



Detailed Evaluation Results: Summary from County Line Road to Ackman Road

Need	Criteria	Measure of Effectiveness	No-Action Alternative	Alternative #1 (SPUI at Algonquin, Close Stonegate, Village, & Alexandra, Signalize Angela)	Alternative #2 (Grade-Separated Turning Lanes at Algonquin, Close Stonegate, Village, & Alexandra, and Signalize Angela (Cont. Green-T))	Alternative #3 (Additional Turning Lanes at Algonquin, Convert Village & Alexandra to Right-in/ Right-out, and Signalize Stonegate & Angela)	Alternative #4 (CFI at Algonquin, Convert Stonegate, Village, & Alexandra to Right-in/ Right-out, and Signalize Angela)
Regional Mobility	Arterial Operations	What is the Delay (sec)/Level of Service (A - F) for the whole corridor and signalized intersections?					
		<ul style="list-style-type: none"> Whole Corridor (seconds/vehicle) 	988	139	165	203	144
		<ul style="list-style-type: none"> County Line Road 	199.8 / F	40.0 / D	41.6 / D	42.5 / D	38.8 / D
		<ul style="list-style-type: none"> Harnish Drive 	311.4 / F	75.8 / E	59.9 / E	79.8 / E	50.2 / D
		<ul style="list-style-type: none"> Bunker Hill / Huntington Drive 	198.2 / F	65.6 / E	65.8 / E	70.9 / E	57.7 / E
		<ul style="list-style-type: none"> Stonegate Road (only for Alternative 3) 	-	-	-	91.6 / F	-
		<ul style="list-style-type: none"> Algonquin Road 	460.3 / F	28.5 / C	49.2 / D	93.4 / F	42.4 / D
		<ul style="list-style-type: none"> Acorn Lane / Polaris Drive 	351.1 / F	33.8 / C	75.1 / E	38.0 / D	45.8 / D
		<ul style="list-style-type: none"> Miller Road 	377.9 / F	42.5 / D	51.9 / D	44.1 / D	47.8 / D
		<ul style="list-style-type: none"> Angela Lane 	-	20.4 / C	14.3 / B	14.2 / B	14.6 / B
<ul style="list-style-type: none"> Ackman Road 	249.3 / F	41.5 / D	39.0 / D	35.9 / D	38.9 / D		
Local Access/ Deficiencies	Travel Time	What is the estimated corridor travel time (minutes)?	28.9	8.6	9.7	11.0	9.3
	Ease of Maintenance	What is the ease of maintenance based on the following categories:					
		<ul style="list-style-type: none"> Number of Traffic Signals? 	7	8	9	9	12
		<ul style="list-style-type: none"> Area of Pavement (acres)? 	35.2	51.3	59.5	48.5	52.4
		<ul style="list-style-type: none"> Length of Structures (bridges)? 	N/A	270 (along Randall)	1,425 (along Randall), 1,010 (along Algonquin)	N/A	N/A
		<ul style="list-style-type: none"> Number of Culverts? 	8	8	8	8	8
	<ul style="list-style-type: none"> Number of Open Access Points? 	42	21	21	37	31	
<ul style="list-style-type: none"> Number of proposed structures (catch basins, manholes, etc.) 	227	715	705	625	650		
Access Points Eliminated/ Modified along the Corridor	How many access points will be closed on Randall Road/Cross Roads?	0/0	20/10	20/20	4/3	10/9	
	How many access points will be converted to Right-In/Right-Out on Randall Road/Cross Roads?	0/0	1/12	1/8	1/12	1/15	
Pedestrian/ Bicycle Mobility	(Pedestrian Options Evaluation to be completed under Community Values)						
Community Values	Amount of New ROW	What is the required ROW acquisition (acres)?	0	23.7	22.3	14.3	16.7
	Estimated Capital Cost	What is the estimated construction cost of the alternative	0	\$137.2 M	\$165.7 M	\$59.4 M	\$79.0 M
	Public Support	Does the public support the alternative? (Based on Public Meeting #2 Comments)	-	To be determined	To be determined	To be determined	To be determined
	Potential Relocations (commercial/ residential)	How many residences and commercial buildings are located within proposed ROW? Note: Number may increase based on access changes	0	6	3	0	4
		How many residences and commercial buildings are located within 20 feet of proposed ROW?	0	13	5	8	4
	Parking Impacts	How many parking spaces are impacted vs total parking spaces?	0/0	443 / 9,625	264 / 9,625	108 / 9,625	216 / 9,625
	Aesthetics / Visual	Is the alternative aesthetically / visually pleasing? (Low, Medium, High)	-	Low	Low	Medium	Medium
	Amount of Sensitive Environmental Impacts	What are the potential wetland impacts (acres)?	0	1.47	0.81	0.78	0.85
		What are the potential floodplain (100-year) impacts (acres)?	0	2.14	1.84	1.80	1.80
		What are the potential agriculture land impacts (acres)?	0	0.14	0.55	0.62	0.62
		What are the potential special waste impacts (number of properties)?	0	4	5	4	4
		What are the potential park impacts (number of parks/acres)?	0	2 / 1.15	1 / 1.09	1 / 1.06	1 / 1.06
		What are the potential water quality impacts (acres of impervious pavement increase)?	0	20.7	24.2	13.6	15.5
		What are the potential stream impacts?	-	Reroute Woods Creek Trib. Channel	Reroute Woods Creek Trib. Channel	Reroute Woods Creek Trib. Channel	Reroute Woods Creek Trib. Channel
What are the potential geotechnical needs?		-	Floating Pavement Required	Floating Pavement Required	Floating Pavement Required	Floating Pavement Required	
What are the air quality impacts (pounds VOC)?	347	69	72	82	83		



