



POLICY NO. 8.01

JANUARY 26, 2016

TITLE: ROAD MAINTENANCE

POLICY STATEMENT:

Road maintenance is the most important issue to many residents in rural municipalities such as Westlock County. Just like many other rural municipalities, it is also the largest budget item and the reason for many infrastructure grant applications in this County.

Under the *Municipal Government Act*, although the title to all public roads in Alberta belong to the Province, each municipality is responsible for the direction, control and management of the roads within their jurisdiction. The *Traffic Safety Act* states, each municipality is the “road authority” for roads within their jurisdiction with some exceptions such as one and two-digit highways and some three-digit highways.

The *Municipal Government Act* also requires municipalities such as ours to maintain roads and other public infrastructure in “a reasonable state of repair”. Westlock County strives to exceed this legislated standard while operating within its budget and protecting the safety and well-being of its employees and the public.

PURPOSE:

- Clarify the County’s road maintenance standards and priorities,
- Outline some of the practices/procedures the County uses to maintain roads,
- Outline the County’s snow removal program for County roads,
- Indicate how road maintenance projects are proposed and acted upon.

DEFINITIONS:

approach means the thoroughfare commonly called an “approach” that connects a property, commonly the driveway or parking lot of a private property or the entrance to a field, to a road.

Arterial roads in Westlock County are roads that mainly deliver traffic from collector roads to three-digit highways, two-digit highways and Highway No. 2. Arterial roads

receive a high volume of non-local commercial vehicles and other non-local traffic compared to the volume of local traffic of people who have homes or businesses along arterial roads. From highest traffic volumes to lowest traffic volumes: two and three digit highways >> arterial roads >> collector roads >> local roads.

Beats are portions of the County road network that a single grader operator, or other equipment operator, is responsible for doing the road grading or other maintenance on. The County Public Works department has the County separated into “beats” and has individual equipment operators responsible for the road maintenance in each beat.

CAO means the Chief Administrative Officer of Westlock County.

Collector roads are roads that mainly deliver traffic from local roads to arterial roads. Collector roads receive a moderate volume of non-local commercial vehicles and other non-local traffic compared to the volume of local traffic of people who have homes or businesses along collector roads. From highest traffic volumes to lowest traffic volumes: one, two and three digit highways >> arterial roads >> collector roads >> local roads.

Commercial/Industrial haul routes are routes along County-maintained roads used by companies that transport heavy materials such as, but not limited to, lumber, gravel, and heavy machinery. Companies have to enter into a road use agreement with the County in order to transport heavy goods on County-maintained roads. In each road use agreement with each company, the County prescribes things such as the route a company’s transport vehicles must follow when travelling through the County. It is illegal for a company to transport heavy materials within the County without a road use agreement. Agricultural Operators are exempt from this requirement.

County means the municipal corporation of Westlock County.

Council means the elected council of Westlock County.

Director of Engineering and Infrastructure means the Director of Engineering and Infrastructure as outlined in section 1.2.

Employee means a current employee of Westlock County, a contractor Westlock County hires, or the employees of a contractor Westlock County hires.

Equipment Operator means a Westlock County employee, a contractor under contract with the County, or an employee of a contractor under contract with the

County that operates public works equipment in the course of their work duties for the County.

Grader means the equipment used to grade a road.

Grader operator means an employee of the County that operates a grader as part of his or her employment duties to the County.

Gravel road means a road with a minimum of 50 millimetres of surface gravel.

Local roads are roads that mainly deliver traffic from local residences and businesses to collector roads. Local roads receive little to no non-local commercial vehicles or other non-local traffic compared to the volume of local traffic of people who have homes or businesses along local roads. From highest traffic volumes to lowest traffic volumes: two and three digit highways >> arterial roads >> collector roads >> local roads.

Operations Supervisor means the Operations Supervisor as outlined in section 1.1.

Public Works Department means the Public Works Department of the municipal corporation of Westlock County.

Public Works Project means a public works project that is

- (a) approved by Council in a public Council meeting, and
- (b) carried out by the County Public Works Department, or
- (c) carried out by a private contractor.

road maintenance: road grading, shoulder pulling, backsloping to restore deteriorated backslope.

staff means employees of Westlock County.

1. RESPONSIBILITIES:

- 1.1. In regards to road maintenance, the Operations Supervisor of the County Public Works Department is responsible for directing the daily activities of equipment operators in their performance of road maintenance, including snow removal work.

