

**COMMITTEE OF THE WHOLE (WORKING SESSION) NOVEMBER 27, 2001**

**WINTER MAINTENANCE UPDATE**

**Recommendation**

The Commissioner of Development Services and Public Works recommends:

1. That Council confirm the following service level objectives for winter maintenance:

Primary Roads - Ploughing

- Road ploughing operations commence on Primary roads when accumulations reach 5 cm, or 2 inches.
- One complete pass of road ploughing of Primary roads should be completed within 4 hours of starting, based on an average snowfall, with final completion time being 4 hours after the cessation of the snowfall.
- Re-ploughing of Primary roads may be necessary if accumulations exceed 5 cm or 2 inches during the storm.

Primary Roads – Salting / Sanding

- Salting / sanding shall commence on Primary roads when snow or ice starts to accumulate on the traveled portion of the roadway, causing slippery driving conditions.
- Salting / sanding shall be used to maintain Primary roads in a bare pavement condition, until such actions become ineffective due to temperature, severity of the storm, or other conditions.
- One complete pass of road salting / sanding should be completed within 4 hours of starting salting / sanding operations.

Secondary Roads - Ploughing

- Road ploughing on Secondary roads commence when accumulations exceed 5 cm or 2 inches and after all Primary roads have been completed.
- One complete pass of road ploughing should be completed within 12 hours of starting ploughing operations on secondary roads, based on an average snowfall, with final completion being 12 hours after the cessation of the snowfall.

Secondary Roads – Salting / Sanding

- Salting / sanding shall commence on Secondary roads only after all Primary roads have been maintained, and when snow accumulations on the traveled portion of the roadway are less than 5 cm or 2 inches.
- One complete pass of road salting / sanding should be completed within 12 hours of starting salting / sanding operations.
- Salting / sanding shall be used to maintain Secondary roads in a limited bare pavement condition after ploughing operations.

Rear Lanes

- Rear lanes are maintained primarily through the application of salt/sand, and only after all other roads have been completed.
- If, after salting and sanding operations accumulations reach 15 cm or 6 inches, or severe rutting occurs, snow removal shall take place.

### Sidewalks – Ploughing

- Ploughing of Primary sidewalks commence when 5 cm or 2 inches of snow have accumulated.
- One complete pass of sidewalk ploughing on Primary sidewalks should be completed within 4 hours of starting, based on average conditions
- Secondary sidewalks be ploughed, only after all Primary sidewalks have been cleared
- One complete pass of all Secondary sidewalks should be completed within 16 hours after starting
- In snow storms with accumulations of less than 5cm or 2", the specific course of action will be determined by the Supervisor, taking into account snow depths, type of snow, drifting, icy conditions etc. in order to remedy the situation. Such actions may include limited ploughing, sanding/salting, or no action.

### Windrow Clearing

- A ratio of one windrow clearing machine to each road plough shall be maintained during ploughing operations.

### Continuing Storms

- Where storms are of such a nature that the above noted standards are exceeded, priority for service will be established based on the higher class of road or sidewalk receiving service before any lower class of road or sidewalk.

### Accidents and Vehicle Breakdown

- In cases of accidents, mechanical breakdown, or other operational problems, the above ploughing times and windrow clearing ratios may be exceeded.
2. That a further report be brought forward to Council regarding towing of parked vehicles that block snow ploughing efforts.
  3. That City staff only clear the windrow created by the road plough at Canada Post Mail Boxes;
  4. That Council receive the public communications plan contained in this report.
  5. That Council receive the presentation on the Global Positioning System (GPS), that will be used to track the City's winter maintenance vehicles.
  6. That Council authorize Public Works staff to negotiate with Storage Systems Construction Corp. to construct a second salt storage facility with an upset limit of \$250,000

### **Purpose**

To seek Council confirmation on the current levels of service for winter maintenance, and to provide information on the City's winter maintenance programs.

## **Background - Analysis and Options**

### **A. Levels of Service**

Until now, levels of service have either been inherited through service contracts, or have been set by staff, based on their experience. Some of these service levels were reported to the Province through the Municipal Performance Measures Program earlier this year. However, formal Council recognition of these service levels would assist in the development of future service contracts, provide stronger defense for claims, and assist in responding to residents' enquiries on the City's service levels.

The levels of service outlined in the recommendations are either included in existing winter maintenance contracts, or are department policies, and include efficiencies identified earlier to Council. Therefore, it is recommended that the winter road and sidewalk maintenance standards, as outlined in the recommendation section of this report, be approved.

### **B. Towing of Vehicles**

One of the more serious problems in maintaining the secondary roads is the result of people who park illegally, or deliberately, thereby blocking the ploughs from clearing the snow. In discussions with staff and the ploughing contractors, this issue has come up over and over. Numerous times, Supervisory staff have been called to streets by the plough operators to find that a parked car is blocking the plough. This results in delays trying to get the car moved (if possible), or the street not being ploughed if the vehicle cannot be moved.

