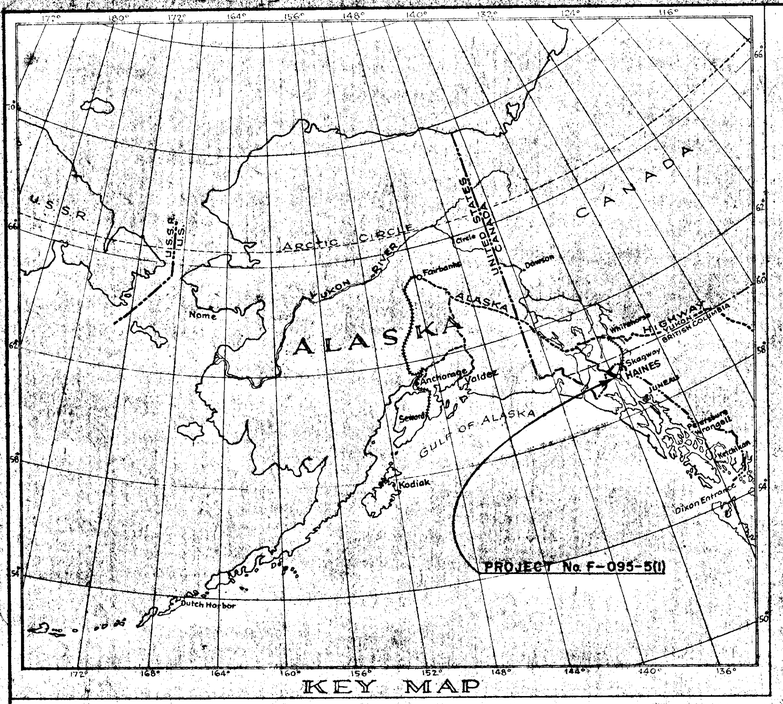
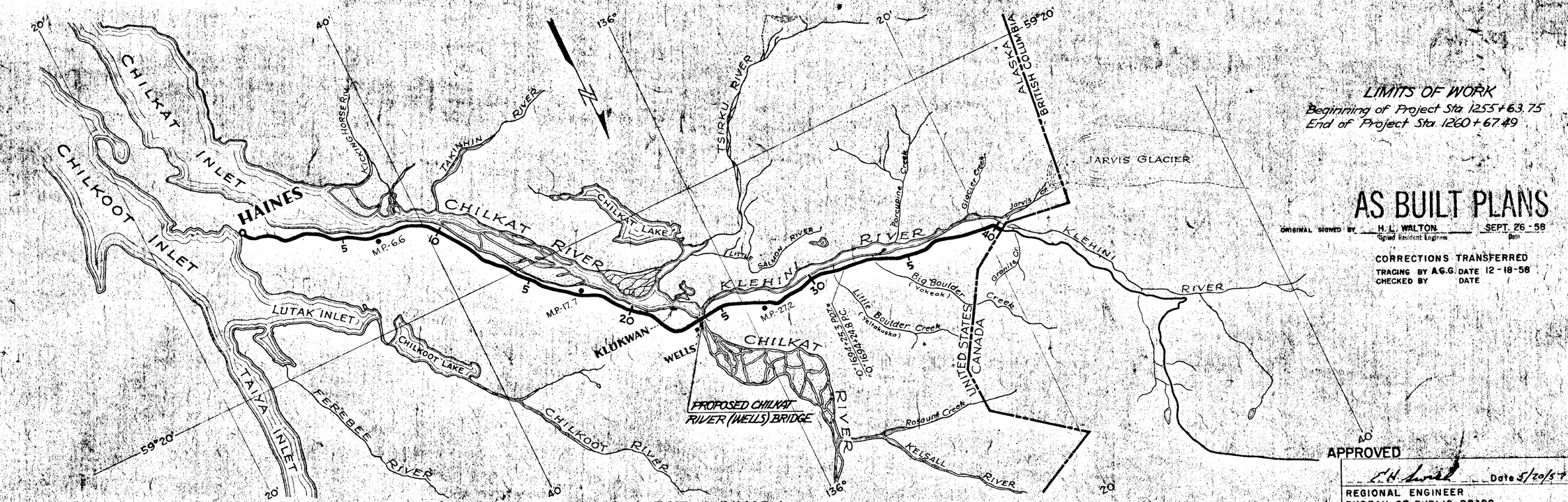
TERRITORY	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FAP 95	5	1957	1	8

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
REGION 10

PLAN AND PROFILE
PROPOSED HIGHWAY PROJECT
NO. F-095-5(1)
CHILKAT RIVER BRIDGE



KEY MAP



LIMITS OF WORK
Beginning of Project Sta. 1255+63.75
End of Project Sta. 1260+67.49

AS BUILT PLANS

ORIGINAL SIGNED BY H. L. WALTON — SEPT. 26-58
Signed Resident Engineer — Date

CORRECTIONS TRANSFERRED
TRACING BY A.G.G. DATE 12-18-58
CHECKED BY DATE

INDEX OF SHEETS

SHEET NO	DESCRIPTION
1	TITLE SHEET
2	GENERAL LAYOUT
3	ABUTMENT DETAILS
4	PIER DETAILS
5 — 6	SUPERSTRUCTURE DETAILS
7 — 8	CONSTRUCTION DETAILS

APPROVED
E. H. Swift — Date 5/20/57
REGIONAL ENGINEER
BUREAU OF PUBLIC ROADS
REGION 10

APPROVED
Date

PROJECT SUMMARY

BRIDGE	LENGTH OF ROADWORK FT.	LENGTH OF ROADWORK MI.	LENGTH OF BRIDGE FT.	LENGTH OF BRIDGE MI.
CHILKAT RIVER BRIDGE MI. 23.8			503.75	0.095
TOTAL			503.75	0.095

TOTAL LENGTH OF PROJECT 503.75 FT. 0.095 MI.

BY # 742

TERRITORY	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F.P. 95	5	1957	2	8

Bench Mark: Spike in corner of old log store 60' right of Sta. 1254+50 - Elev. 138.52'

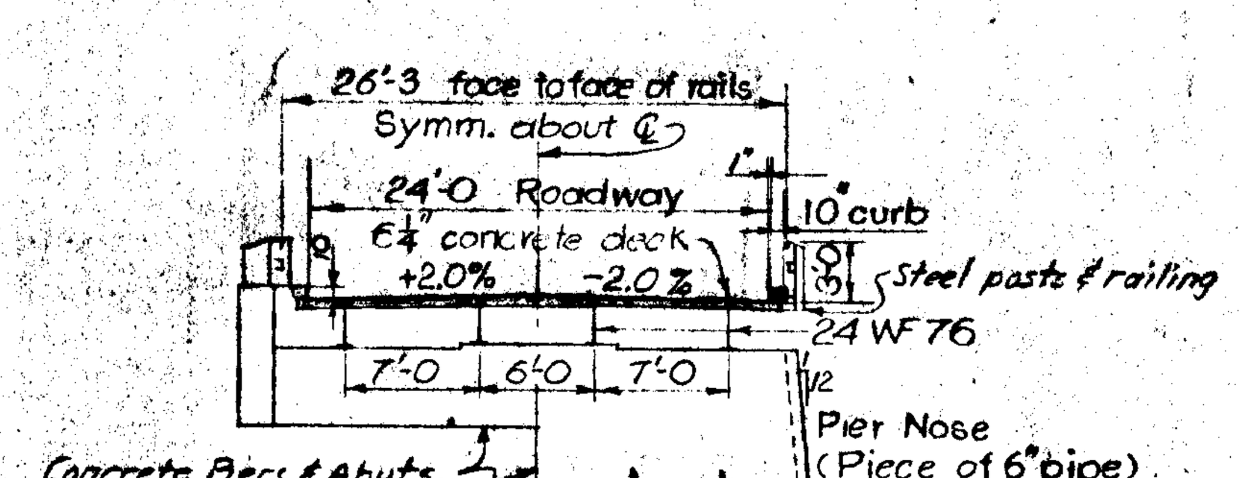
① Construct abutment berms at least 3 ft. wide and to the elevation shown with side slopes no steeper than 1½:1.

LONGITUDINAL ℄ SECTION

Scale 1" = 20'-0

PLAN

Scale 1" = 20'-0



Scale 1" = 10'-0

TYPICAL SECTION AT ABUTMENT — TYPICAL SECTION AT PIER

SHEET INDEX

GENERAL NOTES

This bridge has been designed for an H20-44 loading of the A.A.S.H.O. Standard Specifications for Highway Bridges, 1953 Edition.

All material and workmanship of fabrication and erection shall conform to the Standard Specifications for Constr. of Roads and Bridges on Federal Highway Projects, FP-57.

The contractor shall remove the present timber bridge in stages and shall construct the proposed bridge in stages so as to permit traffic over the structures except as set forth in the Special Provisions for the contract. See Sheet 4 of 6 for sequence of construction stages.

All ~~reinforcing steel shall be intermediate grade.~~

All concrete shall be Class A.

BEGINNING OF PROJECT STA. 1255+63.75
END OF PROJECT STA. 1260+67.49

AS BUILT PLANS

ORIGINAL SIGNED BY H. L. WALTON, Signed Resident Engineer — SEPT. 26-58, Date

CORRECTIONS TRANSFERRED
TRACING BY A.G.G. DATE 12-18-58
CHECKED BY ____ DATE ____

CONSTRUCTION COMPLETED SEPTEMBER 1958

TOTAL ESTIMATED QUANTITIES

PAY ITEM NUMBER & NAME		UNITS	9 PIERS	2 ABUTS.	SUPER.	TOTAL
560(4)	Guideposts	ea.				4
470(2)	Dismantling Existing Bridge	—	—	126	—	Lump Sum
103(2)	Excavation for Structures	cu. yd.	—	~~100~~	—	100
400(3)	Structural Steel Piles, 10BP42, Furn.	lin. ft.	3150	600	—	3796 ~~3750~~
400(12)	Structural Steel Piles, 10BP42, Driven	ea.	63	16	—	79
401(1)	Pile Core Stoppers	ea.	63	12	—	74 ~~75~~
400(23)	Splices	ea	2	4	—	2 ~~6~~
406(1)	Class A Concrete	cu. yd.	230.8	49.7	269.2	549.7
407(1)	Reinforcement Steel, Inter. Gr.	lbs.	~~14,935~~ 14,364	~~2297~~ 2291	~~70,690~~	~~87,800~~
420(1)	Structural Steel, A7	lbs.			81,875	81,875
420(2)	Structural Steel, A242	lbs.	—	—	156,840	156,840

70,691 87,346

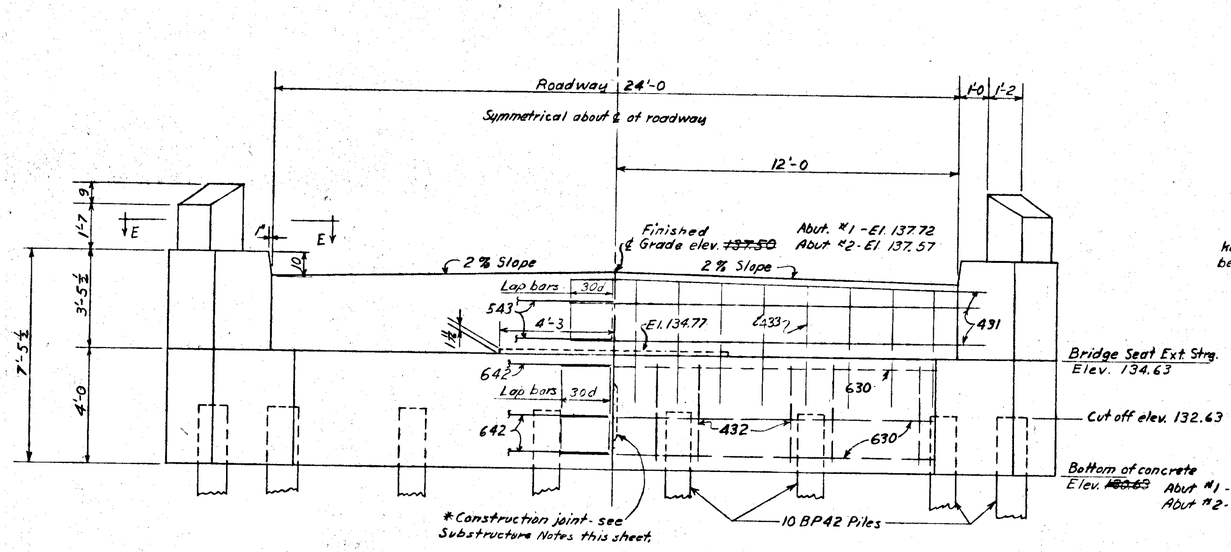
UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS, REGION 10
JUNEAU, ALASKA
DESIGN FOR
500' X 24' I-BM BRIDGE
CONSISTING OF 10 SIMPLE 50' SPANS
GENERAL LAYOUT

