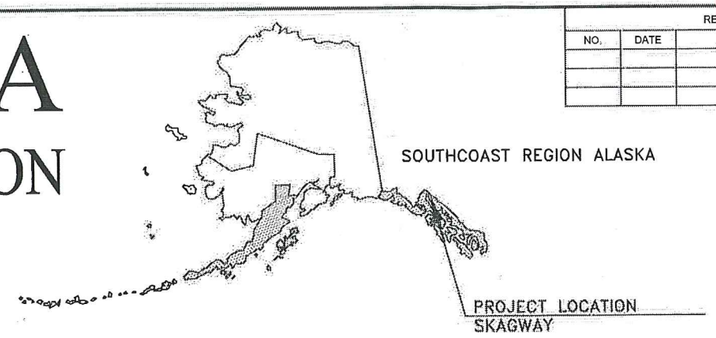
(AZ-BUILTS) 2016

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES



REVISIONS		
NO.	DATE	DESCRIPTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.
ALASKA	Z684800000~0972017	2015	A1
			PLAN SET TOTAL 25

CDS ROUTE: 299500	MILEPOINT: 2.70 TO 3.24
LATITUDE: 59°30'08"N	LONGITUDE: 135°15'51"W

PROPOSED HIGHWAY PROJECT

SGY: KLONDIKE HIGHWAY REPAIRS
PROJECT NO. Z684800000~0972017

December 2, 2015

PREVENTATIVE MAINTENANCE, OVERLAY AND GUARDRAIL REPLACEMENT

The undersigned hereby certifies that this duplicated document is an exact and true copy of the original.

Cody Sutton

INDEX OF SHEETS

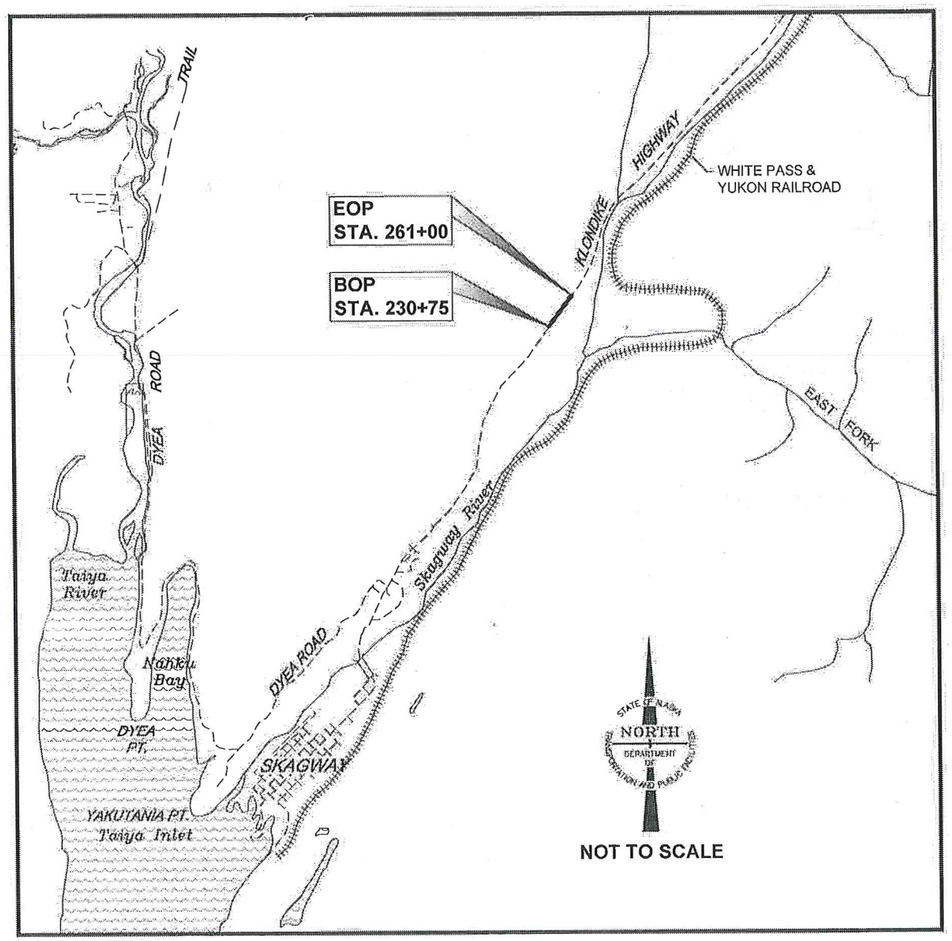
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	SHEET LAYOUT INDEX
A3	LEGEND & SHEET LAYOUT INDEX
A4-A5	SURVEY CONTROL PLAN
B1-B2	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES
D1	SUMMARIES
E1-E3	MISCELLANEOUS DETAILS
F1-F6	PLAN & PROFILE
P1-P6	EROSION SEDIMENT CONTROL PLANS & DETAILS
T1	TRAFFIC CONTROL PLANS

PROJECT SUMMARY

KLONDIKE HIGHWAY MP 2.70-3.20	
WIDTH OF PAVEMENT	28 FT
LENGTH OF PAVING	0.57 MILES
LENGTH OF PROJECT	0.57 MILES

DESIGN DESIGNATIONS

PROJECT TYPE	PM
PRESENT A.D.T. (2012)	360
DESIGN YEAR A.D.T. (2021)	380
PEAK SEASONAL A.D.T. (2012)	748
PERCENT COMMERCIAL TRUCKS	24.6%
DIRECTIONAL DISTRIBUTION	55/45
DESIGN SPEED	40 M.P.H.
PAVEMENT DESIGN YEAR	2021
DESIGN VEHICLE	WB-50
FUNCTIONAL CLASSIFICATION	RURAL OTHER PRINCIPAL ARTERIAL



VICINITY MAP

"As-Built" Plans
Contractor: Southeast RoadBuilders
Project Engineer: Todd Fleming
Begin Construction: 30 April 2016
End Construction: 30 June 2016

USE THESE PLANS IN CONJUNCTION WITH THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2015 EDITION AND THE PROJECT SPECIAL PROVISIONS.

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

C-05.20	D-01.02	G-13.00	I-81.00	M-13.01	T-20.03
	D-04.21	G-20.11		M-16.01	T-21.03
	D-14.10	G-00.02			T-22.03
		G-04.10W			
		G-10.01			
		G-15.10			
		G-28.00			

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

STATE OF ALASKA 49TH James L. Brown 9/10/2015 CE-14083 REGISTERED PROFESSIONAL ENGINEER

APPROVED: _____ 9/16/15
REGIONAL PRECONSTRUCTION ENGINEER — DATE

CONCUR: FOR PAT CARROLL _____ 9/16/15
DIRECTOR, DESIGN & CONSTRUCTION — DATE

CERTIFIED TRUE & CORRECT AS-BUILT OF ACTUAL FIELD CONDITION:

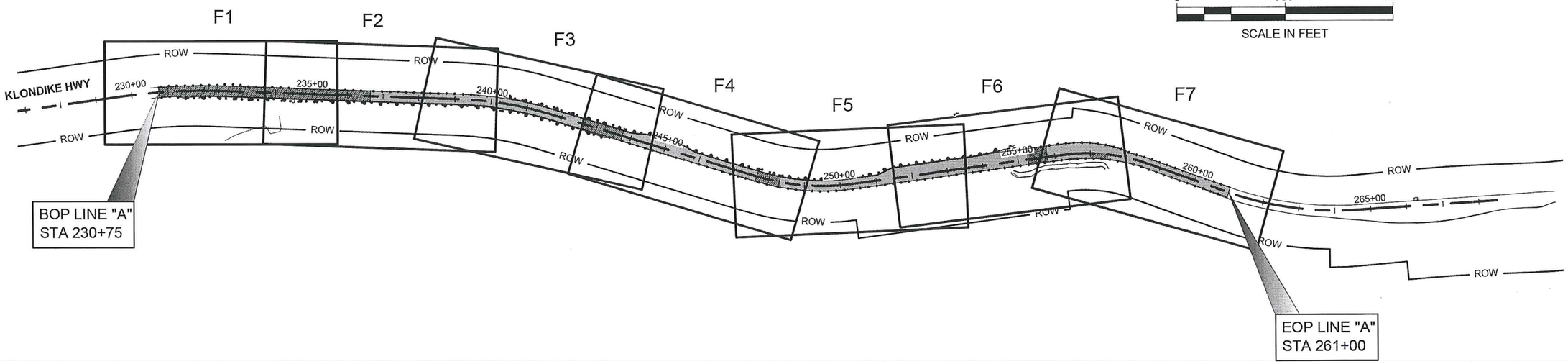
CONSTRUCTION PROJECT MANAGER — DATE

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM
XREFS
SCALE
LAYOUT A1
DATE TIME 9/11/2015 11:42
DRAWING LOCATION
\\DOTSERFS02\Projects\Sgy\68480\Planset\68480_A1 Tsht.dwg

Addendum #2; Attachment #1

NO.	DATE	REVISION
2	10/6/15	ADDENDUM NO.2

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z684800000~0972017	2015	A2	5



NORTH

0 300' 600'

SCALE IN FEET

GENERAL NOTES:

1. ALL CONSTRUCTION WILL BE CONTAINED WITHIN THE RIGHT-OF-WAY. NO EXCESS MATERIAL SHALL BE DISPOSED OF WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS.
2. ALL PAVEMENT CUTS SHALL BE MADE WITH A SAW, OR ALTERNATE METHOD APPROVED BY THE ENGINEER.
3. PLACE BFM AND SEED ANY AREAS WITHIN THE RIGHT-OF-WAY DISTURBED BY CONSTRUCTION.
4. THERE SHALL BE NO PAYMENT FOR ADDITIONAL WORK CAUSED BY FAILURE TO ADJUST MONUMENTS TO FINAL GRADE.

2

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

STATE OF ALASKA 49 TH
James L. Brown
10/6/2015
CE-14083
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY REPAIRS

LAYOUT

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRAITHAM

XREFS

SCALE

LAYOUT A2

DATE TIME 10/6/2015 9:13

DRAWING LOCATION
Q:\Sgy\684801\Planset\684480_A2_Layout.dwg

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	A3	5

DESIGNED C. IVANISZEK
DRAWN J. ROMANA
CHECKED R. GRANTHAM
DRAFTED
XREFS
SCALE
LAYOUT A3
DATE TIME 9/11/2015 9:32
DRAWING LOCATION Q:\Sgy\68480\Planset\68480_A3_Legend.dwg

	RECOVERED	SET
CONSTRUCTION CENTERLINE		5+00
MICELLANEOUS CENTERLINE		10+00
STATION EQUATION		"L"48+97.23 POT BK= "O"48+97.23 PC AHD
PROJECT RIGHT-OF-WAY LINE	ROW	
EXISTING PROPERTY LINE		
PROPOSED CUT SLOPE LIMIT		
PROPOSED FILL SLOPE LIMIT		

	EXISTING	PROPOSED
SANITARY SEWER (FLOW DIRECTION →)	SS	SS
FUEL LINE	O	F
GAS LINE	G	G
WATER LINE	W	W
METER, VALVE, FIRE HYDRANT	W	W
EXISTING STORM DRAIN (FLOW DIRECTION →)	SD	
PROPOSED STORM DRAIN		S-10, S-11, P-11, SD, MH, P-10
FIBER OPTIC LINE	FO	
DIRECT BURIAL TELEPHONE CABLE	T	T
DIRECT BURIAL ELECTRIC CABLE	UGE	
ELECTRIC LINE (OVERHEAD)	OHE	
POWER POLE LINE		
JOINT USE POWER & TELEPHONE		
TELEPHONE POLE LINE		
POLE ANCHOR		
STUB POLE (POWER OR TELEPHONE)		
TELEPHONE DUCT	T	T
TELEPHONE PEDESTAL		
BURIED CABLE MARKER		
PIPELINE MARKER OR VALVE		
CATCH BASIN OR DROP INLET		
MANHOLE	MH	MH
SANITARY SEWER CLEAN OUT		
PIPE CULVERT		

	EXISTING	PROPOSED
ROADWAY/PAVEMENT EDGE		
FENCE	X	X
CURB AND GUTTER		
DETECTABLE WARNINGS		
GUARDRAIL		
CULVERT PIPE		
SIGN		
MAILBOX	MB	MB
RAILROAD TRACKS		
RAILROAD DEVICES	CROSS-BUCK, FLASHING LIGHT	CANTILEVER, SWITCH
TREE LINE		
WATER BOUNDARY		
ORDINARY HIGH WATER LINE		
FLOW CENTERLINE		
FLOW DIRECTION		
WETLANDS		
EXISTING BUILDINGS	H	H = HOUSE, G = GARAGE, M = MERCHANT/STORE, B = BARN, S = SHED, P = PRIVY, SS= SERVICE STATION, W = WAREHOUSE
POST OR BOLLARD		
WELL OR MONITORING WELL	W	
SEPTIC PIPE	S	
FUEL TANK FILL PIPE/VENT	P	
SATELLITE DISH	SAT. DISH	
TEST HOLE	TH	
CONIFER TREE		
DECIDUOUS TREE		
GRAVE		
THERMOSIPHON		
PARKING METER		
VEHICLE PLUG-IN		
DELINEATOR/GUIDE MARKER		

	EXISTING	PROPOSED
JUNCTION BOX, TYPE IA		5
JUNCTION BOX, TYPE II		6
JUNCTION BOX, TYPE III		3
SIGNAL FACE, VEHICULAR	42	42
SIGNAL FACE, BACKPLATE	42	42
SIGNAL FACE, LEFT TURN, BACKPLATE	43	43
SIGNAL FACE, PEDESTRIAN	60 41	60 41
LOOP DETECTOR	33	73
VIDEO DETECTOR	2	2
RADAR DETECTOR	4	4A
OPTICOM DETECTOR	1	1
PEDESTRIAN PUSH BUTTON	1	1
SIGNAL POST W/O MAST ARM		1
SIGNAL POLE W/MAST ARM		4
SIGNAL CONTROLLER		
LOAD CENTER		
LUMINAIRE		122
RIGID METAL CONDUIT		

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

STATE OF ALASKA
49 TH
James L. Brown
9/11/2015
CE-14083
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY REPAIRS

LEGEND / SYMBOLS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	A4	5

DESIGNED J.Pagel
CHECKED D.Stanley
DRAFTED J.Pagel

XREFS

SCALE

LAYOUT A4

DATE TIME 8/25/2015 14:42

DRAWING LOCATION G:\Sgy\68480\Planset\68480_A4-A5 Survey Cntl.dwg

KLONDIKE HIGHWAY DESIGN ALIGNMENT

SEGMENT	STATION	NORTHING	EASTING	DISTANCE	BEARING	STATION	RADIUS	LENGTH	DELTA
L1	225+83.20	2803268.95	2387739.37	393.23	N29° 53' 41"E	229+76.43			
C1	229+76.43	2803609.86	2387935.36			232+56.23	1620.00	279.79	9°53'45"
L2	232+56.23	2803839.21	2388095.01	657.91	N39° 47' 26"E	239+14.14			
C2	239+14.14	2804344.74	2388516.06			241+62.28	970.00	248.15	14°39'27"
L3	241+62.28	2804513.13	2388697.40	606.56	N54° 26' 53"E	247+68.84			
C3	247+68.84	2804865.81	2389190.89			250+32.24	620.00	263.40	24°20'31"
L4	250+32.24	2805059.24	2389366.76	589.33	N30° 06' 22"E	256+21.57			
C4	256+21.57	2805569.07	2389662.37			258+63.75	510.00	242.18	27°12'28"
L5	258+63.75	2805742.49	2389828.15	231.04	N57° 18' 50"E	260+94.79			
C5	260+94.79	2805867.26	2390022.60			264+67.17	910.00	372.38	23°26'46"
L6	264+67.17	2806126.03	2390286.76	382.78	N33° 52' 04"E	268+49.95			

All coordinates, distances, and bearings shown hereon are NAD83(2011) Epoch 2010.00 Alaska State Plane Zone 1 Grid. The computed Combined Scale Factor for this project is 0.99998438. To obtain ground distances from Grid distances divide ground distance by the computed Combined Scale Factor.

The vertical datum for this project is NAVD88 derived from ties to the National Spatial Reference System and applying N.G.S. Geoid model 12A to the resultant ellipsoidal heights.

Survey Control Table

Point #	Northing	Easting	Elevation	Description	Station	Offset
103	2803648.33	2387937.81	551.62	GPS_ALCAP2"_SET	230+10.64	17.42L
104	2804423.94	2388566.16	543.50	GPS_ALCAP2"_SET	240+05.63	16.58L
108	2804928.19	2389287.49	544.32	ALCAP2"_SET	248+81.45	15.87R
1004	2806627.49	2390647.12	587.19	ALCAP2"_DOT_SET	N\A	N\A
1007	2804483.94	2388687.78	539.31	ALCAP2"_DOT_SET	241+37.01	17.83R

All **SURVEY CONTROL** monuments in this table are provided strictly for survey control. Should any of them be destroyed during construction they **shall NOT** be replaced.

2" ALCAP ON 36" X 5/8" REBAR SET THIS SURVEY

Centerline Monuments

Point #	Northing	Easting	Description	Station	Offset
1001	2805060.16	2389366.94	BC2"_FND__DOH_IN-CASE	250+33.13	0.30L
1002	2805666.84	2389719.99	BC2"_FND__IN-CASE	257+33.41	11.69L
1003	2805987.08	2390193.25	BC2"_FND_IN-CASE	263+01.50	15.07R
1006	2806824.74	2390711.20	BC2.5"_DOH_272+87_FND	N\A	N\A
1008	2806568.37	2390583.31	CL_MON_BOX_FND_NO_MON	N\A	N\A

All **CENTERLINE MONUMENTS** in this **existing centerline** table shall be **preserved** or **referenced** prior to disturbance and replaced at their original horizontal position.

2.5" BRASS CAP IN WELL CASE RECOVERED THIS SURVEY

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-22-17

MONUMENT NOTES:

1. If any pair of control points disagrees from published value by more than 1:10,000 horizontally or vertically then a third network point must be tied to ascertain which point is in error or has been disturbed.

2. Whether listed or not, all monuments, property markers, or accessories that will be disturbed or buried shall be referenced prior to being disturbed, and re-established in their original position and a record of monument form in accordance with A.S.34.65.040 shall be submitted to the construction engineer for review prior to recording. Coordinate values listed are for informational purposes and should be used to reset monuments only as a last resort.

9.11.15

STATE OF ALASKA 49 TH
Daniel M. Ignatov
No. 11296
REGISTERED PROFESSIONAL LAND SURVEYOR

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY REPAIRS

SURVEY CONTROL

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	A5	5

DESIGNED J.Papol
CHECKED D.Ignatov
DRAFTED J.Papol

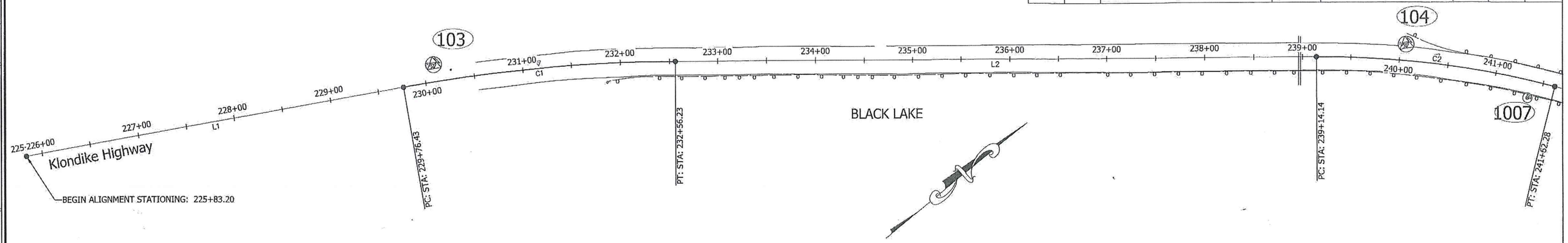
XREFS

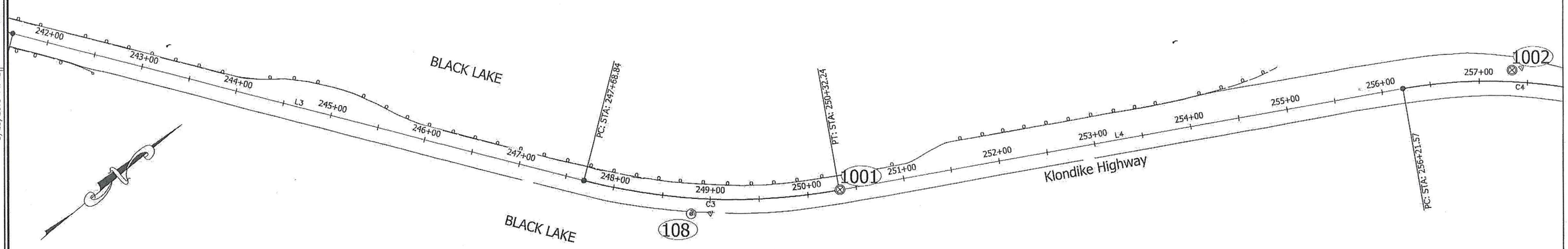
SCALE

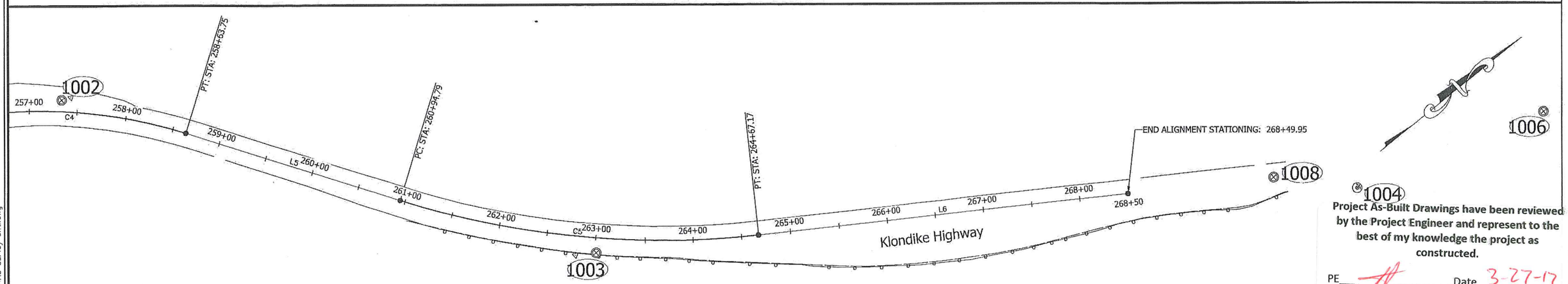
LAYOUT A5

DATE TIME 8/25/2015 14:42

DRAWING LOCATION C:\Sgy\68480\Planset\68480_A4-A5 Survey Cntl.dwg







MONUMENT NOTES:

1. If any pair of control points disagrees from published value by more than 1:10,000 horizontally or vertically then a third network point must be tied to ascertain which point is in error or has been disturbed.

2. Whether listed or not, all monuments, property markers, or accessories that will be disturbed or buried shall be referenced prior to being disturbed, and re-established in their original position and a record of monument form in accordance with A.S.34.65.040 shall be submitted to the construction engineer for review prior to recording. Coordinate values listed are for informational purposes and should be used to reset monuments only as a last resort.

