

E. NEW BUSINESS

1. Conditional Use Permit; PC Resolution 2025-17

Applicant: AK DOT&PF

**Request: Construction of a pedestrian pathway requiring fill
within the 50' Habitat Protection District of Unnamed Creek
244-30-10010-2003**

Location: Bridge Access Road / Parcel ID: 04901056

Multi-Agency Permit Application

Kenai Peninsula Borough

River Center

514 Funny River Road
Soldotna, Alaska 99669
KenaiRivCenter@kpb.us

Phone: (907) 714-2460
Fax: (907) 260-5992

Fees Received: \$ _____

☐ Cash

☐ Check # _____

CREDIT CARDS NOT ACCEPTED
FOR APPLN FEES

PROPERTY OWNER:

Name: State of Alaska (DOT ROW)

Mailing: _____

Phone: _____

Email: _____

AGENT: (if applicable)

Name: Chester Fehrmann

Mailing: 550 W 7th Ave., Suite 1340

Anchorage, AK 99501

Phone: 907-269-8506

Email: chester.fehrmann@alaska.gov

PROJECT LOCATION:

KPB Parcel ID: _____

Physical Address: Bridge Access Road (ROW)

Subdivision: _____

Lot: _____ Block: _____ Addition/No.: _____

WATERBODY INFORMATION:

Waterbody: N/A

River Mile: N/A

Riverbank: ☐ Left ☐ Right (looking downstream)

PERMIT FEES: ☐ \$50 - Staff Permit **OR**

☐ \$300 - Conditional Use or Floodway Analysis

PROJECT: ☒ New Project **OR**

☐ Extension/Amendment to **RC#** _____

Please select all activities that apply to your project:

☐ Bank Stabilization

☐ Boat Launch

☐ Bridge

☐ Coir Logs

☒ Culvert

☐ ELP Structures

☐ Equipment Stream Crossing

☒ Excavation, Dredging, and/or Fill

☐ Fence Installation

☐ Fish & Wildlife Management

☐ Floating Dock

☐ Fuel Storage Green Infrastructure

☐ In-Stream Structures (Weir)

☐ Oil & Gas

☐ On-Site Utilities

☐ Prior-Existing Structure

☐ Revegetation

☐ Root Wads

☐ Road Construction

☐ Structure (Accessory)

☐ Structure (Residential)

☐ Spruce Tree Revetment

☐ Stream Crossing

☐ Utility Line/Easement

☐ Veg Mat

☐ Vegetation Removal

☐ Water Withdrawal

☒ Other: Pedestrian Pathway

PROJECT DESCRIPTION: Provide a detailed description of your project, attach additional pages if necessary.

Construct a pathway along Bridge Access Road in Kenai from Beaver Loop Road to Kenai Spur Highway. This project includes roadside hardware, ADA Improvements, drainage improvements, vegetation clearing, striping, and curb and gutter.

COST-SHARE: Is this project funded by the ADFG-USFWS Cost-Share Program? ☐ Yes ☒ No

KPB TAX CREDIT PROGRAM: KPB provides a tax credit as partial reimbursement for new habitat protection and restoration projects within 150 feet of anadromous streams. If you would like to pre-qualify for this credit, please provide your estimated project cost(s) below. Do not include grants or other funding assistance:

Elevated Light-Penetrating Structures \$ _____ Other Activities \$ _____

Habitat Restoration & Protection \$ _____ Green Infrastructure \$ _____

PROJECT QUESTIONS:

1. Start date: May 2026 End date: July 2027 Estimated Days of Construction: 150
2. Is any portion of the work already complete? If yes, please describe: _____ ☐ Yes ☒ No
3. Is your project located on land or waters of an Alaska State Park? ☐ Yes ☒ No

If yes, you must fill out an Alaska State Parks application at: dnr.alaska.gov/parks/permit

Ordinary High Water (OHW) and Mean High Water (MHW):

4. Is the project located within 50 feet of OHW or MHW a waterbody? ☐ Yes ☒ No
5. Does any portion of the project extend below the OHW or MHW of the waterbody? ☐ Yes ☒ No
6. Does any portion of the project cantilever or extend over the MHW of the waterbody? ☐ Yes ☒ No
7. Will anything be placed below OHW or MHW of the waterbody? ☐ Yes ☒ No

Regulatory Floodplains:

8. Is the property where the project is taking place near or within a regulatory floodplain? ☐ Yes ☒ No
- a. Is this project within or adjacent to a regulatory floodway? ☐ Yes ☒ No
- b. Is this project within or adjacent to a coastal high hazard zone? ☐ Yes ☒ No
- c. For new buildings and/or additions, list all project costs (labor, materials, etc.): \$ _____

Excavation, Dredging, and Fill:

9. Will material be excavated or dredged from the site? ☒ Yes ☐ No
- a. Type of material(s): Existing Roadbed / In-Situ Material
- b. Area to be dredged below OHW or MHW:
Length: 0 (ft) Width: 0 (ft) Depth: 0 (ft) Total Cubic Yards: 0
- c. Area to be excavated above OHW or MHW:
Length: 6,760' (ft) Width: 28' (ft) Depth: 2.5' (ft) Total Cubic Yards: 8,100
- d. Location materials will be deposited: Reused on-site, or at a contractor furnished site
10. Will any material (including soils, debris, and/or overburden) be used as fill? ☒ Yes ☐ No
- a. Type of material(s): Borrow, D-1 gravel, asphalt, topsoil
- b. Is this fill permanent or temporary? ☒ Permanent ☐ Temporary
- c. Area to be filled above OHW or MHW:
Length: 0 (ft) Width: 0 (ft) Depth: 0 (ft) Total Cubic Yards: 0
- d. Area to be filled below OHW or MHW:
Length: 6,760' (ft) Width: 28' (ft) Depth: 2.5' (ft) Total Cubic Yards: 7,600

Motorized Equipment:

11. Will you be using motorized equipment for this project? If yes, please list all equipment: ☒ Yes ☐ No
Excavator, Loader, Dump Trucks, Skidsteer, Vac Truck, Dozer
- a. Will you be crossing a stream or waterbody? ☐ Yes ☒ No
- b. How long will equipment be used below OHW or MHW? N/A

SIGNATURE & CERTIFICATION:

This application is hereby made requesting permit(s) to authorize the work described in this application form. I certify the information in this application is complete and accurate to the best of my knowledge and that my site plans or drawings are attached. If applying for a tax credit, I certify that I have not begun construction of the project and that the project will be constructed to the standards in KPB 5.12 Real Property and Personal Property Taxes, KPB 5.14 Habitat Protection Tax Credit, and other applicable federal, state, and local regulations.

_____	7/14/2025	_____	_____
Owner Signature (required)	Date	Agent Signature (if applicable)	Date

Kenai Bridge Access Road Pathway Project Location Detail Map 1 of 2



Kenai Bridge Access Road Pathway Project Location Detail Map 2 of 2



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF PARKS
AND
OUTDOOR RECREATION

KENAI BRIDGE ACCESS ROAD
PATHWAY

PROJECT NO.
CFHWY00689

In Cooperation with the Department of Transportation and
Public Facilities

Vicinity Map

INDEX

- A1. TITLE SHEET AND INDEX
- A2. ABBREVIATIONS, SHEET LAYOUT, AND GENERAL NOTES
- A3. LEGEND
- A4. SURVEY CONTROL
- B1-B2. TYPICAL AND STRUCTURAL SECTIONS
- C1. ESTIMATE OF QUANTITIES
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SPECIFICATION:
CONSTRUCT THE IMPROVEMENTS COVERED BY THESE PLANS IN ACCORDANCE WITH THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES 2020 STANDARD SPECIFICATIONS FOR HIGHWAY
CONSTRUCTION AND THE PROJECT SPECIAL PROVISIONS.

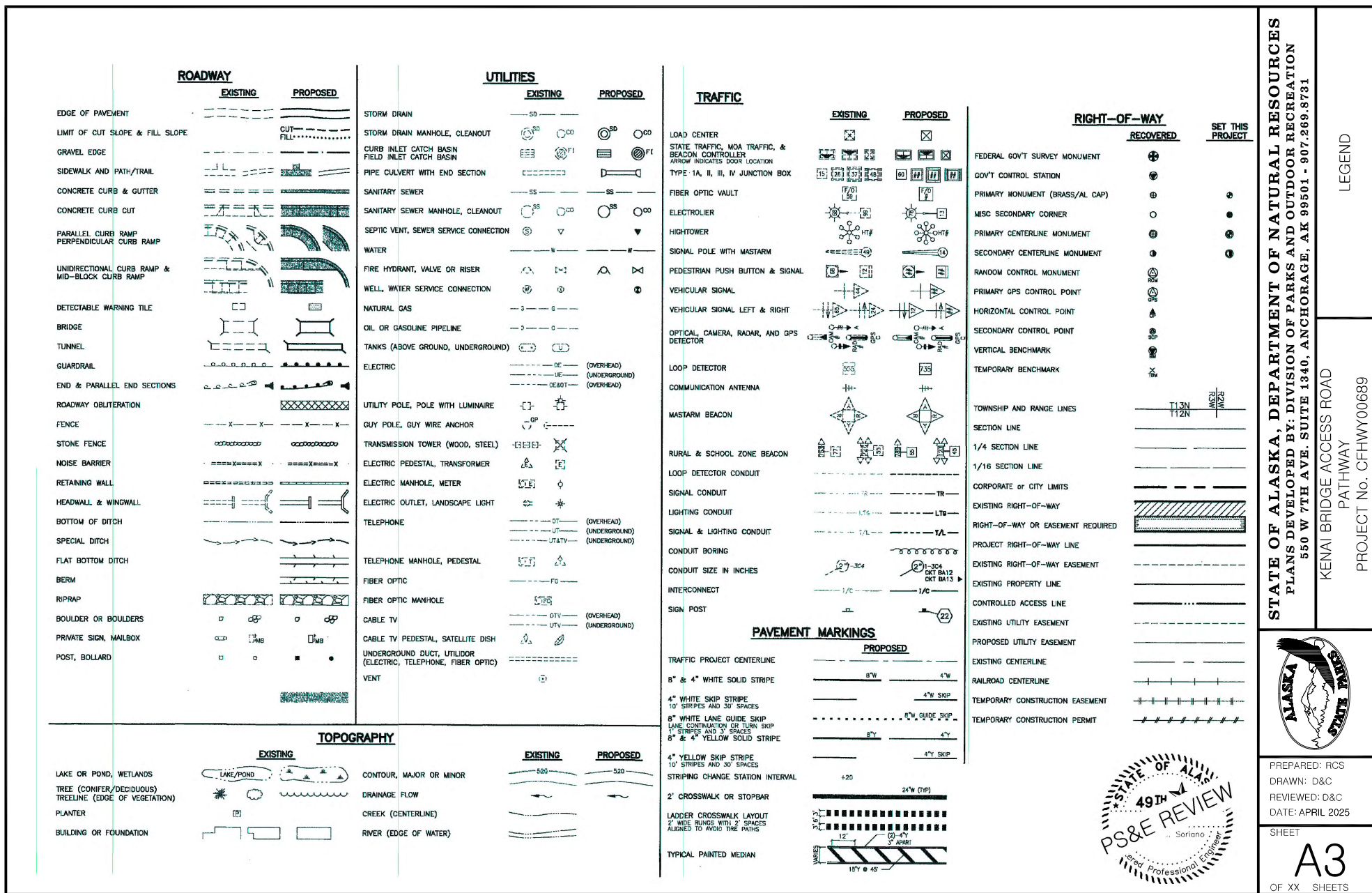
The following Division of Parks & Outdoor Rec. standard drawings apply to this project: N/A
The following State of Alaska DOT&PF STANDARD PLANS apply to this project: C-04.12, C-05.20, CR-T-01.20, D-01.02, D-04.22, D-06.10, G-00.05, G-05.11S, G-12.21, I-20.20, I-21.12, L-23.03, S-00.12, S-05.02, S-30.05,
S-31.02, S-32.02, T-20.04, T-21.04

Plans developed by:
STATE OF ALASKA
Department of Natural Resources
Division of Parks & Outdoor Recreation
550 W 7th Ave. Suite 1340, Anchorage, AK 99501
Recommended:

Rys Miranda, P.E. _____ Date _____
Chief, Design and Construction

Approved: _____ Date _____

Director, Alaska State Parks



PAVEMENT MARKINGS

	EXISTING	PROPOSED
TRAFFIC PROJECT CENTERLINE		
8" & 4" WHITE SOLID STRIPE		
4" WHITE SKIP STRIPE		
10' STRIPES AND 30' SPACES		
8" WHITE LANE GUIDE SKIP		
LANE CONTINUATION OR TURN SKIP		
10' STRIPES AND 30' SPACES		
8" & 4" YELLOW SOLID STRIPE		
4" YELLOW SKIP STRIPE		
10' STRIPES AND 30' SPACES		
STRIPING CHANGE STATION INTERVAL		
2' CROSSWALK OR STOPBAR		
LADDER CROSSWALK LAYOUT		
2' WIDE RUNGS WITH 2' SPACES		
ALIGNED TO AVOID TREE PATHS		
TYPICAL PAINTED MEDIAN		

TOPOGRAPHY

	EXISTING	PROPOSED
LAKE OR POND, WETLANDS		
TREE (CONIFER/DECIDUOUS)		
TREELINE (EDGE OF VEGETATION)		
PLANTER		
BUILDING OR FOUNDATION		
CONTOUR, MAJOR OR MINOR		
DRAINAGE FLOW		
CREEK (CENTERLINE)		
RIVER (EDGE OF WATER)		

PAVEMENT MARKINGS

	EXISTING	PROPOSED
TRAFFIC PROJECT CENTERLINE		
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ALIGNED TO AVOID TREE PATHS		
TYPICAL PAINTED MEDIAN		

RIGHT-OF-WAY

	RECOVERED	SET THIS PROJECT
FEDERAL GOV'T SURVEY MONUMENT		
GOV'T CONTROL STATION		
PRIMARY MONUMENT (BRASS/AL CAP)		
MISC SECONDARY CORNER		
PRIMARY CENTERLINE MONUMENT		
SECONDARY CENTERLINE MONUMENT		
RANDOM CONTROL MONUMENT		
PRIMARY GPS CONTROL POINT		
HORIZONTAL CONTROL POINT		
SECONDARY CONTROL POINT		
VERTICAL BENCHMARK		
TEMPORARY BENCHMARK		
TOWNSHIP AND RANGE LINES		
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
CORPORATE or CITY LIMITS		
EXISTING RIGHT-OF-WAY		
RIGHT-OF-WAY OR EASEMENT REQUIRED		
PROJECT RIGHT-OF-WAY LINE		
EXISTING RIGHT-OF-WAY EASEMENT		
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE		
EXISTING UTILITY EASEMENT		
PROPOSED UTILITY EASEMENT		
EXISTING CENTERLINE		
RAILROAD CENTERLINE		
TEMPORARY CONSTRUCTION EASEMENT		
TEMPORARY CONSTRUCTION PERMIT		

TOPOGRAPHY

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TREE (CONIFER/DECIDUOUS)		
TREELINE (EDGE OF VEGETATION)		
PLANTER		
BUILDING OR FOUNDATION		
CONTOUR, MAJOR OR MINOR		
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RIVER (EDGE OF WATER)		

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TREE (CONIFER/DECIDUOUS)		
TREELINE (EDGE OF VEGETATION)	</	

SURVEY CONTROL TO BE COMPLETED BY AKDOT&PF SURVEY SECTION PRIOR TO ADVERTISEMENT



PREPARED: RCS
DRAWN: D&C
REVIEWED: D&C
DATE: APRIL 2025

SHEET

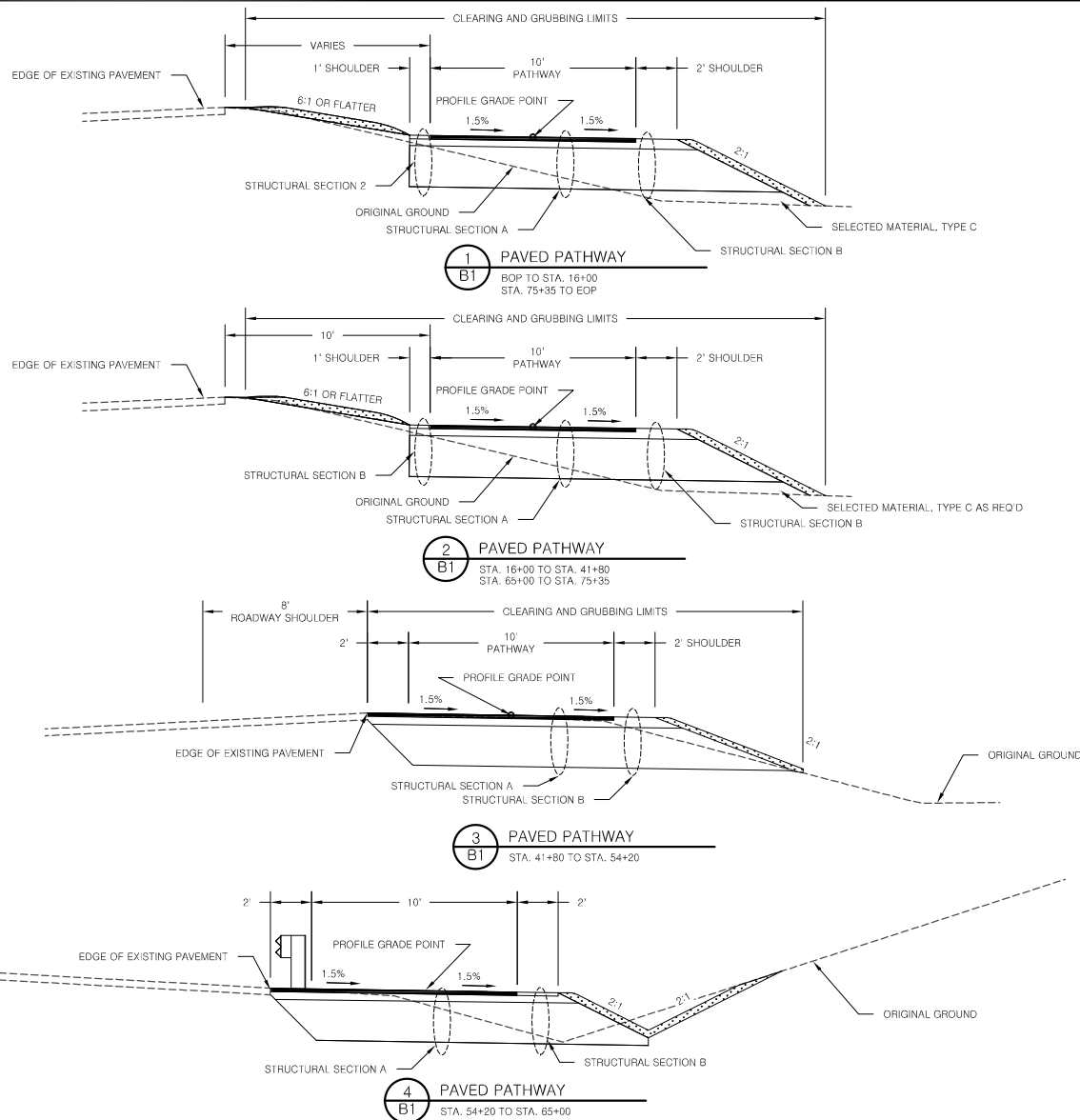
A4

OF XX SHEETS

STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689

SURVEY CONTROL



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
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550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689

TYPICAL SECTIONS AND STRUCTURAL
SECTIONS

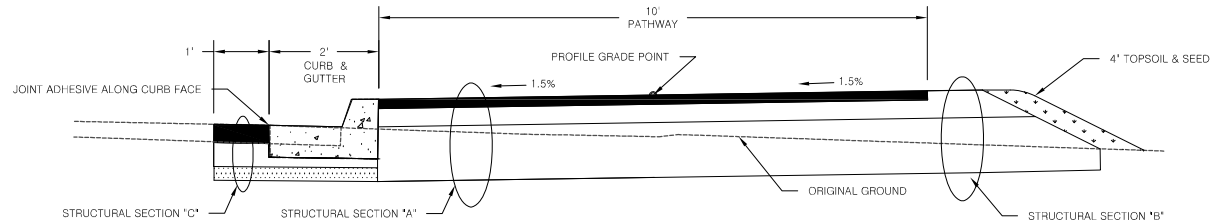


PREPARED: RCS
DRAWN: D&C
REVIEWED: D&C
DATE: APRIL 2025

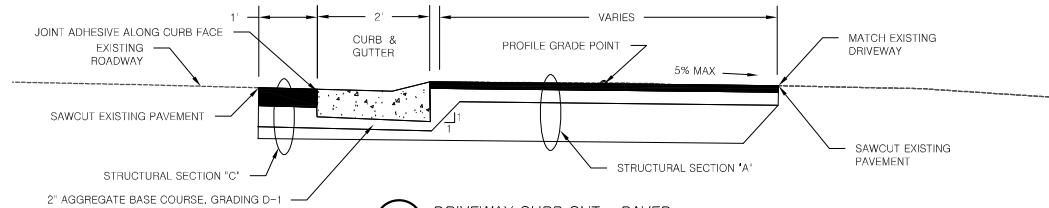
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B1

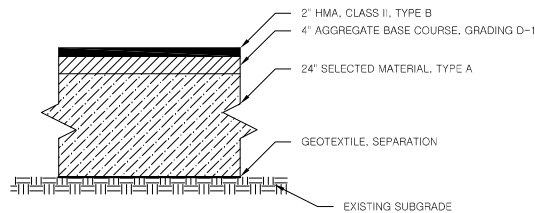
OF XX SHEETS



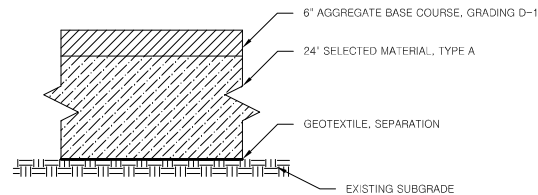
1
B2 CURB AND GUTTER WITH PATHWAY
STA. 29+71.95 TO 29+87 CL
STA. 36+05 TO 36+50 CL



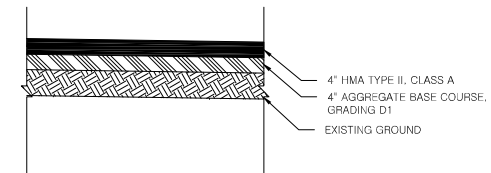
2
B2 DRIVEWAY CURB CUT - PAVED
STA. 33+66 TO 35+97.94



3
B2 STRUCTURAL SECTION "A"
DETAIL



4
B2 STRUCTURAL SECTION "B"
DETAIL



5
B2 STRUCTURAL SECTION "C"
DETAIL - ROADWAY



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE, SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
DRAWN: D&C
REVIEWED: D&C
DATE: APRIL 2025

SHEET

B2

OF XX SHEETS

TYPICAL SECTIONS AND STRUCTURAL SECTIONS

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689

ESTIMATE OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
201.0003.0000	CLEARING AND GRUBBING	ACRE	3.75
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L.S.	ALL REQ'D
202.0002.0000	REMOVAL OF PAVEMENT	S.Y.	1,412
202.0004.0000	REMOVAL OF CULVERT PIPE	L.F.	386
202.0009.0000	REMOVAL OF CURB AND GUTTER	L.F.	82
203.0003.0000	UNCLASSIFIED EXCAVATION	C.Y.	6,300
203.0006.000A	BORROW, TYPE A	TON	15,350
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	2,115
603.0001.0024	CSP 24 INCH	L.F.	345
603.0003.0024	END SECTION FOR CSP 24 INCH	EACH	14
606.0001.0000	W-BEAM GUARDRAIL	L.F.	1,060
608.2002.0000	ASPHALT PATHWAY	TON	1000
609.0002.0001	CURB AND GUTTER, TYPE 1	L.F.	357
615.0001.0000	STANDARD SIGN	S.F.	32.00
615.0006.0000	SALVAGE SIGN	EACH	2
618.0002.0000	SEEDING	LB	80
620.0001.0000	TOPSOIL	S.Y.	9000
630.0001.0003	GEOTEXTILE, SEPARATION, CLASS 3	S.Y.	17500
639.2000.0000	APPROACH	EACH	12

ESTIMATE OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	L.S.	ALL REQ'D
640.0004.0000	WORKER MEALS AND LODGING, OR PER DIEM	L.S.	ALL REQ'D
641.0001.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	L.S.	ALL REQ'D
641.0002.0000	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	C.S.	ALL REQ'D
641.0006.0000	WITHHOLDING	C.S.	ALL REQ'D
641.0007.0000	SWPPP MANAGER	L.S.	ALL REQ'D
642.0001.0000	CONSTRUCTION SURVEYING	L.S.	ALL REQ'D
642.0003.0000	THREE PERSON SURVEY PARTY	HOURL	25
643.0002.0000	TRAFFIC MAINTENANCE	L.S.	ALL REQ'D
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	L.S.	ALL REQ'D
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	C.S.	ALL REQ'D
643.0025.0000	TRAFFIC CONTROL	C.S.	ALL REQ'D
643.0032.0000	FLAGGING	C.S.	ALL REQ'D
644.0001.0000	FIELD OFFICE	L.S.	ALL REQ'D
644.2004.0000	ENGINEERING COMMUNICATIONS	C.S.	ALL REQ'D
646.0001.0000	CPM SCHEDULING	L.S.	ALL REQ'D
647.2002.0000	BACKHOE, 4WD, 1 CY BUCKET, 75-HP MINIMUM, 15 FT DEPTH	C.S.	ALL REQ'D
670.2008.0000	MMA PAVEMENT MARKINGS, TRANSVERSE AND GORE INLAID	L.S.	ALL REQ'D
682.2000.0000	VAC-TRUCK POTHOLE	C.S.	ALL REQ'D

ESTIMATING FACTORS		
ITEM NO.	ITEM DESCRIPTION	ESTIMATING FACTOR
203.0006.000A	BORROW, TYPE A	144 LB/C.F.
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	144 LB/C.F.
608.2002.0000	ASPHALT PATHWAY	151 LB/C.F.



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
 DRAWN: D&C
 REVIEWED: D&C
 DATE: APRIL 2025

SHEET

C1

OF XX SHEETS

ESTIMATE OF QUANTITIES

KENAI BRIDGE ACCESS ROAD
 PATHWAY
 PROJECT No. CFHWY00689

ITEM NO. 202.0002.0000 REMOVAL OF PAVEMENT							
SHEET	FROM		TO		AREA (S.F.)	AREA (S.Y.)	REMARKS
	STATION	OFFSET	STATION	OFFSET			
F2	15+60	CL	16+67	CL	2011	224	DRIVEWAY
F2	17+68	CL	18+50	CL	1805	201	DRIVEWAY
F2	20+00	CL	20+34	CL	125	14	DRIVEWAY
F2	21+46	CL	21+78	CL	116	13	DRIVEWAY
F3	25+83	CL	26+44	CL	990	110	DRIVEWAY
F6	43+53	CL	44+10	CL	539	60	DRIVEWAY
F6	45+41	CL	45+96	CL	224	25	DRIVEWAY
F8	53+19	CL	54+01	CL	1568	175	DRIVEWAY
F10	65+09	CL	65+35	CL	92	11	DRIVEWAY
F10	67+80	CL	68+70	CL	1933	215	TERN AVE.
F11	74+74	CL	74+51	CL	1012	113	BUSINESS ENTRANCE
F12	75+95	CL	76+65	CL	952	106	BUSINESS ENTRANCE
F12	74+08	9' L	77+63	9' L	1304	145	BRIDGE ACCESS ROAD
					TOTAL	1412	

ITEM NO. 202.0004.0000 REMOVAL OF CULVERT PIPE				
SHEET	STATION	CULVERT SIZE	QUANTITY (L.F.)	REMARKS
F2	16+15	18"	56	
F2	20+17	18"	30	
F2	21+61	18"	31	
F3	26+10	24"	69	
F6	45+70	24"	54	
F8	53+63	24"	50	
F10	65+22	18"	35	
F10	68+24	24"	61	
		TOTAL	386	

ITEM NO. 202.0009.0000 REMOVAL OF CURB AND GUTTER					
SHEET	FROM		TO		REMARKS
	STATION	OFFSET	STATION	OFFSET	
F12	76+81	9' L	77+63	9' L	BRIDGE ACCESS ROAD
				TOTAL	327

ITEM NO. 000.0000.0000 CULVERTS										
SHEET	PIPE ID	CSP 24 INCH	Inlet			Outlet			Grade	End Section
		Length	Station	Offset	Invert	Station	Offset	Invert		Each
F2	P-1	54	17+87	18.00	44.35	18+41	15.50	43.66	1.28%	2
F2	P-2	41	20+00	12.00	41.15	20+40	11.50	41.45	0.74%	2
F2	P-3	41	21+38	12.00	41.58	21+79	13.00	41.07	1.26%	2
F3	P-4	56	25+93	18.00	41.70	26+39	17.50	71.80	0.22%	2
F6	P-5	57	45+42.07	11.00	22.00	45+98	13.00	22.85	1.50%	2
F8	P-6	69	53+28	21.00	43.20	53+98	22.00	46.12	4.24%	2
F10	P-7	34	65+06	15.00	81.50	65+41	15.00	82.29	2.32%	2



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550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
DRAWN: D&C
REVIEWED: D&C
DATE: APRIL 2025

SHEET

D1

OF XX SHEETS

SUMMARY TABLE

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689

ITEM NO. 609.0002.0001 CURB AND GUTTER, TYPE 1					
SHEET	FROM		TO		REMARKS
	STATION	OFFSET	STATION	OFFSET	
F12	74+97	L	77+63	L	357
					327
					327

ITEM NO. 639.2000.0000 APPROACH						
SHEET	FROM		TO		QUANTITY	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F2	15+60	CL	16+67	CL	1	DRIVEWAY
F2	17+68	CL	18+50	CL	1	DRIVEWAY
F2	20+00	CL	20+34	CL	1	DRIVEWAY
F2	21+46	CL	21+78	CL	1	DRIVEWAY
F3	25+83	CL	26+44	CL	1	DRIVEWAY
F6	43+53	CL	44+10	CL	1	DRIVEWAY
F6	45+41	CL	45+96	CL	1	DRIVEWAY
F8	53+19	CL	54+01	CL	1	DRIVEWAY
F10	65+09	CL	65+35	CL	1	DRIVEWAY
F10	67+80	CL	68+70	CL	1	TERN AVE.
F11	74+74	CL	74+51	CL	1	BUSINESS ENTRANCE
F12	75+95	CL	76+65	CL	1	BUSINESS ENTRANCE
F12	74+08	9' L	77+63	9' L	1	BRIDGE ACCESS ROAD
					12	



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
 PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
 550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731

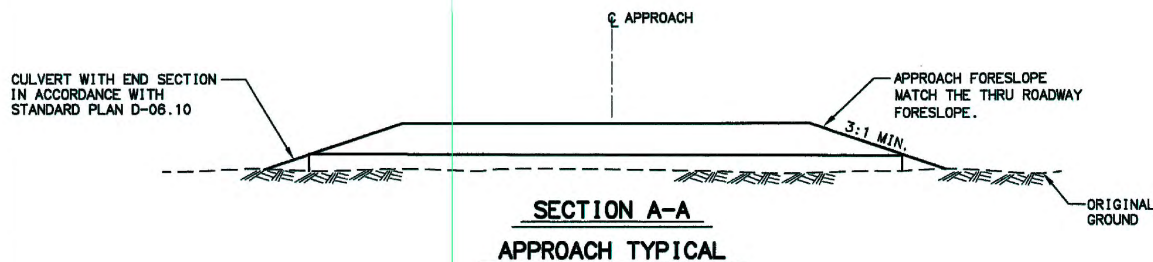
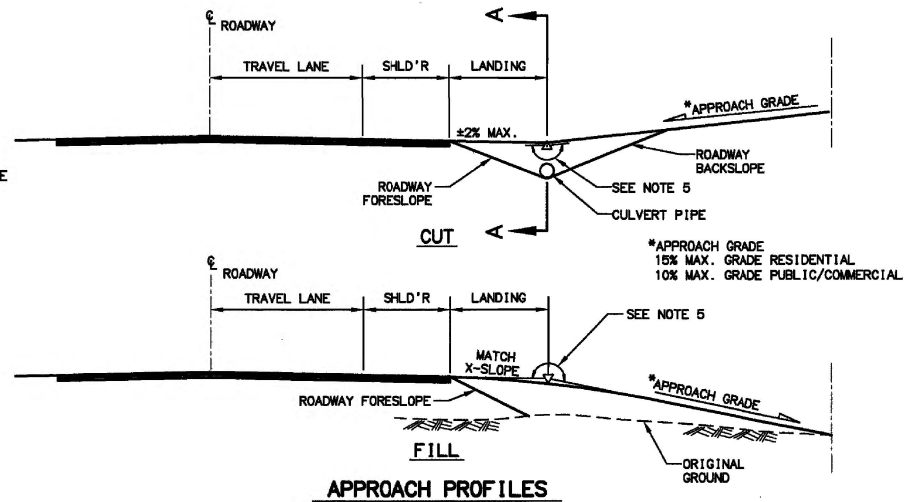
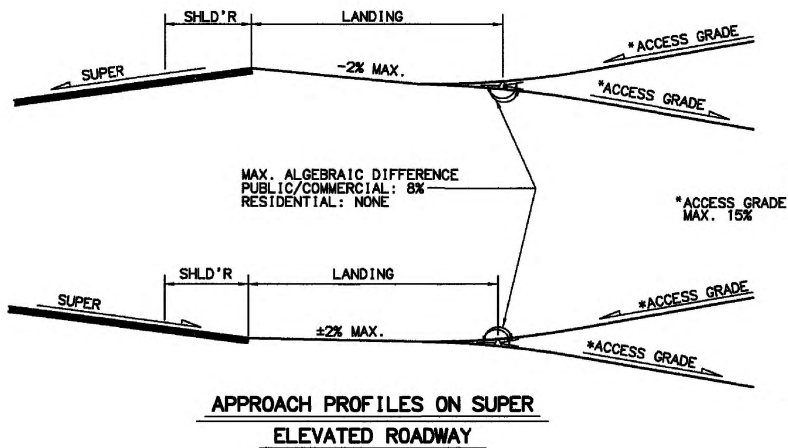
KENAI BRIDGE ACCESS ROAD
 PEDESTRIAN PATHWAY
 PROJECT No. CFHWY00689

SUMMARY TABLE



PREPARED: RCS
 DRAWN: D&C
 REVIEWED: D&C
 DATE: APRIL 2025

SHEET
 D2
 OF XX SHEETS



NOTES:

1. SEE APPROACH SUMMARY (D7 & D8) FOR APPROACH STATION, LENGTH, WIDTH, SKEW ANGLE, LANDING LENGTH AND TYPE.
2. SEE PIPE SUMMARY (D4 & D5) FOR CULVERT PIPE SIZE, LENGTH, AND PLACEMENT.
3. THE PAVED PORTION OF THE APPROACH STRUCTURAL SECTION SHALL BE CONSTRUCTED OF THE SAME MATERIAL AS THE ROADWAY STRUCTURAL SECTION UNLESS A SEPARATE TYPICAL SECTION IS INCLUDED IN THE PLANS COVERING APPROACHES.
4. PAVE TO THE END OF THE RADIUS RETURN UNLESS OTHERWISE INDICATED IN THE PLANS.
5. MAXIMUM ALGEBRAIC DIFFERENCE FOR A PUBLIC/COMMERCIAL APPROACH IS 8%.
6. SEE APPROACH PLAN & PROFILE "F" SHEETS FOR APPROACH VERTICAL CURVE REQUIREMENTS. APPROACH VERTICAL CURVE REQUIREMENTS IF MINIMUM NOT SPECIFIED: CREST - 2 1/2" MAXIMUM IN A 10-FOOT CHORD. SAG - 2" MAXIMUM IN A 10-FOOT CHORD.