HIGHWAY: HAINES CUT-OFF — BRIDGE NO. 95
DISTRICT: JUNEAU DIST. — CHILKAT RIVER — H-20-44 LOADING
DESIGNED: D.H.L. — APPROVED:
DRAWN: D.H.L.
TRACED:
CHECKED: V.V.C. — REGIONAL ENGINEER
DATE: DECEMBER 1956 — SHEET 1 OF 7 — DESIGN NO. 1556

PROJECT NO. F-095-5(1)

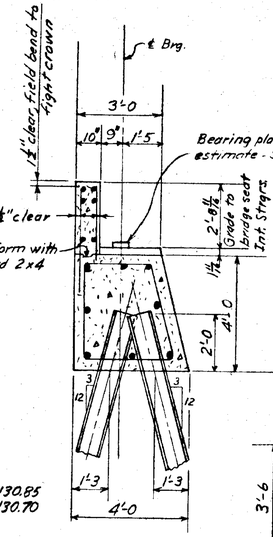
TERRITORY	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FAP 95	5	1957	3	8

Bench Mark: Spike in corner of old log store 60' right of Sta. 1254+50. Elev. 138.52'.

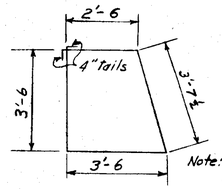


ABUTMENT ELEVATION
Scale: ⅜"=1'-0

Note: Construction of the abutments shall be completed in two stages corresponding to the construction of the deck as shown on sheet 4 of 6.

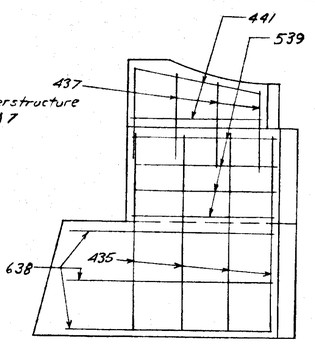


SECTION A-A
Scale: ⅜"=1'-0

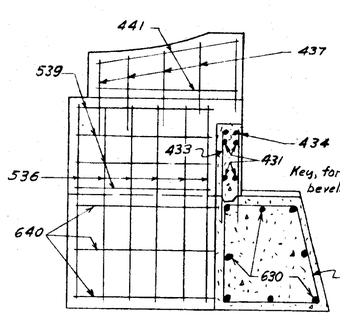


BAR 432
Scale: ⅜"=1'-0

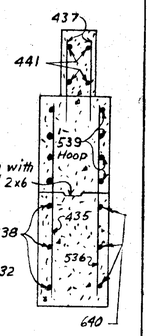
Note: All bar dimensions are out to out.



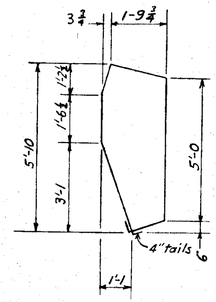
VIEW B-B
Scale: ⅜"=1'-0



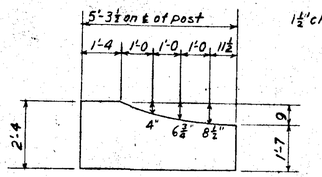
SECTION C-C
Scale: ⅜"=1'-0



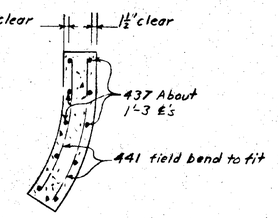
SECTION D-D
Scale: ⅜"=1'-0



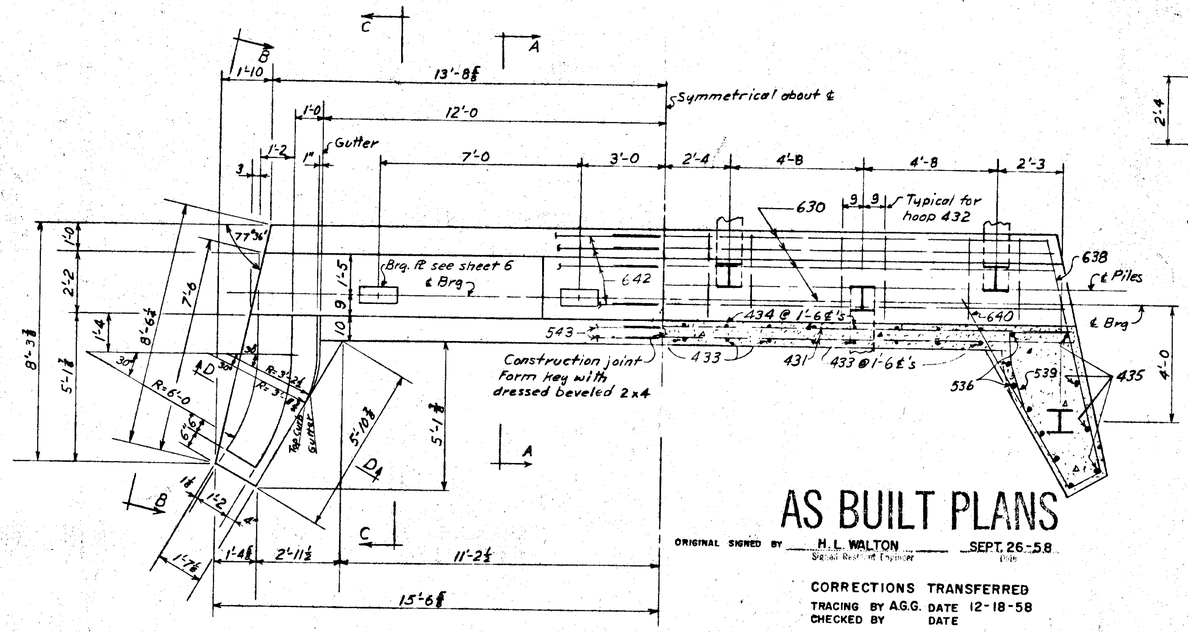
BAR 539
Scale: ⅜"=1'-0



WING POST DEVELOPED
Scale: ⅜"=1'-0



SECTION E-E



HALF PLAN

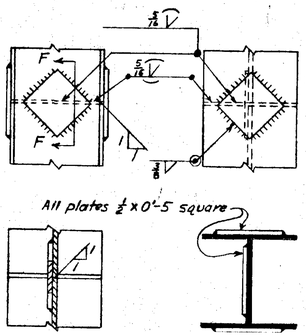
SECTION THROUGH BACKWALL AND WING

ABUTMENT PLAN
Scale: ⅜"=1'-0

AS BUILT PLANS

ORIGINAL SIGNED BY H. L. WALTON — Signed Resident Engineer — SEPT. 26-58 Date

CORRECTIONS TRANSFERRED
TRACING BY A.G.G. DATE 12-18-58
CHECKED BY DATE



SECTION F-F

Note: Flame cut web and flange of upper section as shown. Butt weld joints and attach plates with fillet welds.

TYPICAL PILE SPLICE
Scale: 1½"=1'-0

SUBSTRUCTURE NOTES

Abutment bearing piles shall penetrate to at least elevation 110.0 and shall have a bearing value of at least 25 tons as determined by the formula in article 400-1.4 of the FP-57 specifications. Wing piles shall penetrate to at least elevation 110.0 and shall be driven to no particular bearing value.

All exposed corners of the concrete except the wing posts shall be filleted with ¾" dressed beveled strips.

Edge distance to reinforcing bars shall be 3" clear unless otherwise stated. Spacing shown is to the ℄ of the reinforcing bars except as otherwise shown.

Reinforcement steel shall be [illegible] grade.

All concrete shall be Class "A".

All piles shall be 10 BP 42 steel piles. Core stoppers as detailed on sheet 4 of 6 may be required to obtain bearing and they shall be used if ordered by the Engineer. Lumber for the core stoppers shall be untreated Douglas Fir 1700f Dense No. 1 Grade conforming to "Standard Grading & Dressing Rules," Book 15, as approved January 1, 1956 by the West Coast Lumber Inspection Bureau. See the Special Provisions.

* The construction joint key shall be at least 1½" in depth and shall be formed with dressed beveled lumber. The area of the key shall be at least 25% of the total area of the construction joint.

BILL OF REINFORCEMENT STEEL - 2 ABUTMENTS

① Mark	No.	Length	Weight	Shape	Location
630	16	15'-5	372	Straight	Bridge seat, horiz. (stage II const.)
431	12	16'-2	195	"	Backwall, horiz. (stage II const.)
432	24	13'-9	221	See detail	Bridge seat, vertical
433	32	3'-10	82	Straight	Backwall, vertical, back
434	32	3'-6	75	"	" " front
435	16	6'-10	73	"	Wing, outside, vert.
536	28	6'-10	200	"	Wing, inside, vert.
437	40	2'-10	76	"	Post, vert.
638	12	7'-3	131	"	Wing, outside horiz.
539	16	14'-5	241	See detail	Wing, horiz.
640	12	7'-8	138	Straight	Wing, inside, horiz.
441	16	5'-0	53	"	Post, horiz. - (field bend)
642	16	13'-6	325	"	Bridge seat, horiz. (stage III const.)
543	12	14'-3	178	"	Backwall, horiz. (stage III const.)
		TOTAL	2295#		

① The first digit of the Mark No. indicates the nominal diameter of the bar in ⅛ inches.

ESTIMATED QUANTITIES - 2 ABUTMENTS	
ITEM	QUANTITIES
Class A Concrete	49.7 cu.yd.
Reinforcement Steel, Int. Grade	2295 lbs
Structural steel piles, 10 BP42, furnished	12 @ 40' & 4@30' = 600 lin.ft.
Structural steel piles, 10 BP42, driven	16 ea.
Pile core stoppers	12 ea.
Excavation for Structures	100 cu.yd.

UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS, REGION 10
JUNEAU, ALASKA
DESIGN FOR

500'X 24' I-BM BRIDGE
CONSISTING OF 10 SIMPLE 50' SPANS

ABUTMENT DETAILS

HIGHWAY: HAINES CUT-OFF — BRIDGE NO. 5 E 95
DISTRICT: JUNEAU DIST. CHILKAT RIVER — H-20-44 LOADING

DESIGNED L.D.B.
DETAILED L.D.B.
TRACED
CHECKED V.V.C.