0 50 100 200 Feet

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

STATE OF ALASKA
49 TH
Daniel M. Ignatov
No. 11296
REGISTERED PROFESSIONAL LAND SURVEYOR
9.11.15

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY
REPAIRS

SURVEY CONTROL

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	B1	2

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRAYTHAM

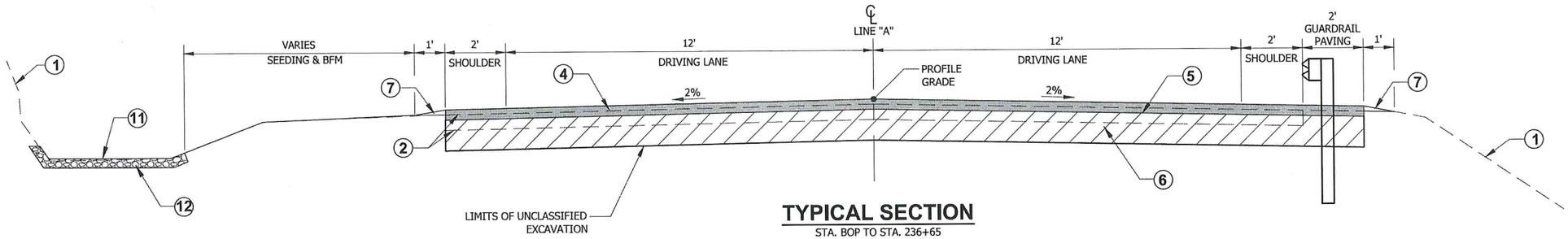
XREFS

SCALE

LAYOUT B1

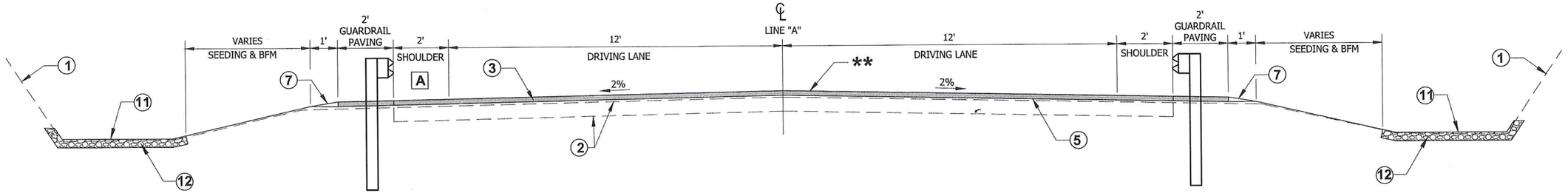
DATE TIME 8/25/2015 11:47

DRAWING LOCATION Q:\Sgy\68480\Planset\68480_B1-B2_TYP.dwg



TYPICAL SECTION

STA. BOP TO STA. 236+65

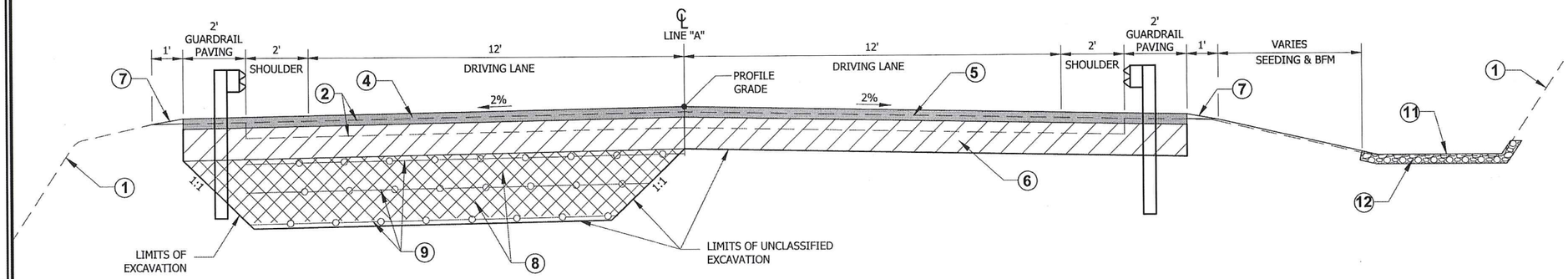


TYPICAL SECTION

STA. 236+65 TO STA. 242+65
STA. 243+75 TO STA. 247+65
STA. 248+30 TO EOP

A SHOULDER WIDTH VARIES:
- 2' TO 28' FROM STA. 243+99 TO STA. 245+86 LT
- 2' TO 28' FROM STA. 251+03 TO STA. 258+09 LT

** PRELEVELING REQUIRED FROM STA. 255+27 TO STA. 255+80



TYPICAL SECTION

STA. 242+65 TO STA. 243+75
STA. 247+65 TO STA. 248+30

LEGEND

1. ORIGINAL GROUND
2. EXISTING PAVEMENT (THICKNESS VARIES 4"-8")
3. 2" HMA OVERLAY, TYPE II, CLASS B
4. 4" HMA, TYPE II, CLASS B (2 LIFTS WITH STE-1 TACK COAT BETWEEN LIFTS)
5. STE-1 TACK COAT
6. 12" AGGREGATE BASE COURSE, GRADING D-1
7. LINEAR GRADING
8. 2' SUBBASE, GRADING A (1' LIFTS WITH TRIAXIAL GEOGRID)
9. TRIAXIAL GEOGRID
10. W-BEAM GUARDRAIL
11. DITCH RECONDITIONING TO 1' ABOVE FLOW LINE
12. DITCH LINING

TYPICAL SECTION NOTES:

1. WHERE VOIDS ARE UNCOVERED - CLOSE OFF VOIDS USING GEOTEXTILE STABILIZATION & BACKFILL WITH SUBBASE, GRADING A. SEE SHEET B2 FOR VOID REPAIR TYPICAL SECTION.
2. STABILIZE ALL NEW EMBANKMENT SLOPES WITH SEEDING AND BFM PER SECTIONS 618 AND 619.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

STATE OF ALASKA
49 TH
James L. Brown
9/11/2015
CE-14083
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY REPAIRS

TYPICAL SECTIONS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	B2	2

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM

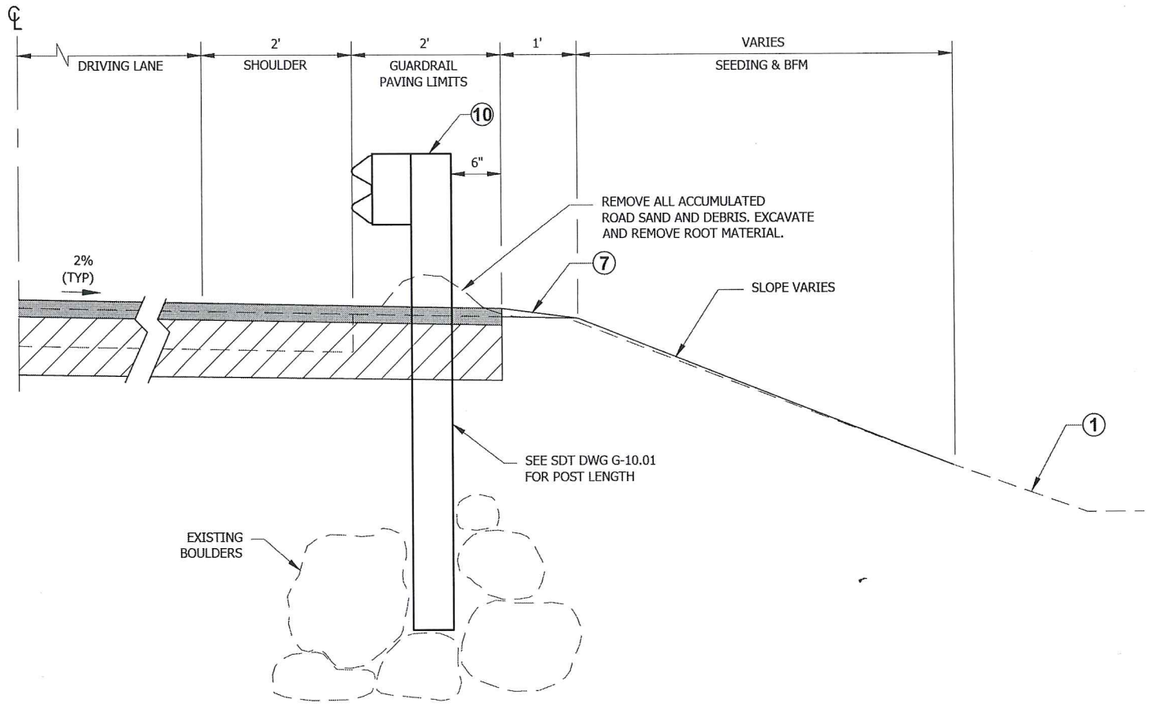
XREFS

SCALE

LAYOUT B2

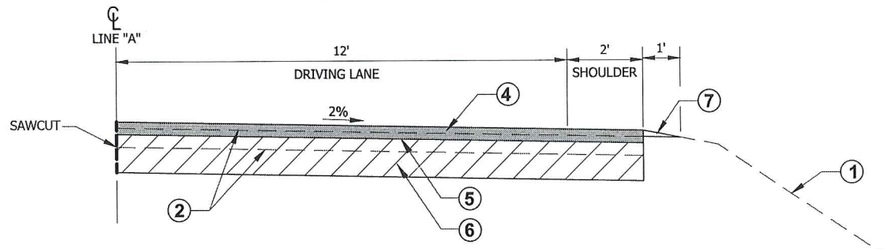
DATE TIME 8/25/2015 11:47

DRAWING LOCATION Q:\Sgy\68480\Planset\68480_B1-B2_TYP.dwg



TYPICAL SECTION GUARDRAIL PAVING

STA. 231+59 RT TO STA. 243+11 RT
STA. 240+05 LT TO STA. 254+97 LT



TYPICAL SECTION

STA. 257+00 TO STA. 257+48 RT

TYPICAL SECTION VOID REPAIR

NTS

LEGEND

1. ORIGINAL GROUND
2. EXISTING PAVEMENT (THICKNESS VARIES 4"-8")
3. 2" HMA OVERLAY, TYPE II, CLASS B
4. 4" HMA, TYPE II, CLASS B (2 LIFTS WITH STE-1 TACK COAT BETWEEN LIFTS)
5. STE-1 TACK COAT
6. 12" AGGREGATE BASE COURSE, GRADING D-1
7. LINEAR GRADING
8. 2' SUBBASE, GRADING A (1' LIFTS WITH TRIAXIAL GEOGRID)
9. TRIAXIAL GEOGRID
10. W-BEAM GUARDRAIL
11. DITCH RECONDITIONING TO 1' ABOVE FLOW LINE
12. DITCH LINING

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-18

STATE OF ALASKA
49 TH
James L. Brown
9/11/2015
CE-14083
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY REPAIRS

TYPICAL SECTIONS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	C1	1

DESIGNED C. IVANISZEK
DRAWN T. BROWN
CHECKED R. GRANTHAM
DRAFTED

XREFS

SCALE

LAYOUT C1

DATE TIME 8/28/2015 14:59

DRAWING LOCATION Q:\Sgy\68480\Planset\68480_C1_Est.dwg

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	QTY.
201(7)	INVASIVE SPECIES CONTROL, REMOVAL, AND DISPOSAL	SQUARE YARD	330
202(2)	REMOVAL OF PAVEMENT	SQUARE YARD	2,450
202(4)	REMOVAL OF CULVERT PIPE	LINEAR FOOT	289
203(3)	UNCLASSIFIED EXCAVATION	CUBIC YARD	1,230
203(19)	VOID REPAIR	CONTINGENT SUM	ALL REQUIRED
301(1)	AGGREGATE BASE COURSE, GRADING D-1	TON	1,705
303(3)	LINEAR GRADING	STATION	61
303(4)	DITCH RECONDITIONING	LINEAR FOOT	2,458
304(1)	SUBBASE, GRADING A	TON	301
401(1)	HMA, TYPE II; CLASS B	TON	1,657
401(4)	ASPHALT BINDER, GRADE PG 58-28	TON	99
401(8)	HMA PRICE ADJUSTMENT, TYPE II; CLASS B	CONTINGENT SUM	ALL REQUIRED
401(9)	LONGITUDINAL JOINT DENSITY PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
401(15)	ASPHALT MATERIAL PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
401(17)	PRELEVEL FOR RUTS, DELAMINATIONS, AND DEPRESSIONS	SQUARE YARD	260
402(1)	STE-1 ASPHALT FOR TACK COAT	TON	5
603(9-24)	24 INCH CORRUGATED ALÚMINUM PIPE	LINEAR FOOT	132
603(9-48)	48 INCH CORRUGATED ALUMINUM PIPE	LINEAR FOOT	162
606(1)	W-BEAM GUARDRAIL	LINEAR FOOT	2,568
606(6)	REMOVING AND DISPOSING OF GUARDRAIL	LINEAR FOOT	2,761
606(13)	PARALLEL GUARDRAIL TERMINAL	EACH	2
610(3)	DITCH LINING	STATION	25
611(1)	RIPRAP, CLASS I	CUBIC YARD	10
616(4)	THAW WIRE INSTALLATION	EACH	4
618(2)	SEEDING	POUND	20
619(3)	BONDED FIBER MATRIX (BFM)	POUND	1,210
629(1)	GUARDRAIL PAVING	LINEAR FOOT	2,735
634(1)	GEOGRID, TYPE TRIAXIAL	SQUARE YARD	820
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(3)	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
641(5)	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CONTINGENT SUM	ALL REQUIRED
641(6)	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED
642(1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
642(3A)	THREE PERSON SURVEY PARTY	CONTINGENT SUM	ALL REQUIRED
642(4)	SET PRIMARY MONUMENT	EACH	3
642(6)	REFERENCE EXISTING MONUMENT	EACH	3
642(10)	MONUMENT CASE	EACH	6
643(2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643(3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED
643(15)	FLAGGING	CONTINGENT SUM	ALL REQUIRED
643(23)	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
643(25)	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED
643(33)	TEMPORARY BARRIER PROTECTION	LUMP SUM	ALL REQUIRED
644(1)	FIELD OFFICE	LUMP SUM	ALL REQUIRED
644(2)	FIELD LABORATORY	LUMP SUM	ALL REQUIRED
644(6)	VEHICLES	LUMP SUM	ALL REQUIRED
644(15)	NUCLEAR TESTING EQUIPMENT STORAGE SHED	EACH	1
670(1)	PAINTED TRAFFIC MARKINGS	LUMP SUM	ALL REQUIRED

BASIS OF ESTIMATE

ITEM NO.	ITEM	ESTIMATING FACTOR
301 (1)	AGGREGATE BASE COURSE, GRADING D-1	1.95 TONS/C.Y.
304 (1)	SUBBASE, GRADING A	1.7 TONS/C.Y.
401 (1)	HMA, TYPE II; CLASS B	120 LBS./S.Y./IN.
401 (4)	ASPHALT BINDER, GRADE PG-58-28	6.0% OF ITEM 401(1)
402 (1)	STE-1 ASPHALT FOR TACK COAT	0.10 GAL/S.Y. 243 GAL/TON
644 (6)	VEHICLES	3
670(1)	PAINTED TRAFFIC MARKINGS	6050 LF 4" SOLID WHITE
		3025 LF 4" DOUBLE SOLID YELLOW

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PE _____ Date 3-27-17

STATE OF ALASKA
49 TH
James L. Brown
9/11/2015
CE-14083
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY REPAIRS

ESTIMATE OF QUANTITIES

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	D1	1

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM
XREFS
SCALE
LAYOUT D1
DATE TIME 8/31/2015 9:46
DRAWING LOCATION Q:\Sgy\68480\Planset\68480_D1_Sums.dwg

202(2) REMOVAL OF PAVEMENT

STATION TO STATION		AREA (SY)	REMARKS
BOP	236+65	1836	Existing Pavement Approximetly 8" Thick
242+65	243+75	342	Existing Pavement Approximetly 6" Thick
247+65	248+30	202	Existing Pavement Approximetly 8" Thick
257+00	257+48	70	Existing Pavement Approximetly 8" Thick
	TOTAL =	2450	

202(4) CULVERT REMOVAL

STATION	TYPE	DIAMTER (IN)	LENGTH (FT)	REMARKS
238+97	CSP	24"	50	
242+02	CSP	48"	61	
254+50	CSP	48"	101	
256+67	CSP	24"	77	
		Total =	289	

303(4) DITCH RECONDITIONING

242+11

STATION TO STATION		OFFSET	LENGTH	REMARKS
230+85	239+90	LT	905	
~~242+61~~	254+76	RT	~~1215~~	1270
257+62	~~261+00~~	LT	~~338~~	255
	259+95	TOTAL =	~~2458~~	2408

401(17) PRELEVEL FOR RUTS, DELAMINATIONS AND DEPRESSIONS

STATION TO STATION		AREA (SY)	REMARKS
255+27	255+80	260	
	TOTAL =	~~260~~	DELETED by P.E.

603 PIPE SUMMARY

PIPE NUMBER	603(9-24) 24" CAP	603(9-48) 48" CAP	INLET STATION	INLET OFFSET	INLET INV.	OUTLET STATION	OUTLET OFFSET	OUTLET INV.	SLOPE	REMARKS
P-1	50		238+97	20.94 LT	541.40	238+96	26.87 RT	539.04	4.72%	INLCUDE THAW WIRE INSTALLATION PER STD. DWG D-14.10
P-2		61	241+89	25.50 RT	533.13	242+17	28.17 LT	530.80	3.82%	INLCUDE THAW WIRE INSTALLATION PER STD. DWG D-14.11
P-3		101	254+07	40.39 LT	531.97	254+82	27.87 RT	529.29	2.65%	INLCUDE THAW WIRE INSTALLATION PER STD. DWG D-14.12
P-4	82		256+75	52.71 LT	529.71	256+61	27.50 RT	527.11	3.17%	INLCUDE THAW WIRE INSTALLATION PER STD. DWG D-14.13
TOTAL	132	162								

606(1) W-BEAM GUARDRAIL

STATION TO STATION		OFFSET	RUN	REMARKS
231+97	242+73	RT	~~1076~~	1066
240+05	254+97	LT	~~1492~~	Install Downstream End Anchors at STA 240+14 & STA 254+87 LT
		TOTAL =	~~2568~~	2550

1484

606(6) REMOVING AND DISPOSING OF GUARDRAIL

STATION TO STATION		OFFSET	RUN	REMARKS
231+85	242+54	RT	1069	
240+05	256+97	LT	1692	
		TOTAL =	2761	

606(13) PARALLEL GUARDRAIL TERMINAL

STATION	OFFSET	LENGTH (FT)	REMARKS
~~231+47~~	RT	50.0	231+45
~~243+23~~	RT	50.0	243+20

642(4) SET PRIMARY MONUMENT
642(6) REFERENCE EXISTING MONUMENT
642(10) MONUMENT CASE

STATION	OFFSET (FT)	POINT #	REMARKS
250+33.13	0.30 LT	1001	SEE SHEET A4
257+33.41	11.69 LT	1002	SEE SHEET A4

* SEE SHEET E1 FOR SLOPE INDICATOR AND PIEZOMENTER MONUMENT CASE DETAIL & LOCATIONS.

629(1) GUARDRAIL PAVING

STATION TO STATION		OFFSET	LENGTH (FT)	REMARKS
231+25	243+44	RT	1219	
239+90	255+06	LT	1516	
		TOTAL =	2735	

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49 TH
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9/11/2015
CE-14083
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
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AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY REPAIRS

SUMMARIES

Addendum #2; Attachment #2

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
2	10/6/15	ADDENDUM NO.2	ALASKA	Z684800000~0972017	2015	E1	3

DESIGNED C. IVANISZEK
DRAWN J. BOWMAN
CHECKED
DRAFTED R. GRANTHAM
XREFS
SCALE
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DATE TIME 10/6/2015 13:37
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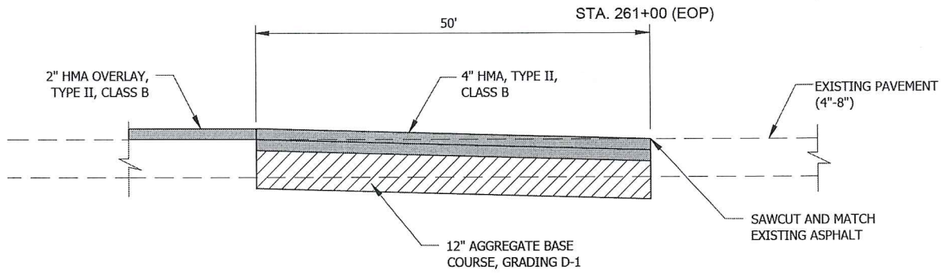
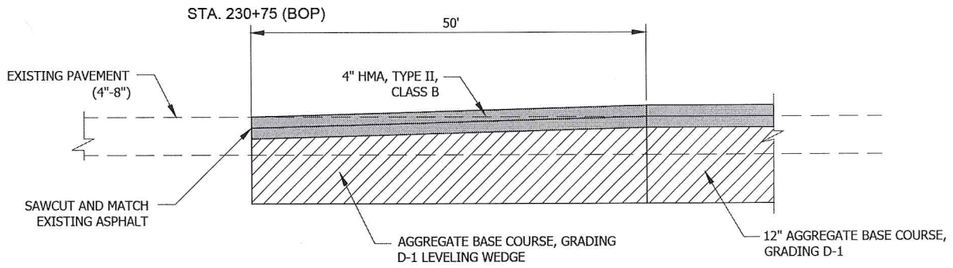
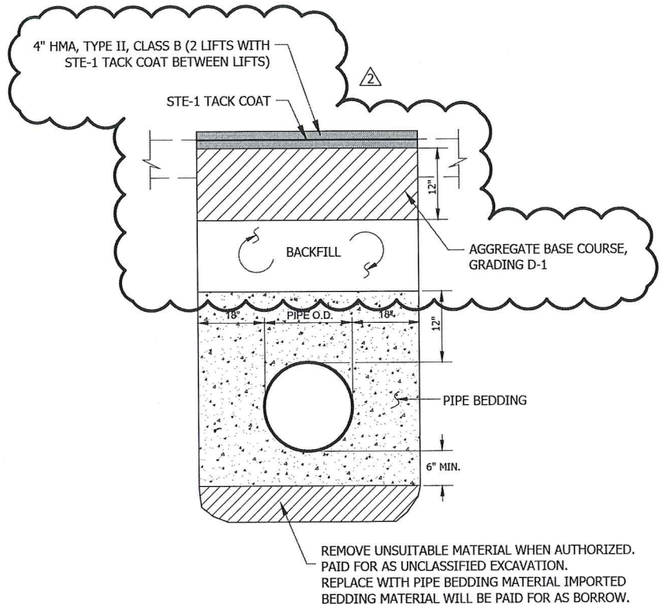


PAVEMENT TRANSITION DETAIL

N.T.S.





CULVERT BEDDING/BACKFILL DETAIL

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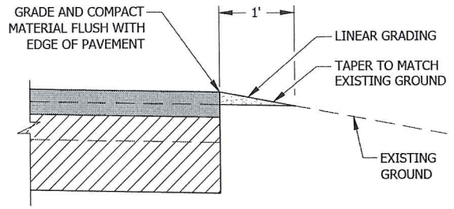
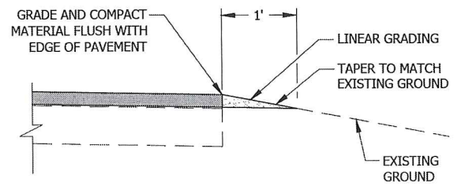


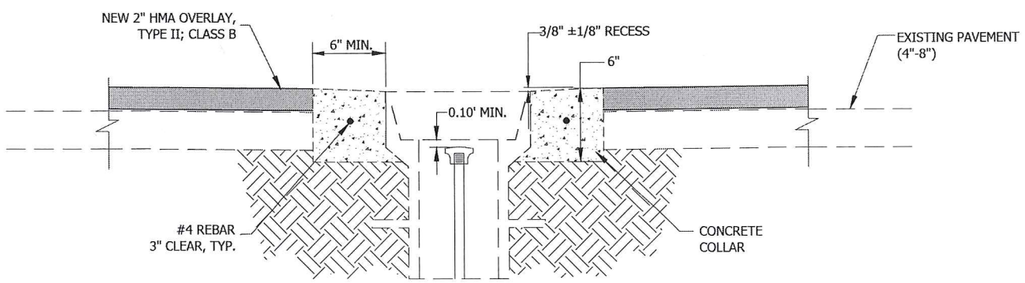


LINEAR GRADING

LEFT AND RIGHT EDGE OF PAVEMENT

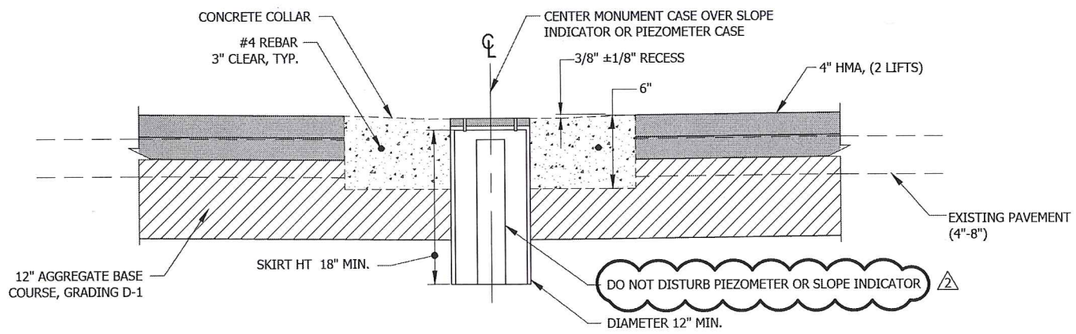
NOTES:

1. MATERIAL FOR LINEAR GRADING SHALL MEET THE REQUIREMENTS AS SPECIFIED IN SECTION 303 OF THE SPECIAL PROVISIONS.
2. LINEAR GRADING SHALL BE PAID FOR UNDER ITEM 303(3).



MONUMENT CASE DETAIL

N.T.S.



SLOPE INDICATOR & PIEZOMETER MONUMENT CASE DETAIL

- STA. 232+75, OFFSET: 3.73' RT
- STA. 233+26, OFFSET: 3.84' RT
- STA. 255+58, OFFSET: 23.48' LT

NOTES:

1. REMOVE EXISTING MONUMENT CASE AND REPLACE AS SHOWN.
2. LID SHALL BE CAST IRON, BOLT DOWN AND WATER TIGHT.

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PE _____ Date 3-27-17

STATE OF ALASKA 49TH James L. Brown 10/6/2015 CE-14083 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY REPAIRS

MISCELLANEOUS DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	E2	3

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRAITHAM

XREFS

SCALE

LAYOUT E2

DATE TIME 8/25/2015 11:50

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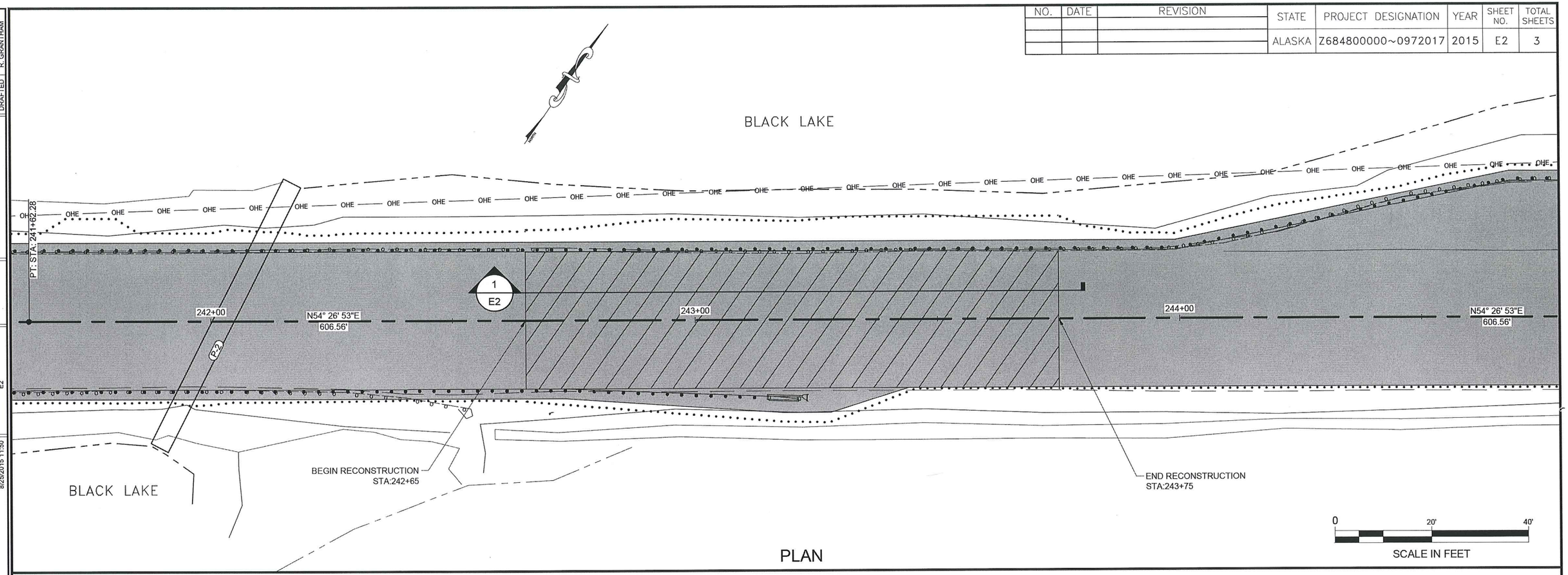
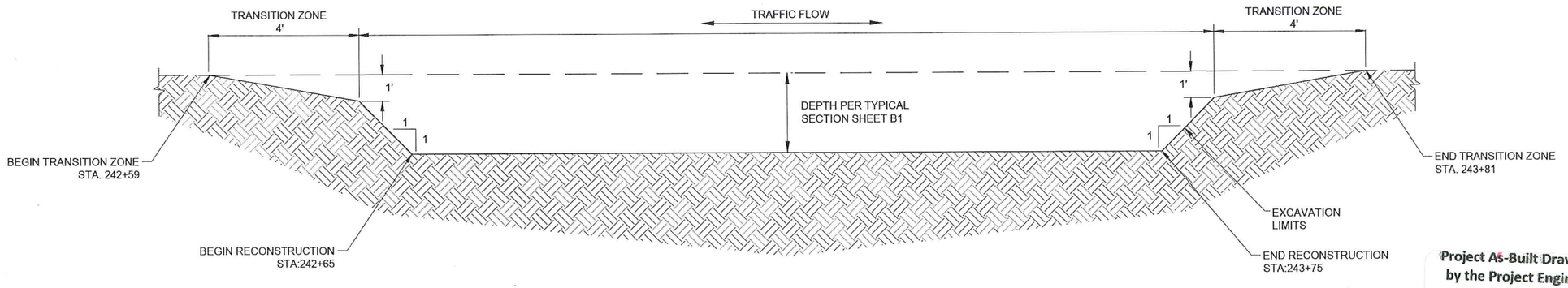


PLAN



1/E2 **ELEVATION A-A**
SCALE: N.T.S.