1.2. In regards to road maintenance, the Director of Engineering and Infrastructure, or his designate, is responsible for:

- (a) Overseeing the County's road maintenance program,
- (b) inspecting County road maintenance projects,
- (c) advising on engineering matters, and
- (d) reporting to Council.

1.3. The Director of Engineering and Infrastructure, or his designate, will forward a written report to Council for their regularly scheduled meetings to make them aware of:

- (a) progress in the road maintenance program, and
- (b) any changes to the road maintenance program.

2. EXPLANATORY NOTE:

2.1. Unless specifically stated to the contrary, any mention of highways, roads, road networks, or any other term relating to roads, refers to roads where the County is the road authority according to Alberta legislation.

ROAD SURFACE MAINTENANCE

3. GRADING STANDARDS:

3.1. The County will grade gravel roads according to the following priority sequence:

- (a) arterial roads,
- (b) collector roads,
- (c) School bus routes,
- (d) hamlet roads,
- (e) local roads,
- (f) roads to graveyards,
- (g) community hall approaches and parking lots,
- (h) commercial / industrial haul routes.

3.2. The County will endeavor to grade gravel roads to the following standards:

- (a) the Crown of the road (cross slope) maintained at 3% to 5%,
- (b) vegetation on road shoulders removed,
- (c) existing width of roads maintained,
- (d) washboarding removed,
- (e) potholes removed,
- (f) ridges along shoulders removed,
- (g) super elevations on curves maintained.

3.3. All efforts will be made to meet the above-listed standards which may not be met at all times in all places across the County. Each grader operator grades roads to the above standard as they work through their assigned beat on a daily basis.

3.4. County graders will make a sufficient number of passes to grade the entire width of the road.

| Road Width | Number of Passes |
|-------------------|-------------------------|
| 9 metres or more | 5 minimum |
| 6 to 8 metres | 2 to 4 minimum |

3.5. Grader operators will grade the road in sections. Each section of road graded shall not exceed 2 miles in length.

3.6. Generally speaking, grading of arterial roads, collector roads and school bus routes in each beat should take up to five days.

3.7. The County will grade local roads that have little traffic once a month or on a request basis. The County will grade all other roads at least once a week.

4. GRAVELLING:

4.1. Every year, the Director of Engineering and Infrastructure, in co-operation with the grader operators, will develop a road gravelling program for the following year and submit it to Council by November 1st of the current year.

4.2. Council will review the County's gravel program annually.

4.3. The County aims to gravel at least 350 miles of road each year.

4.4. The County does not sell gravel to County ratepayers for personal use (See RESOLUTION #464/06, August 8, 2006).

4.5. The County may sell gravel to the following municipalities:

- (a)** The Village of Clyde,
- (b)** The Summer Village of Larkspur.

5. PROGRAM APPROVAL:

5.1. Maintenance Projects and Programs can be proposed by

- (a)** residents,
- (b)** businesses,
- (c)** Councilors,
- (d)** the Director of Engineering and Infrastructure,
- (e)** the Operations Supervisor to the Director of Engineering and Infrastructure,
- (f)** the Public Works Committee.

5.2. Council may direct the Director of Engineering and Infrastructure to

- (a)** assess a proposed maintenance project, and
- (b)** report back to Council within two weeks with recommendations.

5.3. Once the Director of Engineering and Infrastructure submits his recommendations for a proposal, Council has several options available to it that include, but are not limited to,

- (a)** requesting that the work begin in the current year, subject to budget availability,
- (b)** putting it on the project priority list for a subsequent year,
- (c)** requesting more information from administration, or
- (d)** tabling the proposed work.

6. MAILBOXES ON ROAD ALLOWANCES:

6.1. The placement of mailboxes on County road allowances are located at the sole risk of the mailbox owner regardless of

- (a)** whether or not the mailbox is placed in accordance with Canada Post standards,
- (b)** whether or not the mailbox location is approved by Westlock County.

- 6.2. The County will not accept responsibility for any damage caused by County employees while they are carrying out their County work duties in good faith.
- 6.3. If the County feels that the location of a mailbox poses a hazard to the public, County employees or to County equipment, the County may request that a landowner relocate his/her mailbox to a different location on their property.
- 6.4. The County reserves the right to seek compensation for any damages the County incurs due to mail boxes.

