

Proposed Coal Mine Road Closure Transportation Analysis

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Presented by:

Kent Eklund, P.Eng, MBA

Division Manager - Transportation

Associated Engineering

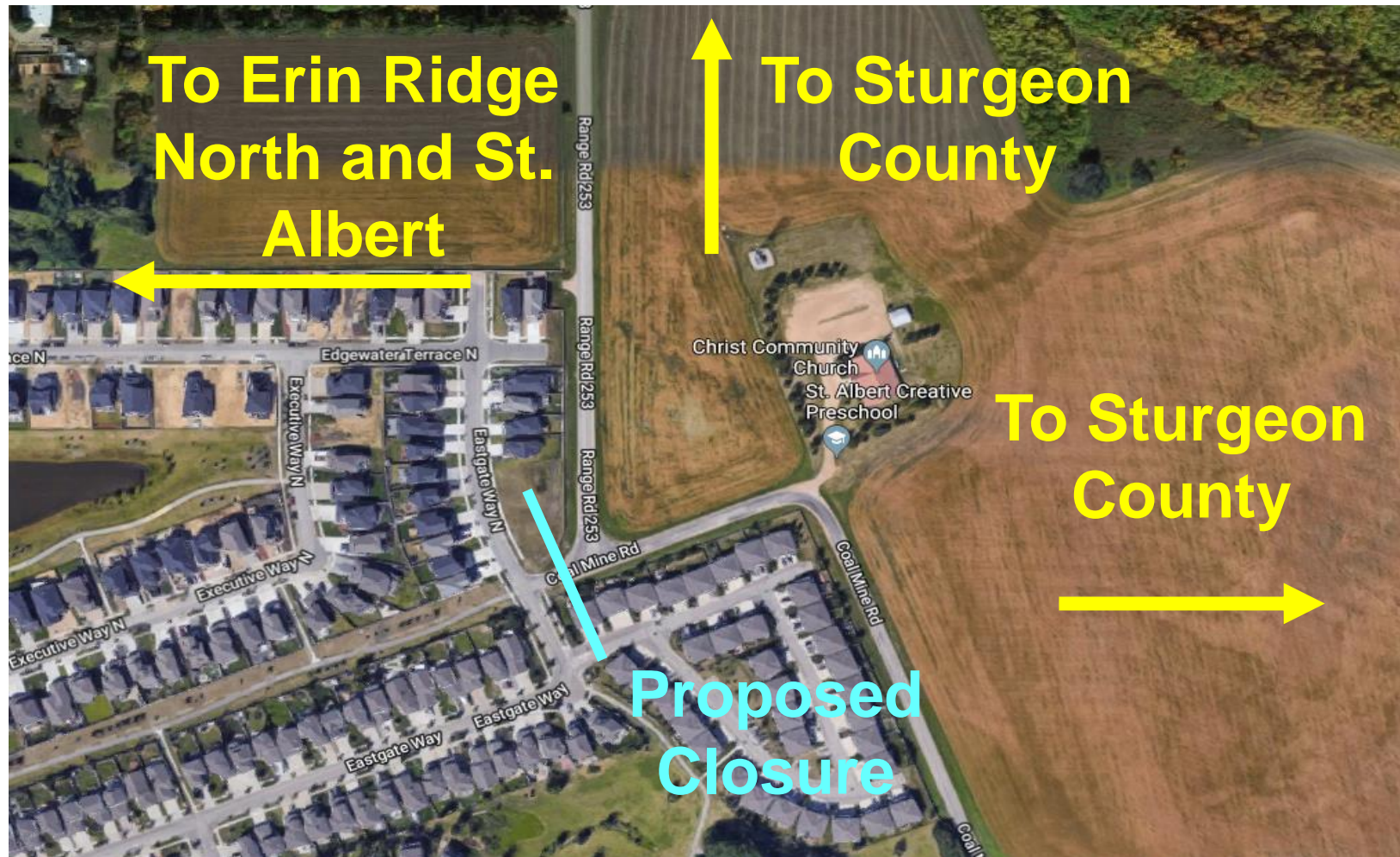


Presentation Outline

1. Location of Closure
2. Intersections Under Analysis
3. Travel Times
4. Existing Volumes
5. Impacts of Closure
6. Next Steps
7. Questions



