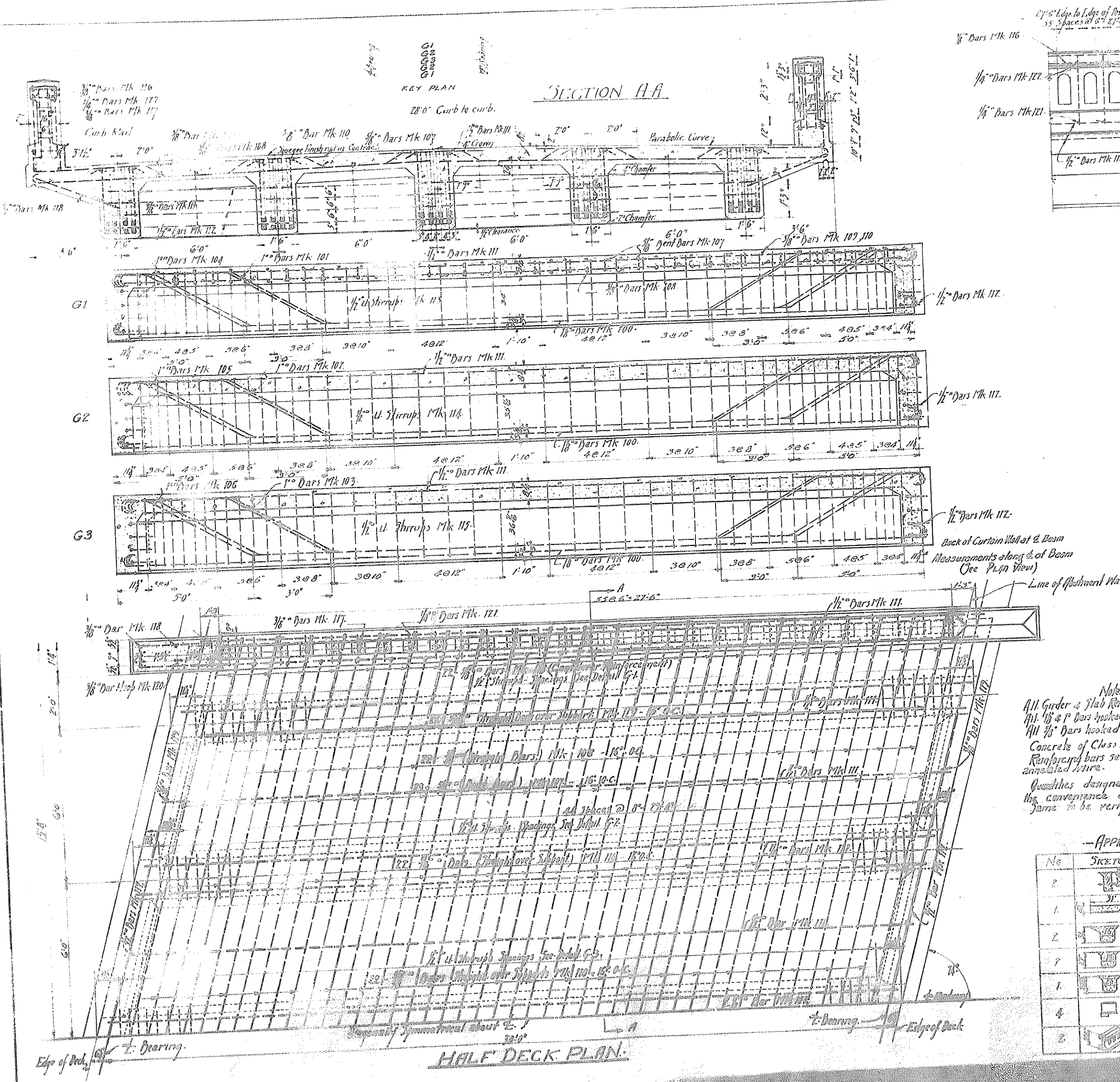
CONTRACTORS NOTE
This steel schedule is subordinate to details shown on plans. In case of discrepancy between steel list and detail drawings, the latter shall govern.
The Territorial Highway Dept. does not assume responsibility for any errors that occur in the steel schedule. Contractor shall check steel schedule before placing order.
All stirrup dimensions are to inside of stirrups. All other dimensions are figured to center of bars.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
BRIDGE NO. 3
STA. 130+73.39 TO STA. 131+05.47
KAMEHAMEHA HIGHWAY F.A.P. 9-G

DATE: FEB. 1937
DESIGNED BY: W. R. B.
CHECKED BY: J. C. M.
NOTED BY: J. C. M.
QUANTITIES BY: J. C. M.
CHECKED BY: J. C. M.



