STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-5(4) & SP-3014	1961	1	16

STATE OF ALASKA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

"AS BUILT" PLANS

PLANS FOR PROPOSED HIGHWAY BRIDGE PROJECT NO. F-095-5(4) MUNCASTER CREEK BRIDGE & NO. SP-3014 LITTLE BOULDER CREEK BRIDGE

HAINES CUT-OFF

FAP ROUTE 95

ALASKA

Contractor ~ E.A. Smith Construction Co & The Bachner Co. (JV)

Project Engineer ~ William L. Gute

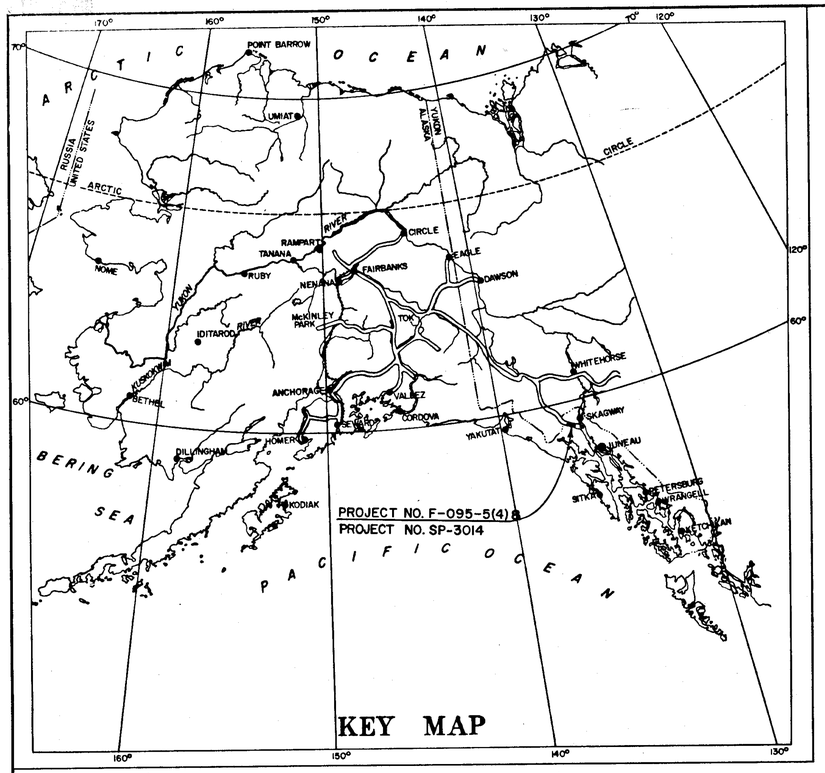
Time Began ~ April 25, 1962

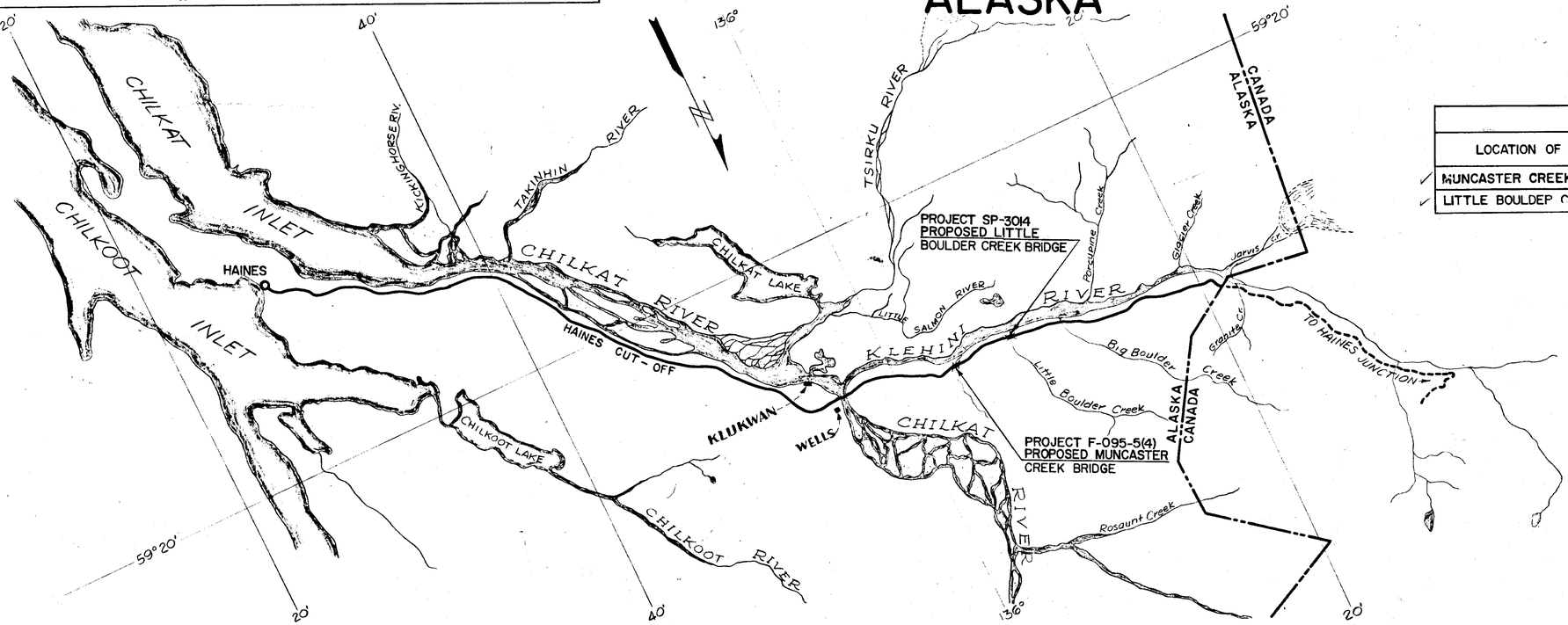
Time Ended ~ Aug. 12, 1963

William L. Gute

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
	MUNCASTER CREEK
2	ROADWAY SECTION & ESTIMATE OF QUANTITIES
3	PLAN & PROFILE
4	GENERAL LAYOUT
5	FOUNDATION PLAN
6-7	ABUTMENT DETAILS
8-10	SUPERSTRUCTURE DETAILS
	LITTLE BOULDER CREEK
11	GENERAL LAYOUT
12	SUPERSTRUCTURE DETAILS
S-3	STANDARD APPROACHES
S-5	STANDARD BARRICADE
S-6	STD PROJECT IDENTIFICATION SIGN
S-8	STANDARD BEAM GUARD RAIL





TYPE OF IMPROVEMENT 3210 & X031

PROJECT SUMMARY

LOCATION OF IMPROVEMENT	ROADWORK LENGTH FT.	ROADWORK LENGTH MILE	BRIDGEWORK LENGTH FT.	BRIDGEWORK LENGTH MILE	TOTAL LENGTH FT.	TOTAL LENGTH MILE
MUNCASTER CREEK BRIDGE, F-095-5(4)	170571	0.323	38.80	0.007	1744.51	0.330
LITTLE BOULDER CREEK BRIDGE, SP-3014	35484	~~0.06~~ 0.049	~~53.93~~ 54.33	0.010	40867	0.077

DESIGN DESIGNATION

ADT	(1960)	= 103
ADT	(1980)	= 400
DHV	(30HV)	= 80
D		= 65%
T		= 7%
V		= 55 mph

STATE OF ALASKA
DEPT. OF PUBLIC WORKS
DIVISION OF HIGHWAYS

APPROVED Donald R. Roser Date 8/8/61
Acting DIRECTOR, DIVISION OF HIGHWAYS

APPROVED

Date

REGIONAL ENGINEER
BUREAU OF PUBLIC ROADS
REGION TEN

DWNG. NO. 591

STATE	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	95	—	1961	2	16

GENERAL NOTES

1. Grades and alignment shown on these plans are subject to minor revisions.
2. When necessary for the purpose of expediting traffic, aggregate base or bituminous surface treatment shall be constructed part width at a time.
3. Superelevation shown is in feet per foot of roadway width. Superelevation shall be rotated about centerline and transitioned as directed by the engineer.
4. All unclassified excavation shall be uniformly placed in the lower portions of the roadbed as shown on the plans.
5. Existing pavement shall be obliterated as directed by the engineer.

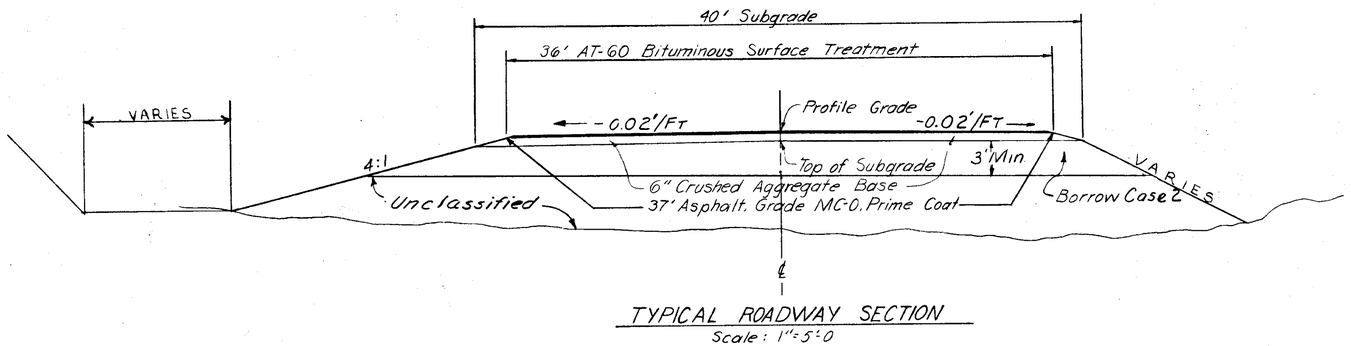
ESTIMATED QUANTITIES (Roadway)