Detailed Evaluation Results: South Section, County Line Road to Miller Road

Need	Criteria	Measure of Effectiveness	No-Action Alternative	Alternative #1 (SPUI at Algonquin, and Close Stonegate)	Alternative #2 (Grade-Separated Turning Lanes at Algonquin, and Close Stonegate)	Alternative #3 (Additional Turning Lanes at Algonquin, and Signalize Stonegate)	Alternative #4 (CFI at Algonquin, and Convert Stonegate to Right-in/Right-out)
Regional Mobility	Arterial Operations	What is the Delay (seconds)/Level of Service (A through F) for the whole corridor and signalized intersections?					
		• Whole Corridor (seconds/vehicle)	988	139	165	203	144
		• County Line Road	199.8 / F	40.0 / D	41.6 / D	42.5 / D	38.8 / D
		• Harnish Drive	311.4 / F	75.8 / E	59.9 / E	79.8 / E	50.2 / D
		• Bunker Hill Road/Huntington Drive	198.2 / F	65.6 / E	65.8 / E	70.9 / E	57.7 / E
		• Stonegate Road (only for Alternative 3)	-	-	-	91.6 / F	-
		• Algonquin Road	460.3 / F	28.5 / C	49.2 / D	93.4 / F	42.4 / D
		• Acorn Lane/Polaris Drive	351.1 / F	33.8 / C	75.1 / E	38.0 / D	45.8 / D
		• Miller Road	377.9 / F	42.5 / D	51.9 / D	44.1 / D	47.8 / D
Local Access / Deficiencies	Travel Time	What is the estimated corridor travel time (minutes)?	23.2	6.3	7.4	8.9	7.1
	Ease of Maintenance	What is the ease of maintenance based on the following categories:					
		• Number of Traffic Signals?	6	6	7	7	10
		• Area of Pavement (acres)?	27.1	41.8	50.0	37.3	41.2
		• Length of Structures (bridges, Feet)?	-	270 (along Randall)	1,425 (along Randall), 1,010 (along Algonquin)	N/A	N/A
		• Number of Culverts?	7	1	1	1	1
		• Number of Open Access Points?	35	17	17	31	25
		• Number of proposed structures (catch basins, manholes, etc.)	175	560 plus potential need for a pump station	550 plus potential need for a pump station	470	495
Access Points Eliminated/ Modified along the Corridor	How many access points will be closed on Randall Road/Cross Roads?	0/0	17/10	17/20	3/3	9/9	
	How many access points will be converted to Right-In/Right-Out on Randall Road/Cross Roads?	0/0	0/12	0/8	0/12	0/15	
Pedestrian/ Bicycle Mobility	(Pedestrian Options Evaluation to be completed under Community Values)						
Community Values	Amount of New ROW Required	What is the required ROW acquisition (acres)?	0	20.73	19.05	10.39	12.85
	Estimated Capital Cost	What is the estimated construction cost of the alternative (Million \$)	0	\$126.8 M	\$155.4 M	\$47.0 M	\$66.6 M
	Public Support	Does the public support the alternative? (Based on Public Meeting #2 Comments)	-	To be determined	To be determined	To be determined	To be determined
	Potential Relocations (residential/ commercial)	How many residential and commercial buildings are located within proposed ROW? Note: Number may increase based on access changes	0	6	3	0	3
		How many residences and commercial buildings are located within 20 feet of proposed ROW?	0	12	4	5	3
	Parking Impacts	How many parking spaces are impacted vs total parking spaces?	0/0	443 / 9,000	264 / 9,000	108 / 9,000	216 / 9,000
	Aesthetics / Visual	Is the alternative aesthetically / visually pleasing? (Low, Medium, High)	-	Low	Low	Medium	Medium
	Amount of Sensitive Environmental Impacts	What are the potential wetland impacts (acres)?	0	1.47	0.81	0.75	0.81
		What are the potential floodplain (100-year) impacts (acres)?	0	2.14	1.84	1.80	1.80
		What are the potential agriculture land impacts (acres)?	0	0.00	0.00	0.00	0.00
		What are the potential special waste impacts (no. of properties)?	0	4	5	4	4
		What are the potential park impacts (number / acres)?	0/0	2 / 1.15	1 / 1.09	1 / 1.06	1 / 1.06
		What are the potential water quality impacts (acres of impervious pavement increase)?	0	17.7	20.9	10.1	12.0
What are the potential geotechnical needs?		-	Floating Pavement Required	Floating Pavement Required	Floating Pavement Required	Floating Pavement Required	
What are the potential stream impacts?	-	Reroute Woods Creek Trib. Channel	Reroute Woods Creek Trib. Channel	Reroute Woods Creek Trib. Channel	Reroute Woods Creek Trib. Channel		



