



Title: Roads Policy	Policy: PW 003
Section: Public Works	

ACCOUNTABILITY TO VISION STATEMENT

A safe and well managed road network is key to the long term economic prosperity of the County and to its future.

POLICY STATEMENT

Flagstaff County will have a rural road network system categorized and prioritized into four road classifications. The classification system will provide an efficient road network system that acts as a feeder system to the provincial highway network and the local communities within Flagstaff County.

In conjunction with the rural road network system, a long-term Road Construction Program will be established using the Evaluation Criteria and Weighting System (Schedule B) that support a life cycle approach to asset management. A minimum rating of 2.5 will be required for consideration of a road to be reconstructed.

Evaluation criteria to be used:

1. Current Design and Construction Standard – Schedule A
2. Road maintenance – frequency of grading and graveling
3. Safety implication – site lines, grade width, side and back slopes
4. Average annual daily traffic counts (AADT)
5. Traffic type
6. Water drainage
7. Traffic Generators and Continuity

Implementation will be done through the annual business plan and budget.

DEFINITIONS

Road Surface Types:

- Paved:** Asphalt concrete pavement. - 20-year life cycle
- Oil Based:** A petroleum-based product surface. - 5-7-year life cycle
- Gravelled:** A loose aggregate surface. - 2-8-year life cycle
- Water Based:** Water soluble based dust suppressant product surface. - 1-year life cycle

Road Classifications:

- Arterial:** Ban Free 8 - 10-meter width (Schedule C)
Signed as 'Truck Route'
- Collector:** Gravel 7 - 8-meter width
- Local:** Gravel 6 - 8-meter width
- Field Access:** Sand/Dirt 6 - 8-meter width

** The standard road construction width is 8 meters for Arterial, Collector and Local roads (Schedule A). Although, the width of a road may be increased to accommodate traffic type, volume of traffic, or level of safety upon approval of County Council.

Council Approved: November 18, 2020	Resolution No. FC20201118.1009
Reference:	

Administrative Responsibility:	Review Cycle:	Next Review Year:
Public Works Superintendent	Every 3 years	2023

Schedule A - Design and Construction Specifications

	Arterial	Collector	Local	Field Access
Design Speed (km/hr)	110	110	90	70
Cautionary Signage (safety)	As required (i.e. at curves)			
Minimum Horizontal Curve Radius (m)	600	600	340	190
Maximum Horizontal Gradient (%)				
• Permanent	5	5	7 – 9	9 – 12
• Temporary/Detour			n/a	13
Vertical Alignment (K)				
• Crest – passing	585	585	410	245
• Crest – stopping	100	100	55	22
• Sag – minimum	60	60	40	25
Drainage Provisions	As required to drain sub-grade and maintain natural drainage patterns			
Soil Conservation - Disturbance	Disturbance resulting from construction must be minimized (i.e. soil horizon removed/replaced in lifts)			
Cross Sectional Elements (m)				
• Lane Width	3.5	3.5	3.5	3.5
• Shoulder	0.5	0.5	0.5	n/a
• Finished Running Surface	8.0	8.0	8.0	6.0 – 8.0
• Ditch	2.5 – 3.5	2.5 – 3.5	2.5 – 3.5	As required
• Side Slope (max. H:V, m)	4:1	4:1	4:1	3:1
• Back Slope (max. H:V, m)	3:1	3:1	3:1 to 6:1	
• Thickness of (mm):				
o Crush	300	300	300	50
o Sub-grade (clay)	600	600 min.	600 min.	300 min.
Right-of-Way Width (m)	30	20 - 30	20	20
Materials/Compaction	100%	100%	98%	95%

Schedule B - Evaluation Criteria and Weighting System

1. Current Design and Construction Standard

Geometrics: Surface Width	Rating
Standards met for entire section	1
Standards met for 75% of section	2
Standards met for 50% of section	3
Standards met for 25% of section	4
No standards met	5

WEIGHTING = 3%

Geometrics: Vertical Sags/Crests	Rating
Standards met for entire section	1
Standards met for 75% of section	2
Standards met for 50% of section	3
Standards met for 25% of section	4
No standards met	5

WEIGHTING = 3%

Geometrics: Horizontal Alignment	Rating
Standards met for entire section	1
Standards met for 75% of section	2
Standards met for 50% of section	3
Standards met for 25% of section	4
No standards met	5