Item No.	Quantity	Unit	Item Name
102(1)	5,760	Cu Yd	Unclassified Excavation
102(5)	7,500	Cu Yd	Borrow Excavation, Case 2
200(4)	2,050	Ton	Crushed Aggregate Base, Grading D-1
310(3)	1800	Gal	Asphalt, Grade MC-0, Prime Coat
314(2)	180	Ton	Aggregate Designation AT-60, Bituminous Surface Treatment
314(7)	3610	Gal	Asphalt, Grade RC-3, Bituminous Surface Treatment
583(1)	188	Lin Ft.	Beam-Type Guard Rail

Note: For bridge quantities see sht. 5 Dwg. #595

Refer To Final Estimate For Quaintities

Note: No changes this sheet



TYPICAL ROADWAY SECTION
Scale: 1"=5'-0

Checked By _____ Date _____
Drawn By JLB Date 4-21
Traced By EEH Date 4-21

REVISIONS		
No.	Date	Description

MUNCASTER CREEK
ROUTE NO. F—95
ROADWAY SECTION

Scale As Noted BRIDGE NO. 743

Alaska Department of Public Works
DIVISION OF HIGHWAYS
Juneau, Alaska

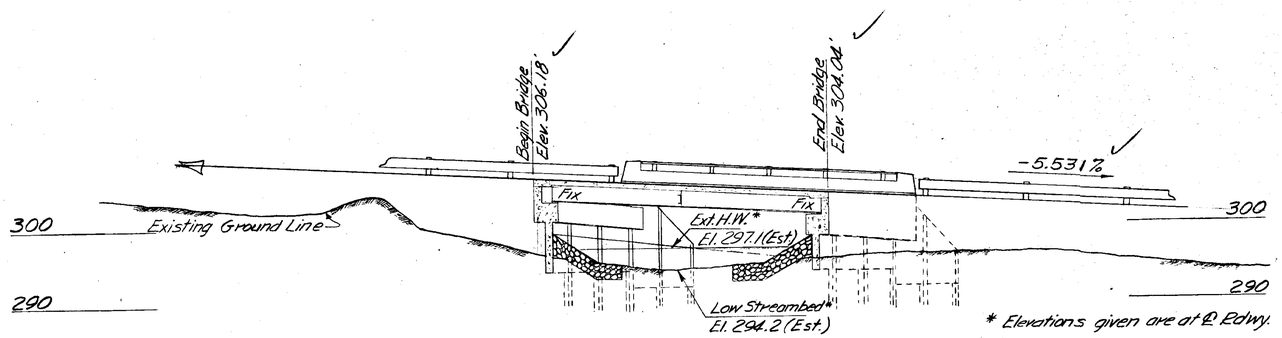
Date _____
Approved _____

Sheet ____ of ____
DWNG. NO. 592

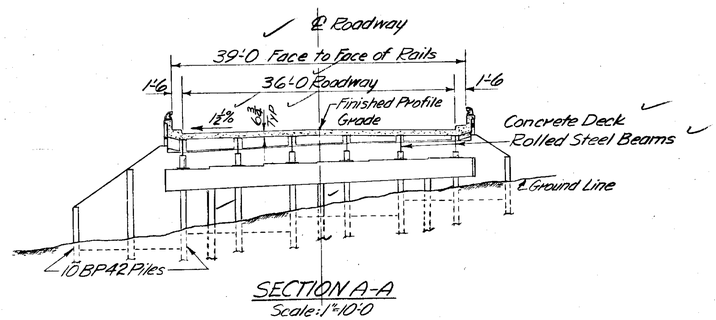
STATE	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	95		1961	3	16

STATE	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	95	—	1961	4	16

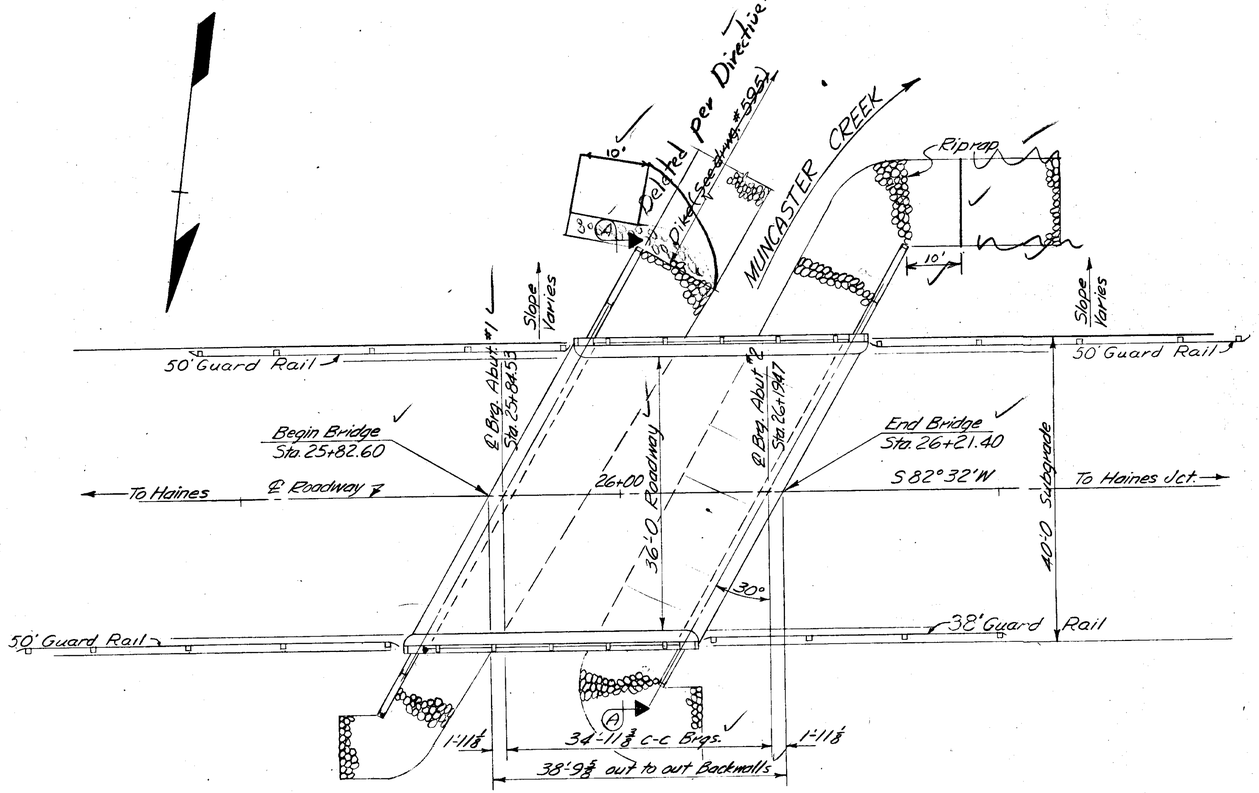
T.B.M. Elev. 298.14 – 8" spike in 30" spruce 82' left of existing Muncaster Creek Bridge.



℄ SECTION
Scale: 1"=10'-0



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



PLAN
Scale: 1"=10'-0

GENERAL NOTES

Specifications: Design: A.A.S.H.O. Standard Specifications for Highway Bridges, 1957, Seventh Edition, with latest tentative revisions.
Construction: Bureau of Public Roads Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-57, and the Special Provisions of this Contract.

Design Live Load: H 20-S16-44

Unit Stresses: Concrete: fc = 1,200 psi n = 10, fs = 20,000 psi. Structural Steel: A7 fs = 18,000 psi, A440 fs = 27,000 psi.

Concrete: All concrete shall be class A with a minimum compressive strength of 3,000 psi at 28 days. All exposed corners 90° or sharper shall be chamfered ¾ inch unless otherwise noted.

Reinforcing Steel: All reinforcement shall be intermediate grade deformed bars conforming to A.A.S.H.O. specifications M31 and M137. Dimensions of reinforcing steel are out to out of bars unless otherwise noted. The concrete protective covering for reinforcement shall be not less than: 1½ inches for top of slab and curb, 1 inch for rail and bottom of slab, and 2 inches for abutment.

Structural Steel: Structural steel for 27 WF 94 beams shall conform to A.S.T.M. designation A-440-59T. All other structural steel shall conform to A.S.T.M. designation A-7-58T. Field connections shall be made with ⅞ inch diameter High Strength Bolts conforming to A.S.T.M. designation A 325.

Piling: Type: 10BP42 Design Load: ~~35 ton~~ 18 Ton (Change Order #2)

Backfill: Backfill shall not be placed above elevation of top of riprap until superstructure is in place. Backfill shall be placed simultaneously at abutment #1 and abutment #2.

As Built corrections transferred ✓ LAC 10-30-63

MUNCASTER CREEK
ROUTE NO. F—95
GENERAL LAYOUT

Scale 1" = 10'-0 BRIDGE NO. 743

REVISIONS		
No.	Date	Description

Alaska Department of Public Works
DIVISION OF HIGHWAYS
Juneau, Alaska

Date
Approved

Sheet of
DWNG. NO. 594

Checked By RL Date 3-61
Drawn By DHP Date 3-61
Traced By Date

STATE	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	95	—	1961	5	16

Note: Dike deleted as per Directive # F. ✓

Approx. location of Dike. May be varied by Engineer to meet field conditions.

Δ = 40°
D = 80°
T = 26.1'

Dike P.C. Sta 0+40.0

Dike P.T. Sta 0+74.0

Dike End Sta 0+80.0

Top of Dike El 292.0 ✓

Toe of Dike El 288.0 ✓

S 22° 32' W

MUNCASTER CREEK

Toe of Riprap El 291.0

Top of Riprap El 295.3

Top of Riprap = Top of Dike El 297.0

Toe of Riprap = Toe of Dike El 292.0

Begin Dike Sta 0+00.0

Pile spacing given along ℄ Brg.