SNOW REMOVAL

7. GENERAL:

- 7.1. Snow conditions determine the type of equipment County staff use to clear snow off of roads. Snowplow trucks with sanding units are typically used for paved surfaces. Motor graders with snow wings and v-plows are typically used for gravel roads.
- 7.2. The County also uses motor graders on both paved and graveled roads to wing the snow down the shoulder. Other types of equipment may be necessary depending on the volume of snow to be removed and the specific characteristics of certain locations in which equipment sometimes have to work.
- 7.3. The County will also make arrangements with local contractors and farmers well before winter to obtain their assistance with snow removal work in severe conditions such as an abnormally large snowfall.
- 7.4. The County should maintain a good relationship and a good line of communication with the RCMP to ensure both agencies release accurate and coordinated information to the public in a timely manner concerning road conditions. This is particularly important when road driving conditions have deteriorated below “good winter driving conditions”.

7.5. Equipment operators shall mark hazards to equipment in their beat such as

- (a)** manholes,
- (b)** guardrail ends,
- (c)** bridge abutments,
- (d)** expansion joints,
- (e)** other hazards to equipment as determined necessary,

so that equipment operators can clearly determine the position of those hazards when they are doing snow removal work.

7.6. The County's snow removal standards outlined in this policy are based on an average winter snow storm. An average winter snow storm is defined as a snowstorm where

- (a)** snowfall ranges between three (3) and eight (8) centimetres,
- (b)** the air temperature is lower than minus ten degrees (-10°C),
- (c)** the wind velocity is less than 15 kilometres per hour.

7.7. If, in the opinion of the Operations Supervisor,

- (a)** visibility has been reduced to the point that it would be too hazardous to continue snow removal work, or
- (b)** any other significant hazard exists to equipment operators conducting snow removal operations,

the Director of Engineering and Infrastructure, the CAO, or their designates, may order equipment operators to move snowplows and other snow removal equipment off of the roads to safe locations until the hazard subsides.

7.8. If the County pulls snow removal crews off of roads as per section 7.7, the public shall be notified.

7.9. Occasionally severe storms may require the County to close roads. Under the authority of Part VI, subsection 3 of Bylaw No. 12-2012, the *Traffic Bylaw*, the following people have the authority to temporarily close a County road:

- (a) the CAO,
- (b) the Director of Engineering and Infrastructure,
- (c) a Peace Officer,

7.10. If the County closes a road as per section 7.9, the County will notify the public.

7.11. Equipment Operators should pull snowplows to the side of the road at least every one (1) kilometer, if required, to allow vehicle traffic to pass. This interval may have to be shortened when traffic is heavy or when rear visibility is obscured.

7.12. Equipment Operators driving snowplows must adjust their speed according to snow, wind and traffic conditions for the safety of themselves and surrounding traffic.

7.13. The highest recommended plowing speed is 20 to 25 kilometres per hour with their blades down under ideal conditions.

8. SNOW REMOVAL PRIORITIES AND STANDARDS:

8.1. Westlock County will conduct snow removal work according to the following priority sequence:

- (a) Arterial roads,
- (b) collector roads,
- (c) School bus routes,
- (d) hamlet roads,
- (e) local roads,
- (f) roads to graveyards,
- (g) community hall approaches and parking lots upon request,
- (h) private driveways with snow flags,
- (i) commercial / industrial haul routes.

8.2. Westlock County snow plow operators will make a sufficient number of passes to plow the entire width of the road.

9. SNOW REMOVAL FROM PAVED SURFACES:

- 9.1.** “Good winter driving conditions” exist on a paved road when ice and snow have been removed from the road and excessive loose snow has been removed from the shoulders and centerline of the road. Sections of ice and packed snow are acceptable and can be expected within the driving lanes between wheel paths as well as on the centerline.
- 9.2.** Given the wide variation in storms, the County may meet, exceed, or find the standard described in section 9.1 unattainable.
- 9.3.** If the County determines that “good winter driving conditions” are unattainable due to the severity of storm conditions, the County will notify the public by posting a notice on the main page of the County’s website and/or other means as the County deems appropriate.
- 9.4.** Even though “bare pavement” may often be achieved, it is not a standard to which the County aspires to due to constraints on its resources.
- 9.5.** The County’s basic strategy for snow removal and ice control is to first remove snow and ice with suitable equipment and then treat any remaining snow and ice with road salt, a road salt and sand combination, or some other de-icing mixture.
- 9.6.** The County will give priority to sections of road where accumulated snow and ice pose a particularly high risk such as
 - (a)** steep hills,
 - (b)** intersections,
 - (c)** curves,
 - (d)** high volume sections of road, and
 - (e)** rail road crossings
- 9.7.** County equipment operators will conduct the following “clean up” work as the equipment operators carry out snow removal work:
 - (a)** plowing shoulders of roads,
 - (b)** plowing intersections,
 - (c)** other locations the Public Works Department deems appropriate.