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PE _____ Date 3-27-17

STATE OF ALASKA
49 TH
James L. Brown
9/11/2015
CE-14083
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
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SGY: KLONDIKE HIGHWAY
REPAIRS

MISCELLANEOUS
DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	E3	3

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM

XREFS

SCALE

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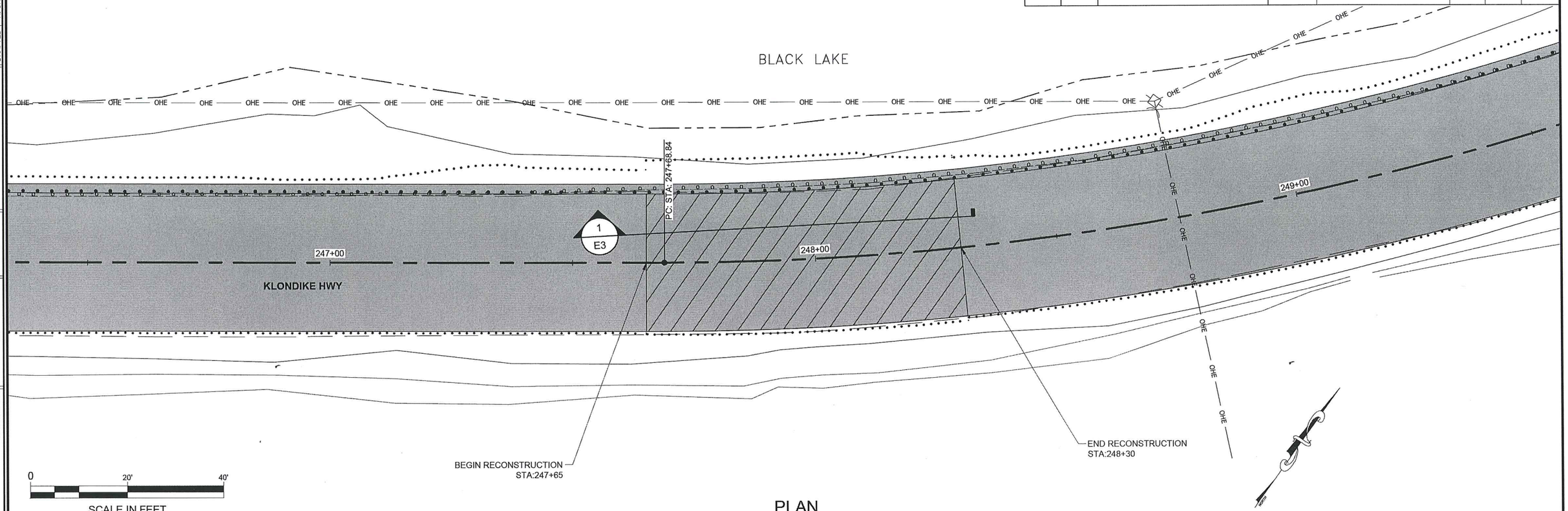

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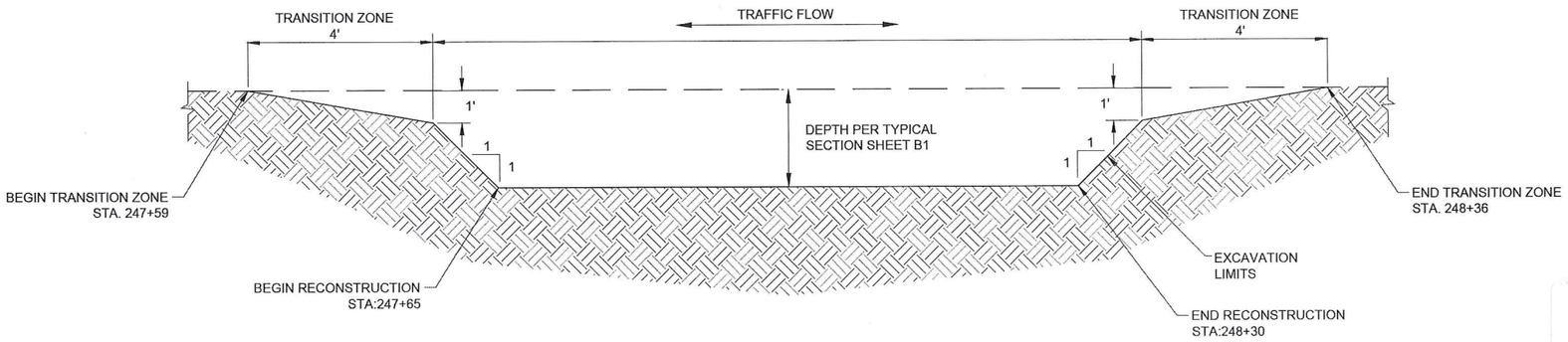

1/E3 **ELEVATION A-A**
SCALE: N.T.S.

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49 TH
James L. Brown
9/11/2015
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REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY
REPAIRS

MISCELLANEOUS
DETAILS

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM

XREFS

SCALE

LAYOUT F1

DATE TIME 8/28/2015 13:47

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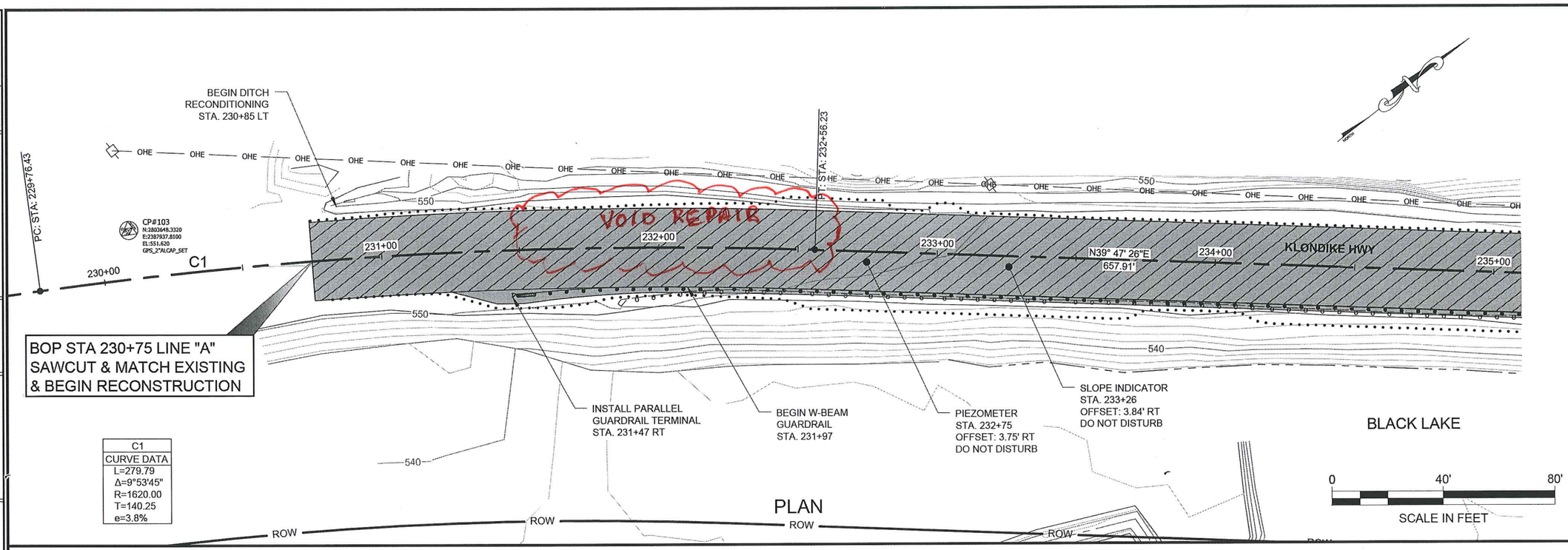

PLAN

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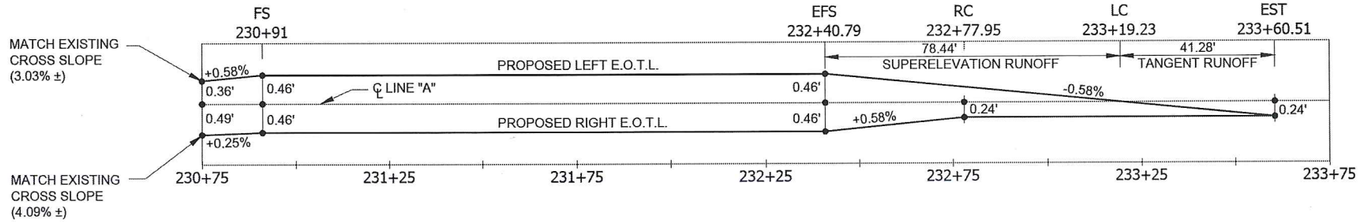
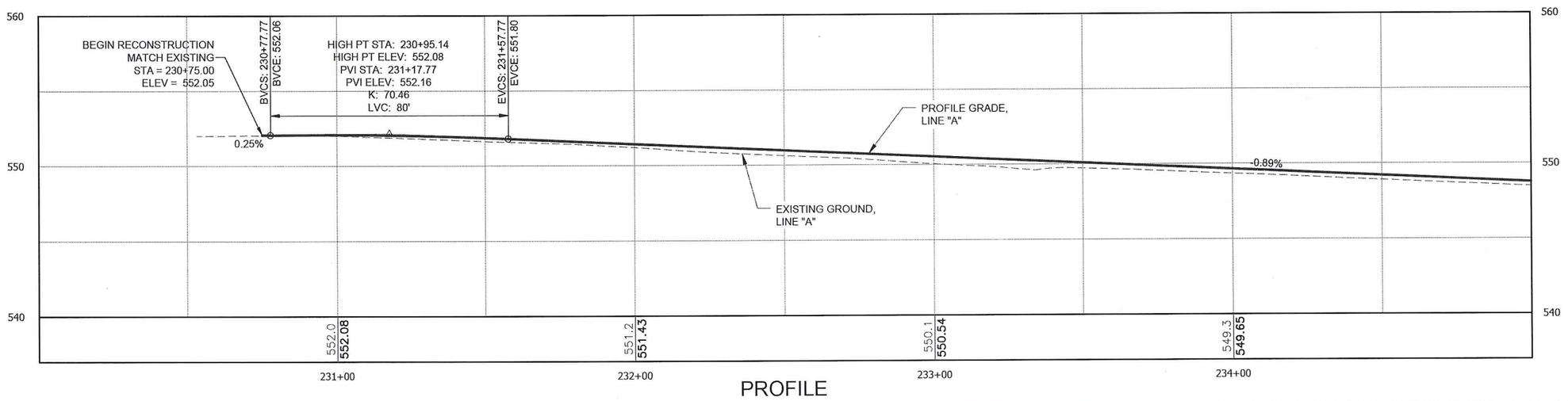


SUPERELEVATION MODIFICATIONS

NTS



PROFILE

SHEET NO.	TOTAL SHEETS
F1	6
STATE	YEAR
ALASKA	2015
PROJECT DESIGNATION	
68480	
Z684800000~0972017	

REVISION

NO.	DATE

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

STATE OF ALASKA
49 TH
James L. Brown
9/11/2015
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REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SGY: KLONDIKE HWY
REPAIRS

PLAN & PROFILE

DESIGNED C. IVANISZEK
DRAFTED T. HERMANN
CHECKED R. GRANTHAM

XREFS

SCALE

LAYOUT F2

DATE TIME 8/28/2015 13:47

DRAWING LOCATION
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ROW ROW ROW ROW ROW ROW

END RECONSTRUCTION
STA:236+65

THAW WIRE INSTALLATION
PER STD DWG D-14.10

PC STA: 239+14.14

OHE

550

234+00 235+00 236+00 237+00 238+00 239+00

N39° 47' 26"E
657.91'

P-1

KLONDIKE HWY

VOID REPAIR

540

530

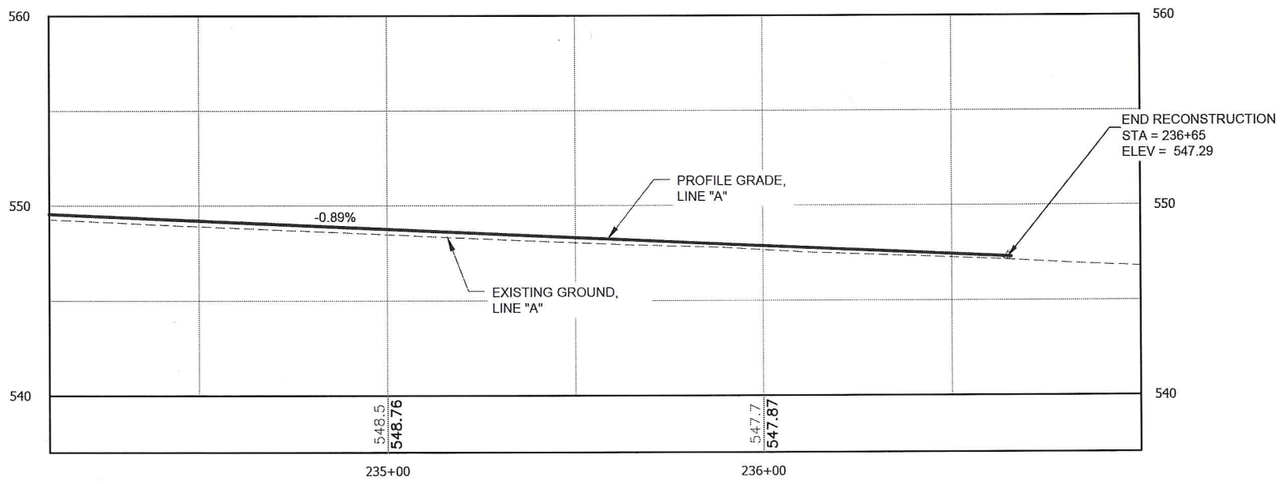
INSTALL W-BEAM GUARDRAIL
STA. 231+97 RT TO STA. 242+73 RT

BLACK LAKE

0 40' 80'
SCALE IN FEET

PLAN

ROW ROW ROW ROW ROW ROW



PROFILE

SHEET NO.	TOTAL SHEETS
F2	6
STATE	YEAR
ALASKA	2015
PROJECT DESIGNATION	
68480	
Z684800000~0972017	

REVISION | DATE | NO.

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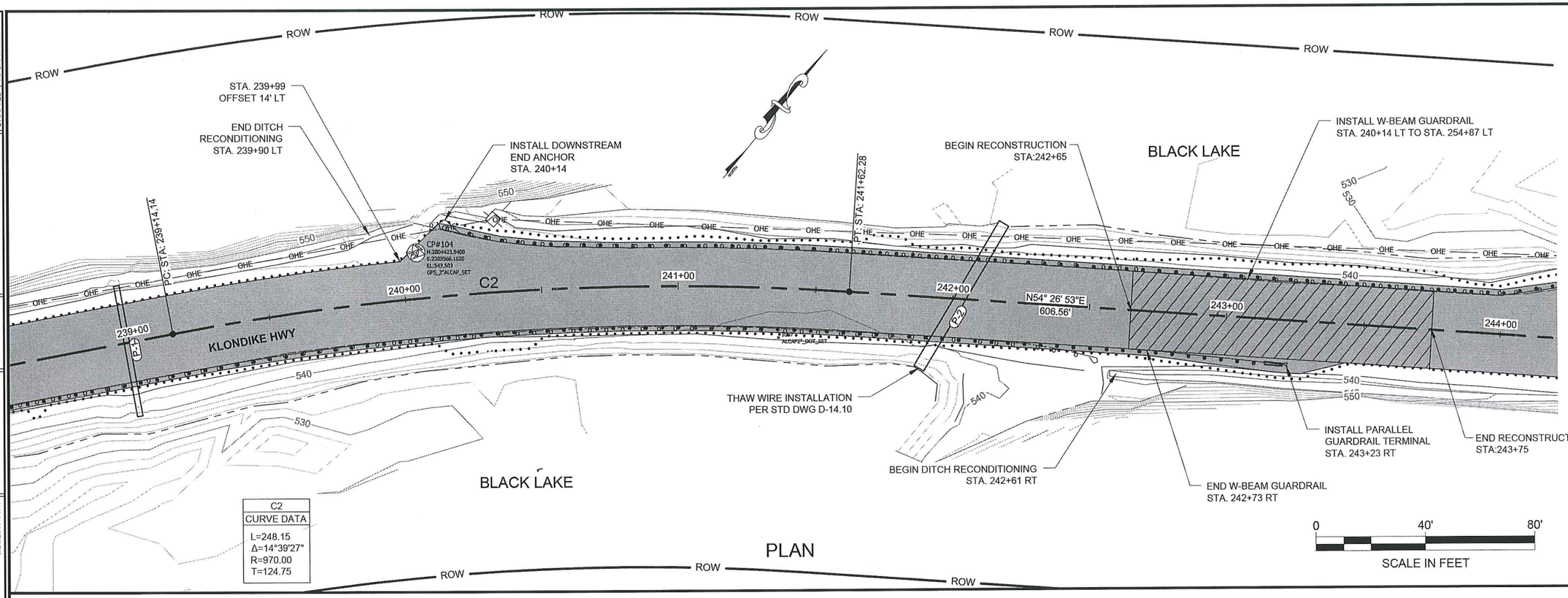
AND PUBLIC FACILITIES

SGY: KLONDIKE HWY
REPAIRS

PLAN & PROFILE



PLAN

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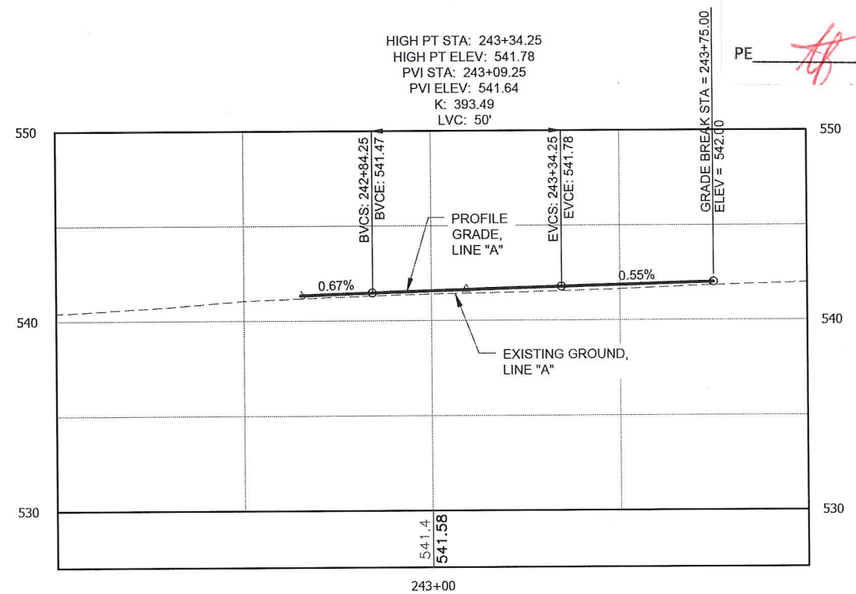

PROFILE

SHEET NO.	TOTAL SHEETS
F3	6
STATE	YEAR
ALASKA	2015
PROJECT DESIGNATION	
68480	
Z684800000~0972017	

NO.	DATE	REVISION

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PE _____ Date 3-27-17

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SGY: KLONDIKE HWY
REPAIRS

PLAN & PROFILE

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM

XREFS

SCALE

LAYOUT F3

DATE TIME 8/28/2015 13:47

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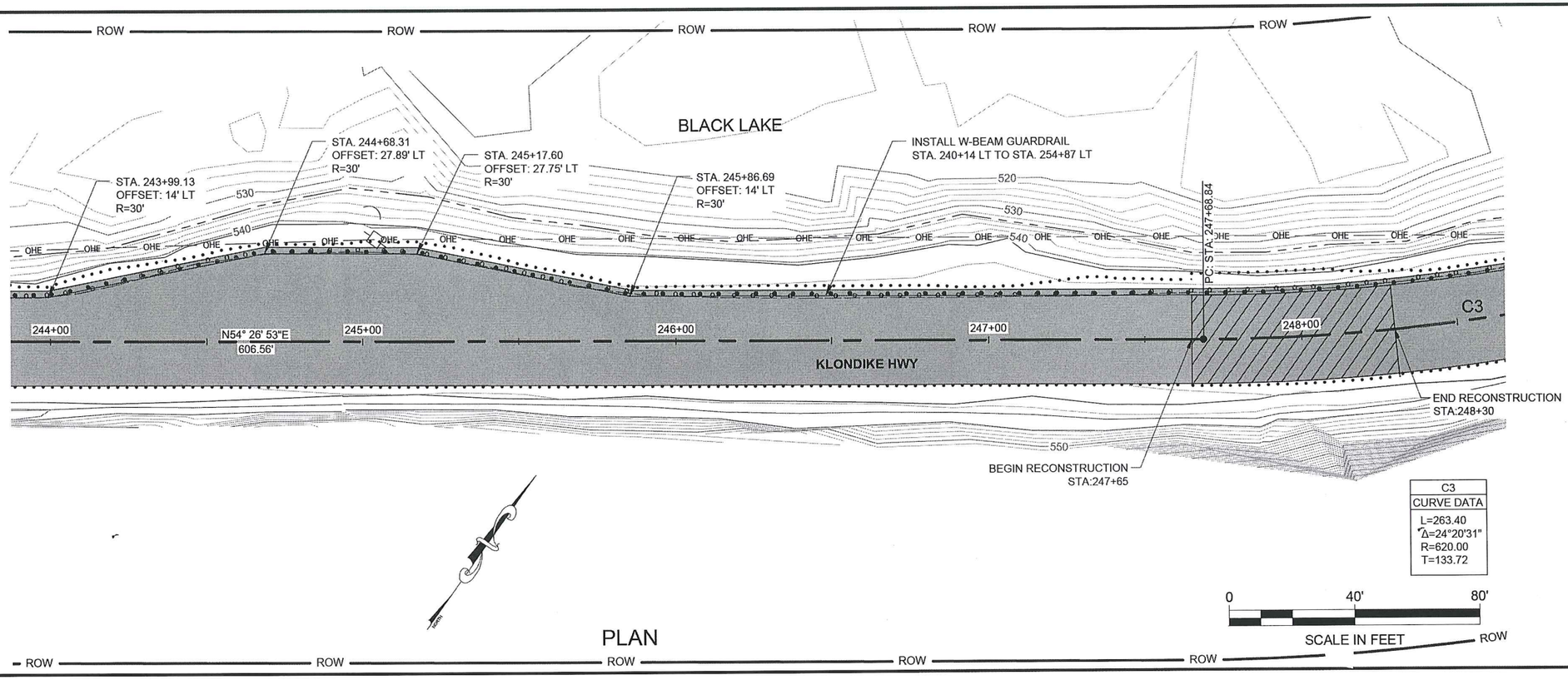

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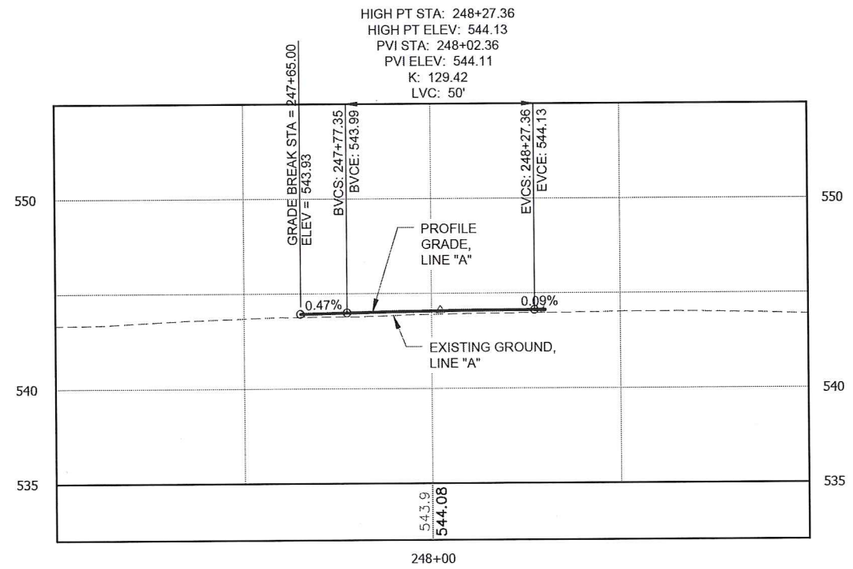