2 Spa. @ 8'-0" = 16'-0

5 Spa. @ 8'-3" = 41'-6"

30°

Three additional piles ea. abutment (Change Order # 2)

℄ Brg Abut. No.1 Sta. 25+84.53

℄ Brg Abut. No. 2 Sta. 26+19.47

S 82°32'W

℄ Proposed Roadway

To Haines

To Haines Jct

Note 2" from ℄ Brg. to ℄ pile Typ.

℄ Piles

Top of Riprap El 301.0

Toe of Riprap El 298.0

Toe of Riprap El 296.5

Existing two span Timber Bridge, 30'x24', to be removed.

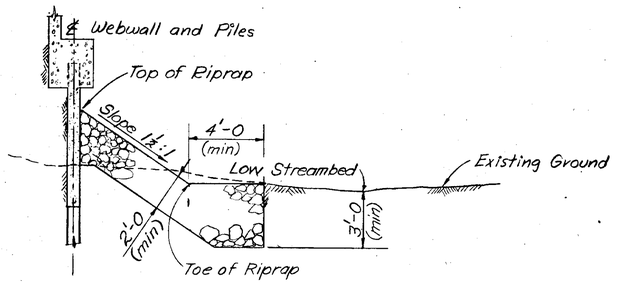
℄ Existing Roadway

280

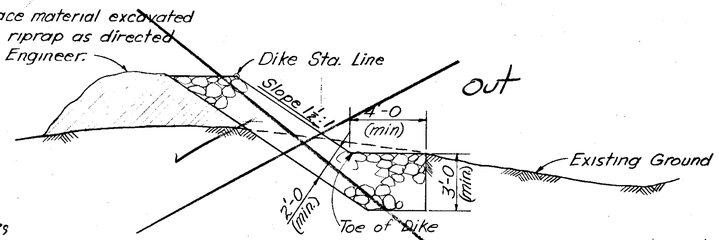
290

300

Correction transferred ✓LAC 10-30-63



TYP. RIPRAP SECTION AT ABUT.
Scale ¼ = 1'-0



TYP. DIKE SECTION B-B
Scale ¼ = 1'-0

TOTAL ESTIMATED QUANTITIES

ITEM NO.	ITEM	QUANTITIES UNIT	SUPER	ABUTS	TOTAL	
10	Miscellaneous force account work as authorized in Articles 9.4 & 9.5	Lump Sum			All Req'd	
103(2)	Excavation for structures (bridges)	Cu. Yd.		70	70	
400(3)	Structural steel piles, furnished	Lin. Ft.		500	500	*
400(12)	Structural steel piles, driven	Each		19	19	
406(1)	Class A Concrete	Cu. Yd.	41	58	99	
407(1)	Reinforcement steel, Intermediate Grade	Lb.	10,720	5,540	16,260	
420(7)	Structural steel, furnished, fabricated & erected (A-440 Approx. 20,300 lbs., A-7 Approx. 7,800 lbs.)	Lump Sum			All Req'd.	
422(3)	Aluminum bridge railing	Lin. Ft.	68		68	
510(1)	Loose riprap	Cu. Yd.			293	

* Estimated length of piles is based on pile tip penetration to El. 274' (avg.)

MUNCASTER CREEK
ROUTE NO. F—95
FOUNDATION PLAN

Scale 1" = 10'-0

BRIDGE NO. 743

REVISIONS		
No.	Date	Description

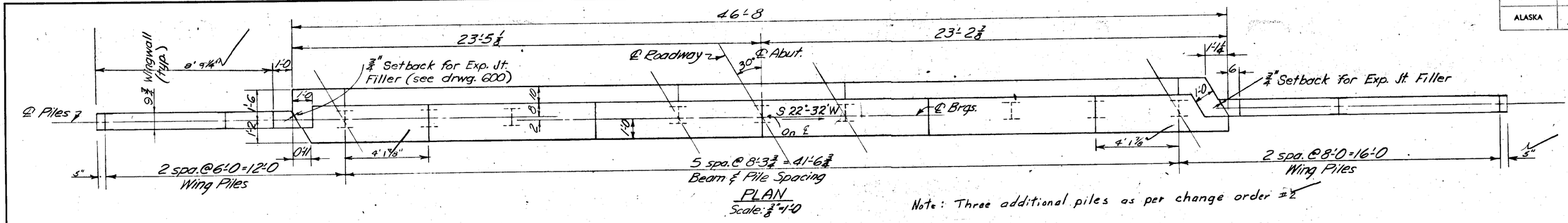
Alaska Department of Public Works
DIVISION OF HIGHWAYS
Juneau, Alaska

Date
Approved

Sheet ___ of ___
DWNG. NO. 595

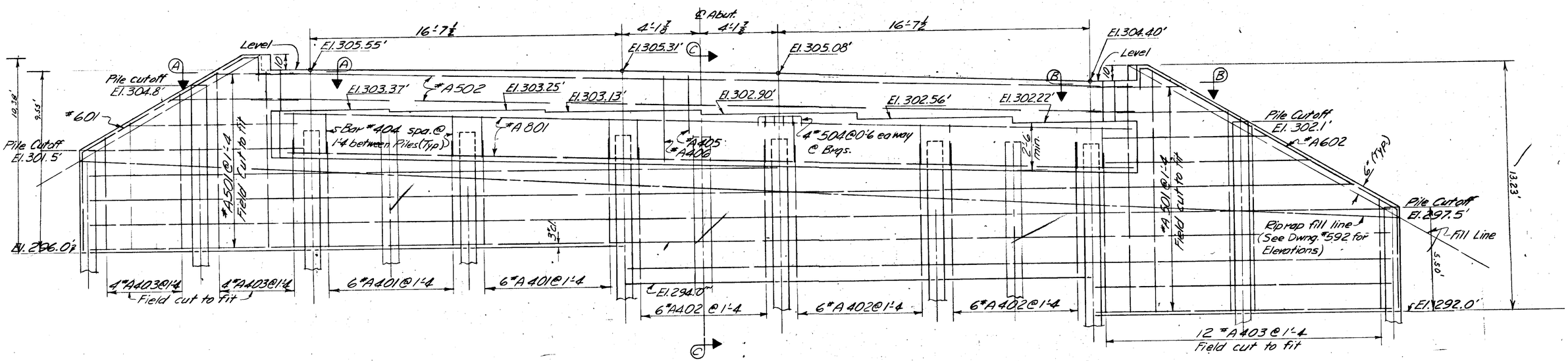
Drawn by C.B. Date 3-61
Traced By Date

STATE	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	95	——	1961	6	16

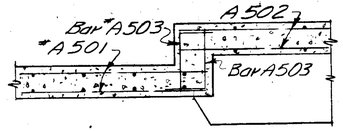


PLAN
Scale: 3/8" = 1'-0

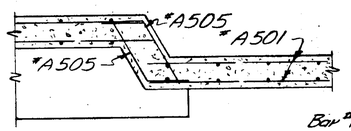
Note: Three additional piles as per change order #2



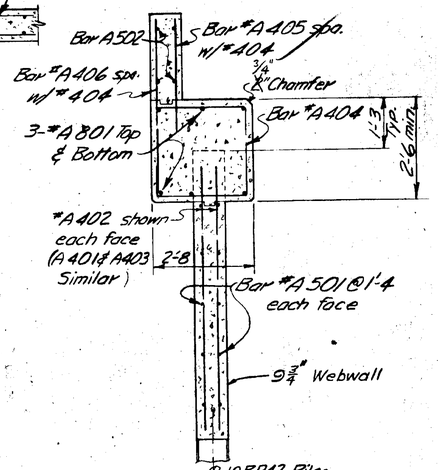
ELEVATION
Scale: 3/8" = 1'-0



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



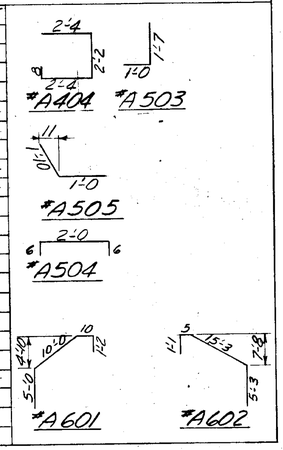
SECTION B-B
Scale: 1/2" = 1'-0



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

ABUTMENT #1 REINFORCING STEEL

LOCATION	NO.	SIZE	LENGTH	MARK	TYPE
Web Wall	24	4	5'-6	A401	——
" "	36	4	7'-0	A402	——
Wing Wall	9	4	40'-0	A403	——
Cap	32	4	7'-6	A404	Bent
Backwall	32	4	3'-0	A405	——
"	32	4	4'-6	A406	——
Web & Wing	20	5	40'-0	A501	——
Backwall	8	5	23'-0	A502	——
"	4	5	2'-7	A503	Bent
Cap	48	5	3'-0	A504	Bent
Backwall	4	5	2'-10	A505	Bent
Wingwall	2	6	17'-0	A601	Bent
" "	2	6	22'-0	A602	Bent
Cap	12	8	23'-6	A801	——



SUBSTRUCTURE NOTES

1. Beam seats shall be level at elevations shown
2. Piles shall be cut off 1'-3 below beam seat elevations.
3. Protective cover for reinforcement shall be 2 inches except as noted.
4. Reinforcement splices shall be lapped 20 bar diameters except as noted.
5. Holes shall be burned in pile webs after driving to allow placement of horizontal web wall reinforcement.
6. Surfaces of web & wing walls shall be flush with pile flanges.

