

| R.M. OF CANWOOD NO. 494 | | | |
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| Section: | Road System Policies | Policy No: | 7.01 |
| Subject: | ROAD CONSTRUCTION SPECIFICATIONS | Page: | 1 of 3 |
| Issued by: | Council Resolution No. 27 | Dated: | July 21, 2015 |

1 POLICY

- 1.1 This policy is developed to provide specific guidelines for road building in the R.M. of Canwood No. 494 and has been designed to be used in conjunction with the drainage plan(s) and road profiles prepared by the developer's engineer. The developer must accommodate suggestions from the municipal engineer.
- 1.2 No Contractor may begin constructing a road until authorized by the Municipal Council.
- 1.3 Developers are required to first negotiate a servicing agreement with the Municipality prior to the commencement of road construction.

2 PURPOSE

- 2.1 The purpose of this policy is to establish a consistent standard of 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 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 "**Gravel Incorporation**" means the uniform mixing of traffic gravel with the in situ material in the top of the subgrade.

6 REFERENCES AND RELATED STATEMENTS OF POLICY & PROCEDURE

Servicing Agreement: Schedule B Construction Specifications

7 PROCEDURE

- 7.1 The improvements in this policy are to be completed at the developer's cost.
- 7.2 The minimum right-of-way width for access roads is 30 metres. When a cul-de-sac is required, the rights-of-way must be increased to 46 metres to provide an area adequate to construct a safe turnaround for the motoring public and the municipal grader. The radius on the driving surface of the cul-de-sac must be 23 metres. It must be noted that in circumstances where topography warrants that additional road allowance is needed to meet municipal standards or future development, the rights-of-way may be 150 feet or more.

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- (a) To remove from the rights-of-way, within the surveyed plan, any privately owned structures, trees, bush or brush, and to properly dispose of all resulting refuse so that no waste material is left within the rights-of-way. The full width of the rights-of-way **MUST** be cleared.
- (b) Construct roadway(s) to a grade height that will compensate for proper drainage. The standard basic finished top width for subdivision roads is 7.4 metres. On fills over 3 metres in height, the top width is to be a minimum of 0.6 metres wider than the basic top width. Top widths should be widened as follows:
- | | |
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| Fills 0-3 metres | 7.4 metre finished top width |
| Fills over 3 metres | 8.0 metre finished top width |
- (c) Construct the required access road(s) from the subdivision to the adjacent developed municipal roadway(s) which shall provide for proper drainage and alignment.
- (d) To construct side slopes (road slopes) at a ratio of 4:1
- | | |
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| Fills 0-3 metres | 4:1 slope |
| Fills 3-4 metres | Toe of the slope is to be 12.0 metres from the shoulder |
| Fills 4+ metres | 3:1 slope |
- (e) To construct back slopes at a ratio of no less than 5:1, except in deep cuts where a back slope not steeper than 3:1 may be used; the construction must allow the water to flow along the back slope and bottom of ditch rather than along the side slopes (road slopes). A 5:1 back slope 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) To design, improve or grade roadways and approaches within the limits of the marked public highways so that all driving surfaces have a minimum width of 6 metres centered within the limits and so that, on either side of the roadways, adequate surface water run-off channels or ditches are provided on the remaining land within the limits, as may be required by and to suit the topography.
- (g) To construct all roadway and approach driving surfaces with:
- a stabilized top layer (clay cap) at least 15 centimetres (6 inches) thick;
 - a maximum gradient of 5%; in unusual circumstances 6%; and
 - a 15 centimetre (6 inch) high crown evenly sloped to the outside edge of the surface.
- (h) To supply and install necessary drainage structures and drainage ditches as indicated by the Municipal Engineer. Steel culverts with minimum dimensions of 400 mm must be installed where necessary, including approaches. Riprap may be used only where necessary to avoid undue erosion. Culverts placed in approaches must be installed where the back slope and ditch meet.
- (i) The average shoulder elevation of the road surface is to be approximately 0.5 metres above the adjacent ground surface, except in cuts.

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- (j) The subgrade surface shall not be less than 1 metre above the high water level on the ground water table (for example: level to which free water would rise in a hole sunk in the ground).
- (k) Road surface, side slopes, ditches, and back slopes shall be bladed smooth to conform to the standard cross section and ensure positive drainage so that no water ponds sit in the ditches.
- (l) Construction of all road connections and approaches as may be required to provide access to the individual parcels of land, so as to provide a clear vision at road intersection – minimum of 85 metres from the point of intersection on municipal roads and grid intersections to a maximum of 140 metres on primary roads using 80 km/hr design speed.
- (m) After construction is done, to remove all exposed rocks and other debris from the construction area and to seed grass on all exposed slopes, and provide and install erosion control devices/materials as required.
- (n) Gravel surfacing for the subgrade required at the rate of 100m³/km for the first application, 100m³/km for the year following construction and additional applications as required. The required gravel specification for traffic gravel is Type 106 or Type 108.
- (o) To supply and install traffic signs required by the Municipality.

8 ATTACHMENTS

Attachment A – Typical Cross Section – Half Section of Cut

Attachment B – Typical Cross Section – Half Section of Embankment

Attachment C – Typical Cross Section – Half Section Embankment and Side Ditches