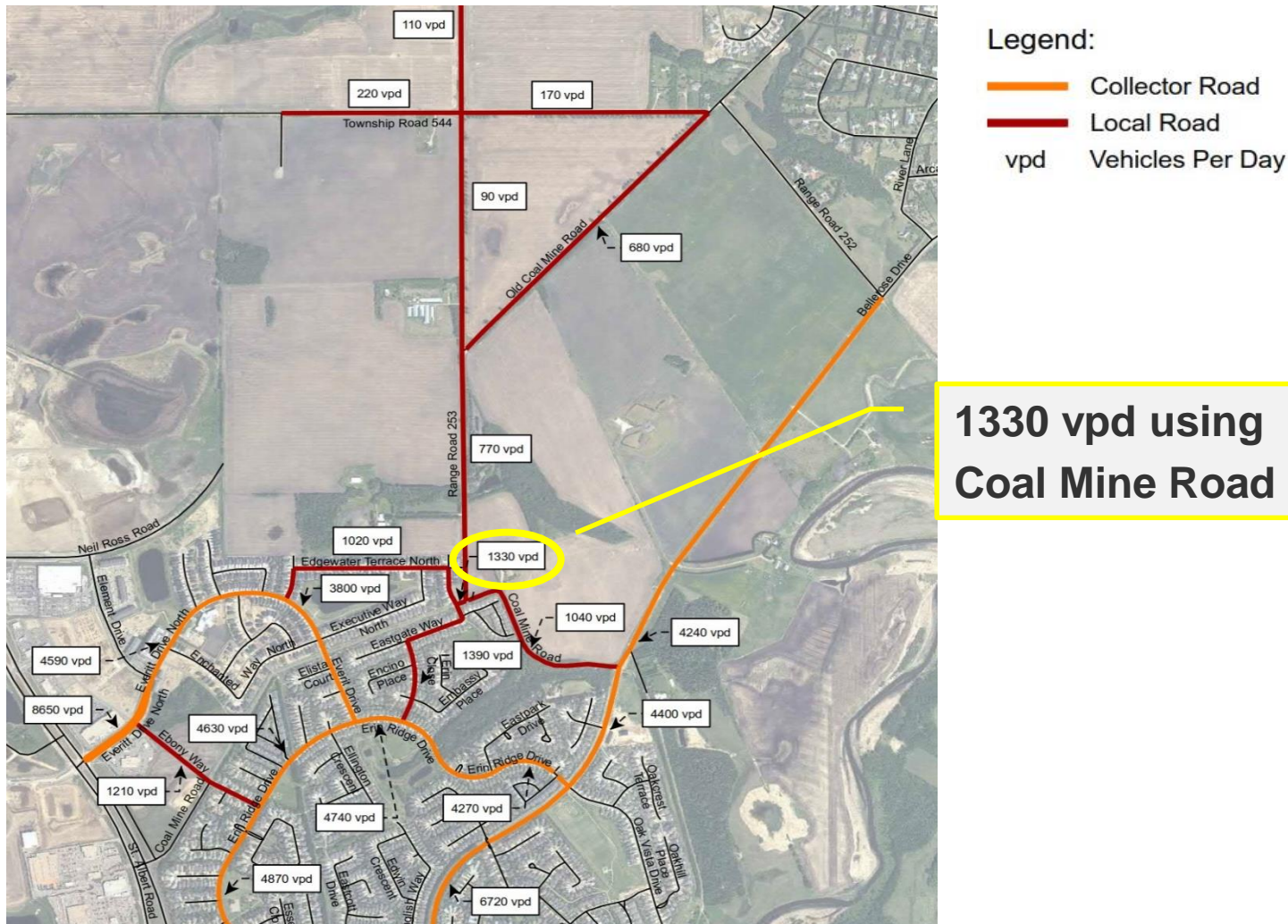
Location of Proposed Closure



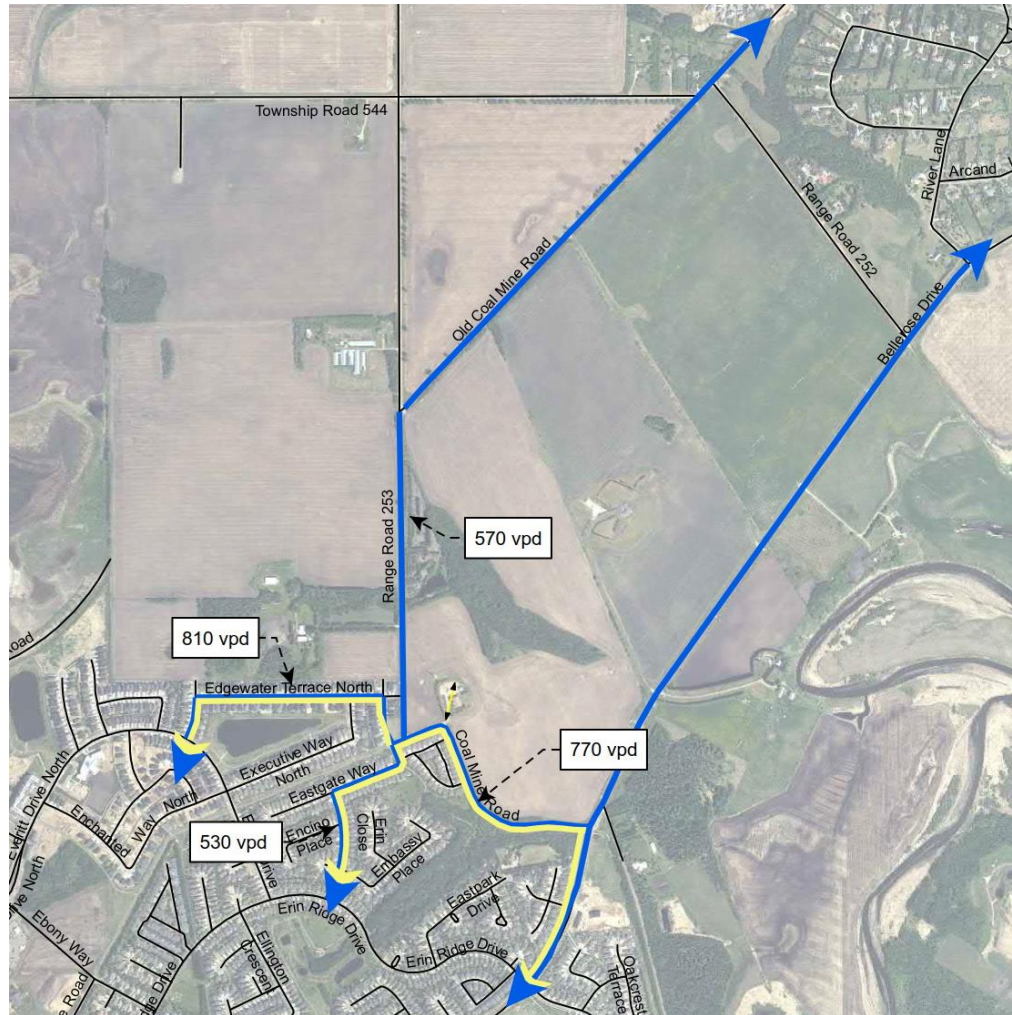
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- Site investigations (safety)
- Existing traffic pattern review (operations)
- Closure impact (re-routing)
- Intersection control warrants (existing and impact)
- Additional lighting review at two key intersections

Existing Traffic Volumes (2018)



Traffic Volumes Using Coal Mine Road



Legend:

Travel Routes

- Current travel to and from Sturgeon County and St. Albert Trail
- Current travel to and from the daycare
- vpd Vehicles Per Day

Traffic Volumes Pending Closure



Legend:

