	<b>POLICY</b>	<b>NO.</b>	<b>300-01</b>
	<b>POLICY TITLE:</b> The Classification of Roads Within in The RM of Beaver River No. 622 Policy	<b>EFFECTIVE DATE:</b>	04-15-2021
		<b>REVISION LETTER:</b>	A
		<b>FINAL APPROVAL</b>	Res.#077-21

**1.0 PURPOSE**

1.1 The purpose of this policy is to guide the **RM of Beaver River No. 622 (RM)** for implementation of the following general standards and specifications for municipal roads.

**2.0 DEPARTMENT(S) AFFECTED (SCOPE)**

2.1 Department(s) Affected: **Transportation Services, Asset Management, Planning & Development**

**3.0 POLICY**

- 3.1 This Policy states that:  
 These may be varied as necessary by Council to meet unusual topography and construction conditions. Where extra back sloping or fill material is required, the RM will negotiate with the landowner for landscape borrow wherever possible instead of purchasing additional right-of-way.
- 3.2 No Contractor may begin constructing a road until authorized by the RM Council.
- 3.3 Developers are required to first negotiate a servicing agreement with the RM prior to the commencement of road construction.

**4.0 DEFINITIONS**

4.1 The following terms are defined as such:

**"AADT":**

Average Annual Daily Traffic is a technical measurement of traffic volume on a road, in both directions. Conversion factors, which vary depending on the time of year and week, extrapolate daily traffic counts into AADT.

**"Ambient Conditions":**

Are conditions that are commonly found in a stabilized environment. Normally in ambient conditions, there are no negative effects actively reducing the existing conditions (i.e., Storm, excess traffic, or construction effects are not in evidence).

**"Aspects":**

In the context of these standards refer to specific elements of roadway service, which are defined by these standards.

**"Black Top":**

Refers to asphalt being the road surface, which is relatively hard in nature once set, and which effectively prevents reshaping by a conventional motor grader.

**“Class”:**

The context of these standards refers to the criteria for classifying roadways.

**“Conditions”:**

Define the state in which the subject matter is found. The standard indicates the condition being measured.

**“Dirt Top”:**

Refers to what it says, a dirt top with minimum strength and design on a seasonal road.

**“Hardtop”:**

Refers to a road surface, which is relatively hard in nature, by treatment with either a bonding agent or cement, which effectively prevents reshaping by a conventional motor grader.

**“Improved”:**

Condition refers to the condition being better than it was before, from the perspective of a typical user, all other effects being equal.

**“Inspection”:**

Is the activity performed by a qualified person, authorized, and directed by the Supervisor of Public Works or delegates, to investigate and report on the relevant conditions of the roadway. General inspection has regard for road surface and roadside standards.

**“Localized”:**

Conditions, for the purpose of these standards, that occur on short lengths of roadway specifically on bridges, intersections, curves, and hills.

**“Loose top”:**

Refers to a road surface that is of a granular manufactured product, which can reasonably be shaped by a motor grader, and includes road surfaces under reconstruction.

**“Priority”:**

An order of the Class of roads to be maintained during a winter event. Also, will be based on service levels when it comes to maintenance.

**“Right-of-Way” (ROW):**

Describes the corridor of land reserved for roadway improvements and under the jurisdiction of the roadway authority. Certain rights of way infer a right of passage to the public. However, in the context of these standards, only rights-of-way with assumed public roadways are considered.

**“Road”:**

Refers specifically to the travelled road surface on a roadway assumed by a roadway authority.

**“Roadside”:**

Refers to all features that make up the roadway within the jurisdiction of the roadway authority, except for the road surface itself.

**“Roadway”:**

In the context of these standards means any public assumed road right-of-way, intended for vehicular traffic. It refers not only to the travelled road surface but to all services relevant to the road, within the right-of-way. In the context of an urban road, this includes the travelled portion plus the ancillary lanes. In the case of rural roads, this includes the ancillary lanes and the shoulders.

**“Road Authority”:**

Indicates the public agency accountable for the status and condition of the roadway. This refers to the Corporation of the RM and its designated officials or agents.