PROFILE

SHEET NO.	TOTAL SHEETS
F4	6
STATE	YEAR
ALASKA	2015
PROJECT DESIGNATION	
68480	
Z684800000~0972017	

REVISION | DATE | NO.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

STATE OF ALASKA
49 TH
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9/11/2015
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REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SGY: KLONDIKE HWY
REPAIRS

PLAN & PROFILE

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM

XREFS

SCALE

LAYOUT F4

DATE TIME 8/28/2015 13:47

DRAWING LOCATION
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DESIGNED C. IVANISZEK
DETAILED R. BROWN
DRAFTED R. GRANTHAM

XREFS

SCALE

LAYOUT F5

DATE TIME 8/28/2015 13:47

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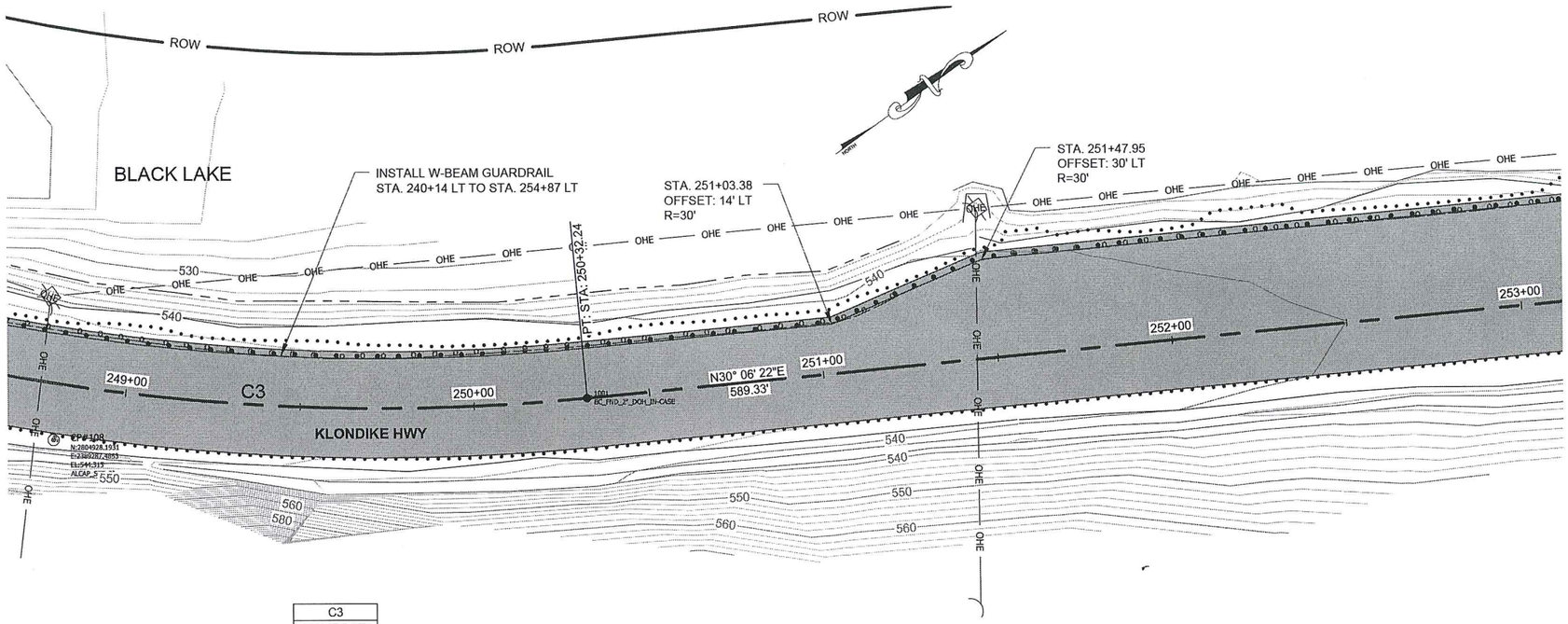

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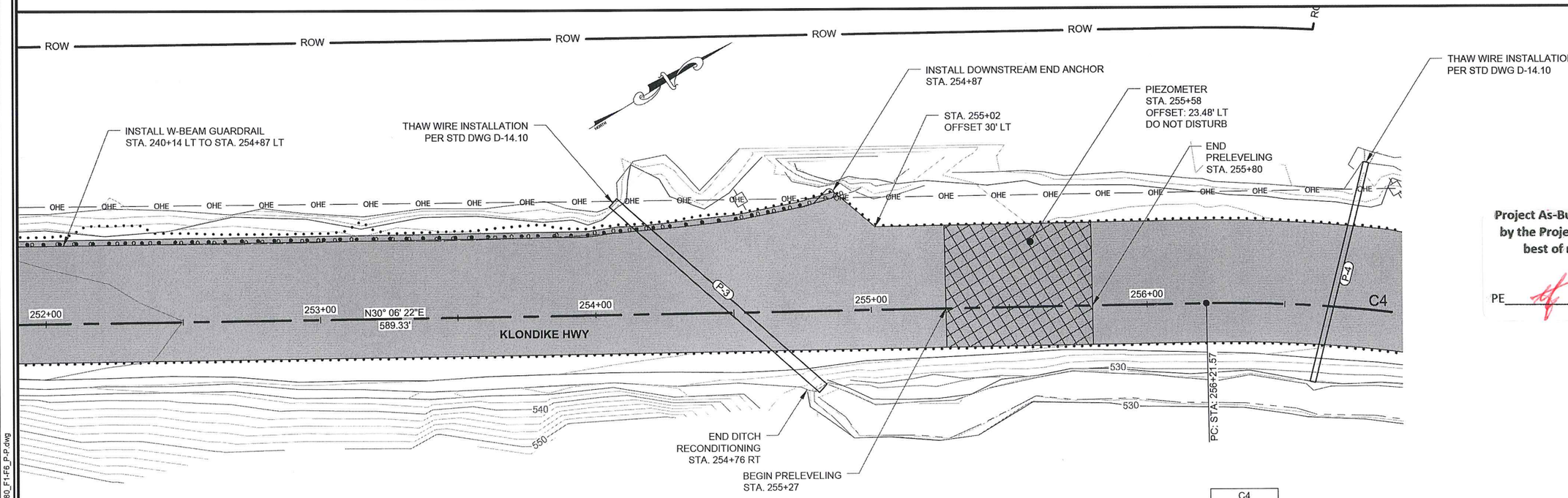
PLAN

0 40' 80'

SCALE IN FEET



C4
CURVE DATA
L=242.18
Δ=27°12'28"
R=510.00
T=123.42

PLAN

0 40' 80'

SCALE IN FEET

SHEET NO.	TOTAL SHEETS
F5	6
STATE	YEAR
ALASKA	2015
PROJECT DESIGNATION	
68480	
Z684800000~0972017	

REVISION

NO.	DATE

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

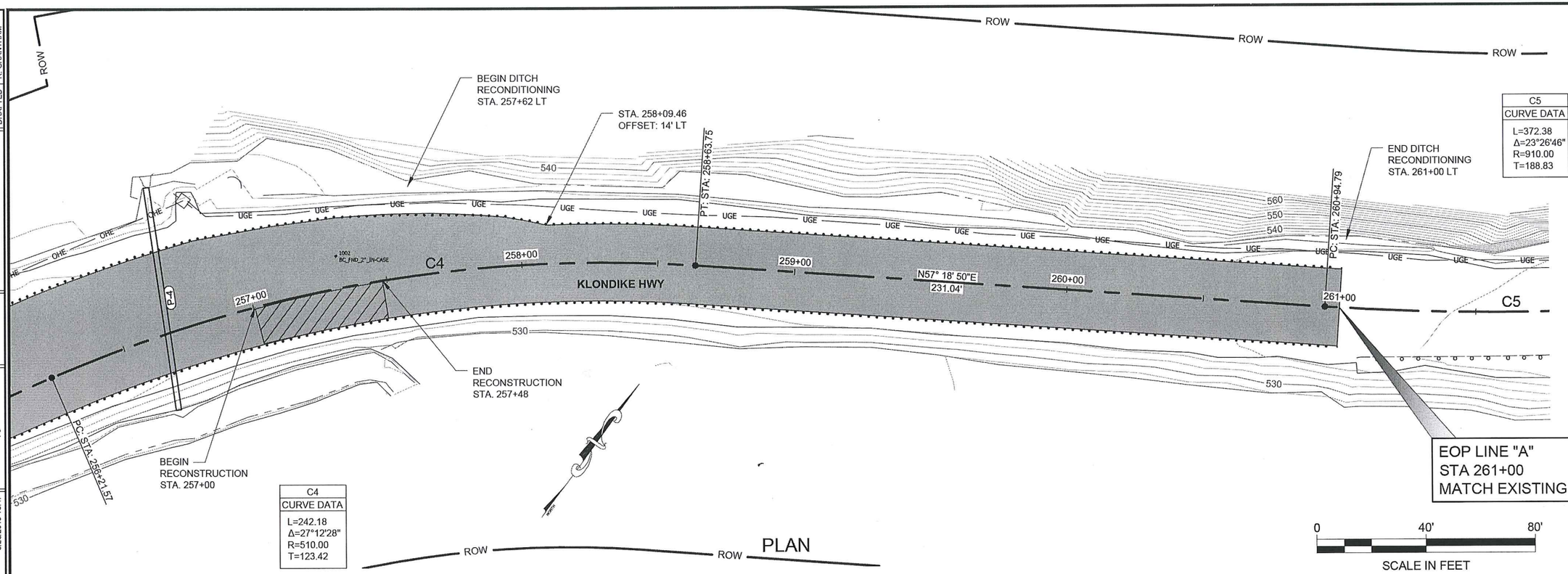
PE _____ Date 3-27-17

STATE OF ALASKA 49 TH
James L. Brown
9/11/2015
CE-14083
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

SGY: KLONDIKE HWY
REPAIRS

PLAN & PROFILE



SHEET NO.	TOTAL SHEETS
F6	6
STATE	YEAR
ALASKA	2015
PROJECT DESIGNATION	
68480	
Z684800000~0972017	

REVISION | DATE | NO.

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM

XREFS

SCALE

LAYOUT F6

DATE TIME 8/28/2015 13:47

DRAWING LOCATION Q:\Sgy\68480\Planset\68480_F1-F6_P-P.dwg

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

STATE OF ALASKA
49 TH
James L. Brown
9/11/2015
CE-14083
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SGY: KLONDIKE HWY REPAIRS

PLAN & PROFILE

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM

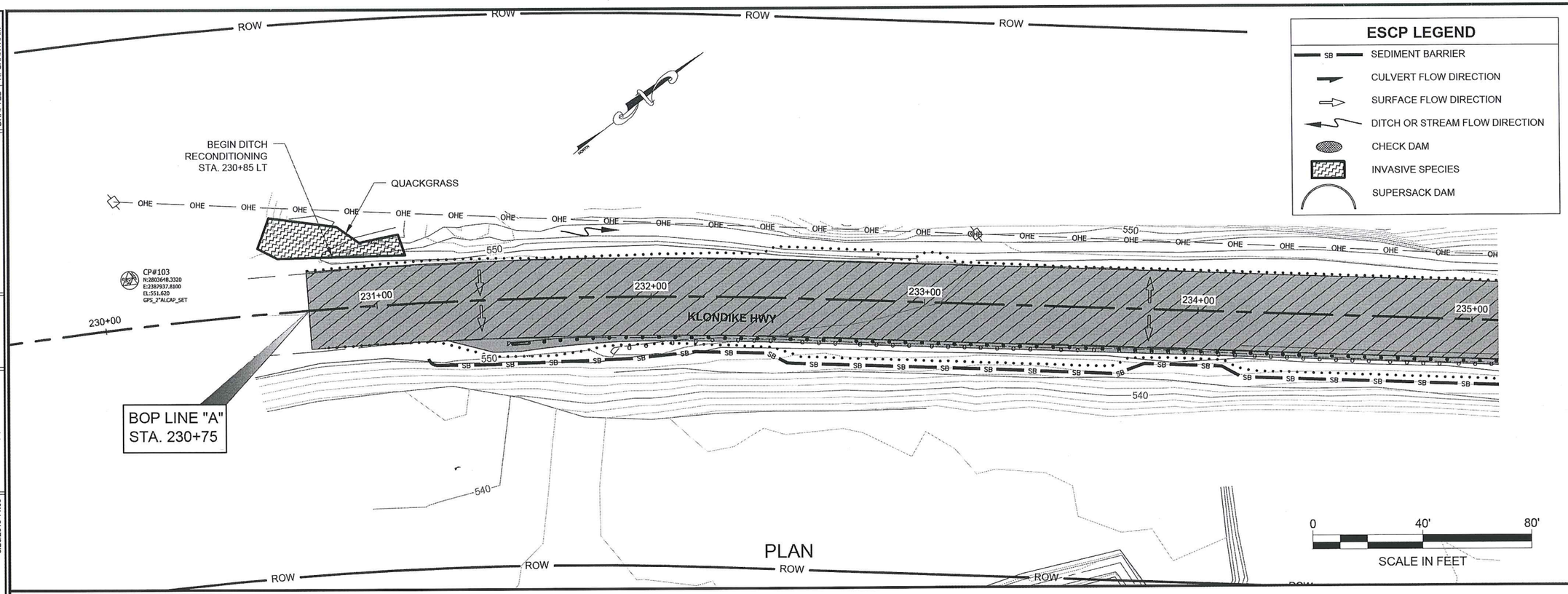
XREFS

SCALE

LAYOUT P1

DATE TIME 8/25/2015 11:55

DRAWING LOCATION C:\Sgy\68480\Planset\68480_P1-P4_ESCP_Pln.dwg

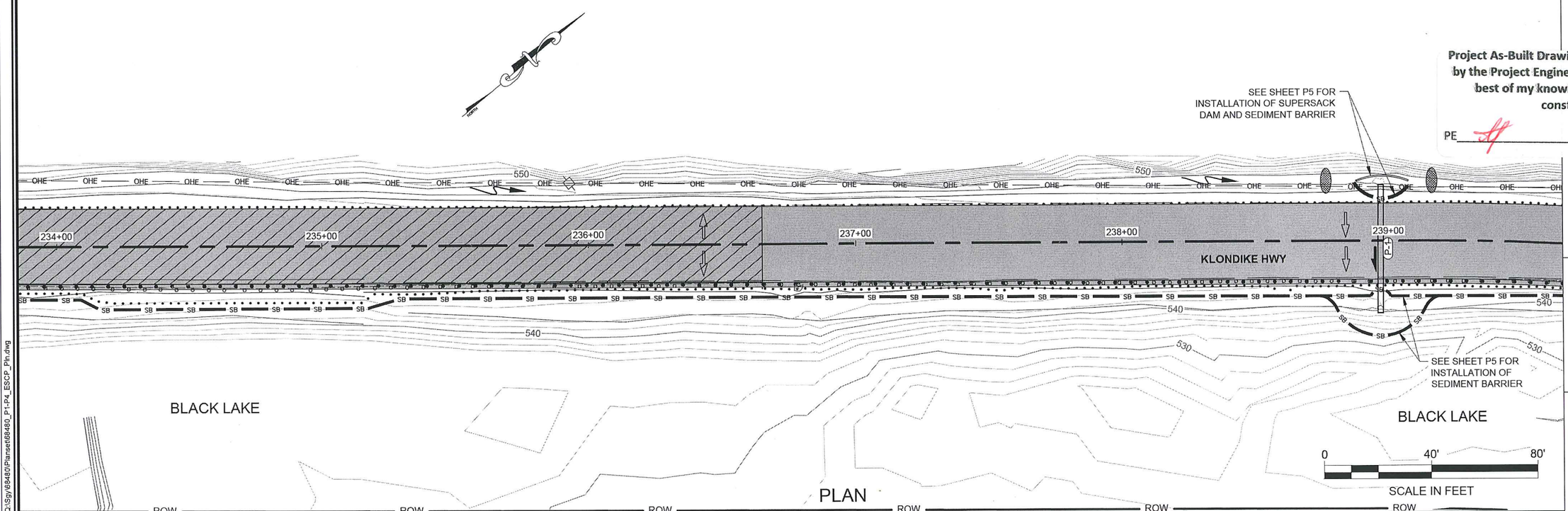


ESCP LEGEND

- SB — SEDIMENT BARRIER
- CULVERT FLOW DIRECTION
- SURFACE FLOW DIRECTION
- DITCH OR STREAM FLOW DIRECTION
- CHECK DAM
- INVASIVE SPECIES
- SUPERSACK DAM

SHEET NO.	TOTAL SHEETS
P1	6
STATE	YEAR
ALASKA	2015
PROJECT DESIGNATION	
Z684800000~0972017	

NO.	DATE	REVISION



Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

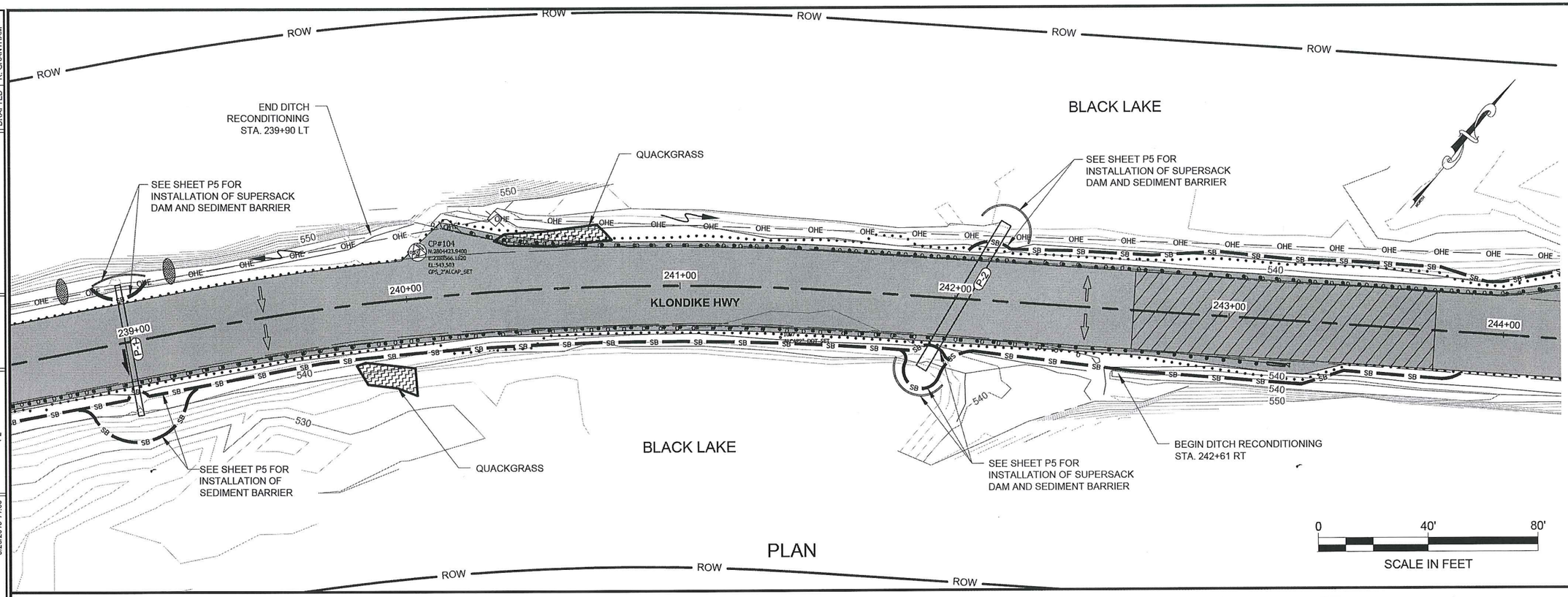
PE _____ Date 3-27-17

ESCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1120.7.3 DATED NOVEMBER 15, 2013

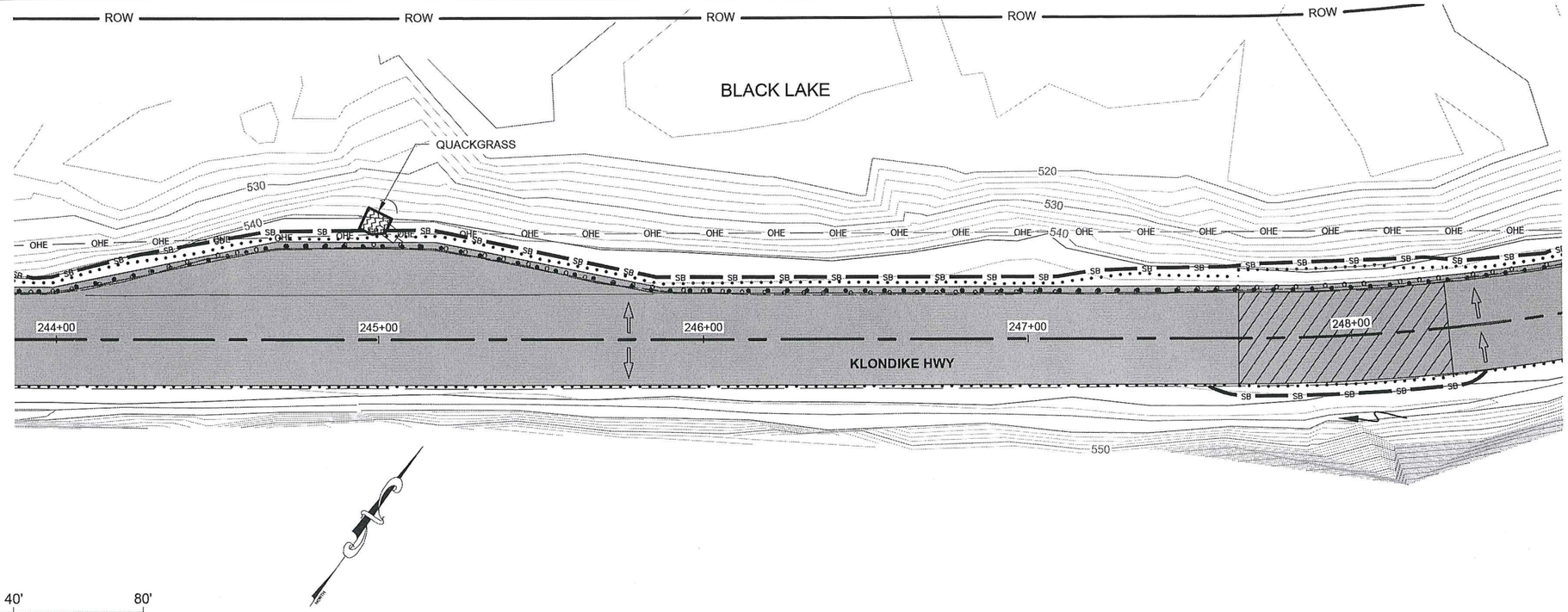
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SGY: KLONDIKE HWY REPAIRS

EROSION & SEDIMENT CONTROL PLAN



PLAN



PLAN

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

ESCP NOT SEALED
IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL
SECTION 1120.7.3
DATED NOVEMBER 15, 2013