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550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
DRAWN: D&C
REVIEWED: D&C
DATE: APRIL 2025

SHEET

E1

OF XX SHEETS

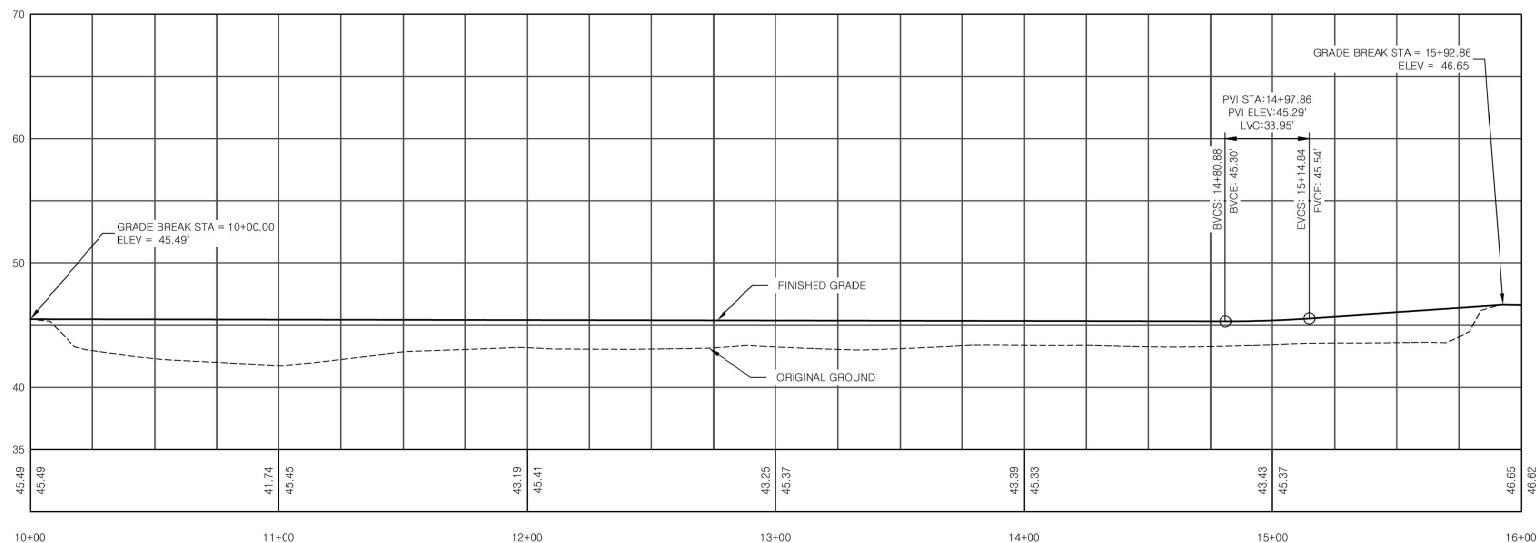
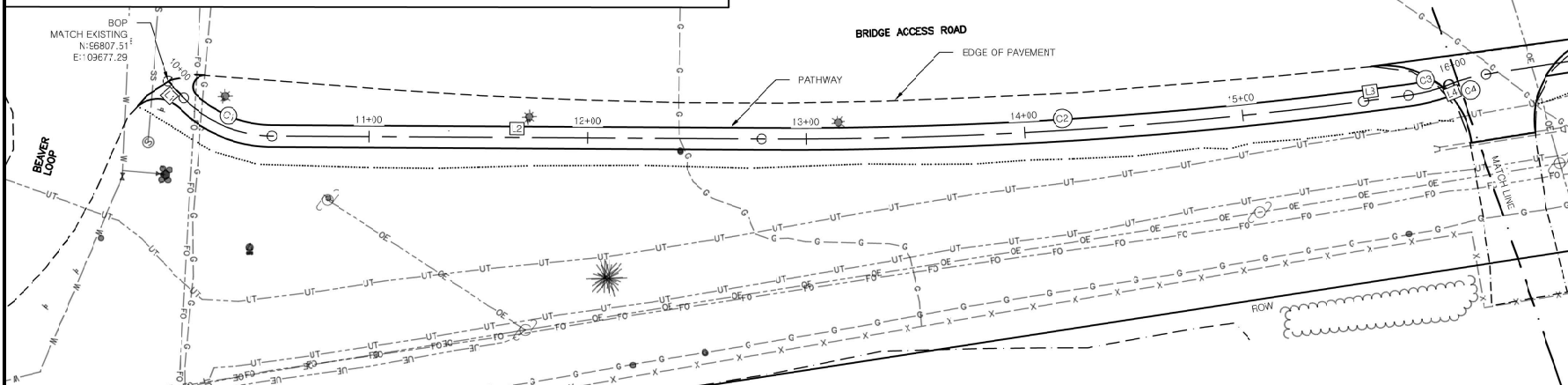
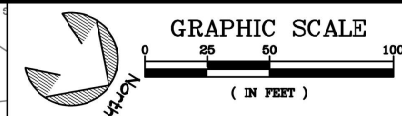
APPROACH DETAILS

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689



HORIZONTAL LINE DATA		
LINE #	LENGTH	DIRECTION
L1	10.59'	N12° 34' 7.42"E
L2	224.02'	N34° 03' 06.31"W
L3	20.86'	N41° 51' 55.24"W
L4	0.46'	N56° 24' 10.49"W

HORIZONTAL CURVE DATA						
CURVE #	PC STA	PT STA	RADIUS	LENGTH	DELTA	
C1	10+10.59	10+55.67	56.00'	45.08'	46.1233°	
C2	12+79.68	15+55.65	2023.65	275.97'	7.8133°	
C3	15+76.31	15+95.34	75.00'	19.03'	14.5378°	
C4	15+95.80	16+13.05	75.00'	17.25'	13.1735°	



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550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
DRAWN: D&C
REVISED: D&C
DATE: APRIL 2025

SHEET

F1

OF XX SHEETS

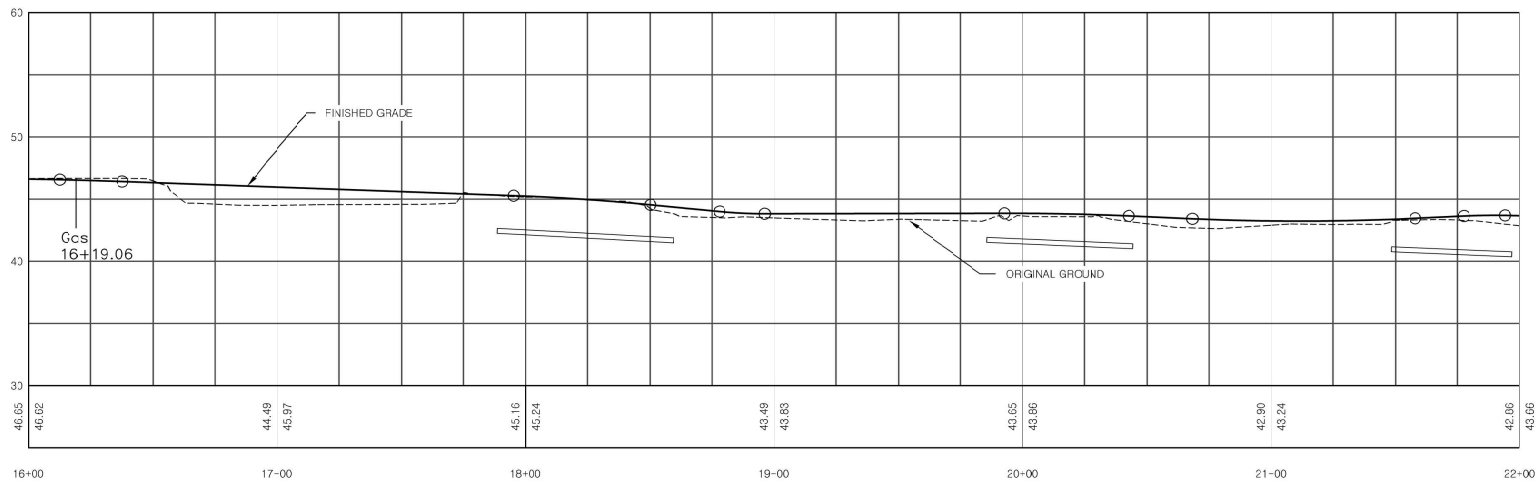
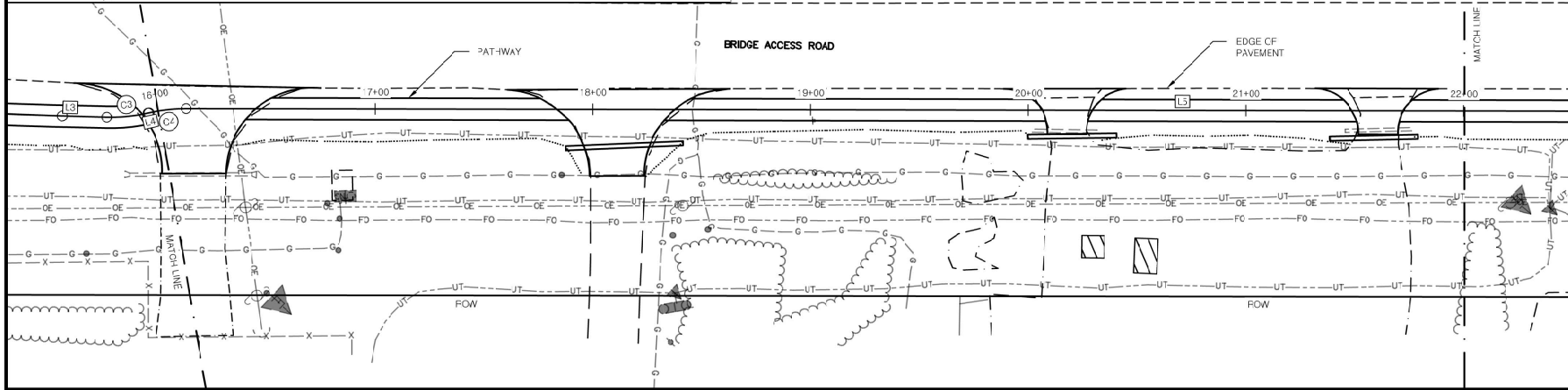
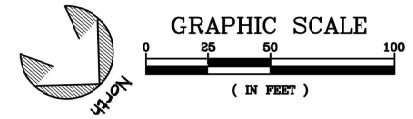
KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689

PLAN AND PROFILE
STA. 10+00 TO STA. 16+00



HORIZONTAL LINE DATA		
LINE #	LENGTH	DIRECTION
L3	20.66'	N41° 51' 55.24"W
L4	0.46'	N56° 24' 10.49"W
L5	915.35'	N43° 13' 38.36"W

HORIZONTAL CURVE DATA					
CURVE #	PC STA	PT STA	RADIUS	LENGTH	DELTA
C3	15+76.31	15+95.34	75.00'	19.03'	14.5276°
C4	15+95.80	16+13.05	75.00'	17.25'	13.1755°



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PREPARED: RCS
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REVISED: D&C
DATE: APRIL 2025

SHEET

F2

OF XX SHEETS

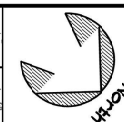
PLAN AND PROFILE
STA. 16+00 TO STA. 22+00

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689

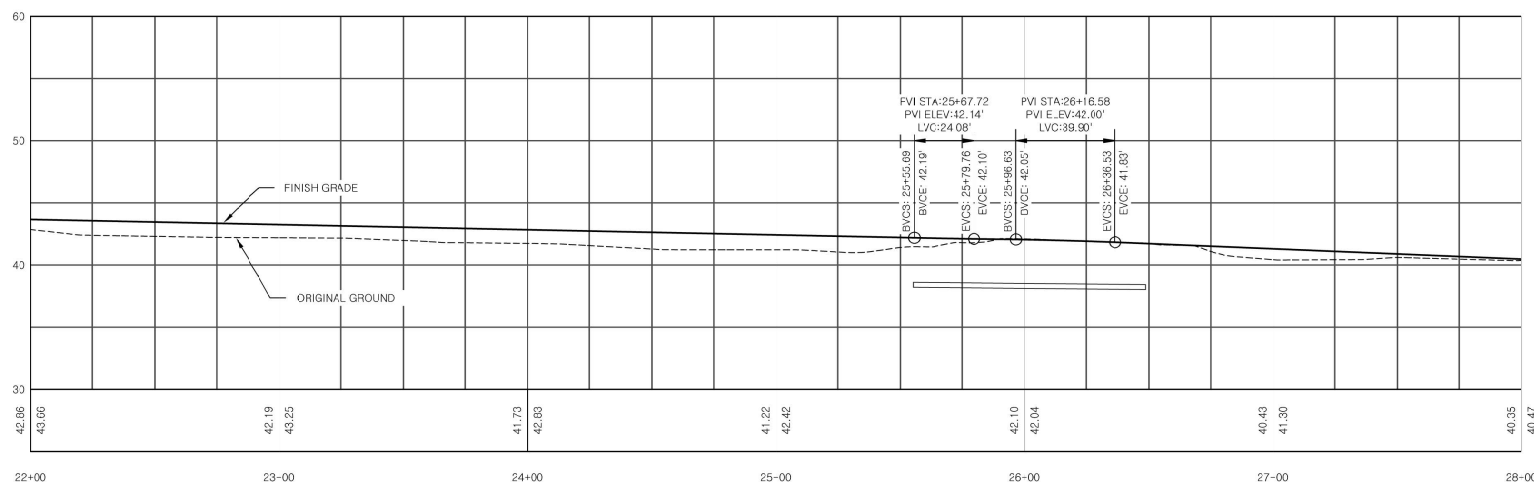
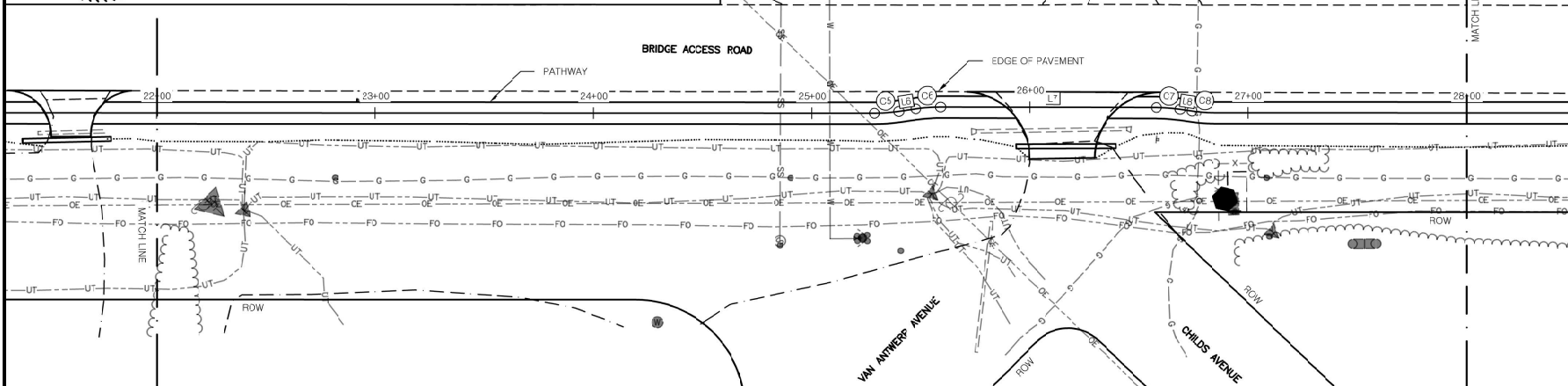
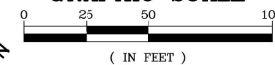


HORIZONTAL LINE DATA		
LINE #	LENGTH	DIRECTION
L6	8.08'	N51° 46' 44.97"W
L7	58.73'	N43° 37' 16.15"W
L8	5.63'	N34° 50' 04.87"W

HORIZONTAL CURVE DATA					
CURVE #	PC STA	PT STA	RADIUS	LENGTH	DELTA
C5	25+28.40	25+39.59	75.03'	11.19	8.5517°
C6	25+47.67	25+59.01	75.03'	11.34	8.6597°
C7	26+57.74	26+68.59	75.03'	10.84	8.2843°
C8	26+74.22	26+85.21	75.03'	10.99	8.3957°



GRAPHIC SCALE



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
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550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
DRAWN: D&C
FEW BWD: D&C
DATE: APRIL 2025

SHEET

F3

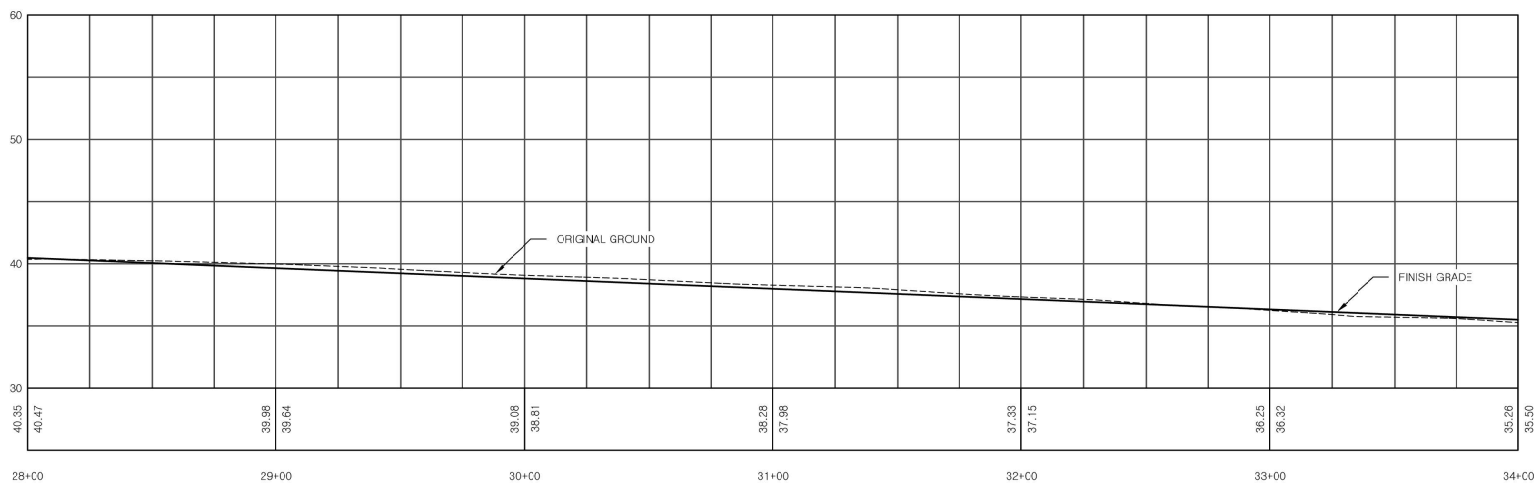
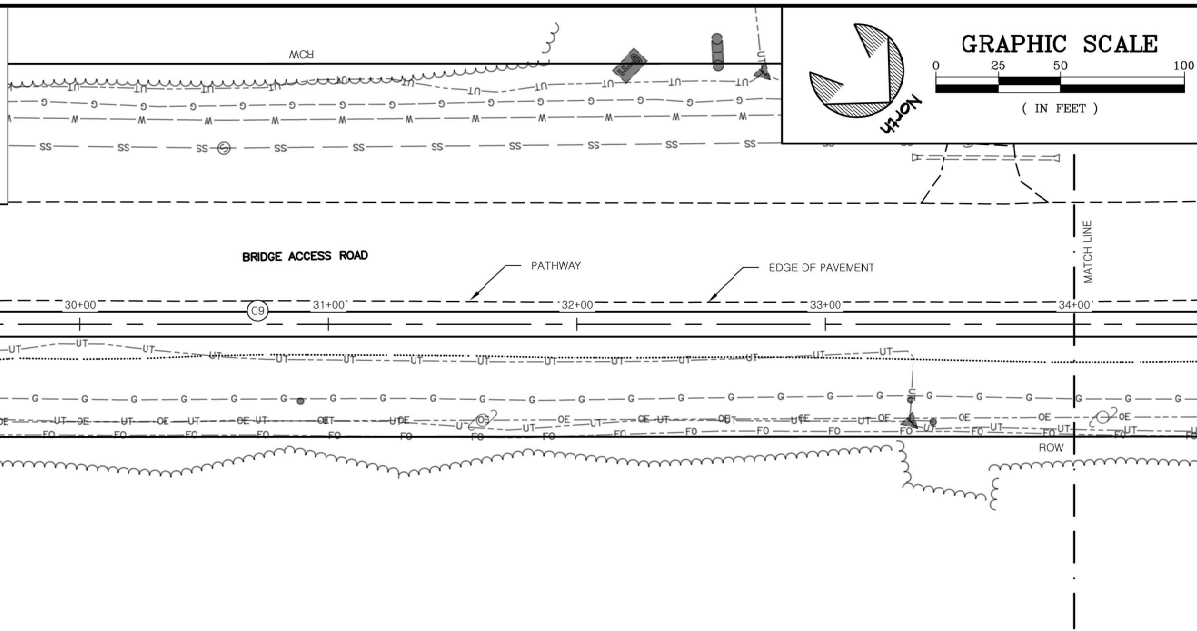
OF XX SHEETS

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689

PLAN AND PROFILE
STA: 22+00 TO STA: 28+00



HORIZONTAL CURVE DATA					
CURVE #	PC STA	PT STA	RADIUS	LENGTH	DELTA
C9	28+85.21	34+57.51	73718609.14'	772.40'	0.0806°



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
 PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
 550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
 DRAWN: D&C
 REVISED: D&C
 DATE: APRIL 2025

SHEET

F4

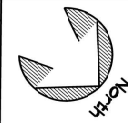
OF XX SHEETS

PLAN AND PROFILE
 STA: 28+00 TO STA: 34+00

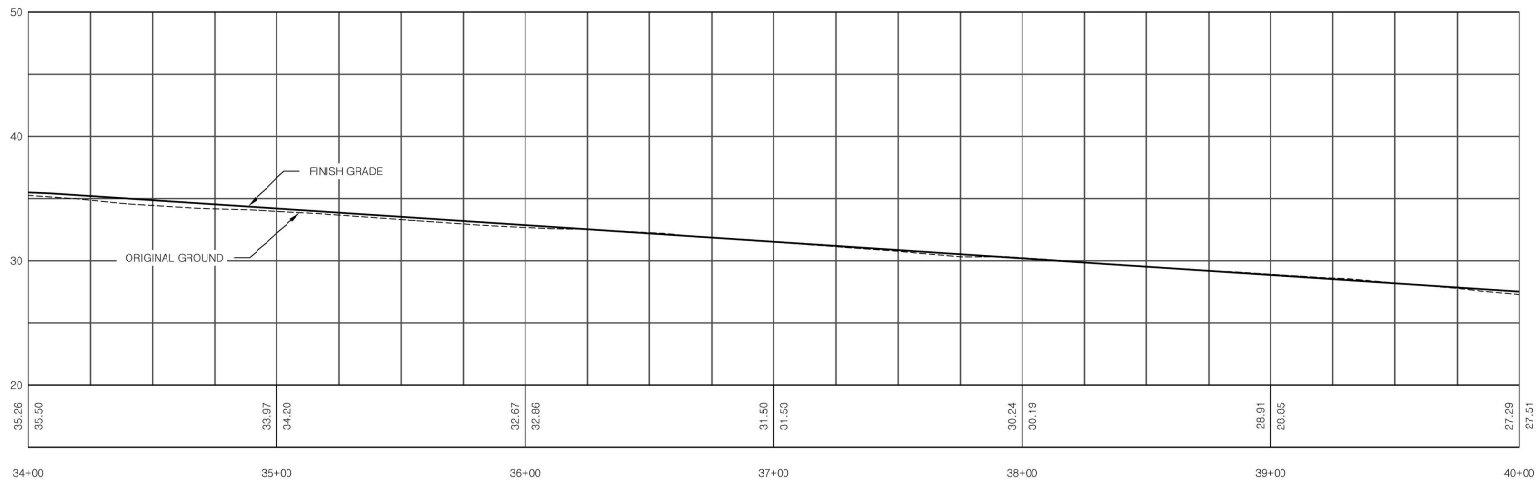
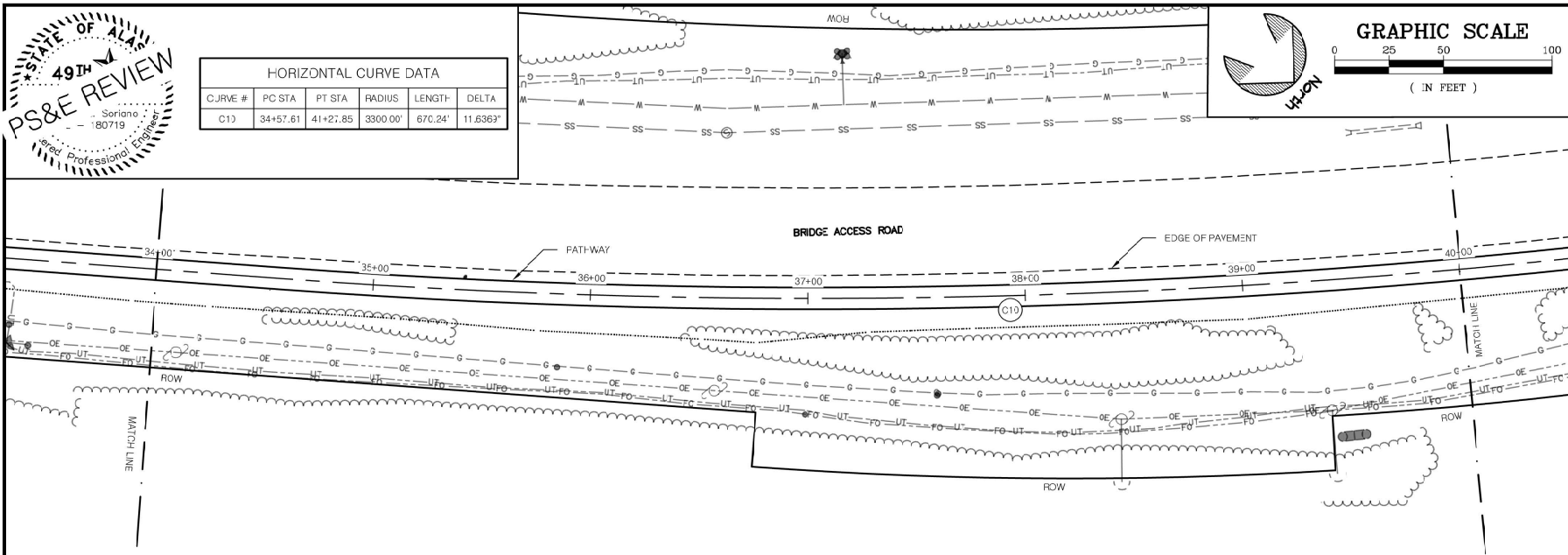
KENAI BRIDGE ACCESS ROAD
 PATHWAY
 PROJECT No. CFHWY00689



HORIZONTAL CURVE DATA				
CURVE #	PC STA	PT STA	RADIUS	DELTA
C10	34+57.61	41+27.85	3300.00'	67C.24'



GRAPHIC SCALE
0 25 50 100
(IN FEET)



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



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REVISED: D&C
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SHEET

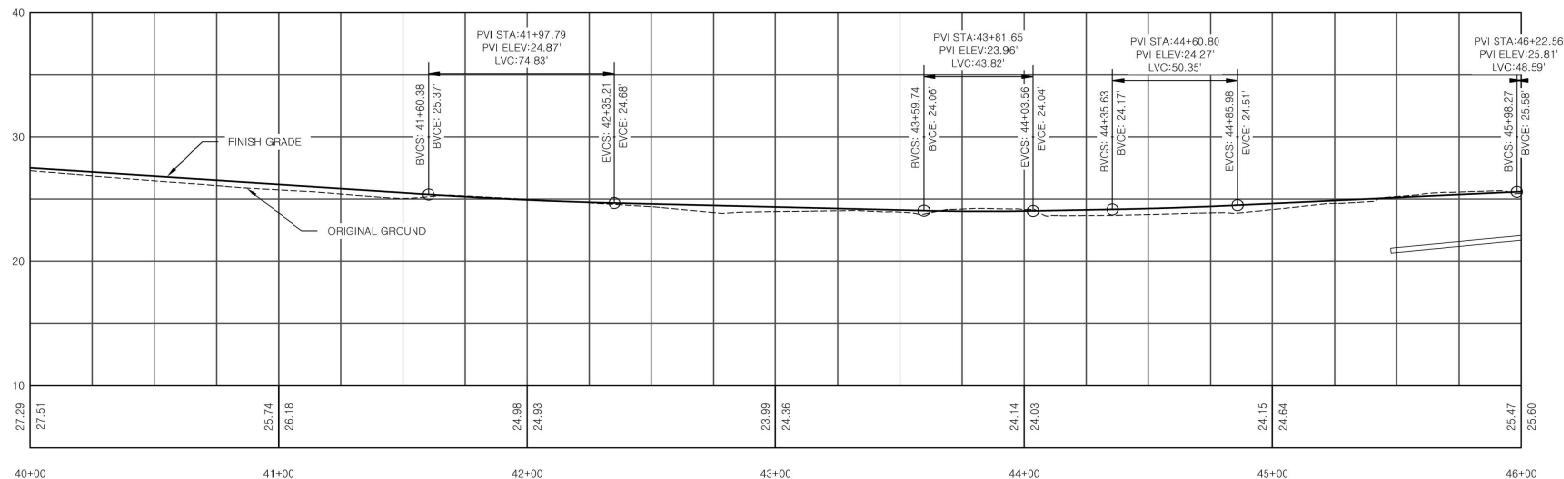
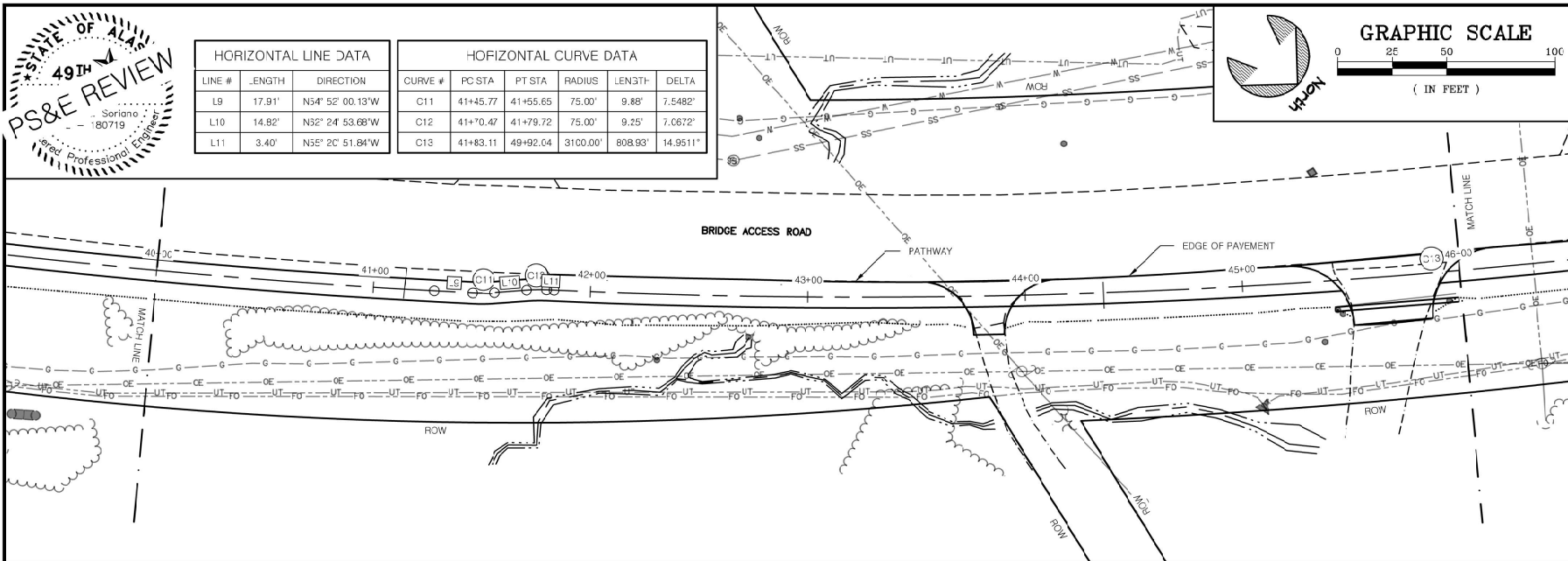
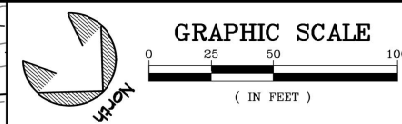
F5
OF XX SHEETS

PLAN AND PROFILE
STA: 34+00 TO STA: 40+00

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689



HORIZONTAL LINE DATA			HORIZONTAL CURVE DATA						
LINE #	LENGTH	DIRECTION	CURVE #	PC STA	PT STA	RADIUS	LEN3T	DELTA	
L9	17.91'	N54° 52' 00.13"W	C11	41+45.77	41+55.65	75.00'	9.88'	7.5482°	
L10	14.82'	N32° 24' 53.68"W	C12	41+70.47	41+79.72	75.00'	9.25'	7.0672°	
L11	3.40'	N55° 20' 51.84"W	C13	41+83.11	49+92.04	3100.00'	808.93'	14.9511°	



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
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550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
DRAWN: D&C
REVISED: D&C
DATE: APRIL 2025

SHEET

F6

OF XX SHEETS

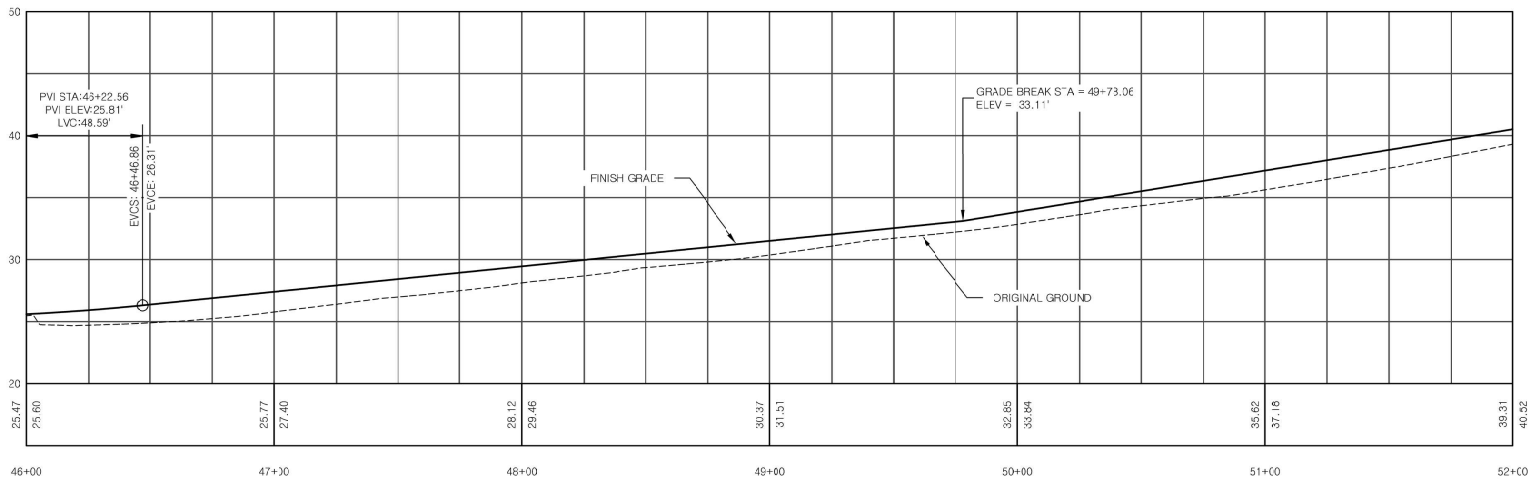
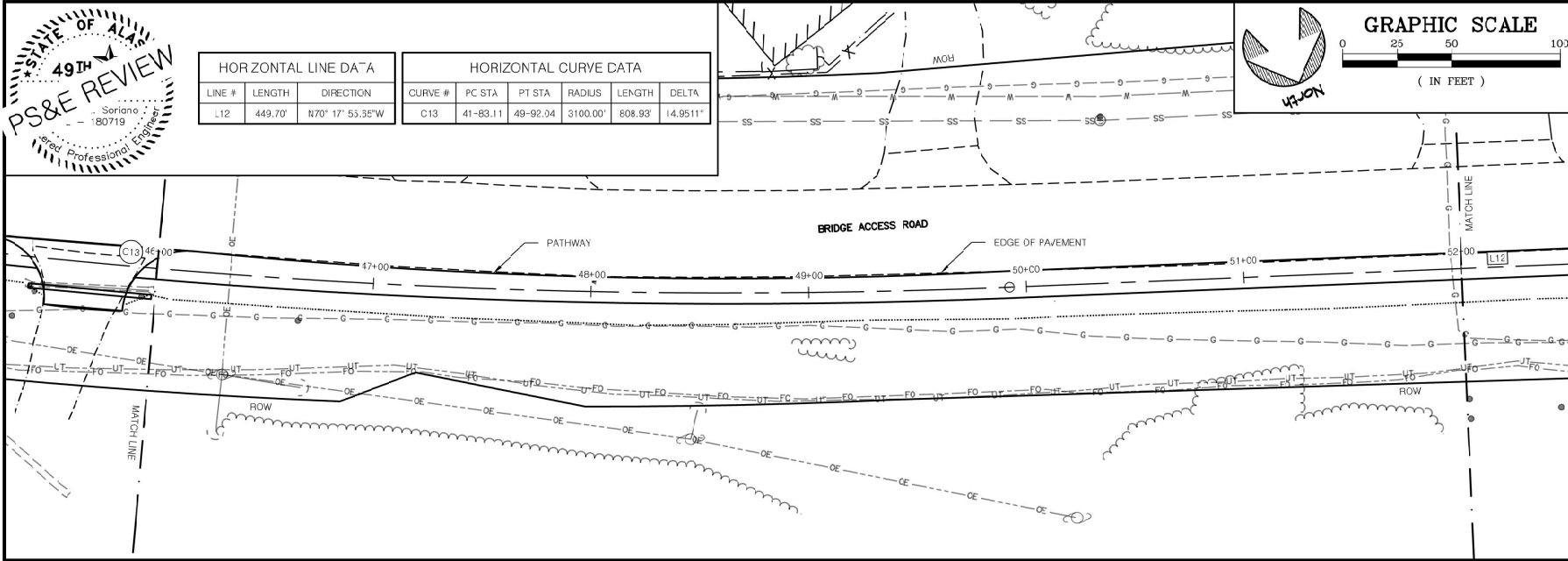
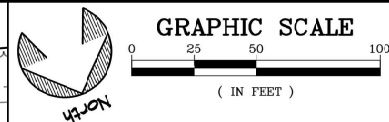
PLAN AND PROFILE
STA: 40+00 TO STA: 46+00

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689



HORIZONTAL LINE DATA		
LINE #	LENGTH	DIRECTION
L12	449.70'	N70° 17' 55.35"W

HORIZONTAL CURVE DATA					
CURVE #	PC STA	PT STA	RADIUS	LENGTH	DELTA
C13	41+83.11	49+92.04	3100.00'	808.93'	14.9511°



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
 PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
 550 W 7TH AVE, SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
 DRAWN: D&C
 REVISED: D&C
 DATE: APRIL 2025

SHEET

F7

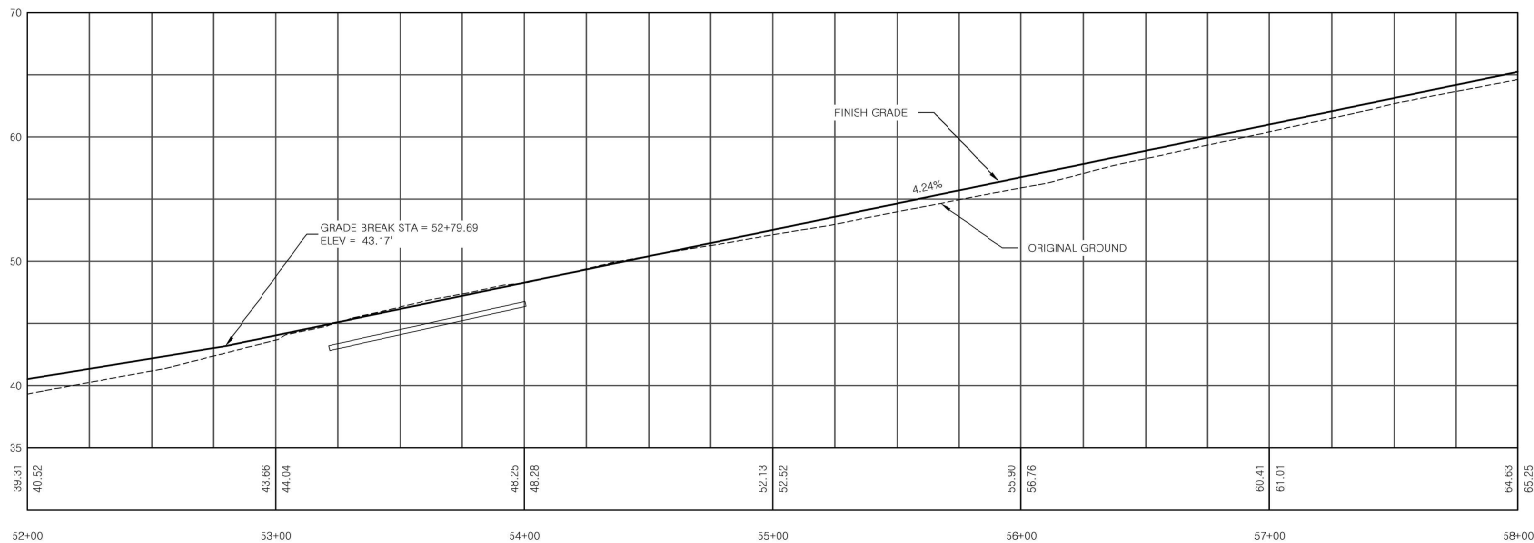
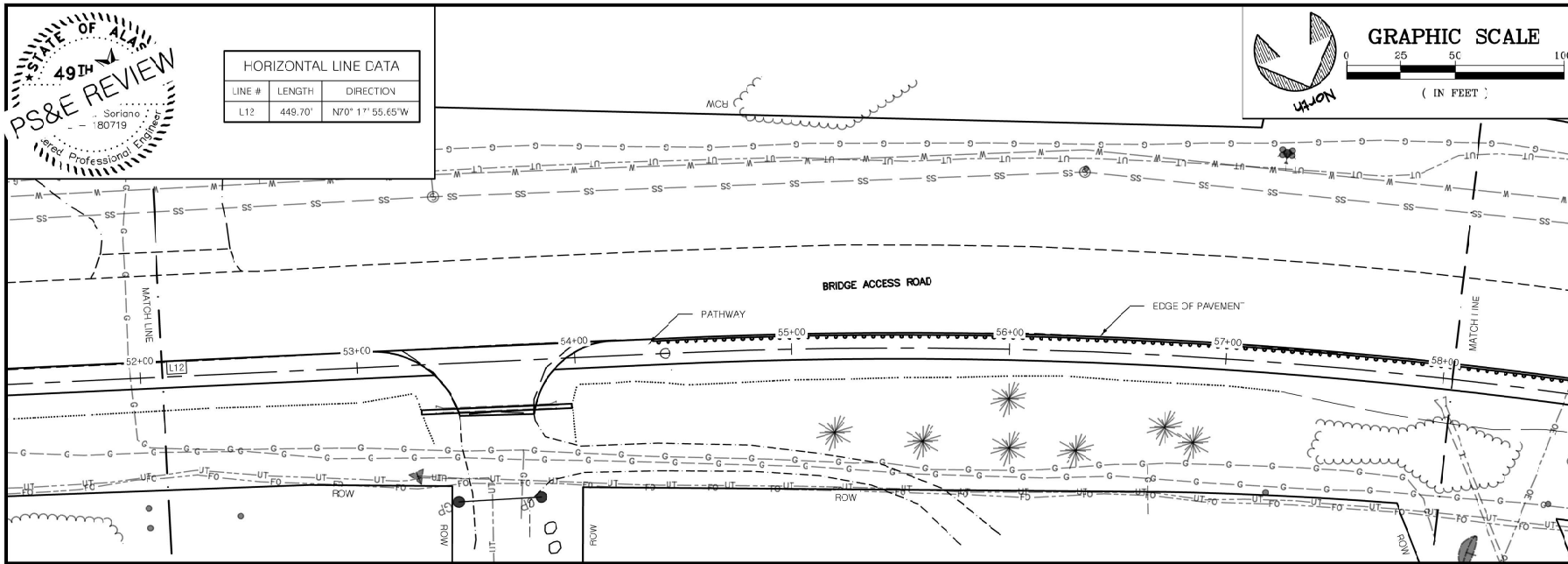
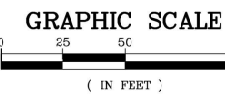
OF XX SHEETS

