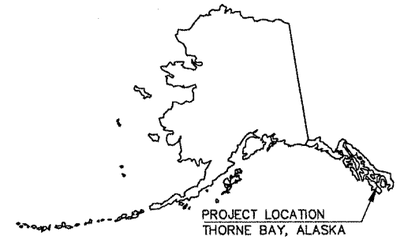
STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES



YEAR	STATE	PROJECT DESIGNATION	SHEET NO.	TOTAL SHEETS
2010	ALASKA	CA-0929(3)/68707	A1	16
ROUTE: THORNE BAY ROAD		MILEPOINT: 5.1 to 13.0		

POW – THORNE BAY ROAD BRIDGES PAINTING

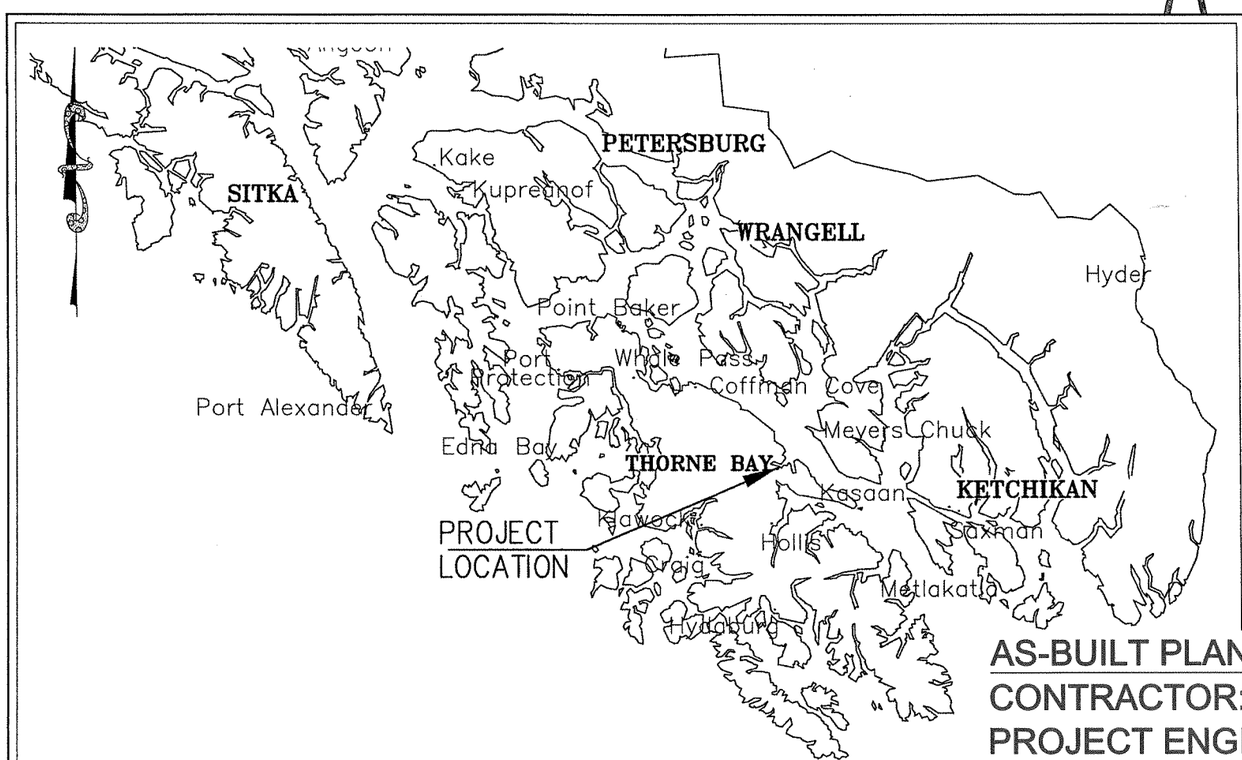
PROJECT NO. CA-0929(3)/68707

INDEX OF SHEETS

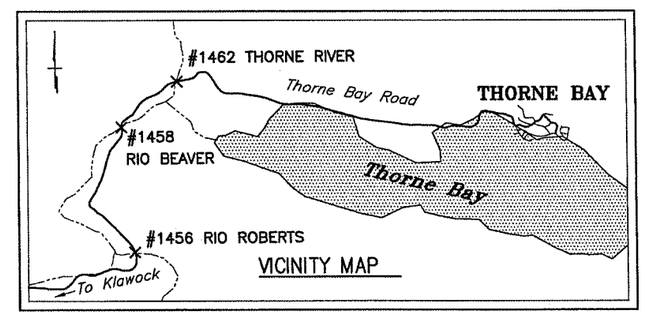
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	SITE PLAN
C1	ESTIMATE OF QUANTITIES
L1	BRIDGE BASIS OF ESTIMATE
L2	RIO ROBERTS BRIDGE GENERAL LAYOUT
L3	RIO BEAVER BRIDGE GENERAL LAYOUT
L4	THORNE RIVER BRIDGE GENERAL LAYOUT
L5	EXISTING TYPICAL SECTION & DETAILS
L6	EXISTING DECK PANEL LAYOUT
L7	EXISTING ABUTMENT DETAILS
L8	PROFILES AND PAVING DETAILS
S1–S2	TRAFFIC CONTROL PLANS
T1–T3	EROSION & SEDIMENT CONTROL PLANS

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

A-1	C-05.10	E-13.00	G-00.01
G-04.06S	G-09.04	G-10.01	G-46.01
M-16.01	S-05.01	S-20.10	T-06.00
T-21.02			



LOCATION MAP



VICINITY MAP

PROJECT AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE PROJECT ENGINEER AND REPRESENT TO THE BEST OF MY KNOWLEDGE THE PROJECT AS CONSTRUCTED.
PE: DK DATE: 5/20/13

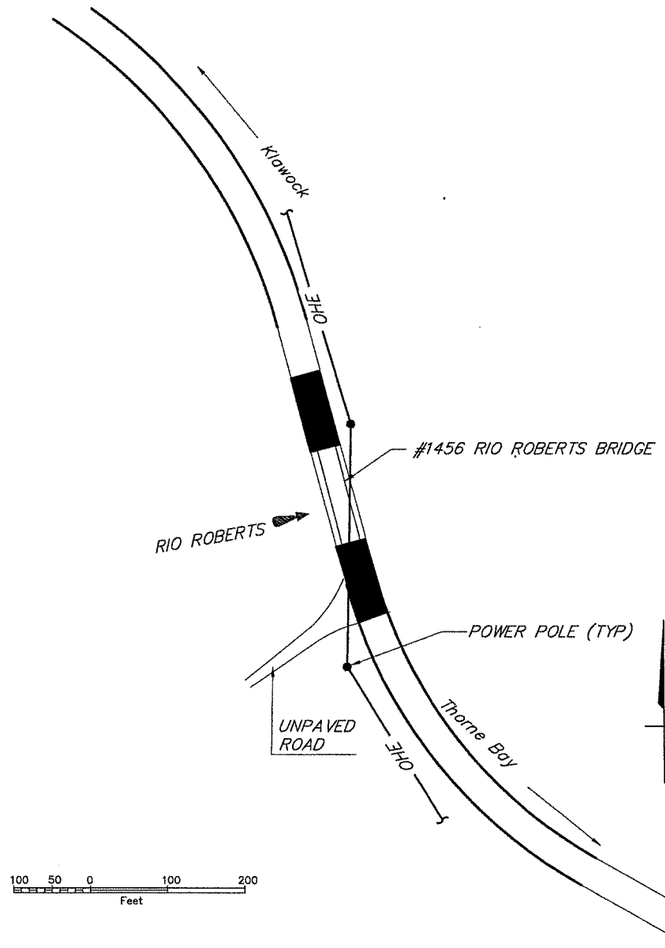
AS-BUILT PLANS
CONTRACTOR: POOL ENGINEERING, INC.
PROJECT ENGINEER: ALLEN SHEPARD
START DATE: APRIL 28, 2011
END DATE: November 8, 2012

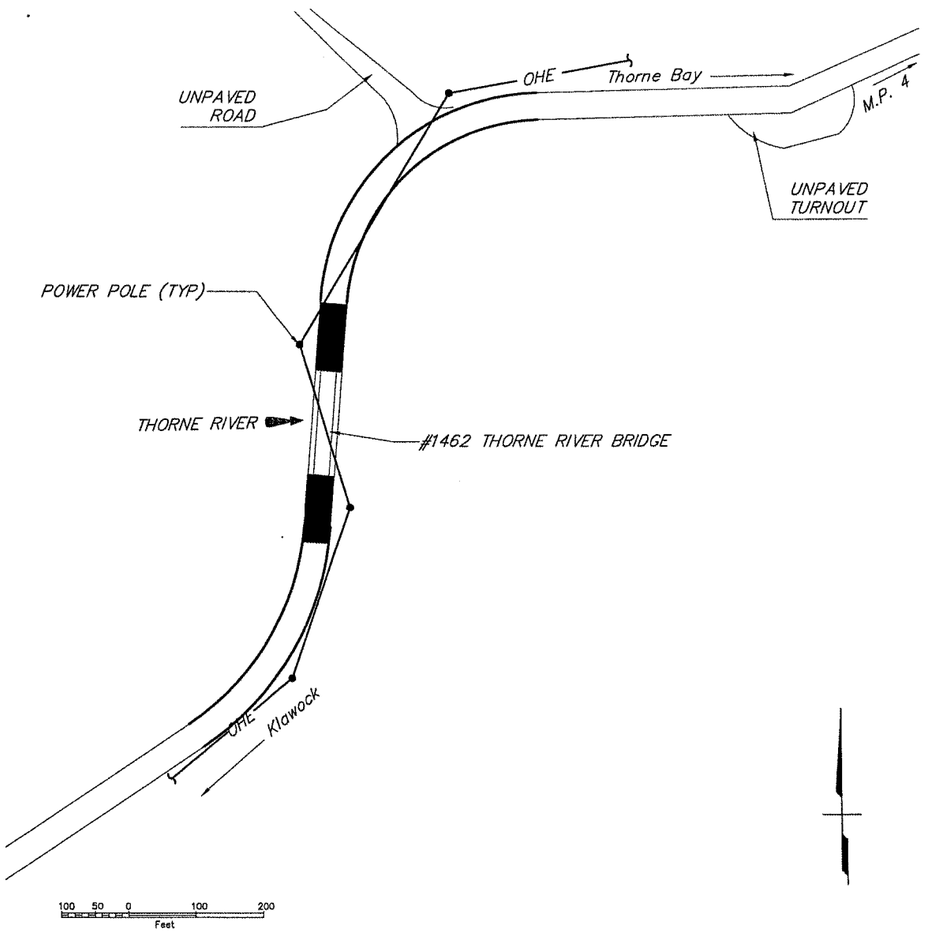
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STATE OF ALASKA 49th Charles M. Tripp CE-9613 REGISTERED PROFESSIONAL ENGINEER
Charles M. Tripp 8-16-10

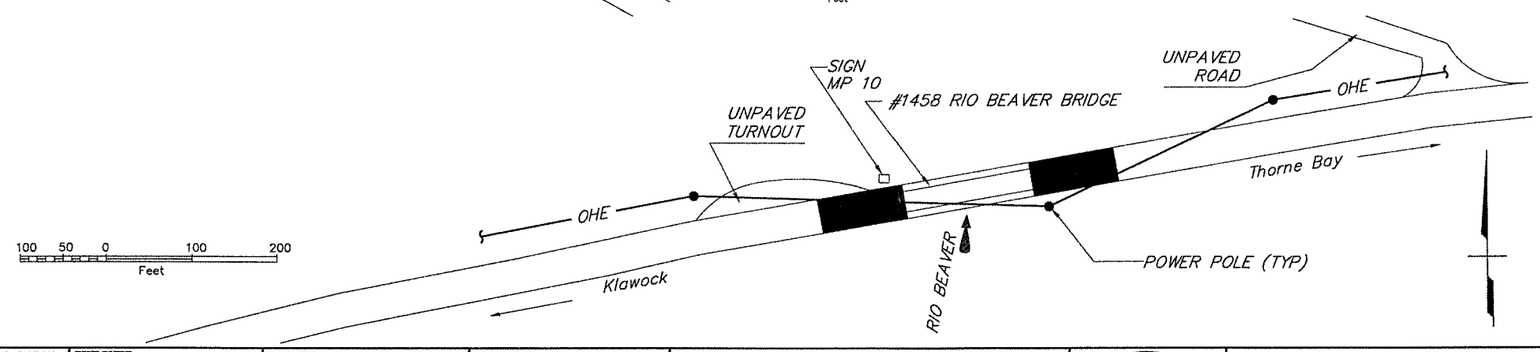
RECOMMENDED FOR APPROVAL
Victor Winters DATE 8.16.10
VICTOR M. WINTERS, P.E.
SE REGION PRE-CONSTRUCTION ENGINEERING CHIEF
APPROVED: Cindy Hughes DATE 8.16.10
GARY L. DAVIS
DIRECTOR, SE REGION DESIGN AND CONSTRUCTION
CERTIFIED TRUE AND CORRECT AS-BUILT OF ACTUAL FIELD CONDITIONS
Maureen Harsh DATE 10/29/13
CONSTRUCTION PROJECT MANAGER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	A2	16





PROJECT AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE PROJECT ENGINEER AND REPRESENT TO THE BEST OF MY KNOWLEDGE THE PROJECT AS CONSTRUCTED.
PE: DR DATE: 5/20/13



NOTE:

1. STOCKPILE REMOVED ASPHALT FROM THORNE RIVER BRIDGE AND RIO BEAVER BRIDGE AT GOOSE CREEK TURNOUT AT MILEPOST 11.4.

2. STOCKPILE REMOVED ASPHALT FROM RIO ROBERTS BRIDGE AT CONTROL LAKE JUNCTION AT MILEPOST 0.

3. OVERHEAD POWER LINES ARE SHOWN FOR INFORMATION ONLY. LOCATIONS ARE APPROXIMATE.

DESIGNED BY: S. Schlichting	CHECKED:	LAYOUT BY:	CHECKED BY:
DRAWN BY: S. Schlichting	CHECKED:	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY:	CHECKED:	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49th Charles M. Tripp CE-9613 REGISTERED PROFESSIONAL ENGINEER 8-16-10

POW THORNE BAY ROAD BRIDGES PAINTING

THORNE BAY ROAD

SITE PLAN

1456
1458
BRIDGE NO. 1462

DWG. NO. A2

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	C1	16

ESTIMATE OF QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	PAY UNIT	QUANTITY
202(2)	Removal of Pavement	Square Yard	3000 ~~2768~~
202(13)	Remove and Reinstall Timber Deck and Bridge Railing	Lump Sum	All Required
203(6)	Borrow	Ton	108.3 ~~40~~
203(19)	Unclassified Excavation	Lump Sum	All Required
401(1)	Asphalt Concrete, Type II, Class B	Ton	686.23 ~~598~~
401(2)	Asphalt Cement, Type PG 58-28	Ton	41.67 ~~36~~
402(1)	STE-1 Asphalt For Tack Coat	Ton	1.59 ~~2~~
506(1)	Treated Timber	Lump Sum	All Required
506(5)	Timber Deck Repair	Square Foot	10 ~~120~~
508(1)	Waterproofing Membrane	Lump Sum	All Required
513(1)	Field Painting of Steel Structures	Lump Sum	All Required
633(1)	Silt Fence	Linear Foot	400 ~~313~~
638(1)	Straw Wattles	Linear Foot	450 ~~400~~
640(1)	Mobilization And Demobilization	Lump Sum	All Required
640(4)	Worker Meals and Lodging, or Per Diem	Lump Sum	All Required
641(1)	Erosion, Sediment And Pollution Control Administration	Lump Sum	All Required
641(4)	Temporary Erosion, Sediment And Pollution Control Amendments	Contingent Sum	All Required
641(5)	Erosion, Sediment And Pollution Control Price Adjustment	Contingent Sum	All Required
642(11)	Adjust Existing Monument Case	Each	1
642(13)	Bridge Survey	Lump Sum	All Required
643(2)	Traffic Maintenance	Lump Sum	All Required
643(15)	Flagging	Contingent Sum	All Required
643(25)	Traffic Control	Contingent Sum	All Required
643(29)	Concrete Barrier End Treatments	Lump Sum	All Required
644(1)	Field Office	Lump Sum	All Required
644(6)	Vehicles	Lump Sum	All Required
660(7)	Temporary Signal System Complete	Lump Sum	All Required
670(1)	Painted Traffic Markings	Lump Sum	All Required
670(8)	Recessed Pavement Marker	Each	16
506(6)	Deck Panel Relief Cutting	Lump Sum	All Required
506(7)	Treated Timber Repair	Lump Sum	All Required

BASIS OF ESTIMATE

ITEM NUMBER	ITEM	ESTIMATING FACTOR	
202(13)	Remove and Reinstall Timber Deck and Bridge Railing	10,500 SF	
203(19)	Unclassified Excavation	540 CY	
401(1)	Asphalt Concrete, Type II, Class B	120 lb/sy/in	
401(2)	Asphalt Cement, Type PG 58-28	6.0% of 401(1)	
402(1)	STE-1 Asphalt For Tack Coat	0.1 Gal/S.Y.	243 GAL/TON
506(1)	Treated Timber	13 Board Feet	
508(1)	Waterproofing Membrane	1168 SY	
513(1)	Field Painting of Steel Structures	39,160 SF	

PROJECT AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE PROJECT ENGINEER AND REPRESENT TO THE BEST OF MY KNOWLEDGE THE PROJECT AS CONSTRUCTED.
PE: DR DATE: 5/20/13

DESIGNED BY: Steve Lee	CHECKED: George Imbsen	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION	STATE OF ALASKA 49th Charles M. Tripp CE-9613 REGISTERED PROFESSIONAL ENGINEER 8-16-10
DRAWN BY: C. Anderson	CHECKED: Steve Lee		
QUANTITIES BY: Steve Lee	CHECKED: George Imbsen		

POW THORNE BAY ROAD BRIDGES PAINTING

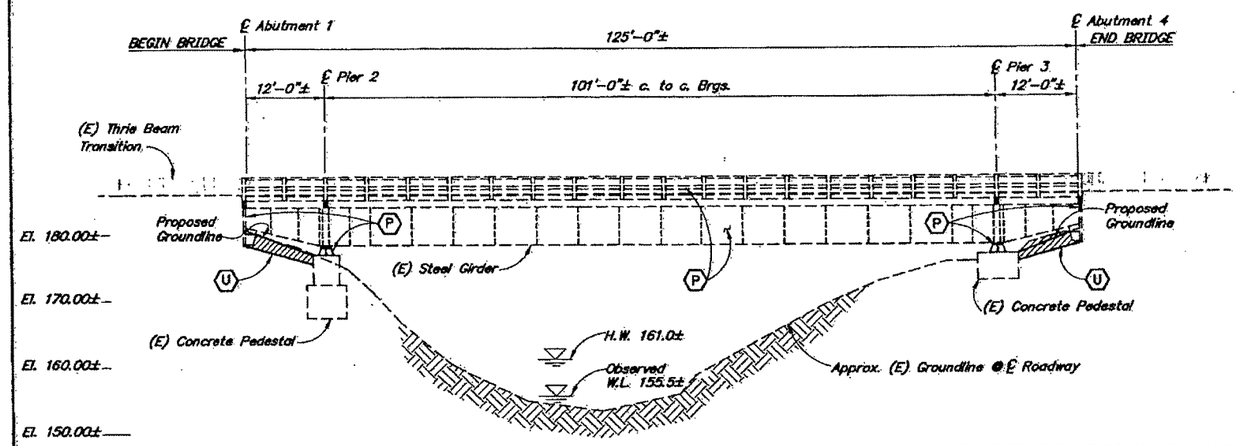
THORNE BAY ROAD

ESTIMATE OF QUANTITIES

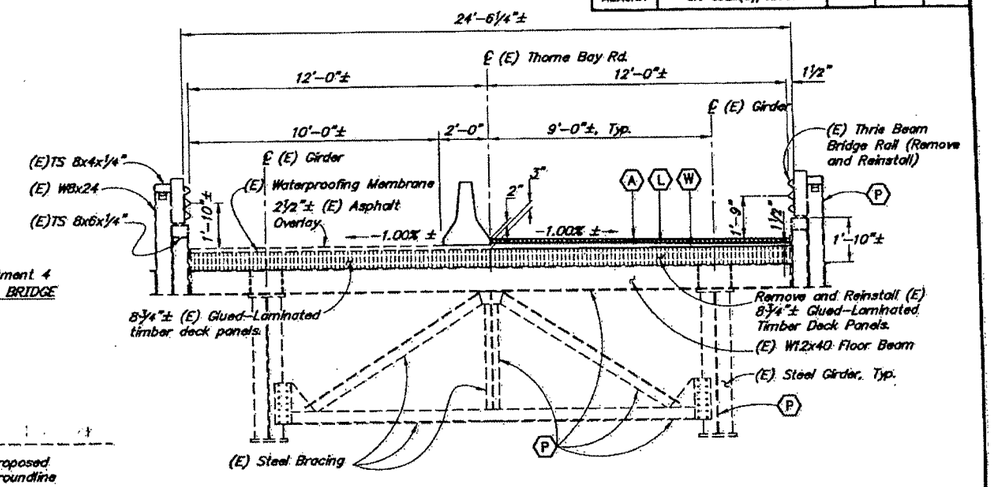
BRIDGE NO. 1456 1458 1462

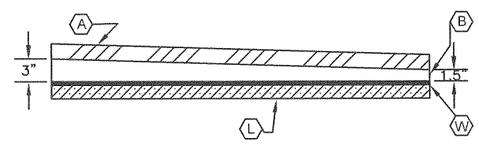
DWG. NO. C1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	L2	16



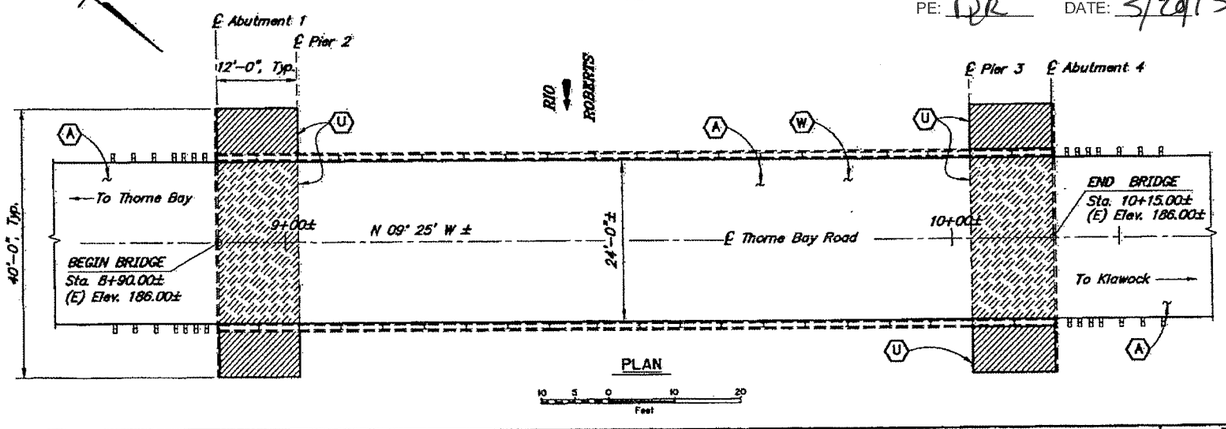
ELEVATION





Typical Section

PROJECT AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE PROJECT ENGINEER AND REPRESENT TO THE BEST OF MY KNOWLEDGE THE PROJECT AS CONSTRUCTED.
PE: DR DATE: 5/20/13



PLAN

LEGEND

- (A) = 2" Asphalt Concrete Type II, Class B, Overlay
- (L) = Asphalt Concrete Type II, Class B, Leveling Course
- (P) = Painting
- (U) = Unclassified Excavation
- (W) = Waterproofing Membrane
- (B) = Asphalt Concrete Type II, Class B

NOTES:

(E) = Existing
± = Existing
- - - - = Existing
——— = Proposed

See "EROSION AND SEDIMENT CONTROL PLAN" Dwgs. prior to unclassified excavation.

Elevation, Bearings and Dimensions are based on "CONTRACT" plans of the existing bridge.

Verify all controlling field dimensions before ordering or fabricating any material.

Approximate quantity of existing Structural Steel = 140,725 Lbs.

BRIDGE DRAWING INDEX

TITLE	DWG. NO.
BRIDGE BASIS OF ESTIMATE	L1
RIO ROBERTS BRIDGE GENERAL LAYOUT	L2
RIO BEAVER BRIDGE GENERAL LAYOUT	L3
THORNE RIVER BRIDGE GENERAL LAYOUT	L4
EXISTING TYPICAL SECTION & DETAILS	L5
EXISTING DECK PANEL LAYOUT	L6
EXISTING ABUTMENT DETAILS	L7
PROFILES AND PAVING DETAILS	L8

DESIGNED BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen
DRAWN BY: C. Anderson — Cathy Anderson	CHECKED: Steve Lee — Steve Lee
QUANTITIES BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH — Stephen H. Lee No. CE 5458 — 4/12/10 — REGISTERED PROFESSIONAL ENGINEER

POW THORNE BAY ROAD BRIDGE PAINTING

THORNE BAY ROAD

RIO ROBERTS BRIDGE GENERAL LAYOUT

BRIDGE NO. 1456
DWG. NO. L2

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	L1	16

BRIDGE BASIS OF ESTIMATE

ITEM NO.	ITEM	PAY UNIT	ESTIMATING UNIT	Br. No. 1456	Br. No. 1458	Br. No. 1462	SUBST.	SUPERST.	TOTAL
202(2)	Removal of Pavement	SY	SY	867	934	967		2,768	2,768
202(13)	Remove and Reinstall Timber Deck and Bridge Railing	LS	SF	3,000	3,600	3,900		10,500	10,500
203(6)	Borrow	Ton	Ton		40				40
203(19)	Unclassified Excavation	LS	CY	180	130	230		540	540
401(1)	Asphalt Concrete, Type II, Class B	Ton	Ton	185	202	211		598	598
401(2)	Asphalt Cement, Grade 58-28	Ton	Ton	11.1	12.1	12.7		36	36
402(1)	STE-1 Asphalt for Tack Coat	Ton	Ton	0.36	0.38	0.40		2	2
506(1)	Treated Timber	LS	MBM			0.013	0.013		0.013
506(5)	Timber Deck Repair	SF	SF	40	40	40		120	120
508(1)	Waterproofing Membrane	LS	SY	334	400	434		1,168	1,168
513(1)	Field Painting of Steel Structures	LS	SF	10,680	13,560	14,920	2,990	36,170	39,160
642(11)	Adjust Existing Monument Case	EA	EA			1		1	1
642(13)	Bridge Survey	LS	LS						All Req'd.

Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

GENERAL NOTES

DESIGN:.....AASHTO Standard Specifications for Highway Bridges, 17th Edition, 2002, with latest Interim specifications.

CONSTRUCTION:.....State of Alaska DOT/PF Standard Specifications for Highway Construction 2004 with Standard Modifications and Special Provisions.

LIVE LOAD:.....See "AS-BUILT" Drawings.

CONCRETE:.....Use Class A Concrete unless otherwise noted, f'c = 4,000 psi.

REINFORCEMENT:.....ASTM A706, Fy = 60,000 psi.
2" Clear cover to all reinforcing steel for cast-in-place concrete unless otherwise noted.

TIMBER BOLTED CONNECTIONS:.....Galvanized ASTM A307. Meet AASHTO M232.

TREATED TIMBER:.....All lumber and timbers shall be Coast Region Douglas Fir or Western Larch conforming to WWPA Western Grading Rules 1998, No.1 Grade or better. All lumber and timbers shall be completely and accurately fabricated before pressure treatment by the empty-cell process with Copper Naphthenate in heavy-oil (AWPA P8-97). Dimensions stated for timber are nominal dimensions.

ABBREVIATIONS

Abut.....Abutment
BB.....Begin Bridge
Br.....Bridge
Brg.....Bearing
c-c.....center to center
CF.....Cubic Foot
℄.....Centerline
Clr.....Clear, clearance
conc.....concrete
const.....construction
Ck.....Creek
CIP.....Cast-In-Place
CS.....Contingent Sum
CY.....Cubic Yard
EA.....Each
EB.....End Bridge or Eastbound
Elev.....Elevation
(E).....Existing
Exist.....Existing
Exp Jt.....Expansion Joint
ef.....each face
es.....each side
ff.....far face
ft.....foot or feet
ftg.....footing
Galv.....Galvanized
Horiz.....Horizontal
HS.....High Strength
Hwy.....Highway
H.W.....High Water
Jt.....Joint
LB.....Pound
LF.....Linear Feet
LS.....Lump Sum
Lt.....Left
Max.....Maximum
MBM.....Thousand Feet Board Measure
Min.....Minimum
Misc.....Miscellaneous
Mtl.....Material
nf.....near face
No.....Number
OC.....Overcrossing
OH.....Overhead
PG.....Profile Grade
R.....Radius
Reinf.....Reinforced or Reinforcing
Rt.....Right
Rdwy.....Roadway
Sht.....Sheet
S.F.....Square Feet or Foot
S.Y.....Square Yard
St.....Street
STA., Sta.....Station
Std.....Standard
Str.....Structure
TS.....Tube Shape
Typ.....Typical
UC.....Undercrossing
UGT.....Underground Telephone
UP.....Underpass
Vert.....Vertical
W.L.....Water Level

PROJECT AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE PROJECT ENGINEER AND REPRESENT TO THE BEST OF MY KNOWLEDGE THE PROJECT AS CONSTRUCTED.
PE: DR DATE: 5/20/13

DESIGNED BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen	
DRAWN BY: C. Anderson — Cathy Anderson	CHECKED: Steve Lee — Steve Lee	
QUANTITIES BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Stephen H. Lee No. CE 5456 REGISTERED PROFESSIONAL ENGINEER 4/21/10

POW THORNE BAY ROAD BRIDGE PAINTING

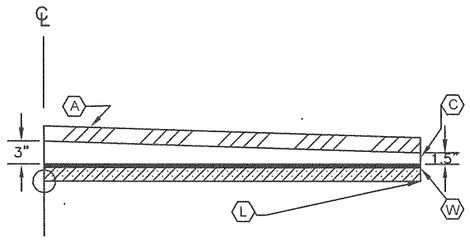
THORNE BAY ROAD

BRIDGE BASIS OF ESTIMATE

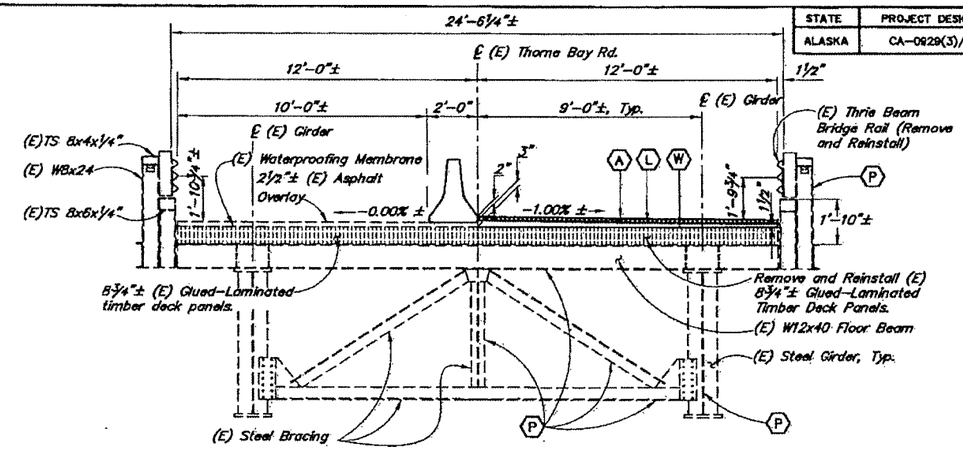
BRIDGE NO. 1456 1458 1462

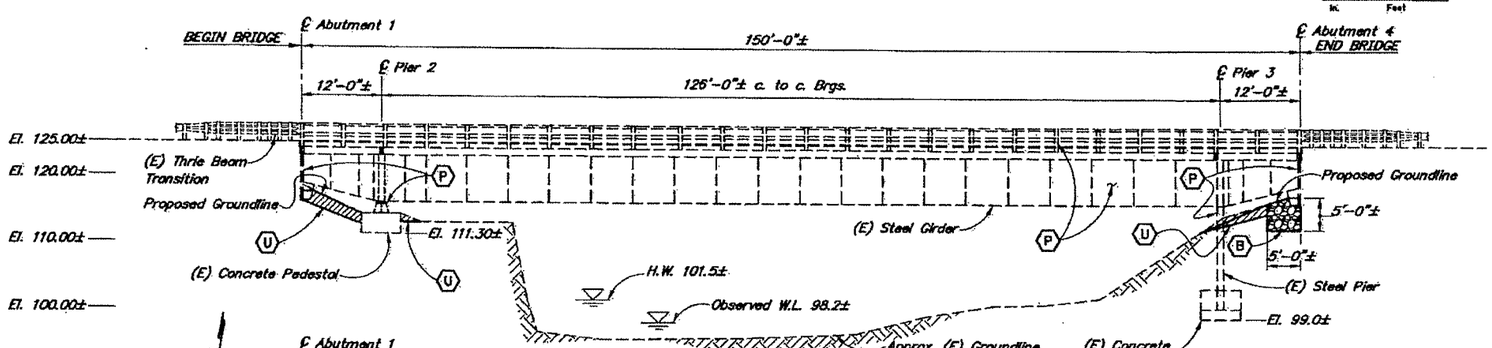
DWG. NO. L1

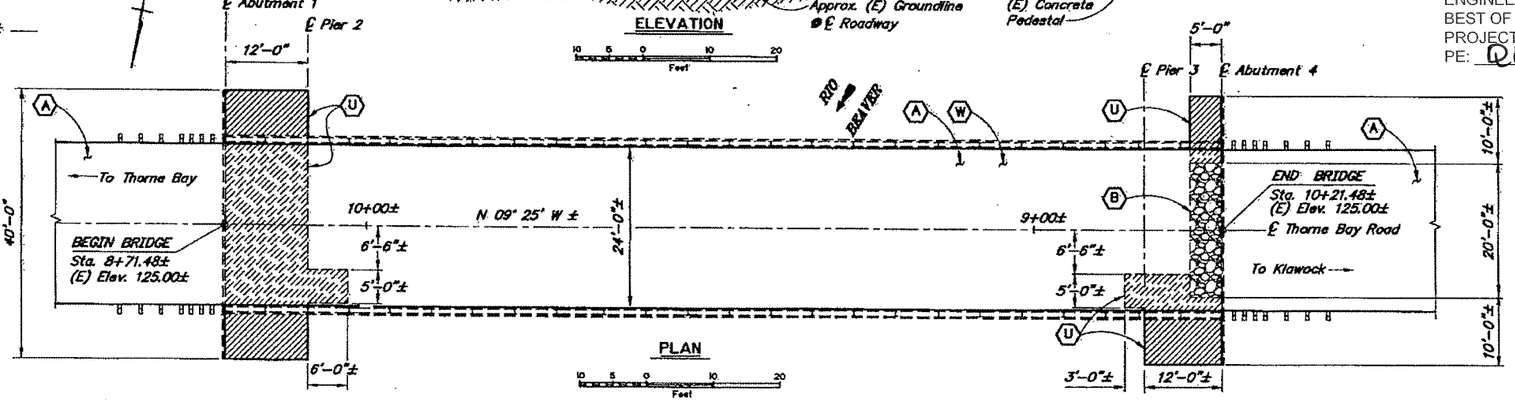
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	L3	16



Typical Section







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PE: DR DATE: 5/20/13

LEGEND

- (A) = 2" Asphalt Concrete Type II, Class B, Overlay
- (B) = Borrow
- (L) = Asphalt Concrete Type II, Class B, Leveling Course
- (P) = Painting
- (U) = Unclassified Excavation
- (W) = Waterproofing Membrane
- (C) = Asphalt Concrete Type II, Class B

NOTES:

(E) = Existing
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——— = Proposed

See "EROSION AND SEDIMENT CONTROL PLAN" Dwgs. prior to unclassified excavation.

Elevation, Bearings and Dimensions are based on "CONTRACT" plans of the existing bridge.

Verify all controlling field dimensions before ordering or fabricating any material.

Approximate quantity of existing Structural Steel = 196,250 Lbs.

DESIGNED BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen
DRAWN BY: C. Anderson — Cathy Anderson	CHECKED: Steve Lee — Steve Lee
QUANTITIES BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Stephen H. Lee No. CE-5436 REGISTERED PROFESSIONAL ENGINEER 4/12/13