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SGY: KLONDIKE HWY REPAIRS

EROSION & SEDIMENT CONTROL PLAN

SHEET NO.	TOTAL SHEETS
P2	6
STATE	YEAR
ALASKA	2015
PROJECT DESIGNATION	
Z684800000~0972017	

REVISION

NO.	DATE

DESIGNED C. IVANISZEK
CHECKED J. BROWN
DRAFTED R. GRANTHAM

XREFS

SCALE

LAYOUT P2

DATE TIME 8/25/2015 11:55

DRAWING LOCATION Q:\Sgy\68480\Planset\68480_P1-P4_ESCP_Pln.dwg

DESIGNED C. IVANISZEK
CHECKED T. BROWN
DRAFTED R. GRANTHAM

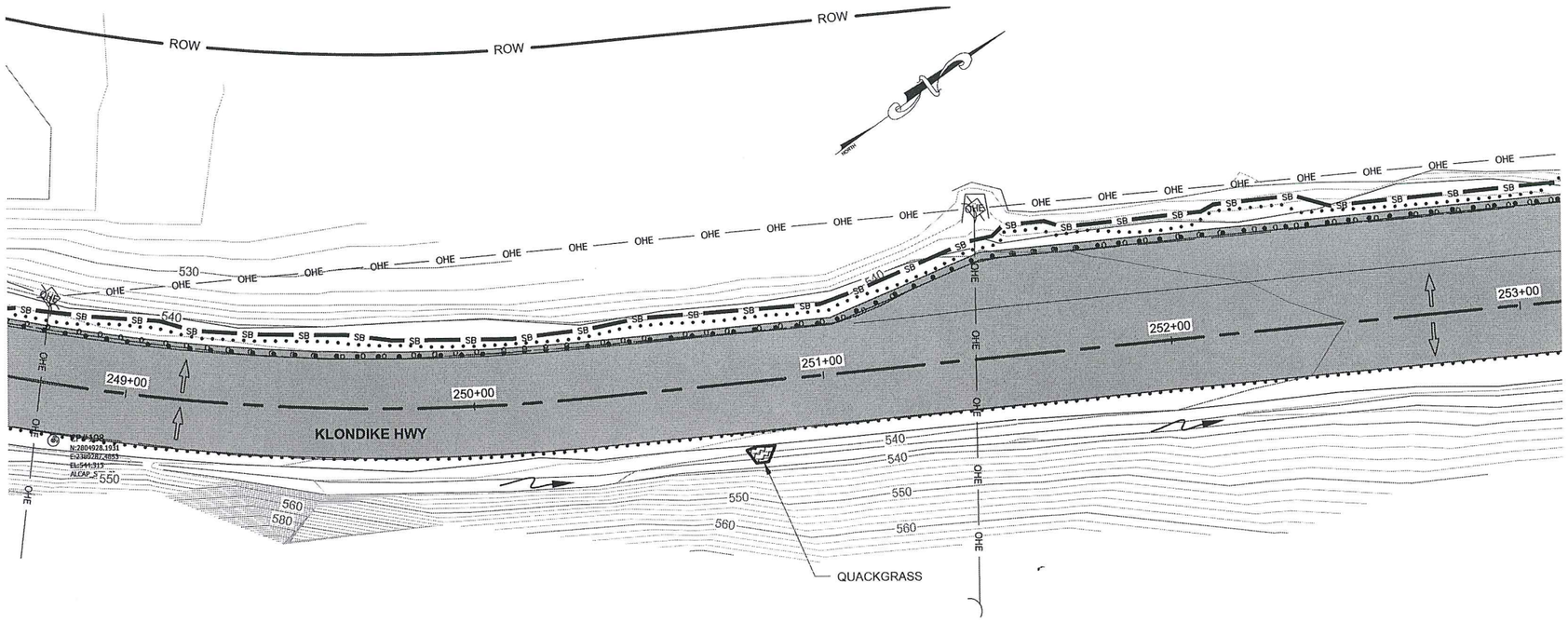
XREFS

SCALE

LAYOUT P3

DATE TIME 8/25/2015 11:55

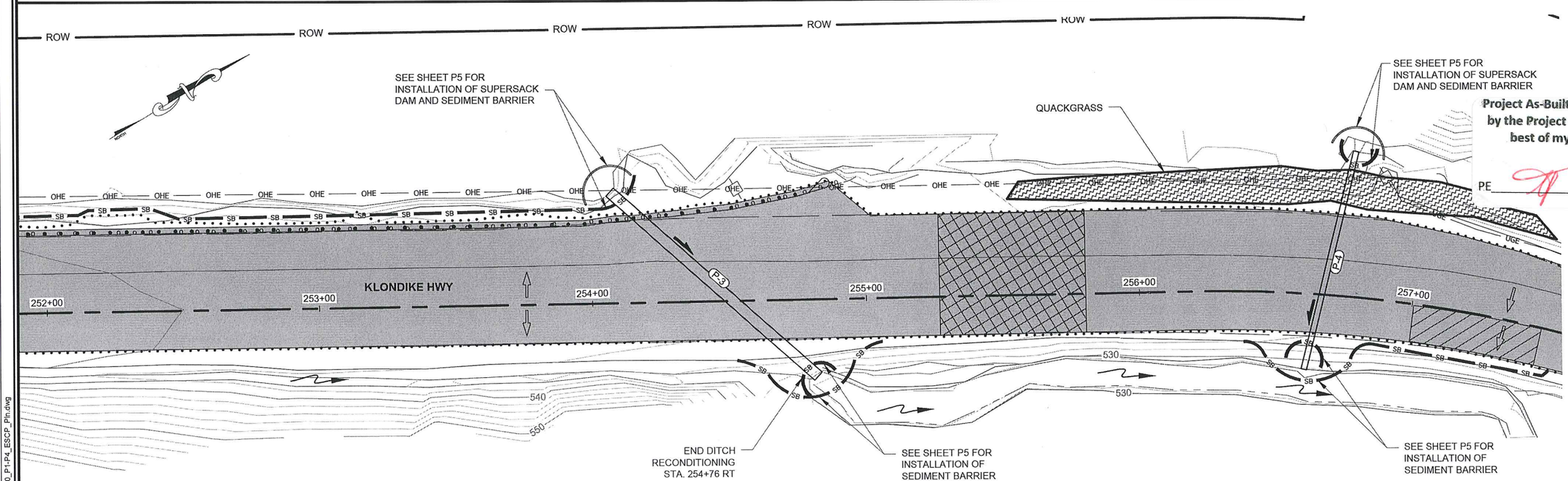
DRAWING LOCATION Q:\Sgy\68480\Planset\68480_P1-P4_ESCP_Pln.dwg



0 40' 80'

SCALE IN FEET

PLAN



0 40' 80'

SCALE IN FEET

PLAN

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

SHEET NO.	TOTAL SHEETS
P3	6
STATE	YEAR
ALASKA	2015
PROJECT DESIGNATION	
Z684800000~0972017	

NO.	DATE	REVISION

ESCP NOT SEALED
IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL
SECTION 1120.7.3
DATED NOVEMBER 15, 2013

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SGY: KLONDIKE HWY REPAIRS

EROSION & SEDIMENT CONTROL PLAN

DESIGNED C. IVANISZEK
DETAILED R. BROWN
DRAFTED R. GRANTHAM

XREFS

SCALE

LAYOUT P4

DATE TIME 8/25/2015 11:55

DRAWING LOCATION
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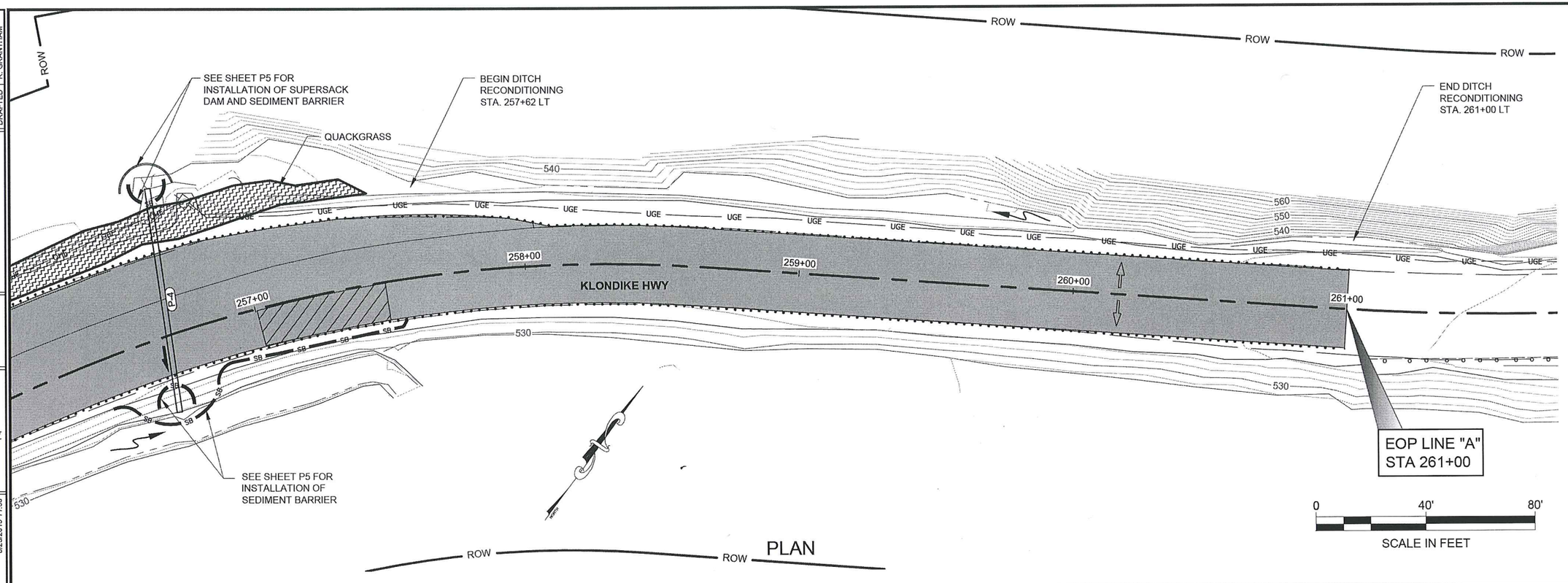


PLAN

SHEET NO.	TOTAL SHEETS
P4	6
STATE	YEAR
ALASKA	2015
PROJECT DESIGNATION	
Z684800000~0972017	

REVISION

NO.	DATE

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

ESCP NOT SEALED
IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL
SECTION 1120.7.3
DATED NOVEMBER 15, 2013

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SGY: KLONDIKE HWY REPAIRS

EROSION & SEDIMENT CONTROL PLAN

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	P5	6

DESIGNED C. IVANISZEK
CHECKED D. EPSTEIN
DRAFTED R. GRAITHAM

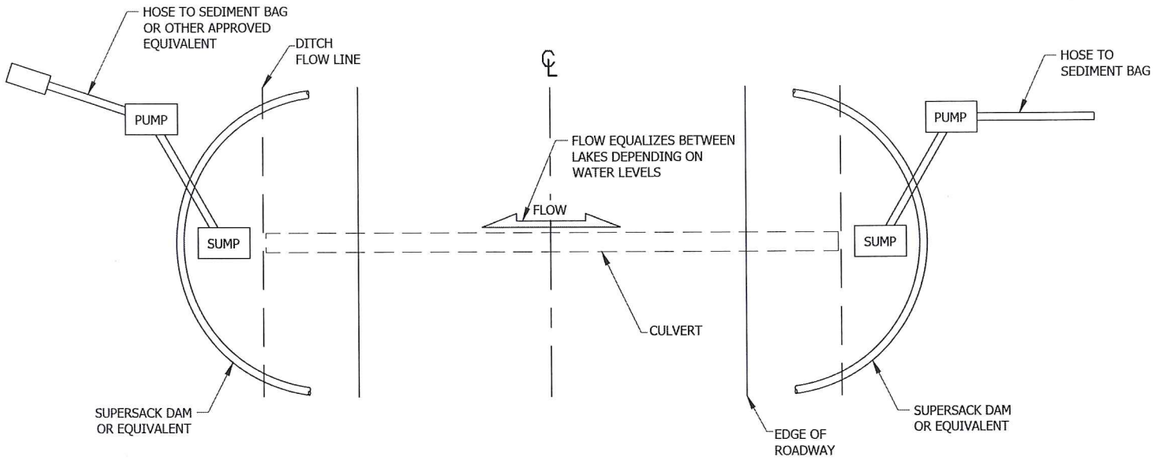
XREFS

SCALE

LAYOUT P5

DATE TIME 8/25/2015 11:56

DRAWING LOCATION Q:\Sgy\68480\Planset\68480_P5-P6_ESCP_Det.dwg



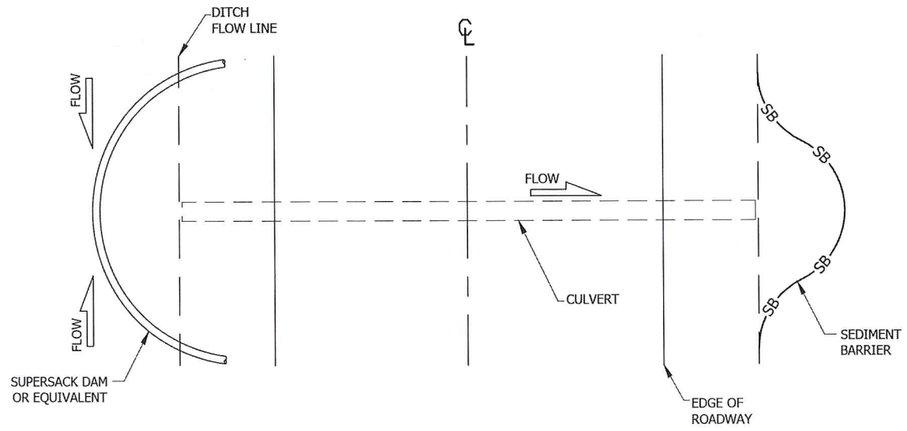
NOTE: DEWATER AND DISCHARGE MUST MEET WATER QUALITY STANDARDS.

SUPERSACK DAM PLACEMENT AT P-2

NTS

SEDIMENT BAG NOTES:

1. THE SEDIMENT BAG IS INTENDED TO CONTROL SEDIMENT DISCHARGE IN DEWATERING APPLICATIONS WHERE WATER IS BEING PUMPED.
2. REPLACE THE UNIT WHEN ½ FULL OF SEDIMENT OR WHEN SEDIMENT HAS REDUCED THE FLOW RATE TO AN IMPRACTICAL RATE.

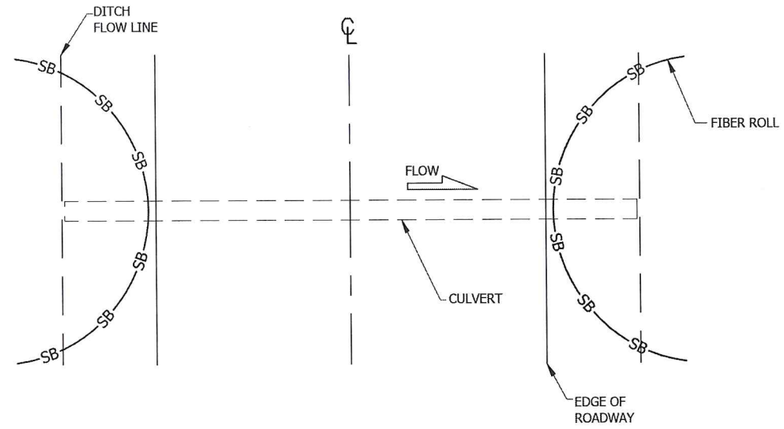


CULVERT REPLACEMENT DEWATERING AND BMP INSTALLATION

NTS

NOTES:

1. DIVERT OR DEWATER DRAINAGE FROM CULVERT INLET AS NECESSARY TO CONDUCT CULVERT REPLACEMENT ACTIVITIES.
2. ONCE FLOW HAS BEEN DIVERTED, INSTALL DOWN SLOPE SEDIMENT CONTROL TO MINIMIZE SEDIMENT DISCHARGE.
3. ONCE NEW CULVERT IS INSTALLED, REMOVE DOWN SLOPE SEDIMENT CONTROL BMP's PRIOR TO REMOVING WATER DIVERSION/DEWATERING PUMP.



FIBER ROLL PLACEMENT AFTER CULVERT INSTALLATION

NTS

GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF DOWNSLOPE PERIMETER CONTROL DURING CULVERT REPLACEMENT ACTIVITIES. PREPARE A WORK PLAN AND SUBMIT TO THE ENGINEER IN ACCORDANCE WITH SECTION 204-3.02.
2. REFER TO APPENDIX B OF THE SPECIAL PROVISIONS FOR THE ENVIRONMENTAL COMMITMENTS.
3. THE LOCATIONS OF TEMPORARY EROSION & SEDIMENT POLLUTION CONTROLS ARE RECOMMENDATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE AND IMPLEMENT A WQCP ACCORDING TO SECTION 641 OF THE SPECS.
4. INSTALL EROSION AND SEDIMENT CONTROL DEVICES BEFORE BEGINNING ANY GROUND DISTURBING ACTIVITIES.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

ESCP NOT SEALED
IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL
SECTION 1120.7.3
DATED NOVEMBER 15, 2013

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY REPAIRS

EROSION & SEDIMENT CONTROL DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	P6	6

DESIGNED C. IVANISZEK
DETAILED D. ERSTEIN
DRAFTED R. GRANTHAM

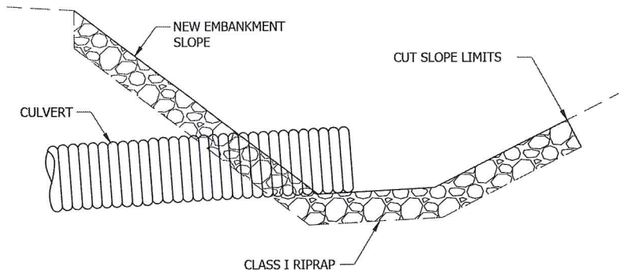
XREFS

SCALE

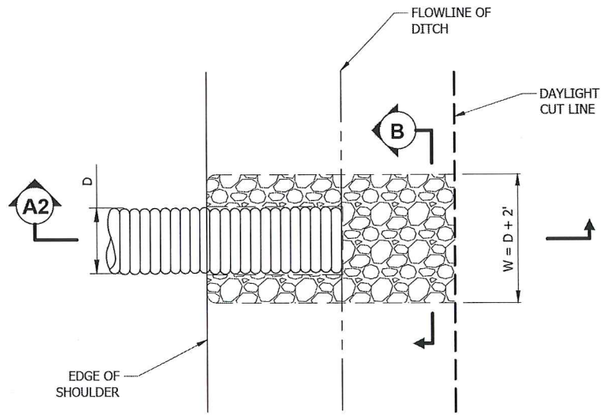
LAYOUT P6

DATE TIME 8/25/2015 11:56

DRAWING LOCATION O:\Sgy\68480\Planset\68480_P5-P6_ESCP_Det.dwg

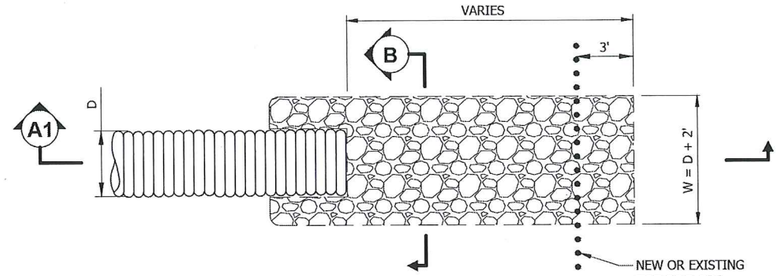


SECTION A2-A2
NTS

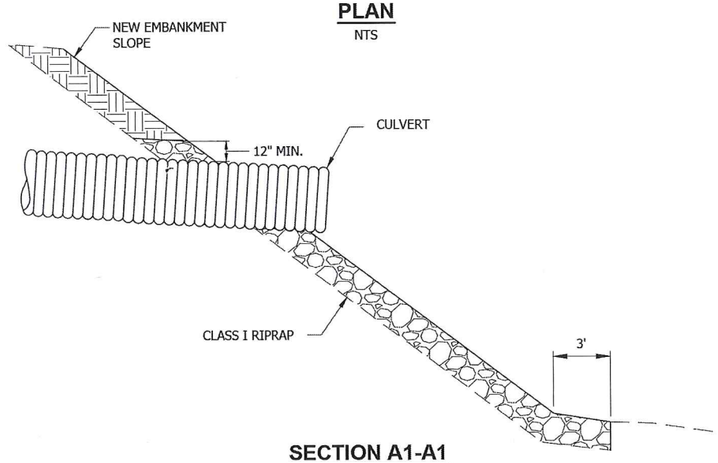


PLAN
NTS

RIPRAP LINED INLET PROTECTION DETAIL
NTS



PLAN
NTS



SECTION A1-A1
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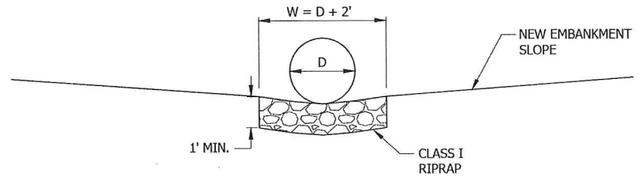


VIEW B-B
NTS

RIPRAP LINED OUTLET PROTECTION DETAIL
NTS

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

PE _____ Date 3-27-17

ESCP NOT SEALED
IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL
SECTION 1120.7.3
DATED NOVEMBER 15, 2013

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY REPAIRS

EROSION & SEDIMENT CONTROL DETAILS

DESIGNED	C. IVANISZEK
CHECKED	D. EPSTEIN
DRAFTED	R. GRANTHAM

XREFS

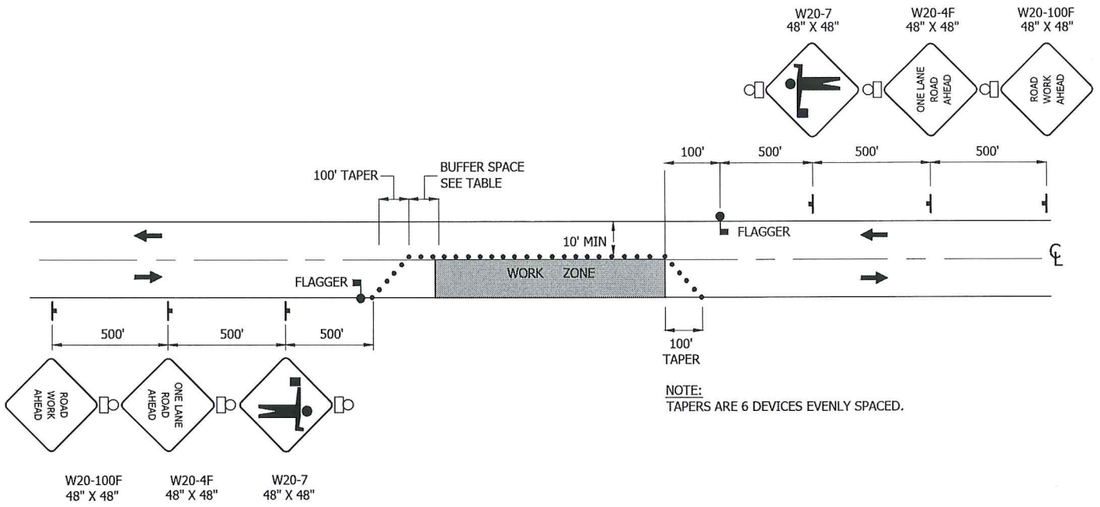
SCALE

LAYOUT T1

DATE TIME 8/25/2015 12:01

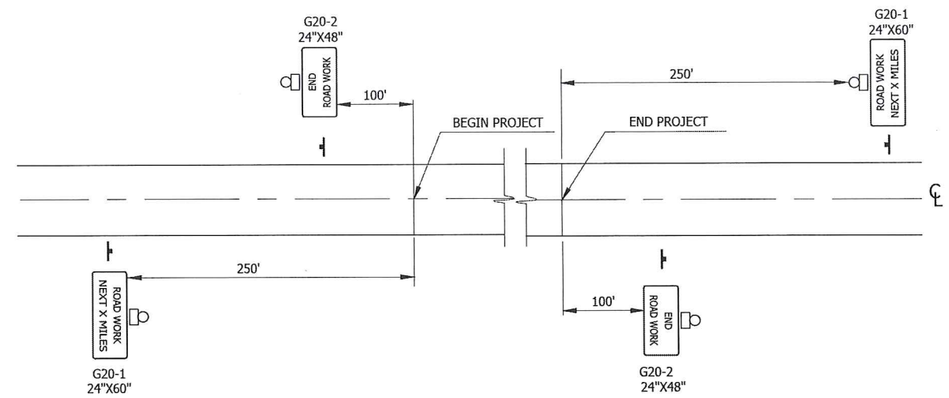
DRAWING LOCATION Q:\Sgy\68480\Planset\68480_T1_Traf.dwg

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	Z684800000~0972017	2015	T1	1



NOTE:
TAPERS ARE 6 DEVICES EVENLY SPACED.

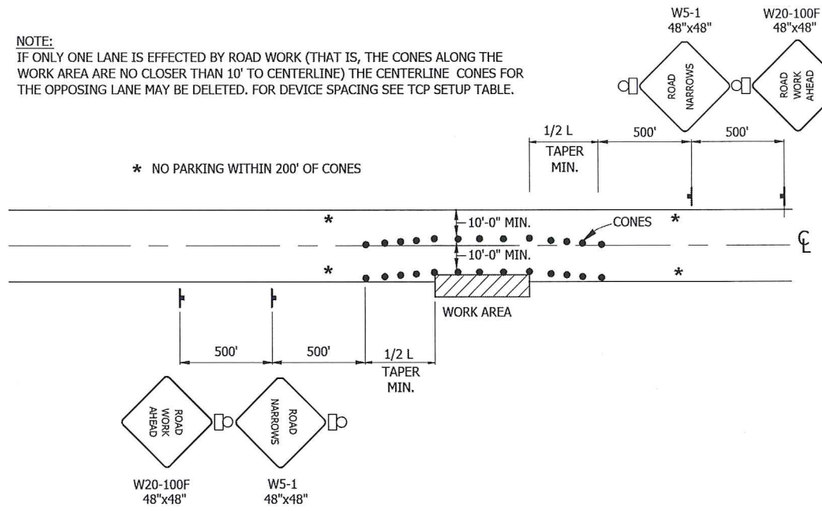
TWO LANE ROADWAY-SINGLE LANE CLOSURE



PERMANENT CONSTRUCTION SIGNING

NOTE: COORDINATE WITH AKDOT&PF PROJECT ENGINEER FOR PORTABLE MESSAGE BOARD.

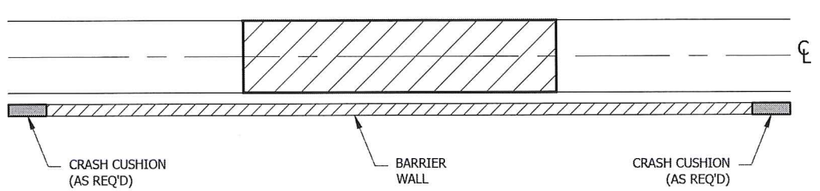
NOTE:
IF ONLY ONE LANE IS EFFECTED BY ROAD WORK (THAT IS, THE CONES ALONG THE WORK AREA ARE NO CLOSER THAN 10' TO CENTERLINE) THE CENTERLINE CONES FOR THE OPPOSING LANE MAY BE DELETED. FOR DEVICE SPACING SEE TCP SETUP TABLE.



ROADWAY ENCROACHMENT

LEGEND

- FLAGGER
- CONSTRUCTION SIGN
- DRUMS
- CONE
- WARNING LIGHT
- CRASH CUSHION
- BARRIER WALL



TEMPORARY BARRIER WALL PHASING PLAN

TRAFFIC CONTROL NOTES:

1. DO NOT RESTRICT TRAFFIC FROM 8:00 AM TO 5:00 PM.
2. ONE LANE OF TRAFFIC WILL REMAIN OPEN FROM 6:30AM TO 8:00 AM AND FROM 5:00 PM TO 11:30 PM.
3. BOTH LANES OF TRAFFIC MAY BE CLOSED TO TRAFFIC FROM 11:30 PM TO 6:30 AM.
4. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'-0".
5. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
6. CHANNELIZATION DEVICES IF USED AT NIGHT SHALL BE LIT IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL.
7. 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. ALL THE TCP's SHALL BE CREATED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
8. 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.