WEIGHTING = 3%

Geometrics: Sideslopes	Rating
Standards met for entire section	1
Standards met for 75% of section	2
Standards met for 50% of section	3
Standards met for 25% of section	4
No standards met	5

WEIGHTING = 1%

Geometrics: Backslopes	Rating
Standards met for entire section	1
Standards met for 75% of section	2
Standards met for 50% of section	3
Standards met for 25% of section	4
No standards met	5

WEIGHTING = 1%

Geometrics: Grade Height	Rating
Standards met for entire section	1
Standards met for 75% of section	2
Standards met for 50% of section	3
Standards met for 25% of section	4
No standards met	5

WEIGHTING = 3%

Geometrics: Percent Grade	Rating
Standards met for entire section	1
Standards met for 75% of section	2
Standards met for 50% of section	3
Standards met for 25% of section	4
No standards met	5

WEIGHTING = 1%

2. Road Maintenance

Structure: Road Surface Drainage	Rating
Standards met for entire section	1
Standards met for 75% of section	2
Standards met for 50% of section	3
Standards met for 25% of section	4
No standards met	5

WEIGHTING = 1%

Structure: Condition	Rating
Standards met for entire section	1
Standards met for 75% of section	2
Standards met for 50% of section	3
Standards met for 25% of section	4
No standards met	5

WEIGHTING = 3%

3. Safety Implications

Safety	Rating
No safety issues	1
Minor safety issues	3
Major safety issues	5

WEIGHTING = 3%

Brushing	Rating
No brushing required	1
Moderate brushing required	3
Severe brushing required	5

WEIGHTING = 1%

4. Average Annual Daily Traffic

Traffic Count	Rating
0-25	1
26-50	2
51-100	3
101-200	4
> 200	5

WEIGHTING = 30%

5. Traffic Type

Percentage of Trucks	Rating
0.0 - 5.0%	1
5.1 - 10.0%	2
10.1 - 15.0%	3
15.1 - 20.0%	4
>20.0%	5

WEIGHTING = 10%

6. Water Drainage

Ditch Drainage	Rating
Standards met for entire section	1
Standards met for 75% of section	2
Standards met for 50% of section	3
Standards met for 25% of section	4
No standards met	5

WEIGHTING = 2%

7. Traffic Generators and Continuity

Proximity to Parallel Highway	Rating
<= 3.2 km (2 miles) from Hwy or S.H.	1
> 3.2 km (2 mi.) and <= 6.4 km (4 mi.) from Hwy or S.H.	2
> 6.4 km (4 mi.) and <= 9.6 km (6 mi.) from Hwy or S.H.	3
> 9.6 km (6 mi.) and <= 16.0 km (10 mi.) from Hwy or S.H.	4
> 16.0 km (10 miles) from Hwy or S.H.	5

WEIGHTING = 5%

Industry and Commodity Mixture	Rating
Serves local traffic with no industrial significance	1
Serves local area and industry but no specific industry	2
Low importance to specific local industry	3
High importance to specific local industry	4
Important to numerous local industries	5

WEIGHTING = 10%

Local Significance	Rating
Light agricultural use	1
Country residential use	2
Tourism route	3
Industrial/Intensive Agricultural use	4
Trade route	5

WEIGHTING = 10%

Trip Distance	Rating
Local Traffic Only	1
Through Traffic	3
Through Traffic with stop	5

WEIGHTING = 4%

Continuity	Rating
Short, Discontinuous	1
Local Continuity Only	2
Municipal Continuity	3
Regional Continuity (serves adjoining municipalities)	4
Provincial Continuity	5

WEIGHTING = 5%

Schedule C – Arterial Road Classification

Township Road 450 from Hwy 36 east to SH 870	13.0 miles
Township Road 430 from SH 855 east to Range Road 113	27.5 miles
Township Road 410 from SH 855 east to the Battle River **	40.5 miles
Range Road 153 from Hwy 26 south to Hwy 13	14.0 miles
Range Road 124 from Township Road 460 south to Township Road 442	10.0 miles
Range Road 113 from Village of Lougheed south to SH 608	12.0 miles
Range Road 152 from Village of Forestburg south to Township Road 410	5.5 miles
Range Road 123 from SH 608 south to SH 602	<u>10.0 miles</u>
Total Arterial Miles:	132.5 miles

**Includes the ATCO Access Road (1.75 miles of pavement and 2.75 of milled pavement)