Detailed Evaluation Results: North Section, North of Miller Road to Ackman Road

Need	Criteria	Measure of Effectiveness	No-Action Alternative	Alternative #1 (Close Village & Alexandra, and Signalize Angela)	Alternative #2 (Close Village, & Alexandra, and Signalize Angela (Cont. Green-T))	Alternative #3 (Convert Village & Alexandra to Right-in/Right-out, and Signalize Angela)	Alternative #4 (Convert Village & Alexandra to Right-in/Right-out, and Signalize Angela)
Regional Mobility	Arterial Operations	What is the Delay (seconds)/Level of Service (A through F) for the whole corridor and signalized intersections?					
		<ul style="list-style-type: none"> Whole Corridor (seconds/vehicle) 	988	139	165	203	144
		<ul style="list-style-type: none"> Angela Lane Ackman Road 	- 249.3 / F	20.4 / C 41.5 / D	14.3 / B 39.0 / D	14.2 / B 35.9 / D	14.6 / B 38.9 / D
Local Access/ Deficiencies	Travel Time	What is the estimated corridor travel time (minutes)?	5.8	2.3	2.3	2.0	2.1
	Ease of Maintenance	What is the ease of maintenance based on the following categories:					
		<ul style="list-style-type: none"> Number of Traffic Signals? 	1	3	3	4	3
		<ul style="list-style-type: none"> Area of Pavement (acres)? 	8.1	9.5	9.5	11.2	11.2
		<ul style="list-style-type: none"> Length of Structures (bridges, feet)? 		N/A	N/A	N/A	N/A
		<ul style="list-style-type: none"> Number of Culverts? 	1	1	1	1	1
	Access Points Eliminated/ Modified along the Corridor	<ul style="list-style-type: none"> Number of Open Access Points? Number of proposed structures (catch basins, manholes, etc.) 	7 52	4 155	4 155	6 155	6 155
		How many access points will be closed on Randall Road/Cross Roads?	0/0	3/0	3/0	1/0	1/0
	How many access points will be converted to Right-In/Right-Out on Randall Road/Cross Roads?		1/0	1/0	1/0	1/0	
Pedestrian/ Bicycle Mobility	(Pedestrian Options Evaluation to be completed under Community Values)						
Community Values	Amount of New ROW Required	What is the required ROW acquisition (acres)?		2.93	3.24	3.88	3.88
	Estimated Capital Cost	What is the estimated construction cost of the alternative (Million \$)		\$10.4 M	\$10.3 M	\$12.4 M	\$12.4 M
	Public Support	Does the public support the alternative? (Based on Public Meeting #2 Comments)		To be determined	To be determined	To be determined	To be determined
	Potential Relocations (residential/ commercial)	How many residential and commercial buildings are located within proposed ROW? Note: Number may increase based on access changes		0	0	0	1
		How many residences and commercial buildings are located within 20 feet of proposed ROW?		1	1	3	1
	Parking Impacts	How many parking spaces are impacted verses total parking spaces?		0 / 625	0 / 625	0 / 625	0 / 625
	Aesthetics / Visual	Is the alternative aesthetically / visually pleasing?	-	Medium	Medium	Medium	Medium
	Amount of Sensitive Environmental Impacts	What are the potential wetland impacts (acres)?		0.00	0.01	0.04	0.04
		What are the potential floodplain (100-year) impacts (acres)?		0.00	0.00	0.00	0.00
		What are the potential agriculture land impacts (acres)?		0.14	0.55	0.62	0.62
What are the potential special waste impacts (no. of properties)?			0	0	0	0	
What are the potential park impacts (number / acres)?			0 / 0.00	0 / 0.00	0 / 0.00	0 / 0.00	
	What are the potential water quality impacts (acres of impervious pavement increase)?		3.0	3.3	3.5	3.5	