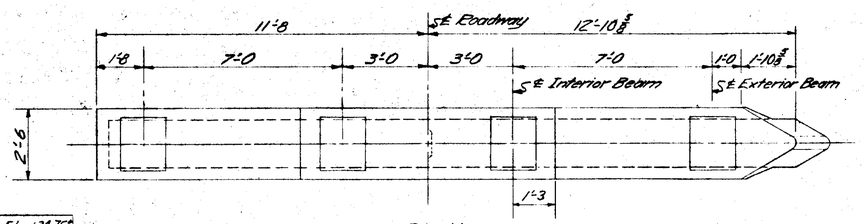
APPROVED
REGIONAL ENGINEER

DATE DECEMBER 1956 — SHEET 2 OF 7 — DESIGN NO. 1556

PROJECT NO. F-095-5(1)

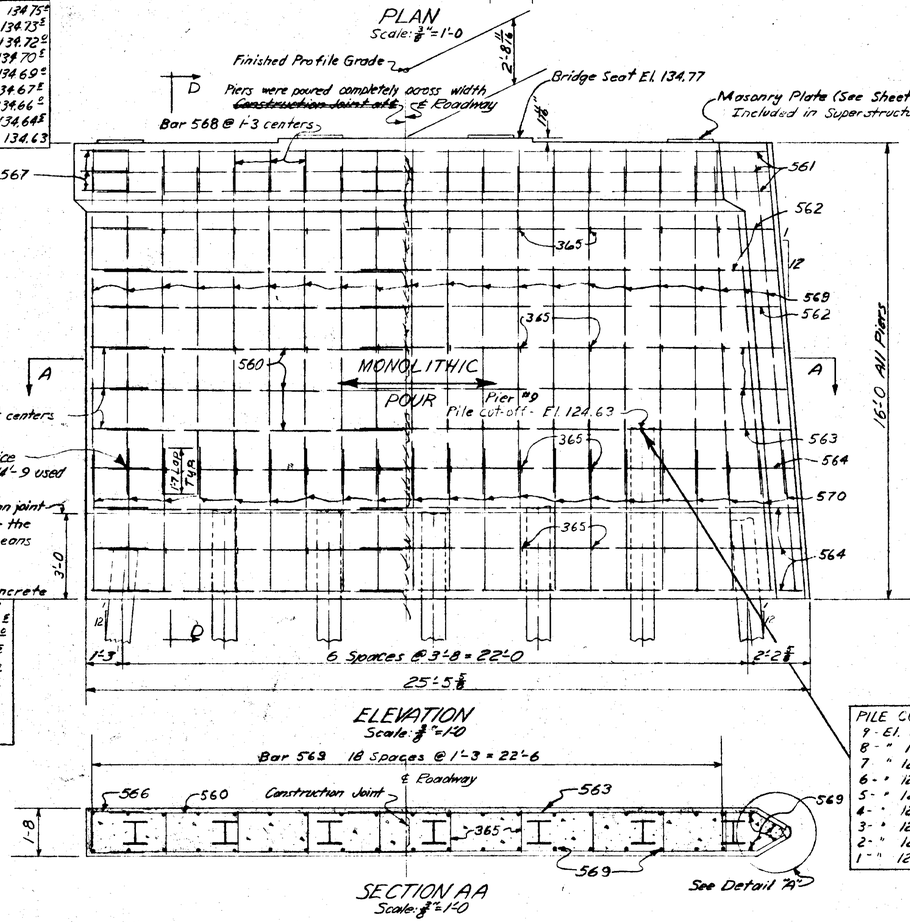
BM: Spike in corner of old log store 60' Right of sta. 1254+50 - El. 139.52'

TERRITORY	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FAP 95	5	1957	4	8



PLAN
Scale: ⅜"=1'-0

Pier #		Bridge Seat El.
1	Bridge Seat El.	134.75
2	"	134.73
3	"	134.72
4	"	134.70
5	"	134.69
6	"	134.67
7	"	134.66
8	"	134.64
9	Bridge Seat El.	134.63

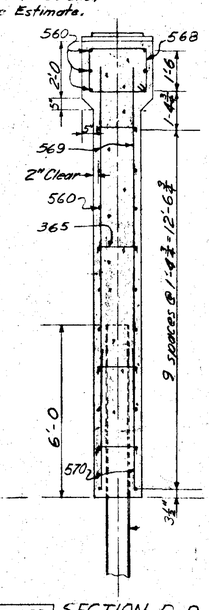


Bottom of concrete

Pier		Elev.
#9	Elev.	118.63
8	"	118.64
7	"	118.66
6	"	118.67
5	"	118.69
4	"	118.70
3	"	118.72
2	"	118.73
1	"	118.75

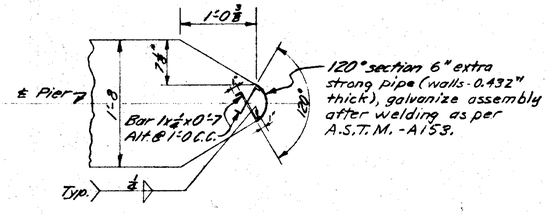
ELEVATION
Scale: ⅜"=1'-0

SECTION AA
Scale: ⅜"=1'-0



SECTION D-D
Scale: ⅜"=1'-0

PILE CUT OFF	
9 - El.	124.63
8 - "	124.64
7 - "	124.66
6 - "	124.67
5 - "	124.69
4 - "	124.70
3 - "	124.72
2 - "	124.73
1 - "	124.75



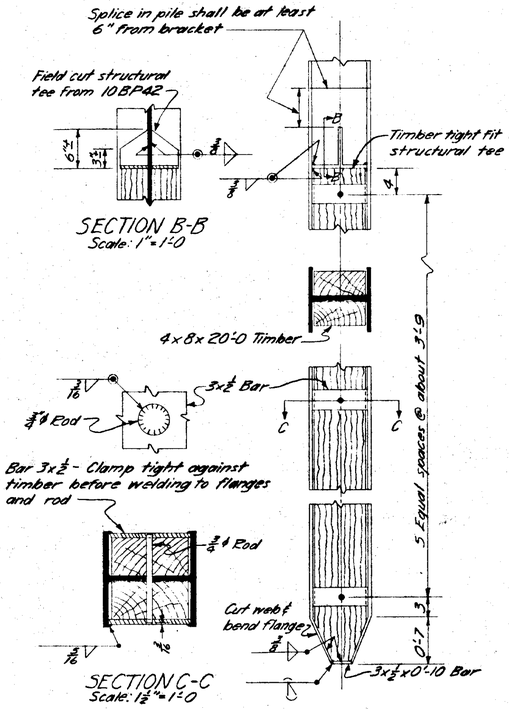
DETAIL "A"
Scale: 1"=1'-0

Note: Weight of nose assembly is included in the Superstructure Estimate for Structural Steel A7.

BILL OF REINFORCEMENT STEEL-ONE PIER

MARK	NO.	SIZE	LENGTH	WEIGHT	SHAPE	LOCATION
560	26	5	10'-6	285 lbs.	1'-9	Pier shaft & cap - Horiz.
561	6	5	14'-5	90 lbs.	1'-0	Pier cap - Horiz.
562	6	5	14'-11	93 lbs.	1'-0	Pier shaft - Horiz.
563	6	5	15'-3	96 lbs.	1'-0	Pier shaft - Horiz.
564	8	5	15'-9	131 lbs.	1'-0	Pier shaft - Horiz.
365	36	3	2'-0	27 lbs.	1'-4"	Pier shaft tie bars
566	10	5	5'-4	56 lbs.	1'-4	Downstream end - Horiz.
567	3	5	6'-9	21 lbs.	1'-11½	" " "
568	19	5	7'-8	152 lbs.	See Detail	Pier cap - Vert.
* 569	42	5	11'-1	485 lbs.		Pier shaft - Vert.
~~570~~	~~42~~	~~5~~	~~8'-0~~	~~219 lbs.~~		" " "
			Total	1655 Lbs.		

14'-9



PILE CORE STOPPERS
Scale: 1"=1'-0

PIER NOTES

All pier bearing piles shall penetrate to at least elevation 98.0 and shall have a bearing value of at least 25 tons as determined by the formula in Article 400-1.4 of the FP-57 Specifications.
All piles shall be 10BP42 steel piles

Core stoppers as detailed on this sheet may be required to obtain bearing and they shall be used if ordered by the Engineer. Lumber for the core stoppers shall be untreated Douglas Fir 1700f Dense No. 1 Grade conforming to "Standard Grading & Dressing Rules" Book 15 as approved January 1, 1956 by the West Coast Lumber Inspection Bureau. See Special Provisions.

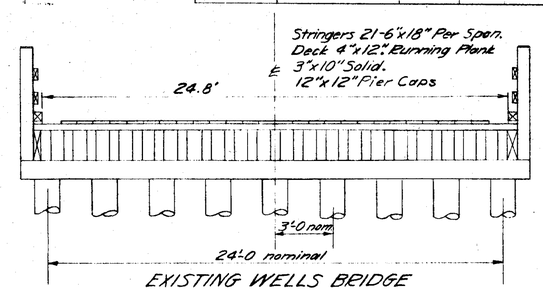
Edge distance for reinforcement bars shall be 3" clear unless otherwise noted. Spacing shown is to the ℄ of the reinforcement bars except as otherwise shown.

Reinforcement bars shall be intermediate grade.

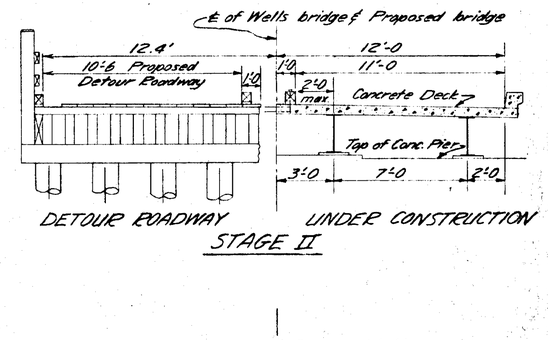
All exposed corners of 90° or sharper shall be chamfered with ¾" dressed beveled strips.

Construction joint keys shall be formed by dressed beveled lumber and shall be placed with long dimension at right angles to the direction of shear. The keys shall be at least 1½" in depth and each shall have an area of not more than one square foot. The total area of the keys shall be approximately 25% of the total area of the construction joint.

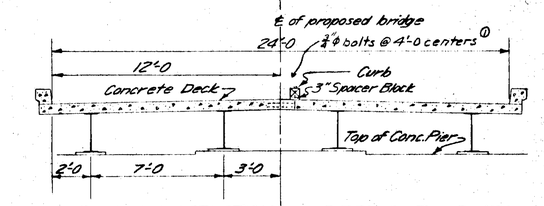
All concrete shall be Class "A".



EXISTING WELLS BRIDGE
STAGE I



DETOUR ROADWAY UNDER CONSTRUCTION
STAGE II



UNDER CONSTRUCTION DETOUR ROADWAY
STAGE III
Scale: ½"=1'-0

① Note: —— Curb and 3" spacer block may be salvaged from existing bridge. Cost of installation and removal shall be included in the unit price bid for concrete.