- 9.8.** The County generally will not begin removing snow from roads until after a storm has subsided. However, if a storm continues in excess of a day, the County will endeavor to begin snow removal operations on the second day of the storm and continue the snow removal operations until the road network has been covered once.
- 9.9.** If a snow storm continues beyond two days, snow removal operations will be repeated on the third day and every subsequent day that the storm continues.

10. SNOW REMOVAL FROM GRAVEL ROADS:

- 10.1.** “Good winter driving conditions” exist on a gravel roads when
- (a)** an appropriate amount of snow has been packed into the road surface to hold gravel in place and even out the road surface, and
 - (b)** excessive snow and ice have been removed from the shoulders and centerline of the road.
- 10.2.** Given the wide variation in storms, the County may meet, exceed, or find the standard described in section 10.1 unattainable.
- 10.3.** If the County determines that “good winter driving conditions” are unattainable due to the severity of storm conditions, the County will notify the public by posting a notice on the main page of the County’s website and/or other means as the County deems appropriate.
- 10.4.** The County will endeavor to begin snowplowing operations on gravel roads when
- (a)** at least 10 to 15 centimetres of snow has accumulated on the roads, or
 - (b)** winds have created snow drifts of more than 10-15 centimetres on roads.
- 10.5.** If the first snowfall of the winter leaves about 15 centimetres or less of snow on gravel roads, the County will leave the snow on the gravel roads to be packed in by traffic in order to freeze gravel in place.
- 10.6.** If the first snowfall of the winter leaves more than about 15 centimetres of snow on gravel roads, The County will endeavor to remove a layer of snow from gravel roads, leaving about 10 to 15 centimetres of snow to be packed in by traffic.

- 10.7.** Equipment Operators will be careful not to remove gravel from the road surface when carrying out snow removal duties.
- 10.8.** The County generally will not begin removing snow from gravel roads until after a storm has subsided. However, if a storm continues in excess of a day, the County will endeavor to begin snow removal operations on the second day of the storm and continue the snow removal operations until the road network has been covered once.
- 10.9.** If a snow storm continues beyond two days, snow removal operations will be repeated on the third day and every subsequent day that the storm continues.
- 10.10.** Residents clearing snow from their driveways are asked to push the snow to the right side of their driveway going out. Pushing it to the left side of a driveway near the edge of the road will cause County snowplows removing snow from roads to inadvertently push it back into the entrance of the driveway.
- 10.11.** Residents must not dispose of snow from their driveways by pushing it across the road. This can create unsafe driving conditions for other road users and, where the road is a gravel road, cause gravel loss from the road.

11. DE-ICING APPLICATIONS:

- 11.1.** Under many conditions, the application of suitable amounts of de-icing chemicals onto the roadway helps remove packed snow and ice. This improves vehicle traction. Sand/salt combinations or other de-icing chemicals are most often used on paved surfaces; however, de-icing chemicals can also be used on sections of gravel roads where there are hills, corners, curves, or other features that warrant the use of de-icing chemicals.
- 11.2.** Generally, the County will only use de-icing chemicals for three purposes:
- (a)** to remove snow and ice from roads that cannot be removed economically by equipment, and
 - (b)** to prevent ice formation and build up on roads,
 - (c)** to prevent County sand stockpiles from freezing.
- 11.3.** County equipment operators should conduct sanding operations at speeds in line with the road conditions but no greater than 60 kilometres an hour.

Equipment operators should reduce the speed of the spinner on sanding units to avoid hitting approaching vehicles with sand and damaging them.

- 11.4.** Equipment operators conducting sanding operations on roads with heavy traffic should sand only one lane at a time to avoid damaging other vehicles.

12. ICE-BLADING:

- 12.1.** Ice-blading involves the removal or roughening of ice and packed snow. Ice-blading may be carried out when sanding is not effective.

TRAFFIC CONTROL DEVICES

13. PLACEMENT OF YIELD SIGNS AND STOP SIGNS:

- 13.1.** The County will put up stop signs and yield signs at intersections where the County believes they are warranted.
- 13.2.** In placing a sign or signs at an intersection, the County will follow Alberta Transportations Recommended Practices for stop sign and yield sign installations.

14. REPLACEMENT OF TRAFFIC CONTROL DEVICES:

As per section 533 of the *Municipal Government Act*, The County is responsible for replacing damaged, defaced, or removed traffic control devices along County-managed roads within a reasonable period of time after becoming aware of any such problem.

MOTION: _____

DATE: _____

Peter Kelly
Chief Administrative Officer