Detailed Evaluation Results: Pedestrian Options*

Need	Criteria	Measure of Effectiveness	East Multi-Use Path	West Multi-Use Path	Bunker Hill Overpass	Parks/ Woods Creek Underpass	Miller Overpass	Angela Overpass	
Regional Mobility	Arterial Operations	What is the Delay (seconds)/Level of Service (A through F) for the whole corridor and signalized intersections?	N/A	N/A	N/A	N/A	N/A	N/A	
Local Access/ Deficiencies	Travel Time	What is the estimated corridor travel time (minutes)?	N/A	N/A	N/A	N/A	N/A	N/A	
	Ease of Maintenance	What is the ease of maintenance based on the following categories:							
		• Number of Traffic Signals?		N/A	N/A	N/A	N/A	N/A	N/A
		• Area of Pavement (acres)?		14,430	14,430	6,140	6,130	6,130	6,020
		• Length of Structures (bridges)?		N/A	N/A	-	-	-	-
		• Number of Culverts?		Need to extend all 8 culverts	Need to extend all 8 culverts	N/A	N/A	N/A	N/A
	• Number of Open Access Points?		N/A	N/A	N/A	N/A	N/A	N/A	
• Number of proposed structures (catch basins, manholes, etc.)		20	20	N/A	N/A	N/A	N/A		
Access Points Eliminated/ Modified along the Corridor	How many access points will be closed on Randall Road/Cross Roads?		0/0	0/0	0/0	0/0	0/0	0/0	
	How many access points will be converted to Right-In/Right-Out on Randall Road/Cross Roads?		0/0	0/0	0/0	0/0	0/0	0/0	
Pedestrian/ Bicycle Mobility	(Pedestrian Evaluation for Alternative 1 (b) to be completed under Community Values)								
Community Values	Amount of New ROW Required	What is the required ROW acquisition (acres)?	6.86	5.26	0.18	0.19	0.22	0.12	
	Estimated Capital Cost	What is the estimated construction cost of the alternative (Millions \$)	\$ 11.28 M	\$ 8.87 M	\$ 1.38 M	\$ 1.51 M	\$ 1.40 M	\$ 1.23 M	
	Public Support	Does the public support the alternative? (Based on Public Meeting #2 Comments)	To be determined	To be determined	To be determined	To be determined	To be determined	To be determined	
	Potential Relocations (residential/ commercial)	How many residential and commercial buildings are located within proposed ROW? Note: Number may increase based on access changes	3	3	0	0	0	0	
	Parking Impacts	How many parking spaces are potentially impacted vs total parking spaces?	157/9,625	80/9,625	0/0	0/0	0/0	0/0	
	Aesthetics / Visual	Is the alternative aesthetically / visually pleasing?	To be determined	To be determined	To be determined	To be determined	To be determined	To be determined	
	Amount of Sensitive Environmental Impacts	What are the potential wetland impacts (acres)?		0.73	0.57	0.07	0.04	0.05	0.00
		What are the potential floodplain (100-year) impacts (acres)?		0.71	1.10	0.00	0.19	0.20	0.00
		What are the potential agriculture land impacts (acres)?		0.57	0.00	0.00	0.00	0.00	0.02
		What are the potential special waste impacts (no. of properties)?		1	4	0	0	0	0
What are the potential park impacts (number / acres)?			1/0.12	1/0.46	0/0.00	0/0.00	1/0.11	0/0.00	
What are the potential water quality impacts (acres of impervious pavement increase)?			3.4	3.4	0.036	0.040	0.040	0.030	
What are the potential stream impacts?						Reroute Woods Creek Trib. Channel			
What are the potential geotechnical needs?		Floating Pavement Required	Floating Pavement Required	-	Floating Pavement Required	-	-		

Note:

* The impacts represented in this table are additional impacts based on each pedestrian option; the impacts can be added to Alternatives 1 to 4. The impacts shown were calculated based on Alternative 1 with implementation of the SPUI interchange at Algonquin. The actual impacts for each of the pedestrian options will differ slightly depending on which alternative they are applied to.