

PROJECT DESIGN CRITERIA – JODHPUR STREET TO SAND LAKE ROAD

Dimond Boulevard Upgrade, Jodhpur Street to Sand Lake Road
Municipality of Anchorage Project No. 05-05

ELEMENT	VALUE	SOURCE
Functional Classification	Collector, Class I	MOA OSHP
Design Year	2035	Kinney Engineering Traffic, Safety and Alternatives Analysis, 2013
Present Year AADT (2011)	1,199	Kinney Engineering Traffic, Safety and Alternatives Analysis, 2013, Table 3
Mid-Period AADT (2025)	1,701 – 4,383	Kinney Engineering Traffic, Safety and Alternatives Analysis, 2013, Table 4
Design Year AADT (2035)	2,184 – 5,627	Kinney Engineering Traffic, Safety and Alternatives Analysis, 2013, Table 4
Design Hourly Volume (DHV)	218 – 563 (10% 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	DCM, Table 1-4
Posted Speed	35 mph	DCM, Table 1-4
Stopping Sight Distance Passing Sight Distance	305 ft No passing zones	DCM, Figure 1-16
Maximum Grade Minimum Grade	6% 0.5%	DCM, Section 1.9D
Minimum Radius of Curvature	600 feet	DCM, Table 1-9
Maximum Superelevation (e_{max})	6%	DCM, Section 1.9E
Minimum K-Value for Vertical Curves	Crest: 44 Sag: 64	AASHTO Green Book 2011, Table 3-34 AASHTO Green Book 2011, Table 3-36
Lane Width	11 - 12 ft.	DCM, Table 1-4
Width of Outside Shoulder	3.5 – 5 ft.	DCM, Table 1-4
Surfacing, Lanes & Shoulders	Asphalt Concrete Pavement	
Illumination	Av Luminance: 0.6 cd/m ² Uniformity: 3.5 ave/min Uniformity: 6.0 max/min Veiling Luminance: 0.4	DCM, Table 5-2
Curb & Gutter	Type 1	DCM, Figure 1-11
Pedestrian Provisions	Multi-Use Pathway (8-10 ft.)	DCM, Table 1-4
Bicycle Provisions	Multi-Use Pathway (8-10 ft.) and bike lane / shoulder	DCM, Table 1-4
Multi-Use Pathway Buffer	7	DCM, 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

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PROJECT DESIGN CRITERIA – MULTI-USE PATHWAY

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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 4.2A
Design Speed	20 mph for grades <4% 30mph for grades >4%	DCM, Section 4.2 B
Stopping Sight Distance	125 feet (flat surfaces)	DCM, Section 4.2C
Maximum Grade	5% desirable	DCM, Section 4.2E
Cross Slope	1% Desirable 2% Maximum	DCM, Section 4.2F
Shoulder Width	2 foot minimum 5 foot minimum if side slopes exceed 1:3	DCM, Section 4.2G
Shoulder Grade	3-5%	
Clear Zone	3 feet from edge of travel way.	DCM, Section 4.2G
Minimum Radius of Curvature	100 feet 225 feet on grades < 4%	DCM, Table 4-1
Catch Slopes	1:3 Preferred 1:2 Maximum with 5 foot shoulders	DCM, Section 4.2G
Road Separation	7 foot Minimum	DCM, Section 4.2 H
Width	8-10 feet	DCM, Section 4.2.I
Illumination	Direction from Facility Maintenance and the Parks Department	DCM, Section 4.2K

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PROJECT DESIGN CRITERIA – DRAINAGE

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ELEMENT	VALUE	SOURCE
Base Design Storm, Conveyance Design	10-Year, 24-Hour	MOA Drainage Design Guidelines 2007, Table 6-2
Orographic Factor	1.0	DCM, Figure 2-2
Inlet Spacing	≤ 1,100 Feet	DCM, Section 2.8C
Minimum Diameter, Storm Drain	12 Inches	DCM, Section 2.7B
Minimum Diameter, Culvert	18-Inches	DCM, Section 2.7C
Minimum Cover, Culvert	1-Foot	DCM, Section 2.7C
Maximum Spacing, Manhole	300 Feet	DCM, Section 2.7D

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