ESTIMATED QUANTITIES - NINE PIERS

ITEM	QUANTITIES
Class A Concrete	230.8 cu yd.
Reinforcement Steel, Int. Grade	~~14,655~~ lbs. 14,364
Structural Steel Piles, 10BP42, Furn.	63 @ 50' = ~~3150~~ lin. ft. 3,156
Structural Steel Piles, 10BP42, Driven	63 ea.
Pile Core Stoppers	~~62~~ ea. 62

AS BUILT PLANS

ORIGINAL SIGNED BY H. L. WALTON, District Resident Engineer — SEPT. 26-58, Date

CORRECTIONS TRANSFERRED
TRACING BY A.G.G. DATE 12-18-58
CHECKED BY DATE

UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS, REGION 10
JUNEAU, ALASKA
DESIGN FOR
500' X 24' I-BEAM BRIDGE
CONSISTING OF 10-50' SPANS

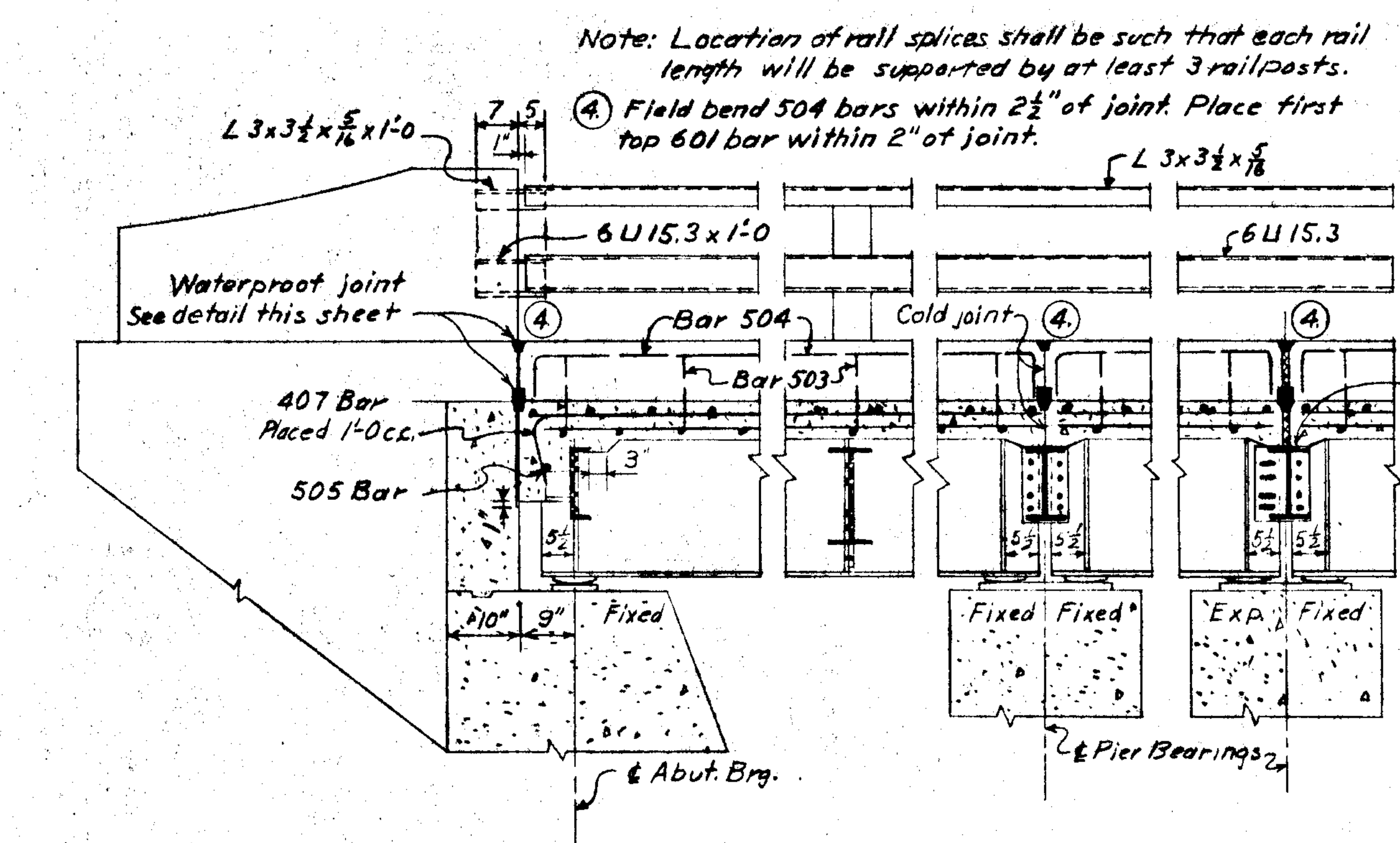
PIER DETAILS

HIGHWAY - HAINES CUT-OFF — BRIDGE NO. STE 95
DISTRICT - JUNEAU DISTRICT — CHILKAT RIVER — H20-44 LOADING

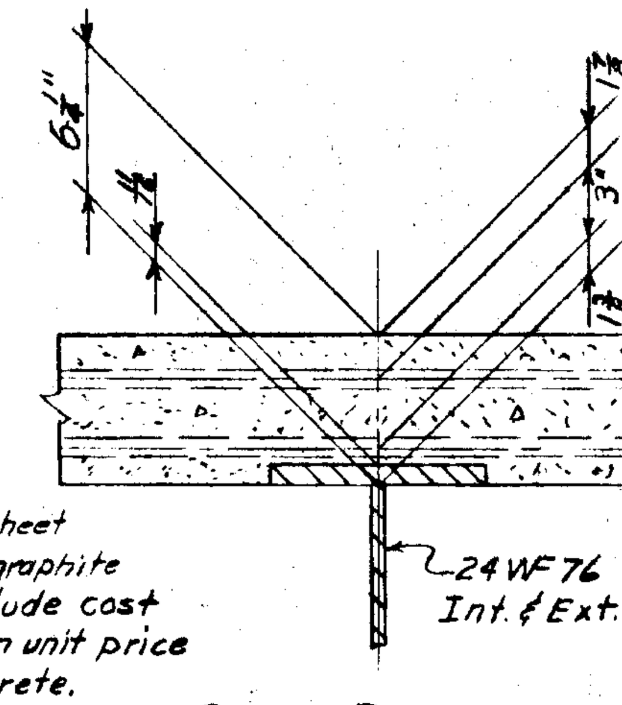
DESIGNED L.D.B.
DETAILED D.H.P.
TRACED
CHECKED
APPROVED
REGIONAL ENGINEER

PROJECT NO. F-095-5(1) | DATE, DEC[illegible] 1956 | SHEET 3 OF 7 | DESIGN NO. 1556

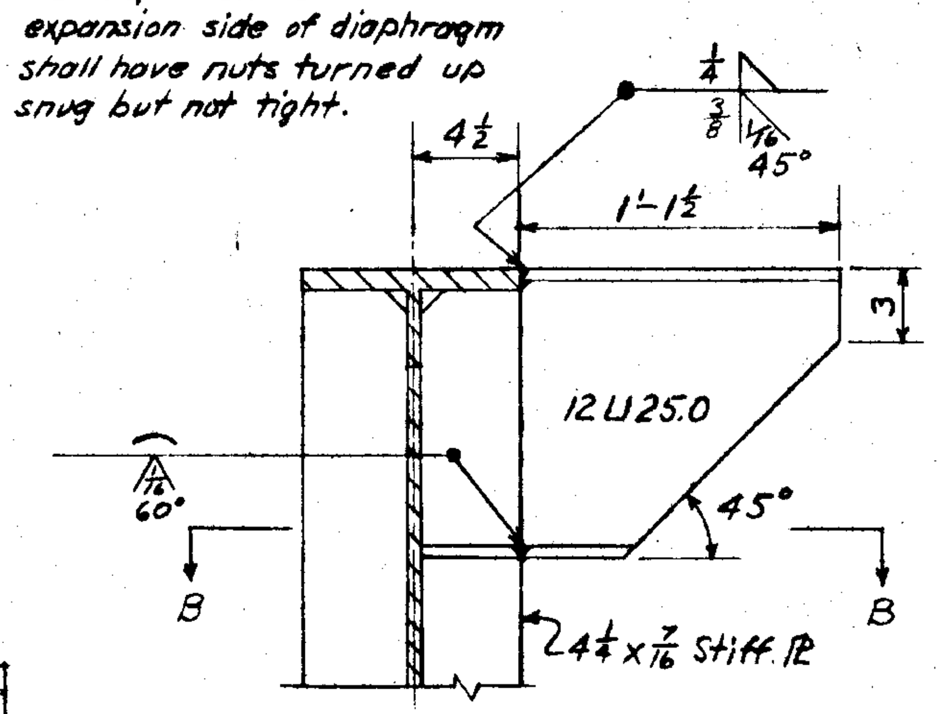
TERRITORY	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FAP 95	5	1957	5	8