Correction transfer
✓ LAC 10-30-63

Designed By JHP Date 3-61
Checked By EJD Date 3-61
Drawn By DWD Date
Traced By Date

REVISIONS		
No.	Date	Description

MUNCASTER CREEK
ROUTE NO. F—95
ABUTMENT NO. 1

Scale As Noted

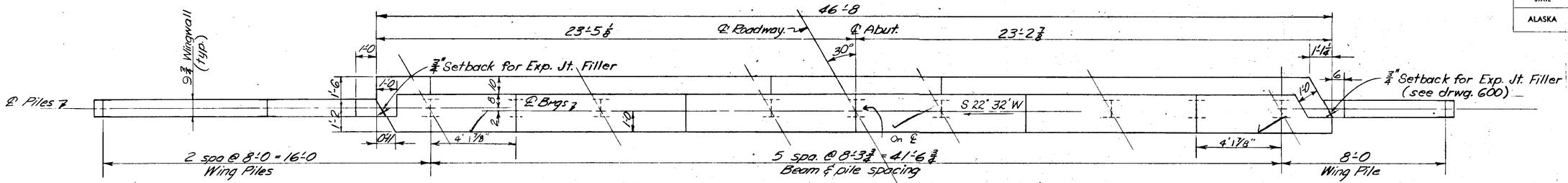
BRIDGE NO. 743

Alaska Department of Public Works
DIVISION OF HIGHWAYS
Juneau, Alaska

Date
Approved

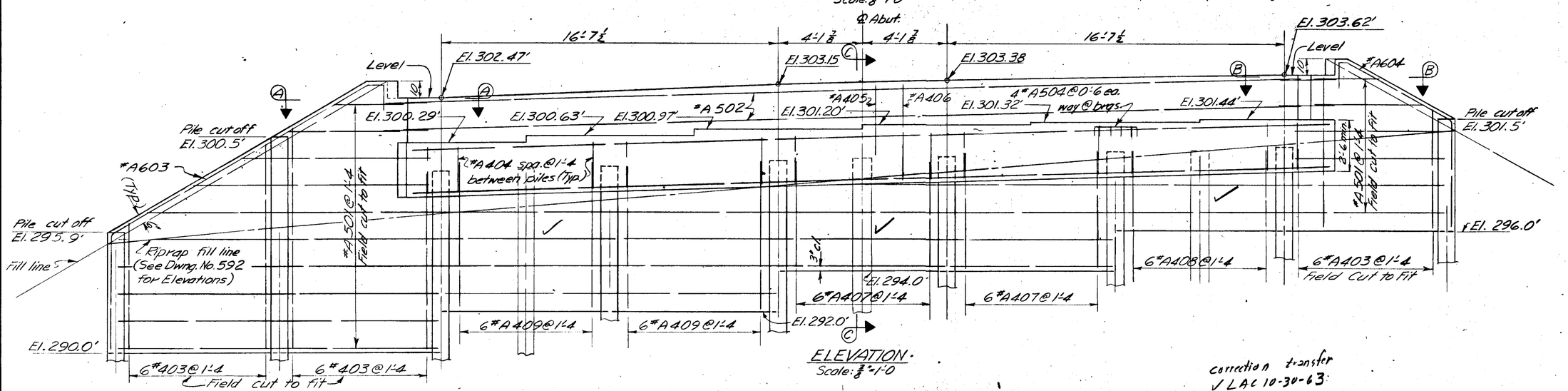
Sheet of
DWNG. NO. 596

STATE	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	95	——	1961	7	16

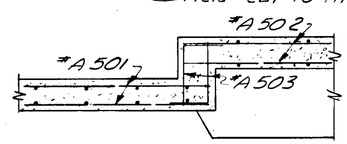


PLAN
Scale: ⅜"=1'-0

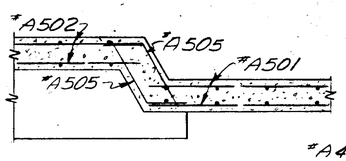
Note: Three additional piles as per change order #2



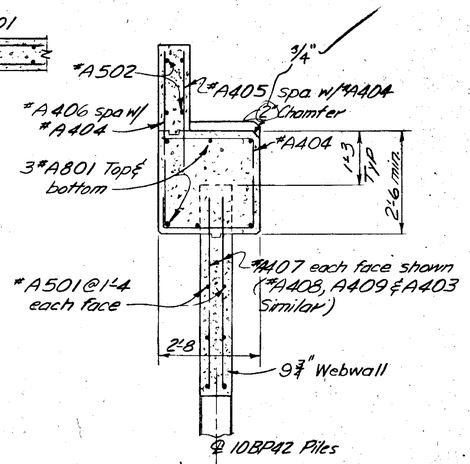
ELEVATION
Scale: ⅜"=1'-0



SECTION A-A
Scale: ½"=1'-0



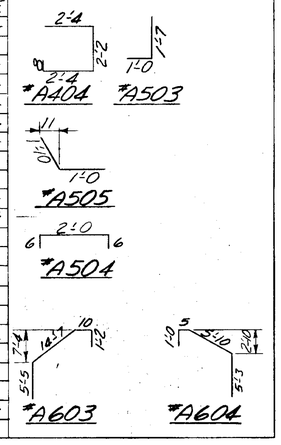
SECTION B-B
Scale: ½"=1'-0



SECTION C-C
Scale: ½"=1'-0

ABUTMENT #2 REINFORCING STEEL

LOCATION	NO.	SIZE	LENGTH	MARK	TYPE
Wing wall	8	4	40'-0	A403	——
File Cap	32	4	7'-6	A404	Bent
Backwall	32	4	3'-0	A405	——
"	32	4	4'-6	A406	——
Webwall	24	4	5'-3	A407	——
"	12	4	3'-9	A408	——
"	24	4	7'-3	A409	——
Web & Wing	16	5	40'-0	A501	——
Backwall	8	5	23'-0	A502	——
"	4	5	2'-7	A503	Bent
"	48	5	3'-0	A504	Bent
Cap	4	5	2'-10	A505	Bent
Wingwall	2	6	22'-0	A603	Bent
"	2	6	12'-6	A604	Bent
Cap	12	8	23'-6	A801	——