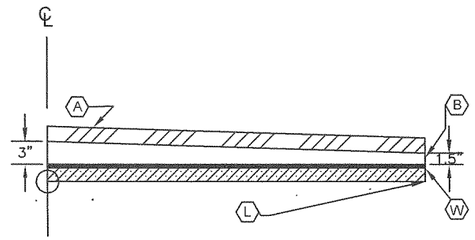
POW THORNE BAY ROAD BRIDGE PAINTING

THORNE BAY ROAD

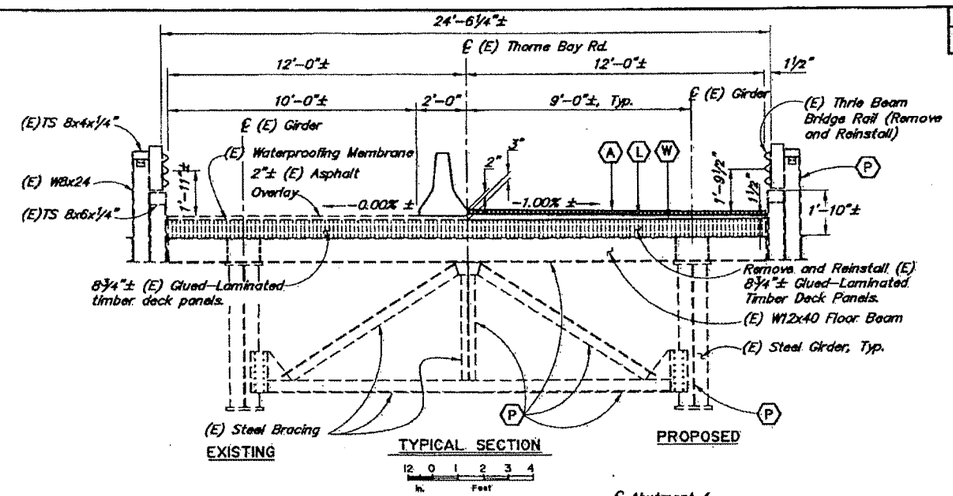
RIO BEAVER BRIDGE GENERAL LAYOUT

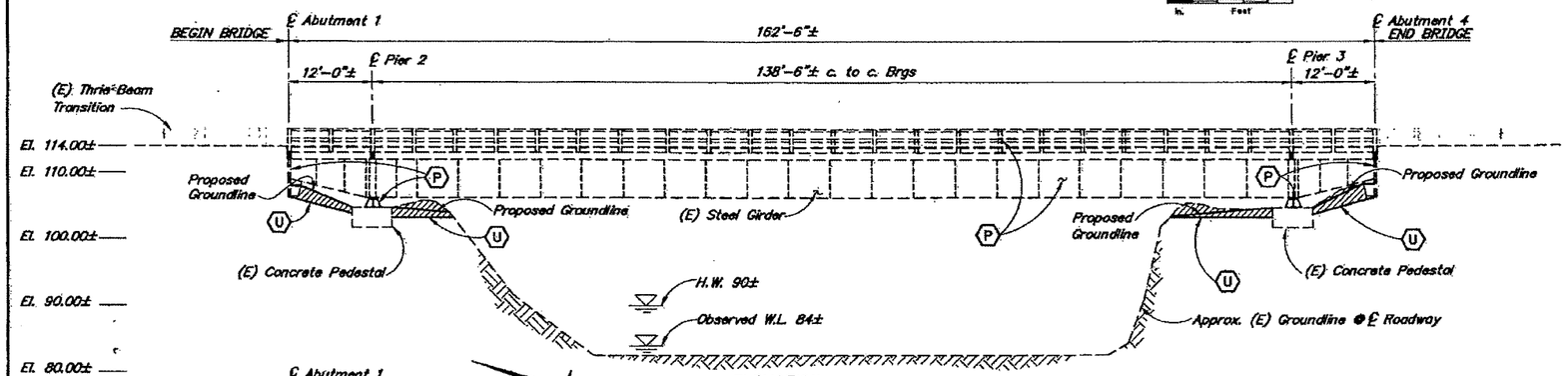
BRIDGE NO. 1458
DWG. NO. L3

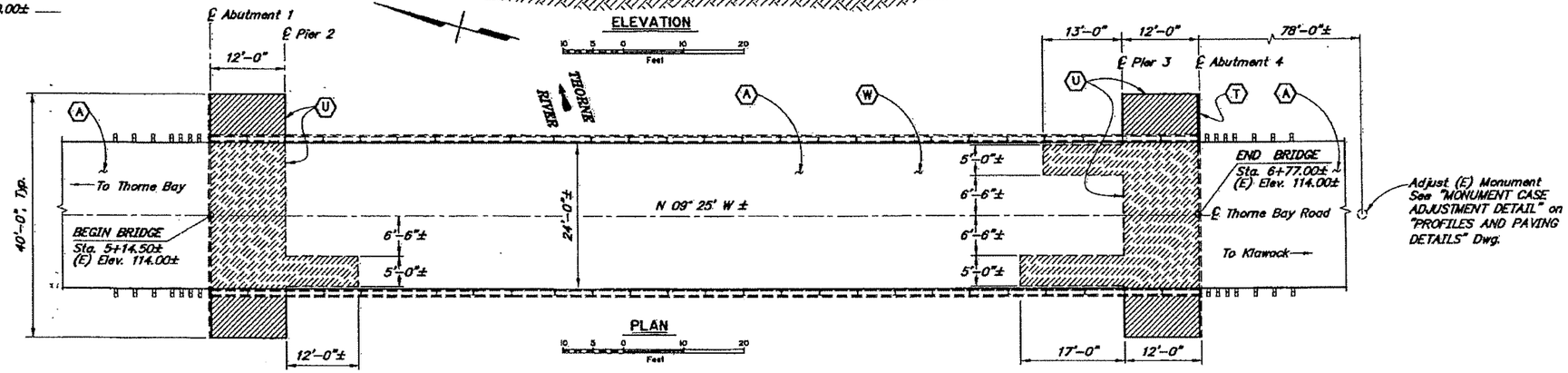
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	L4	16



Typical Section







PROJECT AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE PROJECT ENGINEER AND REPRESENT TO THE BEST OF MY KNOWLEDGE THE PROJECT AS CONSTRUCTED.
PE: DR DATE: 5/20/13

LEGEND

- (A) = 2" Asphalt Concrete Type II, Class B, Overlay
- (L) = Asphalt Concrete Type II, Class B, Leveling Course
- (P) = Painting
- (T) = Treated Timber
- (U) = Unclassified Excavation
- (W) = Waterproofing Membrane
- (B) = Asphalt Concrete Type II, Class B

NOTES:

(E) = Existing
± = Existing
- - - - - = Existing
——— = Proposed

See "EROSION AND SEDIMENT CONTROL PLAN" Dwgs. prior to unclassified excavation.

Elevation, Bearings and Dimensions are based on "CONTRACT" plans of the existing bridge.

Verify all controlling field dimensions before ordering or fabricating any material.

Approximate quantity of existing Structural Steel = 230,870 Lbs.

DESIGNED BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen	
DRAWN BY: C. Anderson — Cathy Anderson	CHECKED: Steve Lee — Steve Lee	
QUANTITIES BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Stephen H. Lee No. CE-5456 REGISTERED PROFESSIONAL ENGINEER 4/2/10

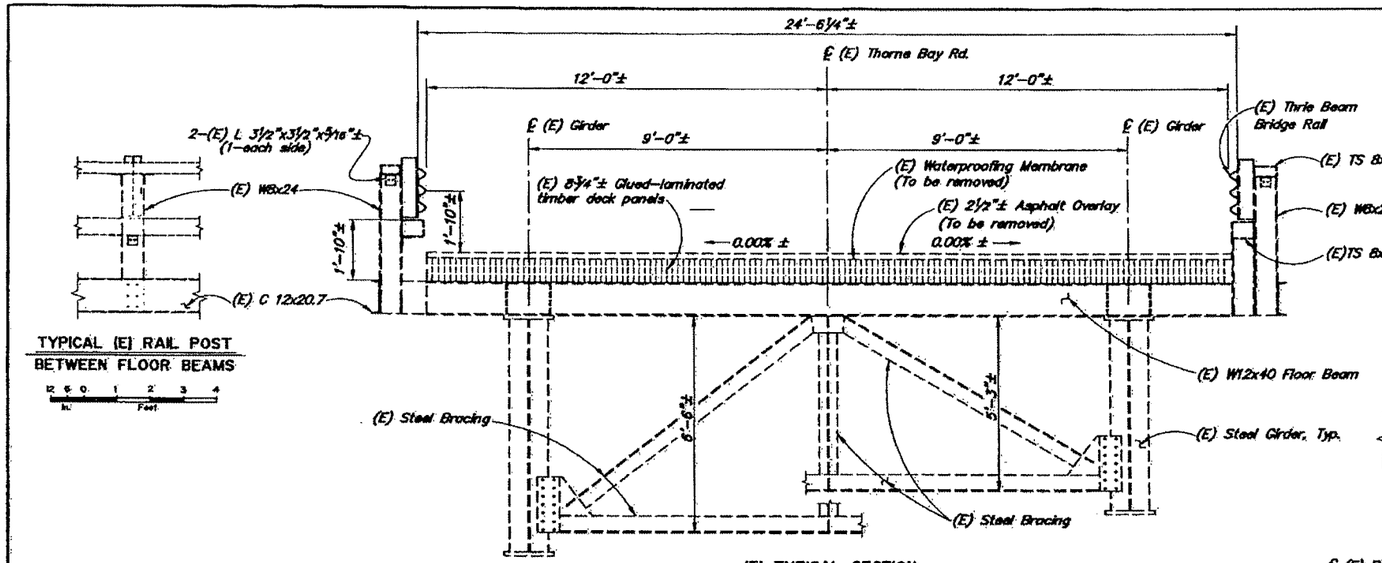
POW THORNE BAY ROAD BRIDGE PAINTING

THORNE BAY ROAD

THORNE RIVER BRIDGE GENERAL LAYOUT

BRIDGE NO. 1462
DWG. NO. L4

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	L5	16

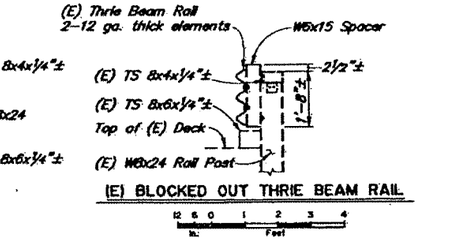


TYPICAL (E) RAIL POST BETWEEN FLOOR BEAMS

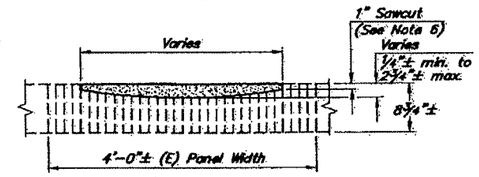
(E) HALF SECTION THORNE RIVER, & RIO BEAVER

(E) TYPICAL SECTION

(E) HALF SECTION RIO ROBERTS



(E) BLOCKED OUT THRIE BEAM RAIL

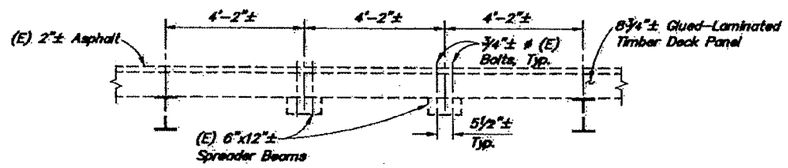


DECK REPAIR PATCH DETAIL

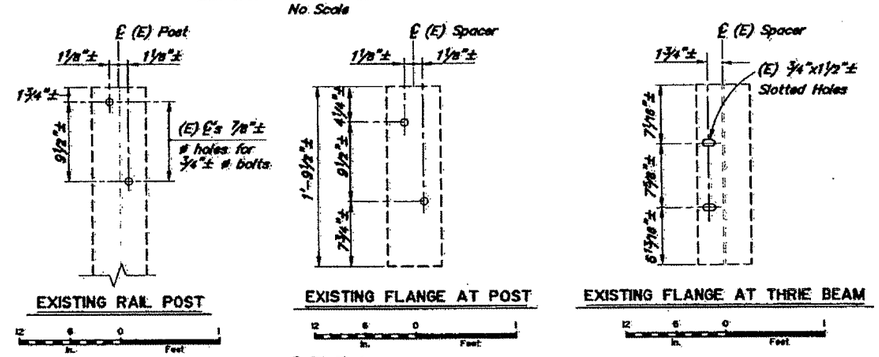
No Scale

TIMBER DECK REPAIR NOTES:

1. Remove (E) asphalt patch material.
2. Remove unsound timber.
3. Apply Prime Coat of Epoxy Resin and place Epoxy Resin Mortar.
4. Epoxy Resin shall conform to AASHTO M235, Type I, Grade 1, Class B.
5. Deepest wear area measured on 7-16-03 during routine bridge inspection. (2¾"±).
6. Reduce sawcut depth to match repair depth for repairs < 1 inch.
7. Repair areas include (E) repair areas, (E) damaged areas and wear areas.



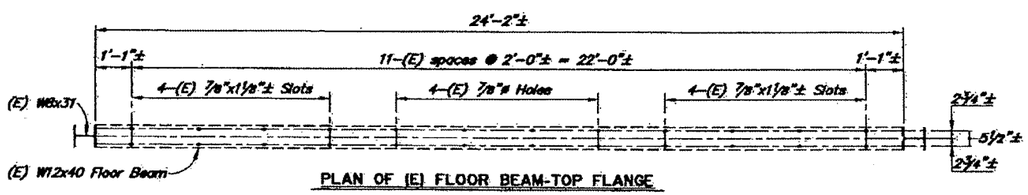
TYPICAL (E) LONGITUDINAL SECTION



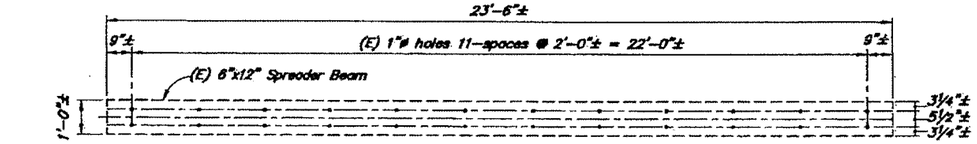
EXISTING RAIL POST

EXISTING FLANGE AT POST

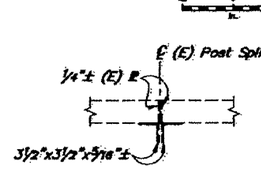
EXISTING FLANGE AT THRIE BEAM



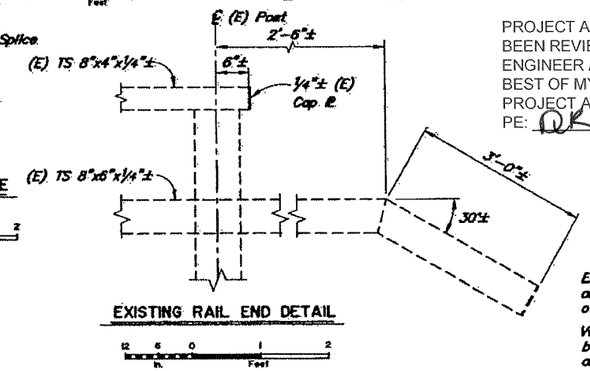
PLAN OF (E) FLOOR BEAM-TOP FLANGE



PLAN OF (E) SPREADER BEAM



EXISTING RAIL SPLICE AT FLOOR BEAM



EXISTING RAIL END DETAIL

PROJECT AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE PROJECT ENGINEER AND REPRESENT TO THE BEST OF MY KNOWLEDGE THE PROJECT AS CONSTRUCTED.
PE: DK DATE: 5/20/13

NOTES:

(E) = Existing
± = Existing
- - - - = Existing
——— = Proposed

Elevation, Bearings and Dimensions are based on "CONTRACT" plans of the existing bridges.

Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen	
DRAWN BY: C. Anderson — Cathy Anderson	CHECKED: Steve Lee — Steve Lee	
QUANTITIES BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Stephen H. Lee No. CE 5499 5/13/13 REGISTERED PROFESSIONAL ENGINEER

POW THORNE BAY ROAD BRIDGE PAINTING

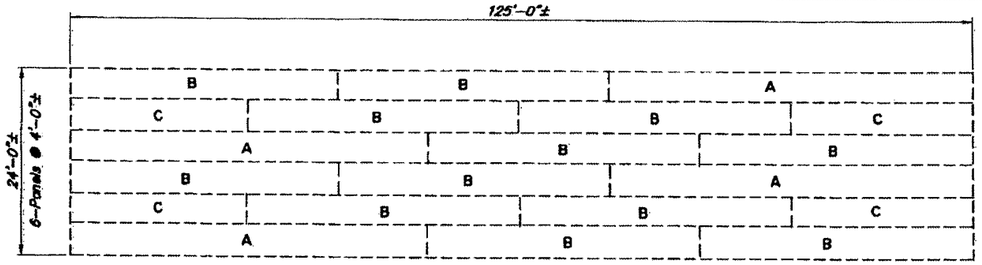
THORNE BAY ROAD

EXISTING TYPICAL SECTION & DETAILS

1456
1458
BRIDGE NO. 1462

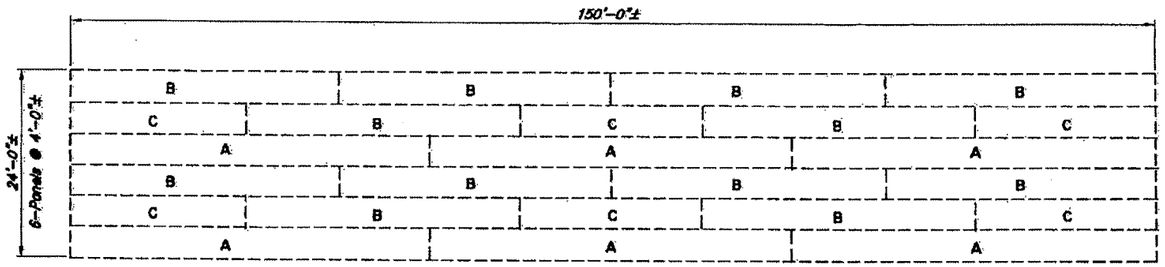
DWG. NO. L5

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	L6	16



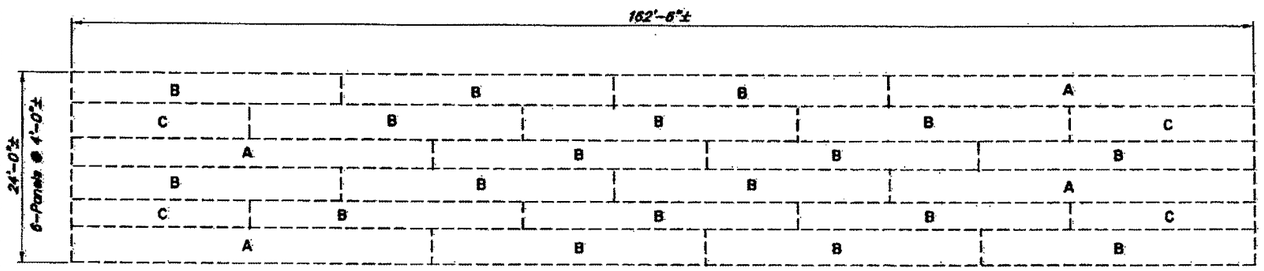
RIO ROBERTS - BR. NO. 1456

No Scale



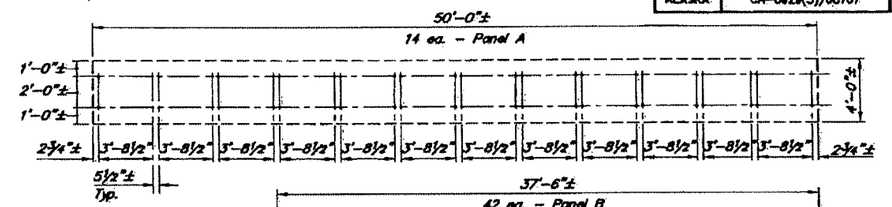
RIO BEAVER - BR. NO. 1456

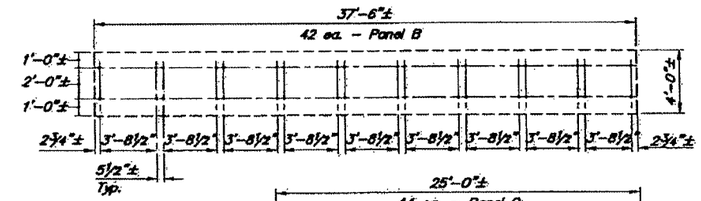
No Scale

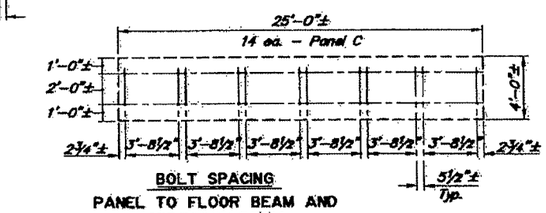


THORNE RIVER - BR. NO. 1462

No Scale

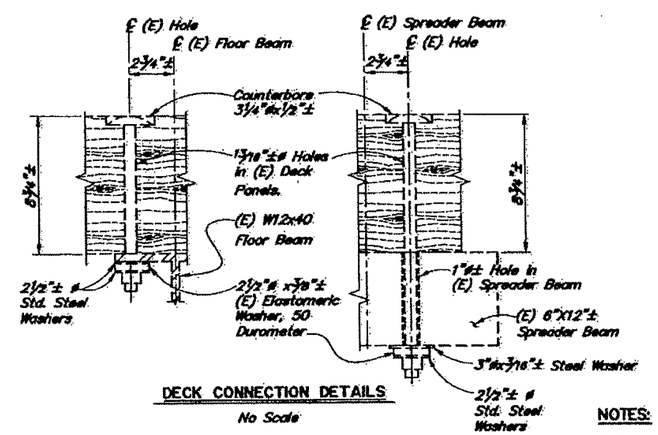






BOLT SPACING
PANEL TO FLOOR BEAM AND SPREADER BEAM

No Scale

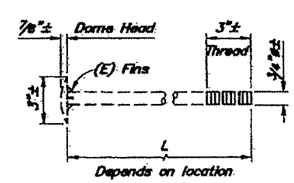


DECK CONNECTION DETAILS

No Scale

NOTES:

1. (E) Nuts are self-locking (ANCO or approved equal).
2. (E) Nuts are tightened to normal bolt tension or torque.



DOME HEAD BOLT DETAIL

No Scale

NOTES:

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± = Existing
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Elevation, Bearings and Dimensions are based on "CONTRACT" plans of the existing bridges.

Verify all controlling field dimensions before ordering or fabricating any material.

PROJECT AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE PROJECT ENGINEER AND REPRESENT TO THE BEST OF MY KNOWLEDGE THE PROJECT AS CONSTRUCTED.
PE: DR DATE: 5/20/13

NOTE:

(E) Spreader Beams not shown. See "EXISTING TYPICAL SECTION & DETAILS" Dwg.

DESIGNED BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen
DRAWN BY: C. Anderson — Cathy Anderson	CHECKED: Steve Lee — Steve Lee
QUANTITIES BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Stephen H. Lee No. CE 5468 4/2/10 REGISTERED PROFESSIONAL ENGINEER

POW THORNE BAY ROAD BRIDGE PAINTING

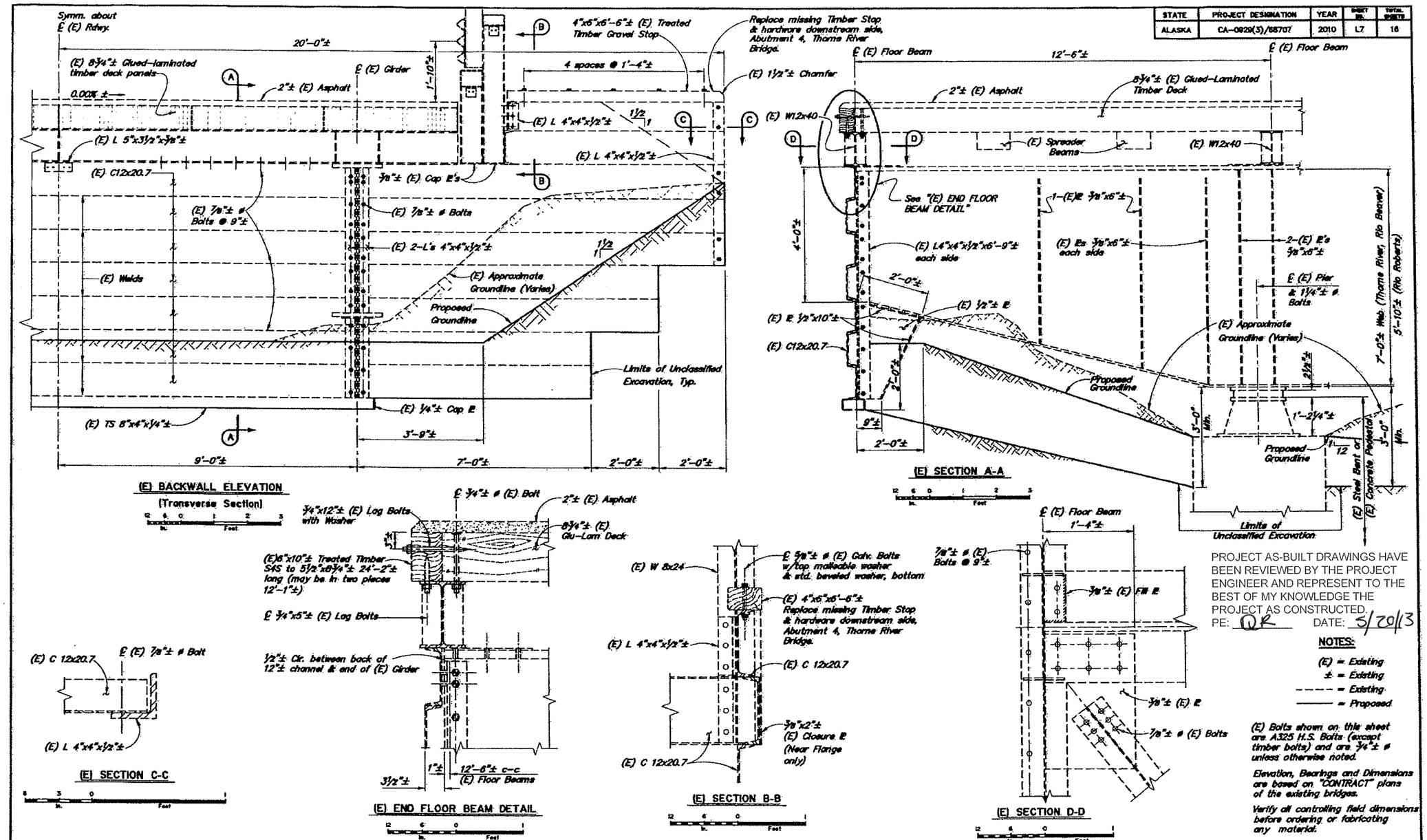
THORNE BAY ROAD

EXISTING DECK PANEL LAYOUT

BRIDGE NO. 1456 1458 1462

DWG. NO. L6

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	L7	16



PROJECT AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE PROJECT ENGINEER AND REPRESENT TO THE BEST OF MY KNOWLEDGE THE PROJECT AS CONSTRUCTED.
PE: QR DATE: 5/20/13

NOTES:

(E) = Existing
± = Existing
- - - - = Existing
——— = Proposed

(E) Bolts shown on this sheet are A325 H.S. Bolts (except timber bolts) and are ¾"± ø unless otherwise noted.

Elevation, Bearings and Dimensions are based on "CONTRACT" plans of the existing bridges.

Verify all controlling field dimensions before ordering or fabricating any material.

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DRAWN BY: C. Anderson — Cathy Anderson	CHECKED: Steve Lee — Steve Lee
QUANTITIES BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Stephen H. Lee No. CE 5459 REGISTERED PROFESSIONAL ENGINEER

POW THORNE BAY ROAD BRIDGE PAINTING

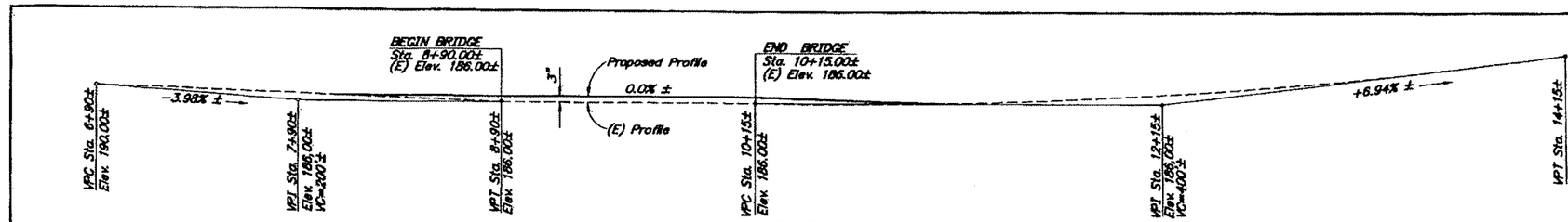
THORNE BAY ROAD

EXISTING ABUTMENT DETAILS

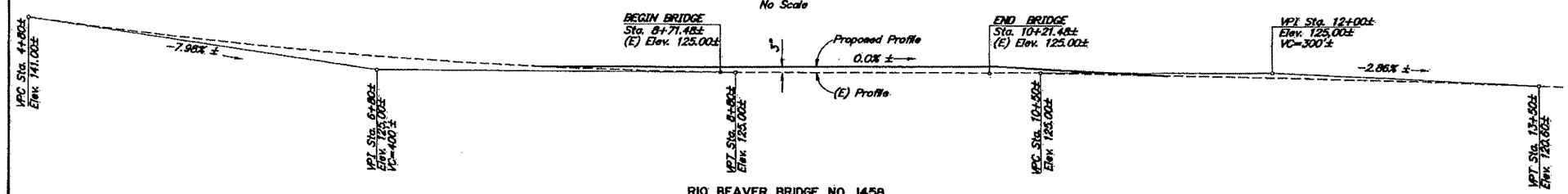
BRIDGE NO. 1456 1458 1462

DWG. NO. L7

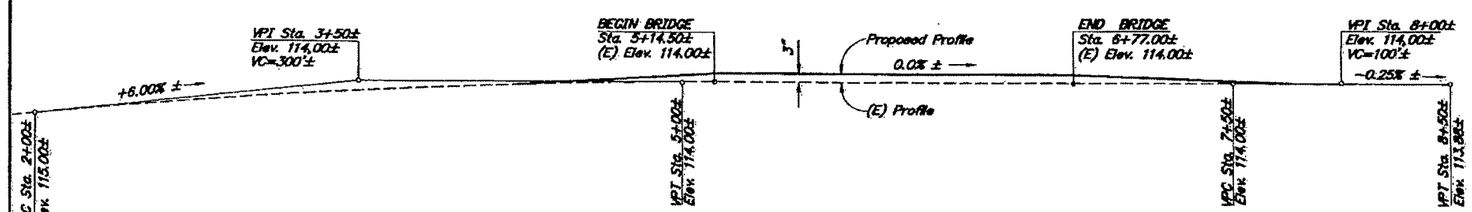
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/56707	2010	L8	16