PLAN AND PROFILE
 STA: 46+00 TO STA: 52+00

KENAI BRIDGE ACCESS ROAD
 PATHWAY
 PROJECT No. CFHWY00689



HORIZONTAL LINE DATA		
LINE #	LENGTH	DIRECTION
L12	449.70'	N70° 1' 55.65"W



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
 550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
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 DATE: APRIL 2025

SHEET

F8

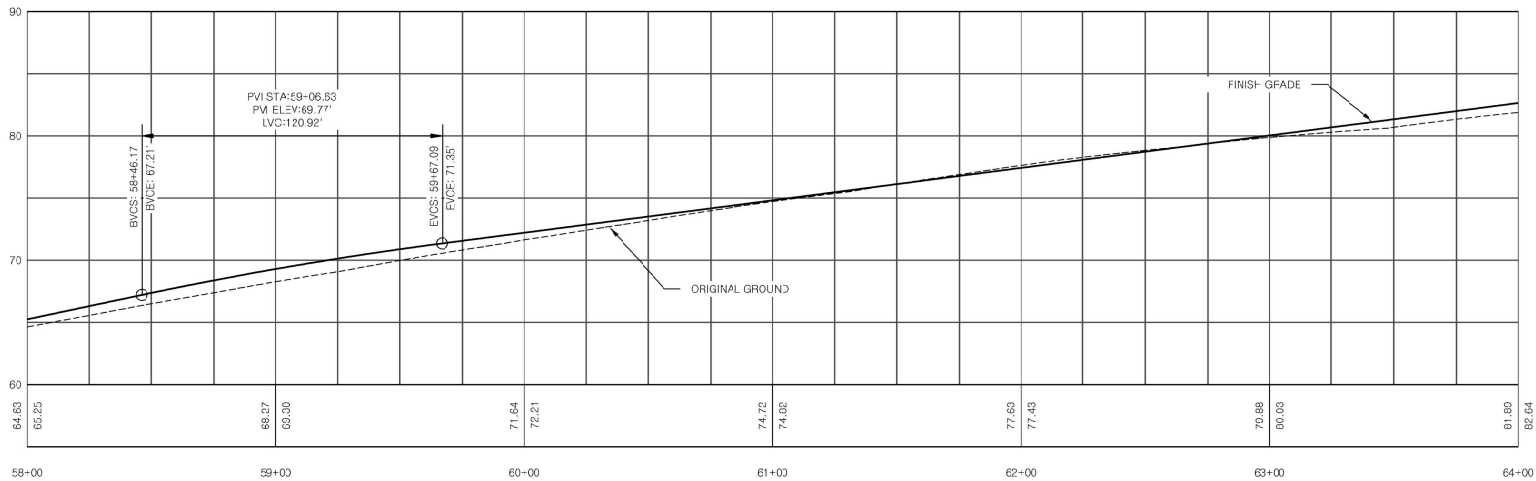
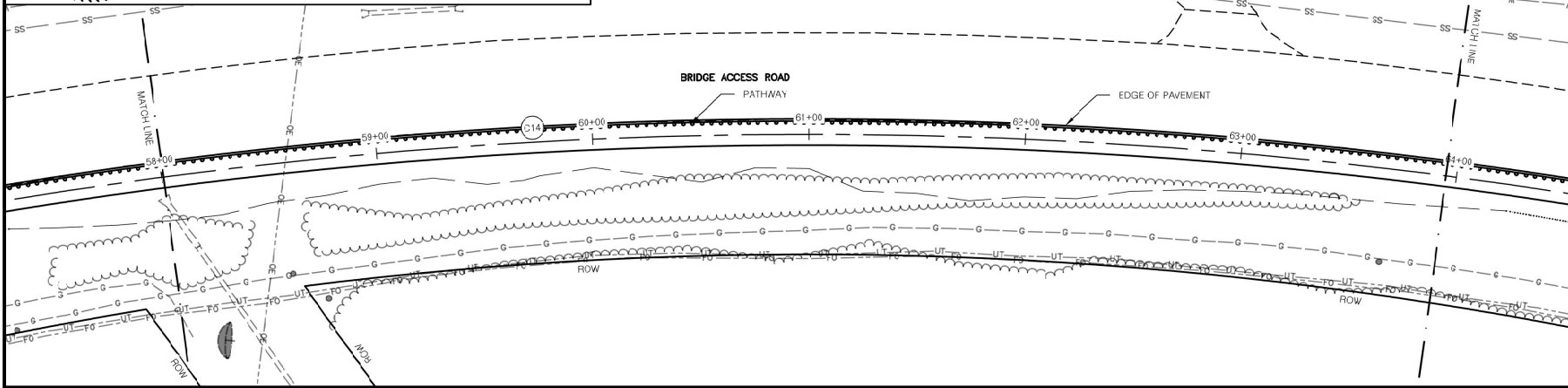
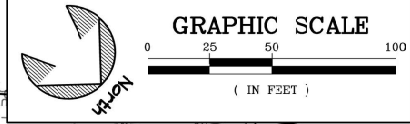
OF XX SHEETS

KENAI BRIDGE ACCESS ROAD
 PATHWAY
 PROJECT No. CFHWY00689

PLAN AND PROFILE
 STA: 52+00 TO STA: 58+00



HORIZONTAL CURVE DATA					
CURVE #	PC STA	PT STA	RADIUS	LENGTH	DELTA
C14	54+41.74	55+33.56	2271.00'	1061.61'	26.7838°



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
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550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
DRAWN: D&C
REVISED: D&C
DATE: APRIL 2025

SHEET

F9

OF XX SHEETS

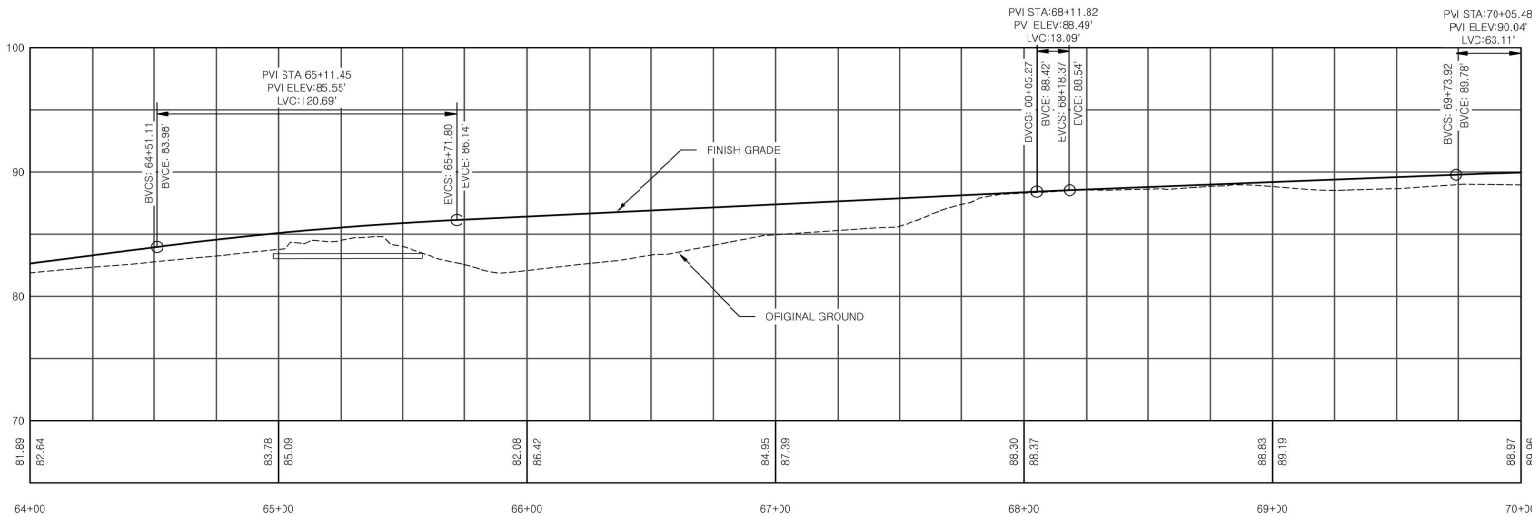
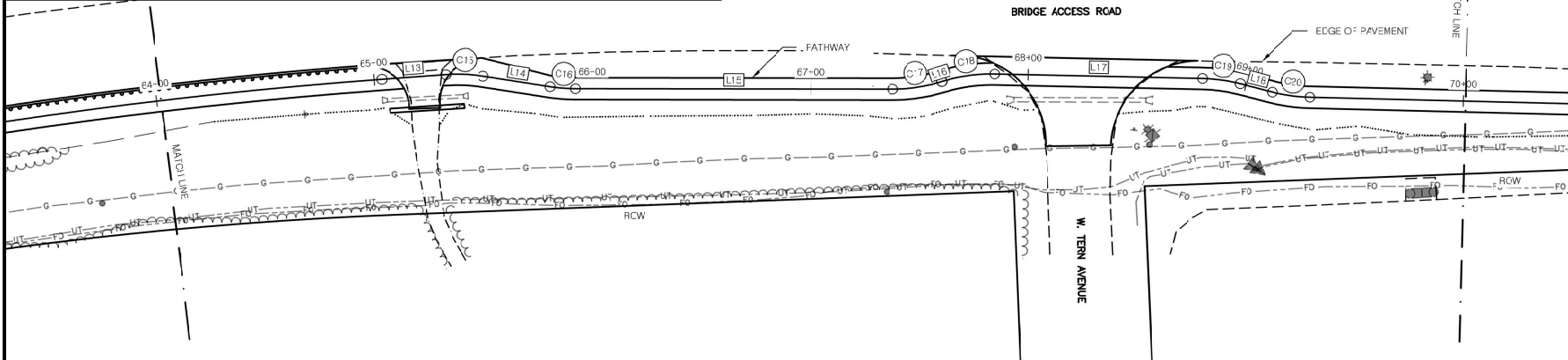
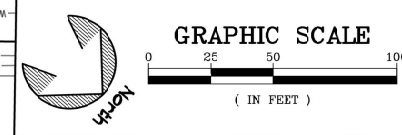
PLAN AND PROFILE
STA: 58+00 TO STA: 64+00

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689



HORIZONTAL LINE DATA		
LINE #	LENGTH	DIRECTION
L13	29.19'	N43° 30' 54.14"W
L14	30.94'	N30° 20' 10.37"W
L15	144.99'	N39° 12' 25.38"W
L16	0.12'	N56° 45' 17.87"W
L17	95.12'	N38° 32' 57.32"W
L18	15.35'	N24° 47' 00.95"W

HORIZONTAL CURVE DATA					
CURVE #	PC STA	PT STA	RADIUS	LENGTH	DELTA
C15	55+32.54	65+49.79	75.00'	17.25	13.1788°
C16	55+80.74	65+92.35	75.00'	11.61	8.8713°
C17	57+37.33	67+60.30	75.00'	22.97	17.5468°
C18	57+60.42	67+84.91	75.00'	24.49	18.7057°
C19	56+80.03	68+97.40	75.00'	17.36	13.2657°
C20	56+12.75	69+29.90	75.00'	17.15	13.1028°



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
 PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
 550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
 DRAWN: D&C
 REVISED: D&C
 DATE: APRIL 2025

SHEET

F10

OF XX SHEETS

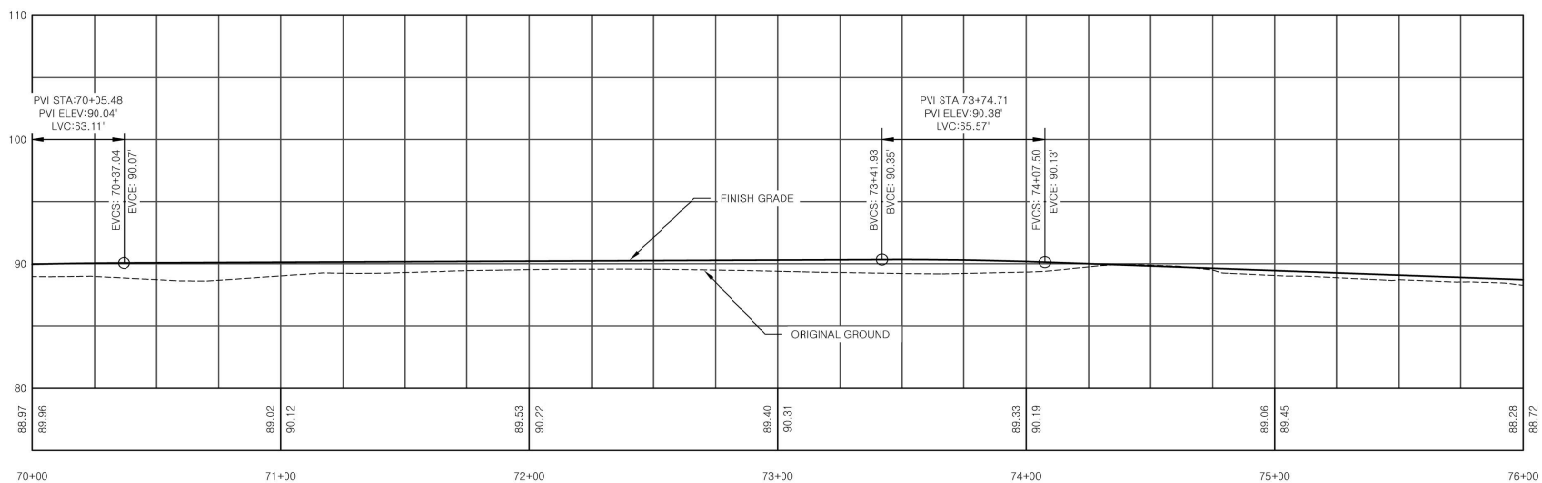
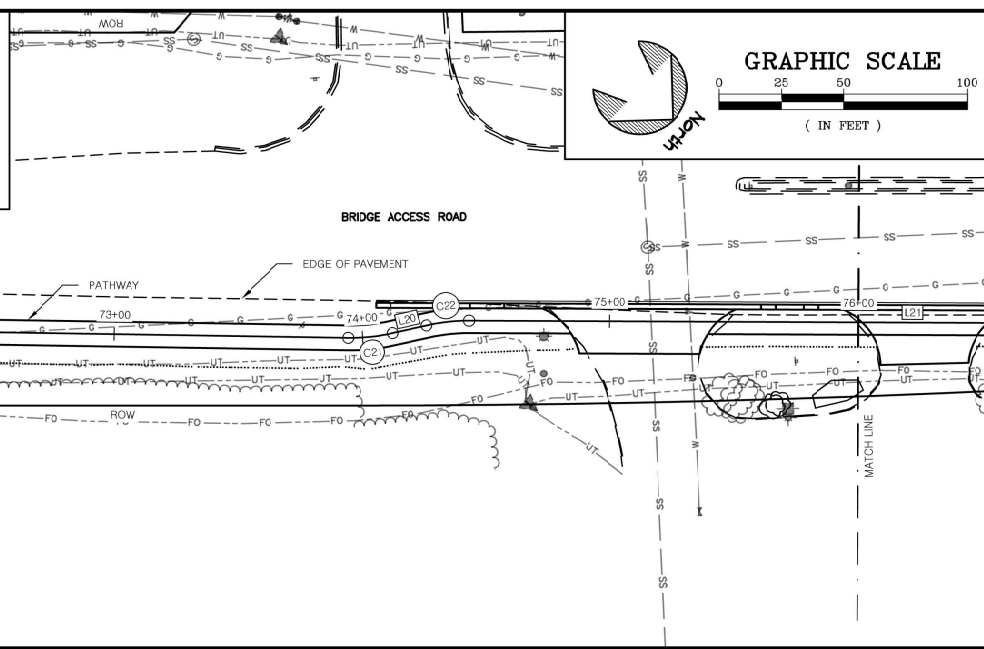
PLAN AND PROFILE
 STA: 64+00 TO STA: 70+00

KENAI BRIDGE ACCESS ROAD
 PATHWAY
 PROJECT No. CFHWY00689



HORIZONTAL LINE DATA		
LINE #	LENGTH	DIRECTION
L19	464.15'	N37° 53' 11.09"W
L20	13.36'	N51° 43' 16.12"W
L21	356.61'	N38° 32' 16.79"W

HORIZONTAL CURVE DATA						
CURVE #	PC STA	PT STA	RADIUS	LENGTH	DELTA	
C21	73+94.03	74+12.17	75.00'	18.11'	15.8347°	
C22	74+26.13	74+43.39	75.00'	17.26'	15.1831°	



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE, SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
DRAWN: D&C
REVISED: D&C
DATE: APRIL 2025

SHEET

F11

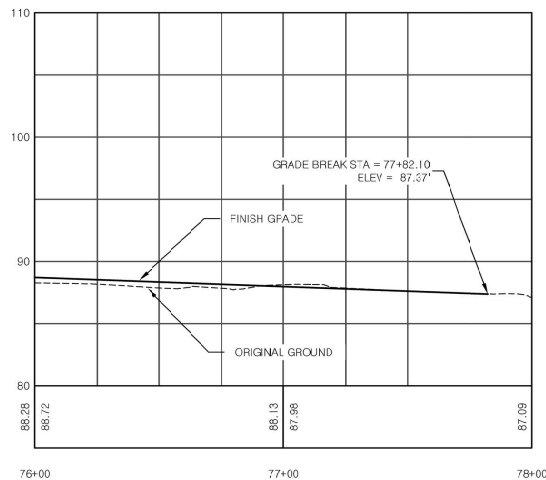
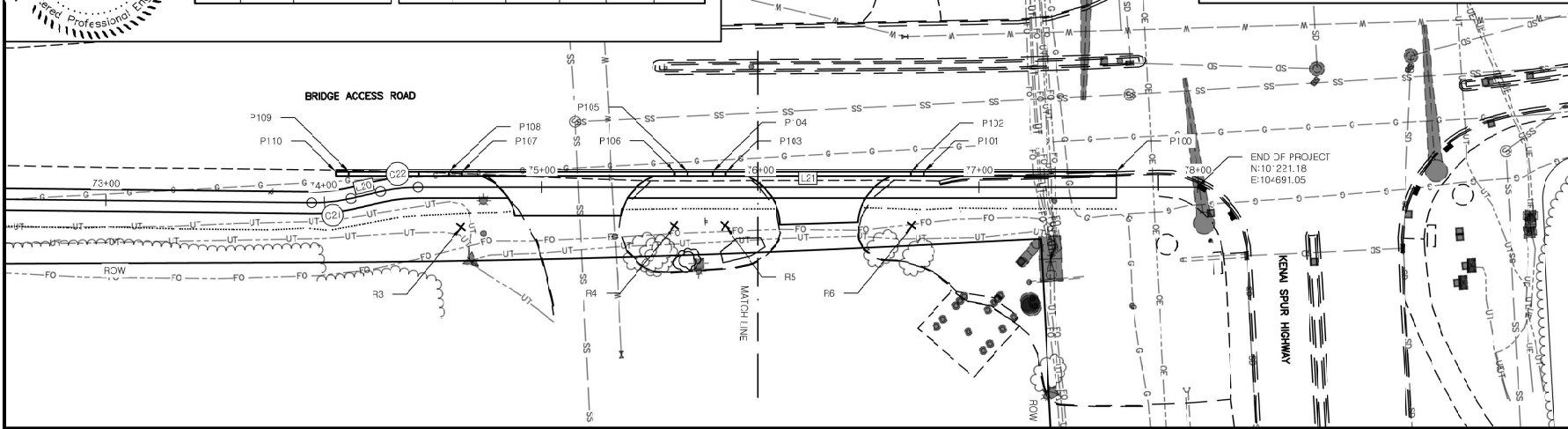
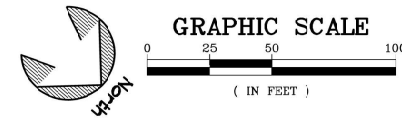
OF XX SHEETS

PLAN AND PROFILE
KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689
STA: 70+00 TO STA: 76+00



HORIZONTAL LINE DATA		
LINE #	LENGTH	DIRECTION
L20	13.96'	N51° 43' 16.12"W
L21	356.61'	N38° 32' 16.73"W

HORIZONTAL CURVE DATA					
CURVE #	PC STA	PT STA	RADIALS	LENGTH	DELTA
C21	73+94.06	74+12.17	75.00'	18.11'	13.8347°
C22	74+26.13	74+43.39	75.00'	17.25'	13.1831°



RADIUS POINT TABLE				
POINT #	NORTHING	EASTING	RADIUS	DESCRIPTION
R3	101130.28	104786.44	25'	DW RADIUS
R4	101163.41	104839.55	25'	DW RADIUS
R5	101045.34	104854.09	25'	DW RADIUS
R6	100969.11	104915.24	25'	DW RADIUS

COORDINATE POINT TABLE					
POINT #	NORTHING	EASTING	ELEVATION	CURB TYPE	DESCRIPTION
10C	101187.09	104707.97	86.94	S"ANDARD	LCC, END CURB, MATCH EXISTING
101	101118.90	104763.53	87.67	S"ANDARD	LCC, BEGIN CURB TRANSITION
102	101114.20	104767.27	87.75	DEPRESSED	LCC, END CURB TRANSITION
10C	101047.94	104820.09	88.49	DEPRESSED	LCC, BEGIN CURB TRANSITION
104	101043.25	104823.82	88.55	S"ANDARD	LCC, END CURB TRANSITION
105	101034.41	104830.86	88.64	S"ANDARD	LCC, FULL CURB
10E	101029.72	104834.60	88.69	DEPRESSED	LCC, BEGIN TRANSITION
107	100953.54	104895.28	89.67	DEPRESSED	LCC, END CURB TRANSITION
10E	100948.84	104899.02	89.76	S"ANDARD	LCC, BEGIN TRANSITION
10E	100913.21	104927.40	90.26	S"ANDARD	LCC, END TRANSITION
11C	100908.53	104931.13	90.32	DEPRESSED	LCC, CURB START, BEGIN TRANSITION

STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE, SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689

PLAN AND PROFILE
STA: 76+00 TO STA: 78+00

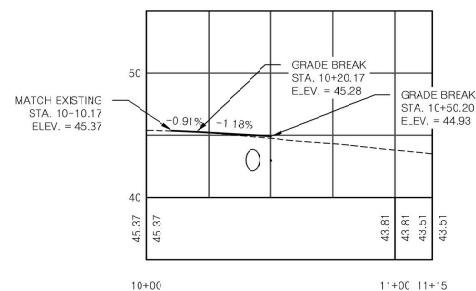
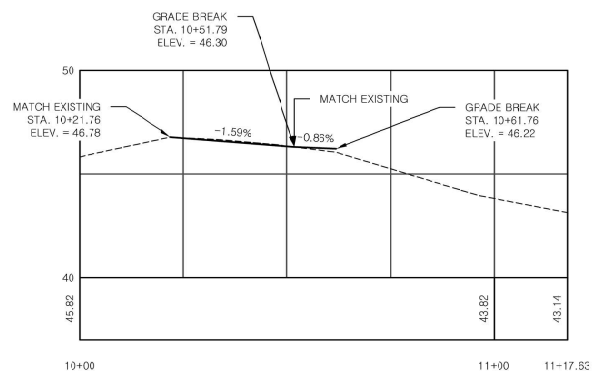
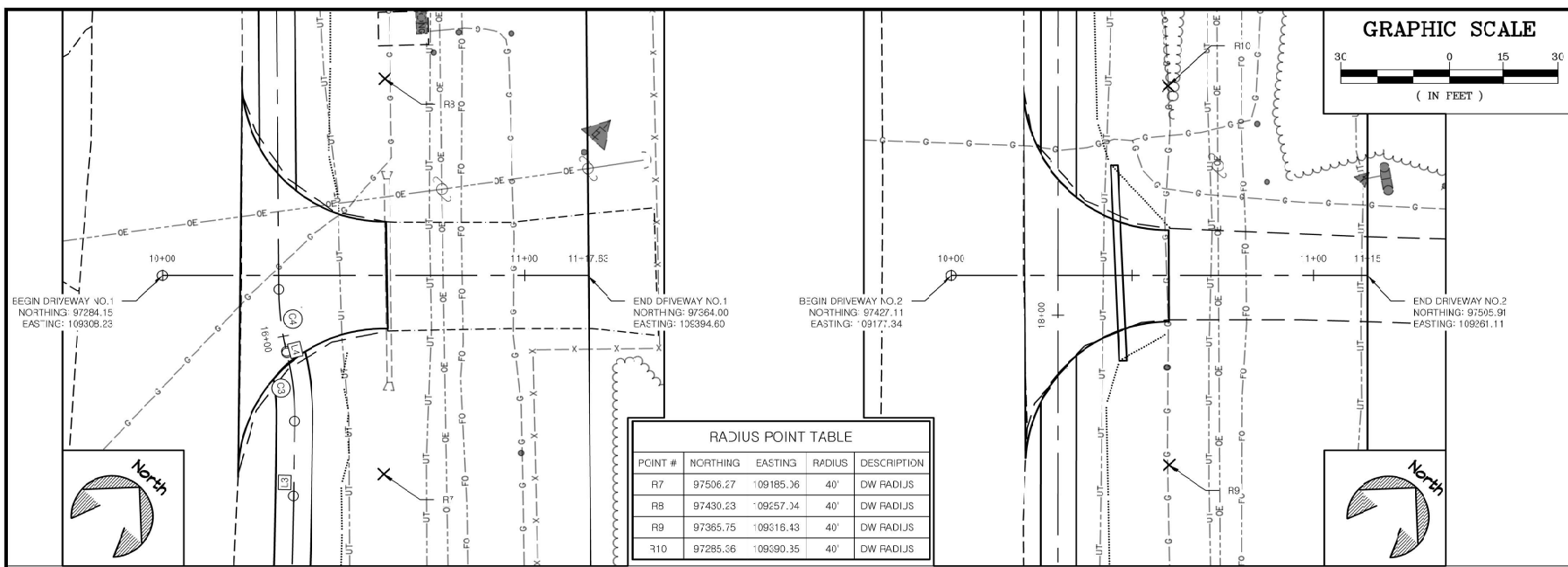


PREPARED: RCS
DRAWN: D&C
REVISED: D&C
DATE: APRIL 2025

SHEET

F12

OF XX SHEETS



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
DRAWN: D&C
REVISED: D&C
DATE: APRIL 2025

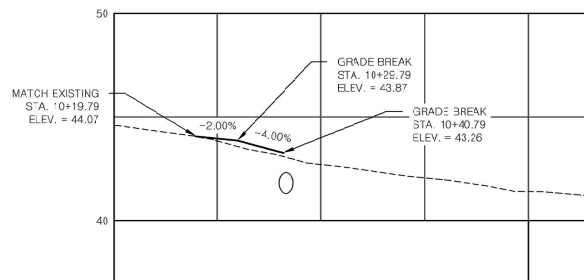
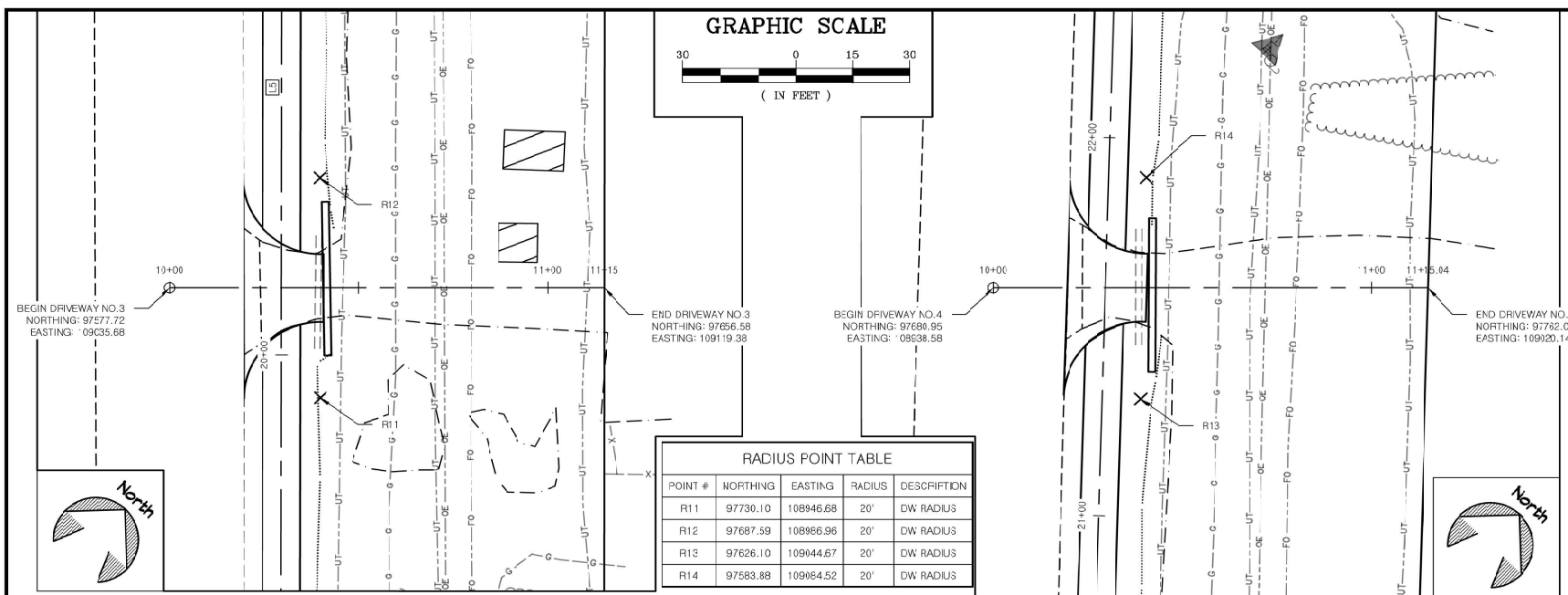
SHEET

F13

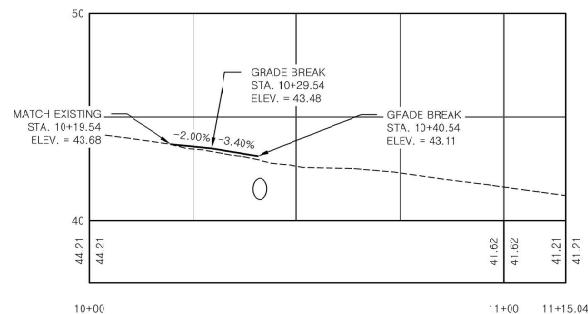
OF SHEETS

PLAN AND PROFILE
DRIVEWAY NO. 1 AND NO. 2

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689



1
F14
DRIVEWAY NO.3
MAIN ALIGNMENT STA. 20+16



2
F14
DRIVEWAY NO.4
MAIN ALIGNMENT STA. 21+60

STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
 PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
 550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
 DRAWN: D&C
 FEV BWD: D&C
 DATE: APRIL 2025

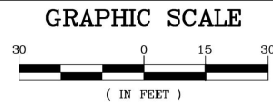
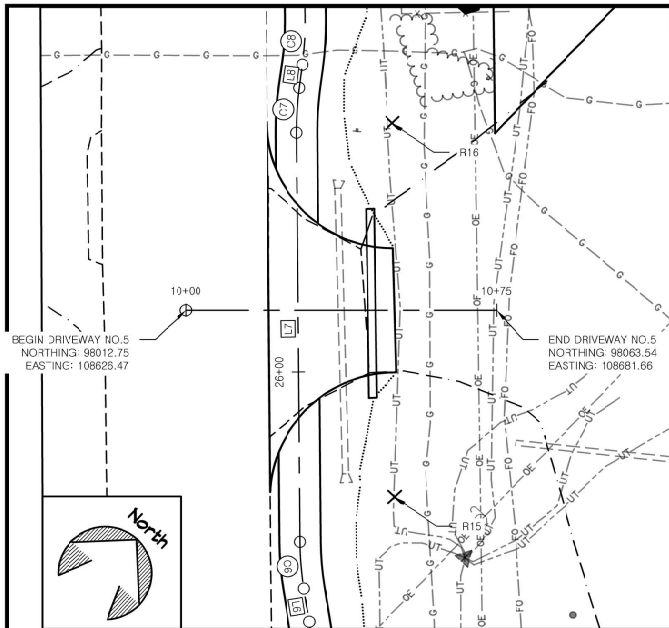
SHEET

F14

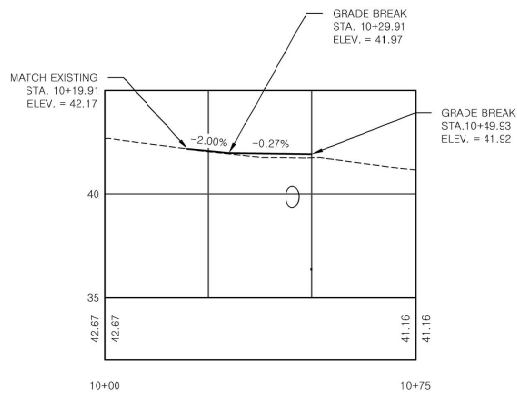
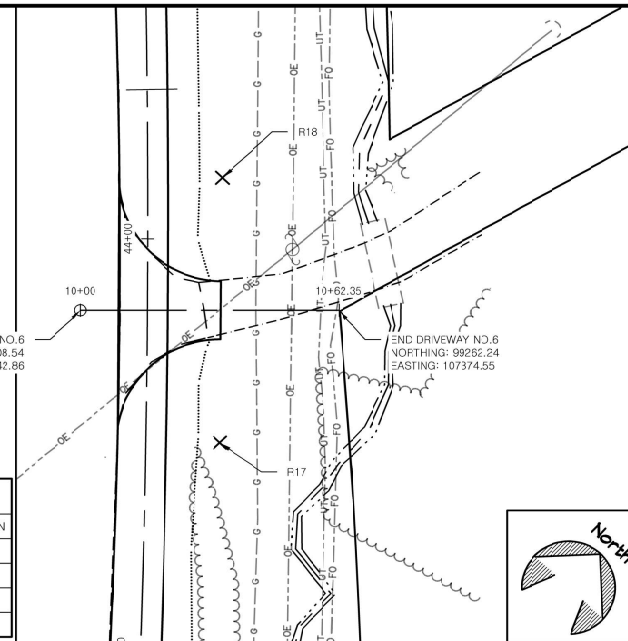
OF SHEETS

PLAN AND PROFILE
 DRIVEWAY NO.3 AND NO.4

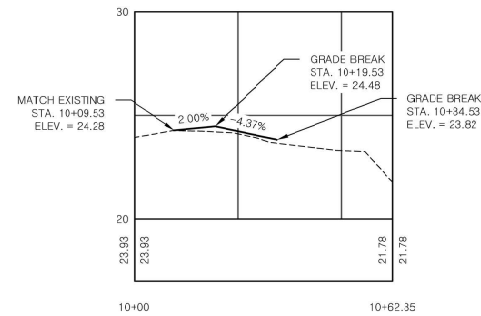
KENAI BRIDGE ACCESS ROAD
 PATHWAY
 PROJECT No. CFHWY00689



RADIUS POINT TABLE				
POINT #	NORTHING	EASTING	RADIUS	DESCRIPTION
P15	99254.33	107332.75	30'	DW RADIUS
P16	99221.28	107387.47	30'	DW RADIUS
P17	98379.75	106632.55	25'	DW RADIUS
P18	98313.76	106694.10	25'	DW RADIUS



1
F15 DRIVEWAY NO. 5
MAIN ALIGNMENT STA. 26+15



2
F15 DRIVEWAY NO. 6
MAIN ALIGNMENT STA. 42+82

STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
DRAWN: D&C
REVISED: D&C
DATE: APRIL 2025

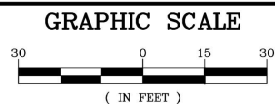
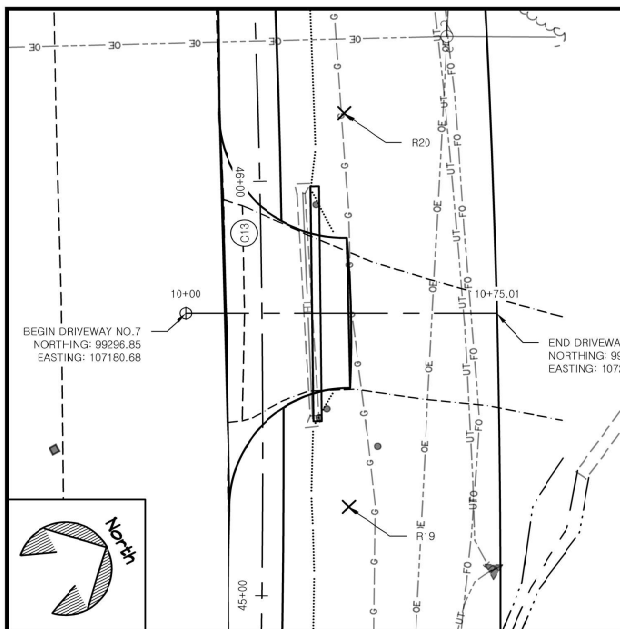
SHEET

F15

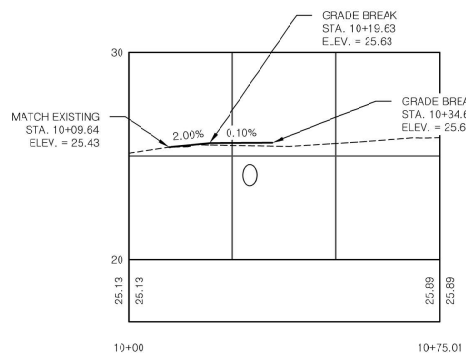
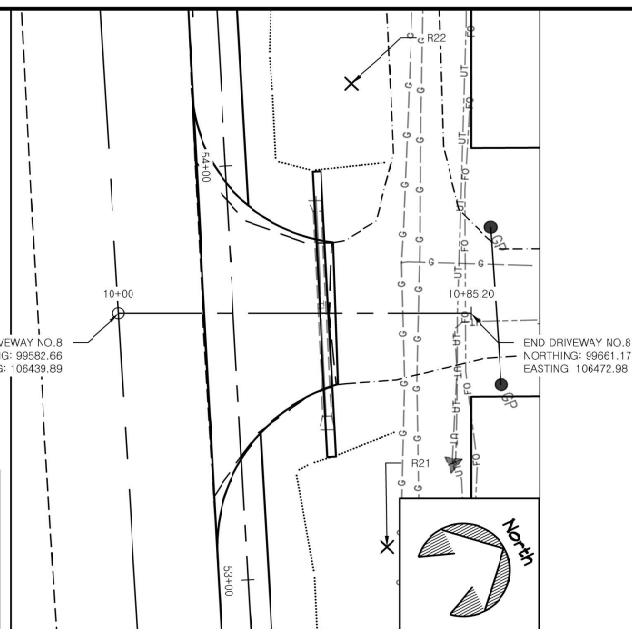
OF SHEETS

PLAN AND PROFILE
DRIVEWAY NO. 5 AND NO. 6

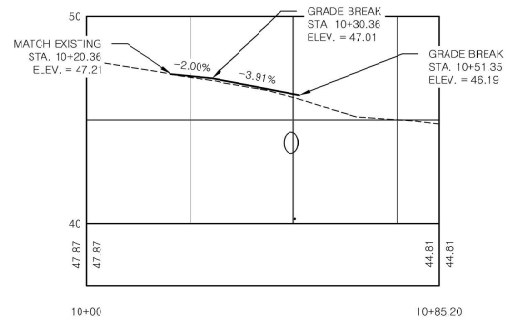
KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689



RADIUS POINT TABLE				
POINT #	NORTHING	EASTING	RADIUS	DESCRIPTION
R19	99655.98	106410.67	30'	DW' RADIUS
R20	99620.48	106517.03	30'	DW' RADIUS
R21	99353.30	107156.13	40'	DW' RADIUS
R22	99309.45	107240.42	40'	DW' RADIUS



1
F16 DRIVEWAY NO. 7
MAIN ALIGNMENT STA. 45+67



2
F16 DRIVEWAY NO. 8
MAIN ALIGNMENT STA. 33+64

STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



PREPARED: RCS
DRAWN: D&C
FEV EWD: D&C
DATE: APRIL 2025

SHEET

F16






OF SHEETS

PLAN AND PROFILE
DRIVEWAY NO. 3 AND NO. 2

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689

SIGNING & STRIPING NOTES:

- ALL STATION LOCATIONS FOR SIGN INSTALLATION ARE APPROXIMATE. INSTALL SIGNS AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- USE THE FOLLOWING DEFINITIONS TO DECRYPTER THE ABBREVIATED SIGN POST TYPES IN THE SIGN SUMMARY SHEETS.
 - PST MEANS A PERFORATED STEEL TUBE
 - T MEANS A SQUARE STEEL TUBE
 - P MEANS A ROUND STEEL PIPE
 - W MEANS A WIDE FLANGE BEAM
 - PPPL MEANS A POLE PLATE INSTALLED PER TS ALASKA STANDARD PLAN S-23.
- FABRICATE ALL SIGNS FROM 0.25" THICK ALUMINUM SHEETING, UNLESS STATED ELSEWHERE, WITH TYPE IX REFLECTIVE SHEETING.
- FOR PERFORATED STEEL TUBE SIGNPOSTS, INSTALL THE CONCRETE FOUNDATION OPTION SHOWN ON STANDARD PLAN S-30. TRIM EACH POST TO LIMIT THE LENGTH INSERTED INTO THE FOUNDATION TO 2 INCHES.
- ERECT NEW SIGNS BEFORE REMOVAL OF EXISTING SIGNS WITH SIMILAR MESSAGE. NOTIFY THE ENGINEER A MINIMUM OF 14 DAYS PRIOR TO BEGINNING SIGN REMOVAL AND SALVAGE OR DISPOSAL ACTIVITIES.
- SELECTIVE AND HAND CLEARING SHALL BE PERFORMED AT THE DISCRETION OF THE ENGINEER, IN ACCORDANCE WITH SECTION 201, UPSTREAM OF ALL SIGN INSTALLATION LOCATIONS TO ACHIEVE MINIMUM SIGN VISIBILITY REQUIREMENTS. IF NOT INCLUDED AS A SEPARATE ITEM, THIS WORK SHALL BE SUBSIDIARY TO THE SIGN INSTALLATION ITEMS AND WORK.
- FOR ALL FINAL PAVEMENT MARKINGS USE METHYLMETHACRYLATE MATERIALS. ALL STRIPING AND MARKINGS SHALL BE INLAIN AND 125 MILS.
- DIMENSIONS REFER TO THE CENTER OF STRIPE AND THE EDGE OF PAVEMENT OR FACE OF CURB WHEN PRESENT.
- IF THE NEW AND EXISTING PAVEMENT MARKINGS ARE NOT ALIGNED AT MATCH LINE, TRANSITION BETWEEN THE TWO USING A 100:1 TAPER ON THE NEW PAVEMENT.