correction transfer
✓LAC 10-30-63

Note: For Substructure Notes see Drwg. No. 596

MUNCASTER CREEK
ROUTE NO. F—95
ABUTMENT NO. 2

Scale As Noted

BRIDGE NO. 743

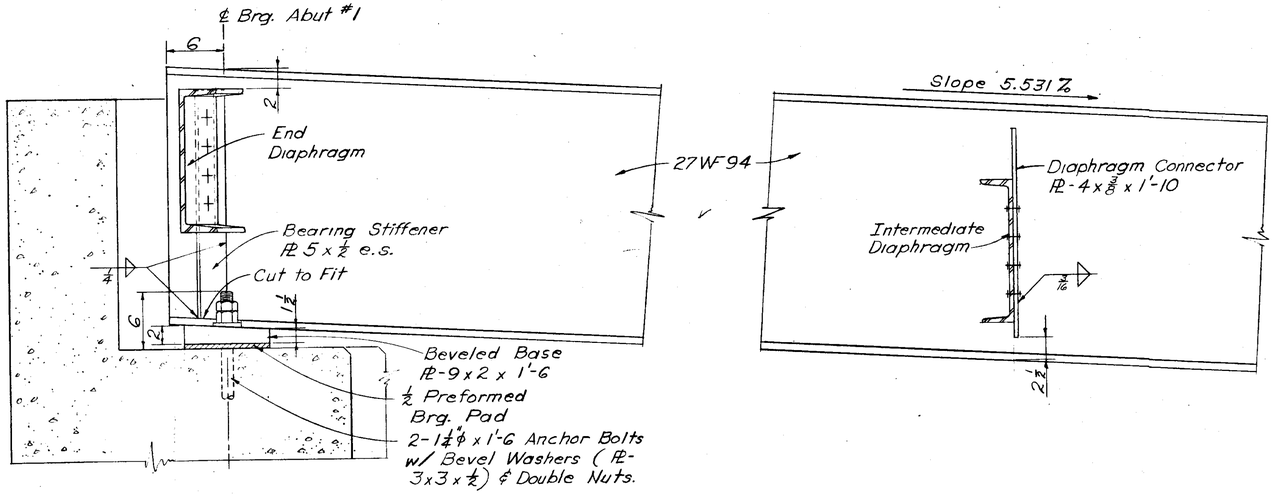
REVISIONS		
No.	Date	Description

Alaska Department of Public Works
DIVISION OF HIGHWAYS
Juneau, Alaska

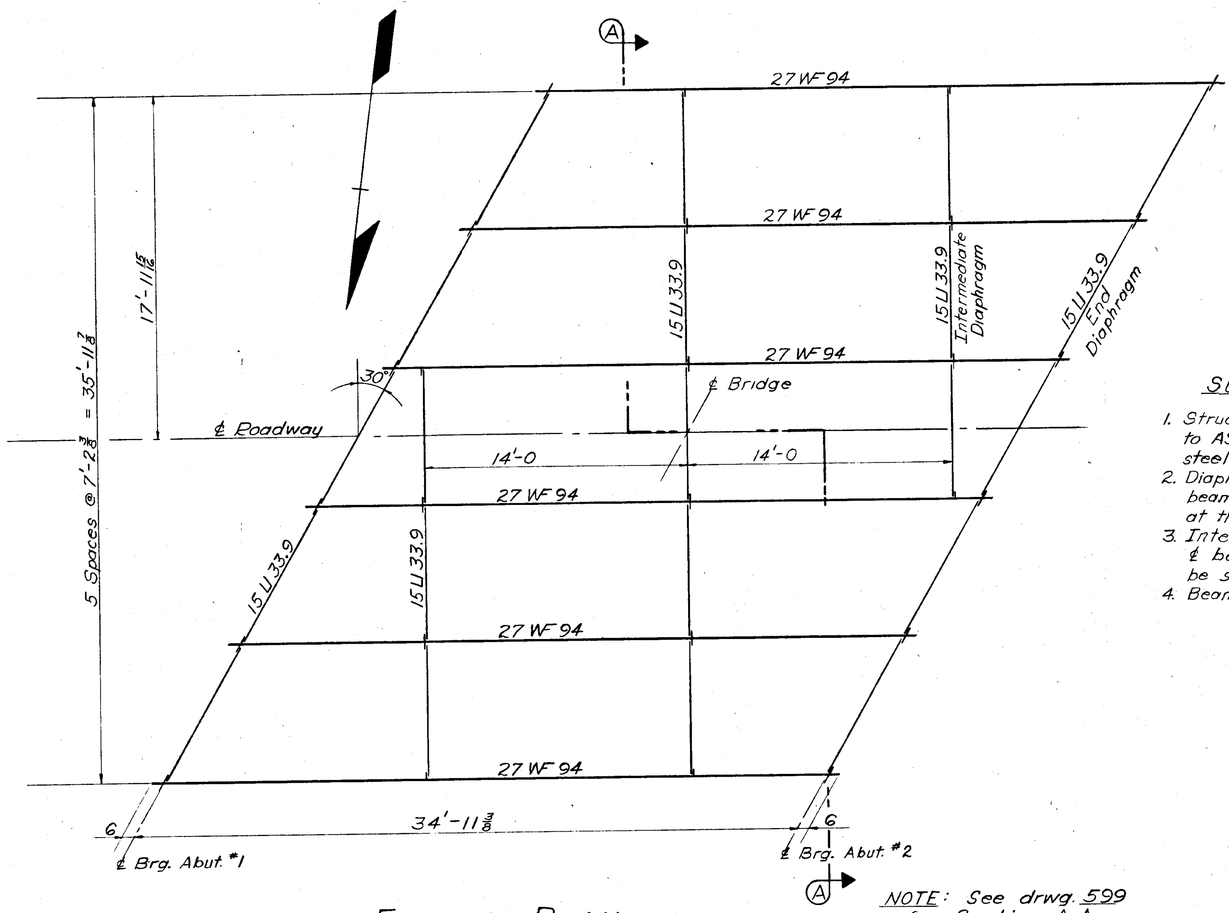
Date
Approved

Sheet of
DWNG. NO. 597

STATE	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	95	——	1961	8	16

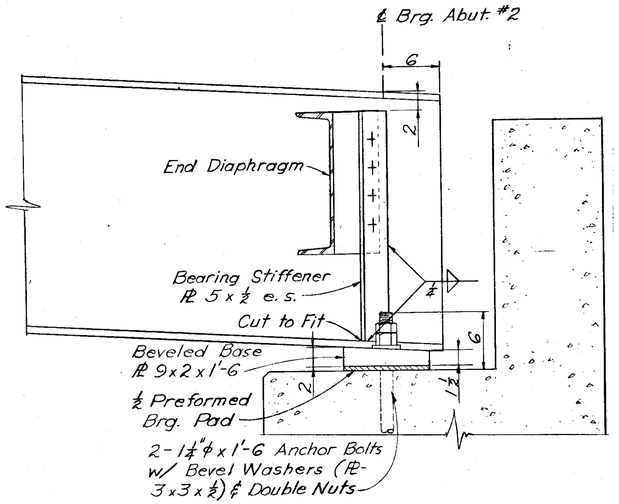


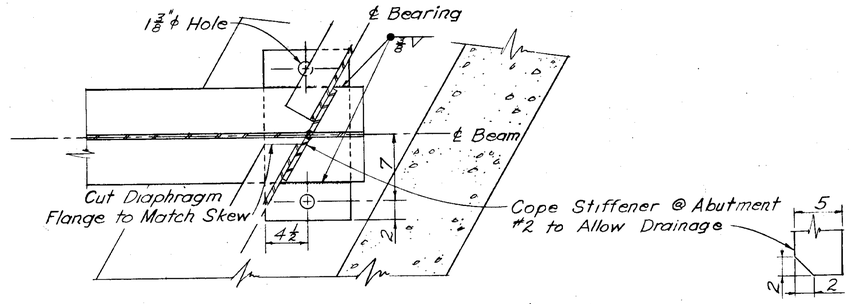
TYPICAL BEAM ELEVATION
Scale 1½ = 1'-0



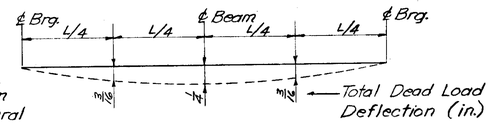
FRAMING PLAN
Scale ¼ = 1'-0

NOTE: See drwg. 599 for Section A-A





BEARING PLAN (TYP EACH ABUT.)
Scale 1½ = 1'-0



DEFLECTION DIAGRAM
No Scale

NOTE: Deflection due to deck slab, curb & rail is 85% of the total dead load deflection.

SUPERSTRUCTURE NOTES

1. Structural steel for 27WF94 beams shall conform to ASTM designation A-440-59T. All other structural steel shall conform to ASTM designation A-7-58T.
2. Diaphragm connectors, bearing stiffeners & ends of beams shall be vertical when the beams are set at the slope shown above.
3. Intermediate diaphragms shall be perpendicular to ℄ beams & set level. End diaphragms shall be skewed & sloped to match ℄ Bearing Abuts.
4. Beams shall be fabricated with natural camber up.

Note: No changes this sheet ✓

Checked by: EL Date 3-61
Drawn By: Date
Traced By: Date

REVISIONS		
No.	Date	Description

MUNCASTER CREEK
ROUTE NO. F—95
SUPERSTRUCTURE DETAILS #1
(35' Steel Beam)