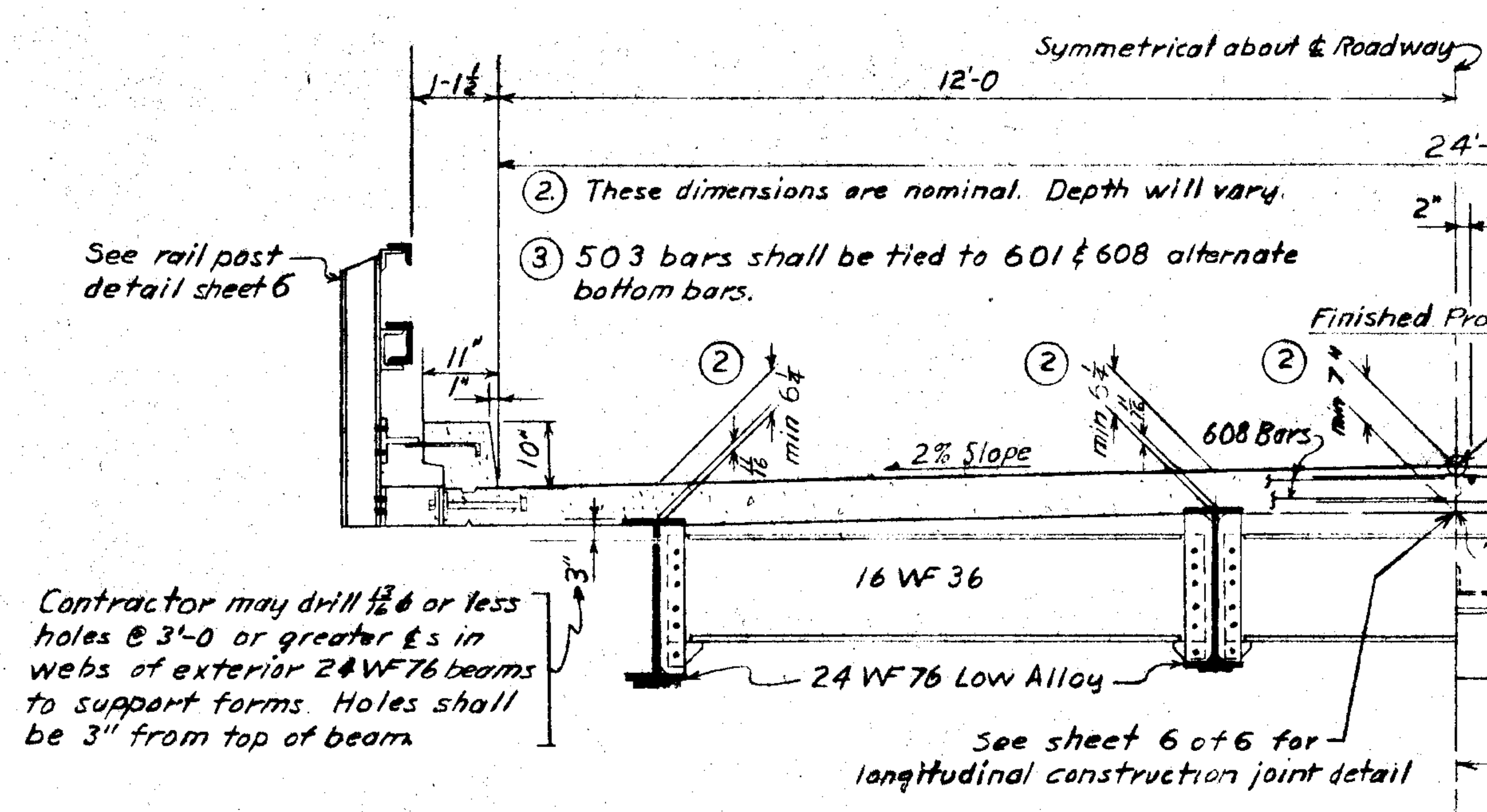
SECTION A-A
Scale: ½" = 1'-0



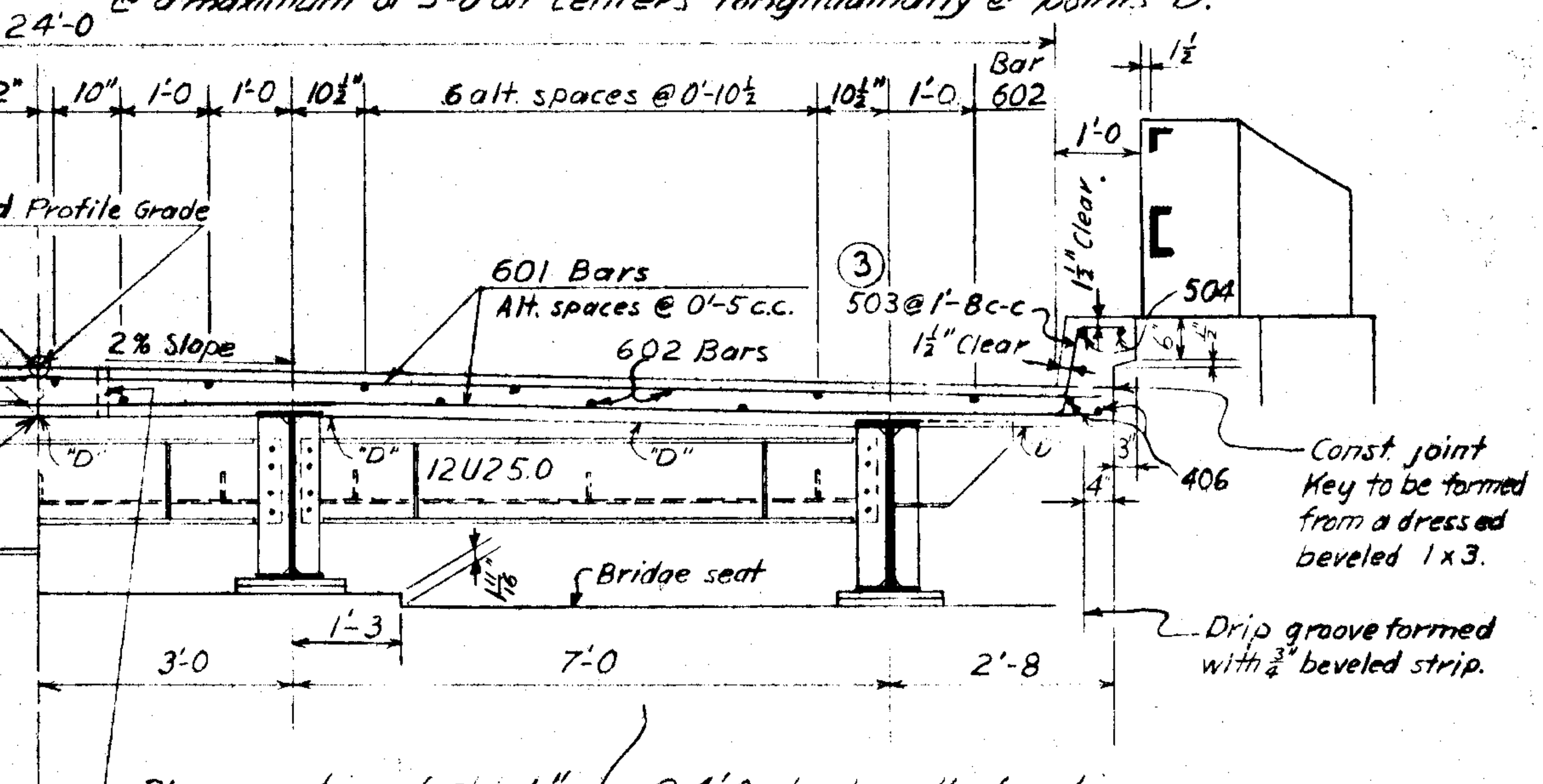
SLAB DETAIL
Scale: 1½" = 1'-0



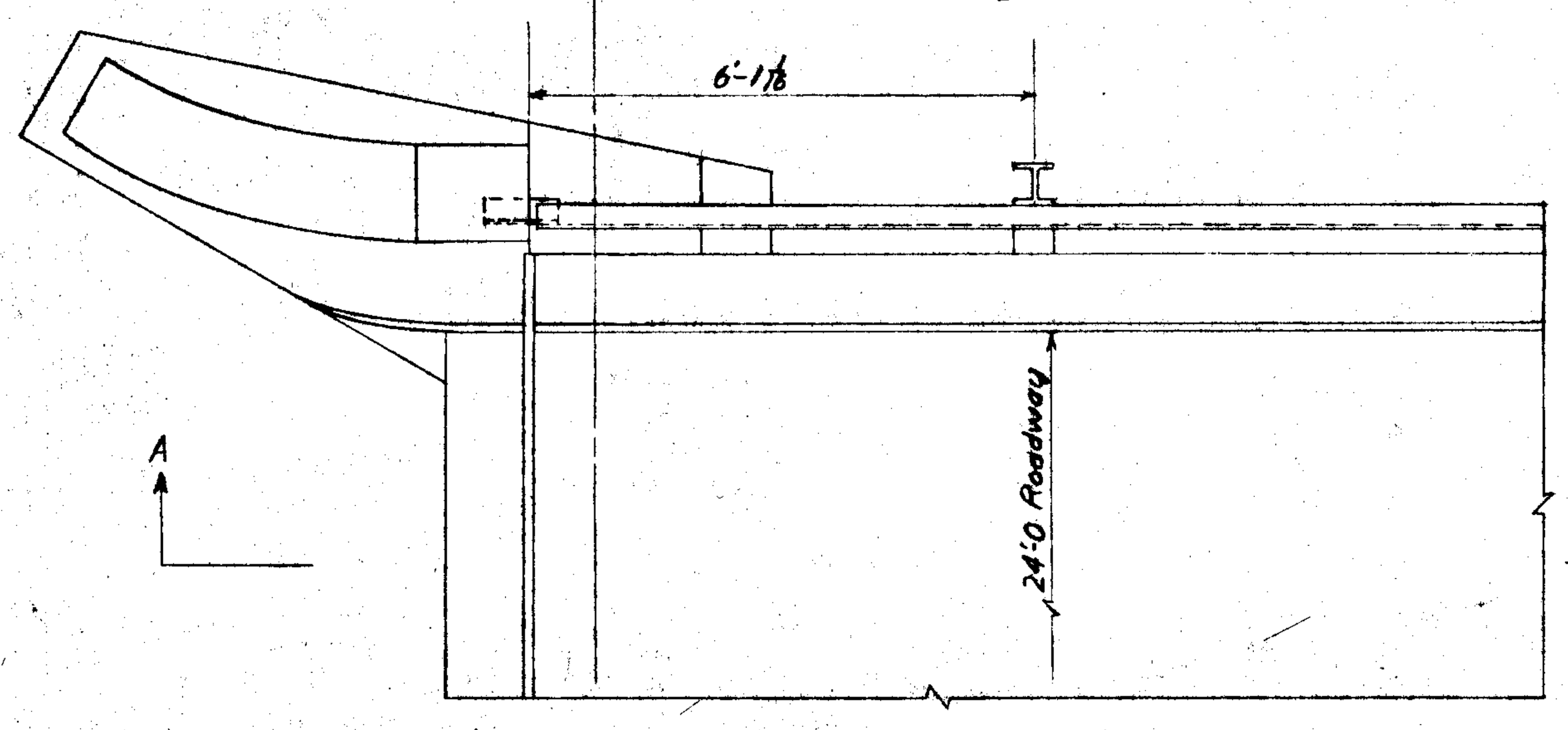
CANTILEVER DECK SUPPORT
Scale: 1½" = 1'-0



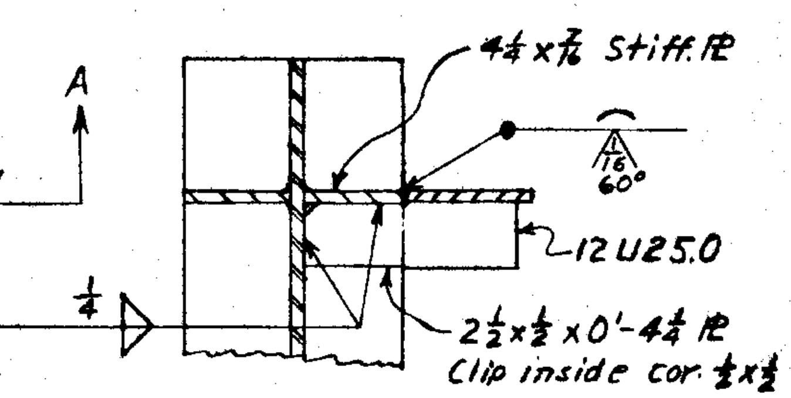
HALF INTERMEDIATE CROSS SECTION
Scale: ½" = 1'-0



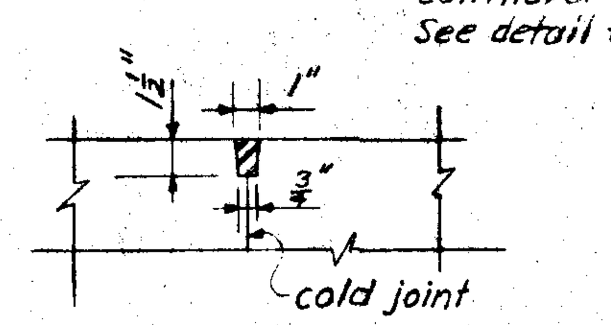
HALF CROSS SECTION NEAR ABUTMENT
Scale: ½" = 1'-0



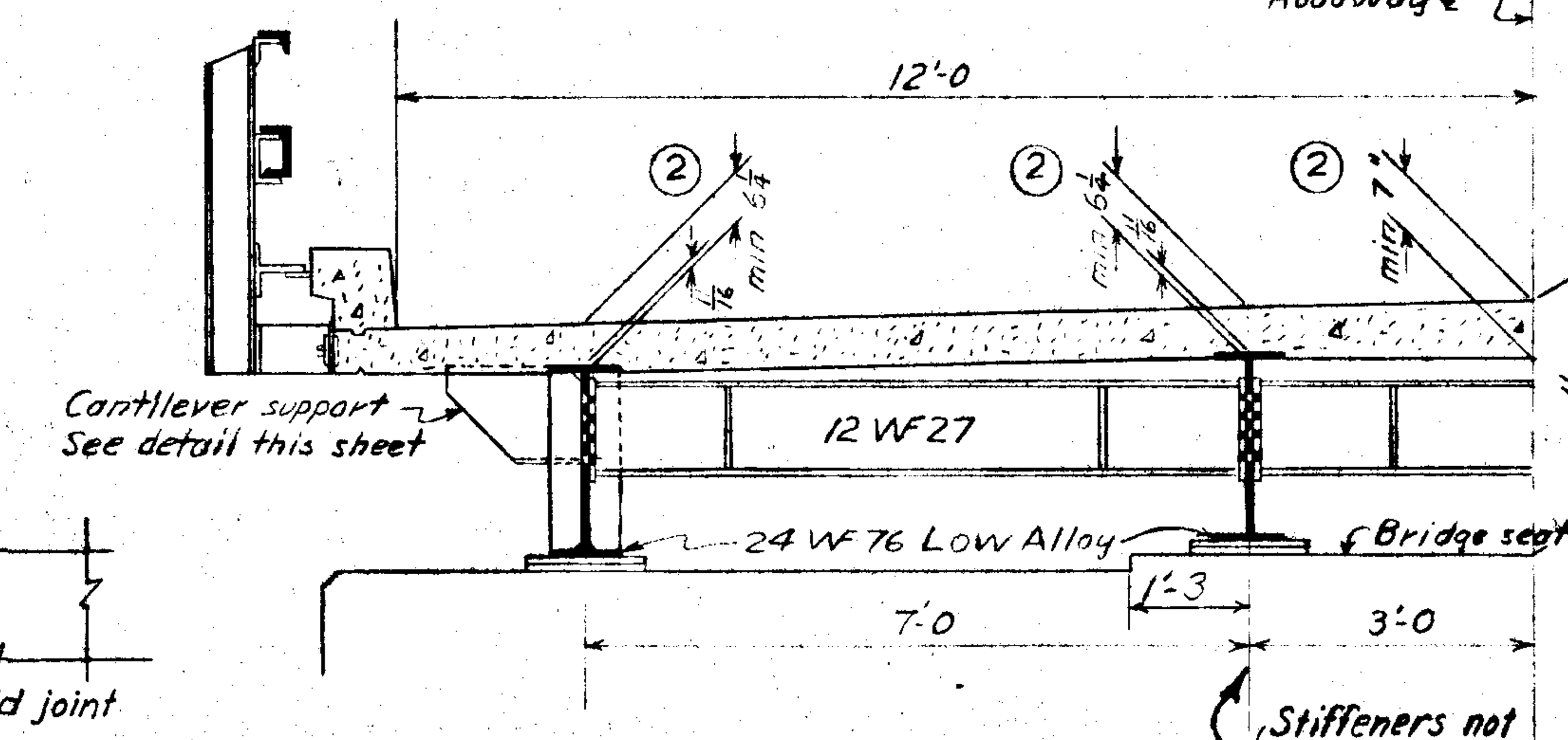
PART PLAN NEAR ABUTMENT
Scale: ½" = 1'-0