SIGN SUMMARY TABLE															
SHEET	POST NO.	STATION	OFFSET	TYPE	LEGEND	SIZE (IN)		AREA (S.F.)	SIGN FACES	POST: N.C., SIZE & TYPE	FRAMED?		SALVAGE SIGN (EACH)	REMARKS	
						WIDTH	HEIGHT				YES	NO			
H1	1	10+12	25 RT	R1-1		24	24	6.25	N	3" T		X	X		
H1	2	10+30	10 LT	D11-I-SP		30	30	6.25	E	3" T		X			
H6	3	67+63	10 FT	D1WH11-SP		30	30	6.25	W	3" T		X			
H6	4	68+47	25 FT	R1-1		30	30	6.25	E	3" T		X	X		
H6	5	68+78	10 LT	D11-I-SP		24	24	6.25	S	3" T		X			
								TOTAL:	31.25				TOTAL:	1	



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
 550 W 7TH AVE, SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731



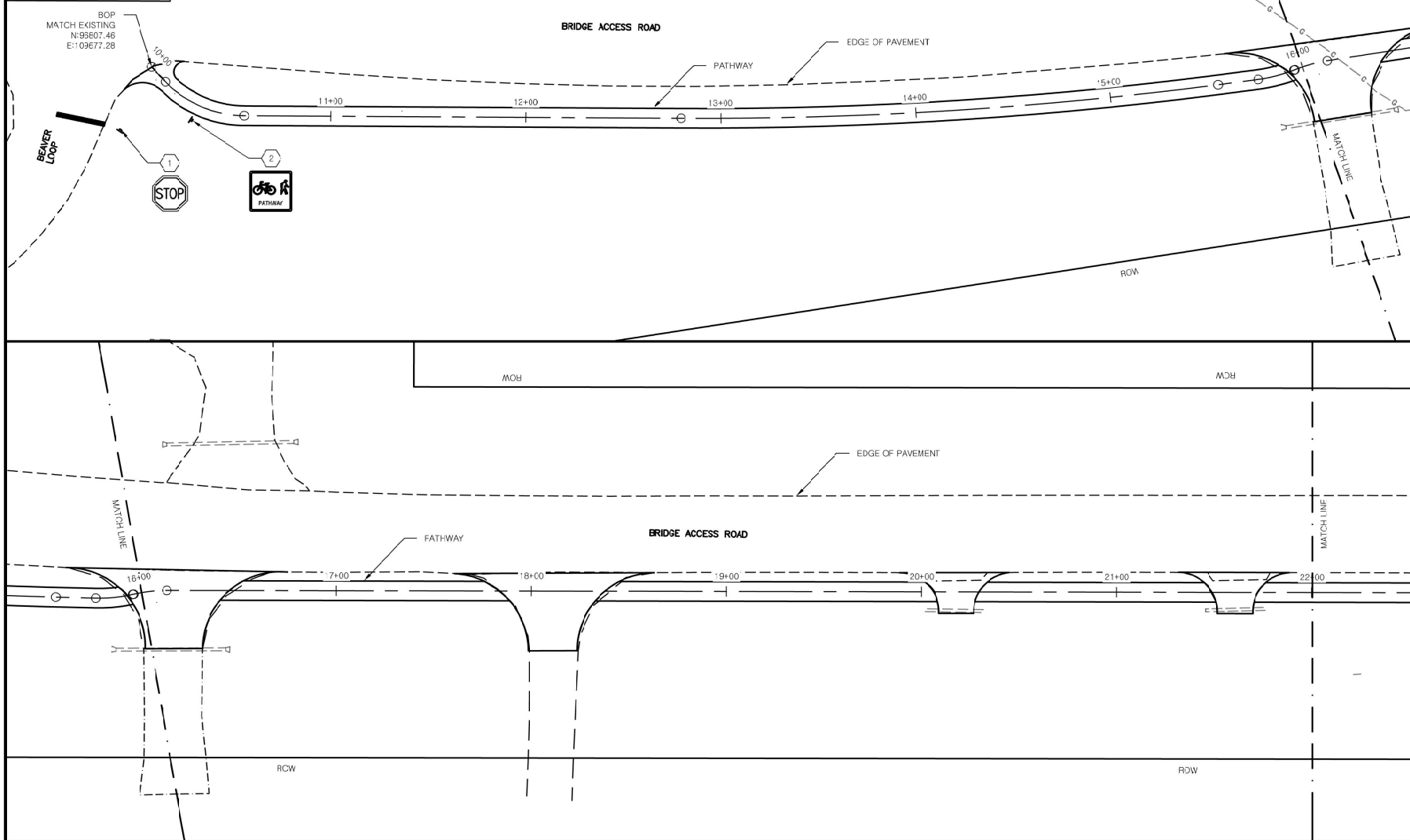
PREPARED: RCS
 DRAWN: D&C
 REVISED: D&C
 DATE: APRIL 2025

SHEET

H1
 OF XX SHEETS

SIGN SUMMARY AND NOTES

KENAI BRIDGE ACCESS ROAD
 PATHWAY
 PROJECT No. CFHWY00689



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE, SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731

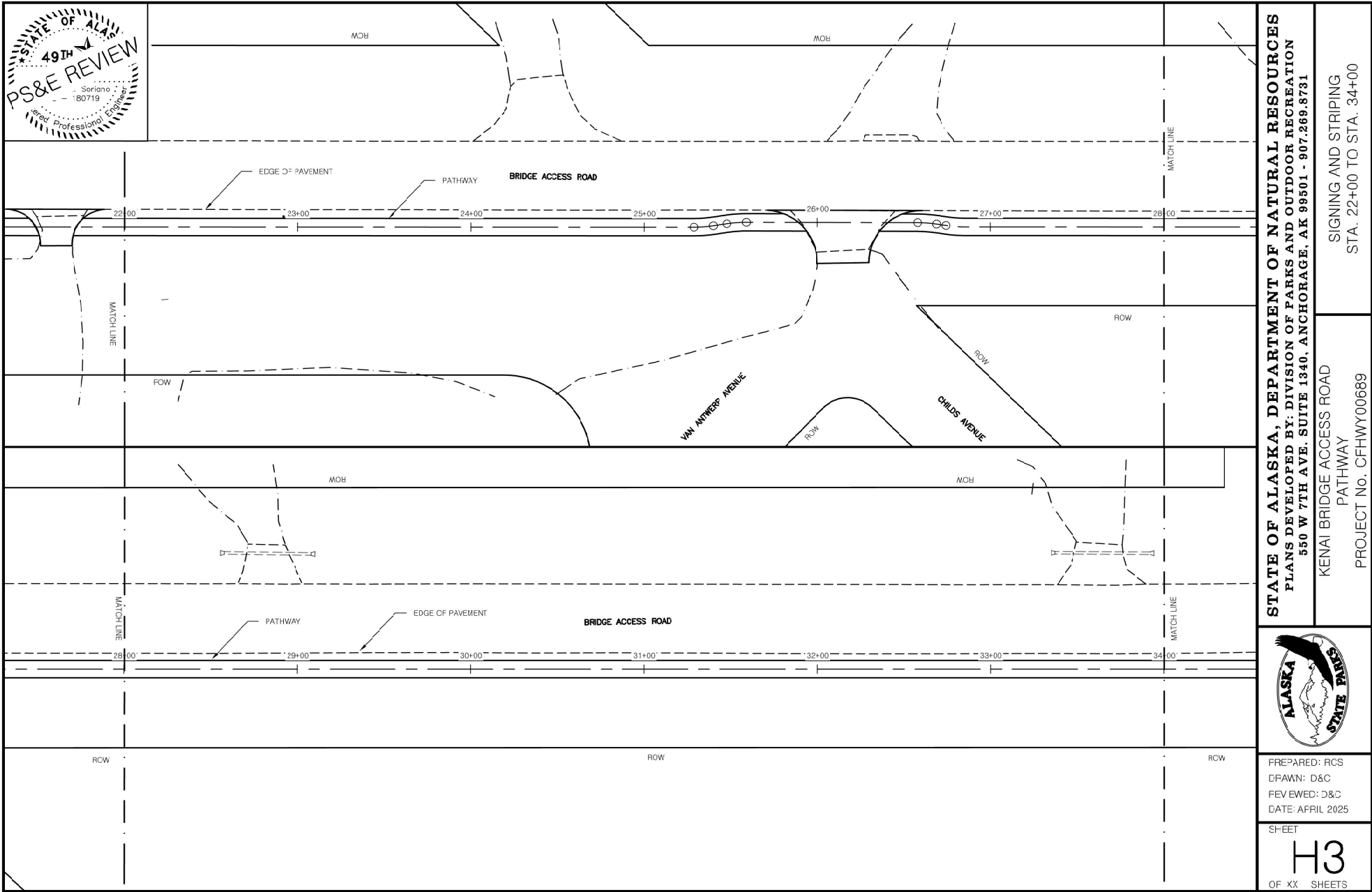
KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689

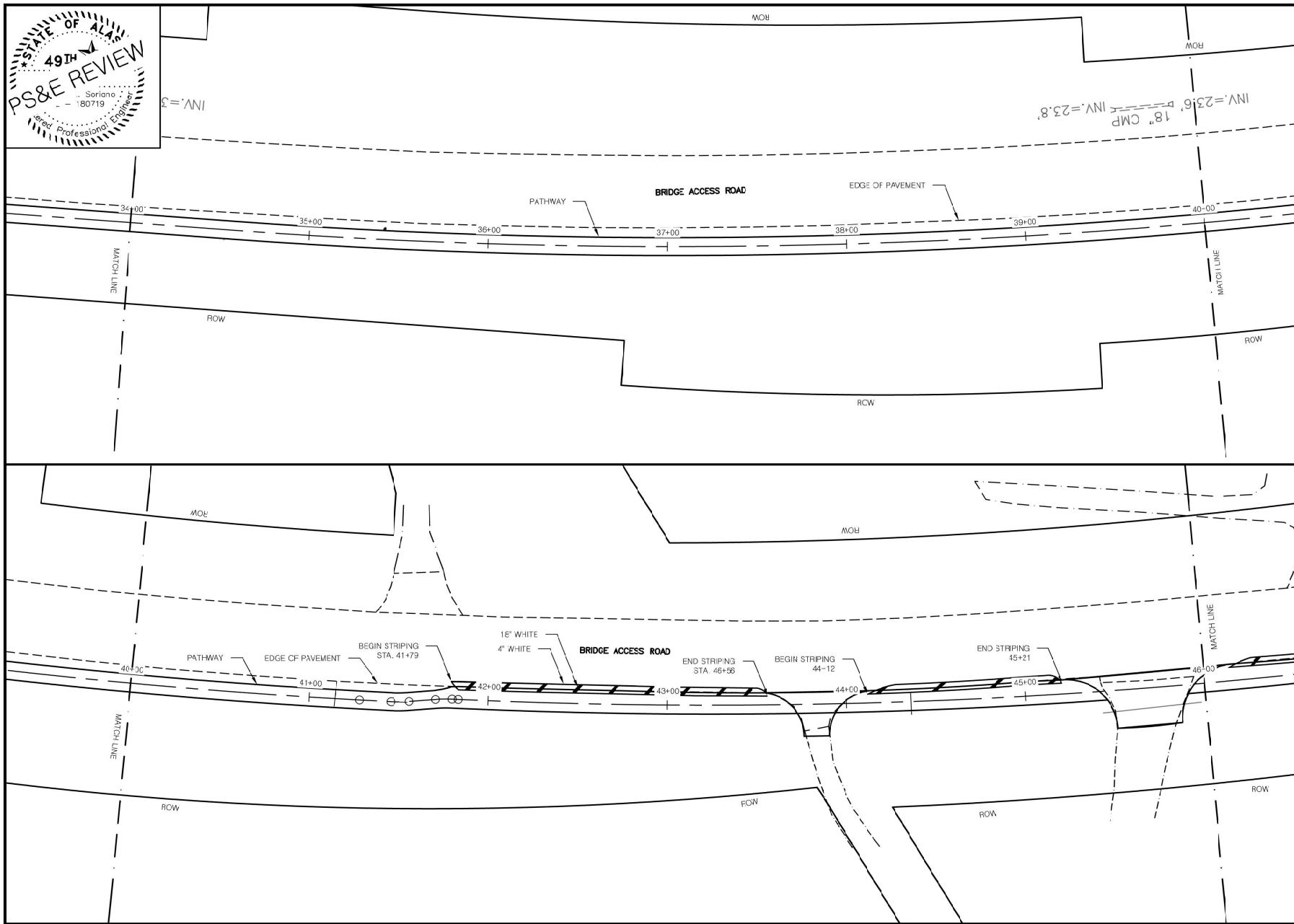
SIGNING AND STRIPING
STA. 10+00 TO STA. 22+00




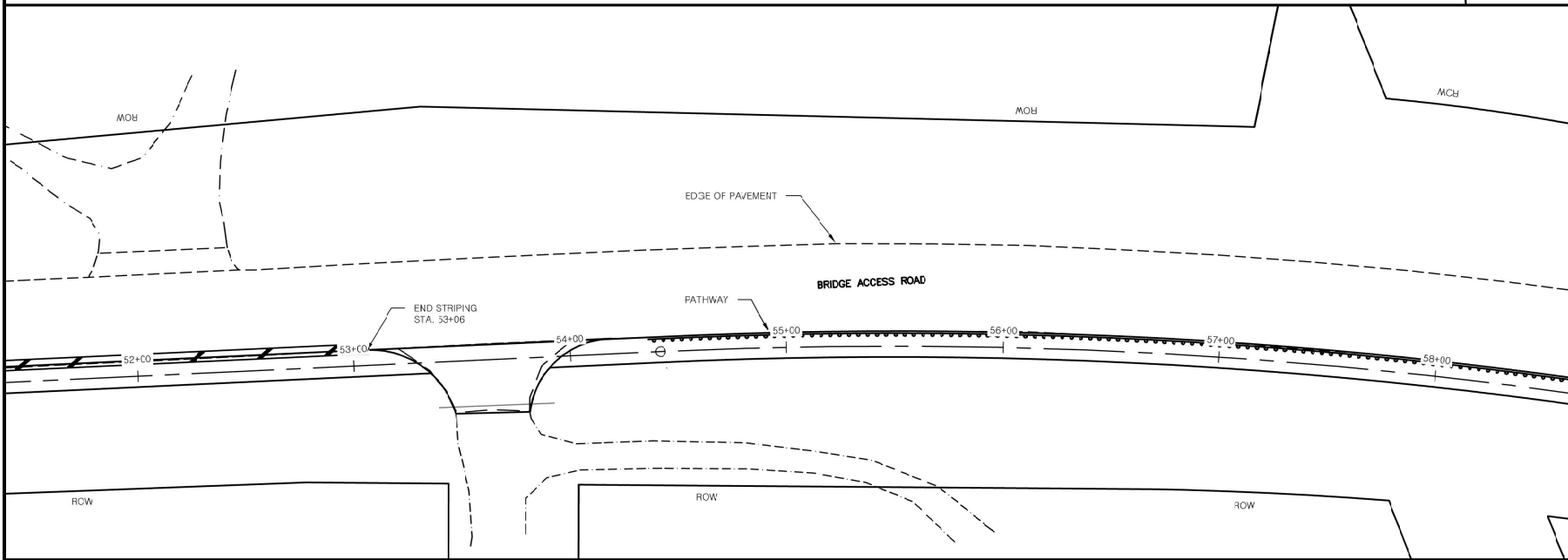
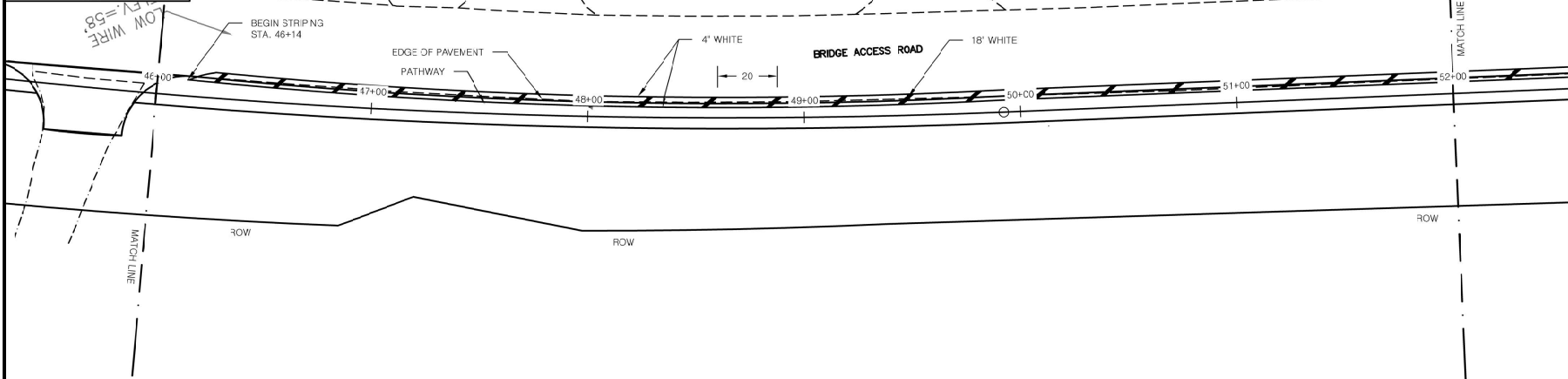
PREPARED: RCS
DRAWN: D&C
REVIEWED: D&C
DATE: APRIL 2025

SHEET
H2
OF XX SHEETS





	STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION 550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731	
	PROJECT No. CFHWY00689	SIGNING AND STRIPING STA. 34+00 TO STA. 46+00
PREPARED: RCS DRAWN: D&C REVIEWED: D&C DATE: APRIL 2025		
SHEET H4 OF XX SHEETS		



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731

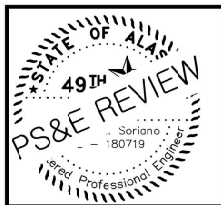
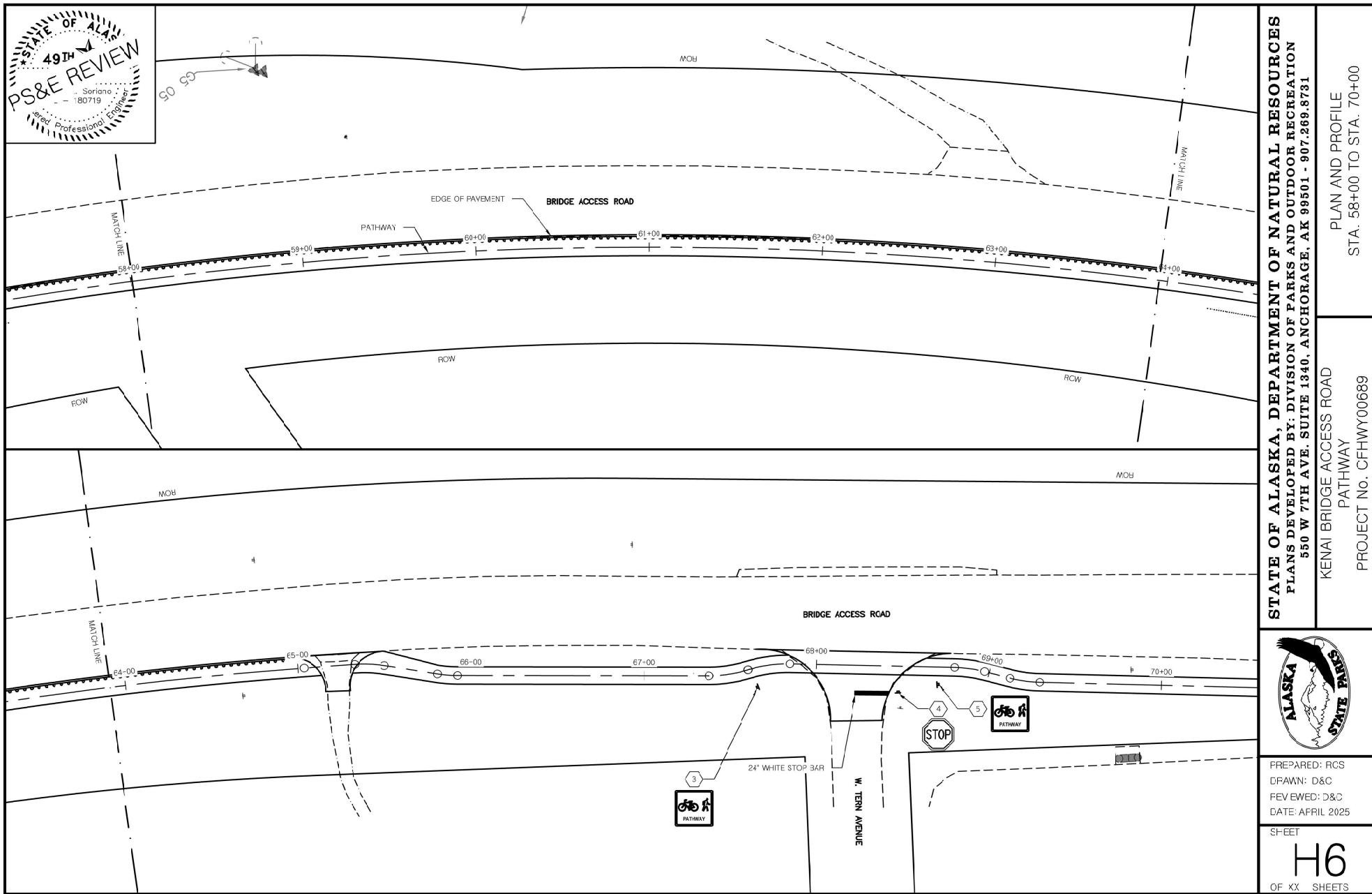


PREPARED: RCS
DRAWN: D&C
REVIEWED: D&C
DATE: APRIL 2025

SHEET
H5
OF XX SHEETS

PLAN AND PROFILE
STA. 46+00 TO STA. 58+00

KENAI BRIDGE ACCESS ROAD
PATHWAY
PROJECT No. CFHWY00689



STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
 PLANS DEVELOPED BY: DIVISION OF PARKS AND OUTDOOR RECREATION
 550 W 7TH AVE. SUITE 1340, ANCHORAGE, AK 99501 - 907.269.8731

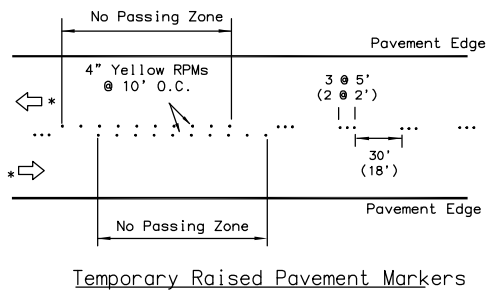
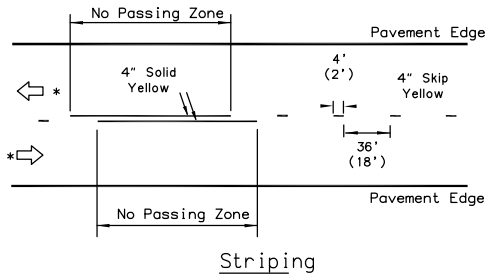


PREPARED: RCS
 DRAWN: D&C
 FEV EWED: D&C
 DATE: APRIL 2025

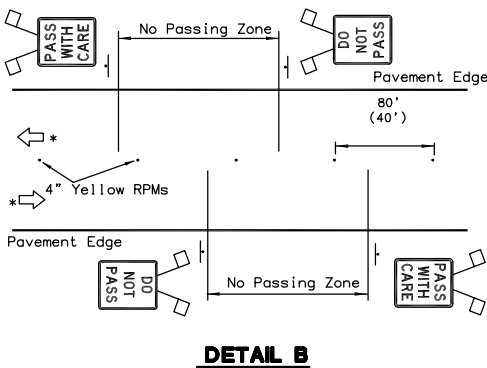
SHEET
H6
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KENAI BRIDGE ACCESS ROAD
 PATHWAY
 PROJECT No. CFHWY00689

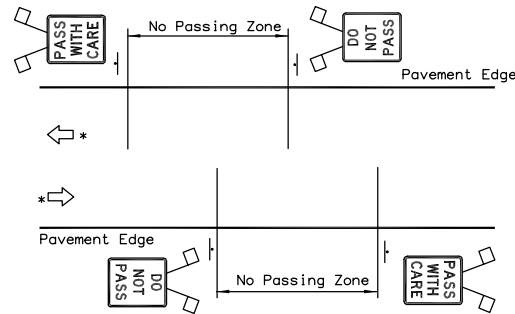
PLAN AND PROFILE
 STA. 58+00 TO STA. 70+00

**DETAIL A**

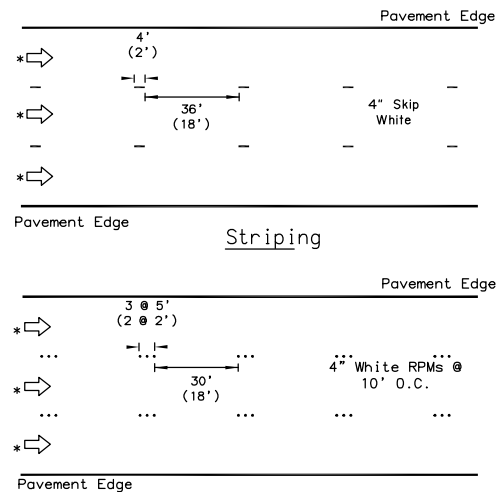
Two-lane road: No Passing Zones indicated with pavement markings.

**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.

**DETAIL D**

Multilane one-way road: Lane dividing lines

* Direction of Travel

GENERAL NOTES:

- 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.
- No interim pavement markings are required:
 - on projects that will not have permanent markings when finished.
 - 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.
 - 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:
 - for 3 days if seasonal ADT is above 2000, or
 - for 1 month if seasonal ADT is below 2000.
- 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.
- 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.
- Install high level warning devices on all DO NOT PASS and PASS WITH CARE signs.
- Offset temporary markings 8"-12" from the future location of permanent markings if applied on the same lift of pavement.
- Dimensions in parenthesis apply to curves with a radius of 1000 feet or less or where posted speed limit is 30 mph or less.

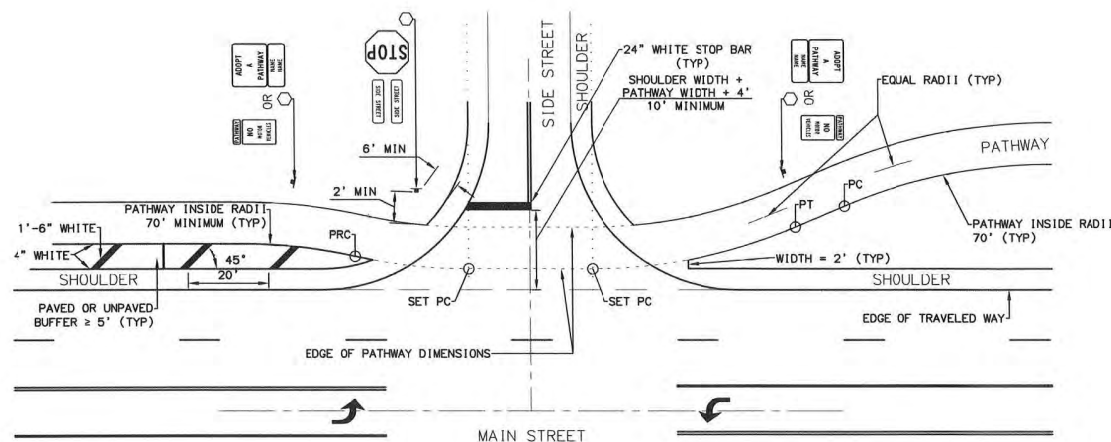
State of Alaska DOT&PF
ALASKA STANDARD PLAN
INTERIM
PAVEMENT MARKINGS

Adopted as an Alaska
Standard Plan by: *Kenneth J. Fisher, P.E.*
Chief Engineer

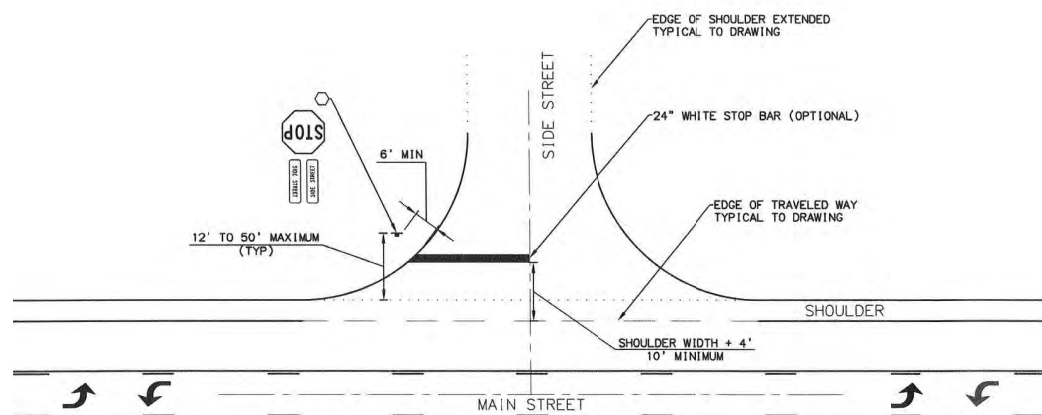
Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029



TYPICAL UNCURBED RETURN WITH PATHWAY



TYPICAL UNCURBED RETURN WITHOUT SIDEWALK

UNCURBED INTERSECTION NOTES: (IN PRIORITY ORDER)

SIGNING:

1. Locate STOP sign so it is visible to approaching traffic and near the stop bar.
2. Provide 2' of clearance between edge of STOP sign panel and edge of pathway or sidewalk.
3. Provide 6' of clearance between edge of STOP sign panel and edge of side street.
4. Place pathway regulatory signs at collector or arterial roadway junctions with side streets. Side streets are typically greater than 1000 vehicles a day, or connect through traffic to other collectors or arterials.
5. PATHWAY NO MOTOR VEHICLES signs are not required within the Municipality of Anchorage.
6. See plans for pathway signing required at side streets.

STRIPING:

1. Stop bars are not required when no pathway or sidewalk is present. See plans.
2. Locate stop bar 4' minimum behind the width of pathway or sidewalk.
3. Break centerline striping within intersections which have dedicated turn lanes.
4. Continue centerline striping through intersections with center two-way-left-turn-only lanes or when there are no mainline left turn lanes.
5. Continue lane "skip" striping through intersections.
6. Delete outermost edge of traveled way striping at intersections or wrap striping to side street.
7. Match side street striping if striping is present.

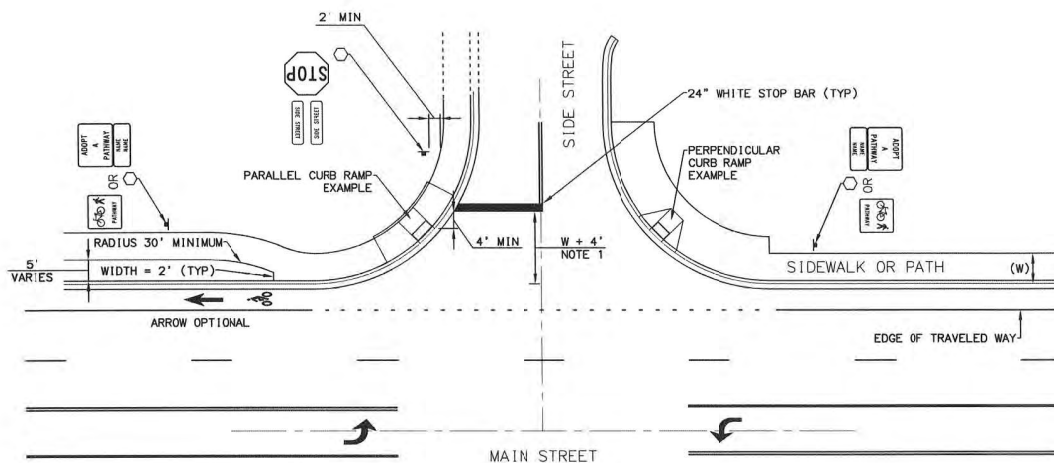
State of Alaska DOT&PF
CENTRAL REGION
STANDARD DETAIL
Un-Signalized Intersection:
Non-Curbed Stop and Crossing
Traffic Safety Details

Adopted as a Central
Region Standard Detail by: 
John R. Linnell, P.E.
CR Preconstruction Engineer

Adoption Date: 06/30/2020

Last Code and Stds. Review By: Date:
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Next Code and Standards Review date: 06/30/2030



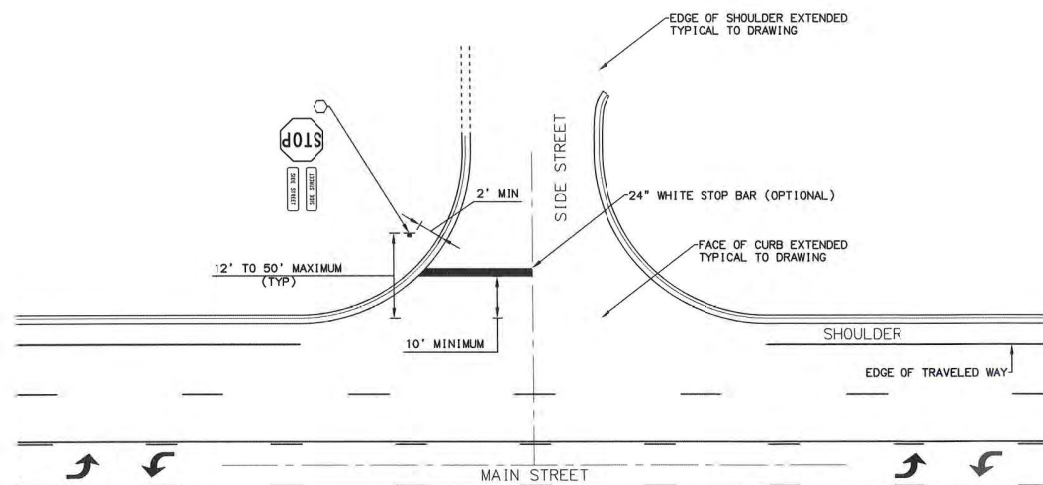
TYPICAL CURBED RETURN WITH SIDEWALK

CURBED INTERSECTION NOTES:**SIGNING:**

1. Locate STOP sign so it is visible to approaching traffic and near the stop bar.
2. Provide 2' of clearance between edge of STOP sign panel and edge of pathway or sidewalk.
3. Provide 6' of clearance between edge of STOP sign panel and side street face of curb.
4. Place pathway regulatory signs at collector or arterial roadway junctions with side streets. Side streets are typically greater than 1000 vehicles a day, or connect through traffic to other collectors or arterials.
5. PATHWAY NO MOTOR VEHICLES signs are not required within the Municipality of Anchorage.
6. See plans for pathway signing required at side streets.

STRIPING:

1. Stop bars are not required when no pathway or sidewalk is present. See plans.
2. Locate stop bar 4' minimum between the toe of curb ramp and edge of stop bar or a distance of the width of the sidewalk or pathway plus 4'.
3. Break centerline striping within intersections which have dedicated turn lanes.
4. Continue centerline striping through intersections with center two-way-left-turn-only lanes or when there are no mainline left turn lanes.
5. Continue lane "skip" striping through intersections.
6. Delete outermost edge of traveled way striping at intersections or wrap striping to side street.
7. Match side street striping if striping is present.



