Rural Municipality of Meadow Lake #588 Policy

Policy #TS-003
Policy Title: Road Standards

Policy Objective: To provide council, staff, potential developer and ratepayers with a road standard to be built within the RM of Meadow Lake
Authority: Council Resolution #101/17 Dated: February 24, 2017

Background:

1. Developers are requesting approvals for subdivisions and developments in remote areas within the RM of Meadow.
2. In the past, the municipality was able to help those who needed access to the developments, however, the costs have risen and the grant dollars to build these access have diminished leaving the municipality to bear most to all of the costs.
3. As the capital cost of building an access will never be returned to the municipality through the taxation process. And that the taxation process will only help with the maintenance and possible future upgrade of the road.
4. Therefore the council for the RM of Meadow Lake now require that if a developer needs an access built, that the developer will incur the full capital cost of the access and that the developer will need to follow and build to the standards that are needed by the municipality to complete the future maintenance, snowplowing, and possible future upgrade of the access.
5. If a Road needs to be upgraded in order to accommodate a higher class of residential properties or a commercial application, the RM of Meadow Lake needs to set up standards that the municipality requires to be built in order to accommodate all needs.

Policy:

1. Council approved the attached Schedule for the standards for road building within the RM of Meadow Lake.
    a. Schedule "A" – Construction Standards for Subdivision Access Roads
    b. Schedule "B" – Construction Standards for Roads (Streets) Within a Subdivision
    c. Schedule "C" – General Roadway Standards as per speed, surface type, etc.

Schedule "A" – Construction Standards For Subdivision Access Roads

The Developer shall be responsible for the following:

a) To remove or cause to be removed from within the limits of the Road Right of Way on the "Plan" any privately owned structures, trees, bush or brush, and to properly dispose of any resulting refuse in order that no waste material is left on the Land.

b) To design, improve or grade all driving surfaces so that all the driving surfaces within the roads on the "Plan" have a driving surface with a minimum width of 7.32 metres (24 feet). (Grade, ditches and back slopes must be within the limits of the Right of Way).

c) To design, improve or grade all driving surfaces so that all surfaces have a 0.15 metre (6 inch) high crown evenly sloped to the outside edge of the driving surface.

d) To design and construct the road so that the grade height measured vertically from ditch bottom to road shoulder is not less than 0.60 metres. (Grade height must also be a minimum of 0.60 metres above high water elevation).

e) To design and construct the road so that the maximum 'Gradient' does not exceed 10%.

f) To grade all side slopes and back slopes within the Right of Way to
   a. a safe and proper manner, or
   b. 3:1 slope

g) To grade all ditches and install culverts in such a manner as required to maintain proper drainage.

h) To remove all rocks and other debris from all slopes, ditches and the road top and to re-vegetate ditches by seeding grass.

i) To design and construct the road in such a manner that it will not fail under normal traffic and conditions:
   a. A clay cap of 0.20 metres may be required on the top of the grade in sandy areas.
   b. A geo-textile matting may be required on muskeg areas.

j) To supply, install, place, spread or grade on all driving surfaces 2.5 centimetre (1 inch) or smaller diameter gravel at a rate of 153 cubic metres per 1.6 kilometres (200 cu. yards, per mile).

k) A new approach to a highway requires an approval from Saskatchewan Ministry of Highways and Infrastructure.

Schedule "B" – Construction Standards For Roads (Streets) Within a Subdivision

The Developer shall be responsible for the following:

a) To remove or cause to be removed from within the limits of the Road Right of Way on the "Plan" any privately owned structures, trees, bush or brush, and to properly dispose of any resulting refuse in order that no waste material is left on the Land.

b) To design, improve or grade all driving surfaces so that all the driving surfaces within the roads (streets) on the "Plan" have a driving surface with a minimum width of 7.32 metres (24 feet). (Grade, ditches and back slopes must be within the limits of the Right of Way).

c) To design, improve or grade all driving surfaces so that all surfaces have a 0.15 metre (6 inch) high crown evenly sloped to the outside edge of the driving surface where the Developer shall provide surface run-off channels or ditches as may be required by the topography.

d) To grade all ditches and install culverts in such a manner as to maintain proper drainage.

e) To grade all ditch side slopes and back slopes within the Right of Way and have a horizontal to vertical ratio of not steeper than 4:1.

f) To remove all rocks and other debris from all slopes, ditches and driving surface and to re-vegetate ditches by seeding grass.

g) To design and construct the road in such a manner that it will not fail under normal traffic and conditions:

    a. A clay cap of 0.20 metres may be required on the top of the grade in sandy areas.

h) To supply, install, place, spread or grade on all driving surfaces 2.5 centimetre (1 inch) or smaller diameter gravel at a rate of 153 cubic metres per 1.6 kilometres (200 cu. yards per mile).

i) A new approach to a highway requires an approval from Saskatchewan Ministry of Highways and Infrastructure.

RM of Meadow Lake #588
Roadway Standards

Design Specification	Heavy Haul High Volume Municipal Highway	Primary Grid with Potential Surface	Farm and Industrial Access	Single use Industrial Access	Subdivision Road Access	Subdivision Streets
Design Speed	110 km/hr	100 km/hr	90 km/hr	60 km/hr	70 km/hr	60 km/hr
Surface Type	Asphalt Concrete; Strengthened Subgrade	Asphalt Concrete; Sealed Based; Gravel; Strengthened Subgrade	Dust Treated Gravel; Oil Treatment	Gravel	Gravel; Dust Treated Gravel; Oil Treatment	Gravel; Dust Treated Gravel; Oil Treatment
For future Surface Width	Min 13.0 Top (8.5-10)	Min 11.3 m Top (8.5-10)	Min 8.6 m	Min 7.5 m	Min 7.32 m	Min 7.32 m
Minimum Radius of Curvature	300 m	300 m	300 m	N/A	250 m	N/A
Maximum Gradient	8% 7% preferred	9% 7% Preferred	9% 8% Preferred	11% 9% Preferred	10% 9% Preferred	6%
Stopping sight Distance	220 m @ 110 km/hr	200 m @ 100 km/hr	140 m @ 80 km/hr	N/A	140 m @ 80 km/hr	N/A
Bridges – Loading Width MS200	MS200 8.6 m	MS200 8.6M	MS200 8.6 m	Culvert or Rockford Crossing or portable Bridge	MS200 7.5 m	
Right of Way	42-46 m	30-42 m	30-36 m	20 m	20-30 m	20 m
Sideslopes	4:1	3:1	2.5:1 – 3:1	2.5:1 – 3:1	2.5:1-3:1	4:1
Backslopes	2:1-4:1	2:1-4:1	2:1-4:1	V-ditch	2:1-4:1	4:1
Ditch Width	3.0-6.0 m	2.0 – 4.0 m	2.0-4.0 m	V-ditch	1.5-3.0 m	1.5-3.0 m
Height Above Surround Landscape	0.8 m	0.7 m	0.6 m	0.4 m with V-ditch and positive drainage	0.5 m	0.5 m
Subcuts	0.6 m	0.6 m	0.6 m	Topsoil removed	0.4 m	Topsoil removed
Approaches	11.0 m	10.0 m	9.0 m	9.0 m	8.0 m	8.0 m

(Minimum)						