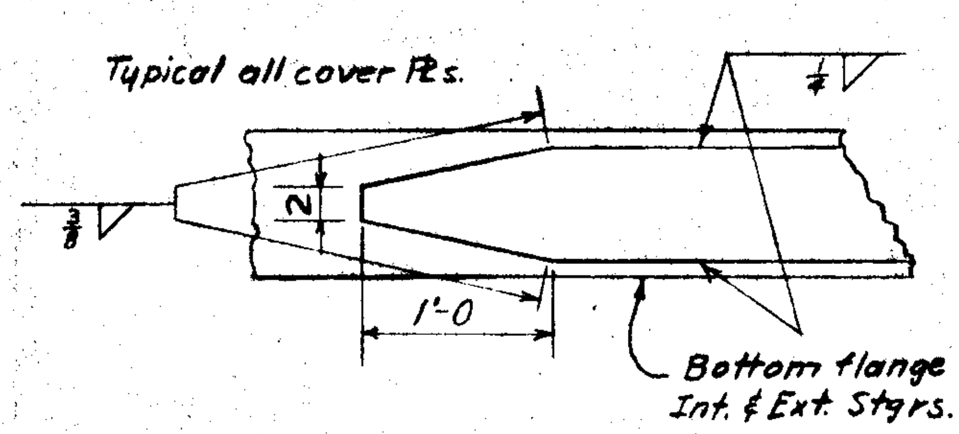
SECTION BB
Scale: 1½" = 1'-0



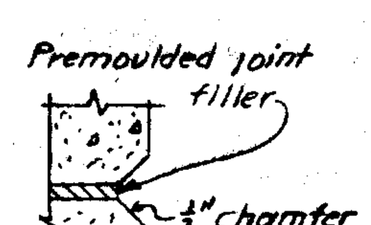
WATERPROOF JOINT DETAIL
FOR FIXED JOINTS
No Scale



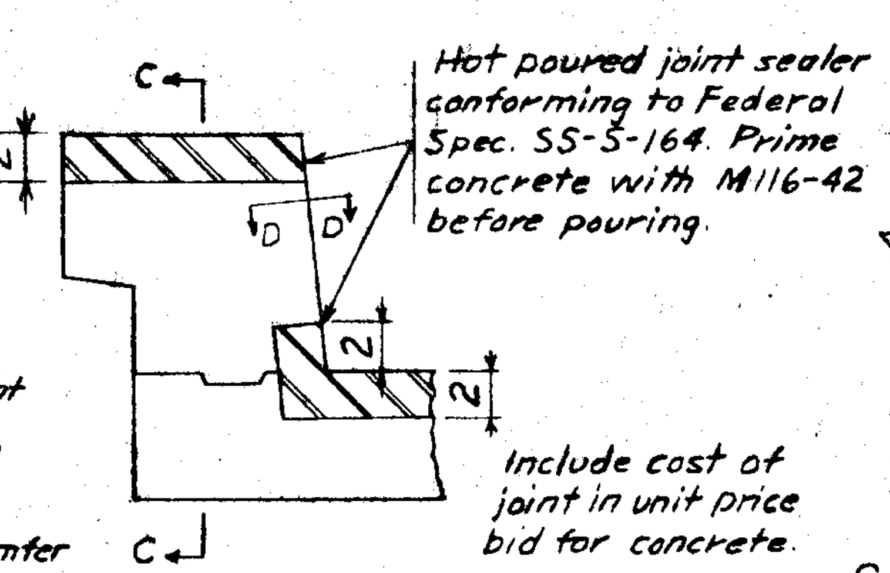
HALF CROSS SECTION AT PIER
Scale: ½" = 1'-0



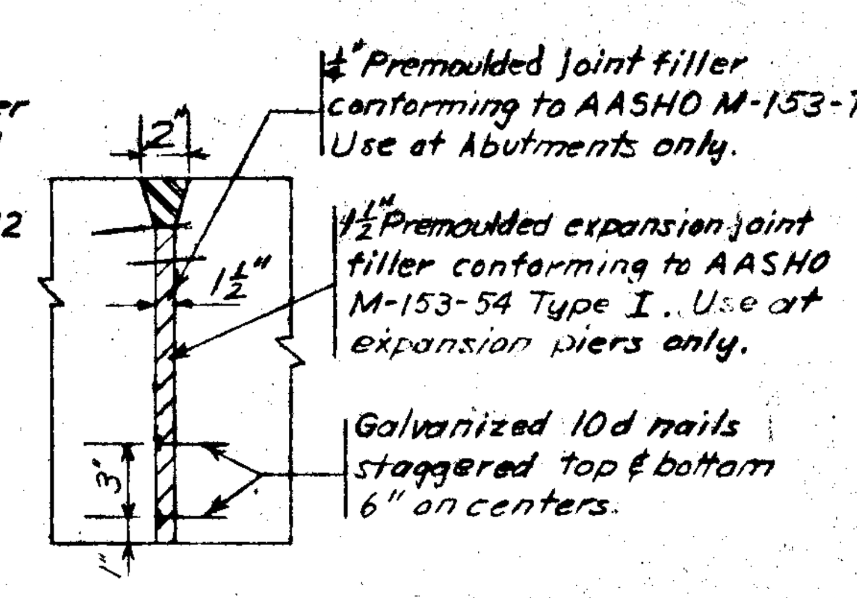
COVER PLATE DETAIL
No Scale



SECTION D-D



WATERPROOF JOINT DETAIL
No Scale



SECTION C-C

BILL OF SUPERSTRUCTURE REINFORCEMENT STEEL

① Mark	No.	Length	Weight	Shape	Location
601	1210	14'-6	26,353	Straight	Top & bottom slab (trans.-stage II const)
602	420	25'-8	16,194	"	" " " (longitudinal)
503	620	2'-9	1,778	See Detail	Curb to Slab
504	80	26'-0	2,169	Straight	Top of curb (longitudinal)
② 505	2	18-0'	38	"	End diaphragm (transverse)
406	80	25'-6	1,363	"	Top & bottom slab (longitudinal)
407	40	3'-0	80	See Detail	End diaphragm
608	1210	12'-6	22,716	Straight	Top & bottom slab (trans.- stage III const.)
		Total =	70,690#		

① Note: The first digit of the Mark No. is the nominal diameter of the bar in ⅛ inches.

② Note: Field cut bar 505 to fit between beams.

SUPERSTRUCTURE NOTES

Unless otherwise designated all structural steel field connections shall be made with ¾"Φ unfinished machine bolts fitted with an S.A.E. lock washer. Open holes for ¾"Φ bolts shall be 13/16"Φ. The structural steel estimate includes weights for bolts plus 5 % extra.

All structural steel shall conform to A.S.T.M. designation A-7 (carbon steel) except the beams and cover plates which shall conform to A.S.T.M. A-242 (low alloy steel). The bottom flanges of all beams shall be perpendicular to the webs at reaction points. The beams have been designed for composite action with the slab for resisting positive live load bending moment; the shear lugs insure this composite action.

Forms for slab shall be supported by the beams.

Top ½" of slab is considered a wearing surface.

All exposed corners of concrete which are 90° or sharper shall be filleted with ¾" dressed beveled strips.

Paint shall be omitted from all surfaces of steel in contact with concrete. These surfaces shall be thoroughly cleaned before the concrete is placed.

All reinforcement steel shall be intermediate grade.

All bar chairs shall be galvanized. Concrete mortar blocks may be used in lieu of bar chairs to support bottom bars only.

Minimum clear distances for reinforcing steel shall be 2" unless otherwise noted.

Reinforcement dimensions are to ℄ of bars.

Masonry plates shall be flat and true.

Standard 1" galvanized pipes shall be cast in the deck at 4'-0 centers to accommodate ¾"Φ bolts for fastening the temporary curb to the deck. The pipes shall be dry-packed with grout at completion of the bridge. The contractor may submit for approval of the engineer other methods for attaching the temporary timber curb. The cost of pipes or inserts shall be included in the bid price for concrete.

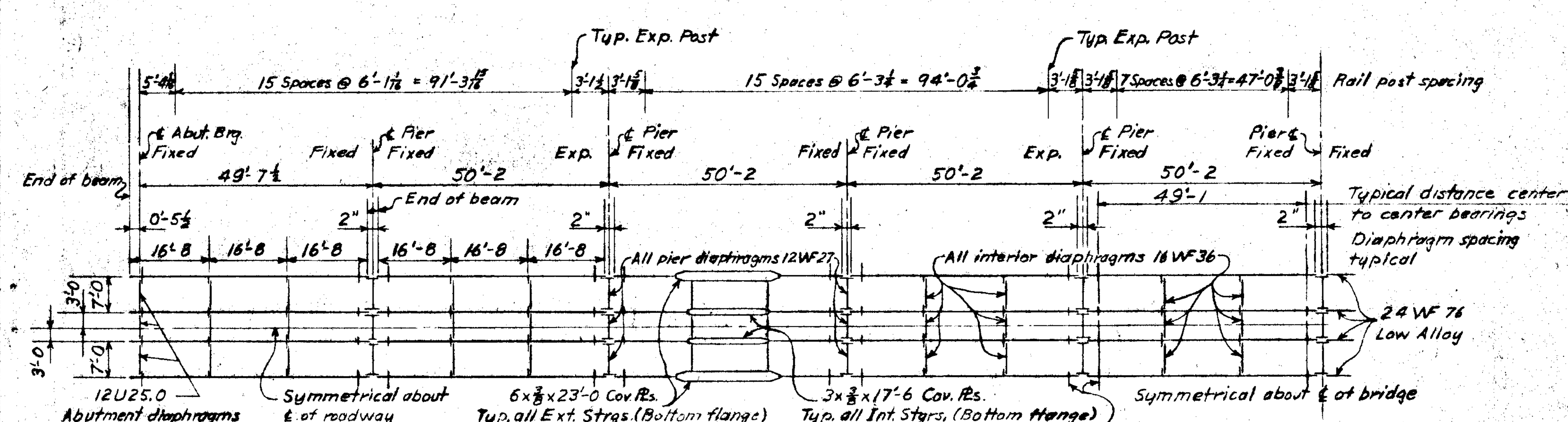
ESTIMATED QUANTITIES (SUPERSTRUCTURE)

Item	Quantities
Class A concrete	269.2 cu.yd.
Reinforcement Steel, Inter. Grade	70,690 lbs.
Structural Steel, A7	81,875 lbs.
Structural Steel, A242 (Low Alloy)	156,840 lbs.