TYPICAL CURBED RETURN WITHOUT SIDEWALK

State of Alaska DOT&PF
CENTRAL REGION
STANDARD DETAIL
Un-Signalized Intersection:
Curbed Stop and Crossing
Traffic Safety Details

Adopted as a Central
Region Standard Detail by:

John R. Linnell, P.E.
CR Preconstruction Engineer

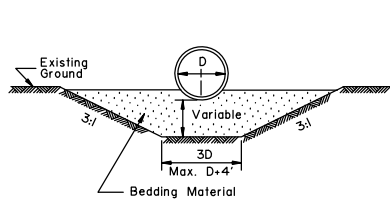
Adoption Date: 06/30/2020

Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 06/30/2030

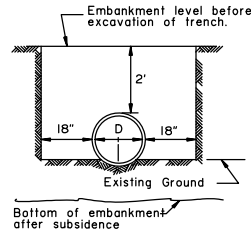
GENERAL NOTES:

1. Sidefill shall be placed and compacted with care under haunches of pipe and shall be brought up evenly and simultaneously on both sides of pipe to 1 foot above the top of the full length of the pipe.
2. Alternate installation methods may only be used when specified or approved by the Engineer.

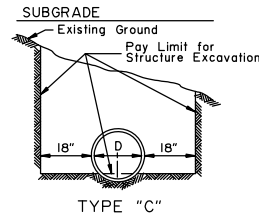


TYPE "A"
FOUNDATION STABILIZATION

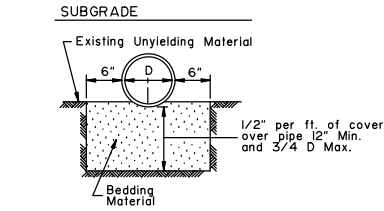
To be used in unstable areas as directed by the Engineer.



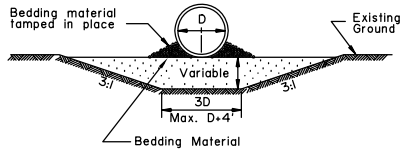
TYPE "B"



TYPE "C"

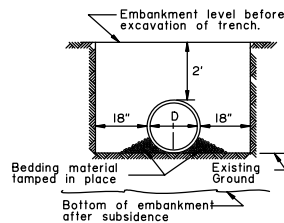


TYPE "D"
ROCK OR UNYIELDING MATERIAL

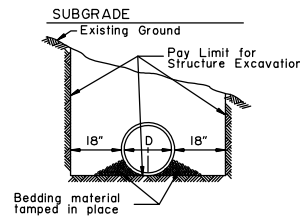


'ALTERNATE' TYPE "A"
FOUNDATION STABILIZATION

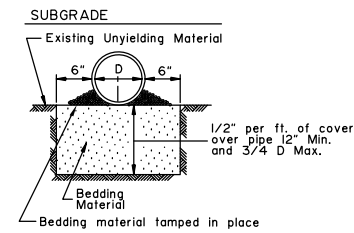
To be used in unstable areas as directed by the Engineer.



'ALTERNATE' TYPE "B"

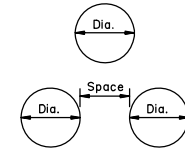


'ALTERNATE' TYPE "C"



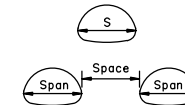
'ALTERNATE' TYPE "D"
ROCK OR UNYIELDING MATERIAL

D = Nominal Pipe Diameter



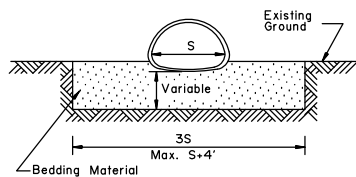
MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Dia. of pipe or 3', whichever is less.

S = Nominal Pipe Arch Span



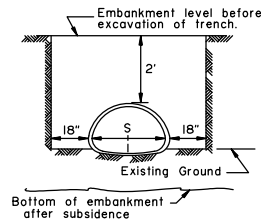
MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Span of pipe arch or 3', whichever is less.

CULVERT PIPE

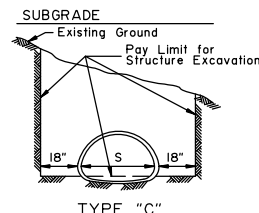


TYPE "A"
FOUNDATION STABILIZATION

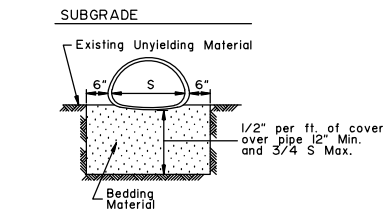
To be used in unstable areas as directed by the Engineer.



TYPE "B"



TYPE "C"



TYPE "D"
ROCK OR UNYIELDING MATERIAL

ARCH

State of Alaska DOT&PF ALASKA STANDARD PLAN CULVERT PIPE & ARCH INSTALLATION DETAILS

Adopted as an Alaska
Standard Plan by: *Kenneth J. Fisher, P.E.*
Chief Engineer

Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029

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 Plan D-01 "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 bottom 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 deflection.
7. These tables have been developed for an HL-93 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 2017 AASHTO "LRFD Bridge Design Specifications".

Minimum & Maximum Cover for 2 2/3" X 1/2" Aluminum Pipe						
Gage	I6	I4	I2	I0	8	
Thickness	0.060	0.075	0.105	0.135	0.164	
Dia. (In.)	Min. (In.)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	
12	12	100+	100+	100+	100+	100+
15	12	100	100+	100+	100+	100+
18	12	93	100+	100+	100+	100+
21	12	71	89	100+	100+	100+
24	12	62	78	100+	100+	100+
27	12		69	97	100+	100+
30	12		62	87	100+	100+
36	12		51	73	94	100+
42	12			62	80	100+
48	12			54	70	85
54	15			48	62	76
60	15				52	64
66	18					52
72	18					43

Minimum & Maximum Cover for 3" x 1" Aluminum Pipe						
Gage	I6	I4	I2	I0	8	
Thickness	0.060	0.075	0.105	0.135	0.164	
Dia. (In.)	Min. (In.)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	
30	12	57	72	100+	100+	100+
36	12	47	60	84	100+	100+
42	12	40	51	72	96	100+
48	12	35	44	62	84	99
54	15	31	39	55	74	88
60	15	28	35	50	67	79
66	18	25	32	45	61	72
72	18	23	29	41	56	66
78	21		27	38	51	61
84	21			35	48	56
90	24			33	44	52
96	24			31	41	49
102	24				39	46
108	24				37	43
114	24					39
120	24					36

Minimum & Maximum Cover for 9" X 2 1/2" Aluminum Structural Plate Pipe*			
Thickness		0.125	0.150
Dia. (In.)	Min. (In.)	Max. (Ft)	Max. (Ft)
84	18	31	
90	18	27	
96	18	27	
102	18	24	
108	18	24	
114	18	21	
120	24	21	
126	24	19	
132	30	19	
138	30	18	
144	30	18	
150	30		22
156	30		22
162	36		20
168	36		20

*5.33 - 3/4" dia. steel bolts per foot.

CORRUGATED CIRCULAR ALUMINUM PIPE

CORRUGATED ALUMINUM PIPE-ARCH

Minimum & Maximum Cover for 2 2/3" X 1/2" Aluminum Pipe-Arch					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In.)	Min. Thickness (In.)	Min. Cover (In.)	Max. Cover (Ft)
17	13	3 4/8	16 (0.060)	12	13
21	15	4 1/8	16 (0.060)	12	12
24	18	4 7/8	16 (0.060)	12	12
28	20	5 4/8	14 (0.075)	12	12
35	24	6 7/8	14 (0.075)	12	12
42	29	8 2/8	12 (0.105)	12	12
49	33	9 5/8	12 (0.105)	15	12
57	38	11	10 (0.135)	15	12
64	43	12 3/8	10 (0.135)	18	12
71	47	13 6/8	8 (0.164)	18	12

Minimum & Maximum Cover for 3" x 1" Aluminum Pipe-Arch					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In.)	Min. Thickness (In.)	Min. Cover (In.)	Max. Cover (Ft)
60	46	18 6/8	14 (0.075)	15	20
66	51	20 6/8	14 (0.075)	18	20
73	55	22 7/8	14 (0.075)	21	20
81	59	20 7/8	12 (0.105)	21	16
87	63	22 7/8	12 (0.105)	24	16
95	67	24 3/8	12 (0.105)	24	16
103	71	26 1/8	10 (0.135)	24	16
112	75	27 6/8	8 (0.164)	24	16

Minimum & Maximum Cover for 9" x 2 1/2" Aluminum Multiplate Pipe-Arch*					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In.)	Min. Thickness (In.)	Min. Cover (In.)	2 Tons/Sf Corner Bearing Pressure Max. Cover (Ft)
6-7	5-8	3/75	0.125	24	24
6-11	5-9	3/75	0.125	24	24
7-3	5-11	3/75	0.125	24	18
7-9	6-0	3/75	0.125	24	18
8-5	6-3	3/75	0.125	24	16
9-3	6-5	3/75	0.125	24	15
10-3	6-9	3/75	0.125	30	13
10-9	6-10	3/75	0.125	30	13
11-5	7-1	3/75	0.125	30	13
12-7	7-5	3/75	0.125	30	11
12-11	7-6	3/75	0.125	30	11
13-1	8-2	3/75	0.125	30	11
13-11	8-5	3/75	0.125	36	10
14-8	9-8	3/75	0.125	36	9
15-4	10-0	3/75	0.150	36	8
16-1	10-4	3/75	0.150	36	8
16-9	10-8	3/75	0.150	42	7
17-3	11-0	3/75	0.150	42	7
18-0	11-4	3/75	0.175	42	7
18-8	11-8	3/75	0.175	42	7

*5.33 - 3/4" dia. steel bolts per foot.

State of Alaska DOT&PF
ALASKA STANDARD PLAN
PIPE AND ARCH TABLESAdopted as an Alaska
Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

Minimum & Maximum Cover for 2 2/3" x 1/2" Steel Pipe						
Gage	I6	I4	I2	I0	8	
Thickness	0.060	0.075	0.105	0.135	0.164	
Dia. (in)	Min. (in)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	
I2	I2	100+	100+	100+	100+	
I5	I2	100+	100+	100+	100+	
I8	I2	100+	100+	100+	100+	
21	I2	100+	100+	100+	100+	
24	I2	100+	100+	100+	100+	
30	I2	83	100+	100+	100+	
36	I2	69	86	100+	100+	
42	I2	59	74	100+	100+	
48	I2	51	64	91	100+	
54	I2		57	80	100+	
60	I2			72	93	100+
66	I2			66	85	100+
72	I2				78	95
78	I2					84
84	I2					73

Minimum & Maximum Cover to 3" x 1" Steel Pipe						
Gage	I6	I4	I2	I0	8	
Thickness	0.060	0.075	0.105	0.135	0.164	
Dia. (in)	Min. (in)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	
36	I2			100+	100+	100+
42	I2			100+	100+	100+
48	I2		74	100+	100+	100+
54	I2	53	66	93	100+	100+
60	I2	47	59	83	100+	100+
66	I2	43	54	76	98	100+
72	I2	39	49	69	89	100+
78	I2	36	45	64	82	100+
84	I2	33	42	59	77	94
90	I2	31	39	55	71	87
96	I2	29	37	52	67	82
102	I8	27	34	49	63	77
108	I8		32	46	59	73
114	I8		31	43	56	69
120	I8		29	41	53	65
126	I8			39	51	62
132	I8			37	48	59
138	I8			36	46	57
144	I8				44	54

Minimum & Maximum Cover for 5" x 1" Steel Pipe						
Gage	I6	I4	I2	I0	8	
Thickness	0.060	0.075	0.105	0.135	0.164	
Dia. (in)	Min. (in)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	
36	I2	71	88	100+	100+	100+
42	I2	60	76	100+	100+	100+
48	I2	53	66	93	100+	100+
54	I2	47	59	82	100+	100+
60	I2	42	53	74	96	100+
66	I2	38	48	67	87	100+
72	I2	35	44	62	79	97
78	I2	32	40	57	73	90
84	I2	30	37	53	68	83
90	I2	28	35	49	63	78
96	I2	26	33	46	59	73
102	I8	24	31	43	56	69
108	I8		29	41	53	65
114	I8		27	39	50	61
120	I8		26	37	47	58
126	I8			35	45	55
132	I8			33	43	53
138	I8			32	41	50
144	I8				39	48

Minimum & Maximum Cover for 6" x 2" Steel Multilap Pipe*							
Gage	I2	I0	8	7	5	3	1
Thickness	0.111	0.140	0.170	0.188	0.218	0.249	0.280
Dia. (in)	Min. (in)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
60	I2	46	67	87	100	100+	100+
66	I2	42	60	79	91	100+	100+
72	I2	38	55	73	83	100+	100+
78	I2	35	51	67	77	93	100+
84	I2	32	47	62	71	86	100+
90	I2	30	44	58	67	80	95
96	I2	28	41	54	62	75	89
102	I8	27	39	51	59	71	84
108	I8	25	37	48	55	67	79
114	I8	24	35	45	52	63	75
120	I8	22	33	43	50	60	71
126	I8	21	31	41	47	57	68
132	I8	20	30	39	45	54	64
138	I8	19	28	37	43	52	62
144	I8	18	27	36	41	50	59

*4 - 3/4" dia. steel bolts per foot.

GENERAL NOTES

- All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
- The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
- No more than one type of pipe may be used on any single installation or installation grouping.
- 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.
- See Standard Plan D-01 "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
- Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the bottom 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 deflection.
- These tables have been developed for an HL-93 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 2017 AASHTO "LRFD Bridge Design Specifications".

CORRUGATED CIRCULAR STEEL PIPE

CORRUGATED STEEL PIPE-ARCH

Minimum & Maximum Cover for 2 2/3" X 1/2" Steel Pipe-Arch					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (in)	Min. Thickness (in)	Min. Cover (in)	Max. Cover (Ft)
17	13	3 4/8	16 [0.060]	12	I
21	15	4 1/8	16 [0.060]	12	II
24	18	4 7/8	16 [0.060]	12	II
28	20	5 4/8	16 [0.060]	12	II
35	24	6 7/8	16 [0.060]	12	II
42	29	8 2/8	16 [0.060]	12	II
49	33	9 5/8	14 [0.075]	12	II
57	38	II	12 [0.109]	12	II
64	43	12 3/8	12 [0.109]	12	II
71	47	13 6/8	10 [0.138]	12	II
77	52	15 1/8	10 [0.138]	12	II
83	57	16 4/8	8 [0.168]	12	II

Minimum & Maximum Cover for 3" X 1" Steel Pipe-Arch					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (in)	Min. Thickness (in)	Min. Cover (in)	Max. Cover (Ft)
53	41	10 2/8	14 [0.079]	12	IO
60	46	18 6/8	14 [0.079]	15	29
66	51	20 6/8	14 [0.079]	15	29
73	55	22 7/8	14 [0.079]	18	I8
81	59	20 7/8	14 [0.079]	18	I5
87	63	22 7/8	14 [0.079]	18	I5
95	67	24 3/8	14 [0.079]	18	I5
103	71	26 1/8	14 [0.079]	18	I4
112	75	27 6/8	14 [0.079]	21	I4
117	79	29 4/8	12 [0.109]	21	I4
128	83	31 2/8	10 [0.138]	24	I4
137	87	33	10 [0.138]	24	I4
142	91	34 6/8	10 [0.138]	24	I3
150	96	36	10 [0.138]	30	I3
157	96	38	10 [0.138]	30	I3
164	105	40	10 [0.138]	30	I4
171	110	41	10 [0.138]	30	I3

Minimum & Maximum Cover for 5" X 1" Steel Pipe-Arch					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (in)	Min. Thickness (in)	Min. Cover (in)	Max. Cover (Ft)
53	41	10 2/8	14 [0.079]	12	IO
60	46	18 6/8	14 [0.079]	15	29
66	51	20 6/8	14 [0.079]	15	29
73	55	22 7/8	14 [0.079]	18	I8
81	59	20 7/8	14 [0.079]	18	I5
87	63	22 7/8	14 [0.079]	18	I5
95	67	24 3/8	14 [0.079]	18	I5
103	71	26 1/8	14 [0.079]	18	I4
112	75	27 6/8	14 [0.079]	21	I4
117	79	29 4/8	12 [0.109]	21	I4
128	83	31 2/8	10 [0.138]	24	I4
137	87	33	10 [0.138]	24	I4
142	91	34 6/8	10 [0.138]	24	I3
150	96	36	10 [0.138]	30	I3
157	96	38	10 [0.138]	30	I3
164	105	40	10 [0.138]	30	I4
171	110	41	10 [0.138]	30	I3

Minimum & Maximum Cover for Steel Multilap Pipe-Arch 6" x 2" *					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (in)	Min. Gage (in)	Min. Cover (in)	Max. Cover (Ft)
6-1	4-7	I8	I2 [0.111]	I2	I4
7-0	5-1	I8	I2 [0.111]	I2	I2
7-11	5-7	I8	I2 [0.111]	I2	IO
8-10	6-1	I8	I2 [0.111]	I8	9
9-9	6-7	I8	I2 [0.111]	I8	8
10-11	7-1	I8	I2 [0.111]	I8	6
11-10	7-7	I8	I2 [0.111]	I8	5
12-10	8-4	I8	I2 [0.111]	24	5
13-3	9-4	31	IO [0.140]	24	II
14-2	9-10	31	IO [0.140]	24	IO
15-4	10-4	31	IO [0.140]	24	9
16-3	10-10	31	IO [0.140]	30	8
17-2	11-4	31	IO [0.140]	30	8
18-1	11-10	31	IO [0.140]	30	7
19-3	12-4	31	IO [0.140]	30	7
19-11	12-10	31	IO [0.140]	30	6
20-7	13-2	31	IO [0.140]	36	6

*4 - 3/4" dia. steel bolts per foot.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

Adopted as an Alaska
Standard Plan by *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

Maximum Cover for Type S Corrugated Polyethylene Pipe	
Size (in)	Max. Cover (ft)
12	24
15	25
18	24
24	20
30	20
36	18
42	16
48	17

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 Plan D-01 "Culvert Pipe & Arch Installation Details".
3. Pipe cover height is measured from top of the pipe to top of rigid pavement, or to the bottom 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.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: K LH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

D-04.22

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 Plan D-01 "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 bottom 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 deflection.
7. These tables have been developed for an HL-93 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 2017 AASHTO "LRFD Bridge Design Specifications".

Minimum & Maximum Cover for Aluminum Spiral Rib Circular Pipe*						
Gage		I6	I4	I2	I0	
Thickness		0.064	0.079	0.109	0.138	
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	
18	12	43	61			
21	12	38	52	84		
24	12	33	45	73		
30	15	26	36	58		
36	18	21	30	49	69	
42	21		25	41	59	
48	24			36	51	
54	24			32	46	
60	24			29	41	
66	24				37	
72	30				34	

*¾ x ¾ x 7⁄8 in. Corrugations

Minimum & Maximum Cover for Aluminum Spiral Rib Pipe-Arch*						
Gage			I6	I4	I2	I0
Thickness			0.060	0.075	0.105	0.135
Span (Ft.-In.)	Rise (Ft.-In.)	Min. Cover (In)	Max. Cover (Ft)			
20	16	12	I6			
23	19	12	I5			
27	21	15	I3	I3		
33	26	18	I3	I3	I3	
40	31	21		I3	I3	
46	36	24			I3	I3
53	41	24			I3	I3
60	46	24			I3	I3
66	51	24				I3

*¾ x ¾ x 7⁄8 in. Corrugations

ALUMINUM SPIRAL RIB PIPE

STEEL SPIRAL RIB PIPE

Minimum & Maximum Cover for Steel and Aluminized Steel Spiral Rib Circular Pipe*						
Gage		I6	I4	I2	I0	
Thickness		0.064	0.079	0.109	0.138	
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	
18	12	91				
24	12	68	95	100+		
30	12	54	76	100+		
36	12	45	63	100+		
42	12	38	54	90		
48	12	33	47	79		
54	18	30	42	70		
60	18	27	38	63	92	
66	18	24	34	57	83	
72	18		31	52	76	
78	24		29	48	70	
84	24		27	45	65	
90	24			42	61	
96	24			39	56	
102	30			36	50	
108	30			32	45	

*¾ x ¾ x 7⁄8 in. Corrugations.

Minimum & Maximum Cover for Steel Spiral Rib Pipe-Arch*						
2 Tons/Sf Corner Bearing Pressure						
Thickness			0.064	0.079	0.109	
Span (Ft.-In.)	Rise (Ft.-In.)	Min. Cover (in)	Max. Cover (Ft)			
20	16	12	13			
23	19	12	13			
27	21	12	11			
33	26	12	11			
40	31	12	11			
46	36	12	11			
53	41	18		11		
60	46	18		19		
66	51	18		19		
73	55	18			18	
81	59	18			15	
87	63	18			15	
95	67	18			15	

*¾ x ¾ x 7⁄8 in. Corrugations

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

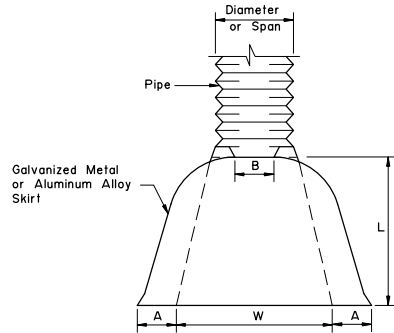
Adopted as an Alaska
Standard Plan by: *Carolyn Morehouse*

Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

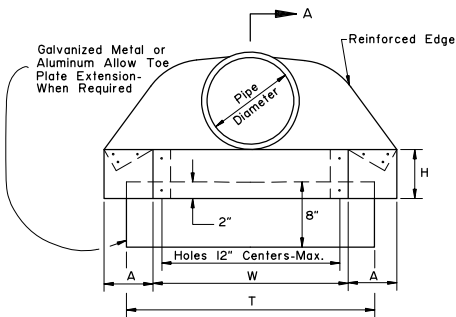
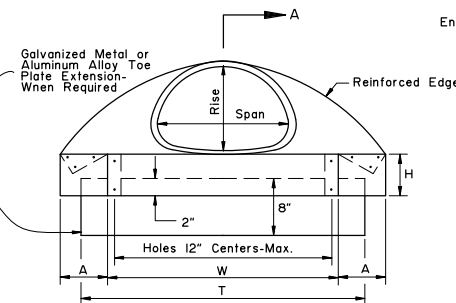
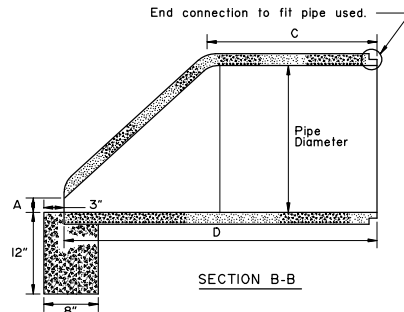
Last Code and Stds. Review
By: K LH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030



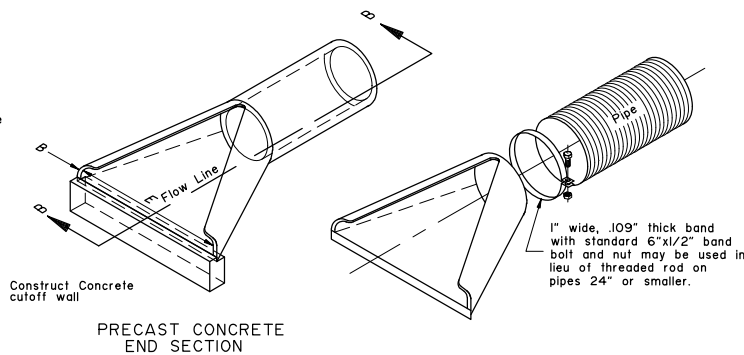
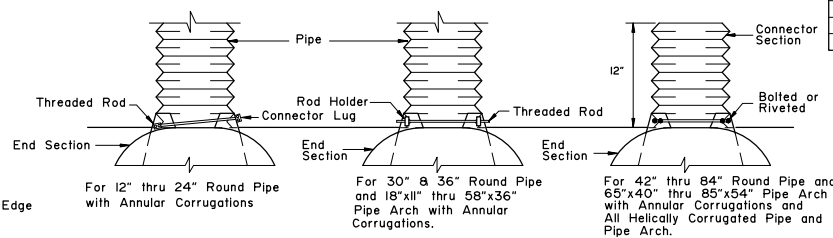
PLAN

ROUND AND PIPE ARCH

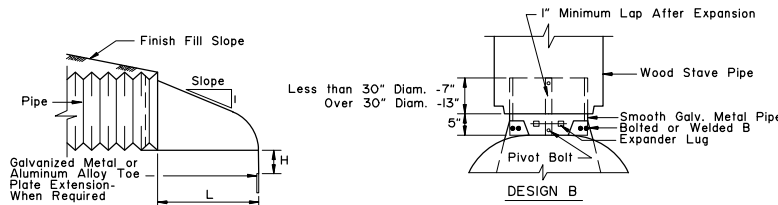
ELEVATION
ROUND PIPEELEVATION
PIPE ARCH

SECTION B-B

MINIMUM DIMENSIONS					
Pipe Diameter	A	B	C	D	E
12"	4"	1 3/4"	24"	46"	24"
18"	9"	2"	25"	50"	36"
24"	9 1/2"	2 1/2"	30"	72"	48"
30"	12"	3"	20"	73"	60"
36"	15"	3 3/8"	35"	97"	72"
42"	21"	3 3/4"	35"	98"	78"
48"	24"	4 1/4"	26"	98"	84"
54"	27"	4 5/8"	33"	99"	82"

PRECAST CONCRETE
END SECTION

DESIGN A



SECTION A-A

METAL END SECTION CONNECTED
TO WOOD STAVE PIPE

ROUND PIPE										
Pipe Diam. Inches	Thickness For Aluminum	Thk. for Galv. Metal	Dimension Inches						Skirt	Approx. Slope
			A Tol.	B Max.	H Tol.	L 1/2" Tol.	W Tol.	T Tol.		
12"	0.060	0.064	6"	6"	6"	21"	24"	34"	1 Pc.	2 1/2
15"	0.060	0.064	7"	8"	6"	26"	30"	40"	1 Pc.	2 1/2
18"	0.060	0.064	8"	10"	6"	31"	36"	46"	1 Pc.	2 1/2
21"	0.060	0.064	9"	12"	6"	36"	42"	52"	1 Pc.	2 1/2
24"	0.075	0.064	10"	13"	6"	41"	48"	58"	1 Pc.	2 1/2
30"	0.075	0.079	12"	16"	8"	51"	60"	70"	1 Pc.	2 1/2
36"	0.105	0.079	14"	19"	9"	60"	72"	94"	2 Pc.	2 1/2
42"	0.105	0.109	16"	22"	11"	69"	84"	106"	2 Pc.	2 1/2
48"	0.105	0.109	18"	27"	12"	78"	90"	112"	2 Pc.	2 1/4
54"	0.105	0.109	18"	30"	12"	84"	102"	122"	2 Pc.	2 1/4
60"	0.135	0.109	18"	33"	12"	87"	114"	134"	3 Pc.	2 1/4
66"	0.135	0.109	18"	36"	12"	87"	120"	142"	3 Pc.	2 1/4
72"	0.135	0.109	18"	39"	12"	87"	126"	146"	3 Pc.	2 1/4
78"	—	0.109	18"	42"	12"	87"	132"	152"	3 Pc.	1 1/4
84"	—	0.109	18"	45"	12"	87"	138"	158"	3 Pc.	1 1/6

PIPE-ARCH										
Pipe-Arch Dimension Inches	Span	Rise	Thickness for Aluminum	Thk. for Galv. Metal	Dimension Inches					
					A Tol.	B Max.	H Tol.	L 1/2" Tol.	W Tol.	T Tol.
17"	13"	0.060	0.064	7"	9"	6"	19"	30"	40"	1 Pc.
21"	15"	0.060	0.064	7"	10"	6"	23"	36"	46"	1 Pc.
24"	18"	0.060	0.064	8"	12"	6"	28"	42"	52"	1 Pc.
28"	20"	0.075	0.064	9"	14"	6"	32"	48"	58"	1 Pc.
35"	24"	0.075	0.079	10"	16"	6"	39"	60"	70"	1 Pc.
42"	29"	0.105	0.079	12"	18"	8"	46"	75"	85"	1 Pc.
49"	33"	0.105	0.109	13"	21"	9"	53"	85"	103"	2 Pc.
57"	38"	0.105	0.109	18"	26"	12"	63"	90"	114"	2 Pc.
64"	43"	0.105	0.109	18"	30"	12"	70"	102"	130"	2 Pc.
71"	47"	0.135	0.109	18"	33"	12"	77"	114"	144"	3 Pc.
77"	52"	0.135	0.109	18"	36"	12"	84"	120"	158"	3 Pc.
83"	57"	0.135	0.109	18"	39"	12"	90"	126"	170"	3 Pc.

GENERAL NOTES:

- Toe plate extensions will be required only when provided for on the plans. When required, the toe plate extensions shall be punched with holes to match those in lip of skirt and fastened with 3/8 inch or larger galvanized nuts and bolts and shall be the same gage as the end section.
- Galvanized Metal or Aluminum Alloy End Sections may be used on Wood Stave and Plastic Pipe.
- All 3 piece bodies shall have 12 gage sides and 10 gage center panels. Multiple panel bodies shall have lap seams which are to be tightly joined by 3/8" galvanized rivets or bolts.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

CULVERT END SECTIONS

Adopted as an Alaska
Standard Plan by: *Kenneth J. Fisher, P.E.*
Chief Engineer

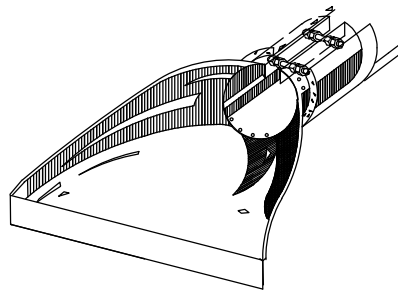
Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

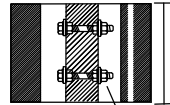
Next Code and Standards Review date: 02/08/2029

GENERAL NOTES

1. See general notes on sheet 1 of 3.
2. See sheet 1 of 3 for metal end section dimensions.
3. Insert bolts, washers and rivets shall be galvanized. Insert thickness is the same as the end section.
4. Use culvert inserts only at inlet.

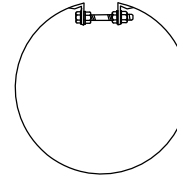


FOR CONNECTING CONCRETE PIPE OR CORRUGATED
POLYETHYLENE PIPE TO METAL END SECTION.



SEE NOTE 2

5/8" GALV. BOLTS



METAL INSERTS FOR USE WITH CORRUGATED PLASTIC
PIPE AND
METAL END SECTIONS

State of Alaska DOT&PF
ALASKA STANDARD PLAN

CULVERT END SECTIONS

Adopted as an Alaska
Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

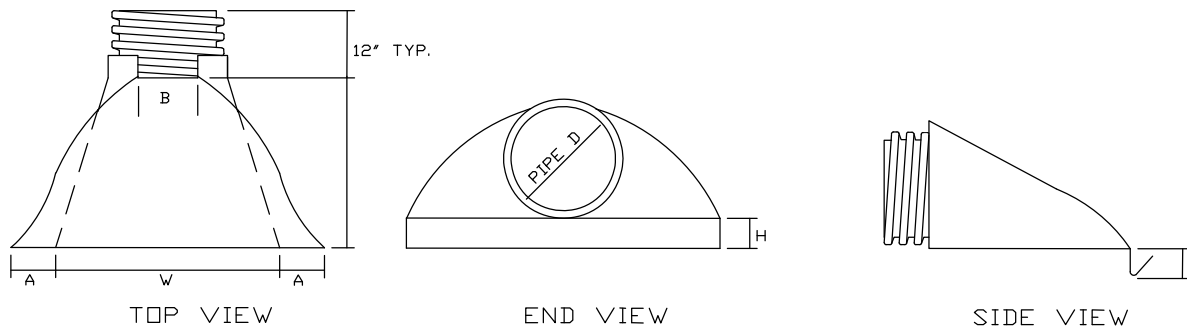
Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029

D-06.10

GENERAL NOTES

1. Plastic flared end sections may be used with HDPE corrugated culvert pipes where noted in project plans or approved by project engineer.
2. Consult manufacturer's recommendations for proper sizing and coupling devices. Recommended fasteners may include connecting bands or cinch ties. Fittings across dimension B may include threaded rods with wing nuts or bolts and washers, plastic welds may be recommended.
3. Align coupling to accommodate pipe corrugations.
4. Metal components e.g. bolts or washers must be galvanized.
5. Attachment of end section should preserve culvert alignment and not impair pipe function. Use end sections only on culvert inlet.
6. Toe plate extensions will be required only when designated on the plans.
7. End sections will not be used on HDPE culvert pipes larger than 36" unless indicated by project plans or approved by the Engineer.



PIPE DIAMETER	DIMENSIONS IN MILLIMETERS				
	A(1'±)	B MAX	H(1'±)	L(1/2'±)	W(2'±)
12" and 15"	6 1/2"	10"	6 1/2"	25"	29"
18"	7 1/2"	15"	6 1/2"	32"	35"
24"	7 1/2"	18"	6 1/2"	36"	45"
30"	10 1/2"	N/A	7"	53"	68"
36"	10 1/2"	N/A	7"	53"	68"

PLASTIC END SECTION FOR CORRUGATED PLASTIC PIPE

State of Alaska DOT&PF
ALASKA STANDARD PLAN

CULVERT END SECTIONS

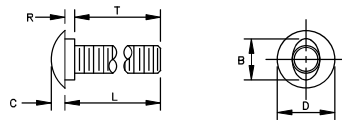
Adopted as an Alaska
Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

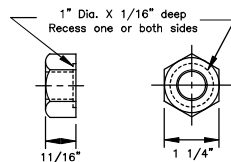
Next Code and Standards Review date: 02/08/2029

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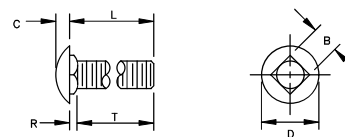


B	C	D	L (Length)	R	T (Thread Length)
15/16"	5/16"	1 5/16" or 1 7/16"	As Required	7/32"	As Required

5/8" BUTTONHEAD BOLT
(FBB01-05)

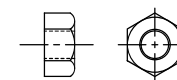


5/8" Dia. RECESSED HEX NUT
(FBB01-05)

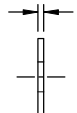
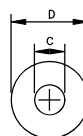
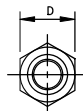
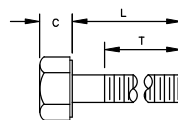


B	C	D	L (Length)	R	T (Thread Length)
5/8"	5/16"	1 5/16"	As Required	3/16"	As Required

5/8" Dia. CARRIAGE BOLT
(FBC10-20)



STANDARD HEX NUT

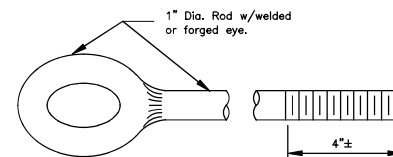


Bolt Size	C	D	L (Length)	T (Thread Length)
5/16"	—	—	1 1/2"	7/8"
5/16"	—	—	1"	1"
3/8"	—	—	7 1/2"	1 1/2"
1/2"	—	—	1 1/2"	1 1/2"
1/2"	—	—	1 1/4"	1 1/4"
5/8" H.S.	5/16"	7/8"	8"	1 1/2"
5/8"-11	—	—	1 1/2"	1 1/2"
3/4"	—	—	1 1/2"	1 1/2"
3/4"	—	—	As Required	2"
3/4" H.S.	15/32"	1 1/4"	2"	1 1/2"

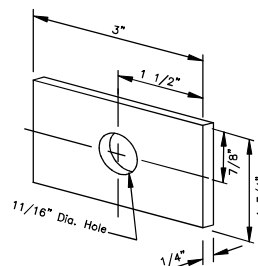
STANDARD HEX BOLTS

For Bolt #	C	D	G
3/8"	7/16"	1"	5/64"
1/2"	17/32"	1 1/16"	3/32"
1/2" H.S.	17/32"	1 1/16"	3/32"
5/8"	11/16"	1 3/4"	9/64"
3/4"	13/16"	1 15/32"	9/64"
3/4" H.S.	13/16"	2"	5/32"
1"	1 1/16"	2"	9/64"

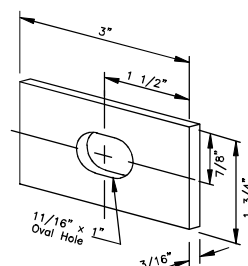
STANDARD STEEL WASHERS



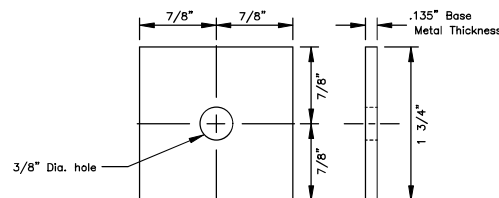
EYE BOLT



FLAT PLATE WASHER



RECTANGULAR POST BOLT WASHER
(FWR03)



SQUARE STEEL WASHER
(FWR01)

GENERAL NOTES:

1. All covered hardware shall comply with the Task Force 13 (TF13) Guide to Standardized Roadside Safety Hardware online publication. Designators given when possible in parentheses.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

STANDARD GUARDRAIL
HARDWARE
(NUTS, BOLTS & WASHERS)

Adopted as an Alaska
Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

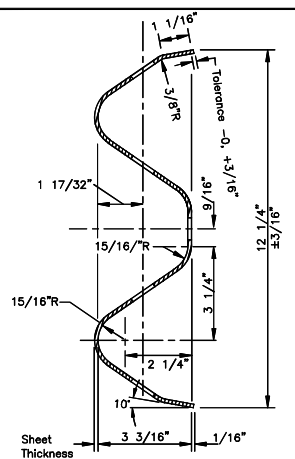
Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLK Date: 7/8/2020

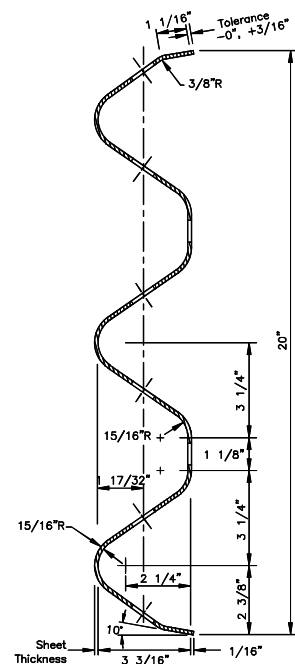
Next Code and Standards Review Date: 7/8/2030

GENERAL NOTES:

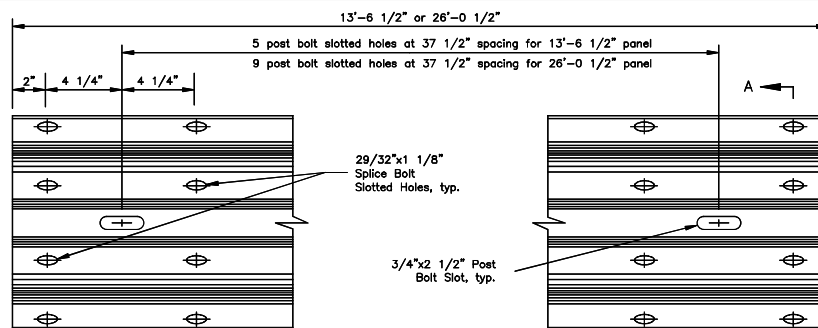
1. All covered hardware shall comply with the Task Force 13 (TF13) Guide to Standardized Roadside Safety Hardware online publication. Designators given when possible in parentheses.
2. Install back-up plates between blockouts and w-beam or thrie-beam rail at intermediate (non-splice) posts when steel blockouts are used but not with wood, rubber, plastic, or other approved blockouts.