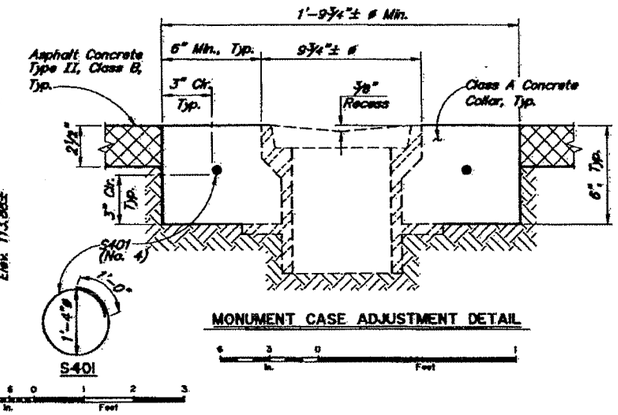
RIO ROBERTS BRIDGE NO. 1456
BRIDGE PROFILE GRADE
No Scale



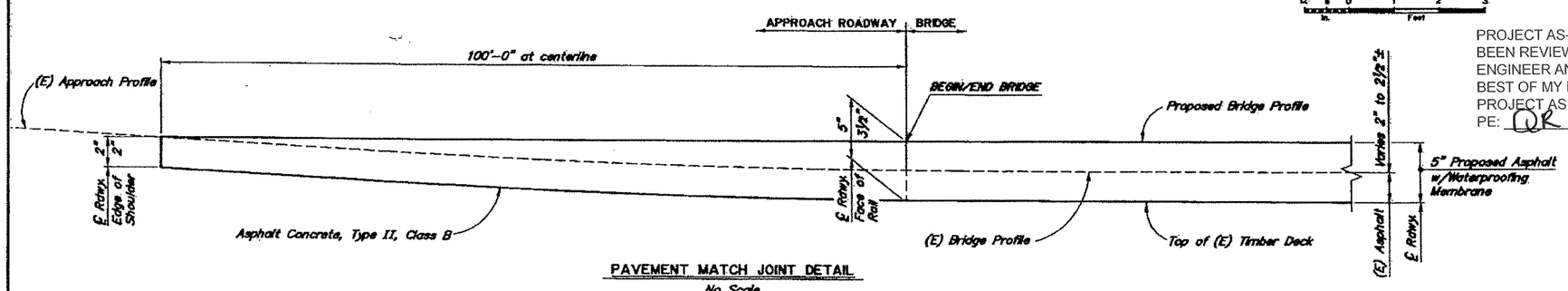
RIO BEAVER BRIDGE NO. 1458
BRIDGE PROFILE GRADE
No Scale



THORNE RIVER BRIDGE NO. 1462
BRIDGE PROFILE GRADE
No Scale



MONUMENT CASE ADJUSTMENT DETAIL



PAVEMENT MATCH JOINT DETAIL
No Scale

PAVING NOTES

1. Sawcut, remove existing pavement and butt joint new pavement with existing pavement. Apply approved asphalt material to face of existing pavement and at abutment.
2. Reference and replace existing traffic markings.
3. Adjust monument case upward or downward as required.
4. Make final adjustment of monument case before paving.

PROJECT AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE PROJECT ENGINEER AND REPRESENT TO THE BEST OF MY KNOWLEDGE THE PROJECT AS CONSTRUCTED.
PE: QR DATE: 5/20/13

NOTES:

(E) = Existing
± = Existing
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——— = Proposed

Elevation, Bearings and Dimensions are based on "CONTRACT" plans of the existing bridges.

Verify all controlling field dimensions before ordering or fabricating any material.

DESIGNED BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen
DRAWN BY: C. Anderson — Cathy Anderson	CHECKED: Steve Lee — Steve Lee
QUANTITIES BY: Steve Lee — Steve Lee	CHECKED: George Imbsen — George Imbsen

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Stephen H. Lee No. CE 5456 4/12/13 REGISTERED PROFESSIONAL ENGINEER

POW THORNE BAY ROAD BRIDGE PAINTING

THORNE BAY ROAD

PROFILES AND PAVING DETAILS

BRIDGE NO. 1456 1458 1462

DWG. NO. L8

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	S1	16

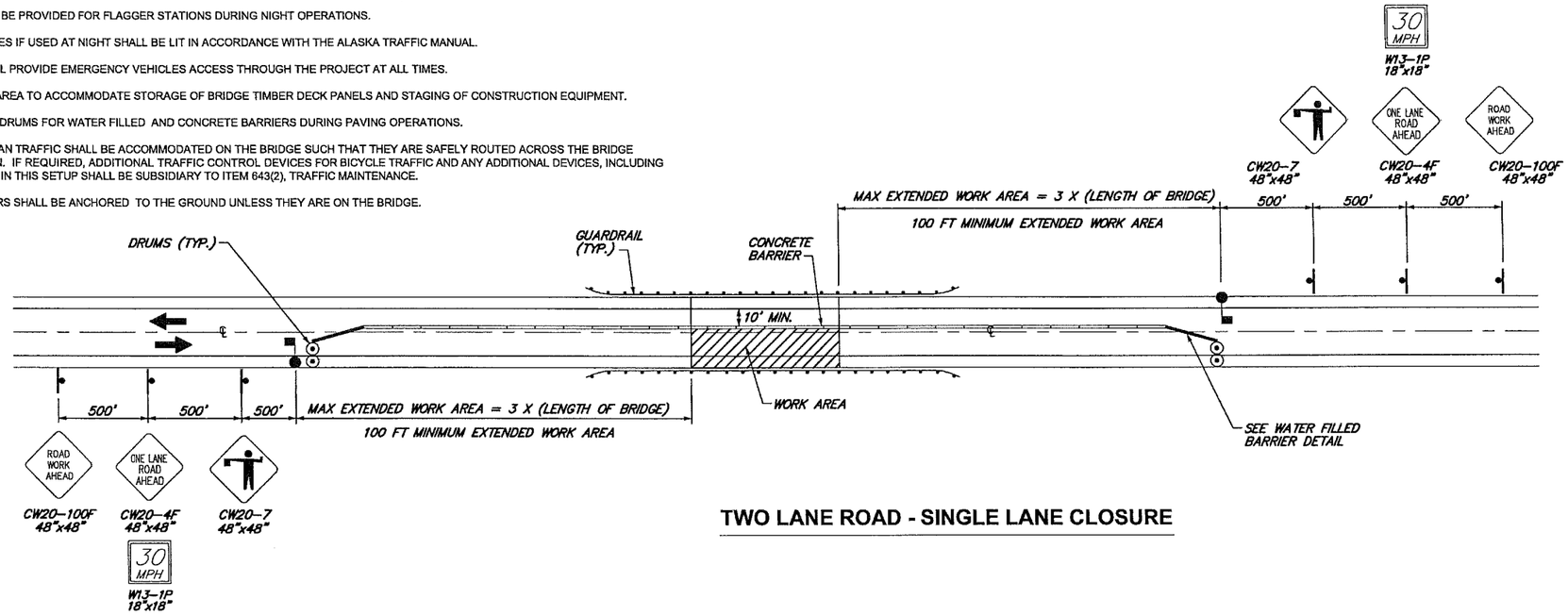
NOTES

1. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME, NOT ALL, OF THE TRAFFIC CONTROL SETUPS WHICH WILL BE REQUIRED ON THIS PROJECT. PLANS FOR CONFIGURATIONS NOT COVERED BY THE TCP SHALL BE CREATED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. WHERE APPROPRIATE, THEY SHALL INCORPORATE APPLICABLE PORTIONS OF DETAILS ON THESE SHEETS.
2. A MINIMUM OF ONE LANE SHALL BE MAINTAINED OPEN AT ALL TIMES, THROUGH ALL WORK AREAS.
3. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'.
4. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
5. BALLOON LIGHTS SHALL BE PROVIDED FOR FLAGGER STATIONS DURING NIGHT OPERATIONS.
6. CHANNELIZATION DEVICES IF USED AT NIGHT SHALL BE LIT IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL.
7. THE CONTRACTOR SHALL PROVIDE EMERGENCY VEHICLES ACCESS THROUGH THE PROJECT AT ALL TIMES.
8. USE EXTENDED WORK AREA TO ACCOMMODATE STORAGE OF BRIDGE TIMBER DECK PANELS AND STAGING OF CONSTRUCTION EQUIPMENT.
9. SUBSTITUTE CONES OR DRUMS FOR WATER FILLED AND CONCRETE BARRIERS DURING PAVING OPERATIONS.
10. BICYCLE AND PEDESTRIAN TRAFFIC SHALL BE ACCOMMODATED ON THE BRIDGE SUCH THAT THEY ARE SAFELY ROUTED ACROSS THE BRIDGE DURING CONSTRUCTION. IF REQUIRED, ADDITIONAL TRAFFIC CONTROL DEVICES FOR BICYCLE TRAFFIC AND ANY ADDITIONAL DEVICES, INCLUDING FLAGGING, NOT SHOWN IN THIS SETUP SHALL BE SUBSIDIARY TO ITEM 643(2), TRAFFIC MAINTENANCE.
11. ALL CONCRETE BARRIERS SHALL BE ANCHORED TO THE GROUND UNLESS THEY ARE ON THE BRIDGE.

LEGEND

- FLAGGER
- CONSTRUCTION SIGN
- DRUMS
- CONCRETE BARRIER
- WATER FILLED BARRIER
- HIGH LEVEL WARNING DEVICE
- WORK AREA

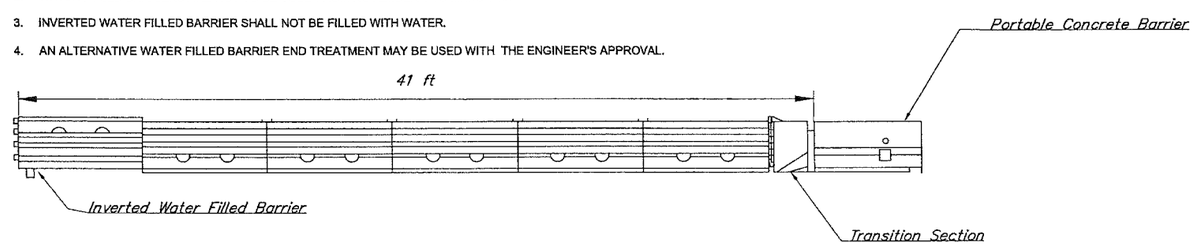
POSTED SPEED LIMIT = 40 MPH



TWO LANE ROAD - SINGLE LANE CLOSURE

NOTES

1. END TREATMENT OF WATER FILLED BARRIER SHALL MEET NCHRP 350 TEST LEVEL 2.
2. WATER FILLED BARRIERS ARE NOT TO BE USED FROM NOVEMBER 1 TO MARCH 15.
3. INVERTED WATER FILLED BARRIER SHALL NOT BE FILLED WITH WATER.
4. AN ALTERNATIVE WATER FILLED BARRIER END TREATMENT MAY BE USED WITH THE ENGINEER'S APPROVAL.



WATER FILLED BARRIER DETAIL

DESIGNED BY: C. Dionisio	CHECKED: C. Morehouse	LAYOUT BY:	CHECKED BY:
DRAWN BY: S.E. Region	CHECKED:	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY:	CHECKED:	APPROVAL RECOMMENDED BY:	

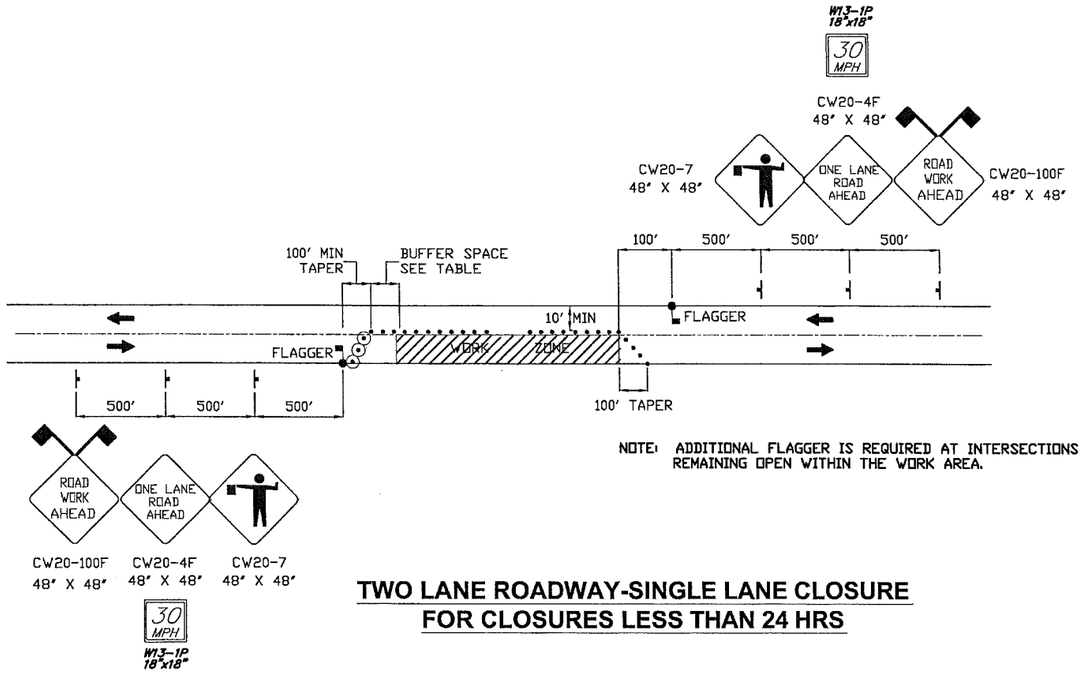
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49th Charles M. Tripp CE-9613 REGISTERED PROFESSIONAL ENGINEER
8-16-10

POW THORNE BAY ROAD BRIDGES PAINTING
THORNE BAY ROAD
TRAFFIC CONTROL PLAN

BRIDGE NO. 1456 1458 1462
DWG. NO. S1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	S2	16



NOTE: ADDITIONAL FLAGGER IS REQUIRED AT INTERSECTIONS REMAINING OPEN WITHIN THE WORK AREA.