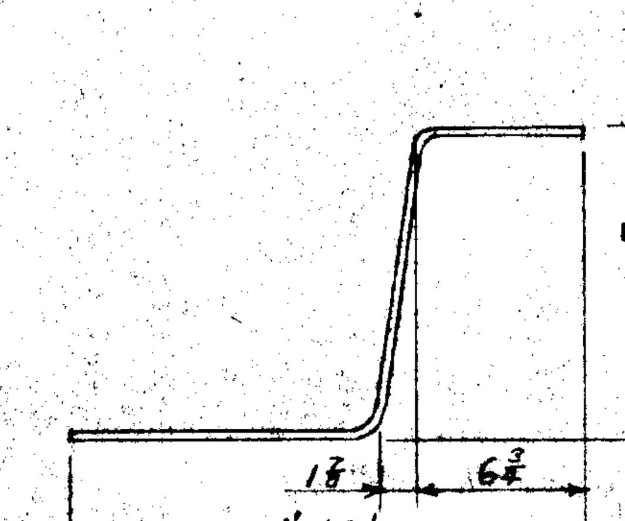
AS BUILT PLANS

ORIGINAL SIGNED BY H. L. WALTON SEPT. 26-58

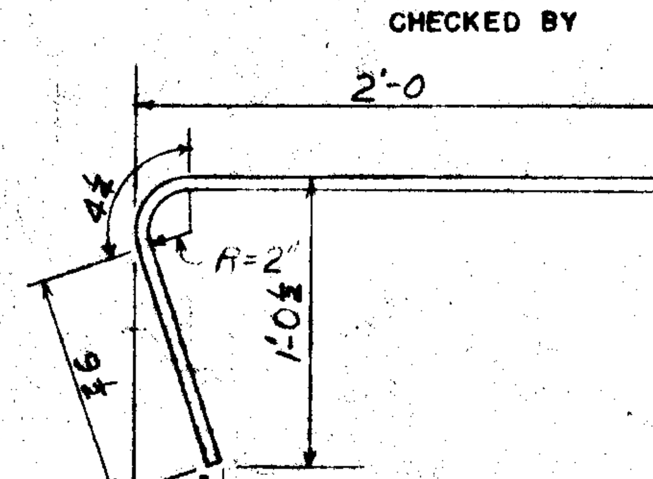
CORRECTIONS TRANSFERRED
TRACING BY A.G.G. DATE 12-18-58
CHECKED BY DATE



STRUCTURAL STEEL LAYOUT
No Scale



BAR 503



BAR 407

PROJECT NO. F-095-5(1)

UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS, REGION 10
JUNEAU, ALASKA
DESIGN FOR

500'X24' I-BM BRIDGE
CONSISTING OF 10 SIMPLE 50' SPANS

SUPERSTRUCTURE DETAILS

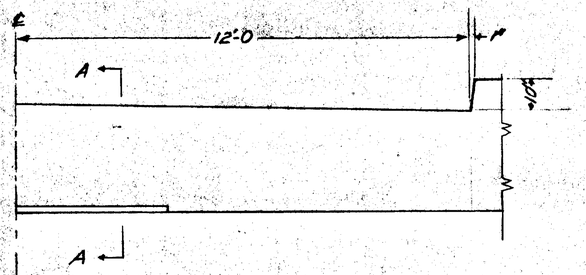
HIGHWAY- HAINES CUT-OFF BRIDGE NO. 95
DISTRICT- JUNEAU DIST. CHILKAT RIVER H-20-44 LOADING

DESIGNED L.D.B.
DETAILED L.D.B.
TRACED
CHECKED V.V.C.
APPROVED: REGIONAL ENGINEER

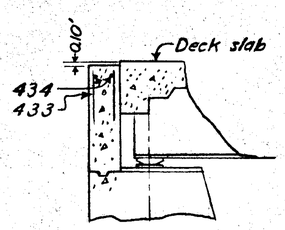
DATE DECEMBER 1956 SHEET 4 OF 7 DESIGN NO. 1556

| TERRITORY | ROUTE | SECTION | YEAR | SHEET NO. | TOTAL SHEETS |
| ALASKA | FAP 95 | 5 | 1957 | 6 | 8 |
Note: 1¼ x 13/16 Slotted holes in clip Ls & El at all rail splice points.
Typical Rail joint - ⅛" Exp. Posts only 1¼"
Top of post
L 3½ x 3 x 5/16 x 0'-6
After alignment of rails
6 x 3½ U 15.3 x 0'-6
ST 6 WF 18
Set level with deck & gutter
6 WF 15.5
10 WF 21
Bar ⅜
Anchor bolts
1¼ x 13/16 horizontal slots in 6 WF
Furnish 2 shim Pls each connection. Erect post with one shim in place.
Pl 5 x ½ x 0'-6
Pl Washer 2 x ⅜ x 0'-4, 2 ea. post
SIDE ELEVATION
L 3½ x 3 x 5/16
6 U 15.3
1 1/16" Φ holes in rear flange of 10 WF 21
⅛" nail holes in 1/16 Pl only
FRONT ELEVATION
Note: See Steel Layout sheet 6 for location of expansion posts.
L 3½ x 3 x 5/16 x 0'-9 Top rail
6 U 15.3 x 0'-9 Bottom rail
3½" Slot in top and bottom rails
CROSS SECTION EXPANSION POST
Pl 6 x ⅛ x 0'-6
SHIM PLATE
Scale: 1½" = 1'-0
Bar 1½ x ⅜ x 1'-2
SECTION A-A
3/16 Pl
2-1" Φ x 1'-2 bolts, Sq. hds & hex. nuts
ANCHOR BOLT DETAIL
RAIL POST DETAILS
Scale: 1" = 1'-0 (Except as noted)
Depression around drain
R = 1'-0
Req'd. - 4 drains per span = 40 drains
8" I.D.
3/16 welded Pl
¼" Φ x 0'-8½ Supports
Note: Place drain between reinforcing steel
DRAIN DETAILS
Scale: ¾" = 1'-0
Top of beam to top of lug
L 5 x 5 x ⅜ Both Int. & Ext. Bms.
Top of flange
SHEAR LUG DETAIL
No Scale
6" Wire Tails
MORTAR BLOCK DETAIL
No Scale
1" header cut to fit crown
Bar 608
Bar 601
min = 30d = 1'-11
1 x 3 Beveled key
Carry transverse steel through joint
DETAIL FOR LONGITUDINAL CONSTRUCTION JOINT OF SLAB
Scale: 1" = 1'-0
L = ℄ Brg. to ℄ Brg.
(87% of total dead load deflection is due to weight of concrete and railing).
TOTAL ANTICIPATED DEAD LOAD DEFLECTION
No Scale
Note: Beams are to be cambered to compensate for dead load deflection. Acceptable camber shall be 1⅛" to 1⅞" at mid span. Camber must form a smooth curve throughout the entire length of the beam.
All beams over cambered except one
Place 1/16" filler Pl on fixed side. Shop weld to ⅜ Pl.
℄ Pier
℄ Diaphragm
13/16 x 3½ Slots
13/16 Holes
8½ x ⅜ x 1'-1 Pl
℄ bolt holes in beams
℄ Pier
Scale: 3" = 1'-0
TYPICAL END PLATE EXPANSION PIER
3 x ⅜ Stiff Pl Both sides
12 WF 27
Exterior Stringer 24 WF 76 Low Alloy
Interior Stringer 24 WF 76 Low Alloy
7 x ⅜ x 1-1 Pl
℄ Diaphragm & Pier
TYPICAL END PLATE FIXED PIER
PIER DIAPHRAGM DETAILS
Scale: 1" = 1'-0
Cut & chip near side 4" top & bottom flanges
24 WF 76 L.A.
2" Ext. Stgr. 3 11/16" Int. Stgr.
4 x 7/16 Stiff Pl Clip inside cor. 1" x 1"
1" clear
16 WF 36
⅜ Pl
Tight fit at tension flange.
Grind
INTER. DIAPHRAGM DETAILS
Scale: 1" = 1'-0
12 U 25.0
505 Bar
2½ x ⅜ Stiff Pl.
4 x ⅜ x 0'-4 Pl
4 x ⅜ Pl
SECTION A-A
Scale: 1½" = 1'-0
5" 10 7 spaces @ 1'-8 3 @ 2'-6 3'-4 2'-6 3'-4 3 @ 2'-6 7 @ 1'-8 10 5"
EXTERIOR STRINGER
5" 6 @ 0'-10 8 @ 1'-8 2 @ 2'-6 2'-6 2 @ 2'-6 8 @ 1'-8 6 @ 0'-10 5"
INTERIOR STRINGER
SHEAR LUG SPACING
No Scale
℄ of diaphragm
0'-9 (Typ)
12 U 25.0
1'-6 (Typ)
4 x 7/16 Stiff Pl. Clip inside cor. 1" x 1"
2½ x ⅜ Stiff Pl
Cut and chip flange 4"
For details see sheet 5
Interior Stringer 24 WF 76 L.A.
Exterior Stringer 24 WF 76 L.A.
ABUTMENT DIAPHRAGM DETAILS
Scale: 1" = 1'-0
Permissable 5/16 Φ holes for use in supporting Pls
Piece of 1" Φ x 0'-4 unfinished machine bolt with hex. nut & W.I. washer
1 1/16 Φ Holes in sole Pls & masonry Pls
1⅜ Typ
7 x 1½ x 1'-4 Pl
Bar ¾ Φ x 2'-7
Note: Nuts on 1" Φ bolts to be drawn up finger tight then backed off ½ turn. Ends of bolts shall then be burred to prevent removal of nuts.
MASONRY Pl DETAIL
Scale: 1" = 1'-0
R = 1'-4½
Stiff. Pl
24 WF 76 Int. & Ext. Bms.
℄ Bearing
7 x 1 x 1'-4 Pl
SOLE Pl DETAIL
Scale: 1" = 1'-0
ABUTMENT BEARING DETAILS
Note: Nuts on 1" Φ bolts to be drawn up finger tight then backed off ½ turn. Ends of bolts shall then be burred to prevent removal of nuts.
℄ Pier
℄ Brg.
1¼" Typ. edge dist. for bolt holes
2 x ⅜ x 0'-7 Bar washer over exp. shoe slots. Provide 1 1/16" Φ holes at center of bar washer. Use on exp. side of pier No. 2, 4, 6, & 8
1⅛ x 4 Slotted hole in sole Pl. Exp. side of pier No. 2, 4, 6, & 8
8 x 1 x 1'-4 Sole Pl. Exp. side of pier No. 2, 4, 6, & 8.
7 x 1 x 1'-4 Sole Pl Fixed side of Pier No. 2, 4, 6, & 8 and all fixed piers.
SOLE Pl DETAIL
Scale: 1" = 1'-0
Note: Piers No. 2, 4, 6, & 8 have one side fixed and one side expansion.
Piers No. 1, 3, 5, 7, & 9 are fixed both sides.
Bar ¾ Φ x 0'-9 Expansion side only
⅛" clearance both ends sole Pl
1 1/16" Φ holes Typ.
Permissable 5/16" Φ holes for use in supporting Pls.
Piece of 1" Φ x 0'-4 unfinished machine bolt with hex. nut & W.I. washer
3½ Typ
1'-10 x 1½ x 1'-7 Pl
Bar ¾ Φ x 3'-4
MASONRY Pl DETAIL
Scale: 1" = 1'-0
PIER BEARING DETAILS
AS BUILT PLANS
ORIGINAL SIGNED BY H. L. WALTON SEPT. 26-58
CORRECTIONS TRANSFERRED
TRACING BY A.G.G DATE 12-18-58
CHECKED BY DATE
UNITED STATES
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS, REGION 10
JUNEAU, ALASKA
DESIGN FOR
500' X 24' I-BM BRIDGE
CONSISTING OF 10 SIMPLE 50' SPANS
SUPERSTRUCTURE DETAILS
HIGHWAY- HAINES CUT-OFF
BRIDGE NO. RTE 95
DISTRICT- JUNEAU DIST. CHILKAT RIVER
H-20-44 LOADING
DESIGNED L.D.B.
DETAILED L.D.B.
TRACED
CHECKED V.V.C.
APPROVED:
E.H. Swick
REGIONAL ENGINEER
DATE DECEMBER 1956
SHEET 5 OF 7
DESIGN NO. 1556
PROJECT NO. F-095-5(1)
Br. # 742