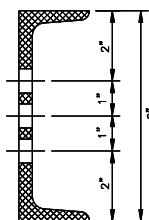
SECTION A-A
(cross section same as RWM02a-b)



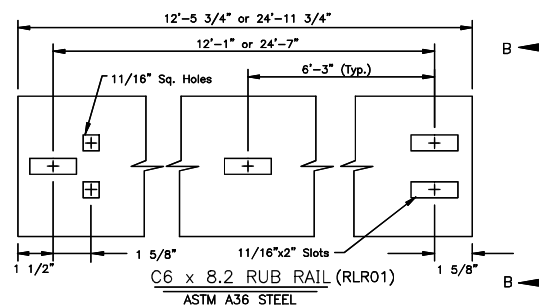
SECTION C-C
(RTM01a-02b)



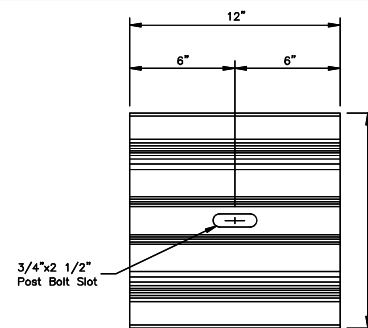
STANDARD W-BEAM PANEL (RWM04a-b)



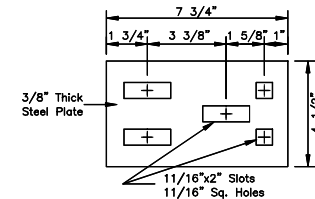
SECTION B-B



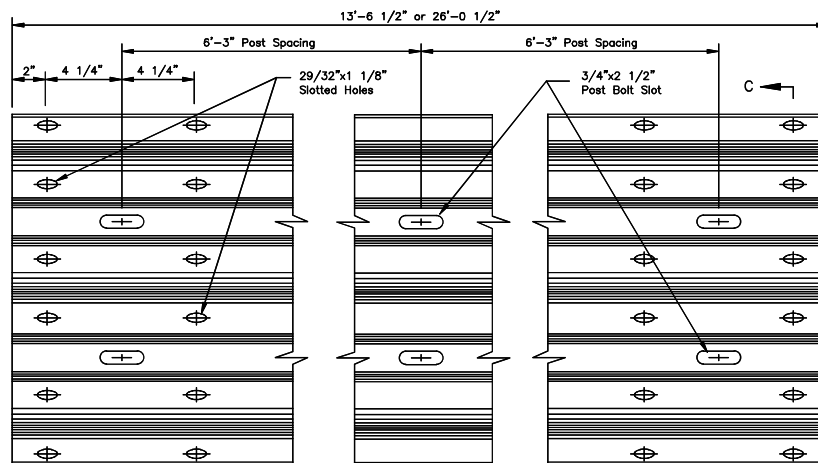
ASTM A36 STEEL



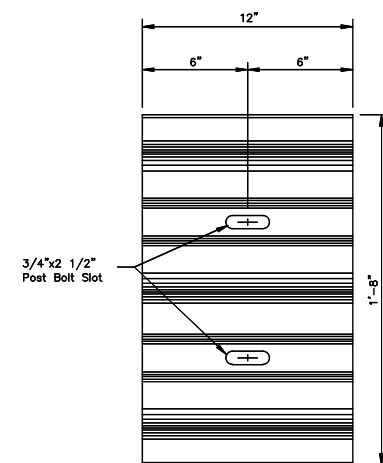
W-BEAM BACKUP PLATE
(RWB01a-b)



SPLICE PLATE (RLR01)
ASTM A36 STEEL



STANDARD THRIE BEAM PANEL (RTM01a-02b)



THRIE BEAM BACKUP PLATE
(RTB01a-02b)

State of Alaska DOT&PF
ALASKA STANDARD PLAN

STANDARD GUARDRAIL
HARDWARE
(RAILS AND SPLICES)

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

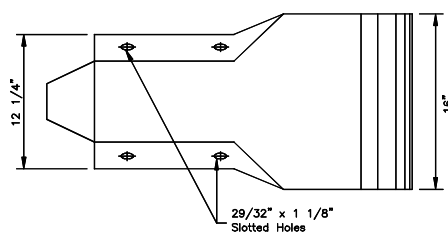
Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLK Date: 7/8/2020

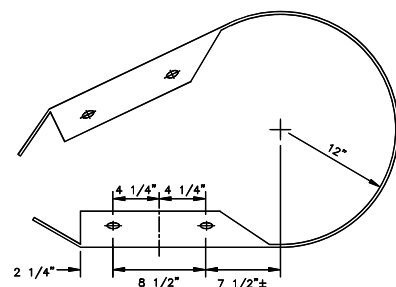
Next Code and Standards Review Date: 7/8/2030

GENERAL NOTES:

1. W-Beam and Thrie Beam Terminal Connectors shall conform to AASHTO M 180, Class B, Type II.
2. W-Beam end sections shall conform to AASHTO M 180, Class A, Type II.
3. All covered hardware shall comply with the Task Force 13 (TF13) Guide to Standardized Roadside Safety Hardware online publication. Designators given when possible in parentheses.

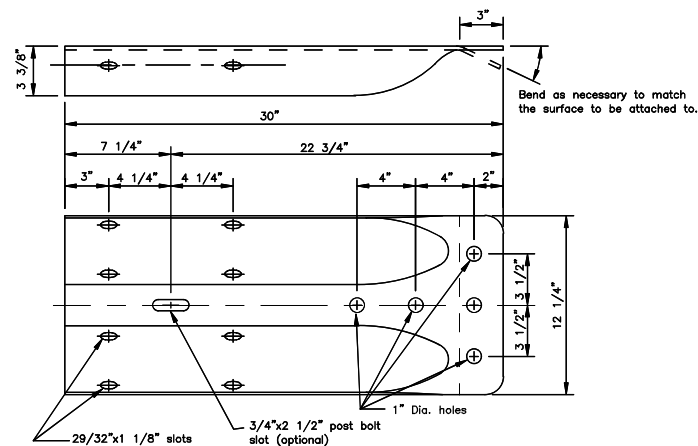


PROFILE

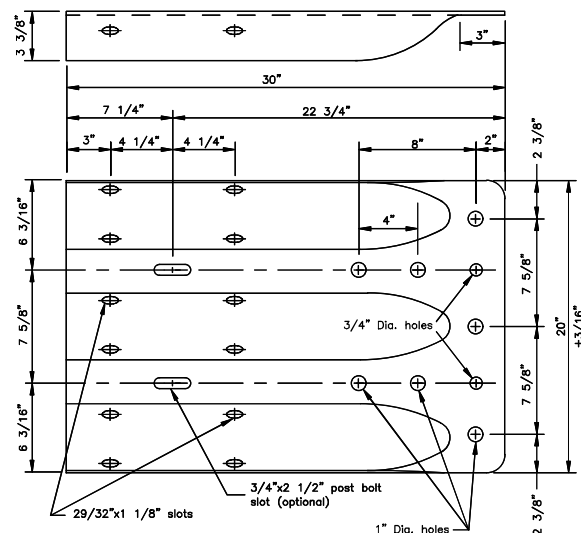


* Radius to be specified on the plans

STANDARD W-BEAM END SECTION
(RWE06)



STANDARD W-BEAM TERMINAL CONNECTOR
(RWE02)



STANDARD THRIE BEAM TERMINAL CONNECTOR
(RTE01b)

State of Alaska DOT&PF
ALASKA STANDARD PLAN

STANDARD GUARDRAIL
HARDWARE
(TERMINAL CONNECTORS)

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

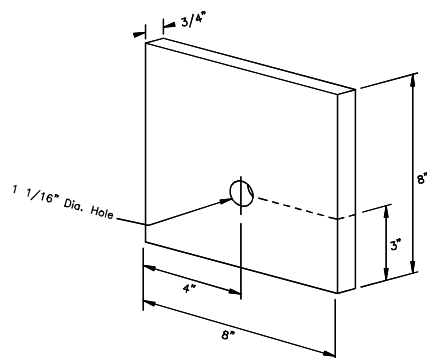
Last Code and Stds. Review
By: K/LK Date: 7/8/2020

Next Code and Standards Review Date: 7/8/2030

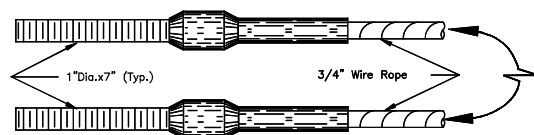
G-00.05

GENERAL NOTES:

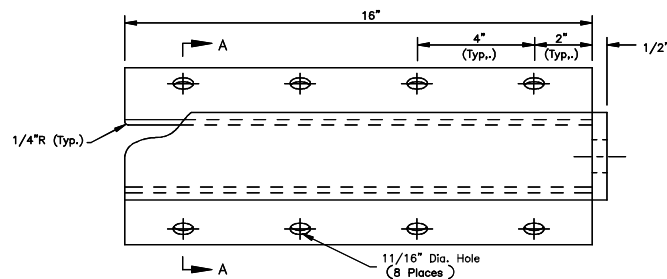
1. Cable Anchor Plate may be formed in single unit or welded fabrication.
2. Anchor Cable Assembly must conform to AASHTO M 30 with Type II Wire Rope.
3. Provide Sleeve for Wood Posts meeting the requirements of ASTM A53 and made of 2-inch galvanized standard pipe. Sleeve shall be a tight, pressed fit in post.
4. Attach radius ID plates to all shop-bent guardrail sections. Bolt the ID plates to the back side of the guardrail panel with the lower splice bolt nearest the P.C. of the radius.
5. Show the Rail bend radius, in feet, 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". Galvanize the plate after the digits are marked.
6. All covered hardware shall comply with the Task Force 13 (TF13) Guide to Standardized Roadside Safety Hardware online publication. Designators given when possible in parentheses.



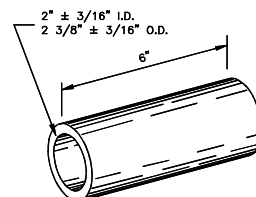
BEARING PLATE for CRT TERMINAL ANCHOR
(FPB01)



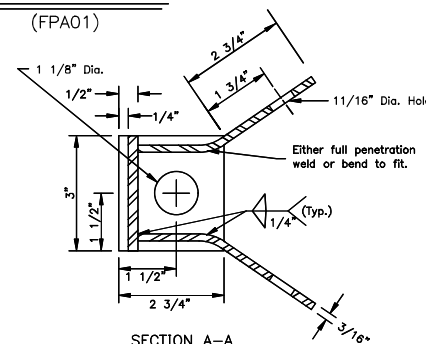
SWAGED FITTING DETAIL
(FCA01-02)



CABLE ANCHOR PLATE
(FPA01)

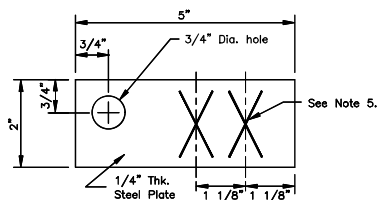


SLEEVE DETAIL
(FMM02)

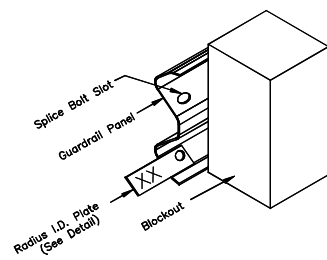


SECTION A-A

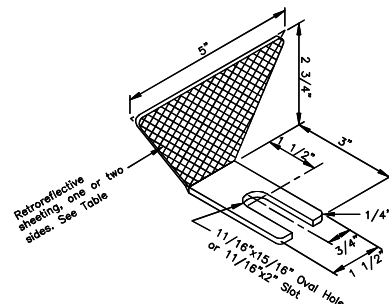
CONTROLLED RELEASE TERMINAL HARDWARE DETAILS



RADIUS I.D. PLATE



RADIUS I.D. PLATE MOUNTING DETAIL



GUARDRAIL REFLECTOR

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

State of Alaska DOT&PF
ALASKA STANDARD PLAN

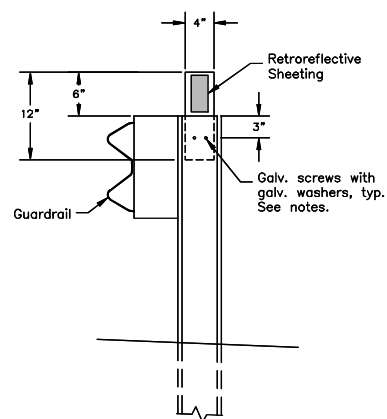
STANDARD GUARDRAIL
HARDWARE
(MISCELLANEOUS)

Adopted as an Alaska
Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLK Date: 7/8/2020

Next Code and Standards Review Date: 7/8/2030



GUARDRAIL FLEXIBLE DELINEATOR DETAIL

(Steel post shown — similar for wood post)

CONSTRUCTION NOTES

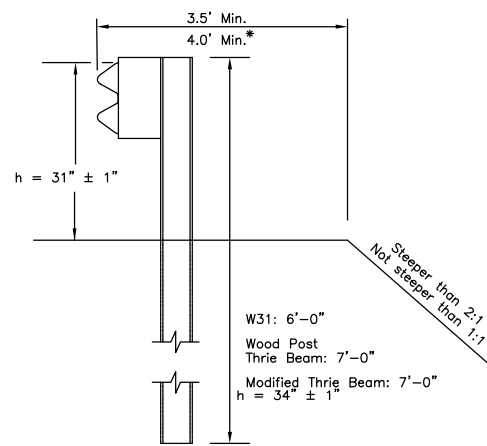
1. Install guardrail flexible delineators where shown on the plans.
2. Install guardrail flexible delineators at 50 foot spacing, unless otherwise noted on the plans. Install not less than 2 delineators per guardrail run.
3. Use 3" x 5" white/yellow/red retroreflective sheeting as required per Standard Plan T-05. Install retroreflective sheeting on both sides of delineator on two-way roads.
4. Attach 4" x 12" flexible delineators to the top of new guardrail posts, on the trailing side of the posts relative to the adjacent lane's direction of travel.
5. Use 2 each 1/4" dia. x 1-1/2" long galvanized lag screws for attaching to wood posts and 2 each 1/4" dia. x 3/4" long galvanized self-drilling fasteners for steel posts. Install a galvanized washer between the fastener head and the flexible delineator.

State of Alaska DOT&PF
ALASKA STANDARD PLANSTANDARD GUARDRAIL
HARDWARE
(FLEXIBLE DELINEATORS)Adopted as an Alaska
Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

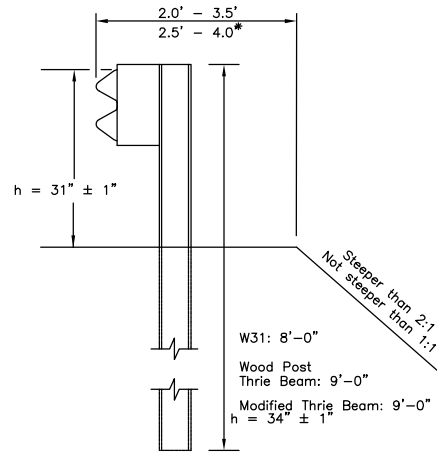
Last Code and Stds. Review
By: KLK Date: 7/8/2020

Next Code and Standards Review Date: 7/8/2030



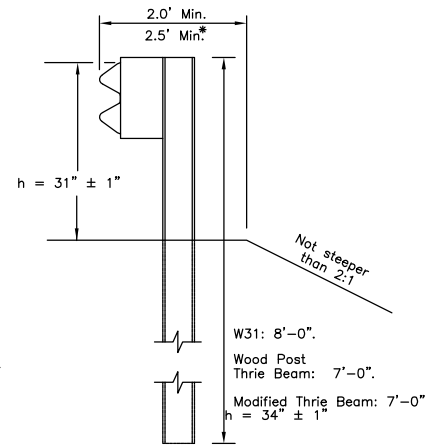
CASE 1

* with Modified Thrie Beam

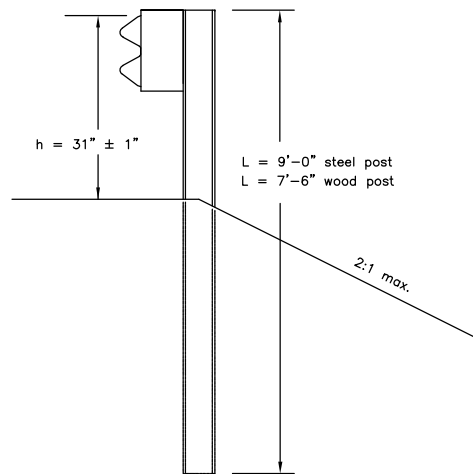


CASE 2

* with Modified Thrie Beam

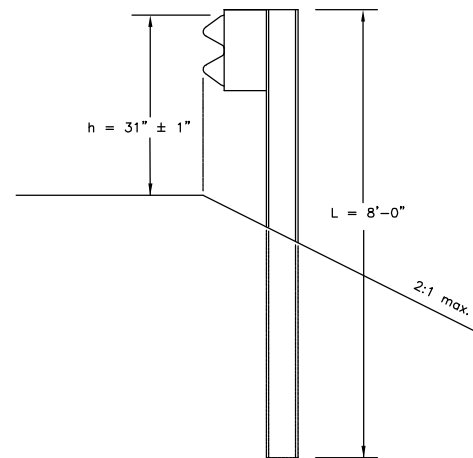


CASE 3



CASE 4

(See Note 5)



CASE 5

(See Note 5)

CONSTRUCTION NOTES:

1. This drawings is to be used for post length determination only. See 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 section.
4. Case 1, 2 and 3 are shown with steel posts. Wood posts may be substituted when allowed by specifications. Wood Post Thrie Beam installations must use wood posts only.
5. Case 4 and 5 apply to W31 guardrail only.

DESIGN NOTES:

1. No fixed objects allowed within 48" of the back of post for Cases 1, 2, 3, 4, and 5.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

GUARDRAIL POST INSTALLATION

Adopted as an Alaska Standard Plan by: *Carolyn H. Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 09/15/2022

Last Code and Stds. Review
By: LRG Date: 09/15/2022

Next Code and Standards Review date: 09/15/2032

CONSTRUCTION NOTES:

1. Provide hardware compliant with the Task Force I3 (TFI3) Guide to Standardized Roadside Safety Hardware.
2. See Standard Plan G-00 for hardware details not shown on this drawing.
3. See Standard Plan G-10 for post lengths corresponding to different combinations of slope and behind-post embankment width.
4. Typical post spacing is 6'-3" center to center.
5. Attach guardrail reflector to guardrail using a 5/8" button head bolt with 5/8" recessed head hex nut and steel washer at location shown in the Typical Elevation. Install reflectors every 25' on tangents and every 12.5' on curves starting 100' before the P.C. and ending 100' after the P.T.
6. Use wood or synthetic blockouts designed, tested, and passed per MASH for use with steel posts. Either bolt hole on the blockout may be used for attachment.
7. Use a 25 linear foot transition to match differing height of existing or new rail elements and end treatments - see Standard Plan G-11.
8. W6x8.5 steel post may be substituted for W6x9 steel post.
9. Install flexible delineators on guardrail posts when called for in the contract. See Standard Plan G-00 for guardrail flexible delineator details.

DESIGN NOTES:

1. No fixed objects allowed within 36" of the back side of guardrail post.
2. This barrier is acceptable under MASH Tests 3-10 and 3-11.

State of Alaska DOT&PF ALASKA STANDARD PLAN STEEL POST W31 GUARDRAIL

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*

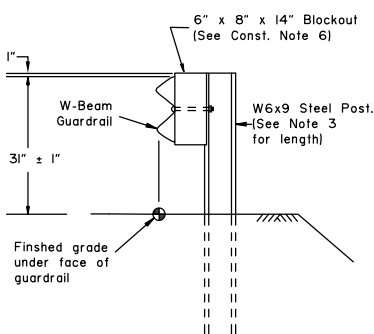
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 05/15/2019

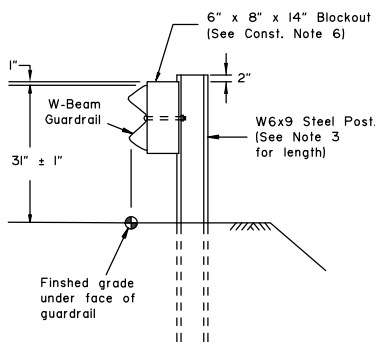
Last Code and Sds. Review
By: LRG Date: 5/15/2019

Next Code and Standards Review date: 5/15/2029

G-05.11S

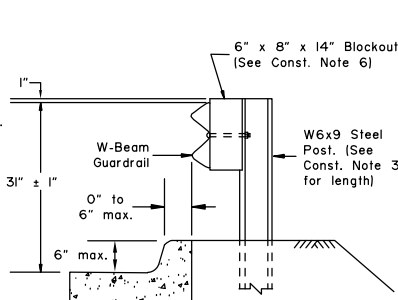


TYPE I POST INSTALLATION

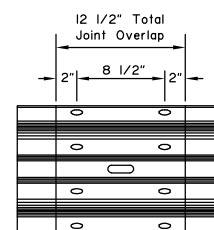


TYPE II POST INSTALLATION

(Facilitates raising rail for future overlays.)

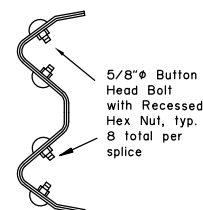


TYPE III POST INSTALLATION

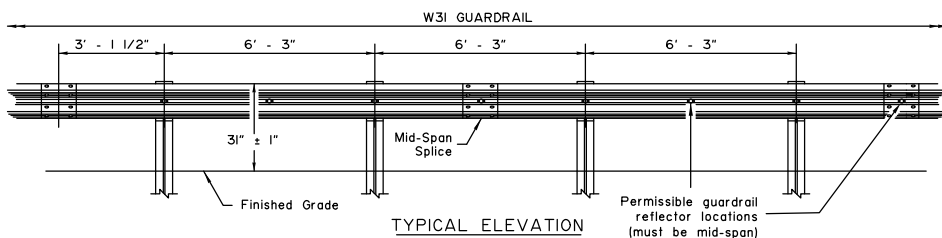


SPLICE DETAIL

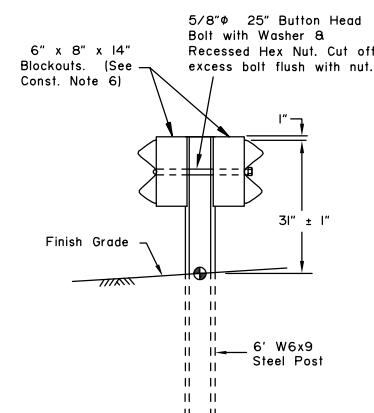
(At mid span between posts only.
Bolts not shown for clarity)



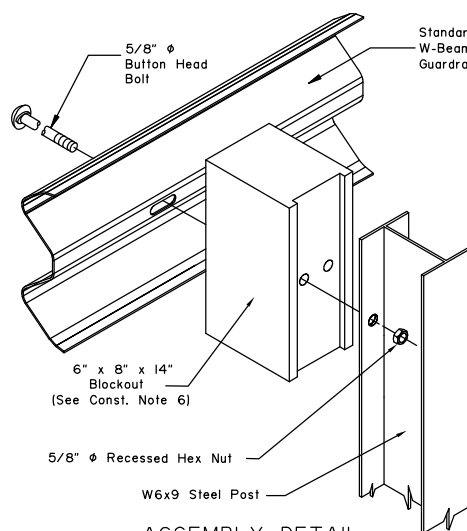
SPLICE
CROSS-SECTION



TYPICAL ELEVATION

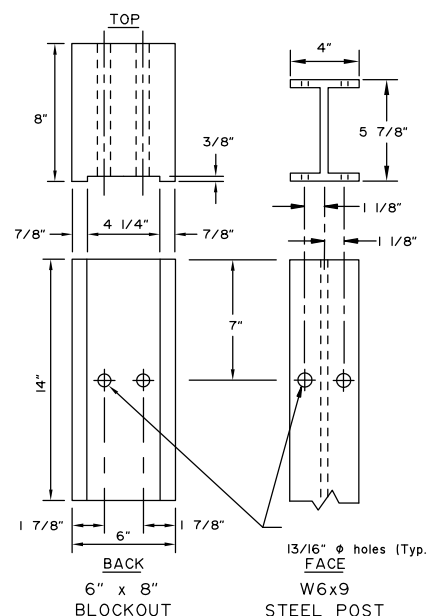


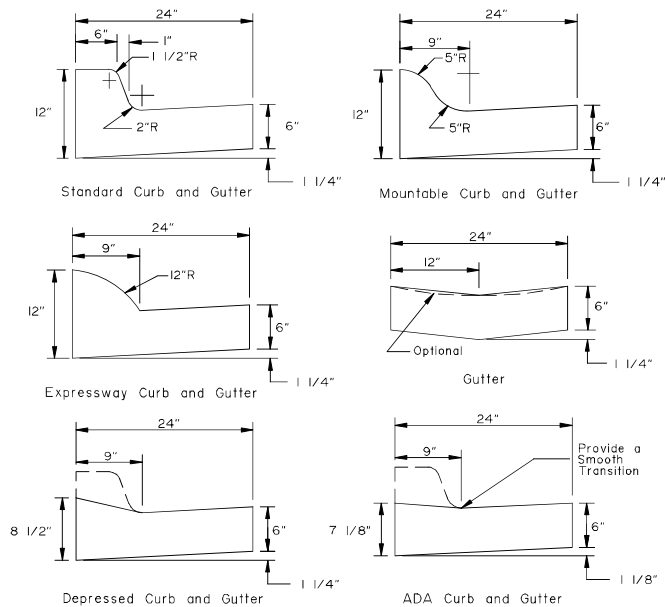
TYPE IV DOUBLE SIDED INSTALLATION



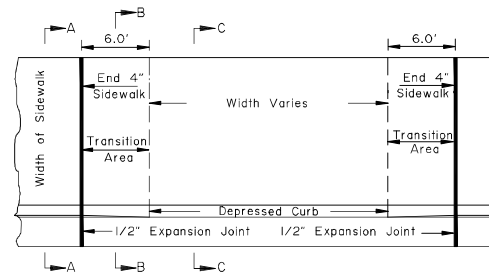
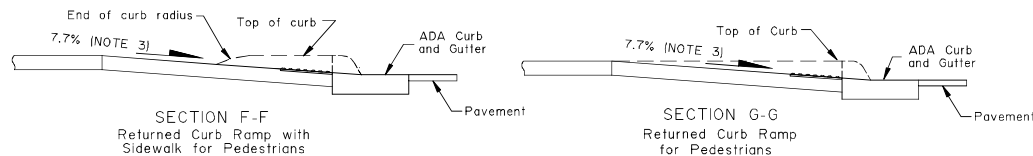
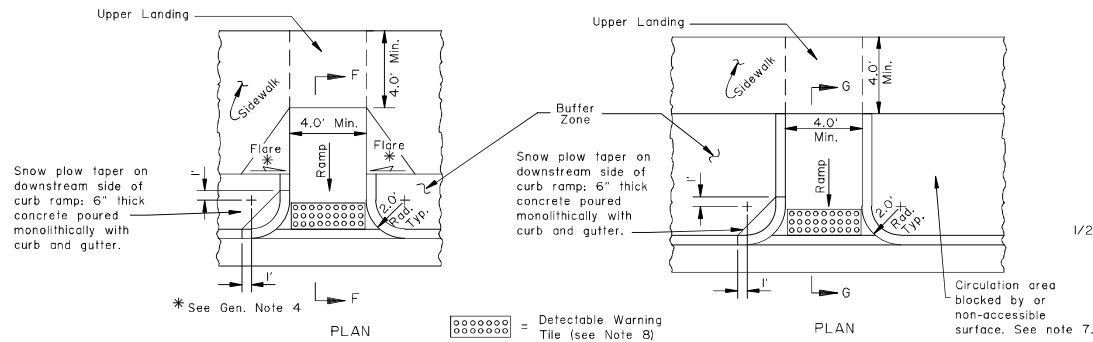
ASSEMBLY DETAIL

(Type I post shown)

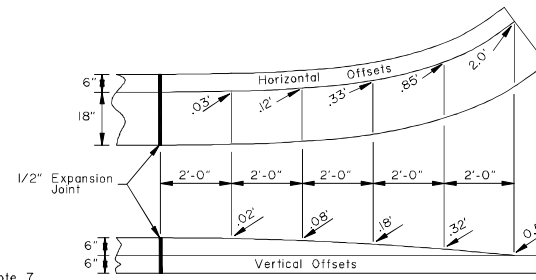
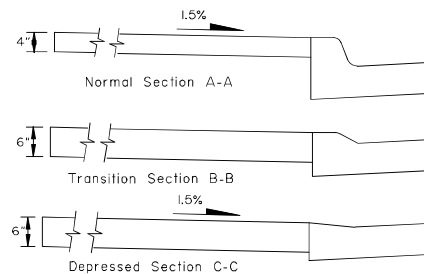




CURB and GUTTER DETAILS



DRIVEWAY CURB CUT DETAILS



CURB and GUTTER
TERMINATION TRANSITIONS

CONSTRUCTION NOTES:

1. Use the type of curb and gutter shown on the plans.
2. Construct ramp runs and landings of concrete, regardless of whether the sidewalk is asphalt or concrete.
3. Construct ramp slopes at a 7.7% nominal grade, or flatter. Ramp slopes may be increased to a maximum of 8.3% when site conditions warrant it. Ramp lengths should be increased to keep grades under the 8.3% maximum, but are not required to exceed 15.0 feet. The resulting ramp grade at a 15.0 foot ramp length is acceptable even if it exceeds 8.3%.
4. Construct flare slopes at 8.3% (measured parallel to the curb line) or flatter, sidewalk cross slopes at 1.5% nominal (1.0% min. and 2.0% max), and ADA Curb and Gutter gutter pan slopes at 4.7% nominal. Construct grade breaks perpendicular to ramp runs.
5. Do not construct flare slopes steeper than 10.0%, sidewalk cross slopes steeper than 2.0% and ADA Curb and Gutter gutter pan slopes steeper than 5.0%. These are the steepest slopes allowed under the 2006 ADA Standards for Transportation Facilities.
6. Provide a coarse broomed finish on ramp runs perpendicular to the ramp slope.
7. When approved by the Engineer, curb returns may be replaced with flares at locations where access to the side of a ramp run is free of poles, utility boxes, other obstructions, or non-accessible surfaces such as a dirt planter strips. See Standard Plan I-22 for flare details.
8. Install 24" wide detectable warning tiles for the full width of the ramp. Provide tiles with truncated domes meeting Section 705.1 of the 2006 ADA Standards for Transportation Facilities. Align truncated dome pattern in the predominant direction of wheelchair travel to permit wheels to roll between domes.
9. Maximum cross slope on upper landings, measured in any direction, is 2.0%. Maximum cross slope on ramps is 2.0% measured perpendicular to the ramp run.

Note: Drawing not to scale

State of Alaska DOT&PF
ALASKA STANDARD PLAN

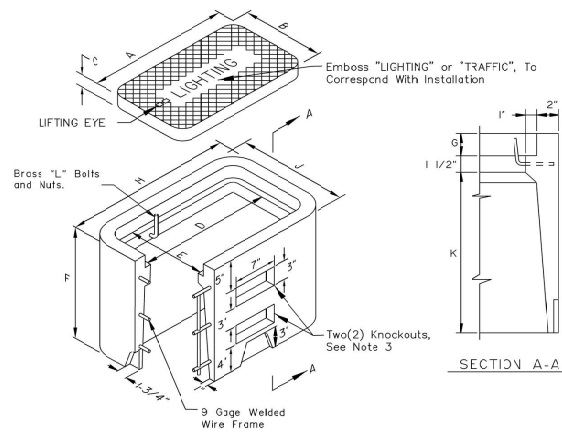
CURB CUT
CURB & GUTTER
AND CURB RAMP DETAILS

Adopted as an Alaska
Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

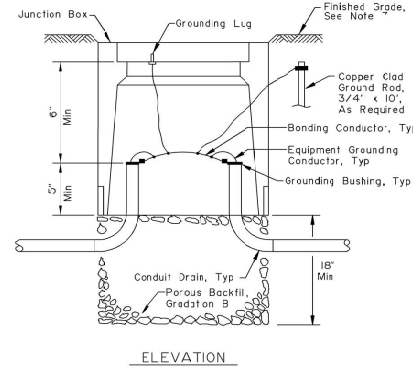
Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

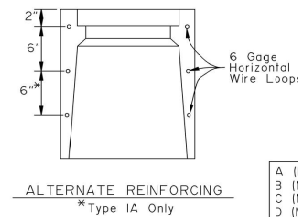
Next Code and Standards Review date: 7/8/2030



ISOMETRIC



ELEVATION

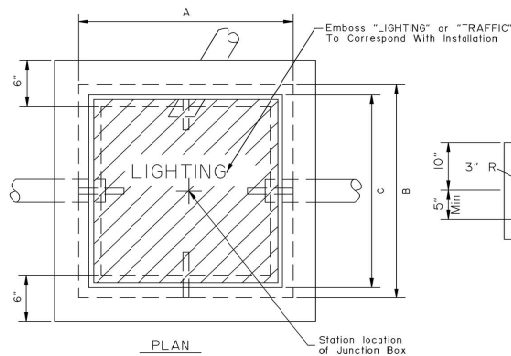


	DIMENSIONS (IN)	
	TYPE I	TYPE IA
A	15	22 3/4
B	10	3 1/4
C	1 3/4	2
D	13 1/2	21 1/4
E	8 1/2	1 3/4
F	12	8
G	1 3/4	2
H	19 1/2	27 1/4
J	14 1/2	7 3/4
K	8 3/4	4 1/2

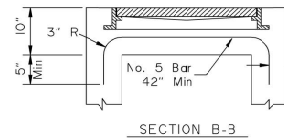
	DIMENSIONS (IN)		
	TYPE II	TYPE III	TYPE IV
A (Max)	30	30	30
B (Max)	30	30	36
C (Min)	22	22	30
D (Min)	22	22	24
E (Min)	24	24	30

GENERAL NOTES:

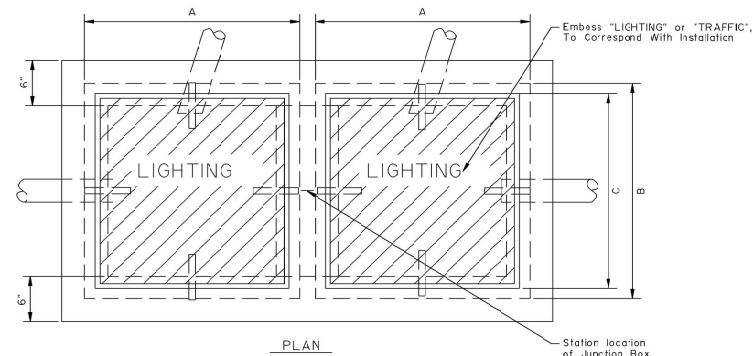
- See the Standard Specifications for Highway Construction (SSHC) for additional requirements.
- See Section 660-2.CI of the SSHC for concrete and reinforcing steel requirements.
- Provide knockouts indicated in Type IA junction box when installed for loop detection. Conduit for loop detectors to enter junction box through knockouts.
- Covers for junction boxes shall be cast iron. Type I and IA shall be secured to junction box with a minimum of two bolts and be rated ANSI/SCTE 77, Tier 8, minimum. Type II, Type III and Type IV cover shall weigh over 100 pounds and be ANSI/SCTE 77, AASHTO H-20 traffic rated.
- The minimum required bearing capacity for Type I shall be 6,800psf, for Type IA shall be 5,100psf, for Type II shall be 3,500psf, for Type III shall be 2,300psf, and for Type IV shall be 2,000psf.
- See section 703-2.CI of the SSHC for Porous Backfill material requirements.
- See section 660-3.04 of the SSHC for top of junction box placement to finished grade requirements.
- Provide conduits as required, size and quantity indicated in plans.
- Provide grout around conduits in knockouts and for unused knockouts.
- Provide a 1/2" thick preformed bituminous joint material around junction boxes installed in concrete walkways.
- Metal conduits and junction box covers shall be bonded together to be electrically continuous using No. 8 AWG minimum copper bonding conductor. Cover shall be bonded using a finned copper braided bonding jumper.



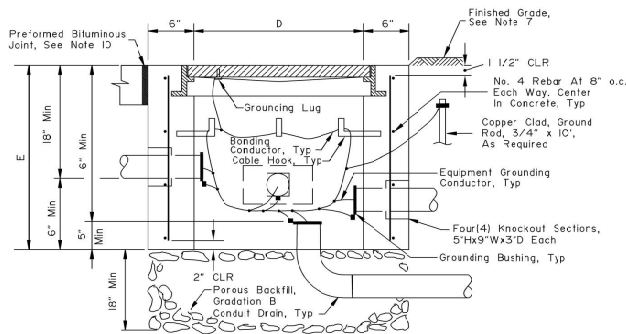
PLAN



SECTION B-3

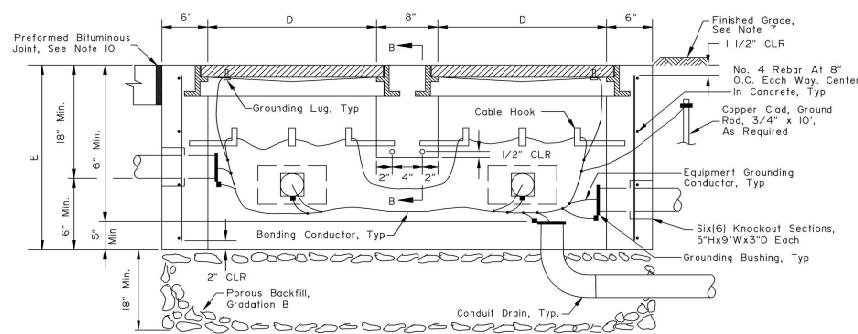


PLAN



ELEVATION

TYPE II JUNCTION BOX



ELEVATION

TYPE III & IV JUNCTION BOX

NOT TO SCALE

State of Alaska DOT&PF
ALASKA STANDARD PLAN

JUNCTION BOXES FOR ELECTROLIER & TRAFFIC SIGNALS

Adopted as an Alaska Standard Plan by *Carolyn A. Maradonna*
Sally Maradonna, P.E.
Chief Engineer

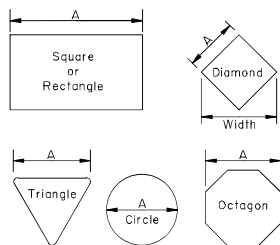
Adoption Date: 09/15/2022

Last Code and Stds. Review
By: CNH Date: 7/15/2020

Next Code and Standards Review date: 7/15/2030

GENERAL NOTES

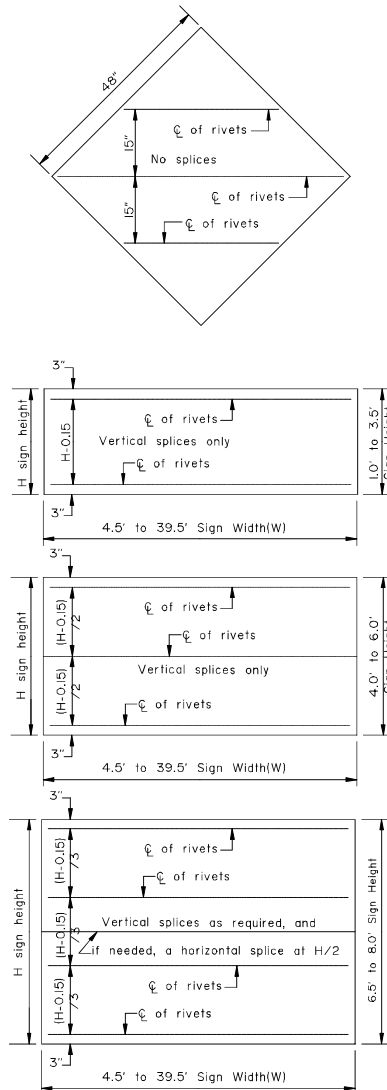
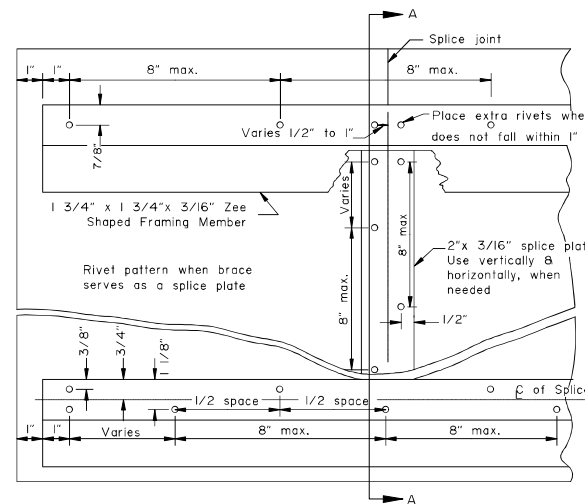
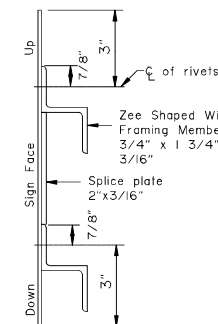
1. See the standard specifications for the aluminum alloys that you may use for sign sheeting and wind framing members.
2. Fabricate all signs from 0.125" thick aluminum sheeting.
3. Sign fabricators may use alternates to the zee shaped framing member with approval of the engineer, if the frame manufacturer certifies their design equals or exceeds the strength of the zee shaped design.
4. Install one piece wind framing members on all signs up to 23.5' wide. Use one splice in each wind frame on all signs wider than 23.5'. Locate splices at least 18" from all posts and panel edges. Stagger splices in adjacent framing members at least 8.0' apart.
5. Attach wind framing members with rivets or with an engineer approved, double sided, high strength, adhesive tape. Clean and handle sheeting and framing members and apply tape in accordance with the tape manufacturer's written instructions. Install two rivets in both ends of each framing member.
6. Use 3/16" diameter rivets conforming to aluminum alloy 6061-T6 for cold driven rivets, or aluminum alloy 6061-T43 for hot driven rivets.
7. Sign fabricators may use sign panels extruded with integral framing with approval of the engineer, if the manufacturer certifies their design equals or exceeds the strength of the 0.125" thick panel with framing attached to it.
8. Frame all signs taller than 8.0' with five wind framing members located (H-0.15)/4 spaces. If needed, make a horizontal splice at the middle wind frame.
9. Do not use round pipes for sign supports.