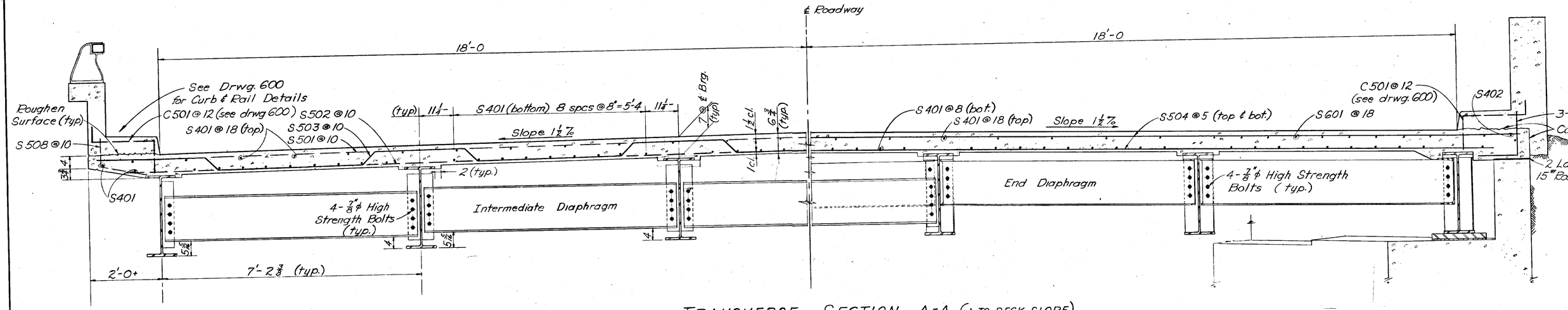
Scale As Shown — BRIDGE NO. 743

Alaska Department of Public Works
DIVISION OF HIGHWAYS
Juneau, Alaska

Date
Approved

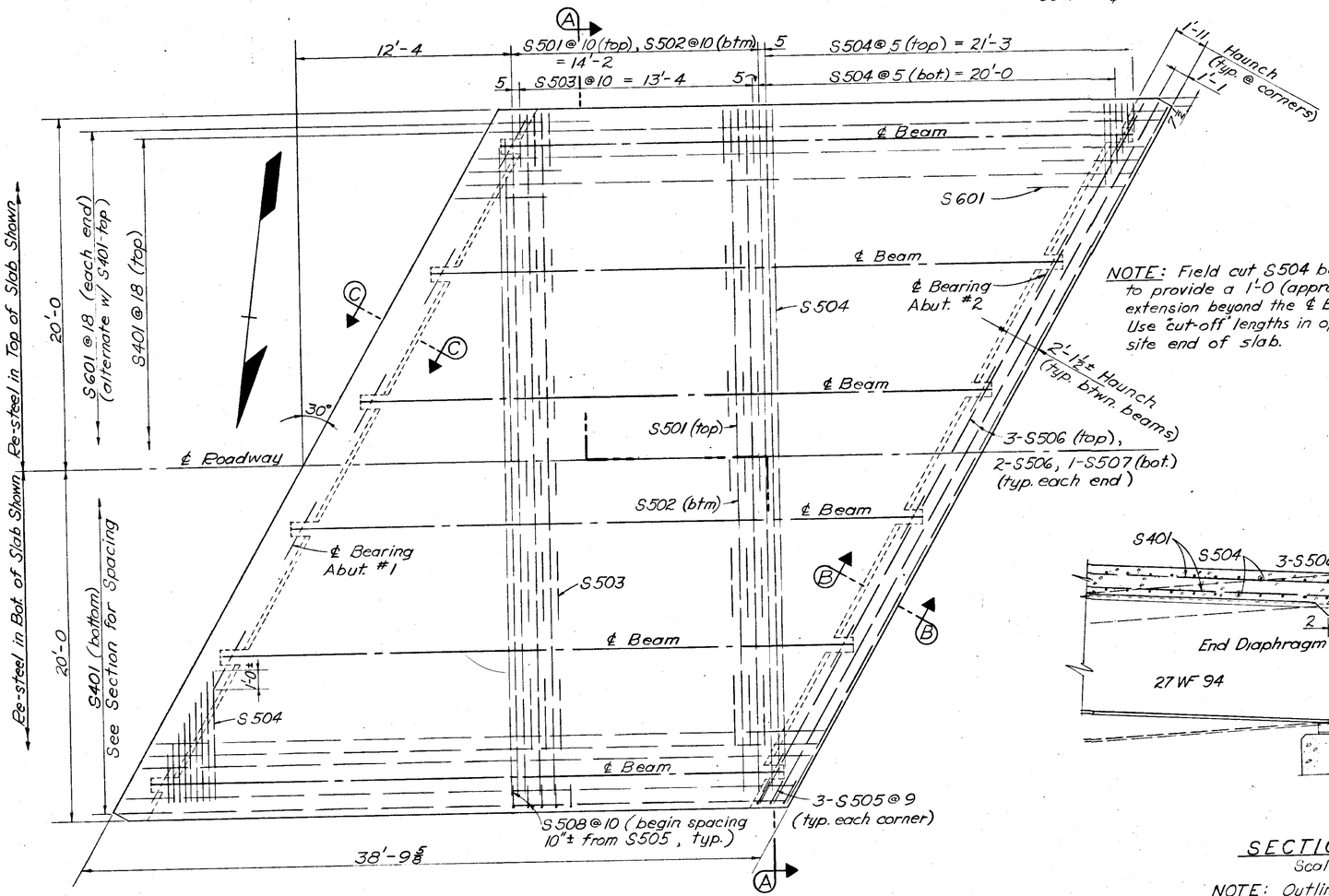
Sheet of
DWNG. NO. 598

STATE	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	95	—	1961	9	16



TRANSVERSE SECTION A-A (⊥ TO DECK SLOPE)

Scale ¾" = 1'-0



PLAN

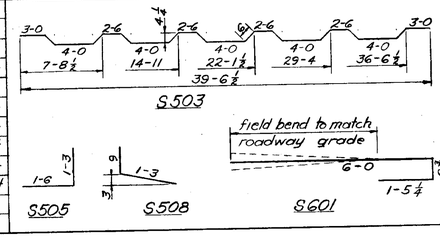
Scale ¼" = 1'-0

NOTE: Field cut S504 bars to provide a 1'-0 (approx.) extension beyond the ℄ Brgs. Use "cut-off" lengths in opposite end of slab.

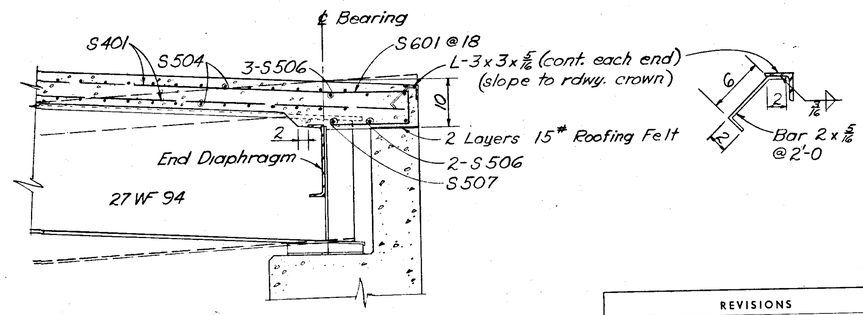
SLAB REINFORCING STEEL

No.	Size	Length	Mark	Type
18	#5	39-6	S501	—
18	#5	38-0	S502	—
17	#5	41-0	S503	Bent
101	#5	40-0	S504	—
12	#5	2-9	S505	Bent
10	#5	45-6	S506	—
10	#5	7-0	S507	—
82	#5	2-0	S508	Bent
75	#4	38-3	S401	—
46	#4	8-0	S601	Bent

Bending Diagrams



Note: No changes this sheet. ✓



SECTION B-B

Scale ¾" = 1'-0

NOTE: Outline of Section C-C is shown in dashed lines. Details for this Section are similar.

REVISIONS		
No.	Date	Description

MUNCASTER CREEK
ROUTE NO. F—95
SUPERSTRUCTURE DETAILS #2
(Deck)

Scale As Shown — BRIDGE NO. 743

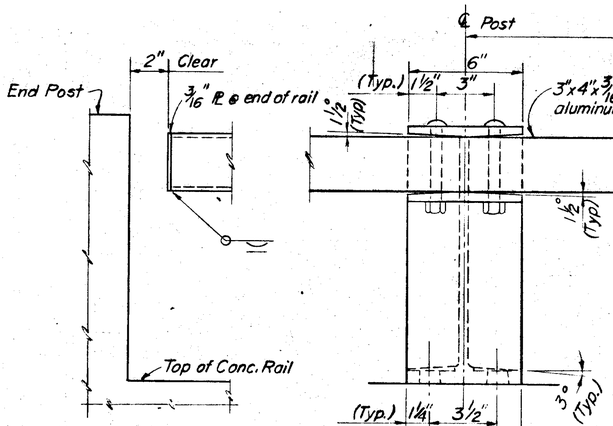
Alaska Department of Public Works
DIVISION OF HIGHWAYS
Juneau, Alaska

Date
Approved

Sheet ___ of ___
DWNG. NO. 59

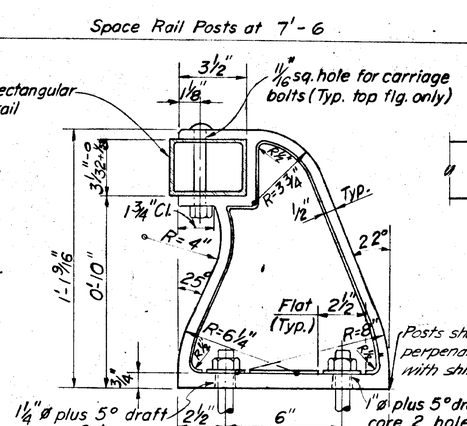
Designed By	RL	Date 3-61
Checked By	HG	Date 3-61
Drawn By	RL	Date 3-61
Traced By		Date

STATE	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	95	——	1961	10	16

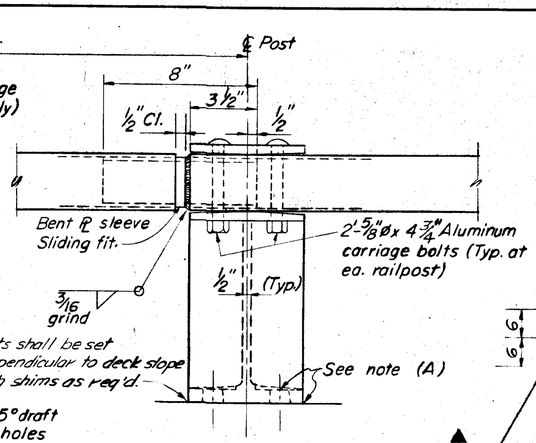


RAIL END AT ABUT.

TYPICAL FIXED RAIL & POST

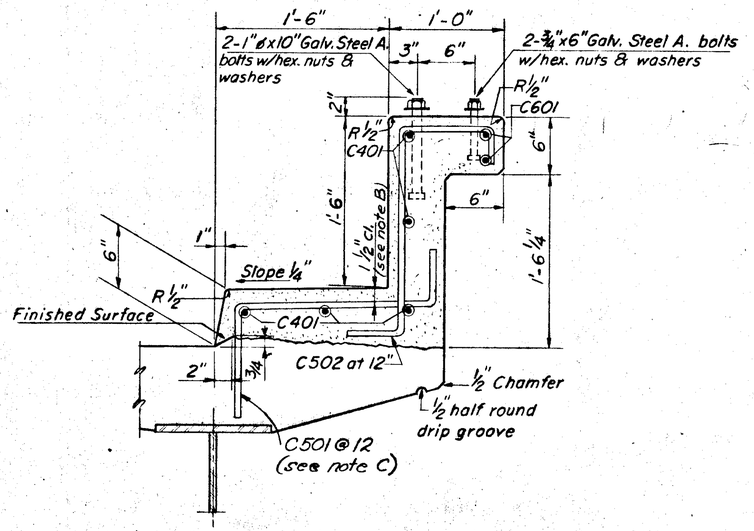


TYPICAL RAIL POST



TYPICAL EXP. RAIL & POST
(Every second post)

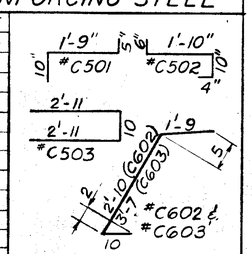
RAILING & RAILPOST DETAILS
Scale: 3"= 1'-0"

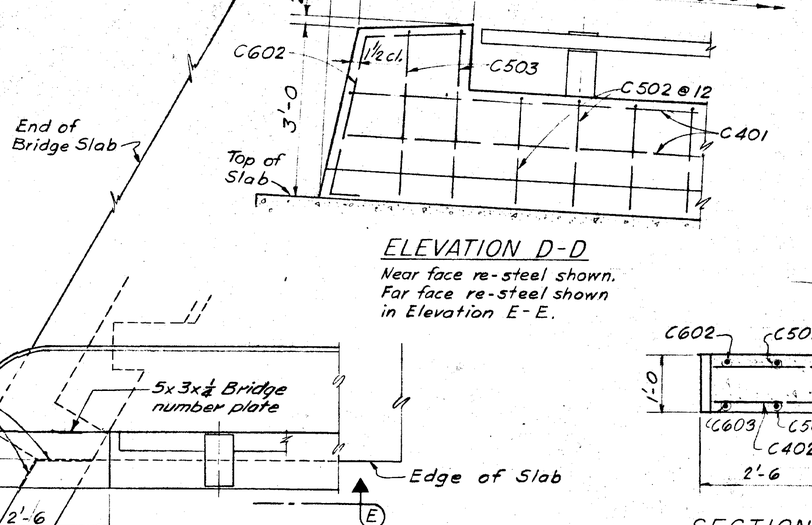


SAFETY CURB DETAIL
Scale: 1½"= 1'-0"