TWO LANE ROADWAY-SINGLE LANE CLOSURE FOR CLOSURES LESS THAN 24 HRS

LEGEND

- TEMPORARY SIGNAL
- FLAGGER
- CONSTRUCTION SIGN
- DRUMS
- CONCRETE BARRIER
- WATER FILLED BARRIER
- HIGH LEVEL WARNING DEVICE
- WORK AREA

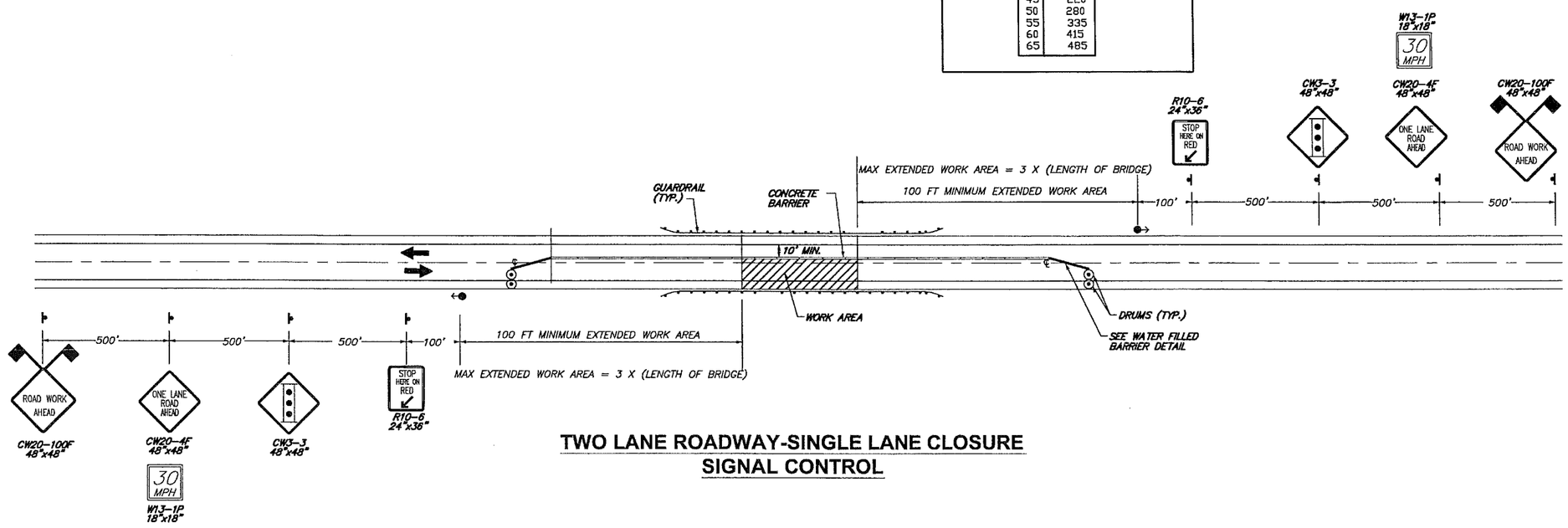
S= POSTED SPEED LIMIT = 40 MPH

DRUM OR CONE SPACING = S (IN FEET)

MIN. BUFFER	
S	LENGTH
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

TRAFFIC CONTROL NOTES

1. MINIMUM OF ONE LANE SHALL REMAIN OPEN AT ALL TIMES IN WORK AREAS.
2. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'-0".
3. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
4. WARNING LIGHTS SHALL BE USED TO MARK BARRICADES, PORTABLE BARRIERS OR ANY OTHER CHANNELIZING DEVICE AT NIGHT AS DIRECTED BY THE ENGINEER. THE FIRST DEVICE FACING THE DIRECTION OF TRAFFIC SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT, ALL OTHERS SHALL BE EQUIPPED WITH STEADY-BURN WARNING LIGHTS.
5. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME, NOT ALL, OF THE TRAFFIC CONTROL SETUPS WHICH WILL BE REQUIRED ON THIS PROJECT. PLANS FOR CONFIGURATIONS NOT COVERED BY THE TCP SHALL BE CREATED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. WHERE APPROPRIATE, THEY SHALL INCORPORATE APPLICABLE DETAILS FROM THESE SHEETS.
6. ALL TRAFFIC CONTROL PLANS SUBMITTED BY THE CONTRACTOR SHALL BE NUMBERED. ALL TRAFFIC CONTROL PLANS THAT USE A TYPICAL APPLICATION AS DESCRIBED IN THE MUTCD SHALL REFERENCE THE TYPICAL APPLICATION. EXAMPLE: TCP 3, MUTCD TA-10.
7. THE CONTRACTOR SHALL KEEP THE PUBLIC INFORMED OF HIS CONSTRUCTION ACTIVITIES THROUGH THE USE OF THE LOCAL NEWS MEDIA. NEWS RELEASES SHALL BE APPROVED BY THE ENGINEER PRIOR TO THEIR RELEASE. NEWS RELEASES WILL BE REQUIRED BUT NOT LIMITED TO, THE ONSET OF WORK, GRINDING, PAVING, AND CHANGES IN THE LANE CONFIGURATIONS.
8. DELAY OF TRAFFIC MUST BE 10 MINUTES OR LESS.
9. BICYCLE AND PEDESTRIAN TRAFFIC SHALL BE ACCOMMODATED ON THE BRIDGE SUCH THAT THEY ARE SAFELY ROUTED ACROSS THE BRIDGE DURING CONSTRUCTION. IF REQUIRED, ADDITIONAL TRAFFIC CONTROL DEVICES FOR BICYCLE TRAFFIC AND ANY ADDITIONAL DEVICES, INCLUDING FLAGGING, NOT SHOWN IN THIS SETUP SHALL BE SUBSIDIARY TO ITEM 643(2), TRAFFIC MAINTENANCE.
10. THE CONTRACTOR SHALL PROVIDE ACCESS THROUGH THE PROJECT TO EMERGENCY VEHICLES AT ALL TIMES.
11. USE EXTENDED WORK AREA TO ACCOMMODATE STORAGE OF BRIDGE TIMBER DECK PANELS AND STAGING OF CONSTRUCTION EQUIPMENT.
12. TEMPORARY SIGNAL CONTROLS WILL BE COVERED UP OR REMOVED WHEN THEY ARE NOT IN USE.
13. TEMPORARY SIGNAL CONTROLS ARE REQUIRED WHEN THERE IS A SINGLE LANE CLOSURE AND NO WORK BEING DONE ON THE BRIDGE.



TWO LANE ROADWAY-SINGLE LANE CLOSURE SIGNAL CONTROL

DESIGNED BY: C. Dionisio	CHECKED: C. Morehouse	LAYOUT BY:	CHECKED BY:
DRAWN BY: S.E. Region	CHECKED:	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY:	CHECKED:	APPROVAL RECOMMENDED BY:	

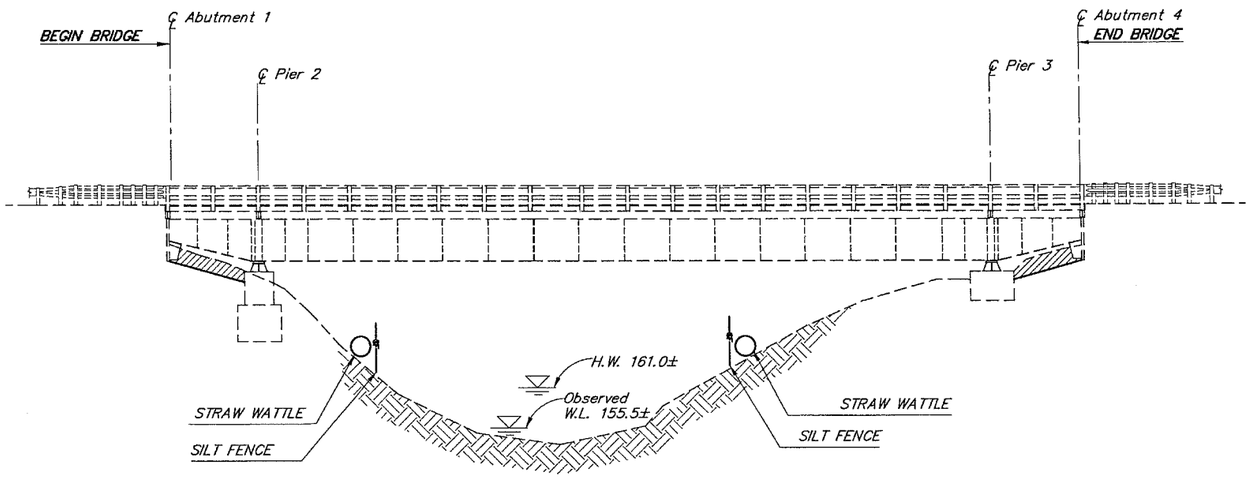
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49th Charles M. Tripp CE-9613 REGISTERED PROFESSIONAL ENGINEER
8-16-10