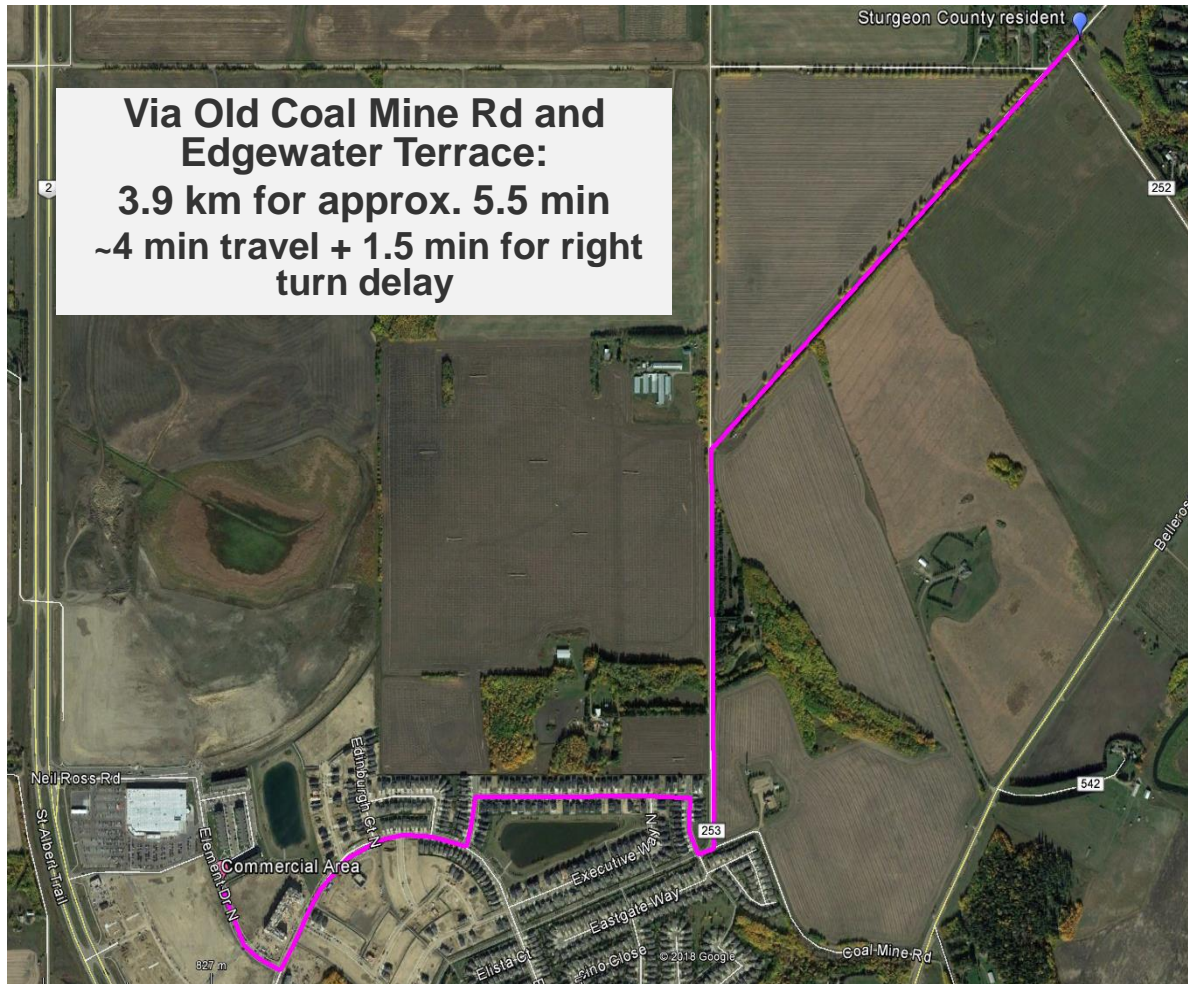
- Decrease in Traffic After Closure
- Increase in Traffic After Closure
- vpd Vehicles Per Day