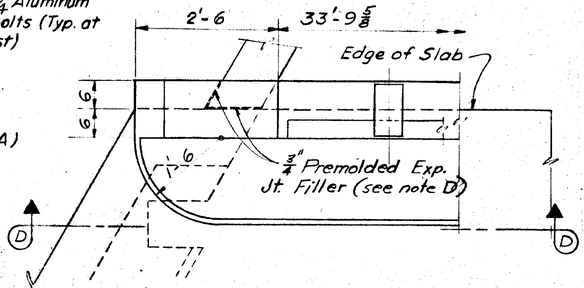
SAFETY CURB & POST REINFORCING STEEL

LOCATION	NO.	SIZE	LENGTH	MARK	TYPE
	10	4	38'-0	C401	——
	78	5	3'-0"	C501	Bent
Curb	66	5	3'-6"	C502	Bent
	4	6	38'-0	C601	——
End Post	8	4	2'-2	C402	——
	8	5	6'-8	C503	Bent
	4	6	5'-5	C602	Bent
	4	6	6'-2	C603	Bent

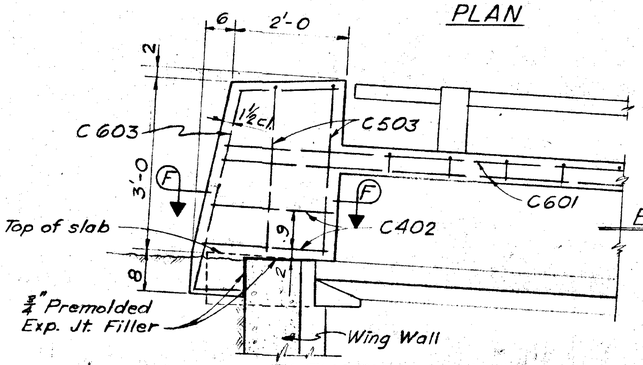




ELEVATION D-D
Near face re-steel shown.
Far face re-steel shown in Elevation E-E.

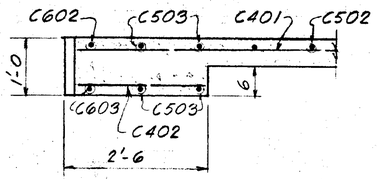


PLAN



ELEVATION E-E
Near face re-steel shown.
For face re-steel shown in Elevation D-D.

END POST DETAILS
Scale: ¾"= 1'-0



SECTION F-F

Note (A) – Aluminum surfaces in contact with concrete or steel shall be thoroughly coated with an aluminum impregnated calking compound.

Note (B) - The concrete protective covering for reinforcement shall be one inch except as noted.

Note (C) - Field bend C401 & C501 to fit curve at ends of curbs.

Note (D) - Place ¾" premolded expansion joint filler in vertical joint between slab and wingwall and in horizontal and vertical joints between end post and wingwall.

Note (E) Bridge number plates (furnished by state) shall be placed on the end post facing approaching traffic at each end of the bridge. Set top of ℞ in line with top of concrete rail and flush with surface of end post.

Note: No changes this sheet

REVISIONS		
No.	Date	Description

MUNCASTER CREEK
ROUTE NO. F-95
SUPERSTRUCTURE DETAILS 3
(Curb and Rail)

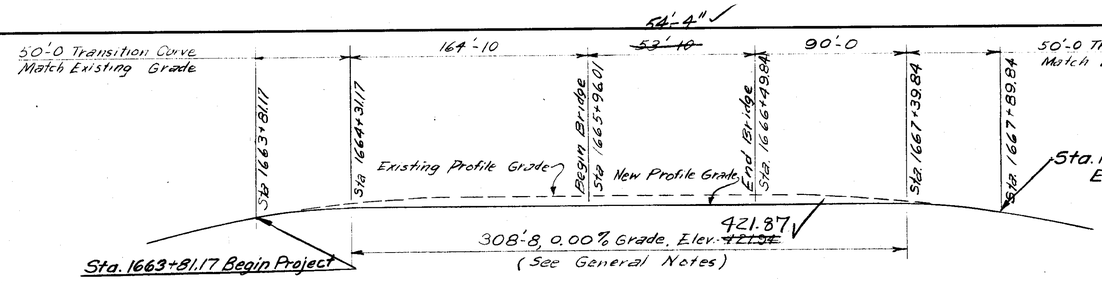
Scale As Shown — BRIDGE NO. 743

Alaska Department of Public Works
DIVISION OF HIGHWAYS
Juneau, Alaska

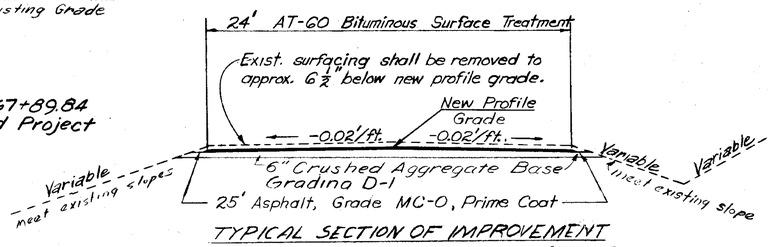
Date
Approved
Sheet of
DWNG. NO. 600

STATE	ROUTE	SECTION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	95		1961	11	16

T.B.M. - 8" Spike in 36" Cottenwood, 119' Right Sta. 1664+82 - Elev. 421.21



FINISHED PROFILE GRADE
Not to Scale



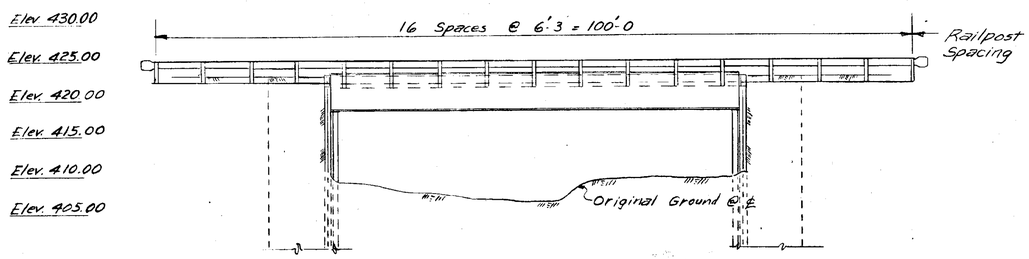
TYPICAL SECTION OF IMPROVEMENT
Sta 1663+81.17 - 1667+89.84 (Except Bridge)

See Below *

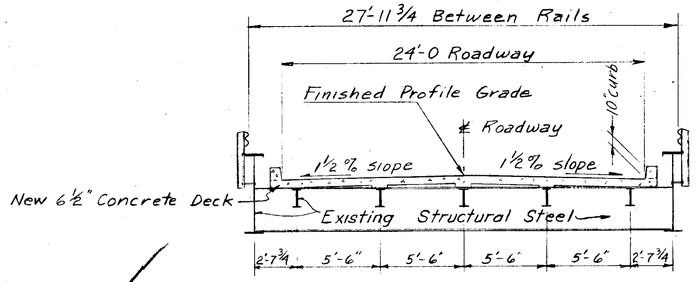
ESTIMATED QUANTITIES

ITEM NO	ITEM	UNIT	QUANTITY
5-10	Miscellaneous Force Account As Authorized in Article 9.4 & 9.5	Lump Sum	All Req'd
200(4)	Crushed Aggregate Base Grading D-1	Ton	360
201(1)	Reconditioning of Roadbed	Mile	0.067
310(3)	Asphalt Grade MC-0, Prime Coat	Gal.	296
314(2)	Aggregate, Designation AT-60, Bituminous Surface Treatment	Ton	28
314(7)	Asphalt, Grade RC-3, Bituminous Surface Treatment	Gal	568
406(1)	Class "A" Concrete	Cu.Yd.	32
407(1)	Reinforcement Steel, Intermediate Gr.	Lb.	6615
420(7)	Structural Steel, A7, (Approx. 1750#) Furnished, Fabricated, & Erected	Lump Sum	——
420(9)	Paint Existing Structural Steel	Lump Sum	——
422(3A)	Aluminum Bridge Railing (Beam Type)	Lin. Ft.	207
* 305(1A)	Stockpiled Material, Section 200, Grading D-1	Cu. Yd.	2000
* 305(1B)	Stockpiled Material, ~~Section 313, Type 3, Grading B~~	Cu. Yd.	500

See C.O. #3

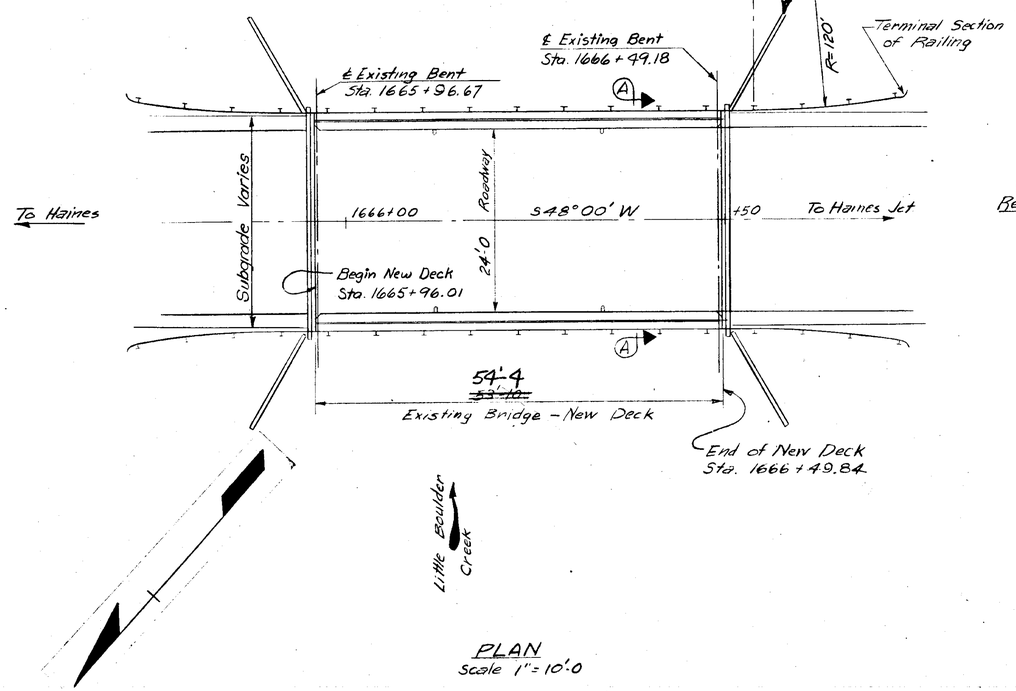


ELEVATION
Scale 1"=10'-0



SECTION A-A
Scale 1"=5'-0"

Wingwalls torn out and replaced with native logs on 1:1 slope, under Force Account Item 5-10.



