

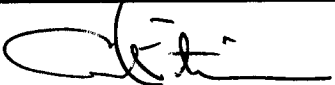
Request for Recommendation Priorities Committee

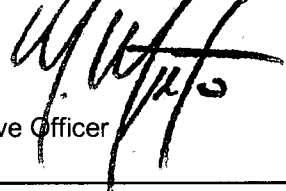


Type of Decision									
Meeting	June 28, 2006				Report Date	June 23, 2006			
Decision Requested	☒	Yes	☐	No	Priority	☒	High	☐	Low
	Direction Only				Type of Meeting	☒	Open	☐	Closed

Report Title
Winter Operations Implementation Update 2007

Budget Impact / Policy Implication	Recommendation
This report has been reviewed by the Finance Division and the funding source has been identified. Roads Anticipated increase in 2007 budget over 2006 budget: Option 1 - \$1,700,000 Option 2 - \$4,100,000 Option 3 - \$3,100,000 Sidewalks Anticipated increase in 2007 budget over 2006 budget: Option A - \$0 Option B - \$300,000 Option C - \$600,000	That Council continues to support the CGS Minimum Winter Maintenance Standards approved in November 2005; That Staff proceed implementing and executing Option ____ for Winter Roads Maintenance; That Staff proceed implementing and executing Option ____ for Sidewalks Winter Maintenance; and That Council authorize staff to proceed with the tendering of winter maintenance contracts and include in the 2007 Budget. All in accordance with the reports prepared by the General Manager of Infrastructure and Emergency Services, dated June 16 and 22, 2006.
☒ Background Attached	Recommendation Continued

Recommended by the Department
 Alan Stephen, General Manager of Infrastructure & Emergency Services

Recommended by the C.A.O.
 Mark Mieto Chief Administrative Officer

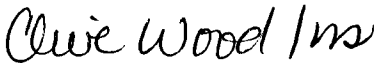
Report Prepared By	Division Review
 Clive Wood, CET Operations Manager	 Robert M. Falcioni, P.Eng. Director of Roads & Transportation

TABLE 1
Winter Operations Service Level Standards Snow Accumulation

Road Class	Depth (cm)	Max. Time (hrs)
1	2.5	3
2	5	5
3	8	8
4	8	8
5	8	16
6	10	24

TABLE 2
Ice Accumulation Response Times

Road Class	Cycle Time (hrs)
1	3
2	4
3	8
4	12
5	16
6	None

TABLE 3
Sidewalks

Sidewalk Class	Depth		Response	
	Planned	Maximum	Planned	Maximum
1	2.5	15	4	24
2	5	15	8	24
#1 - All sidewalks adjacent to Class 1 to 3 roads				
#2 - Sidewalks on one side of Class 4 to 6 roads where there are two sidewalks present				

Winter Roads Maintenance

Options Comparison			
	Option #1 End of Winter 2005/2006	Option #2 Enhanced Class 1 -3	Option #3 Blended Option
Design	- legislative changes to hours of work (December 2004) were implemented. 24 hour service, Monday to Friday, to arterial and collector roads (Class 1 - 3). - potholes and snow removal accomplished with same crews between events. - add 9 additional units. 13 hour service on rural and residential, overtime after 8 hours.	- legislative changes to hours of work (December 2004) were implemented. 24 hour service, Monday to Friday, to arterial and collector roads (Class 1 - 3). - potholes and snow removal accomplished with same crews between events. - add 14 additional units. 2 hour service time on Class 1 road (> 70 km/hr). 3 hour service time on Class 1 - 3 roads ($\leq$ 70 km/hr). 8 hour service time on Class 4 - 6 roads, preferably from midnight to 8:00 a.m., where possible. 8 to 13 hour sanding on Class 4 - 6 roads, preferably from midnight to 8:00 a.m., where possible. - extend rural and residential service levels by providing plow coverage 24 hours per day, 7 days per week when req'd	- legislative changes to hours of work (December 2004) were implemented. 24 hour service, Monday to Friday, to arterial and collector roads (Class 1 - 3) - potholes and snow removal accomplished with same crews between events. 3 hour service time on Class 1 - 3 roads 8 hour service time on Class 4 - 6 roads, preferably from midnight to 8:00 a.m., where possible. 8 to 13 hour sanding on Class 4 - 6 roads after completion of plowing - extend rural and residential service levels by providing plow coverage 24 hours per day, 7 days per week, when req'd
Class 1-3 Sanding/Salting/Plowing	\$4,300,000	\$5,300,000	\$4,300,000
Class 4-6 Sanding/Salting/Plowing	\$2,300,000	\$3,700,000	\$3,700,000
Winter Ditching/ Spring Cleanup	\$900,000	\$900,000	\$900,000
Snow Removal	\$850,000	\$850,000	\$850,000
Winter Miscellaneous	\$900,000	\$900,000	\$900,000
Supervision	\$1,100,000	\$1,100,000	\$1,100,000
Training	\$350,000	\$350,000	\$350,000
Materials - Salt/Sand	\$1,400,000	\$1,400,000	\$1,400,000
Estimated Cost	\$12,100,000	\$14,500,000	\$13,500,000
2006 Budget	\$10,400,000	\$10,400,000	\$10,400,000
Estimated Increase	\$1,700,000	\$4,100,000	\$3,100,000