TCP SETUP TABLE

	MIN MERGING TAPER LENGTH (L) IN FEET			MIN NUMBER OF DEVICES WIDTH OF OFFSET (W) IN			MAX DEVICE SPACING IN FEET		BUFFER SPACE
SPEED (MPH)	10'	11'	12'	10'	11'	12'	ALONG TAPER	ALONG TANGENT	(FT)
35	205	225	245	7	8	8	35	70	250
40	270	295	320	8	9	9	40	80	305
45	450	495	540	11	12	13	45	90	360

NOTES:

1. REMOVE EXISTING GUARDRAIL.
2. REPLACE GUARDRAIL WITH BARRIER WALL. PLACE CRASH CUSHIONS AT LOCATIONS THAT HAVE GUARDRAIL END TERMINALS.
3. EXISTING PARALLEL GUARDRAIL TERMINALS ARE LOCATED AT STA. 231+85 RT & STA. 242+54 RT.
4. CONTRACTOR IS TO HAVE ANY SECTIONS OF BARRIER WALL THAT ARE MOVED FOR ADJACENT LANE CONSTRUCTION IN PLACE BY 6:30 am OF THE FOLLOWING WORK DAY.

Project As-Built Drawings have been reviewed by the Project Engineer and represent to the best of my knowledge the project as constructed.

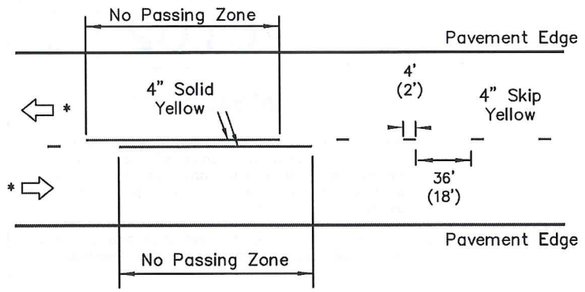
PE _____ Date 3-27-17

TCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1400.3.5 DATED JANUARY 30, 2012.

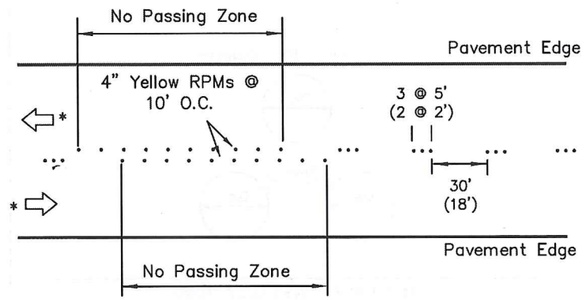
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SGY: KLONDIKE HIGHWAY REPAIRS

TRAFFIC CONTROL



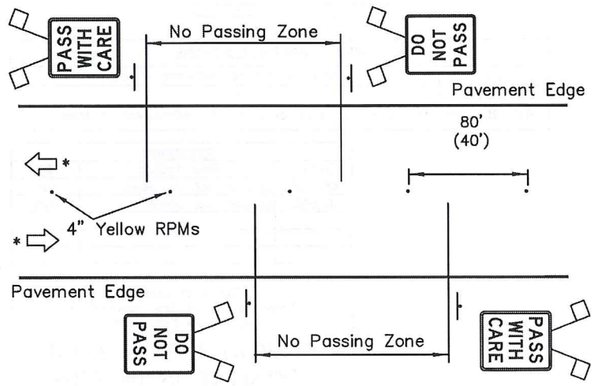
Striping



Temporary Raised Pavement Markers

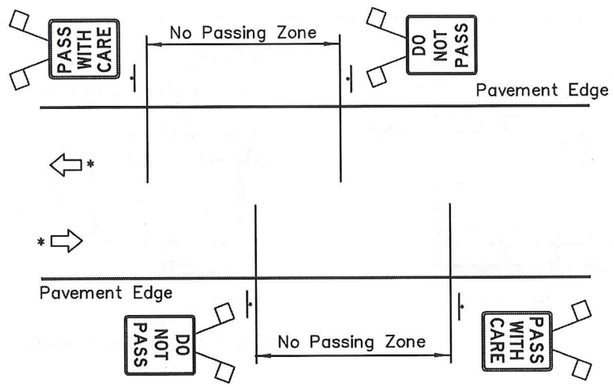
DETAIL A

Two–lane road: No Passing Zones indicated with pavement markings.



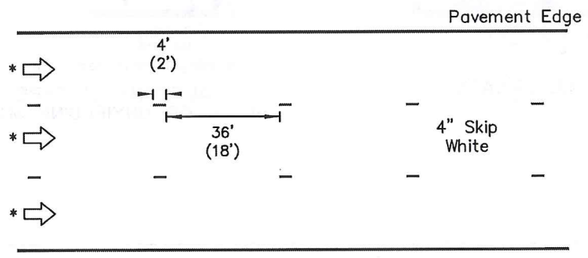
DETAIL B

Two–lane road: No Passing Zones indicated by signs only. Raised pavement markers for centerline delineation.

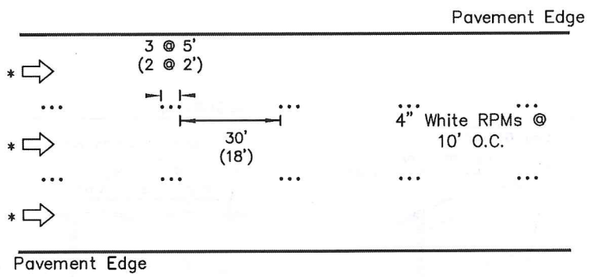


DETAIL C

Two–lane road: No Passing Zones indicated by signs only (see Note 2c). No centerline delineation.



Striping



Temporary Raised Pavement Markers

DETAIL D

Multilane one–way road: Lane dividing lines

* Direction of Travel

GENERAL NOTES:

1. Final pavement markings conforming to Part 3 of the Alaska Traffic Manual should be installed before paved roads are open to public travel. If that is not practical, install interim pavement markings as shown on this drawing. Maintain interim pavement markings until final pavement markings are installed.

2. No interim pavement markings are required:
   a. on projects that will not have permanent markings when finished.
   b. in work zones that are open to public travel for no more than one work shift during daytime or for no more than one hour at night.
   c. where DO NOT PASS and PASS WITH CARE signs are installed on two lane roads as shown in Detail C, no pavement markings are required:
      1) for 3 days if seasonal ADT is above 2000, or
      2) for 1 month if seasonal ADT is below 2000.

3. Interim pavement markings should not be in place longer than 14 calendar days before being replaced with permanent markings conforming to Part 3 of the Alaska Traffic Manual unless the Engineer provides written approval.

4. Where R4-1 DO NOT PASS signs are used, install at the beginning of no passing zones and at no more than 1500' spacings within no passing zones.

5. Install high level warning devices on all DO NOT PASS and PASS WITH CARE signs.

6. Offset temporary markings 8"-12" from the future location of permanent markings if applied on the same lift of pavement.

7. Dimensions in parenthesis apply to curves with a radius of 1000 feet or less or where posted speed limit is 30 mph or less.

REVISIONS		
Date	Description	By
4/28/10	RPM spacing, signs	KJS

Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities

INTERIM PAVEMENT MARKINGS

APPROVED
Kurt J. Smith CE-7347 4/28/10 Professional Engineer
Date 5/31/12

C-05.20

D-04.21

Minimum & Maximum Cover For 2 2/3" x 1/2" Aluminum Pipe

GAGE	0.060"		0.075"		0.105"		0.135"		0.164"	
Dia. (in)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)
12	12	100+	12	100+	12	100+	12	100+	12	100+
15	12	94	12	100+	12	100+	12	100+	12	100+
18	12	75	12	94	12	100+	12	100+	12	100+
21	12	65	12	82	12	100+	12	100+	12	100+
24	12	56	12	71	12	99	12	100+	12	100+
27	12	48	12	63	12	89	12	100+	12	100+
30			12	56	12	79	12	100+	12	100+
36			12	47	12	66	12	85	12	100+
42			12	55	12	56	12	73	12	100+
48			12	47	12	49	12	63	12	78
54					15	43	15	56	15	69
60							15	50	15	62
66							18	44	18	56
72									18	45

Minimum & Maximum Cover For 3" x 1" Aluminum Pipe

GAGE	0.060"		0.075"		0.105"		0.135"		0.164"	
Dia. (in)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)
30	12	52	12	65						
36	12	43	12	54	12	100+	12	100+	12	100+
42	12	36	12	46	12	65	12	100+	12	100+
48	12	32	12	40	12	57	12	73	12	100+
54	15	28	15	35	15	50	12	65	12	100+
60	15	25	15	32	15	45	15	58	15	72
66	18	23	18	28	18	41	18	53	18	65
72	18	21	18	26	18	37	18	48	18	59
78			21	24	21	34	21	44	21	55
84					21	31	21	41	21	57
90					24	29	24	38	21	47
96					24	27	24	36	24	44
102							24	33	24	41
108							24	31	24	39
114									24	37
120									24	35

Minimum & Maximum Cover For 9" x 2 1/2" Aluminum Structural Plate Pipe*

GAGE	0.100"		0.125"		0.150"		0.175"		0.200"		0.225"		0.250"	
Dia. (in)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)	Min. (in)	Max. (Ft)
60	12	29 31	12	38 45	12	49 60	12	58 70	12	58 81	12	58 92	12	58 100+
66	12	26 28	12	35 41	12	44 54	12	53 64	12	53 74	12	53 84	12	53 94
72	13	24 25	12	32 37	12	41 50	12	48 58	12	48 67	12	48 77	12	48 86
78	14	22 23	12	29 35	12	37 46	12	45 54	12	45 62	12	45 71	12	45 79
84	15	20 22	13	27 32	12	35 42	12	41 50	12	41 58	12	41 66	12	41 73
90	16	19 20	14	25 30	13	32 40	12	39 47	12	39 54	12	39 61	12	39 68
96	17	18 19	15	24 28	14	30 37	13	36 44	12	36 50	12	36 57	12	36 64
102	18	17 18	16	22 26	15	29 35	14	34 41	13	34 47	13	34 54	13	34 60
108	19	16 17	17	21 25	16	27 33	14	32 39	14	32 45	14	32 51	14	32 57
114	20	15 16	18	20 23	16	25 31	15	30 37	15	30 42	15	30 48	15	30 54
120	21	14 15	19	19 22	17	24 30	16	29 35	15	29 40	15	29 46	15	29 51
126	22	13 14	20	18 21	18	23 28	17	27 33	16	27 38	16	27 44	16	27 49
132	23	13 14	21	17 20	19	22 27	18	26 32	17	26 37	17	26 42	17	26 47
138	24	12 13	22	16 19	20	21 26	18	25 30	18	25 35	18	25 40	18	25 44
144	25	12 12	22	16 18	21	20 25	19	24 29	18	24 33	18	24 38	18	24 43
150			23	15 18	21	19 24	20	23 28	19	23 32	19	23 36	19	23 41
156			24	14 17	22	18 23	21	22 27	20	22 31	20	22 35	20	22 39
162					23	18 22	21	21 26	21	21 30	21	21 34	21	21 38
168					24	17 21	22	20 25	21	20 29	21	20 33	21	20 36
174					25	17 20	23	20 24	22	20 28	22	20 31	22	20 35
180							24	19 23	23	19 27	23	19 30	23	19 34

*Longitudinal seams use (5 1/3) 3/4" dia. bolts per foot.

58 ← Upper figure for pipe with aluminum bolts.
100+ ← Lower figure for pipe with galvanized steel bolts.
(FOR TABLE ABOVE ONLY.)

GENERAL NOTES:

1. All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
2. The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
3. No more than one type of pipe may be used on any single installation or installation grouping.
4. All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
5. See Standard Drawing "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
6. Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the top of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflecton.
7. These tables have been developed for an H-20 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2000 AASHTO "LRFD Bridge Design Specifications".

CORRUGATED CIRCULAR ALUMINUM PIPE

CORRUGATED ALUMINUM PIPE-ARCH

Minimum & Maximum Cover For 2 2/3" x 1/2" Aluminum Pipe-Arch

Span x Rise (In. x In.)	Corner Radius (In)	Minimum Gage (In)	Min. Cover (In)	Max. Cover (Ft) 2 Tons Corner Bearing Pressure	Max. Cover (Ft) 3 Tons Corner Bearing Pressure @
17 x 13	3	0.060	12	13	20
21 x 15	3	0.060	12	12	19
24 x 18	3	0.060	12	11	16
28 x 20	3	0.075	12	10	16
35 x 24	3	0.075	12	9	14
42 x 29	3 1/2	0.105	12	7	13
49 x 33	4	0.105	15	6	12
57 x 38	5	0.135	15	6	12
64 x 43	6	0.135	18	6	12
71 x 47	7	0.164	18	6	12

Minimum & Maximum Cover For 3" x 1" Aluminum Pipe-Arch

Span x Rise (In. x In.)	Corner Radius (In)	Minimum Gage (In)	Min. Cover (In)	Max. Cover (Ft) 2 Tons Corner Bearing Pressure	Max. Cover (Ft) 3 Tons Corner Bearing Pressure @
40 x 31	5	0.075	30	8	12
46 x 36	6	0.075	24	8	13
53 x 41	7	0.075	24	8	13
60 x 46	8	0.075	24	13	20
66 x 51	9	0.075	18	13	20
73 x 55	12	0.075	18	16	24
81 x 59	14	0.105	18	14	22
87 x 63	14	0.105	18	13	20
95 x 67	16	0.105	18	12	18
103 x 71	16	0.135	24	11	17
112 x 75	18	0.164	24	10	16
117 x 79	18	0.164	24	10	15

Minimum & Maximum Cover For 9" x 2 1/2" Aluminum Structural Plate Pipe-Arch*

Span x Rise (Ft-In x Ft-In)	Corner Radius (In)	Minimum Gage (In)	Min. Cover (Ft)	Max. Cover in Feet For Soil Bearing Capacity of: 2 Tons/ft²	3 Tons/ft²
5 - 11 x 5 - 5	31.8	0.100	2	24**	24**
6 - 11 x 5 - 9	31.8	0.100	2	22**	22**
7 - 3 x 5 - 11	31.8	0.100	2	20**	20**
7 - 9 x 6 - 0	31.8	0.100	2	28**	18 **
8 - 5 x 6 - 3	31.8	0.100	2	17 **	17 **
9 - 3 x 6 - 5	31.8	0.100	2	15 **	15 **
10 - 3 x 6 - 9	31.8	0.100	2	14 **	14 **
10 - 9 x 6 - 10	31.8	0.100	2	13 **	13 **
11 - 5 x 7 - 1	31.8	0.100	2	12 **	12 **
12 - 7 x 7 - 5	31.8	0.125	2	14	16 **
12 - 11 x 7 - 6	31.8	0.150	2	13	14 **
13 - 1 x 8 - 2	31.8	0.150	2	13	18 **
13 - 11 x 8 - 5	31.8	0.150	2	12	17 **
14 - 8 x 9 - 8	31.8	0.175	2	12	18
15 - 4 x 10 - 0	31.8	0.175	2	11	17
16 - 1 x 10 - 4	31.8	0.200	2	10	16
16 - 9 x 10 - 8	31.8	0.200	2.17	10	15
17 - 3 x 11 - 0	31.8	0.225	2.25	10	15
18 - 0 x 11 - 4	31.8	0.255	2.25	9	14
18 - 8 x 11 - 8	31.8	0.250	2.33	9	14

*Longitudinal seams use (5 1/3) 3/4" dia. bolts per foot.

**Fill limited by the seam strength of the bolts. 3/4" dia. bolts per foot.

METAL THICKNESSES & GAGES

ALUMINUM	GAGE NO. (For Info Only)
0.060	16
0.075	14
0.105	12
0.135	10
0.164	8

@ This column shall not be used unless specified on the plans or approved by the Regional Geotechnical Engineer.

REVISIONS		
Date	Description	By
8/10/00	Pipe Tables & G. Notes.	DFD
10/31/03	Pipe Table Updates &	LRG
	New Sheet 4	

Sheet 1 of 4

State of Alaska
Department of Transportation
& Public Facilities

PIPE AND ARCH TABLES

APPROVED
STATE OF ALASKA 49TH
Lars R. Gregovich
CE-8065
Date 10/31/03

D-04.21

Maximum Cover for Type S Corrugated Polyethelene Pipe	
Size (in.)	Max. Cover (ft.)
12	30.0
15	30.0
18	30.0
24	30.0
30	30.0
36	30.0
40	20.0
48	20.0

GENERAL NOTES

1. All materials and workmanship shall be in accordance with the State of Alaska Standard Specifications for Highway Construction.

2. For foundation and structural backfill details see Standard Drawing "Culvert Pipe & Arch Installation Details".

3. Pipe cover height is measured from top of the pipe to top of rigid pavement, or to the top of subgrade for flexible pavement. In all cases the minimum cover shall be no less than 2 ft. Where loads traverse the culvert during construction minimum cover shall be no less than 4 ft.

REVISIONS		
Date	Description	By
10/31/03	New Sheet 4.	LRG

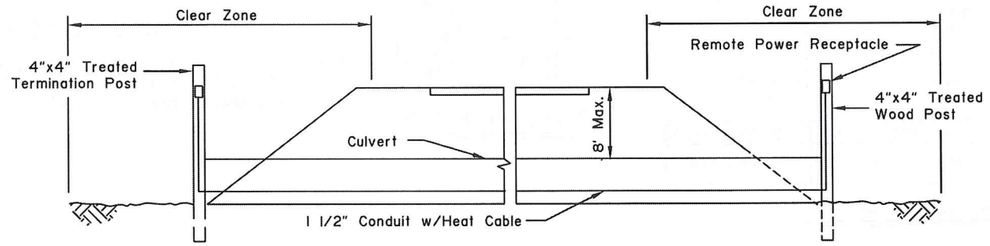
State of Alaska
Department of Transportation
& Public Facilities

PIPE AND ARCH TABLES

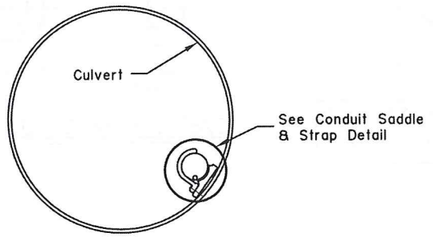
APPROVED
Lars R. Gregovich
CE-8065
Date 10/31/03

D-14.10

SHEET 1 of 1



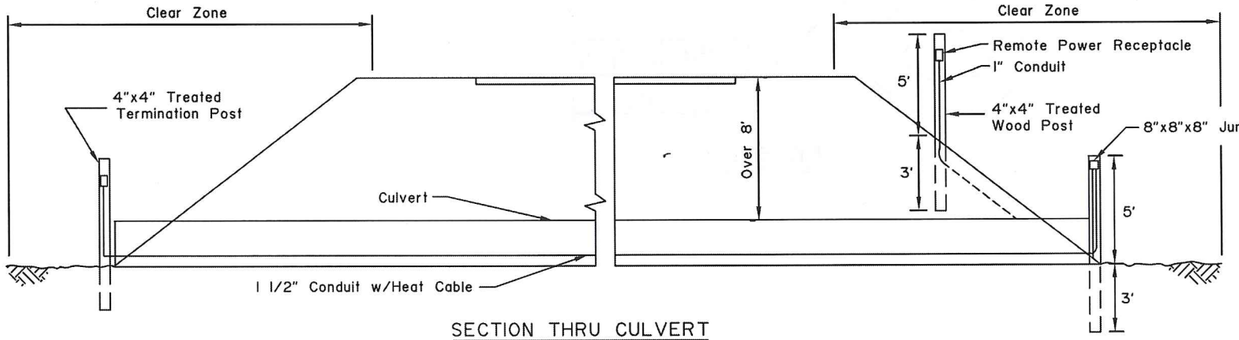
SECTION THRU CULVERT
(Low Fill)



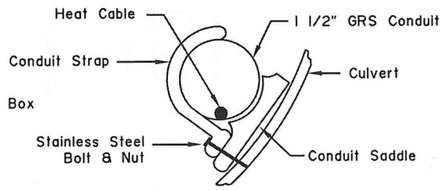
CULVERT CROSS SECTION

GENERAL NOTES:

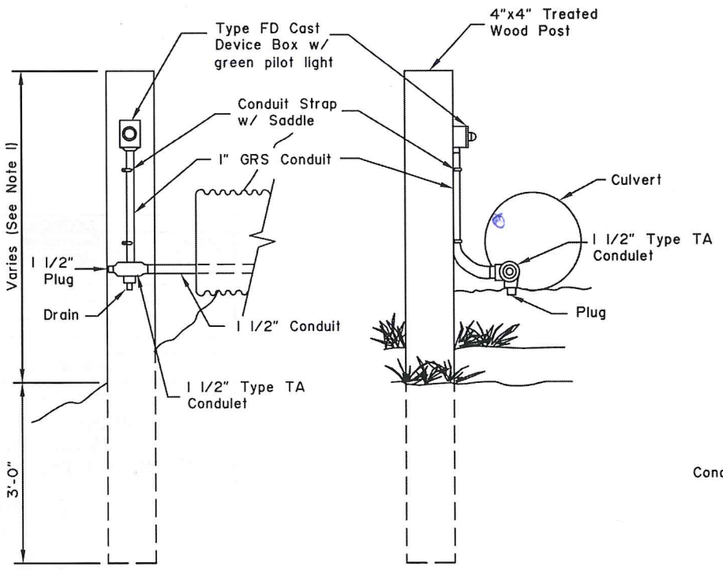
1. Type FD Cast Device Box w/green pilot light on the termination post shall be located a minimum of 6" above high water.



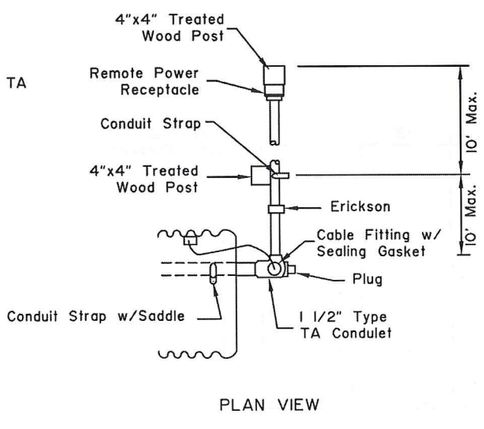
SECTION THRU CULVERT
(High Fill)

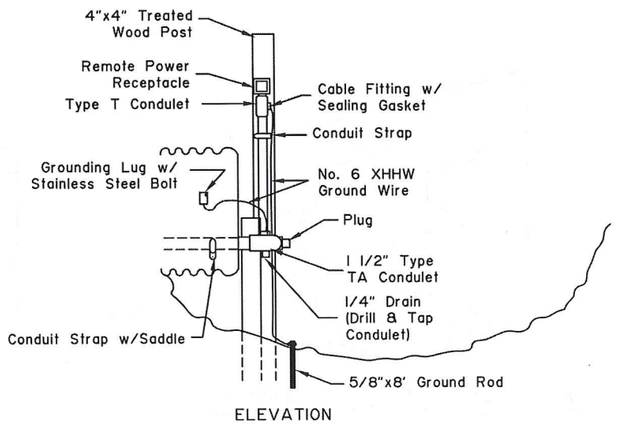


CONDUIT SADDLE & STRAP DETAIL



TERMINATION POST DETAIL





REMOTE CULVERT ENTRY DETAIL

REVISIONS		
Date	Description	By
3/1/83	Revised Gen. Notes	WJF/HK
4/1/93	Modified Drawing	Gdo

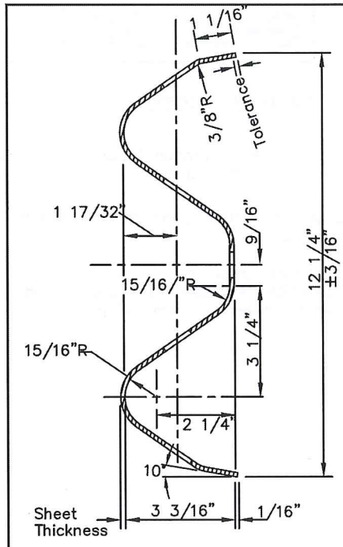
State of Alaska
Department of Transportation & Public Facilities