**“Section”:**

Refers to a portion of a roadway with a distinct classification, and homogeneous character. A roadway section is commonly used for construction costing, inventory control in Maintenance Management Systems, Road Needs Studies, Pavement Management Studies, and Priority Planning and Budgeting.

**“Seasonal”:**

Refers to the limited time of the year where certain roadway service standards apply to the subject roadway (e.g., Summer roads, Winter roads). In the context of these standards, seasonal roads are classified as those not receiving winter services unless otherwise defined.

**“Service”:**

Can be defined in two contexts. In the larger context any government activity is a service. A roadway network is a service, as is a library, potable water supply, etc. When used in the context of these standards, “service” refers more specifically to aspects of a roadway and their condition. Services are seen from the perspective of the user.

**“Standards”:**

Quantified statements, defining the nature of a product or activity. Usually, such standards are minimum or desirable, and in this context refer specifically to the roadway service standards adopted as policy, by a roadway authority.

**“Service Levels”:**

A range of values that quantify a particular service standard, by one or more parameters, across a range of roadway classifications. Service levels typically reflect a maximum or minimum condition.

**“Substandard”:**

Refers to a condition that is outside the defined standard. Normally a substandard condition requires a response unless otherwise considered in the standard.

**“Supervisor”:**

Refers to a person in the Public Works Department who is accountable for the deployment of operations that impact the condition of roadway services.

**“Surface”:**

The exposed top of the travelled road and includes adjacent surfaces for turning or stopping, but not parking or shoulders.

**“System”:**

Refers to a collection of roadways, typically of various classifications, owned by a single road authority.

**“User”:**

Refers to any person travelling on or over the roadway, including vehicle operators, passengers, and pedestrians.

4.2 **Minimum ROW**

The minimum right-of-way width for access roads is 66 ft (20 m). When a cul-de-sac is required, the rights-of-way must be increased to 150 ft (46 m) to provide an area adequate to construct a safe turnaround for the motoring public and the RM municipal grader. The radius on the driving surface of the cul-de-sac must be 75 ft (23 m). It must be noted that in circumstances where topography warrants that additional road allowance is needed to meet RM standards or future development, the rights-of-way may be 150 ft (45 m) or more.

**5.0 RESPONSIBILITIES**

- 5.1 The Administrator is responsible for ensuring compliance with this policy.
- 5.2 Council shall review all policies every three years for compliance and effectiveness of the policies.

**6.0 IMPLEMENTATION - PROCEDURE**

- 6.1 This Policy applies to all employees, councillors, contractors, landowners, and ratepayers.
- 6.2 This policy shall apply to all roads assumed and maintained as public roads by the RM.

**6.3 CLASSIFICATION**

6.4 **Seasonal Road-** Farm Access Incredibly Low Traffic Volume

- 6.4.1 Purpose: To allow for access to lands with incredibly low/ to no traffic volumes, residences farms and/or other approved uses.
- 6.4.2 Design: Roads servicing for limited farming or other uses with incredibly low / to no traffic volumes would be constructed in accordance with this standard. The design will generally follow the existing terrain within the confines of the seasonal allowable grades and should be confined to the existing right-of-way, if possible. The road structure is mostly dirt and will not accommodate buses, nor speeds above 20km/h (no speed design) and NO heavy trucks/ vehicles or emergency vehicles. The additional subdivision is not allowed unless an additional road structure is added by the developer. These roads are seasonal, and no winter cleaning or winter maintenance will be done. See Appendix A for design standards.

6.5 **Class 1 Gravel-** Low Traffic Volume

- 6.5.1 Purpose: To allow for access to lands with low traffic volumes, residences farms, typically used for internal subdivision and/or other approved uses.
- 6.5.2 Design: Roads servicing for farming or other uses with low traffic volumes would be constructed in accordance with this standard. The design will generally follow the existing terrain within the confines of the allowable grades and should be confined to the existing right-of-way, if possible. The road structure is relatively light and will accommodate buses but No heavy trucks/ vehicles, nor emergency vehicles. Speeds on this road structure designed 80km/h (posted at 60km/h). Dust control may be added and not change the roadway. These roads will be winter cleaned, and maintenance will happen on a priority basis. See Appendix A for design standards.

