

## **APPENDIX A**

### **Design Criteria**

**Project: DPW 04-118: Fireweed Lane/LaTouche Street Municipality of Anchorage**

Element	Value (Imperial)	Source
Functional Type	Neighborhood Collector	OSHP App A DCM 1.3 B2, 1.6 C2
Design Year	2026	AASHTO page 65, page 83
Current Year ADT (2004)	2680 Fireweed Lane 2382 LaTouche Street	ADOT 2004 Annual Report ADOT 2004 Annual Report
Mid-Period ADT (2016)	2680 Fireweed Lane 2382 LaTouche Street	0% growth rate
Design Year ADT (2026)	2680 Fireweed Lane 2382 LaTouche Street	0% growth rate
Design Hourly Volume (DHV)	15% of ADT	AASHTO page 62
Directional Split (%D)	80/20 Fireweed Lane 70/30 LaTouche Street	DOWL Data
Level of Service	C or better	AASHTO page 84, DCM 6.3 B1
Trucks (%T)	<3%	DOWL Data
Design Vehicle	WB-50	DCM 6.4 B
Design Speed	35 mph	DCM 1.5 E, 1.6 C
Posted Speed - maximum	30 mph	AASHTO page 68, DCM 1.6 C
Posted Speed - desired	25 mph	Public comment
Terrain	Level	AASHTO page 236
Minimum Design Sight Distance	250 ft (35mph)	DCM 1.9 D4
Roadway Cross Slope	2%	DCM 1.9 D3
Minimum Longitudinal Grade	0.5%	DCM 1.9 D2a
f <sub>max</sub> (maximum friction coefficient)	0.20 (35mph)	AASHTO, Exh. 3-15
Minimum Radius with e=0%	408 ft (35mph)	AASHTO, Eq. 3-10
Minimum K-value for Vertical Curves	Crest: 29, Sag: 49	AASHTO, Exh. 3-72 Exh. 3-75
Minimum Taper Ratio	Reducing: 20:1 (35 mph) Adding: 8:1	MUTCD 3B-20
Number of Roadways	1 (1 lane each direction)	N/A
Lane Width: Traveled Way	11.0 ft 10.0 ft	DCM 1.6 C, Figure 1-11 Preferred width public comment
Lane Width: Bicycle Lane	5 ft from face of curb (3.5 ft asphalt surface width)	AASHTO GDBF Fig 6 (plus 1.5 ft curb gutter = 5 ft)
Curb and Gutter	2 ft	DCM 1.5 D
Shoulder	3.5ft	DCM 1.5 C
Clear Zone: Behind curb	1.6 ft minimum	AASHTO RDG 3.4.1 page 3-14
Clear Zone: Roadside Geometry	12.7 ft at 6:1 (H:V) (35 mph)	AASHTO RDG Table 3.1
Clear Zone: Roadside Geometry	14.7 ft at 4:1 (H:V) (35 mph)	AASHTO RDG Table 3.1
Side Slope Ratios within clear zone	3:1 max. without guardrails	AASHTO RDG 3.2.1 page 3-2
Roadway Vertical Clearance	5 m (16.5 ft)	AASHTO
Median Treatment	None	DCM 1.6 C
Illumination	0.6 foot candles	DCM 5.4 B, Table 5-1
Intersection Radii: Local residential	20 ft (BOC) 15 ft (BOC)	DCM 1.9 F, Figure 1-23 UDC Desired
Intersection Radii: Collector	30 ft (BOC)	DCM 1.9 F, Figure 1-23

<b>Element</b>	<b>Value (Imperial)</b>	<b>Source</b>
Intersection Radii: Arterial	40 ft (BOC)	DCM 1.9 F, Figure 1-23
Intersection Angle	90 degrees	DCM 1.9 E1
Intersection Clear Vision Area	30 ft legs	AMC 21.45.020
Bicycle Provisions	On-street (commuter bicycle route)	ATP 7 III B Fig 7.5
Bicycle Design Speed/radius/stop dist.	20 mph/95 ft/125 ft	ATP page 81
Pedestrian Provisions	Pathway both sides	DCM 1.5 G
Recommended pathway separation	7 ft from traveled way	DCM 4.2 H
Minimum pathway separation	no separation b/t curb and road	
Pathway width	5 ft sidewalk 8 ft multiple use	DCM 4.2 I
Driveways		
- Return Radii	20 feet	DCM Appendix 1 D
- Minimum Distance Between	50 feet	DCM Appendix 1 D
- Minimum Corner Clearance	50 feet	DCM Appendix 1 D
- Minimum Sight Distance	250 feet	AK PM, Fig. 1190-1
- Width	14-22 ft residential	DCM Appendix 1 D
	14-20 ft residential	DCM Appendix 1 D
- Maximum Landing Slope	2% for 20ft	AK PM, 1190.5 (10)
Erosion Control	On Slopes Steeper than 3:1	AASHTO page 288

Notes:

- 1) AASHTO: "A Policy on Geometric Design on Highways and Streets," AASHTO, 2004.
- 2) AASHTO, ADT < 400: "Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT < 400)," AASHTO, 2001
- 3) RDG "Roadside Design Guide," AASHTO, 2002.
- 4) GDBF "Guide for Development of Bicycle Facilities," AASHTO, 1999.
- 5) ATP "Areawide Trails Plan," 1997.
- 6) MOA: Municipality of Anchorage
- 7) AMC: Anchorage Municipal Code
- 8) UDC: Urban Design Commission
- 9) DCM: Design Criteria Manual, MOA Department of Public Works, June 2005.
- 10) AK PM: Alaska Department of Transportation and Public Facilities (DOT&PF) Preconstruction Manual, January 2005.
- 11) OSHP: MOA Official Streets and Highways Plan, 1996.