Existing Travel Time – approx. 5.5 min

From
Sturgeon
County

Via Old Coal Mine Rd and
Edgewater Terrace:
3.9 km for approx. 5.5 min
~4 min travel + 1.5 min for right
turn delay

To
shopping
area

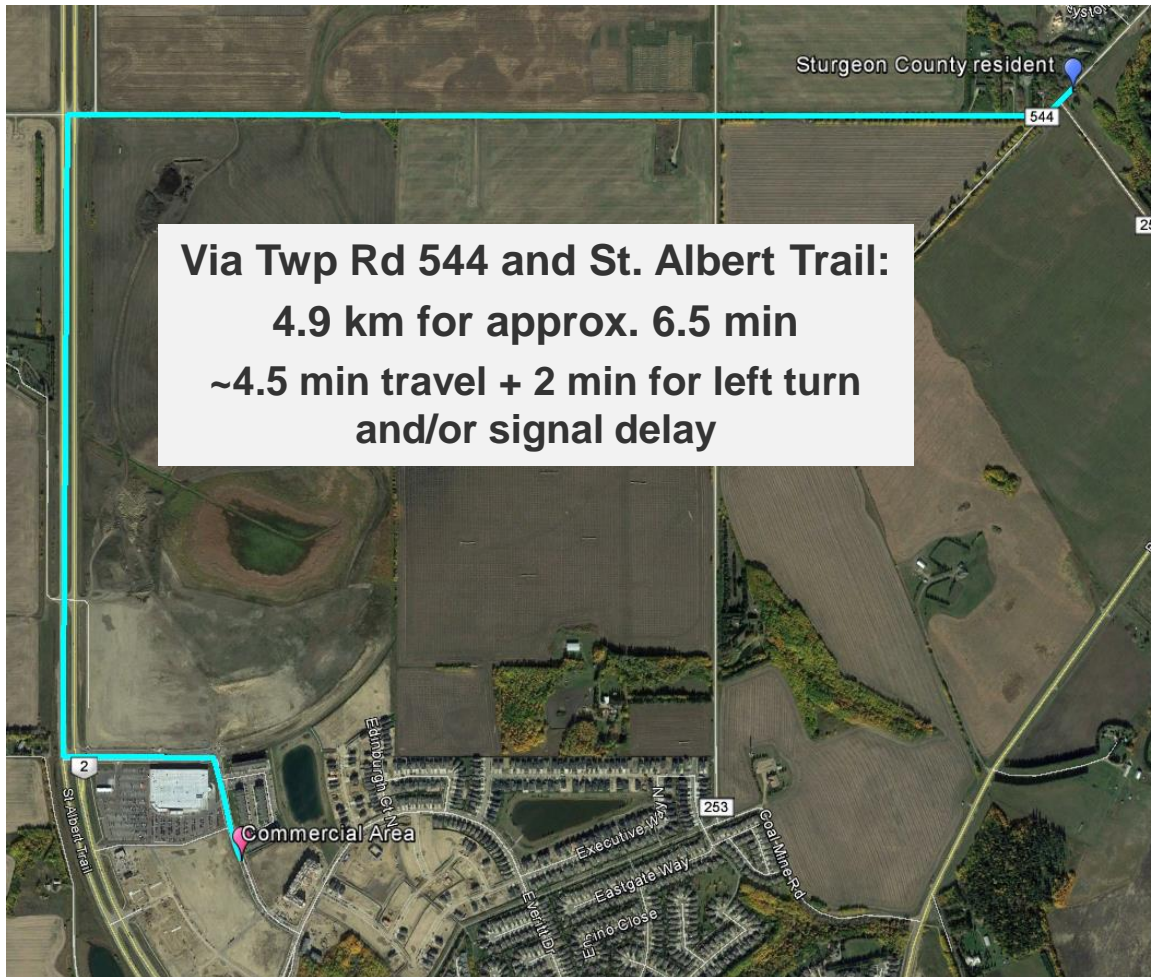


New Travel Time – approx. 6.5 min

From
Sturgeon
County

Via Twp Rd 544 and St. Albert Trail:
4.9 km for approx. 6.5 min
~4.5 min travel + 2 min for left turn
and/or signal delay