REMOTE THAW WIRE INSTALLATION

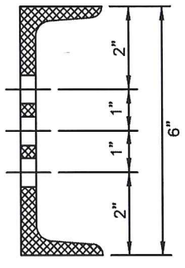
APPROVED

Date 7/15/82

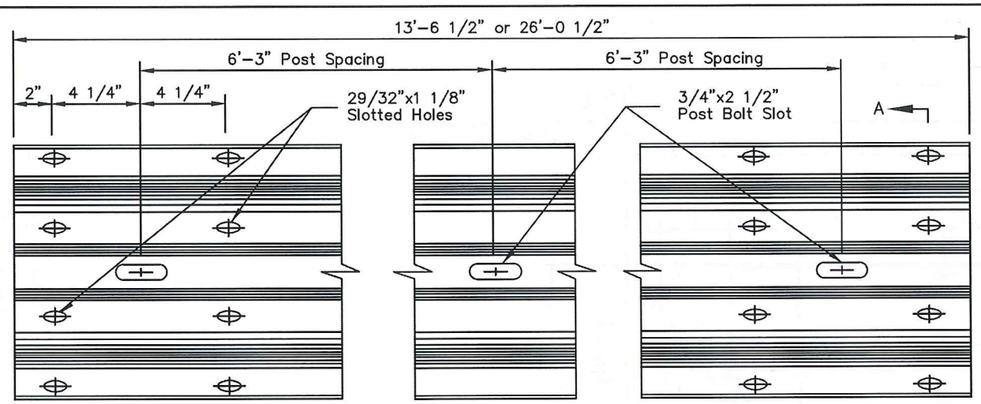
D-14.10



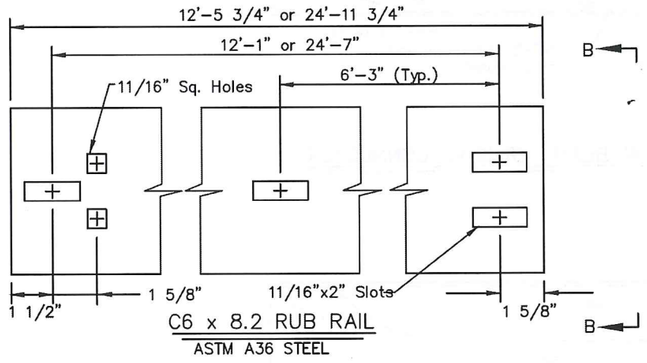
SECTION A–A



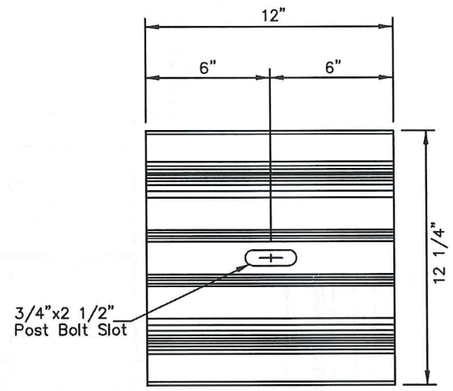
SECTION B–B



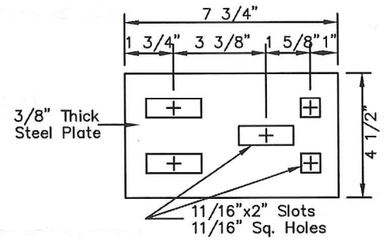
STANDARD W–BEAM PANEL



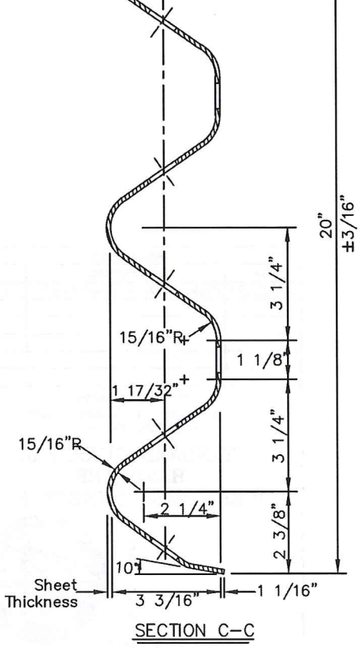
C6 x 8.2 RUB RAIL
ASTM A36 STEEL



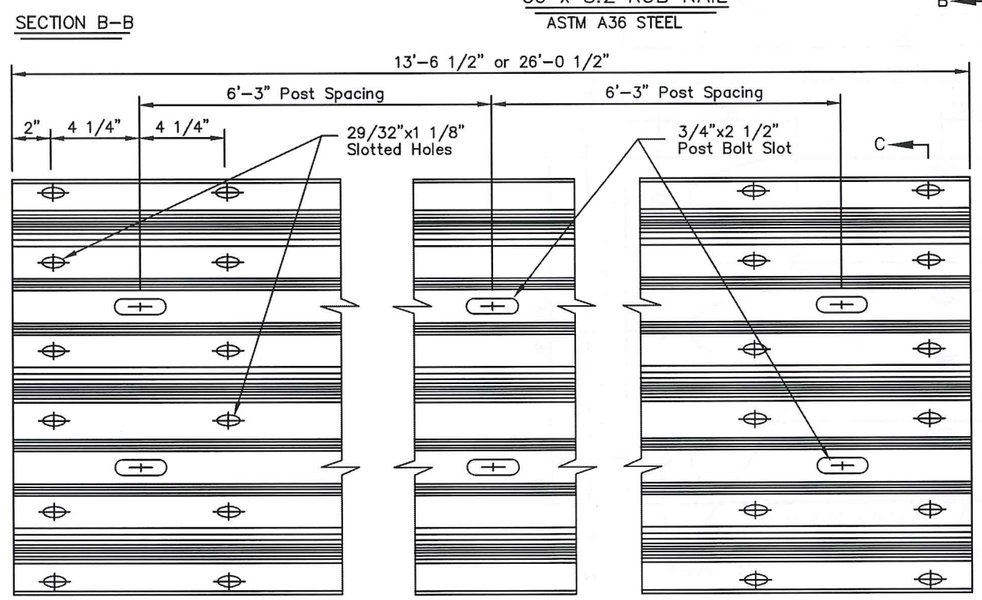
W–BEAM BACKUP PLATE



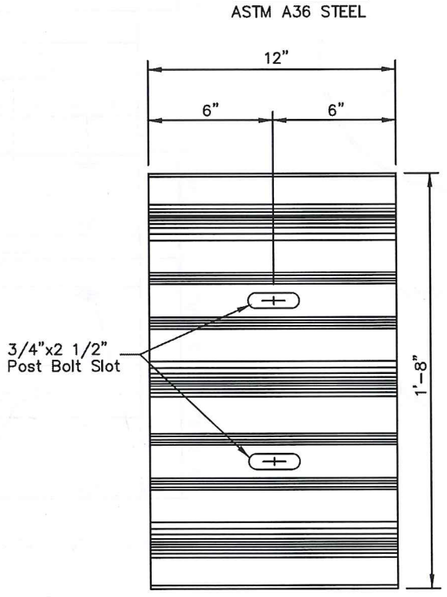
SPLICE PLATE
ASTM A36 STEEL



SECTION C–C



STANDARD THRIE BEAM PANEL



THRIE BEAM BACKUP PLATE

GENERAL NOTES:

1. Provide hardware compliant with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware, latest edition.
2. Install back–up plates between blockouts and w–beam or thrie–beam rail at intermediate (non–splice) posts when steel blockouts are used but not with wood, rubber, plastic, or other approved blockouts.
3. Provide Thrie beam and W–beam compliant with AASHTO M180A. Use 12 gauge (0.105") thick steel for both.

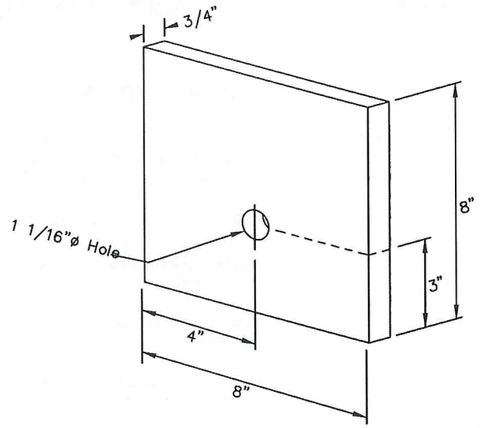
REVISIONS		
Date	Description	By
4/28/10	Revise General Notes	KJS

State of Alaska
Department of Transportation
& Public Facilities

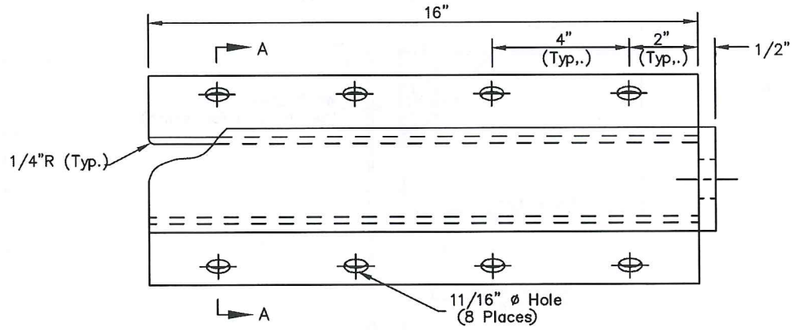
STANDARD GUARDRAIL HARDWARE (RAILS AND SPLICES)

APPROVED
Date 5/31/12

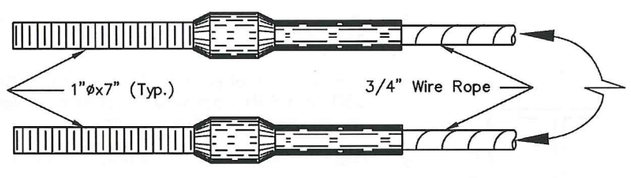
G–00.02



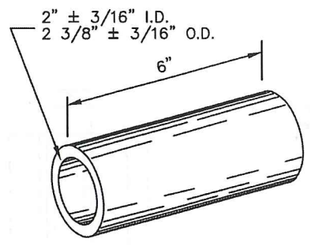
BEARING PLATE for CRT TERMINAL ANCHOR



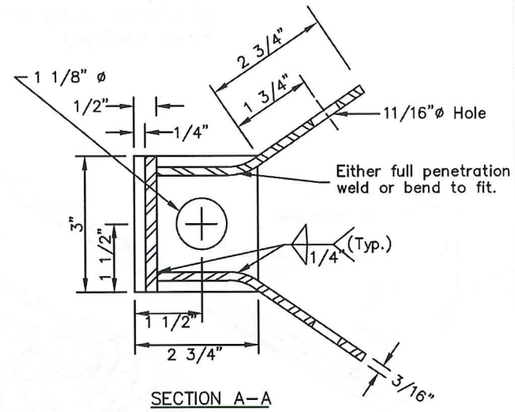
CABLE ANCHOR PLATE



SWAGED FITTING DETAIL



SLEEVE DETAIL

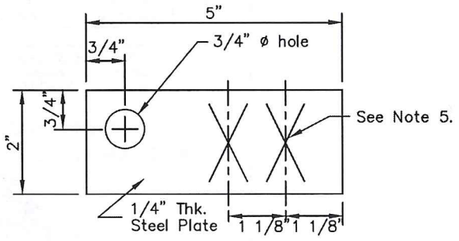


SECTION A–A

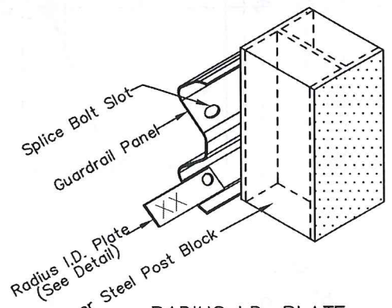
CONTROLLED RELEASE TERMINAL HARDWARE DETAILS

GENERAL NOTES:

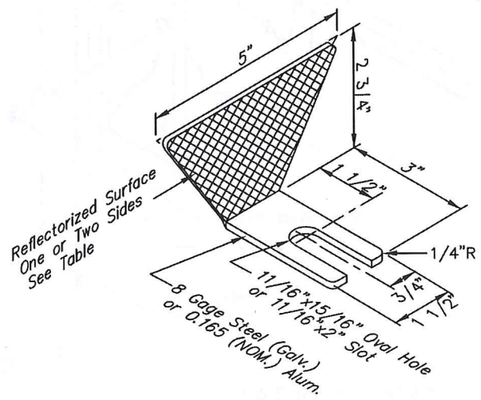
1. Cable Anchor Plate may be formed in single unit or welded fabrication.
2. Anchor Cable Assembly shall conform to AASHTO M–30 with Type II Wire Rope.
3. Sleeve for Wood Posts shall conform to the requirements of ASTM A120 and shall be of 2–inch galvanized standard pipe. Sleeve shall be a tight, pressed fit in post.
4. Bolts, nuts and washers shall conform to ASTM A–325 and galvanized in accordance with ASTM A–153.
5. Radius ID plates shall be attached to all shop–bent guardrail sections. They shall be bolted to the back side of the guardrail panel with the lower splice bolt nearest the P.C. of the radius.
6. Rail bend radius in feet shall be shown as "XX" on the radius ID plate. Digits shall be etched or stamped and have a min. height of 1 1/2" and a max. width of 3/4". The plate shall be galvanized after digits are marked.
7. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition.



RADIUS I.D. PLATE



RADIUS I.D. PLATE MOUNTING DETAIL



GUARDRAIL REFLECTOR

Type	Guardrail Reflectors Color	Reflectorized
A	White	Front & Rear
B	White	Front
C	Yellow	Front
D	Yellow	Front & Rear

REVISIONS		
Date	Description	By
3/15/99	Delete BCT Hardware	KJS

State of Alaska
Department of Transportation & Public Facilities

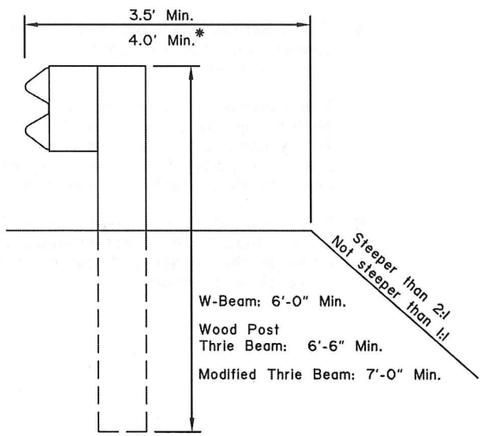
STANDARD GUARDRAIL HARDWARE (MISCELLANEOUS)

APPROVED
Date 5/31/12

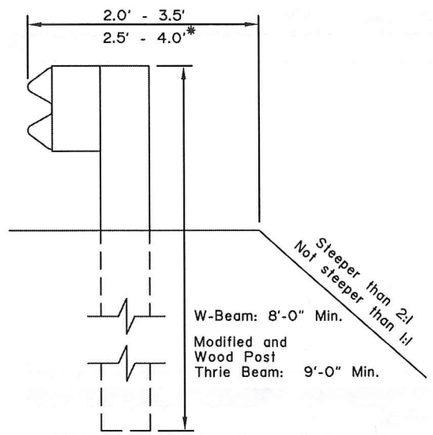
G–00.02

GENERAL NOTES:

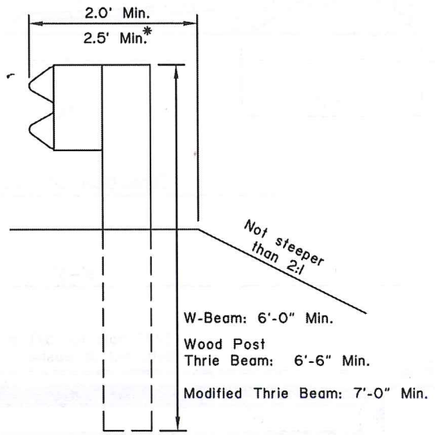
1. This drawing is to be used for post length determination only. See the plans for slopes and behind-post embankment widths.
2. To determine post length, identify the case that matches site conditions and read the length corresponding to the pertinent guardrail type.
3. These dimensions apply to both curbed and uncurbed sections.



CASE 1



CASE 2



CASE 3

* with Modified Thrie Beam'

REVISIONS		
Date	Description	By
12/2/99	Delete Case 4,5, and 6	KJS

State of Alaska
Department of Transportation
& Public Facilities

BEAM GUARDRAIL POST INSTALLATION

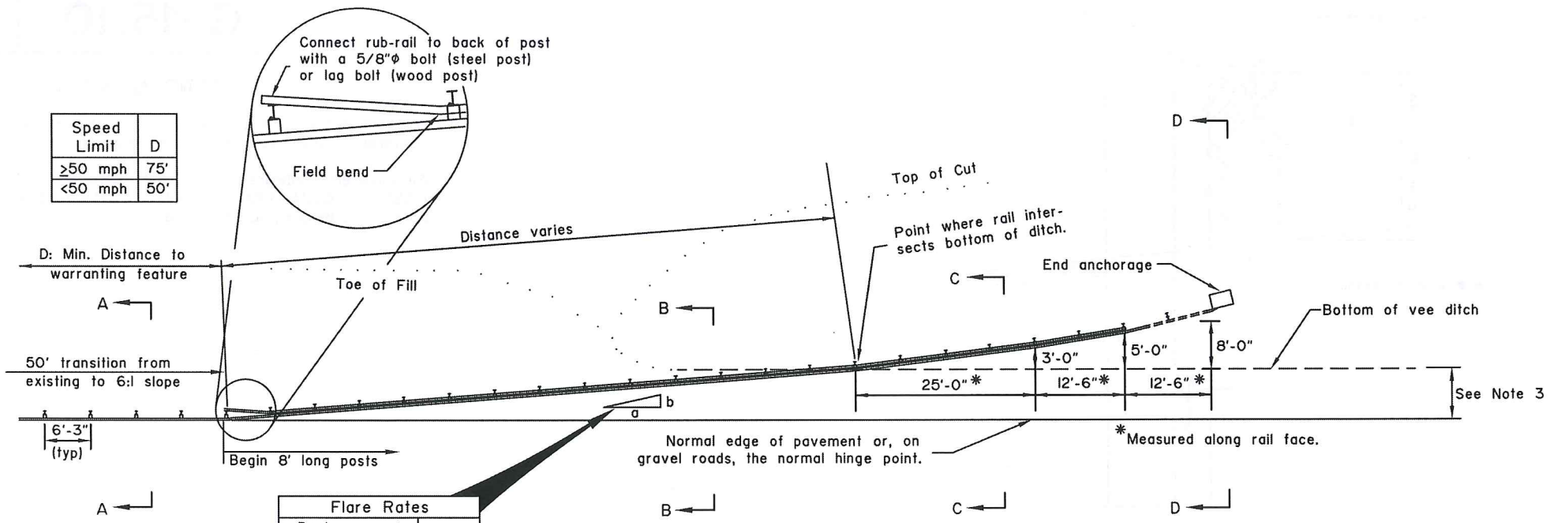
APPROVED

Date 3/15/99

G-10.01

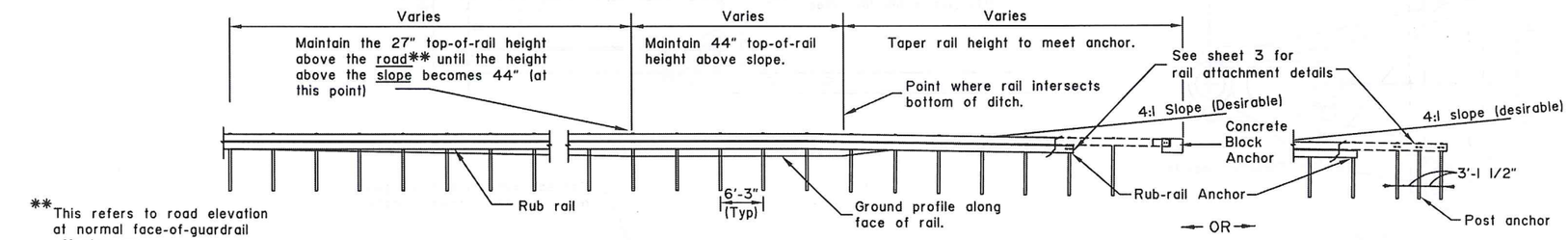
G-15.10

Speed Limit	D
≥50 mph	75'
<50 mph	50'



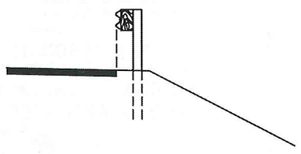
Flare Rates	
Design speed mph	a:b
≥ 60	13:1
55	12:1
50	11:1
45	10:1
40	9:1
35 or less	7:1

Plan View

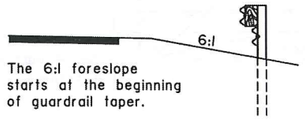


**This refers to road elevation at normal face-of-guardrail offset.

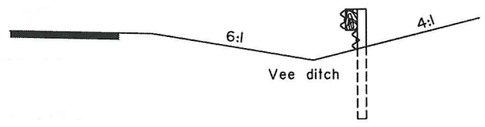
Elevation View (Profile Along Rail)



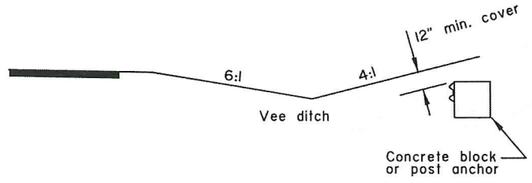
Section A-A



Section B-B
(With Rub-rail)



Section C-C
(With Rub-rail)



Section D-D

GENERAL NOTES:

1. This terminal (exclusive of the anchor) may be constructed using steel or wood posts and may be anchored either with steel posts or with a concrete block.
2. W-beam, block, and post details not shown here shall conform to the applicable G-04 drawing except for post length, which is 8'-0" for all posts except the three that may be used in the optional post anchor. Those shall be 6'-0" long.
3. The offset to the bottom of the ditch varies. However, ditch slopes shall be no steeper than those shown.
4. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition.
5. This terminal has passed NCHRP 350, Test level 3.

REVISIONS		
Date	Description	By

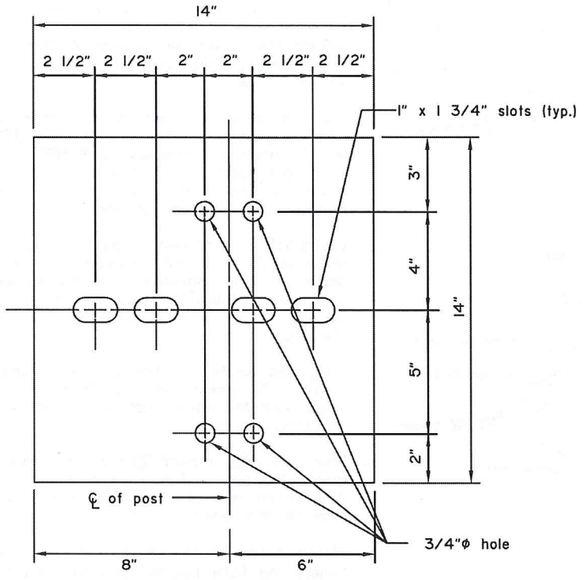
State of Alaska
Department of Transportation
& Public Facilities

BEAM GUARDRAIL BURIED-IN-BACKSLOPE TERMINAL

APPROVED

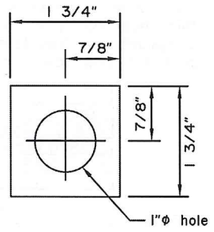
Date 3/15/99

G-15.10



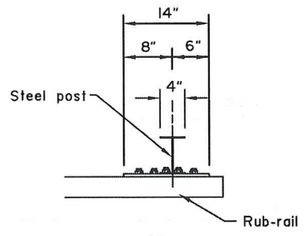
Steel Plate - 1/2"

Galvanized

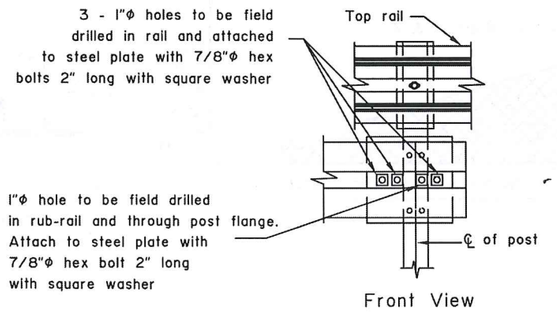


Square Washer

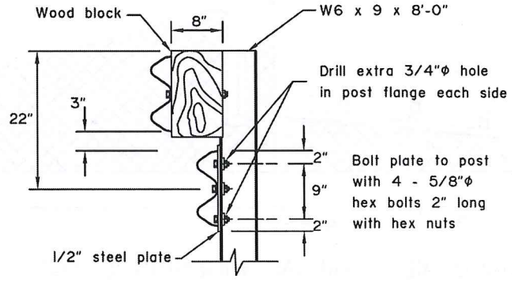
3/16" Thick - Galvanized



Plan
(Top rail not shown)

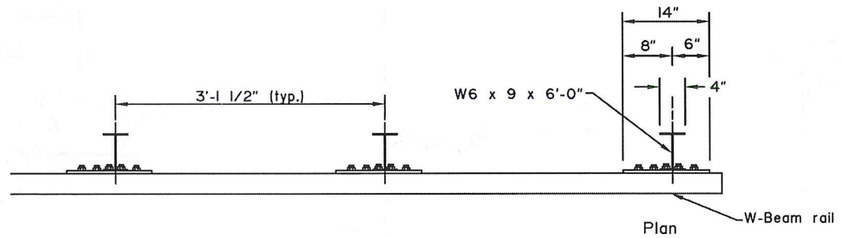


Front View

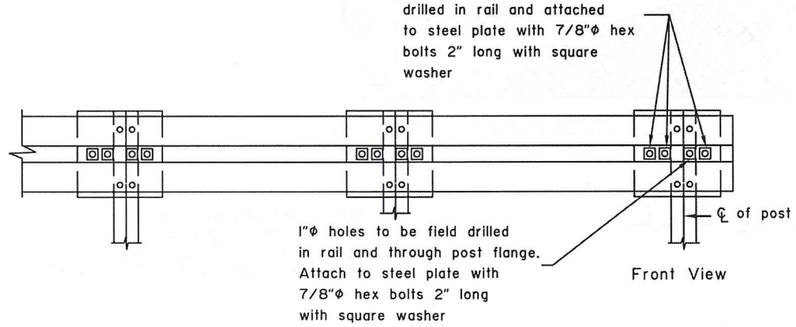


Elevation

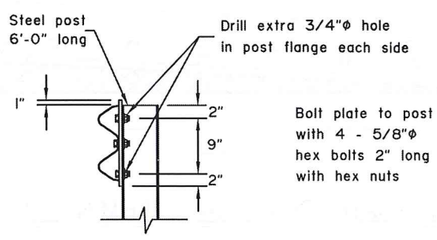
RUB-RAIL ANCHOR



Plan



Front View



Elevation

POST ANCHOR

GENERAL NOTES:

1. W-Beam, block, and post details not shown here shall conform to the applicable G-04 drawing.
2. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide To Standardized Highway Barrier Hardware", latest edition.