Winter Operations Implementation Update Option 1

Arterial Routes 1 - 3							Residential and Rural Routes (4-6)						
Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Crew #1 8 Hours 40 Hours Arterial Routes 23 Beats/Vehicles							3rd String 41 Beats CGS/Contractors - 41 multiplow or graders with drivers 13 hrs available overtime @ 1.5 x rate Probability of deployment 17 major storms and 25% of 108 incidents maximum 26 callouts - 6 mon pd.						
Crew #2 8 Hours 40 Hours Arterial Routes 23 Beats/Vehicles							3rd String 41 Vehicles 13 hrs available overtime @ 2 x rate 17 major storms 40% probability of 25 maximum 10 call outs on Saturdays						
Crew #3 8 Hours 40 Hours Arterial Routes 23 Beats/Vehicles													

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11:00 p.m.
11:59 p.m.

Sidewalks	
Option A	Maintain current service levels with sidewalks serviced within 24 hours, under normal circumstances. 19 Routes @ \$0.9 M
Option B	Existing (2005/2006) sidewalks maintained with enhanced service times to complete plowing of sidewalks within 8 hours and snow blowing within 12 hours, under normal circumstances. 25 Routes @ \$1.2 M
Option C	Re-design sidewalk routes to include sidewalks on one side of all roads where they exist and both sides of arterial roads where they exist. This option addresses the areas that do not currently receive sidewalk maintenance. Increase service time to 8 hours under normal conditions and snow blowing to 12 hours. 32 Routes @ \$1.5 M

Winter Operations Implementation Update Option 2

Arterial Routes 1 - 3							Residential and Rural Routes (4-6)						
Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
00:01 a.m.	Crew #1 8 Hours 40 Hours Arterial Routes 28 Beats/Vehicles						3rd String 41 Beats contractors - 41 multiplovers or graders with drivers 24 Hrs, 7 days a week Probability of deployment 17 major storms and 25% of 108 incidents maximum 26 callouts - 6 mon pd.						
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Winter Operations Implementation Update Option 3

Arterial Routes 1 - 3							Residential and Rural Routes (4-6)						
Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
00:01 a.m.	Crew #1 8 Hours 40 Hours Arterial Routes 23 Beats/Vehicles						3rd String 41 Beats contractors - 41 multiplows or graders with drivers 24 Hrs, 7 days a week Probability of deployment 17 major storms and 25% of 108 incidents maximum 26 callouts - 6 mon pd.						
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Option C	Re-design sidewalk routes to include sidewalks on one side of all roads where they exist and both sides of arterial roads where they exist. This option addresses the areas that do not currently receive sidewalk maintenance. Increase service time to 8 hours under normal conditions and snow blowing to 12 hours. 32 Routes @ \$1.5 M

SIDEWALK WINTER MAINTENANCE			
	Option A	Option B	Option C ⁽¹⁾
Design	Sidewalks currently receiving winter maintenance will continue to be maintained at existing service levels (up to 24 hours under normal conditions).	Sidewalks currently receiving winter maintenance will receive enhanced service levels to complete plowing within 8 hours and snow blowing within 12 hours, under normal conditions.	Option B plus expand service to include winter maintenance on existing sidewalks on one side of all residential streets and two sides of arterial streets.
Routes	19	25	32
Estimated Cost	\$0.9 Million	\$1.2 Million	\$1.5 Million

⁽¹⁾ Option C meets recommended sidewalk standards.