6.6 **Class 2 Gravel-** Moderate Traffic Volume

- 6.6.1 Purpose: Roadways constructed under this classification are typically used for internal subdivision, or other uses with moderate traffic volumes.
- 6.6.2 Design: Road grades generally follow the terrain within the allowable grade limits. Roadway structure to allow for the passage of buses, secondary emergency and secondary



heavy haul routes (on a limited basis). Speeds on this road structure designed 80km/h (posted at 80km/h). Engineering of the roadway structure is recommended. Future paving or cold mix applications can be accommodated without significant subgrade improvements. A minimum of 95% Standard Proctor Density shall be required. Dust control may be added and not change the roadway. All designs shall include drainage patterns, culvert locations and sizes, approach locations, and alternate accesses if required. These roads will be winter cleaned, and maintenance will happen on a priority basis. See Appendix A for design standards.

**6.7 Class 3 Gravel- High-Moderate Traffic Volume**

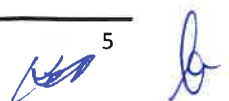
- 6.7.1 Purpose: Roads constructed under this classification include small industrial, mod-high traffic truck volumes or collector roadways. These roadways typically provide access to secondary or primary highways.
- 6.7.2 Design: Roadways are designed to accommodate heavy trucks, emergency vehicles and this is reflected in a heavier road structure. Road structure and design approach those of almost secondary highways but with lower design speed. Roadway follows terrain to the limits of the allowable grade but would require significant right-of-way in areas of large grade change. Roadway shoulder-width reflects the heavy truck traffic and emergency vehicles. Speeds on this road structure designed 90km/h (posted at 80km/h). This roadway shall be engineered structure. Future paving or cold mix applications can be accommodated with no subgrade improvements. A minimum of 95% Standard Proctor Density shall be required. Dust control may be added and not change the roadway. All designs shall include drainage patterns, culvert locations and sizes, approach locations, and alternate accesses if required. These roads will be winter priority cleaned, and maintenance will happen on a higher priority basis. See Appendix A for design standards.

**6.8 Class 4 Gravel- High Traffic Volume- Super Grid Road**

- 6.8.1 Purpose: Roads constructed under this classification include all industrial, high-traffic truck volumes or collector roadways. These roadways provide access to secondary or primary highways.
- 6.8.2 Design: Roadways are designed to accommodate heavy trucks, emergency vehicles and this is reflected in a heavier road structure. Road structure and design approach those of secondary highways. Roadway follows terrain to the limits of the allowable grade but would require significant right-of-way in areas of large grade change. Roadway shoulder-width reflects the heavy truck traffic and emergency vehicles. Speeds on this road structure designed 100km/h (posted at 80km/h). This roadway shall be engineered structure. Future paving or cold mix applications can be accommodated with no subgrade improvements. A minimum of 98% Standard Proctor Density shall be required. Dust control may be added and not change the roadway. All designs shall include drainage patterns, culvert locations and sizes, approach locations, and alternate accesses if required. These roads will be winter priority cleaned, and maintenance will happen on a higher priority basis. See Appendix A for design standards.

**6.9 Class 5 Paved- High Traffic Volume Paved Urban Road**

- 6.9.1 Purpose: Roads constructed under this classification include all industrial, high-traffic truck volumes or collector roadways are paved. These roadways provide access to secondary or primary highways.



6.9.2 Design: Roadways are designed to accommodate heavy trucks, emergency vehicles and this is reflected in a heavier road structure. Road structure and design approach those of secondary highways. Roadway follows terrain to the limits of the allowable grade but would require significant right-of-way in areas of large grade change. Roadway shoulder-width reflects the heavy truck traffic and emergency vehicles. Speeds on this road structure designed 110km/h (posted at 80km/h). This roadway shall be engineered structure. A minimum of 98% Standard Proctor Density shall be required. All designs shall include drainage patterns, culvert locations and sizes, approach locations, and alternate accesses if required. These roads will be winter priority cleaned, and maintenance will happen on a higher priority basis. See Appendix A for design standards