Maximum size unframed signs using 0.125" thick aluminum sheeting.	
Sign Shape	A
Squares, Shields, and Route Markers	48"
Rectangles	48"
Diamonds	48"
Triangles	48"
Rounds and Octagons	48"

Install wind framing on all signs that exceed the dimensions listed.

LIGHT SIGNS

WIND FRAMING
LOCATIONSRIVET DETAIL FOR ZEE SHAPED
WIND FRAMING & SPLICE PLATE

SECTION A-A

Note: Drawing not to scale

State of Alaska DOT&PF
ALASKA STANDARD PLAN
SIGN FRAMING

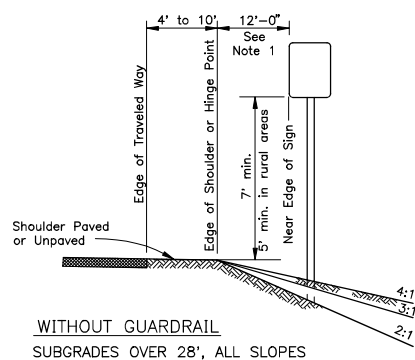
Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*

Carolyn Morehouse, P.E.
Chief Engineer

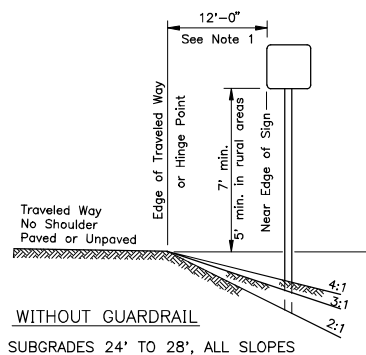
Adoption Date: 7/17/2020

Last Code and Stds. Review
By: WTH Date: 7/8/2020

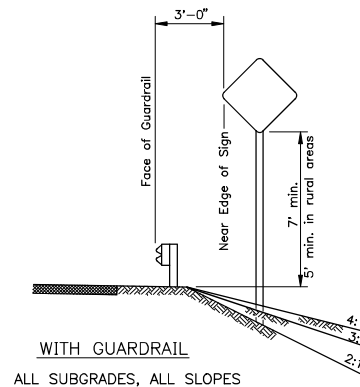
Next Code and Standards Review date: 7/8/2030



WITHOUT GUARDRAIL
SUBGRADES OVER 28', ALL SLOPES



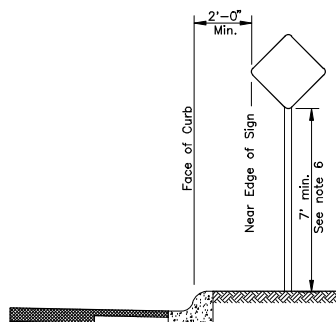
WITHOUT GUARDRAIL
SUBGRADES 24' TO 28', ALL SLOPES



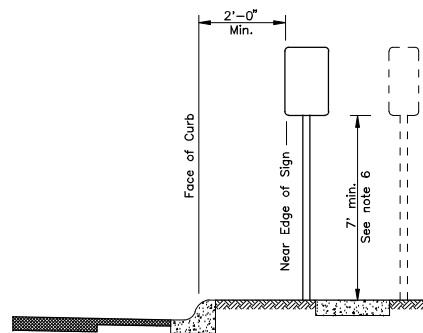
WITH GUARDRAIL
ALL SUBGRADES, ALL SLOPES

GENERAL NOTES

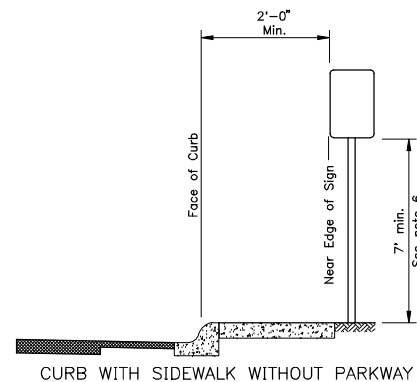
1. Unless shown otherwise on the plans, the standard sign offset is 12'. The minimum is 6' where shoulder width is 6' or greater.
2. Add 6" to mounting height on unpaved roads.
3. If signs extend over bike paths, the minimum vertical clearance is 8' 0".
4. When signs are placed 30' or more from the edge of traveled way, mount them with the bottom of the sign at least 5' above the road surface at the near edge of the road.
5. When multiple hinged sign supports are used, mount hinges at least 7' above the ground.
6. Minimum mounting height is 7'-0" where parking or pedestrian movements are likely to occur, or where signs extend over sidewalks.
7. For construction signs in rural areas, mounting height shall be 7' minimum.



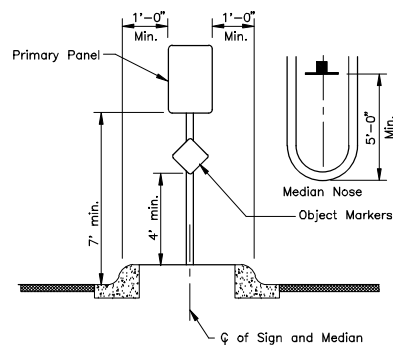
CURB WITHOUT SIDEWALK



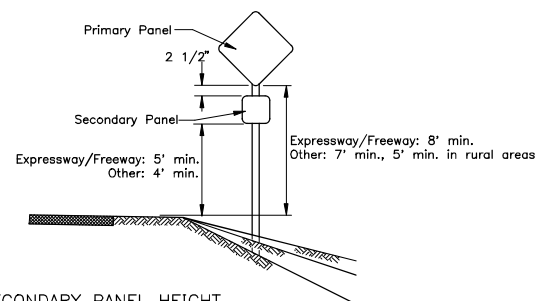
CURB WITH PARKWAY AND SIDEWALK
(If R/W width permits, signs should be placed behind sidewalk.)



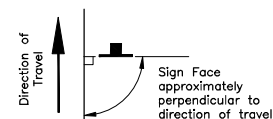
CURB WITH SIDEWALK WITHOUT PARKWAY



RAISED MEDIANS
Minimum 4' Width for Signing



SECONDARY PANEL HEIGHT
ALL TWO PANEL MOUNTING



SIGN POSITIONING

State of Alaska DOT&PF
ALASKA STANDARD PLAN

POST MOUNTED SIGN OFFSET AND HEIGHT

Adopted as an Alaska
Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KKK Date: 7/8/2020

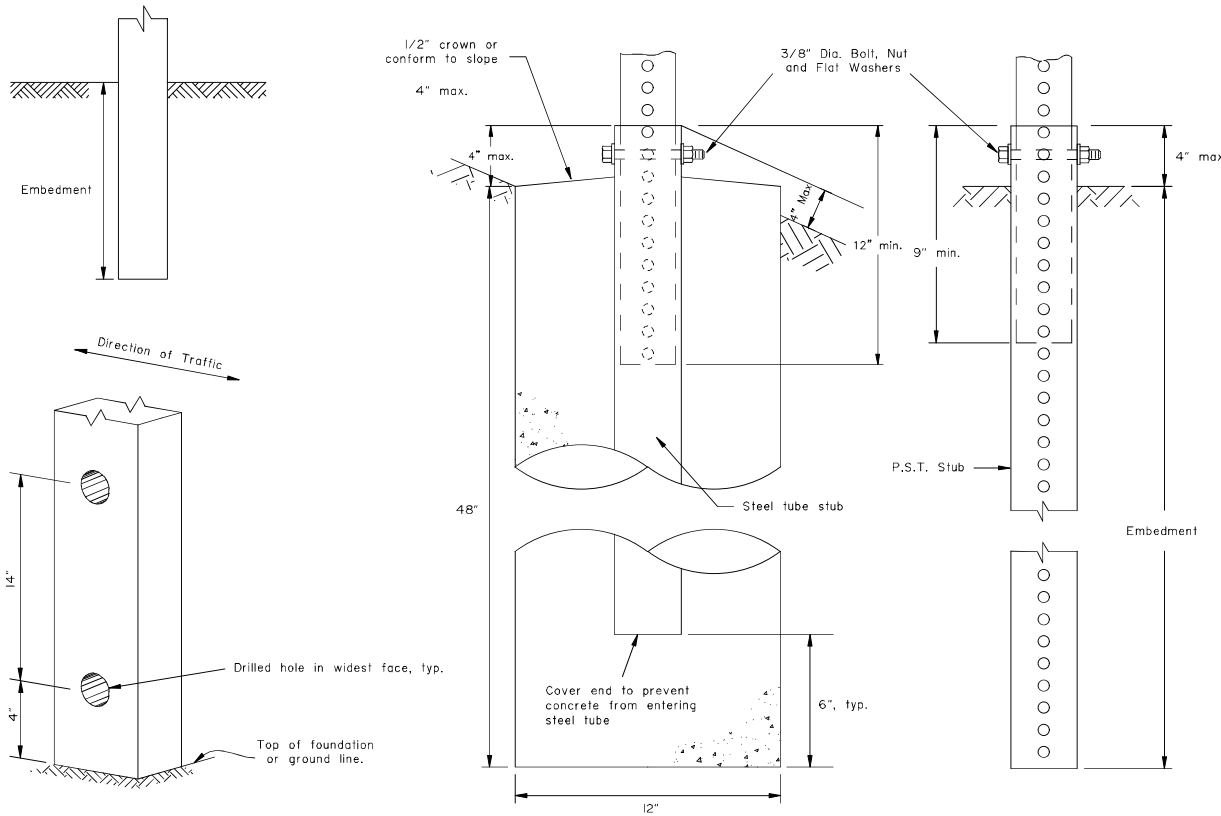
Next Code and Standards Review Date: 7/8/2030

GENERAL NOTES:

1. Sign shall be placed symmetrically around posts and refer to Standard Plan S-00 for sign framing details.
2. See plans for type of post, size and embedment type.
3. To maintain crashworthiness, install no more than the number of P.S.T.s or wood posts specified in the tables within 7' of each other.
4. Concrete shall be class B.
5. Do not use the supports on this drawing for multiple support signs if supports are separated by more than 7 feet.
6. Treat all field cuts and field drilled holes in wood posts in accordance with Section 730-2.04 of the Standard Specifications.

SIGN POST SPACING NOTES:

1. Install sign support in accordance with the table below, unless otherwise required by plans or specifications.
2. Exceptions:
 - a. Use one post for all E5-1 gore signs, regardless of width.
 - b. Use one 2.5" P.S.T. for all STOP signs, with or without street name signs.
3. Supports placed within 7' of each other must be acceptable for that use. See tables below for the sizes of wood posts and P.S.T.s that may be used within 7'. See Manufacturer's documentation for breakaway couplings and tubes that may be used within 7'.
4. See Standard Plan S-31 for frangible couplings, hinges, and foundations for tube and W-shape sign supports.

SLEEVE TYPE
CONCRETE FOUNDATIONSLEEVE TYPE*
SOIL EMBEDMENT

WOOD SIGN POSTS			
SIZE	HOLE DIA.	EMBEDMENT*	NO. OF POSTS WITHIN 7 Ft. PATH
4"x4"	NONE	4'-1"	2
4"x6"	1 1/2"	5'-3"	2
6"x6"	1 1/2"	4'-9"	1
6"x8"	3"	4'-9"	1

* Embedment depth applies in both strong and weak soil.

WOOD POSTS

PERFORATED STEEL TUBES (P.S.T.)			
POST SIZE	Embedment Depth	No. of P.S.T.s permitted within 7 ft path	
1 1/2" x 1 1/2"	4'-8"	2	
1 3/4" x 1 3/4"	4'-6"	2	
2" x 2"	4'-3"	2	
2 1/4" x 2 1/4"	5'-0"	1	
2 1/2" x 2 1/2"	4'-6"	1	

* Use 3"x3"x3/16" Stub for 2 1/2"x2 1/2" PST Applications.

PERFORATED STEEL TUBE (PST) POSTS

TUBE SIGN POST SPACING								
Sign Width [feet]	No. of Posts	Distance Between Posts	Sign Overhang	Post Type				Notes
				P.S.T.	Wood	Steel Tube	W-Shape	
0.5 to 4.0	1	-	0.5W	X	X	X		See Note
4.5 to 10.0	2	0.6W	0.2W	X	X	X		See Note
10.5 to 11.0	2	6	Varies	X	X	X		See Note
11.5 to 13.0	2	8	Varies				X	
13.5 to 20.0	2	0.6W	0.2W				X	
20.5 to 22.5	3	8	Varies				X	
23.0 to 29.5	3	0.35W	0.15W				X	
30.0 to 31.5	4	8	Varies				X	
32.0 to 40.0	4	0.25W	0.125W				X	

TUBE SIGN POST SPACING

Note: Drawing not to scale

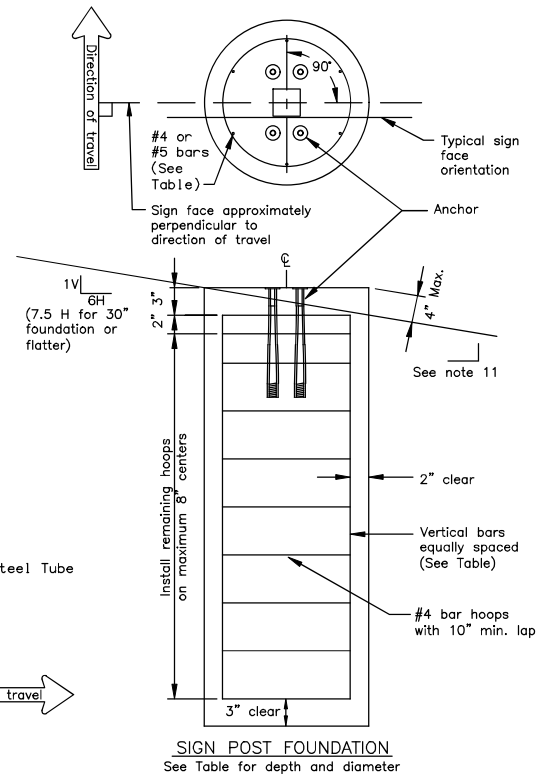
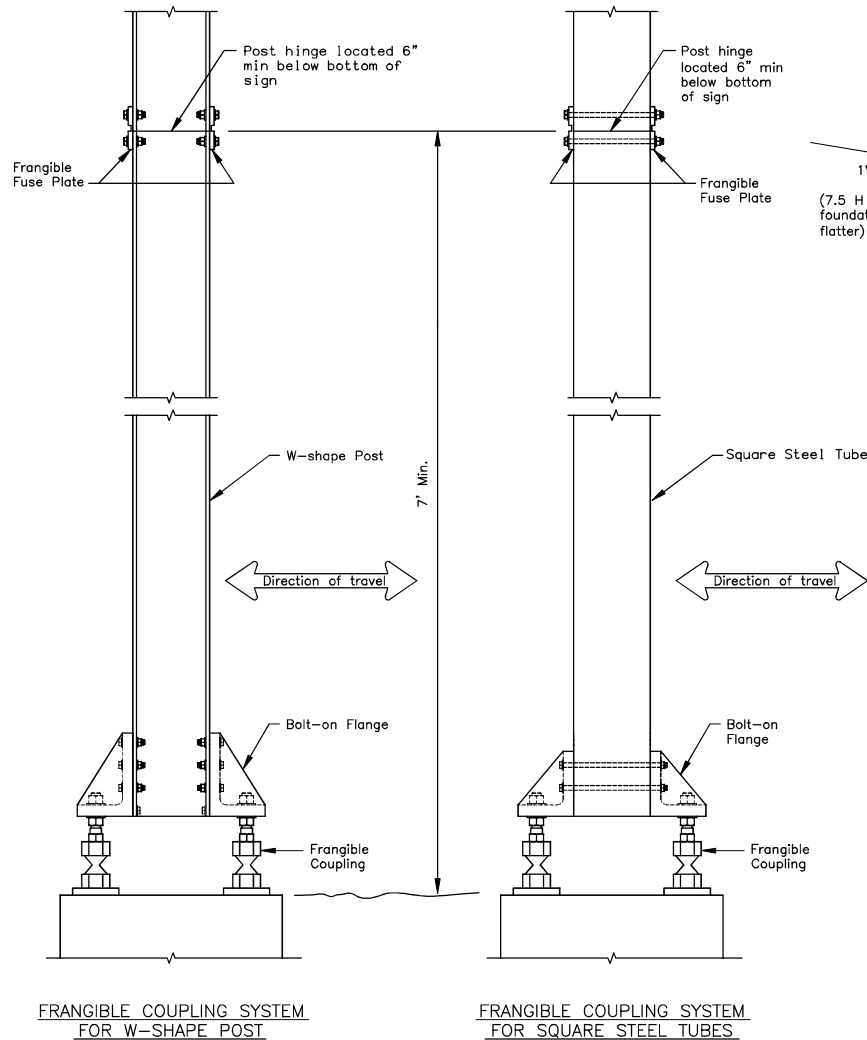
State of Alaska DOT&PF
ALASKA STANDARD PLANLIGHT SIGN STRUCTURE
POST EMBEDMENTAdopted as an Alaska
Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: WTH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

NOTE:
Install hinges when more than one post is
used to support a sign. Do not install hinges
on single post installations.



POST SIZE & TYPE	FOUNDATION *			REINFORCEMENT			
	DIA.	MIN. DEPTH	CY ³ CONC.	VERTICAL BARS QTY./SIZE LGTH.	HOOPS QTY./SIZE	DIA.	
2 1/2" TUBE	1'-6"	6'-0"	0.39	7 #5 5'-6"	10 #4 1'-2"		
3" TUBE	1'-6"	6'-0"	0.39	7 #5 5'-6"	10 #4 1'-2"		
3 1/2" TUBE	1'-6"	6'-0"	0.39	7 #5 5'-6"	10 #4 1'-2"		
4" TUBE	2'-6"	6'-0"	1.09	8 #8 5'-6"	10 #4 2'-2"		
4 1/2" TUBE	2'-6"	6'-0"	1.09	8 #8 5'-6"	10 #4 2'-2"		
5" TUBE	2'-6"	6'-0"	1.09	8 #8 5'-6"	10 #4 2'-2"		
W6 x 9	2'-6"	6'-0"	1.09	8 #8 5'-6"	10 #4 2'-2"		
W6 x 12	2'-6"	6'-0"	1.09	8 #8 5'-6"	10 #4 2'-2"		
W6 x 15	3'-0"	6'-6"	1.70	8 #11 6'-0"	12 #4 2'-8"		
W6 x 30	3'-0"	7'-6"	1.96	8 #11 7'-0"	13 #4 2'-8"		

* Foundations sized for use where there are no loose, high moisture, or fine grained soils.

FOUNDATION TABLE

GENERAL NOTES

1. Furnish sign posts with NCHRP 350 compliant frangible couplings designed to break away safely when struck from any direction. There is no MASH compliant device at this time. See SPDR report for more info.
2. Furnish frangible coupling systems with bolt-on flanges.
3. Details on this sheet illustrate only the general components of a frangible coupling system, and are not intended to specify a particular product.
4. Install frangible fuse plates as specified by the manufacturer and hinged joints when multiple posts are used to support a sign. Do not use round pipes.
5. Install the components of the breakaway system, including hinges, in accordance with the written instructions of the system manufacturer.
6. Use Class A, B or W concrete conforming to Sections 501 or 550 of the Standard Specifications. Furnish ASTM A615 grade 60 steel bars for concrete reinforcement conforming to AASHTO M31.
7. Spiral reinforcing steel may be substituted for hoops in concrete foundation. Spiral option shall consist of #3 plain spiral with 6" pitch with three flat turns at the top and one flat turn at the bottom.
8. Install the concrete anchors using a rigid template. Locate the anchors on centers and within tolerances specified by the manufacturer.
9. Install the anchors in fresh concrete as recommended by the manufacturer. Adjust the template's final position until it is level. Remove and replace all foundations that need more than 2 shims under any 1 coupling or more than a total of 3 shims under any pair of couplings to plumb the post.
10. Drill the holes for attaching brackets before the sign posts are hot dip galvanized. Test fit templates in the holes to ensure the brackets can be installed square to the posts.
11. Special grading detail and/or shielding may be required to maintain 4" maximum clear distance.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

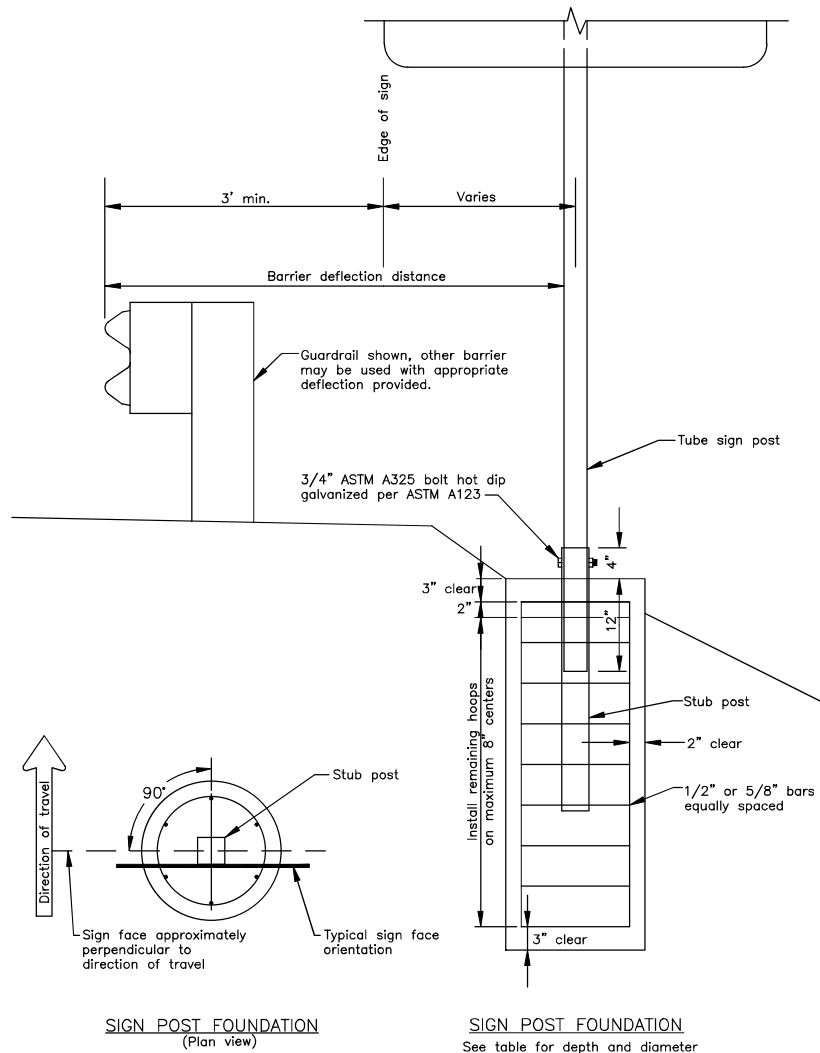
SIGN POST BASE AND FOUNDATION

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: K/LK, M/M Date: 7/8/2020

Next Code and Standards Review Date: 7/8/2030

**GENERAL NOTES**

1. This is a non-crashworthy sign support. It may only be used at locations shielded by a guardrail, barrier, or wall. It may not be used if the sign post is within 20' of the rail and is closer than 75' from the guardrail end post (measured along the rail). For this case use a breakaway sign support. See Standard Plan G-20.
2. Furnish steel tube sign post and stub post that conform to ASTM A500, grade B, and meet ASTM A123 for hot dip galvanizing.
3. Install tubes and stub post with a 0.1875" wall thickness.
4. For Perforated Tubes use Standard Plan S-30.
5. Spiral reinforcing steel may be substituted for hoops in concrete foundation. Spiral option shall consist of No. 3 plain spiral with 6" pitch with three flat turns at the top and one flat turn at the bottom.
6. Use Class A, B or W concrete.

POST SIZE & TYPE	FOUNDATION *			REINFORCEMENT				STUB POST	
	DIA.	MIN. DEPTH	C.Y. CONC.	QTY.	SIZE	LGTH.	SIZE	DIA.	SIZE LGTH.
2 1/2" TUBE	1'-0"	4'-6"	0.13	6	#4	4'-0"	#4	8"	3"
3" TUBE	1'-6"	4'-0"	0.25	7	#5	3'-6"	#4	1'-2"	3 1/2" 3'
3 1/2" TUBE	1'-6"	4'-6"	0.27	7	#5	4'-0"	#4	1'-2"	4" 3'
4" TUBE	2'-6"	4'-0"	0.69	8	#8	3'-6"	#4	2'-2"	4 1/2" 3'
4 1/2" TUBE	2'-6"	4'-6"	0.78	8	#8	4'-0"	#4	2'-2"	5" 3'

* Foundation sized for use where there are no loose, high moisture, or fine grained soil.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

SIGN POST BASE AND
FOUNDATION BEHIND

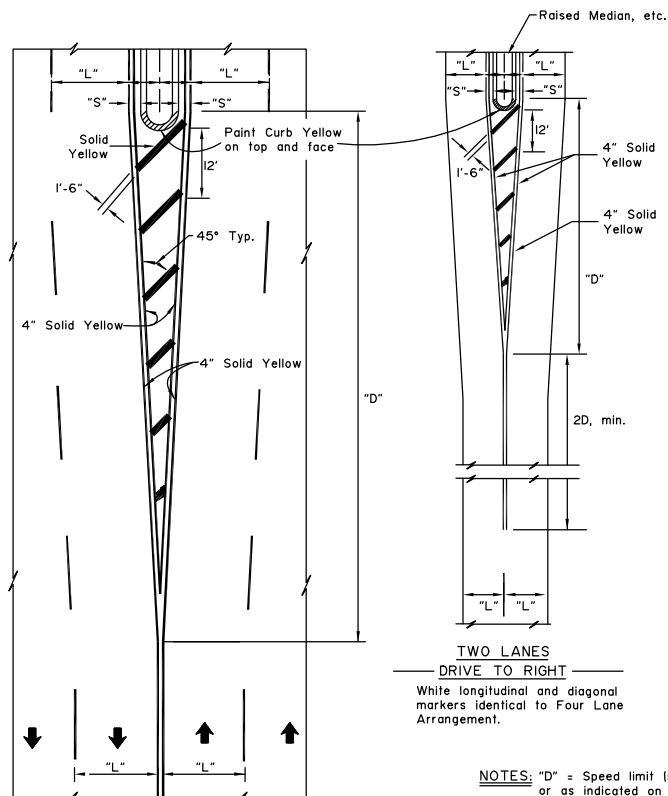
BARRIER

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

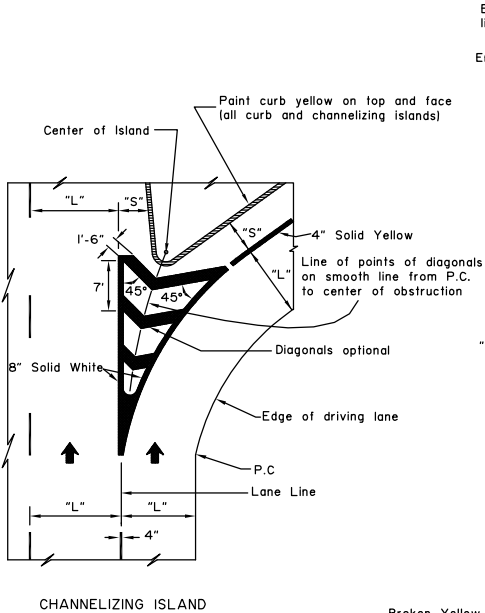
Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLK Date: 7/8/2020

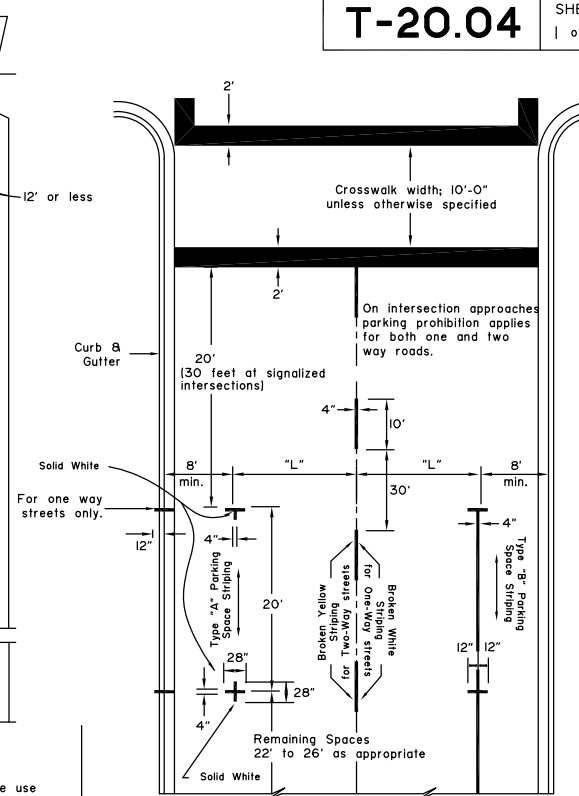
Next Code and Standards Review Date: 7/8/2030



APPROACH TO OBSTRUCTIONS



EDGE LINE TRANSITION
TO NARROW BRIDGE
AND APPROACH
BARRIER LINE

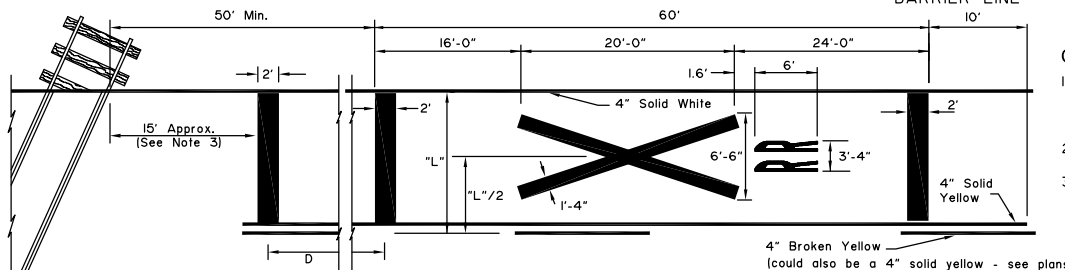


CENTERLINES FOR TWO LANE TWO WAY
URBAN ROADS-PARKING LIMIT LINES

RAILROAD CROSSING NOTES:

1. All markings solid white 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'
45	475'
60	625'



APPROACH TO RAILROAD CROSSING ON 2 LANE 2 WAY HIGHWAY

GENERAL NOTES:

1. "S"= offset distance as shown on the plans, otherwise 1 to 2 feet.
2. "L"= driving lane width.
3. See the Alaska Traffic Manual for additional guidance and/or restrictions on the use of traffic control devices.

NOT TO SCALE

State of Alaska DOT&PF ALASKA STANDARD PLAN PAVEMENT MAKING APPLICATIONS

Adopted as an Alaska
Standard Plan by: *Kenneth J. Fisher, P.E.*
Chief Engineer

Adoption Date: 02/08/2019

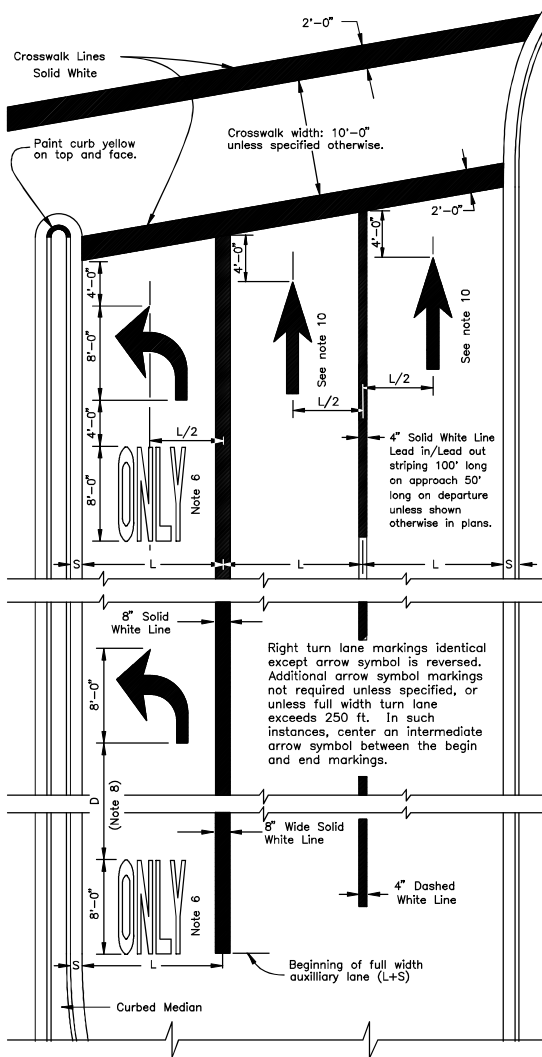
Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029

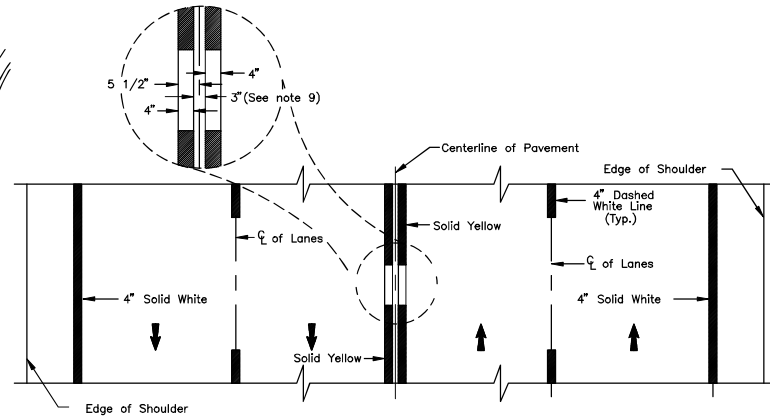
GENERAL NOTES:

1. All markings white unless indicated otherwise.
2. Lengths of stripe and gap for lane and center lines identical.
3. Lane lines for auxiliary lanes are unbroken solid lines.
4. "L" = driving lane width.
5. "S" = shy distance as shown on plans, otherwise 1 to 2 feet.
6. ONLY markings are required where through lanes change to turn lanes. In other cases, apply ONLY markings as indicated on plans.
7. See ALASKA TRAFFIC MANUAL for additional instruction on the use of TRAFFIC CONTROL DEVICES.
8. Adjust distance D between ONLY and Turn Arrow based on SPEED vs. D table. Table may be used for spacing between pairs of TWLT markings.
9. Adjust centerline spacing from 3" up to 5" where recessed pavement markers are required.
10. Arrows and symbols are used for through lanes only when the lane layout deviates from the normal intersection rules, and shall only be used where indicated in the plans.

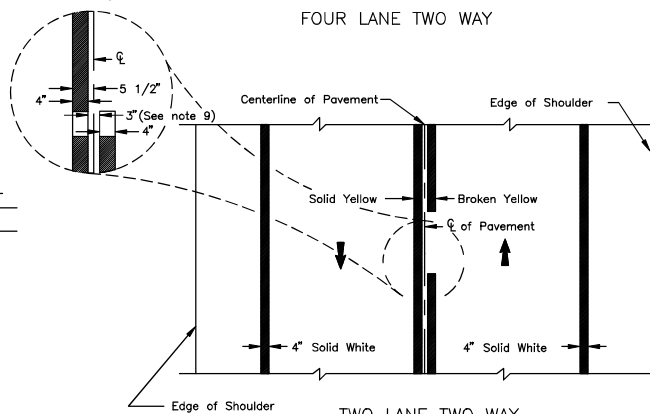
SPEED	D
25 or less	35'
30	45'
35	50'
40	60'
45	65'
50	75'
55 or more	80'



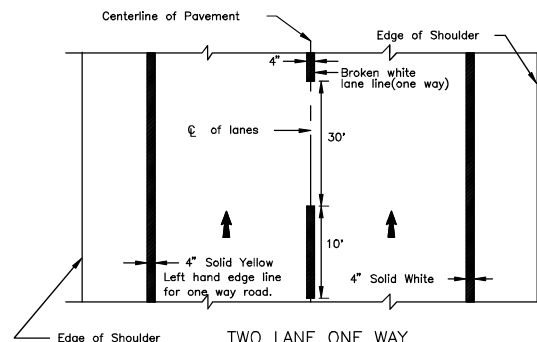
APPROACH TO INTERSECTION



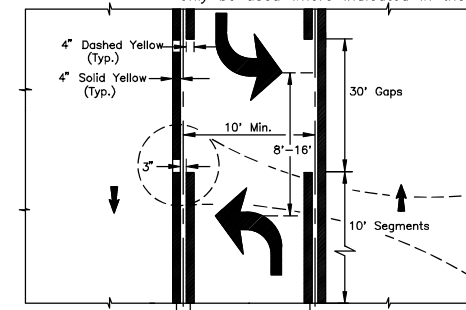
FOUR LANE TWO WAY



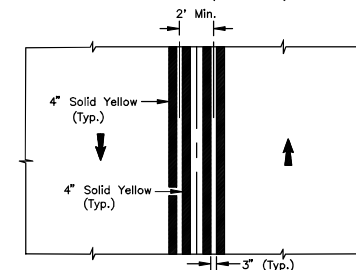
TWO LANE TWO WAY



TWO LANE ONE WAY



TWO-WAY LEFT TURN LANE (TWLT)
(See note 8)



STRIPED MEDIAN

State of Alaska DOT&PF ALASKA STANDARD PLAN

PAVEMENT MARKING APPLICATIONS

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By:KLK Date: 7/8/2020

Next Code and Standards Review Date: 7/8/2030

Quainton, Madeleine

From: Kenai River Center
Sent: Tuesday, July 15, 2025 8:57 AM
To: Quainton, Madeleine
Subject: FW: <EXTERNAL-SENDER>RE: KRC 13680 | Pedestrian Path
Attachments: Resolution No. 2020-62.pdf; Resolution No. 2021-53.pdf; Ordinance No. 3137-2020.pdf

From: Kevin Buettner <kbuettner@kenai.city>
Sent: Tuesday, July 15, 2025 8:38 AM
To: Kenai River Center <kenairivcenter@kpb.us>
Cc: Planning Department <planning@kenai.city>
Subject: <EXTERNAL-SENDER>RE: KRC 13680 | Pedestrian Path

CAUTION: This email originated from outside of the KPB system. Please use caution when responding or providing information. Do not click on links or open attachments unless you recognize the sender, know the content is safe and were expecting the communication.