POW THORNE BAY ROAD BRIDGES PAINTING
THORNE BAY ROAD
TRAFFIC CONTROL PLAN

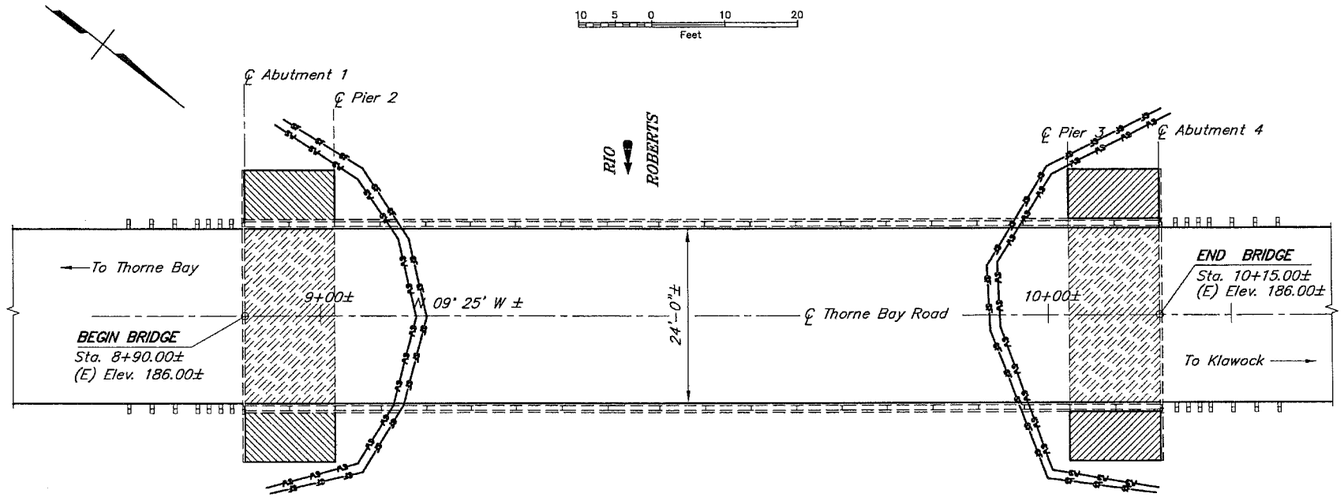
1456
1458
BRIDGE NO. 1462
DWG. NO. S2

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	T1	16



ELEVATION

10 5 0 10 20
Feet



PLAN

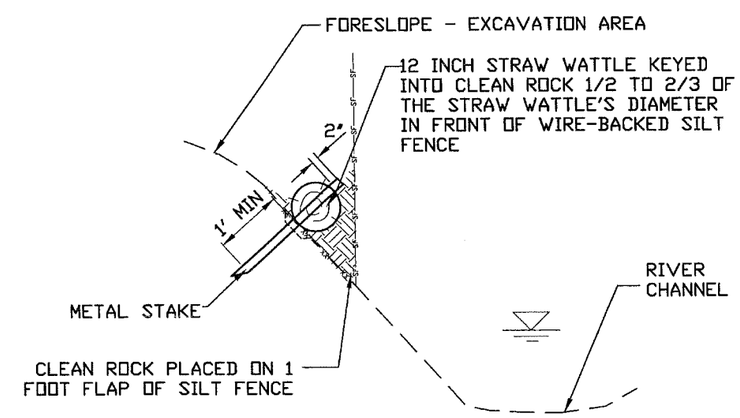
10 5 0 10 20
Feet

EROSION& SEDIMENT CONTROL PLAN NOTES

1. THE CONTRACTOR IS REQUIRED TO PRESENT A STORM WATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) 14 DAYS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE. THE CONTRACTOR'S S.W.P.P.P. SHALL INCLUDE, AT THE MINIMUM, THEIR PROPOSED LOCATIONS FOR STRAW WATTLES AND SILT FENCE AS WELL AS ANY OTHER BEST MANAGEMENT PRACTICES THAT ARE APPROPRIATE. THE "ALASKA S.W.P.P.P. GUIDE" IS AVAILABLE FROM THE ADOT&PF SOUTHEAST REGIONAL OFFICE, OR WEBSITE.
2. THIS PROJECT IS LOCATED ON PRINCE OF WALES ISLAND, ALASKA IN COPPER MERIDIAN SECTIONS 18,T.71S.,R84E, AND 24,T.71S.,R83E., AND 26,T.71S.,R83E.
3. THE TOTAL AREA OF LAND TO BE DISTURBED IS ESTIMATED AT LESS THAN AN ACRE. THE CONTRACTOR IS NOT REQUIRED TO FILE A NOI, BUT MUST CREATE A SWPPP PER SECTION 641.
4. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSPECTED AT LEAST DAILY AND MAINTAINED UNTIL THE GROUND IS STABILIZED. MAINTENANCE SHALL INCLUDE CLEANING OF COLLECTED SEDIMENT OR REPLACEMENT TO MAINTAIN EFFECTIVENESS.
5. ADDITIONAL SILT FENCING OR STRAW WATTLES MAY BE REQUIRED. SWEEPING OF PAVED SURFACES AND TEMPORARY SEEDING AND MATTING MAY ALSO BE REQUIRED. STABILIZE DISTURBED GROUND AS SOON AS POSSIBLE. UNSTABILIZED SURFACES MUST BE TEMPORARILY STABILIZED WITH SEEDING, MATTING, OR OTHER EFFECTIVE MEASURES.

LEGEND

- WIRE-BACKED SILT FENCE
- STRAW WATTLE



STRAW WATTLE /SILT FENCE DETAIL

N.T.S.

DESIGNED BY: J. Barnett	CHECKED:	LAYOUT BY:	CHECKED BY:
DRAWN BY: C. Anderson	CHECKED:	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY:	CHECKED:	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49th Charles M. Tripp CE-9613 REGISTERED PROFESSIONAL ENGINEER
8-16-10

POW THORNE BAY ROAD BRIDGES PAINTING

RIO ROBERTS BRIDGE

EROSION & SEDIMENT CONTROL PLAN

BRIDGE NO. 1456

DWG. NO. T1

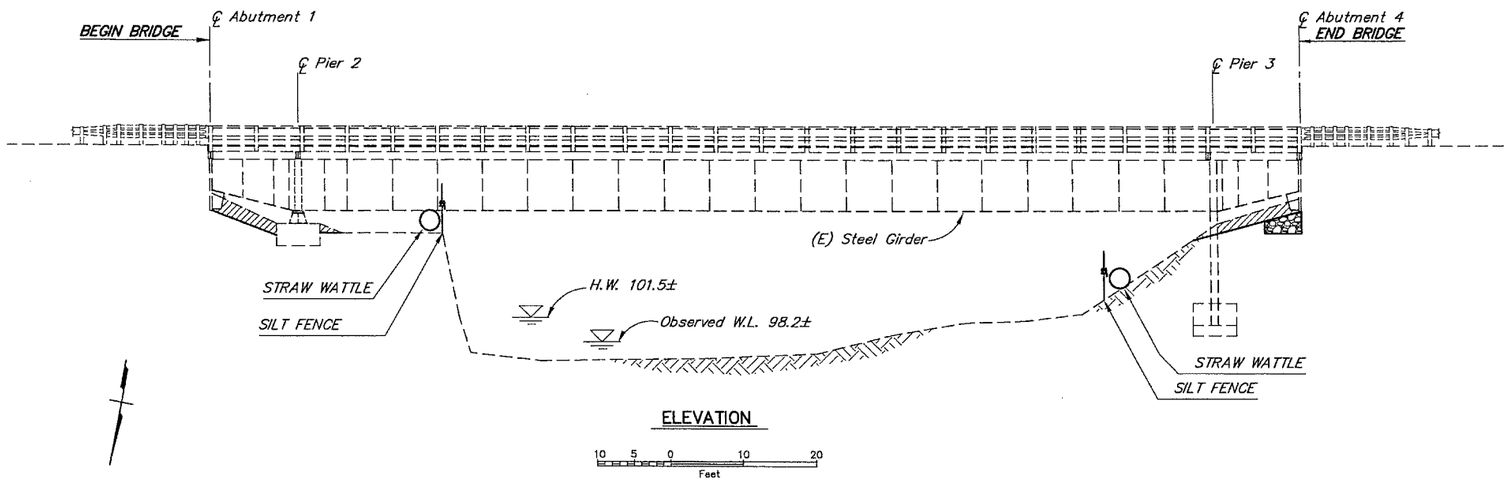
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	T2	16

LEGEND

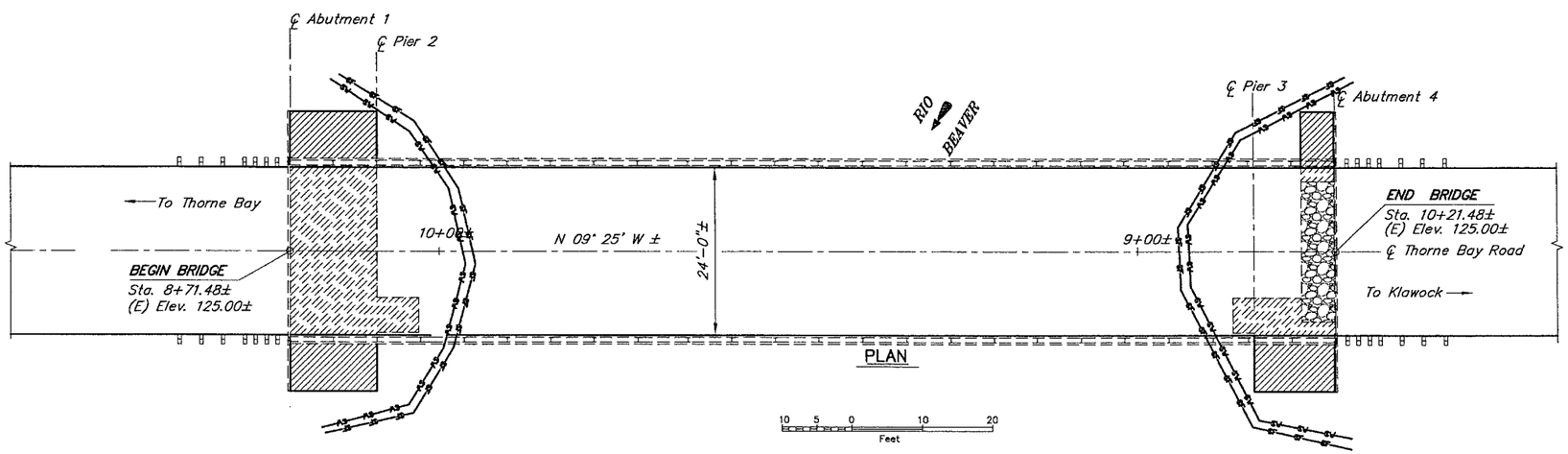
WIRE-BACKED SILT FENCE

STRAW WATTLE

NOTE:
REFERENCE SHEET T1 FOR STRAW WATTLE AND SILT FENCE INSTALLATION DETAIL AND GENERAL ESCP NOTES.



ELEVATION



PLAN

DESIGNED BY: J. Barnett	CHECKED:	LAYOUT BY:	CHECKED BY:
DRAWN BY: C. Anderson	CHECKED:	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY:	CHECKED:	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49th Charles M. Tripp CE-9613 REGISTERED PROFESSIONAL ENGINEER 8-16-10

POW THORNE BAY ROAD BRIDGES PAINTING

RIO BEAVER BRIDGE

EROSION & SEDIMENT CONTROL PLAN

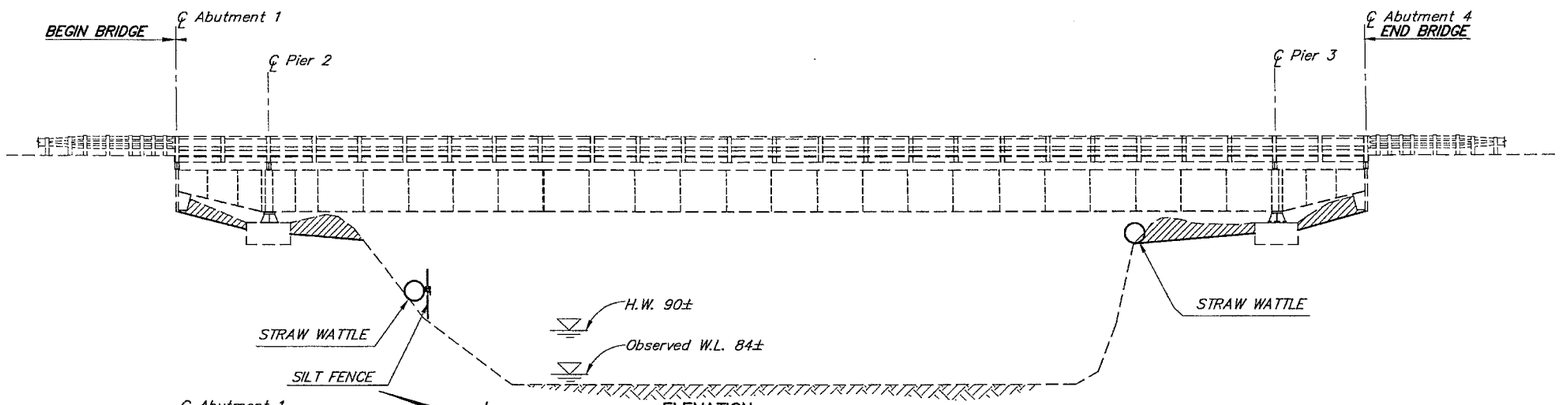
BRIDGE NO. 1458
DWG. NO. T2

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	CA-0929(3)/68707	2010	T3	16

LEGEND

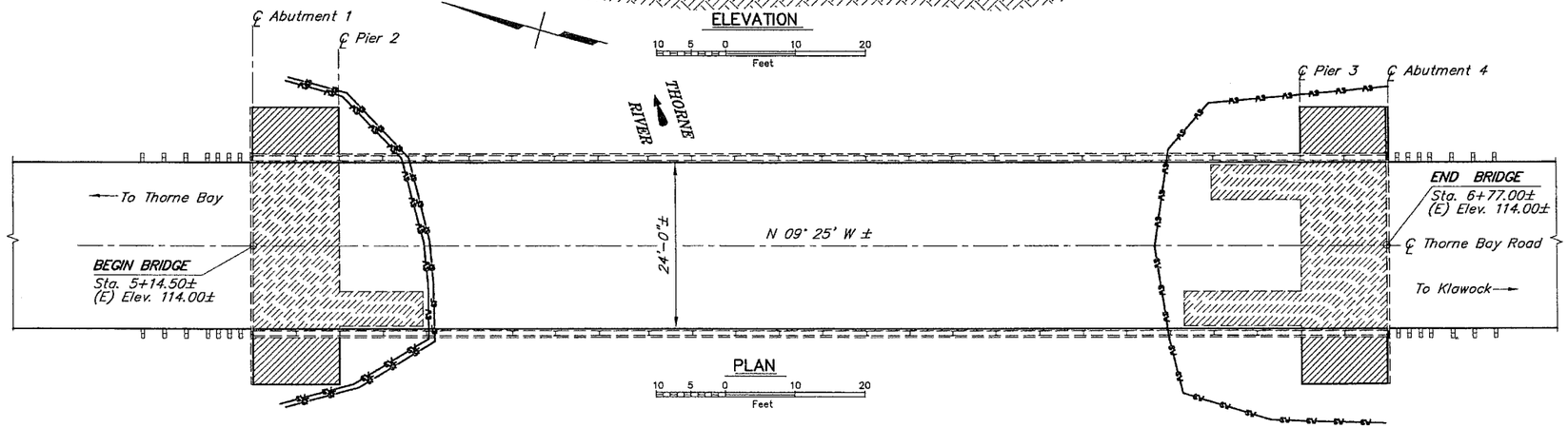
—SF—SF—SF—SF—	WIRE-BACKED SILT FENCE
—SV—SV—SV—SV—	STRAW WATTLE

NOTE:
REFERENCE SHEET T1 FOR STRAW WATTLE AND SILT FENCE INSTALLATION DETAIL AND GENERAL ESCP NOTES.



ELEVATION

10 5 0 10 20
Feet



PLAN

10 5 0 10 20
Feet

DESIGNED BY: J. Barnett	CHECKED:	LAYOUT BY:	CHECKED BY:
DRAWN BY: C. Anderson	CHECKED:	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY:	CHECKED:	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49th Charles M. Tripp CE-9613 REGISTERED PROFESSIONAL ENGINEER
8-16-10

POW – THORNE BAY ROAD BRIDGES PAINTING

THORNE RIVER BRIDGE

EROSION & SEDIMENT CONTROL PLAN

BRIDGE NO. 1462
DWG. NO. T3