**6.10 Heavy Haul Agreements**

6.10.1 Purpose: Heavy Haul Agreements by *The Municipalities Act and regulations*, come to an agreement with the municipality to either compensate the municipality for maintenance of the road or maintain and repair the haul roads to a mutually acceptable standard, and to compensate the municipality for capital road loss that results from the haul in either case. Inspection on roadway before hauler agreement is complete will be complete by either party. Ensure all hauler agreements are clarified by the RM on routes and maintenance fees to be charged. If hauler is to complete maintenance of route then the agreement should reflect as such. All agreement has one calendar year approval or as described by the RM.

\*See Appendix A for Road Classification and Building structure for quick reference.

**7.0 DOCUMENT APPROVAL**

ROLE	POSITION	NAME OF THE APPROVER	DATE APPROVED
AUTHOR	Northbound Planning	Council	03/04/2021
OWNER	Administrator	Nicole Neufeld	03/04/2021
FINAL APPROVER	RM Council	RESOLUTION:	04/15/2021

**8.0 REVISION HISTORY**

EFFECTIVE DATE	REVISION LETTER	DOCUMENT AUTHOR	DESCRIPTION OF CHANGE
03/04/2021	A	Northbound Planning	Initial release

APPENDIX A

Road Classifications & Building Standards	APPENDIX A					
	Seasonal	Class 1	Class 2	Class 3	Class 4	Class 5
Asphalt (Cold Mix) Topping	N/A	N/A	N/A	N/A	N/A	Paved Roads 4" (100mm)
Back Slope	N/A	3:1	4:1	5:1	5:1	5:1
Bottom Slope Ditch to Rear of Ditch (%)	little/none	N/A	N/A	20	20	20
Bottom Width	66ft(20M)	66ft(20m)	66ft(20m)	100ft(30m)	100ft(30m)	100ft(30m)
Clay base/source (inches)	N/A	nearby ditches	5" (125mm) - burrow pit	24" (610mm) - burrow pit	24" (610mm) - burrow pit	24" (610mm) - burrow pit
Compaction (%)	N/A	N/A	95.00%	95.00%	98.00%	98.00%
Crown (%)	N/A	N/A	3-4	4	4-5	4-5
Emergency Route	No	No	Secondary Emergency	Emergency	Emergency	Emergency
Engineer/Non-Engineered	N/A	Non-Engineered	Discretionary	Engineered	Engineered	Engineered
Gravel thickness	N/A	1.5" (38mm)	2-3" (50-75mm)	5" (125mm) incorporated with clay	6" (155mm) incorporated with clay	6" (155mm) incorporated with clay
Gravel Top (road gravel)	Dirt	3/4" (75mm) Road Crush	3/4" (75mm) Road Crush	4-5" (100-125mm) clear of 2" (50mm) or larger stones	6" (155mm) of 3/4" (75mm) gravel	6" (155mm) of 3/4" (75mm) gravel
Haul Type:	N/A	Farm equipment access	Discretionary Heavy Haul	Heavy Haul	Heavy Haul	Heavy Haul
Maintenance	Seasonal	Year Round	Year Round	Year Round	Year Round	Year Round
Right of Way	66ft (20m)	66ft (20m)	66ft (20m)	100ft (30m)	100ft (30m)	100ft (30m)
Road Slope	N/A	3:1	3:1	4:1	4:1	4:1
Shoulder Height at Toe of Road Slope	N/A	N/A	N/A	48" (1.2m)	48" (1.2m)	48" (1.2m)
Road Top	15-20ft (4.5-6m)	20-24ft (6-7.3m)	24-28ft (7.3-8.5m)	28-30ft (8.5m-9m)	30 ft(10m)	30 ft(10M)

Culverts: All class of roads have a minimum size of 16" diameter culverts larger than 24" diameter require rock wrapped around ends

Bridges: Must be Engineered  
Classes 2-5: No black dirt; compaction can be done with a Grader

Classes 3, 4, and 5: Are required to have heavyhaul agreements  
Class 2: Solely discretionary of council if used for heavy haul