1-466
 1-3-3-37



REINFORCING SCHEDULE

MTK.	SIZE	No.	DESCRIPTION	REINFORCING	Length	Area	Weight
100	1/2"	20	1/2" Bars Mtk 100	G-1	32' 5"	6.48	2812
101	1"	4	1" Bars Mtk 101	G-2	33' 6"	13.4	460
102	1"	4	1" Bars Mtk 102	G-3	33' 8"	67	230
103	1"	2	1" Bars Mtk 103	G-1	33' 5"	13.4	460
104	1"	4	1" Bars Mtk 104	G-2	33' 7"	13.4	460
105	1"	4	1" Bars Mtk 105	G-3	33' 8"	67	230
106	1"	2	1" Bars Mtk 106	G-1	33' 5"	13.4	460
107	1"	2	1" Bars Mtk 107	G-2	33' 7"	13.4	460
108	1"	2	1" Bars Mtk 108	G-3	33' 8"	67	230
109	1"	2	1" Bars Mtk 109	G-1	33' 5"	13.4	460
110	1"	2	1" Bars Mtk 110	G-2	33' 7"	13.4	460
111	1"	2	1" Bars Mtk 111	G-3	33' 8"	67	230
112	1"	2	1" Bars Mtk 112	G-1	33' 5"	13.4	460
113	1"	2	1" Bars Mtk 113	G-2	33' 7"	13.4	460
114	1"	2	1" Bars Mtk 114	G-3	33' 8"	67	230
115	1"	2	1" Bars Mtk 115	G-1	33' 5"	13.4	460
116	1"	2	1" Bars Mtk 116	G-2	33' 7"	13.4	460
117	1"	2	1" Bars Mtk 117	G-3	33' 8"	67	230
118	1"	2	1" Bars Mtk 118	G-1	33' 5"	13.4	460
119	1"	2	1" Bars Mtk 119	G-2	33' 7"	13.4	460
120	1"	2	1" Bars Mtk 120	G-3	33' 8"	67	230
121	1"	2	1" Bars Mtk 121	G-1	33' 5"	13.4	460
122	1"	2	1" Bars Mtk 122	G-2	33' 7"	13.4	460

Notes:
 All Girder & Slab Reinforcing Bar ends are 30"
 All 1/2" & 1" Bars hooked at ends have 18" radius.
 All 3/4" Bars hooked at ends have 2" radius.
 Concrete of Class A Mix.
 Reinforcing bars secured with #16 black annealed wire.
 Quantities designated here-in are for the convenience of contractor only. Same to be verified.

APPROX CONCRETE SCHEDULE

No.	SKETCH	ITEM	Length	Area	Volume
1	[Sketch]	Curtain Wall	1.68	27' 8"	100
2	[Sketch]	Deck Slab	21.7	32' 0"	700
3	[Sketch]	Girder 1	4.1	31' 0"	234
4	[Sketch]	Girder 2	3.6	27' 6"	112
5	[Sketch]	Girder 3	3.8	27' 6"	112
6	[Sketch]	Railway	2.4	27' 6"	69
7	[Sketch]	Railway	2.4	27' 6"	132

PLAN OF EXISTING BRIDGE
 AS FURNISHED BY
 OFFICE OF THE CITY & COUNTY ENGINEER
 HONOLULU, HAWAII
 WEST QUEEN STREET
 MOANALUA BOUNDARY TO PAALO ROAD
 CONCRETE BRIDGE NO 9
 DETAILS OF DECK
 ENGINEER: [Signature]
 DATE: 2/6/26
 CHECKED BY: [Signature]
 APPROVED: [Signature]
 1977 Cal. 305 Code, 201.62

1-467
 1-3-3-38