REVISIONS		
Date	Description	By

State of Alaska
Department of Transportation
& Public Facilities

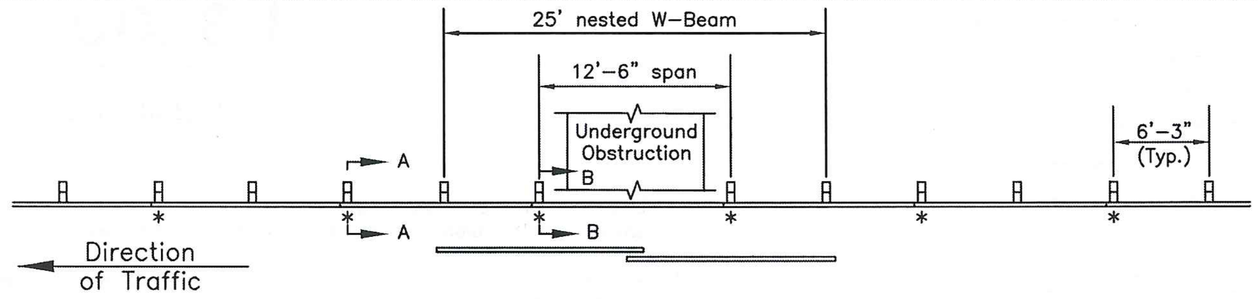
BEAM GUARDRAIL BURIED-IN-BACKSLOPE TERMINAL RUB-RAIL AND POST ANCHORS

APPROVED

Date 3/15/99

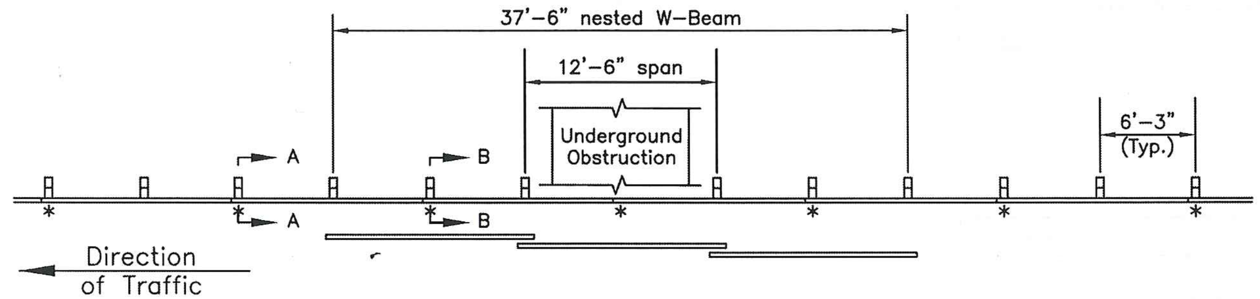
G-15.10

G-28.00



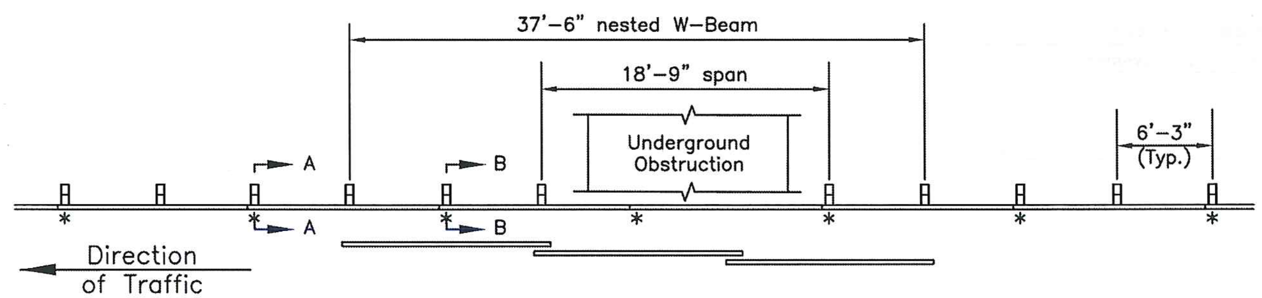
CASE A – ONE POST OMITTED (NESTED RAIL SPLICE AT OMITTED POST)

For obstruction widths up to 10'-6"



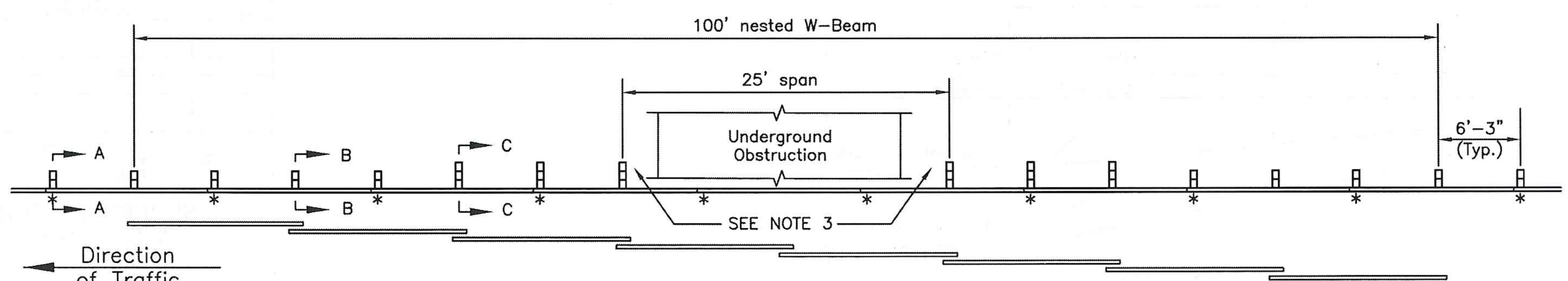
CASE B – ONE POST OMITTED (NESTED RAIL SPANS OMITTED POST)

For obstruction widths up to 10'-6"



CASE C – TWO POSTS OMITTED

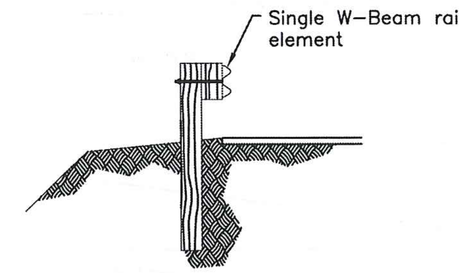
For obstruction widths from 10'-6" to 16'-9"



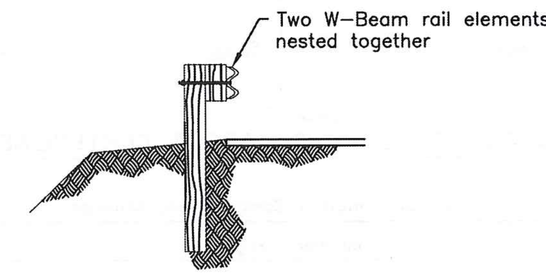
CASE D – THREE POSTS OMITTED

For obstruction widths from 16'-9" to 20'-6"

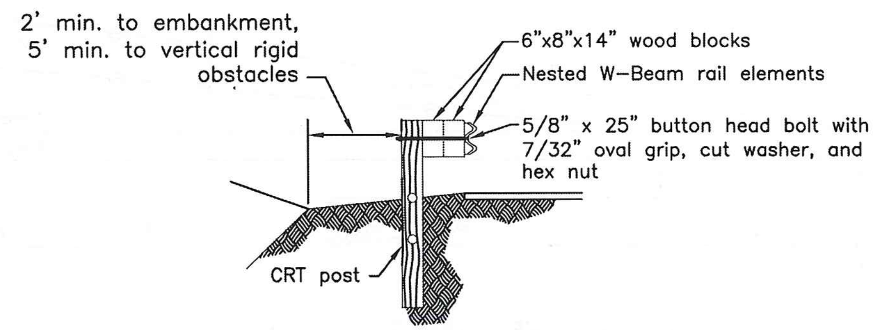
* Designates Splice Location



SECTION A–A



SECTION B–B



SECTION C–C

CROSS SECTIONS

GENERAL NOTES

1. See Standard Drawings G-00, G-04, G-10 for additional details, and G-25 Sheet 1 of 3 for CRT post details.
2. For one-way traffic locations Case D may be modified so that only the posts trailing the span are CRT posts with double blocks.
3. In Case D only, provide 2' minimum clearance between posts and underground obstruction.
4. Standard steel posts with standard wood blocks (or NCHRP 350 compliant synthetic blocks) may be used for all posts except those indicated to be CRT posts.
5. Install nested rail element with leading edge lapped behind primary rail element.
6. Cases A and B were tested under NCHRP 230 guidelines but the FHWA considers them equivalent to an NCHRP 350 Test Level 2 design. Case C has not been tested (as of March, 03) but the FHWA considers it equivalent to an NCHRP 350 Test Level 3 design. Case D is NCHRP 350 Test Level 3 tested and approved.

REVISIONS		
Date	Description	By

Sheet 1 of 1

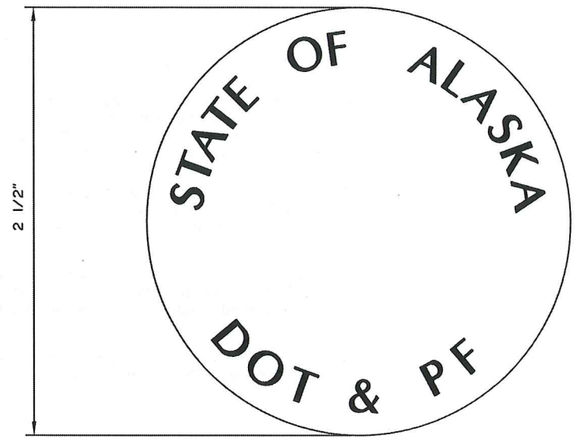
State of Alaska
Department of Transportation
& Public Facilities

LONG SPAN
W BEAM GUARDRAIL

APPROVED

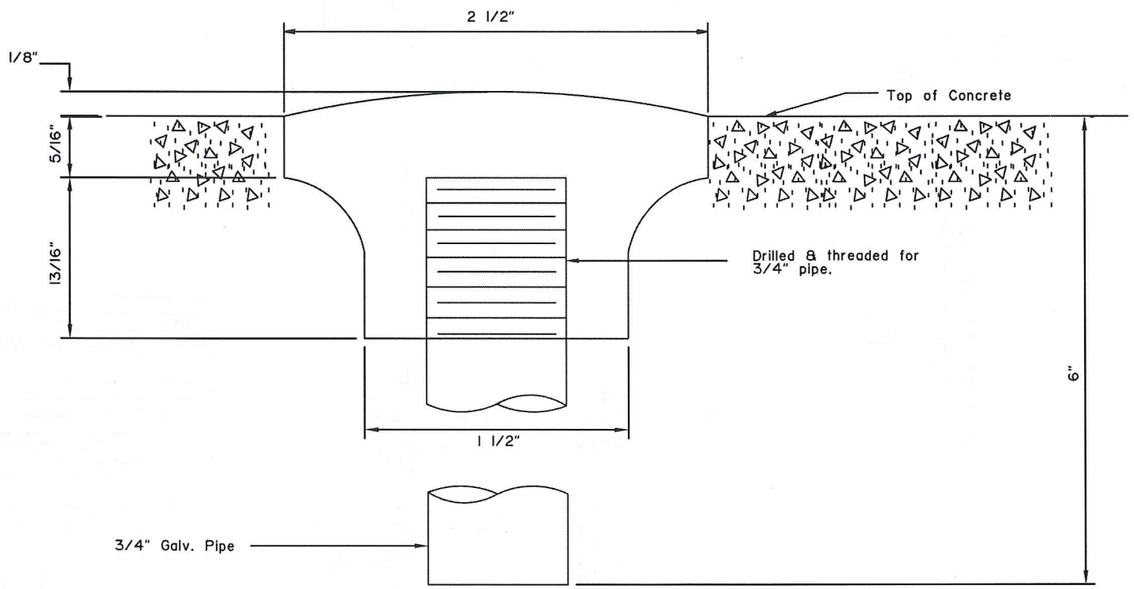
Date 2/28/03

G-28.00



GENERAL NOTES:

1. For Structures under 200' total length: provide 1 monument.
2. For Structures 200' or over: provide 2 Monuments.
3. Monuments shall be located as directed by the Engineer.



SURVEY MONUMENT

REVISIONS		
Date	Description	By
5/15/89	Revised Cap Markings	Gdo

State of Alaska
Department of Transportation
& Public Facilities

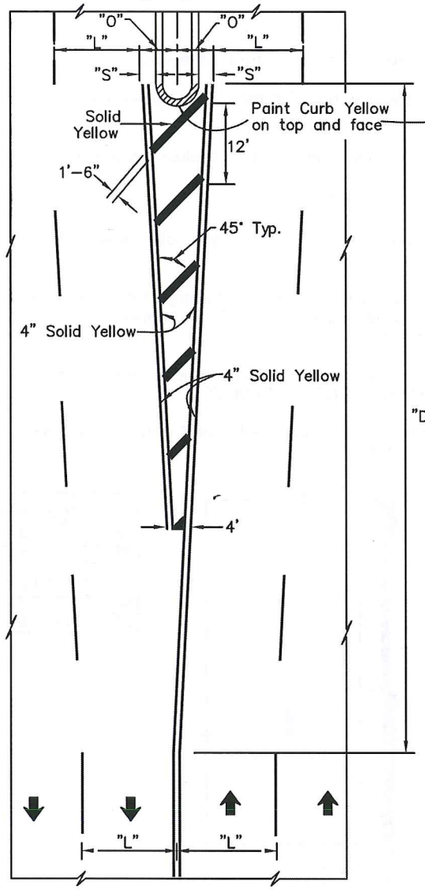
SURVEY MONUMENT

APPROVED
49TH
Lorem L. Rasmussen
CC-3295

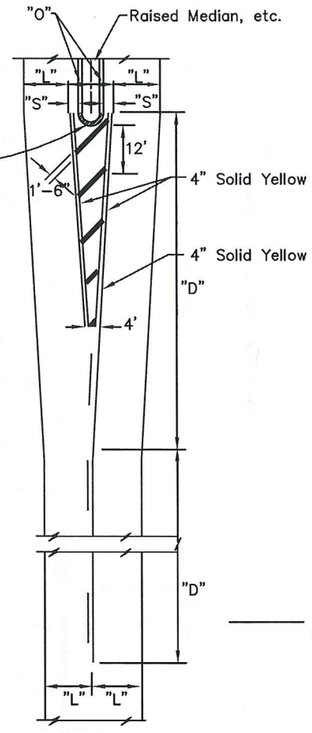
Date 7/15/82

M-13.01

T-20.03



FOUR OR MORE LANES
DRIVE TO RIGHT



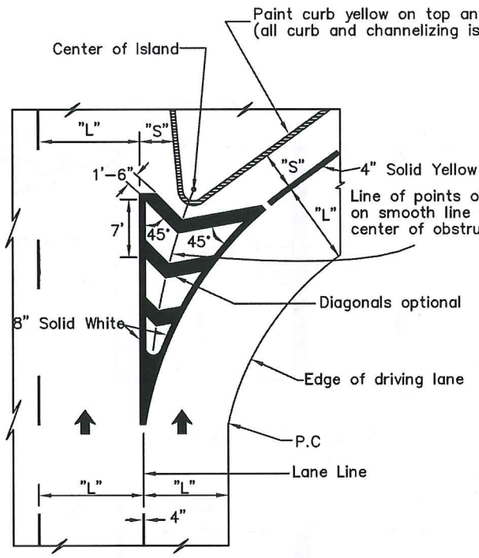
TWO LANES
DRIVE TO RIGHT

White longitudinal and diagonal markers identical to Four Lane Arrangement.

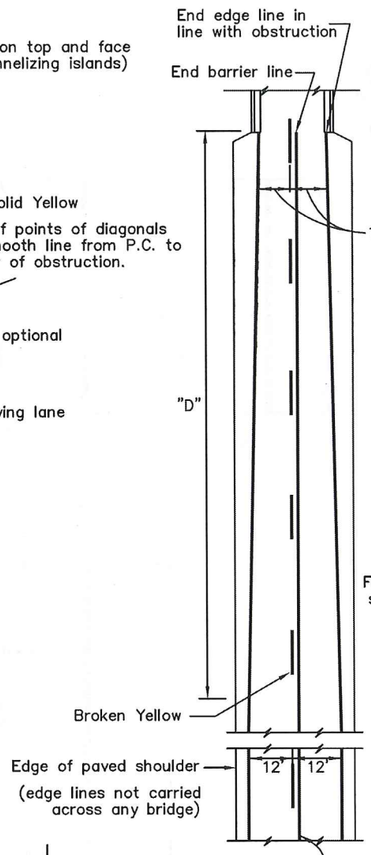
NOTES:

1. "D" = Speed limit (mph) X "O" (offset width in feet) or as indicated on the plans. Minimum "D" = 100 feet urban, 200 feet rural.

APPROACH TO OBSTRUCTIONS

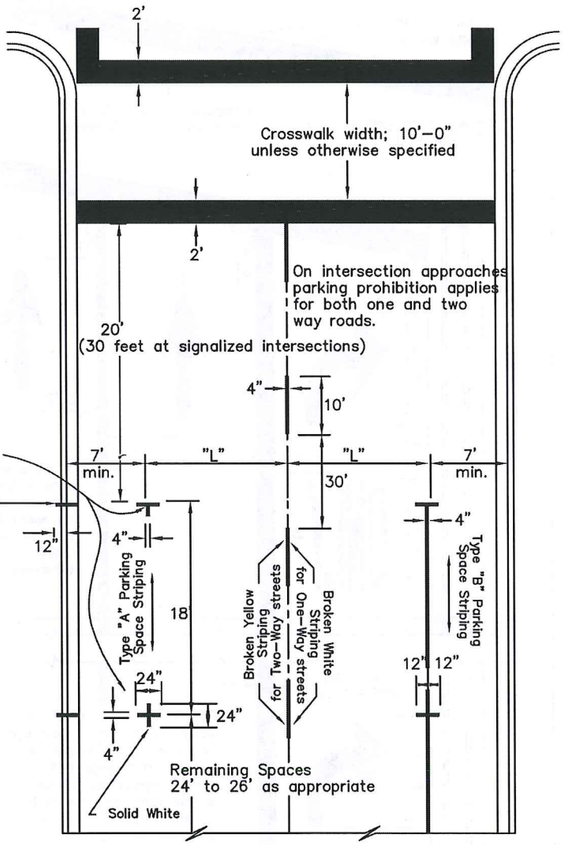


CHANNELIZING ISLAND



Note: On bridges over 24' wide use standard pavement markings. Barrier lines not used unless otherwise required.

EDGE LINE TRANSITION TO NARROW BRIDGE AND APPROACH BARRIER LINE

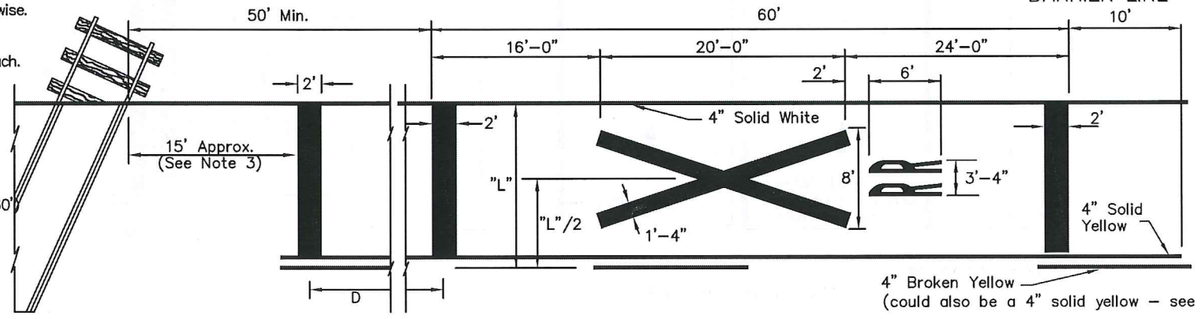


CENTERLINES FOR TWO LANE TWO WAY URBAN ROADS–PARKING LIMIT LINES

NOTES:

1. All markings solid while unless indicated otherwise.
2. On 4–lane roadways place railroad crossing approach markings in each lane of the approach.
3. Locate Stop Bar 15' from railroad track or 8' from gate, if present.
4. Place edge lines and lane lines on a uni–directional approach in a normal manner except that the lane line(s) shall be solid 4" white in lieu of broken for a distance of (D+60') in advance of the stop bands.

POSTED LIMIT	D
30 M.P.H.	225'
40	350'
50	475'
60	625'



APPROACH TO RAILROAD CROSSING ON 2 LANE 2 WAY HIGHWAY

GENERAL NOTES:

1. "S"–offset distance as designated, otherwise 1 to 2 feet.
2. "L"–driving lane width.
3. See Alaska Traffic Manual for additional instruction and/or restriction on the use of TRAFFIC CONTROL DEVICES.

NOT TO SCALE

REVISIONS		
Date	Description	By
2/15/00	Changed "RR" location	KJS
10/31/07	Correct dim / text errors	LRG
4/28/10	Notes/details to MUTCD	KJS

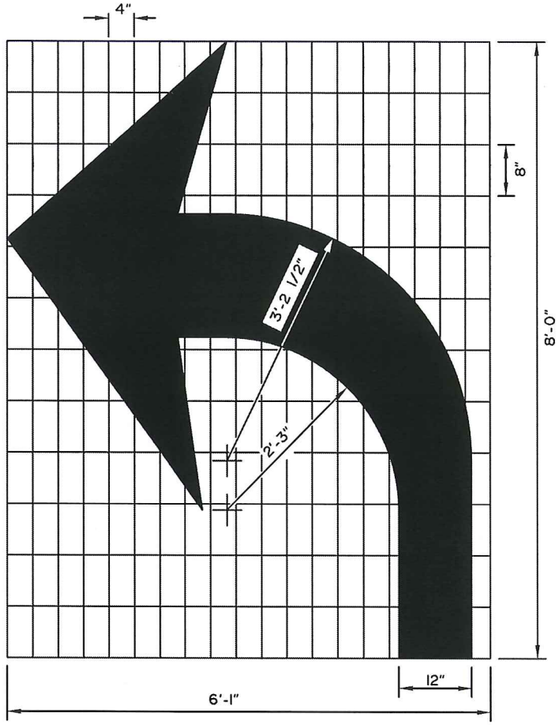
Sheet 1 of 1

State of Alaska
Department of Transportation & Public Facilities

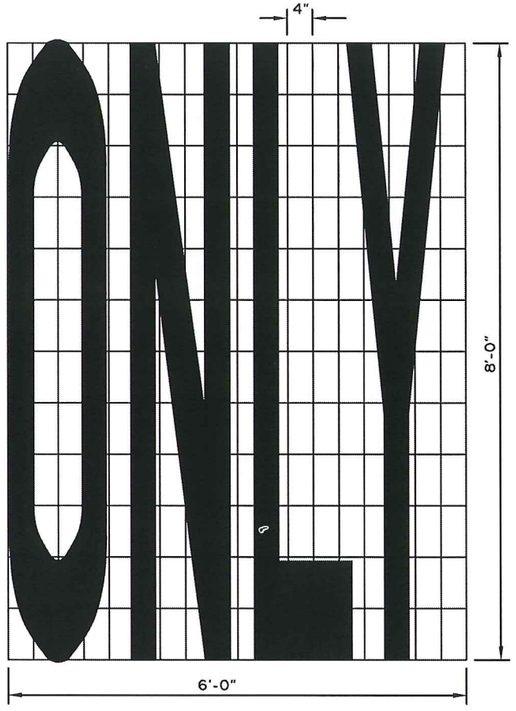
PAVEMENT MARKING APPLICATIONS

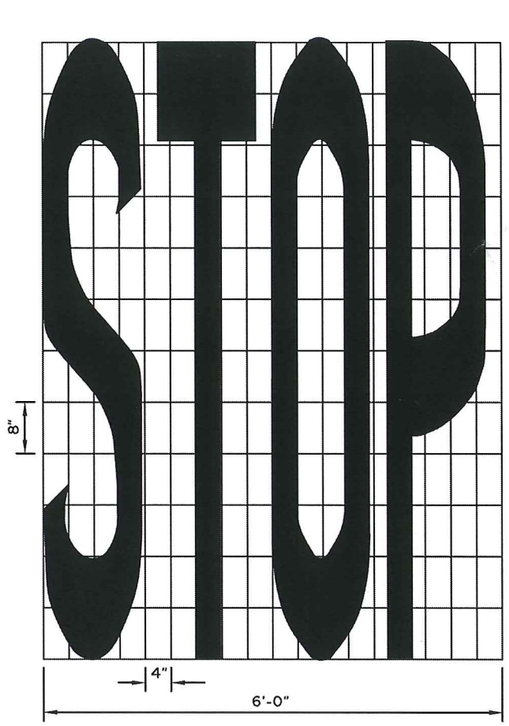
APPROVED
Date 5/31/12

T-20.03

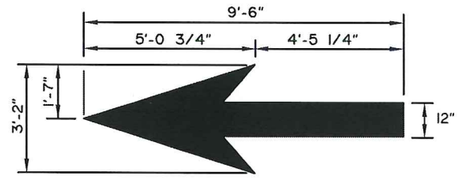


Right turn auxilliary lane usage markings identical except arrow symbol is reversed.

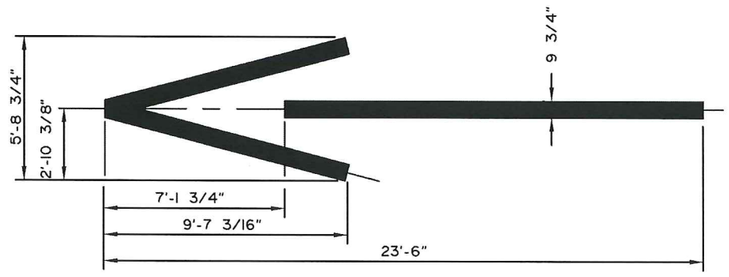




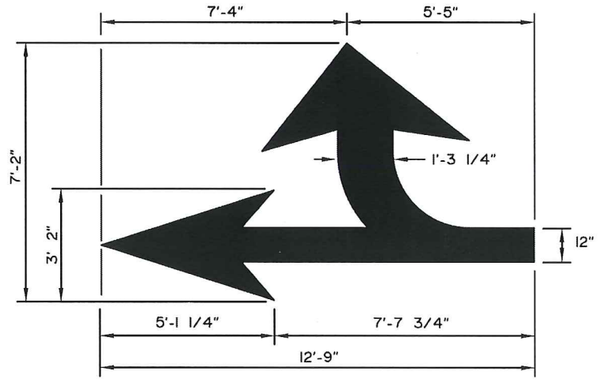
LAYOUT TEMPLATES FOR STENCILS



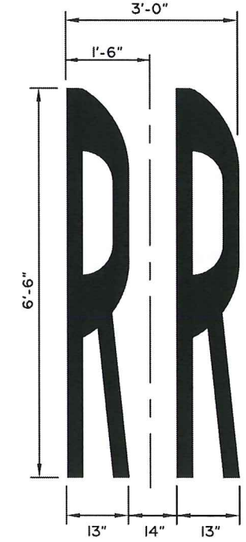
STRAIGHT AHEAD ARROW



WRONG WAY ARROW



COMBINATION ARROW



RAILROAD SYMBOL

T-22.03

SHEET | of |

GENERAL NOTES:

1. All symbols shown shall be white and reflectorized in accordance with the Special Provisions.
2. See "Standard Alphabets for Highway Signs and Pavement Marking" for letter layout.

REVISIONS		
Date	Description	By
1/1/86	Redraft Arrow Dim.	Gdo
4/1/93	Revise Arrow Markings	Gdo
2/15/00	Revise RR Symbol	KJS

State of Alaska
Department of Transportation
& Public Facilities

PAVEMENT MARKING SYMBOL DIMENSIONS

APPROVED
Date 1/1/86

T-22.03