To
shopping
area



New Travel Time – approx. 7 min

From
Sturgeon
County

Via Bellerose / Erin Ridge / Everitt:
5.3 km for approx. 7 min
~5.5 min travel + 1.5 min for turn delay

To
shopping
area



Anticipated Impacts of Closure

Intersection	Resulting Effect	Recommendations After Closure
Hwy 2 and Twp Rd 544	Negligible ($< 5\%$ increase)	In consultation with Alberta Transportation and Sturgeon County, consider revisiting illumination warrant and replacing turndown end on barrier
Rge Rd 253 and Twp Rd 544	Negligible ($< 5\%$ increase)	In consultation with Sturgeon County, consider improving on existing minor safety deficiencies such as flattening vertical curve and steep side slopes
Rge Rd 253 and Old Coal Mine Rd	60% decrease in movements to/from Old Coal Mine Rd	In consultation with Sturgeon County, consider whether further traffic control (stop signs) is required and the possibility of relocating field access in intersection
Everitt Dr N and Eastview St N	70% decrease in movements to/from Eastview St N	Monitor and evaluate newly installed traffic calming measures

Anticipated Impacts of Closure

Intersection	Resulting Effect	Recommendations After Closure
Coal Mine Rd, Rge Rd 253 and Eastgate Way	Through movements cease. 10% increase between Rge Rd 253 and Coal Mine Rd.	The proposed closure will resolve many of the existing safety deficiencies
Bellerose Dr and Coal Mine Rd	Increase by 30%	<ul style="list-style-type: none"> - Realign Old Bellerose Dr as the south leg of the intersection. - Revisit illumination warrant with collision history - Add pedestrian crossing on the west side - Install a "Stop Ahead" sign on north leg
Bellerose Dr and Erin Ridge Dr / Oak Vista Dr	Increase by 20-25%	<ul style="list-style-type: none"> - Replace trees on northeast corner to improve sightlines - Adjust pararamps - Re-evaluate placement of bus stop

Anticipated Impacts of Closure

Intersection	Resulting Effect	Recommendations After Closure
Erin Ridge Dr and Eastgate Way	Decrease in turn volumes and increase in through volumes by 5-10%	<ul style="list-style-type: none"> - Consider traffic calming measures - Consider narrowing intersection - Re-evaluate placement of bus stop
Erin Ridge Dr and Everitt Dr	<5 % decrease in turning volumes 5-10% decrease in through volumes	<ul style="list-style-type: none"> - Further narrow existing traffic calming measure - Confirm signage
Everitt Dr N and Ebony Way	15% decrease	<ul style="list-style-type: none"> - Monitor and perform traffic control evaluations with the recent opening of Ebony Way - Re-evaluate planting in median for sightlines
Erin Ridge Dr and Ebony Way	5-10% increase	<ul style="list-style-type: none"> - Replace yield sign with stop sign - Monitor operations and traffic patterns - Confirm signage - Paint crosswalk lines

Township Road 544 – limited use

Influences on anticipated low use:

- Gravel road
- Westbound left turn (to southbound) at Hwy 2
- Highway 2 / St. Albert Trail north end congestion
- Increased travel distance to use it if you are heading south

Next Steps

Timeframe	Action – pending approval of closure
Immediate	Implement barriers and signage for the physical closure of the roadway
	Monitor all sites that were evaluated for the “pre” closure scenario: a. Confirm traffic patterns as per anticipated changes b. Address sites as needed using updated information Note – some time given for traffic patterns to “settle”
	Communicate and collaborate with Sturgeon County on site monitoring and analysis
	Continue Erin Ridge / Erin Ridge North Neighbourhood Traffic Calming Implementation

Next Steps

Timeframe	Action – pending approval of closure
Moderate to Long Term	Continue and finalize work associated with Transportation studies and planning associated with annexation
	Perform network studies and planning work associated with Neil Ross Road and associated connections
	Update Network Improvement Strategy and appropriate Project Charters for Transportation Network priorities and investment

Questions