TERRITORY	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FAP 95	5	1958	7	8



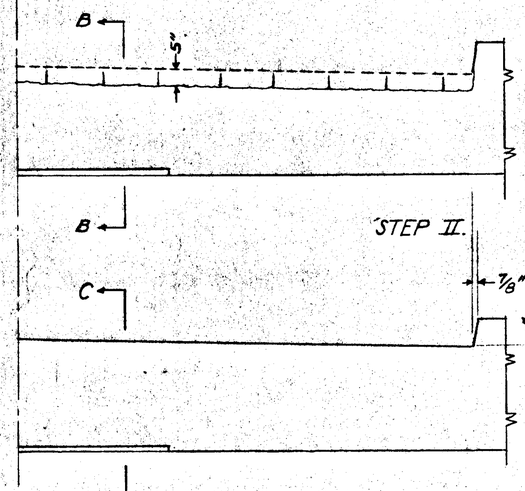
STEP I.



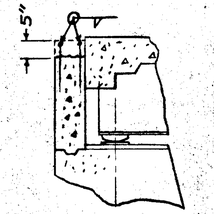
SECTION A-A

SEQUENCE

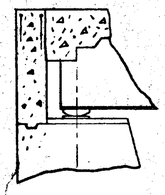
① Remove concrete to a 5 inch depth on abutment backwall.
② Weld #4 bars on ends of vertical reinforcing bars.
③ Place new concrete to deck level 0.10 ft. higher than Step I.



STEP III.
Scale ½"=1'-0

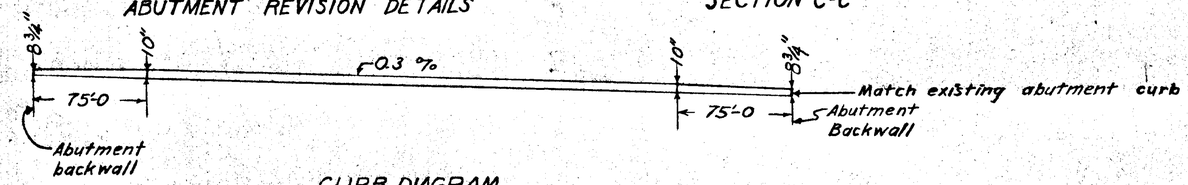


SECTION B-B



SECTION C-C

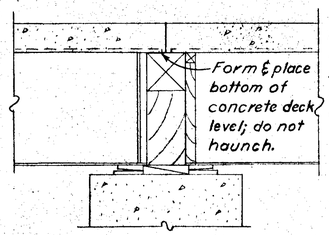
ABUTMENT REVISION DETAILS



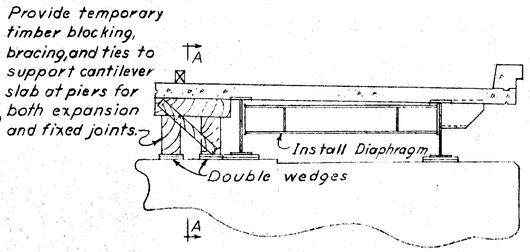
CURB DIAGRAM
Horizontal Scale 1"=100'-0

Note: Top of curb will be straight on tangent grades. This detail will be used for the upstream curb only. Construct the downstream curb full design plan height of 10 inches.
Both curbs constructed in similar manner as shown. This plan didn't reach Haines till downstream ½ abutments were built.

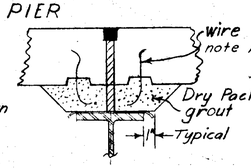
Revised-These details added 6-17-58 AK J.T.C.



SECTION A-A
Scale ¾"=1'-0

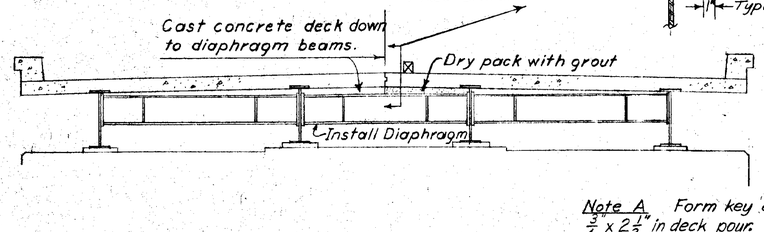


STAGE II. AT PIER
Scale ⅜"=1'-0



CONSTRUCTION SEQUENCE

① Stop traffic and remove temporary timber blocking.
② Install permanent steel diaphragm.
③ Dry pack between top of diaphragm and bottom of deck.
④ Permit traffic upon structure.
⑤ Cast concrete deck on second half of bridge.



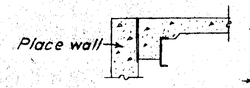
Note A Form key approx. ¾" x 2½" in deck pour. Through key form place 10 to 14 gauge wire about 6" long at 12" centers to bond the deck to the grout pad.
A vertical cold joint need not be constructed in the grout pad at cold joints.

AS BUILT PLANS

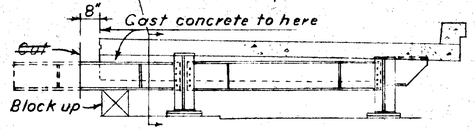
ORIGINAL SIGNED BY H. L. WALTON Signed Regional Engineer SEPT. 26-58 Date

CORRECTIONS TRANSFERRED
TRACING BY A.G.G. DATE 12-18-58
CHECKED BY DATE

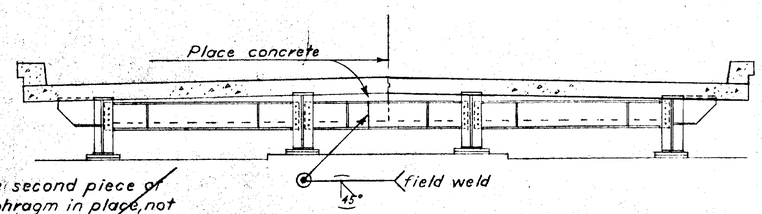
STAGE III AT PIER
Scale ⅜"=1'-0



Entire diaphragm was installed ~~If room is not available in the field to place interior diaphragm, cut the 12" channel off and place the concrete wall as shown.~~



STAGE II AT ABUTMENT
Scale ⅜"=1'-0



~~Bolt the second piece of the diaphragm in place, not tight, and weld, then loosen all the bolts to free the piece and then tighten. Place the concrete as shown. The temporary blocking shall remain in place until the welding and bolting has been completed.~~

STAGE III. AT ABUTMENT
Scale ⅜"=1'-0

Revised 6-17-58 AK J.T.C.

UNITED STATES DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS, REGION 10, JUNEAU, ALASKA

CHILKAT RIVER
500'x 24' I-BM. BRIDGE
CONSISTING OF 10 SIMPLE 50' SPANS
CONSTRUCTION DETAILS

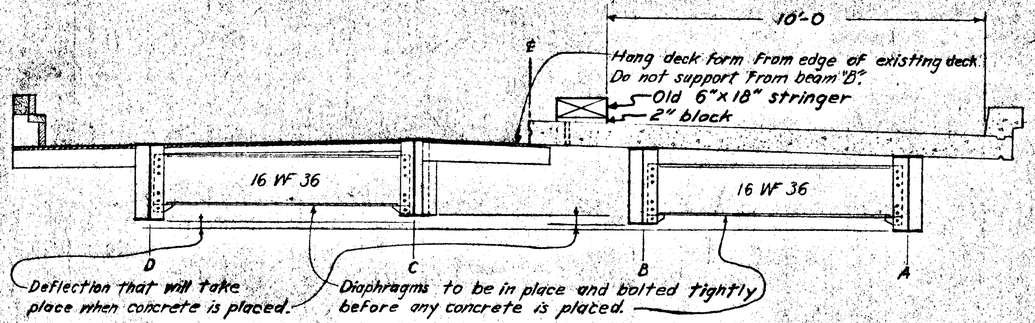
DISTRICT JUNEAU H20-44 LOADING
SHEET 6 OF 7 DRAWING 1556

PROJECT NO. F-095-5(1)

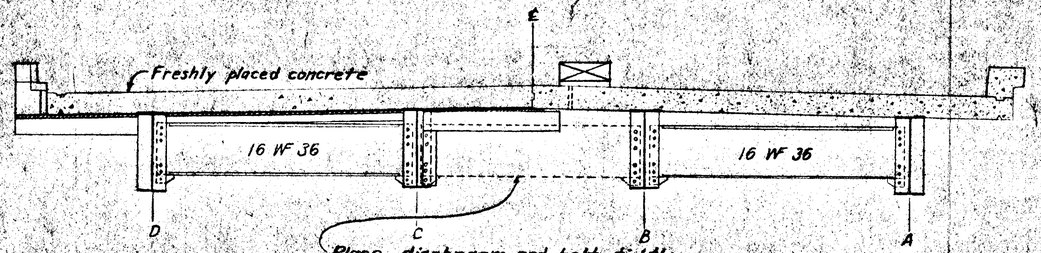
APPROVAL RECOMMENDED BY: Chief Design Engr. Date 6-17-58

BRIDGE BRANCH

TERRITORY	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FAP 95	5	1957	8	8



STAGE II AT MIDSPAN
Scale ½" = 1'-0



STAGE III AT MIDSPAN
Scale ½" = 1'-0

NOTE
All interior diaphragms were in place but not tightened before concrete was poured. Bolts were tightened within 30 minutes after pouring of concrete.

CONSTRUCTION SEQUENCE
For second half of deck

1. Build form and support to prevent freshly placed concrete from seeping under deck that is in place.
2. Pour concrete for second half of deck.
3. Place center diaphragm and bolt tightly.

This scheme or some similar one will be necessary to prevent the newly placed concrete from running between the present concrete and form when the weight is placed upon beams "C" and "D" which will cause them to go down.

BRIDGE BRANCH
QUANTITIES
APPROVAL RECOMMENDED BY: [signature] Chief, Design Engr. Date 6/17/58
CHECKED

AS BUILT PLANS
ORIGINAL SIGNED BY H. L. WALTON (Signed Name and Position) SEPT. 26-58 (Date)
CORRECTIONS TRANSFERRED
TRACING BY A.G.G. DATE 12-18-58
CHECKED BY DATE

UNITED STATES DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS, REGION 10, JUNEAU, ALASKA

CHILKAT RIVER
500' x 24' I BM BRIDGE
CONSISTING OF 10 SIMPLE 50' SPANS

CONSTRUCTION DETAILS
DISTRICT JUNEAU H 20-44 LOADING
SHEET 7 OF 7 DRAWING 1556

PROJECT NO. F-095-5(10)