To Whom it May Concern:

The City of Kenai reiterates its support of this project. A copy of the plans were emailed to us by the Project Manager and we have no additional comments, as everything looks as we initially expected. I have attached the Resolutions and Ordinance from City Council for your reference.

Kevin Buettner, AICP, LEED AP, CNU-A
Planning Director
(907) 283-8235 (O) | (907) 971-0867 (M)
www.kenai.city



From: Kenai River Center <kenairivcenter@kpb.us>
Sent: Monday, July 14, 2025 1:50 PM
To: Planning Department <planning@kenai.city>
Subject: KRC 13680 | Pedestrian Path

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Hello,

The River Center received the attached application for review and approval by the Planning Commission. The project drawings are large and will come in a separate email. Please let us know if you have any questions.



Sponsored by: Council Member Knackstedt

CITY OF KENAI

RESOLUTION NO. 2020-62

A RESOLUTION OF THE COUNCIL OF THE CITY OF KENAI, ALASKA, SUPPORTING THE CITY'S REQUEST TO PLAN, DESIGN, CONTRACT, AND PERFORM CONSTRUCTION ADMINISTRATION OF THE BRIDGE ACCESS ROAD PEDESTRIAN PATHWAY PROJECT.

WHEREAS, City of Kenai Resolution No. 2019-01 supported the Biking in Kenai and Soldotna application to the Alaska Department of Transportation and Public Facilities for the use of Alaska Transportation Alternative Program funds for a pedestrian pathway along Bridge Access Road in the City of Kenai; and,

WHEREAS, the City received an Alaska Transportation Alternatives Program grant in the amount of \$2,181,669 for the construction of 1.2 miles of pedestrian path beginning at the intersection of the Kenai Spur Highway and Bridge Access Road and terminating at the intersection of Beaver Loop Road and Bridge Access Road; and,

WHEREAS, Ordinance No. 3137-2020 appropriated local match funds in the amount of \$216,560 and authorized the Kenai City Manager to execute an agreement with the Alaska Department of Transportation and Public Facilities in the amount of \$2,398,229 for the construction and future maintenance of the pedestrian pathway; and,

WHEREAS, Resolution No. 2020-29 adopted the City of Kenai Capital Improvement Plan (CIP) for Fiscal Years 2021-2025, which includes the construction of the Bridge Access Pedestrian Pathway; and,

WHEREAS, the Bridge Access Pedestrian Pathway is consistent with the 2016 City of Kenai Comprehensive Plan; and,

WHEREAS, as part of the City's application to join the Bicycle Friendly Community program, a public survey about bicycling in Kenai was conducted by The League of American Bicyclists in the fall of 2018 and some of the public responses to this survey directly mentioned the need for more bike paths and connectivity or even directly discussed the specific need for a path along Bridge Access Road; and,

WHEREAS, the Alaska Department of Transportation and Public Facilities (DOT&PF) conveyed Beaver Loop Road starting at its intersection with the Kenai Spur Highway and proceeding south 3.7 miles to its intersection with Bridge Access Road to the City of Kenai, and the City is familiar with the property, including all rights-of-way, improvements, and structures located on Beaver Loop Road and is responsible for its maintenance and regulating the use of public ways within the City; and,

WHEREAS, the City is in the best position to address the challenges and impacts of the project and facilitate stakeholder and public involvement and media relations for the project to ensure

that potential adverse economic, social, and environmental effects are considered in project development; and,

WHEREAS, the City is experienced with contract administration in accordance with State and Federal funding requirements, including communication, review and approval, monitoring, financial, and record-keeping requirements; and,

WHEREAS, the City can accept the final constructed project into its maintenance program without the need for transfer of maintenance responsibility or assurances including warranties from DOT&PF; and,

WHEREAS, the City desires to be directly involved with planning, designing, and performance of contract administration for the project, which bridges a gap between the existing trail system, provides an important connecting segment along main transportation corridors, and serves as a regional amenity; and,

WHEREAS, the authority to plan, design, contract, and perform construction administration of the Bridge Access Road Pedestrian Pathway project to the City of Kenai is in the best interest of the City.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF KENAI, ALASKA:

Section 1. That the Council of the City of Kenai supports the City's request to plan, design, contract, and perform construction administration of the Bridge Access Pedestrian Pathway Project to the City of Kenai.


Section 2. That a copy of this Resolution will be provided to DOT&PF Commissioner John MacKinnon.

Section 3. That this resolution takes effect immediately upon adoption.

ADOPTED BY THE COUNCIL OF THE CITY OF KENAI, ALASKA, this 15th day of July, 2020.


ROBERT MOLLOY, VICE MAYOR

ATTEST:


Jamie Heinz, CMC, City Clerk



MEMORANDUM

TO: Mayor Gabriel and Council Members

FROM: Council Member Henry Knackstedt

DATE: July 7, 2020

SUBJECT: Resolution 2020-62 – Bridge Access Pedestrian Pathway Project to the City of Kenai

The City of Kenai supported the Biking in Kenai and Soldotna (BIK&S) 2019 application for Alaska Transportation Alternatives Program (ATAP) funding from the Alaska Department of Transportation and Public Facilities (ADOT&PF) for a pedestrian pathway along Bridge Access Road with Resolution No. 2019-01. The project was awarded ATAP funding after ADOT&PF held a competitive application process. Ordinance 3137-2020 appropriated local match funds in the amount of \$216,560 based upon a project cost estimate of \$2,181,669. The project will construct of 1.3 miles of pedestrian path beginning at the intersection of the Kenai Spur Highway and Bridge Access Road and terminating at the intersection of Beaver Loop Road and Bridge Access Road. The pedestrian path is a key segment that bridges a gap in the existing trail system and provides an important connection between critical public facilities.

As a community-led project within the City of Kenai, the City is best positioned to address the challenges and impacts. The City is most suited to facilitate public involvement and media relations and ensure that potential adverse economic, social, and environmental effects are considered in project development.

This resolution supports the City's request to plan, design, contract, and perform construction administration of the Bridge Access Road Pedestrian Pathway Project.

Your consideration is appreciated.



Sponsored by: Administration

CITY OF KENAI

ORDINANCE NO. 3137-2020

AN ORDINANCE OF THE COUNCIL OF THE CITY OF KENAI, ALASKA, INCREASING ESTIMATED REVENUES AND APPROPRIATIONS IN THE GENERAL AND MUNICIPAL ROADWAY IMPROVEMENTS CAPITAL PROJECT FUNDS TO PROVIDE MATCHING FUNDS TO THE STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES TO CONSTRUCT A PEDESTRIAN PATH FROM THE KENAI SPUR HIGHWAY TO BEAVER LOOP ALONG BRIDGE ACCESS ROAD UTILIZING RESTRICTED GENERAL FUND, FUND BALANCE.

WHEREAS, an Alaska Transportation Alternatives Program grant in the amount of \$2,181,669 has been allocated for the construction of 1.2 miles of pedestrian path beginning at the intersection of the Kenai Spur Highway and Bridge Access Road and terminating at the intersection of Beaver Loop and Bridge Access Road; and,

WHEREAS, the grant requires a local match which at this time is estimated to be \$216,560, but may increase or decrease as the project is developed and bid; and,

WHEREAS, restricted General Fund, Fund Balance proceeds, received from land and subsurface mineral rights donated to the City by the Daubenspeck family and accepted by the City via Resolution 80-178, is available to meet the City's estimated match; and,

WHEREAS, the use of proceeds derived from the Daubenspeck family donation for construction of a bike path is consistent with the donation's conditions of use and prior City uses of the funds; and,

WHEREAS, providing a link from the newly constructed Beaver Loop bike path into the heart of Kenai will enhance the network of trails and bike paths in the City, provide greater recreational opportunities for residents of and visitors to the City, and is in the best interest of the City.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF KENAI, ALASKA, as follows:

Section 1. That the City Manager is authorized to execute an agreement at his discretion with the Alaska Department of Transportation and Public Facilities in the amount of \$2,398,229 for the construction of 1.2 miles of pedestrian path beginning at the intersection of the Kenai Spur Highway and Bridge Access Road and terminating at the intersection of Beaver Loop and Bridge Access Road.

Section 2. That the estimated revenues and appropriations be increased as follows:

General Fund:

Increase Estimated Revenues –

Appropriation of Restricted Fund Balance –
Proceeds from Daubenspeck Family Donation \$216,560

Increase Appropriations –
Transfer to Municipal Roadway Capital Project Fund \$216,560

Section 3. That the estimated revenues and appropriations be increased as follows:

Municipal Roadway Capital Project Fund:
Increase Estimated Revenues –
Transfer from General Fund \$216,560

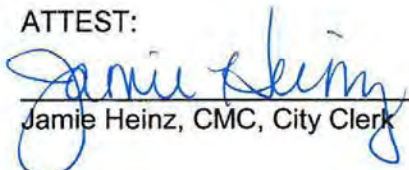
Increase Appropriations –
Construction \$216,560


Section 4. Severability: That if any part or provision of this ordinance or application thereof to any person or circumstances is adjudged invalid by any court of competent jurisdiction, such judgment shall be confined in its operation to the part, provision, or application directly involved in all controversy in which this judgment shall have been rendered, and shall not affect or impair the validity of the remainder of this title or application thereof to other persons or circumstances. The City Council hereby declares that it would have enacted the remainder of this ordinance even without such part, provision, or application.

Section 5. Effective Date: That pursuant to KMC 1.15.070(f), this ordinance shall take effect immediately upon enactment.

ENACTED BY THE COUNCIL OF THE CITY OF KENAI, ALASKA, this 1st day of July, 2020.


BRIAN GABRIEL SR., MAYOR

ATTEST:

Jamie Heinz, CMC, City Clerk

Approved by Finance: 



Introduced: June 17, 2020
Enacted: July 1, 2020
Effective: July 1, 2020



MEMORANDUM

TO: Mayor Gabriel and Council Members
THROUGH: Paul Ostrander, City Manager
FROM: Terry Eubank, Finance Director
DATE: June 5, 2020
SUBJECT: Ordinance 3137-2020

The purpose of this memo is to provide supplemental information for Ordinance 3137-2020. Ordinance 3137-2020 will appropriate the match needed for an Alaska Transportation Alternatives Program (ATAP) grant in the amount of \$2,181,669 that has been allocated for the construction of 1.2 miles of pedestrian path beginning at the intersection of the Kenai Spur Highway and Bridge Access Road and terminating at the intersection of Beaver Loop and Bridge Access Road. The pedestrian pathway will be constructed by the Alaska Department of Transportation and Public Facilities (DOT) and once complete the City will be responsible for its maintenance.

The proposed source of City funding for the \$216,560 in match will be proceeds the City has received from land and subsurface mineral rights donated to the City by the Daubenspeck family. These funds are currently classified as restricted fund balance in the City's General Fund because of the restriction placed on the funds by the Daubenspeck's at the time of donation. The Daubenspeck donation, estimated to be \$3,000,000 at the time of donation, was accepted by the City via Resolution 80-178 which contained the following language:

"BE IT FURTHER RESOLVED that the City honor the request of Mr. & Mrs. Daubenspeck that the oil, gas, and mineral rights, including sales proceeds, royalties, revenue, or rental income therefrom, from Tracts C, D, and E of the Daubenspeck Property Subdivision as well as from Alaska Tidelands Survey No. 98, are to be dedicated to athletic programs sponsored by the City of Kenai. The distribution of such funds will be at the full and sole discretion of the City Council of the City of Kenai, Alaska, to the Parks & Recreation Commission or such other City agency or city official as the City Council may from time to time authorize to use such distributions."

Prior uses of these funds by the City have been to fund the purchase of mowing equipment for the Parks and Recreation Department, the purchase of playground equipment, construction of the Kenai Multipurpose Facility, construction of the Kenai Soccer Complex, refinishing the gym floor at the Kenai Recreation Center, and other recreation related expenditures. To date the City has expended \$2,009,530.58 in Daubenspeck proceeds and the balance of the funds through May 31, 2020 was \$780,333.63.

Construction of a pedestrian pathway will provide enhanced recreational opportunities for the citizens and visitors of Kenai and the use of Daubenspeck proceeds for this construction is consistent with past use of the funds and consistent with the request of the Daubenspeck's. Council may consider dedicating the newly constructed pedestrian pathway in the name of the Daubenspeck's as it will not only be funded with proceeds from the family's donation but will also run adjacent to the donated property.

The match amount of \$216,560 is DOT's best estimate at this time. This amount could increase or decrease as the project is designed or constructed. Any increase in the required local match will require a supplemental appropriation by Council through an Ordinance. The use of Daubenspeck proceeds will decrease the City's General Fund Fund Balance but will have no negative impact on the City's Fund Balance Policy.





Sponsored by: Administration

CITY OF KENAI

RESOLUTION NO. 2021-53

A RESOLUTION OF THE COUNCIL OF THE CITY OF KENAI, ALASKA, AUTHORIZING THE CITY MANAGER TO EXECUTE A MEMORANDUM OF AGREEMENT WITH THE STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES FOR DESIGN, CONSTRUCTION AND MAINTENANCE OF THE KENAI BRIDGE ACCESS ROAD PATHWAY PROJECT.

WHEREAS, an Alaska Transportation Alternatives Program grant in the amount of \$2,971,354 has been allocated for the construction of 1.2 miles of pedestrian path beginning at the intersection of the Kenai Spur Highway and Bridge Access Road and terminating at the intersection of Beaver Loop and Bridge Access Road; and,

WHEREAS, the grant requires a local match which was originally estimated to be \$216,560, but has increased to \$294,947 as the project progresses and the total cost of the project is estimated to be \$3,266,301; and,

WHEREAS, Ordinance 3137-2020, appropriated \$216,560 for the Bridge Access Road bike path utilizing proceeds from the Daubenspeck family donation to meet the City's initial estimated match and authorized the City Manager to execute an agreement with the Alaska Department of Transportation and Public Facilities (AKDOT&PF) to plan, design, and construct the path; and,

WHEREAS, the Fiscal Year 2022 Annual Budget included Supplemental Funding for the Bridge Access Bike Path in the amount of \$78,387 to meet the non-federal match of no more than 9.03%, \$294,947, of the current project cost estimate, which may increase or decrease as the project is developed and bid; and,

WHEREAS, a Memorandum of Agreement (MOU) provides the authority for the AKDOT&PF to plan, design, and construct the pathway using Federal funds and the City's match and the City agrees to maintain the project once constructed; and,

WHEREAS, the MOU allows work to begin on the project and is in the best interests of the City.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF KENAI, ALASKA:

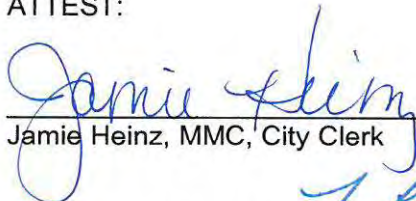
Section 1. That the City Manager is authorized to execute a Memorandum of Agreement with the Alaska Department of Transportation and Public Facilities for plan, design, and construction of improvements to create a paved bicycle and pedestrian pathway from Beaver Loop Road at Bridge Access Road towards the City of Kenai.

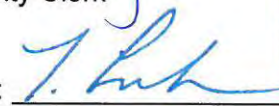
Section 2. That this resolution takes effect immediately upon passage.

PASSED BY THE COUNCIL OF THE CITY OF KENAI, ALASKA, this 4th day of August, 2021.


BRIAN GABRIEL, SR., MAYOR

ATTEST:


Jamie Heinz, MMC, City Clerk

Approved by Finance: 



**Memorandum of Agreement
Between State of Alaska and
The City of Kenai**

Project Name: Kenai Bridge Access Road Pathway

Federal Project No.: [tba]

State Project No.: CFHWY00689

The parties to this agreement are the State of Alaska acting through its Department of Transportation and Public Facilities (hereafter AKDOT&PF) and The City of Kenai, an incorporated city established under Alaska law (hereafter the City).

WHEREAS, the City agrees to maintain the project once constructed;

WHEREAS, AKDOT&PF has the authority to plan, design, and construct improvements to Create a paved bicycle and pedestrian pathway from Beaver Loop Road at Bridge Access Road towards the city of Kenai, (hereafter the project);

WHEREAS, the City by resolution desires that Federal funds be used, therefore DOT&PF will plan, design and construct the project; and

WHEREAS, the City by resolution agreed to maintain the project to local standards upon its completion; and

WHEREAS, Alaska Statute 19.05.040 provides that AKDOT&PF may enter into agreement with Municipalities relating to highways.

THEREFORE, the parties, in consideration of the mutual promises contained in this agreement, agree to the following:

1. FINANCIAL PARTICIPATION

The City hereby agrees to provide non-federal matching funds for the project including matching funds required for project contingencies.

The City's matching fund contributions shall be lump sum payments due prior to initiation of each phase authorization from the Federal Highway Administration. Contingency will be:

- an additional 50% of the cost estimate for all phases prior to Construction phase and Utilities Relocation phase.
- Contingency shall be revised downward from 50% to 15% of the, then current, cost estimate after completion of the final design and prior to Construction phase and Utilities Relocation phase.

Payment of Design Phase total matching funds in the amount of \$46,861 is due from the City by September 30, 2021. The schedule for all subsequent payments shall be based on the project development schedule developed by the AKDOT&PF Project Manager. Failure to provide matching funds consistent with the current project development schedule may be deemed a breach of this agreement and will result in project cessation and the City shall repay all

expenditures incurred by AKDOT&PF that are not federally reimbursable.

As the project design develops, cost estimates, and schedule for all project phases will be refined. Cost estimate and contingencies will be updated via project amendment as project progresses, but initial cost estimate and required matching funds are calculated as follows:

- Cost estimate non-federal match – City shall pay no more than 9.03% of the current cost estimate by phase as negotiated, plus the contingency match.
- Contingency match – In the event that the project cost is greater than the initial cost estimate AKDOT&PF shall provide federal funds for the additional costs up to an additional 50% above the initial cost estimate and the City shall pay the minimum 9.03% required non-federal match for cost estimate contingencies.

Design match	\$46,860
Construction match	\$237,209
Utility match	\$10,878
Total match	\$294,947

If the City ceases to fund match, the City hereby agrees to reimburse AKDOT&PF for all project costs incurred that are not Federally reimbursable.

Upon project completion and final project closeout, if the final cost is less than the Agreement cost, the local contribution will be recalculated and excess contribution will be refunded to the City.

2. PROJECT RANKING

DOT&PF shall, while ranking this project with other projects during the preparation of the Statewide Transportation Improvement Program (STIP) and capital budgeting process, recognize that the City has agreed to provide local matching funds and maintain the project.

3. PLANNING, DESIGN, AND CONSTRUCTION

DOT&PF shall plan, design, and construct the project within the approved scope and funding.

4. MAINTENANCE AND OPERATIONS

- a. The City agrees to maintain the project at its own expense consistent with 23 CFR 1.27 and DOT&PF's Alaska Highway Maintenance and Operations Manual (AHMOM). In the event of conflict between 23 CFR 1.27 and AHMOM, the more stringent provisions set the minimum standards.
- b. The City shall perform its activities under this agreement at its sole cost and expense and without reimbursement from DOT&PF. These maintenance activities include, but are not limited to:
 - (1) planning, scheduling, administration, and logistics of maintenance activities, snow and ice control, including all plowing, sanding, culvert and storm sewer thawing, drift control, snow slide removal, and associated tasks as may be required for the safe and timely passage of the public consistent with Municipal standards;
 - (2) removal of debris, rubbish, and dead animals
- c. Maintenance staff may be employees of the City, another unit of government, or a contractor under agreement

with the City. All maintenance will be performed for efficient operation of the complete project improvements. The City's maintenance responsibilities commence the date of project substantiated completion.

- d. City agrees to perform property management and maintain and operate the project for the lifespan of the project, a period of not less than twenty years.

5. INDEMNIFICATION

The City shall hold the DOT&PF, its officers, employees, and agents harmless from and defend and indemnify the DOT&PF for liability, claims, or causes of action arising out of this Agreement.

Notwithstanding the foregoing, the City shall have no obligation to hold harmless and indemnify the DOT&PF to the extent the DOT&PF is determined to be liable for its own act or omissions, except that:

- A. To the maximum extent allowed by law, the City shall hold the DOT&PF harmless from and indemnify the DOT&PF for liability, claims, or causes of action arising from an alleged defect in the design or construction of facilities existing on the premises at the date of this Agreement or constructed or improved pursuant to this Agreement, regardless of negligence or other fault, if such liability, claim, or cause of action arises out of an incident that occurs more than six years after the City assumes maintenance duties.
- B. The City's duty to defend shall apply regardless of whether it is also alleged that the DOT&PF's acts or omissions contributed to the injury (including injury to personal property, real property or persons, including fatal injury).
- C. Neither liability, claims, or causes of action arising from injuries which occurred prior to the date of this transfer nor liabilities imposed by, or claims or causes of action arising from or asserted under AS 46.03.822 shall be governed by the paragraph.

6. DISPUTE RESOLUTION

- a. If a dispute arises under this agreement between the City and DOT&PF, and the parties cannot resolve the matter between them within 45 days after the notice is given by the aggrieved party to the other party, the aggrieved party may request that the matter be resolved by arbitration.
- b. Each party shall appoint an arbitrator to hear the dispute. The two arbitrators acting together shall select a third arbitrator with all appointments to occur in accordance with State Procurement code, AS 36.50. The three arbitrators shall hear the matter under such rules and procedures, as they deem necessary to conduct the proceedings.
- c. Each party shall pay the expenses of the arbitrator it appoints and shall pay half of the cost of the proceedings and the third arbitrator.
- d. Except when the provisions of this paragraph provide otherwise, an arbitration under this paragraph is subject to AS 09.43.010 – 09.43.180, the Uniform Arbitration Act.

7. PENALTY FOR BREACH

- a. Any withdrawal of the City's promise to maintain and operate the project upon completion, including a withdrawal at any time after construction is completed, shall be considered a breach. If, prior to advertising for construction, the City withdraws its promise to maintain and operate the project upon completion, DOT&PF will reevaluate each project nominated by the City without consideration of Municipal maintenance. If the City withdraws its promise after the advertisement of a project for bid, the DOT&PF may proceed with construction of the project and seek recovery of maintenance costs from the City. In the evaluation of other projects in the City in

the succeeding six years after the breach, DOT&PF will not include consideration of Municipal contribution until the City has cured the breach to DOT&PF's satisfaction.

- b. If notified by DOT&PF in writing that it is in violation of any of the terms, conditions, or provisions of this Agreement, and a default has occurred, the City shall have thirty (30) days from the date of such notification to remedy the default or, if the remedy will take in excess of thirty (30) days to complete, the City shall have thirty (30) days to satisfactorily commence a remedy of the causes preventing its compliance and curing the default situation. Expiration of the thirty (30) days and failure by the City to remedy, or to satisfactorily commence the remedy of, the default shall result in the termination of this Agreement by DOT&PF.
- c. If the City makes a written request for the cancellation of a federal-aid project, City shall bear 100 percent of all costs as of the date of cancellation. If DOT&PF was the sole cause of the cancellation, DOT&PF shall bear 100% of all costs incurred. After settlement of payments, DOT&PF shall deliver surveys, maps, field notes, and all other data to City.

8. CONTACTS

The DOT&PF's contact is Alex Read, Design Project Manager. The City's contact is Paul Ostrander, or as may be redesignated in writing from time to time.

9. TERM OF THE AGREEMENT

The agreement start date is the date of final signature executing this agreement.

This agreement will remain in force until such a time that AKDOT&PF and the CITY provide notice of termination. Notice will be given at least thirty (30) days in advance of the termination date. Termination of the agreement may result in project cessation and may require the CITY repay all expenditures incurred by AKDOT&PF that are not federally reimbursable if termination is the fault of the CITY.

10. AMENDMENT OF AGREEMENT

This agreement may only be modified or amended by written agreement signed by the original signatories or their successors in office.

11. THE WHOLE AGREEMENT

This agreement constitutes the entire agreement between the parties. There are no other understandings or agreements between the parties, either oral or memorialized in writing regarding the matters addressed in this agreement. This agreement may not be amended by the parties unless agreed to in writing with both parties signing through their authorized representatives.

SIGNATURES

Dated: _____

State of Alaska
Department of Transportation and Public Facilities

Wolfgang Junge, P.E.
Regional Director

Dated: _____

City of Kenai

Paul Ostrander
City Manager



KENAI

City of Kenai | 210 Fidalgo Ave, Kenai, AK 99611-7794 | 907.283.7535 | www.kenai.city

MEMORANDUM

TO: Mayor Gabriel and Council Members
FROM: Paul Ostrander, City Manager
DATE: July 26, 2021
SUBJECT: Resolution No. 2021-53 – Kenai Bridge Access Road Pathway Project

On June 17, 2021, the City Council passed Ordinance 3137-2020, which appropriated matching funds needed for an Alaska Transportation Alternatives Program (ATAP) grant in the amount of \$2,971,354 that had been allocated for the construction of 1.2 miles of pedestrian path beginning at the intersection of the Kenai Spur Highway and Bridge Access Road and terminating at the intersection of Beaver Loop and Bridge Access Road. The proposed pathway will be constructed by the Alaska Department of Transportation and Public Facilities (AKDOT&PF), and once complete, the City will be responsible for its maintenance.

The source of City funding for the initial estimated \$216,560 match are proceeds the City has received from land and subsurface mineral rights donated to the City by the Daubenspeck family. Last fall, AKDOT&PF provided an updated total current project cost estimate for plan, design, and construction of improvements to be \$3,266,301, with the City match of 9.03% being \$294,947. The additional \$78,387 of City funding was included in the FY22 Annual Budget Supplemental Funding to meet the remaining non-federal match of no more than 9.03% of the current project cost estimate, and an additional appropriation is not necessary at this time.

The construction of a pedestrian pathway will provide enhanced recreational opportunities for the citizens and visitors of Kenai. Resolution 2021-53 authorizes the City Manager to enter into a Memorandum of Agreement that provides the authority for the AKDOT&PF to begin work on the project.

Your consideration is appreciated.

**Conditional Use Permit
Anadromous Waters Habitat Protection District
Staff Report**

PC Res No.	2025-17
Planning Commission Meeting:	Monday, August 25, 2025
Applicant	Alaska Department of Transportation
Mailing Address	4111 Aviation Avenue Anchorage, AK 99519
Physical Description	Bridge Access Road Bike Path
KPB Parcel Number	04901056

Project Description

A Conditional Use Permit is sought pursuant to KPB 21.18 for the construction of a pedestrian pathway within the 50-foot Habitat Protection District (HPD) of the Unnamed Creek (244-30-10010-2003), as established in KPB 21.18.040.

Background Information

Applicant is constructing a paved pedestrian pathway along the Bridge Access Road from the Kenai Spur Highway to Beaver Loop Road. It will be crossing a regulated anadromous creek along the route and fill will be needed to bring the pathway up to grade.

Project Details within the 50-foot Habitat Protection District

Within the HPD, there will be approximately 105 feet of pathway constructed. There will be about 116 cubic yards of fill, to consist primarily of D-1 gravel, and lesser amounts of asphalt and topsoil. The disturbed area will be reseeded with approximately 1.5 pounds of grass mix to include tufted hairgrass, red fescue, slender wheatgrass and ryegrass.

Findings of fact pursuant to KPB 21.18.081 Conditional Use Permit

1. Portions of this proposed project are within the 50-foot habitat protection district as defined by KPB 21.18.040.
2. Pursuant to KPB 21.18.081(B)(5), construction of transportation infrastructure may be approved as a conditional use within the habitat protection district.

3. Pursuant to 21.18.081(D) General Standards, staff finds that the proposed project meets the five general standards.
4. Pursuant to KPB 21.18.020(A), this chapter was established to protect and preserve the stability of anadromous fish through controlling shoreline alterations and disturbances along anadromous waters and to preserve nearshore habitat.
5. Pursuant to KPB 21.18.20(B)(5), one purpose of this chapter was established to separate conflicting land uses.
6. Pedestrian and bike alternative transportation was a focus group as a part of the KPB Safe Streets and Roads for All Comprehensive Safety Action Plan and they reported that additional off street multi use pathways were needed.
7. The portions of the pathway within the HPD that will receive fill are already gravel and areas not covered by the pathway will be revegetated.
8. Pursuant to KPB 21.06.081(D)(3), the proposed work will occur on the applicant's property and shall not have an adverse effect on adjoining properties.
9. Pursuant to KPB 21.18.140 ORD 2025-12, the proposed project meets the definition for water dependent.
10. The River Center found the application complete and scheduled a public hearing for Monday, August 25, 2025.
11. Agency review was distributed on 8/08/2025. No comments or objections have been received from resource agencies to date.
12. The City of Kenai reviewed this project and their letter of approval is included in the packet.
13. Pursuant to KPB 21.11.030, public notice was mailed to all property owners within a radius of 300 feet of the project on 8/08/2025. A total of 6 mailings were sent.
14. Pursuant to KPB 01.08.180 (B) (1) (3), public notice was posted.
15. The applicant is currently in compliance with Borough permits and ordinances.

Permit Conditions

1. Construction techniques and best management practices shall be utilized to ensure that land disturbing activities do not result in runoff or sedimentation to the Unnamed Creek (244-30-10010-2003).
2. The construction of a pedestrian path must be designed and installed to meet KPB floodplain requirements.
3. The permittee shall minimize damage to all vegetation and shall revegetate all disturbed areas with native vegetation.
4. For each tree removed, two seedlings less than 5.5-feet tall of a species native to the region will be planted within the 50-foot HPD.
5. Storage or use of fuel is prohibited within 50-feet of any open water.
6. The River Center shall be notified at least 3 days prior to the start of the project.
7. If changes to the approved project described above are proposed prior to or during its siting, construction, or operation, the permittee is required to notify the River Center to determine if additional approval is required.

8. The permittee shall be held responsible for the actions of the contractors, agents, or others who perform work to accomplish the approved plan.
9. The construction or installation phase of this Conditional Use Permit must be completed within one calendar year from the date of the permit's issuance, or the Conditional Use Permit shall expire unless the Planning Commission finds that more time is necessary to effectuate the purposes of this chapter, in which case the commission may extend the deadline for a maximum of six years from the date of issuance. Prior to its expiration date and upon written request, the Planning Director may grant a Conditional Use Permit extension for 12 months (KPB 21.18.081 (H)).
10. In addition to the penalties provided by KPB 21.18.110, and pursuant to KPB 21.50, the permit may be revoked if the permittee fails to comply with the provisions of this chapter or the terms and conditions of a permit issued under this chapter. The Borough Clerk shall provide at least 15 day's written notice to the permittee of a revocation hearing before the hearing officer (KPB 21.18.082).
11. The permittee shall comply with the terms, conditions and requirements of the Kenai Peninsula Borough Code of Ordinances Chapter 21.18, and any regulations adopted pursuant to this chapter.
12. The permittee is responsible for abiding by all other federal, state, and local laws, regulations, and permitting requirements applicable to the project (KPB 21.18.081 (G)).

General Standards

Pursuant to 21.18.081(D) General Standards, the following standards shall be met before conditional use approval may be granted:

1. The use or structure will not cause significant erosion, sedimentation, damage within the habitat protection district, an increase in ground or surface water pollution, and damage to riparian wetlands and riparian ecosystems; **Conditions 1,3 and Finding 4 appear to support this standard.**
2. Granting of the conditional use shall be consistent with the purposes of this chapter, the borough comprehensive plan, other applicable chapters of the borough Code, and other applicable planning documents adopted by the borough; **Conditions 6, 11 and Findings 1-5 appear to support this standard.**
3. The development of the use or structure shall not physically damage the adjoining property; **Condition 3 and Finding 8 appear to support this standard.**
4. The proposed use or structure is water-dependent; **Findings 1 and 9 appear to support this standard.**
5. Applicant's or owner's compliance with other borough permits and ordinance requirements; **Conditions 11, 12 and Finding 15 appear to support this standard.**

Attachments

Multi-Agency Application
City of Kenai Recommendations
Draft Resolution 2025-17

Recommendation

Based on the findings, staff finds that the proposed project meets the five general standards of KPB 21.18.081. The Planning Commission could consider additional permit conditions to mitigate for any habitat loss if it chooses.

Staff recommends the Planning Commission grant a Conditional Use Permit for the proposed project details subject to adopted conditions as set forth in 2025-17.

Note: An appeal of a decision of the Planning Commission may be filed to the Hearing Officer, in accordance with the requirements of the Kenai Peninsula Borough Code of Ordinances, Chapter 21.20.250. An appeal must be filed with the Borough Clerk within 15 days of date of the notice of the decision using the proper forms and be accompanied by the filing and records preparation fee.

END OF STAFF REPORT

KENAI PENINSULA BOROUGH PLANNING COMMISSION

RESOLUTION 2025-17

A RESOLUTION GRANTING A CONDITIONAL USE PERMIT PURSUANT TO KPB 21.18 FOR THE CONSTRUCTION OF CONSTRUCTION OF A PEDESTRIAN PATH WITHIN THE 50-FOOT HABITAT PROTECTION DISTRICT OF THE UNNAMED CREEK (244-30-10010-2003).

- WHEREAS,** Chapter 21.18 provides for the approval of Conditional Use Permits for certain activities within the habitat protection district; and
- WHEREAS,** KPB 21.18.081 provides that a conditional use permit is required for construction not meeting the standards of KPB 21.18.071; and
- WHEREAS,** KPB 21.18.091 provides for mitigation measures by the planning department staff to address impacts to the Habitat Protection District from a proposed, ongoing, or completed project; and
- WHEREAS,** public notice was sent to all property owners within a 300-foot radius of the proposed activity as provided in Section 21.11.030; and
- WHEREAS,** public notice was posted as provided in Section 01.08.180 (B) (1) (3); and
- WHEREAS,** public testimony was received at the Monday, August 25, 2025 meeting of the Kenai Peninsula Borough Planning Commission;

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING COMMISSION OF THE KENAI PENINSULA BOROUGH:

That the Planning Commission makes the following findings of fact pursuant to KPB 21.18:

Section 1. Project Details Within the 50-foot Habitat Protection District

construction of a pedestrian path

Section 2. Findings of fact pursuant to KPB 21.18.081

1. Portions of this proposed project are within the 50-foot habitat protection district as defined by KPB 21.18.040.
2. Pursuant to KPB 21.18.081(B)(5), construction of transportation infrastructure may be approved as a conditional structure/use within the habitat protection district.

3. Pursuant to 21.18.081(D) General Standards, staff finds that the proposed project meets the five general standards.
4. Pursuant to KPB 21.18.020(A), this chapter was established to protect and preserve the stability of anadromous fish through controlling shoreline alterations and disturbances along anadromous waters and to preserve nearshore habitat.
5. Pursuant to KPB 21.18.20(B)(5), one purpose of this chapter was established to separate conflicting land uses.
6. Pedestrian and bike alternative transportation was a focus group as a part of the KPB Safe Streets and Roads for All Comprehensive Safety Action Plan and they reported that additional off street multi use pathways were needed.
7. The portions of the pathway within the HPD that will receive fill are already gravel areas and the areas not covered by the pathway will be revegetated.
8. Pursuant to KPB 21.06.081(D)(3), the proposed work will occur on the applicant's property and shall not have an adverse effect on adjoining properties.
9. Pursuant to KPB 21.18.140 ORD 2025-12, the proposed project meets the definition for water dependent.
10. The River Center found the application complete and scheduled a public hearing for Monday, August 25, 2025.
11. Agency review was distributed on 8/08/2025. No comments or objections have been received from resource agencies to date.
12. The City of Kenai reviewed this project and their letter of approval is included in the packet.
13. Pursuant to KPB 21.11.030, public notice was mailed to all property owners within a radius of 300 feet of the project on 8/08/2025. A total of 6 mailings were sent.
14. Pursuant to KPB 01.08.180 (B) (1) (3), public notice was posted.
15. The applicant is currently in compliance with Borough permits and ordinances.

Section 3. Permit Conditions

1. Construction techniques and best management practices shall be utilized to ensure that land disturbing activities do not result in runoff or sedimentation to the Unnamed (244-30-10010-2003).
2. The construction of a pedestrian path must be designed and installed to meet KPB floodplain requirements.
3. The permittee shall minimize damage to all vegetation and shall revegetate all disturbed areas with native vegetation.
4. For each tree removed, two seedlings less than 5.5-feet tall of a species native to the region will be planted within the 50-foot HPD.

5. Storage or use of fuel is prohibited within 50-feet of any open water.
6. The River Center shall be notified at least 3 days prior to the start of the project.
7. If changes to the approved project described above are proposed prior to or during its siting, construction, or operation, the permittee is required to notify the River Center to determine if additional approval is required.
8. The permittee shall be held responsible for the actions of the contractors, agents, or others who perform work to accomplish the approved plan.
9. The construction or installation phase of this Conditional Use Permit must be completed within one calendar year from the date of the permit's issuance, or the Conditional Use Permit shall expire unless the Planning Commission finds that more time is necessary to effectuate the purposes of this chapter, in which case the commission may extend the deadline for a maximum of six years from the date of issuance. Prior to its expiration date and upon written request, the Planning Director may grant a Conditional Use Permit extension for 12 months (KPB 21.18.081 (H)).
10. In addition to the penalties provided by KPB 21.18.110, and pursuant to KPB 21.50, the permit may be revoked if the permittee fails to comply with the provisions of this chapter or the terms and conditions of a permit issued under this chapter. The Borough Clerk shall provide at least 15 day's written notice to the permittee of a revocation hearing before the hearing officer (KPB 21.18.082).
11. The permittee shall comply with the terms, conditions and requirements of the Kenai Peninsula Borough Code of Ordinances Chapter 21.18, and any regulations adopted pursuant to this chapter.
12. The permittee is responsible for abiding by all other federal, state, and local laws, regulations, and permitting requirements applicable to the project (KPB 21.18.081 (G)).

Section 4. Pursuant to 21.18.081(D) General Standards, the following standards shall be met before conditional use approval may be granted:

1. The use or structure will not cause significant erosion, sedimentation, damage within the habitat protection district, an increase in ground or surface water pollution, and damage to riparian wetlands and riparian ecosystems; **Conditions 1, 3 and Finding 4 appear to support this standard.**
2. Granting of the conditional use shall be consistent with the purposes of this chapter, the borough comprehensive plan, other applicable chapters of the borough Code, and other applicable planning documents adopted by the borough; **Conditions 6, 11 and Findings 1-5 appear to support this standard.**
3. The development of the use or structure shall not physically damage the adjoining property; **Condition 3 and Finding 8 appear to support this standard.**

4. The proposed use or structure is water-dependent; **Findings 1 and 9 appear to support this standard.**
5. Applicant's or owner's compliance with other borough permits and ordinance requirements. **Conditions 11, 12 and Finding 15 appears to support this standard.**

THIS CONDITIONAL USE PERMIT EFFECTIVE ON _____ DAY OF _____, 2025.

Jeremy Brantley, Chairperson
Planning Commission

ATTEST:

Ann Shirnberg
Administrative Assistant

Note: An appeal of a decision of the Planning Commission may be filed to the hearing officer, in accordance with the requirements of the KPB Code of Ordinances, Chapter 21.20.250. An appeal must be filed with the Borough Clerk within 15 days of date of the notice of the decision using the proper forms and be accompanied by the filing and records preparation fee.