PLAN
Scale 1"=10'-0

GENERAL NOTES

Specifications : Design - AASHO Standard Specifications for Highway Bridges, 1957 Edition with subsequent revisions.
Construction - Bureau of Public Roads Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP57 and the Special Provisions of this Contract.

Live Loading : H20-S16-44

Unit Stresses : Concrete - f_c = 1200psi, n=10, f_s = 20,000psi Structural Steel - A-7 f_s = 18,000psi

Concrete : All concrete shall be Class "A" and contain 3% to 6% entrained air by volume. It shall have a minimum compressive strength of 3,000 psi at 28 days. All exposed corners 90° and sharper shall be beveled ¾".

Reinforcement Steel : All bars shall be intermediate grade steel. Dimensions shown are out to out of bars unless otherwise noted. The protective concrete covering is as shown on the plans.

Structural Steel : All Structural Steel shall be ASTM A-7-58T.

Elevations : IMPORTANT. The Finished Grade Elevation shown on the plans is based on an assumed elevation of 421.17 at the center of the end floor beam of the Haines end of the existing bridge. If this top of steel elevation does not check out, adjust the grade elevation to suit.

Stationing : The ℄ of the existing bent at the Haines end of the bridge is assumed at Sta. 1665+96.67.

Dimensions : All dimensions and sizes of existing construction are approximate and should be verified in the field by the Contractor.

Waste : Any material scarified under item 201 shall be wasted at a location chosen by the contractor and approved by the Engineer.

correcting transfer
✓ LAC 10-30-63

Note: Elev. ~ 421.10

LITTLE BOULDER CREEK
ROUTE NO. F-95
GENERAL LAYOUT

SCALE AS SHOWN BRIDGE NO. 744

REVISIONS		
No.	Date	Description

Alaska Department of Public Works
DIVISION OF HIGHWAYS
Juneau, Alaska

Date
Approved

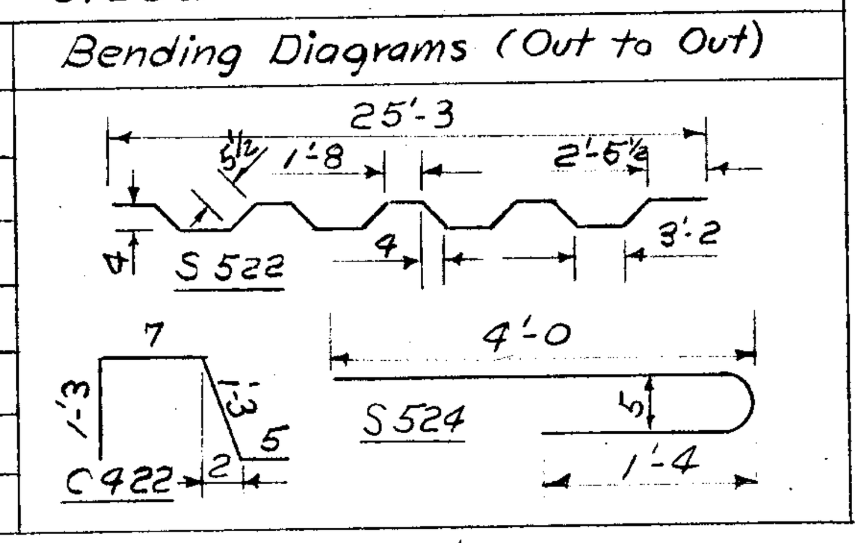
Sheet of
DWNG. NO. 601

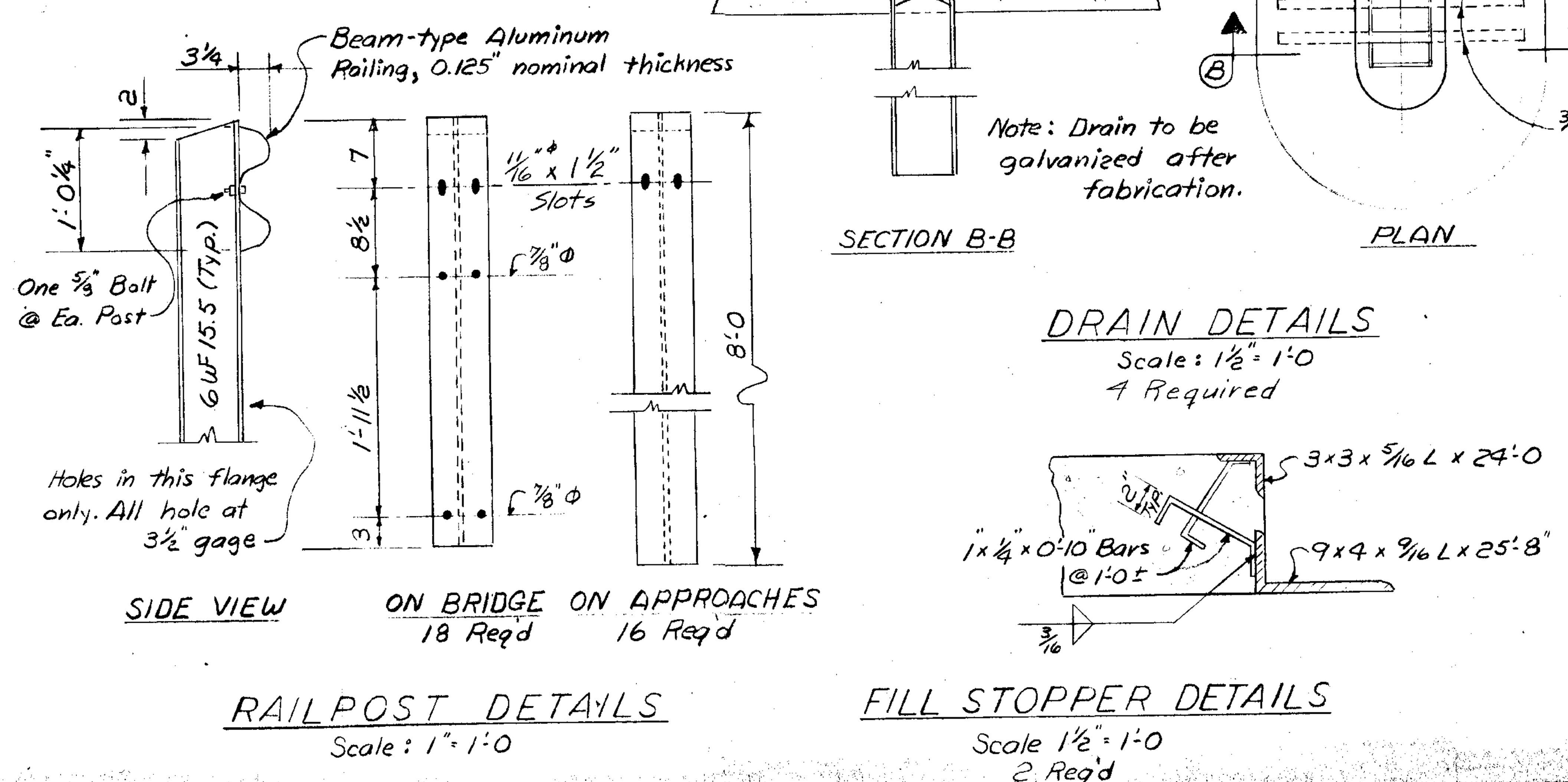
Checked By: A.D. Date: 5/61
Drawn By: A.P. Date: 5/61
Traced By: A.P. Date: 5/61

SLAB REINFORCING STEEL

Mark	Size	Number	Length	Type
S 421	#4	76	27'-3	Str.
S 422	#4	108	3'-6	Bent
S 521	#5	102	25'-3	Str.
S 522	#5	50	26'-3	Bent
S 523	#5	39	6'-0	Str.
S 524	#5	52	5'-6	Bent
S 621	#6	10	25'-3	Str.

Bending Diagrams (Out to Out)





REVISIONS		
No.	Date	Description

STATE	ROUTE	SECTION
ALASKA	95	

LITTLE BOULDER CREEK

ROUTE NO. F-95

SUPERSTRUCTURE DETAILS

SCALE AS SHOWN — BRIDGE NO. 744

Alaska Department of Public Works
DIVISION OF HIGHWAYS
Juneau, Alaska

Date
Approved

Sheet of
DWNG. NO. 602

Designed By H.G. Date 3/61
Checked By H.G. Date 6/61
Drawn By W.G. Date 6/61
Traced By W.G. Date