Appendix A

Design Criteria

PROJECT DESIGN CRITERIA – ROADWAY

Eklutna River Bridge at Old Glenn Highway Replacement Project
Municipality of Anchorage Project No. 12-40

ELEMENT	VALUE	SOURCE
Functional Classification	Rural Collector	MOA OSHP
Design Year	2035	Kinney Engineering Traffic, Safety and Alternatives Analysis, 2013
Present Year AADT (2013)	874	Kinney Engineering Traffic Counts, August 2013
Mid-Period AADT (2025)	1,507	Kinney Engineering Traffic, Safety and Alternatives Analysis, 2013, Table 4
Design Year AADT (2035)	2,598	Kinney Engineering Traffic, Safety and Alternatives Analysis, 2013, Table 4
Design Hourly Volume (DHV)	332 (12.8% Design Year AADT)	Kinney Engineering Traffic, Safety and Alternatives Analysis, 2013, Table 5
Design Vehicle	AASHTO WB-50	DCM, Section 6.4B
Design Speed	40 mph	Kinney Engineering Traffic, Safety and Alternatives Analysis, 2013, Section 1.4
Posted Speed	35 mph	Kinney Engineering Traffic, Safety and Alternatives Analysis, 2013, Section 1.4
Stopping Sight Distance Passing Sight Distance Intersection Sight Distance	305 ft No passing zones 445	DCM, Figure 1-16 DCM Figure 1-19
Maximum Grade Minimum Grade	6% 0.5%	DCM Section 1.9D
Minimum Radius of Curvature	600 ft	DCM Chapter 1, Table 1-9
Maximum Superelevation (e_{max})	6%	DCM, Section 1.9E
Minimum K-Value for Vertical Curves	Crest: 44 Sag: 64	DCM Figure 1-16 DCM Figure 1-17
Lane Width	11 ft	DCM Chapter 1, Table 1-4
Width of Outside Shoulder	4 ft.	DCM Chapter 1, Table 1-4
Surfacing, Lanes & Shoulders	Asphalt Concrete Pavement	
Illumination	N/A	DCM Chapter 1, Table 1-1
Pedestrian Provisions	Multi-Use Pathway (8 ft)	DCM Chapter 1, Table 1-4
Bicycle Provisions	Multi-Use Pathway (8 ft)	DCM Chapter 1, Table 1-4
Multi-Use Pathway Buffer	N/A	DCM Chapter 1, Table 1-4
Transit Provisions	N/A	
Clear Zone	14 ft	AASHTO Roadside Design Guide 2011, Table 3-1

Proposed By: ____________________ __________

Design Project Manager Date

Recommended By: ____________________ __________

MOA Project Manager Date

PROJECT DESIGN CRITERIA – MULTI-USE PATHWAY

Eklutna River Bridge Replacement Project
Municipality of Anchorage Project No. 12-40

ELEMENT	VALUE	SOURCE
Functional Classification	Multi-Use Paved Trail	DCM, Section 4.1B
Design Year	2035	Kinney Engineering Traffic, Safety and Alternatives Analysis, 2013
Surfacing, Lane Surfacing, Shoulder	Asphalt Concrete Pavement Gravel	DCM, Section 4.2 A
Design Speed	20 mph for grades <4% 30 mph for grades >4%	DCM, Section 4.2 B
Stopping Sight Distance	125 ft (flat surfaces)	DCM, Section 4.2 C
Maximum Grade	5% Desirable	DCM, Section 4.2 E
Cross Slope	1% Desirable 2% Maximum	DCM, Section 4.2 F
Shoulder Width Shoulder Grade	2 ft 3-5%	DCM, Section 4.2 I DCM, Section 4.2 G
Minimum Clear Width	2 feet from bridge	DCM, Section 4.2 G
Minimum Radius of Curvature	100 ft 225 ft on grades > 4%	DCM, Chapter 4, Table 4-1
Catch Slopes	1:3 Preferred 1:2 Maximum with 5 foot shoulders	DCM, Section 4.2 G
Road Separation	7 ft Minimum	DCM, Section 4.2 H
Width	8 ft	DCM, Section 4.2 I
Illumination	Direction from Facility Maintenance and the Parks Department	DCM, Section 4.2 K

Proposed By: ______________________________ ____________
Design Project Manager Date

Recommended By: ______________________________ ____________
MOA Project Manager Date

PROJECT DESIGN CRITERIA – DRAINAGE

Eklutna River Bridge Replacement Project
Municipality of Anchorage Project No. 12-40

ELEMENT	VALUE	SOURCE
Base Design Storm, Conveyance Design	10-Year, 24-Hour	MOA Drainage Design Guidelines 2007, Table 6-2
Orographic Factor	1.05	DCM, Figure 2-3
Minimum Diameter, Culvert	18-Inches	DCM, Section 2.7C
Minimum Cover, Culvert	1-Foot	DCM, Section 2.7C

Proposed By: ______________________ Design Project Manager ______________ Date

Recommended By: ______________________ MOA Project Manager ______________ Date