R.M. of Canwood NO. 494					
Section:	Road System Policies	Policy No.	7.03		
Subject:	MAIN FARM ACCESS ROAD CONSTRUCTION	Page:	Page <b>1</b> of <b>3</b>		
Issued by:	Council Resolution No. 29	Dated:	September 15, 2015		

#### 1 POLICY

- 1.1 This policy is developed to outline the standard procedures for construction of a farm access road.
- 1.2 No Contractor may begin constructing a road until authorized by the Municipal Council.

#### 2 PURPOSE

2.1 The purpose of this policy is to establish a consistent standard of main farm access road construction specifications.

## 3 SCOPE

3.1 This policy applies to all employees, councillors, contractors, landowners, and ratepayers.

#### 4 RESPONSIBILITY

- 4.1 The managers are responsible for ensuring that the developer/landowner knows and understands the particulars of this policy. They are responsible for advising the Division Councillor where the work is being performed.
- 4.2 The Councillor is required to inspect the construction site with the Public Works Supervisor and report on the work being completed.

## 5 DEFINITIONS

5.1 **"Main Farm Access"** is defined by the design standard set out in Section 7 of this policy and further explained in the attached diagram.

# 6 REFERENCES AND RELATED STATEMENTS OF POLICY & PROCEDURE

7.01 Road Construction Specifications7.02 Approach Construction

# 7 PROCEDURE - CONSTRUCTION

- 7.1 The improvements in this policy are to be completed at the landowner's cost.
- 7.2 Construction shall include the installation of all necessary drainage structures and construction of drainage ditches. Culverts should be designed for at least Q<sup>15</sup> flow (speed of water flow through the culvert), with a minimum culvert size of 500 mm (20 inch) diameter. Riprap is required only where necessary to avoid undue erosion. All culverts will be constructed of metal unless approved by the Municipality prior to construction.
- 7.3 Construction shall include all road connections and approaches.
- (a) The average shoulder elevation of the road surface is to be approximately 0.5 meters above the adjacent ground surface, except in cuts.

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- (b) Objectionable organic material shall be subcut where the fill is less than 0.3 meters in depth.
- (c) The subgrade surface shall not be less than 1.0 meters above the high water level on the ground water table (ie: level to which free water would rise in a hole sunk in the ground).
- (d) Road surface, side slopes, ditches and back slopes shall be bladed smooth to conform to the typical cross-section.
- (e) Where necessary to provide a smooth, stable driving surface, the road shall be capped with a layer of clay material. The depth of clay cap shall be a minimum of 0.3 meters. Gravel shall be incorporated in the top 100 mm of the subgrade prior to traffic gravel being applied. Gravel incorporation shall be done according to the Municipal Specification. The gravel specification for incorporation is Type 103 and 104.
- (f) Gravel surfacing for the subgrade required at the rate of 180 m³/km for the first application, 150 m³/km for the year following construction and additional applications as required. The required gravel specification for traffic gravel is Type 106 and 108.
- (g) The alignment of curves must be constructed with the proper super-elevation using 80km/hr design speed and emax (super elevation of a curve; from the bottom of the slope of the curve to the top of the slope of the curve) is equal to 0.08. The minimum radius of curvature is 250 meters; however, the preferred radius is 300 meters.

## 8 PROCEDURE – REQUIRED CONSTRUCTION STANDARDS

- 8.1 The following is a summary of the basic standards:
- (a) The right-of-way width must be 30 meters.
- (b) The full width of right-of-way is to be cleared
- (c) The standard basic finished top width for main farm access roads is 7.0 meters. The top width for curves is 7.6 meters.
- (d) A 3:1 ratio is required for side slopes. Fills between 2 and 3 meters requires a 7.6 meter top width and fills over 3 meters require a 8.0 meter top width.
- (e) The ratio of 5:1 for back slopes is to be maintained until the top of the back slope reaches the edge of the right-of-way. The back slope will remain at the edge of the right-of-way to a maximum of 3:1.
- (f) For snow clearance purposes when the shoulder grade elevation is 0.3 meters or less above the natural surface, at 15 to 20 meters, from the center line then the back slope must be flattened using a variable slope of 5:1 to a maximum of 3:1.
- (g) The maximum gradient is 9%, except in unusual circumstances it will be 11%.

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(h) The minimum stopping sight distance is 85 meters. The vision at an intersection must be clear. A minimum of 85 meters is required from the point of intersection on municipal roads and grid intersections

# 9 ATTACHMENTS

Attachment A – Typical Cross Sections – Main Farm Access