A report from the Director of Legal Services on this matter is being provided under separate cover.

### **C. Mail Boxes**

Canada Post, through their contractors, are responsible for maintaining the area around the Super Mail Boxes in a manner that is free and clear of ice and snow. However, access to the boxes is blocked as a result of the windrow created by the road plough. It is recommended that the City, through negotiations with its windrow contractors, clear the windrow created by the road ploughs, wherever possible. This will assist residents gaining access to the mail boxes, but leave the liability issue directly surrounding the mail boxes with Canada Post.

### **D. Global Positioning System**

All of the sidewalk and road ploughs, all of the salting and sanding units, and all of the windrow clearing machines will be equipped with GPS units. These units will be installed upon delivery of the vehicles to the various Works yards by the end of November.

Public Works staff will be training all Councillors' Assistants, and those employees responsible for responding to residents' concerns. A web site has been developed for the public to access, to see the City's winter equipment in action within their neighbourhood during a storm event (see Public Communications Plan).

### **E. Public Communications Plan**

A public communications plan has been developed, and is outlined below. The main focus will be to direct residents to use the updated "Snow" web site with the GPS tracking, and to call the newly created call centre for information and resolution of their concerns. Both radio and local cable television will be used to promote the new call centre, and the City's web site specific to snow. A media conference to publicize these new initiatives will be scheduled within the next 2 – 3 weeks.

## Call Centre (905) 879-SNOW

A special snow hotline has been set up to inform the public about the City's winter snow clearing operations, inform the residents about the City's snow web site, allow the public to report dangerous conditions, and report specific concerns they may have with ploughing operations. The telephone number will be advertised in local papers, on local cable television, on posters, on the web site, on City vehicles, and other appropriate locations.

Staff are working with the Human Resources Department to ensure up to 8 additional temporary staff will be available on an "as needed" basis to assist in answering phone calls during and after a storm event. These people will work out of the JOC, and will be trained in the use of the GPS, and the City's general layout. Their purpose will be to inform the public about current ploughing operations during a storm event, promote the use of the City's web site, and relay dangerous conditions to appropriate staff.

The snow hotline will be staffed during the day and evening shifts (8:30 – midnight) during storm events, and for up to a week after the event to ensure residents concerns are addressed.

The City currently receives almost 10,000 phone calls per day. When the two major snow storms hit the City last year, the number of calls increased almost 50%. Even with the additional call answering staff, residents may not always reach a live operator on the first call, and will need to wait in a queue. During the wait, they will receive a recorded message until an operator becomes available.

The call centre is a pilot project, and its effectiveness will be evaluated at the end of this winter season.

## Web Site – WWW.SNOW.CITY.VAUGHAN.ON.CA

The web site is being updated, and will include a link to the GPS to allow residents to see the ploughs working in their general area of the City. This, in combination with the ploughing maps, will assist residents in knowing approximately when their street will be ploughed. As per the previous year, general information about service levels, road and sidewalk ploughing maps, and the Question and Answer sections will remain on the site. In addition, an animated banner window on the website will display regular updates on the City's snow clearing operations during major snowstorms.

## F. Salt Storage Facilities

The Toronto and Region Conservation Authority (TRCA) has given the City verbal approval to construct a salt storage facility at the Woodbridge yard on a temporary basis, and the City's Building Standards Department have issued a Building Permit for the construction of the salt dome.

A conventional dome structure will be built due to the cost, the maintenance, and the ability of the structure to protect the environment from the salt, and the salt from the environment. The City currently has two of these structures in place at the Joint Operations Centre. These have been used for a number of years now, and no maintenance has been required. The solid structure is more forgiving of accidents when loading, unloading and mixing the materials. Fabric structures can rip, resulting in repair costs and exposure of the salt to the elements.

A soils consultant was retained to determine whether or not the Woodbridge yard site was suitable for construction of a salt storage facility. The results of the investigation were

reviewed, and based on the report of the consultant, the preferred vendor has indicated that the proposed structure can be built upon this site with little site work involved. The permanent structure can be disassembled and re-assembled at another site, at a savings of approximately \$30,000 over a new facility. Only the concrete foundation and the asphalt shingles cannot be re-used.

The foundation crew will be on-site November 28/29 and construction is expected to be complete by December 15, 2001. It is our goal to have the storage facility at the Woodbridge yard constructed and in operation, and the old Works building upgraded, before the end of this year.

Staff have also been working with staff of the Legal Services Department concerning the use of the Greenwood Transformer Station lands to house a salt storage facility to service the Thornhill and Concord areas. Public Works staff have identified a piece of City-owned land that may be suitable for such a facility. This is the subject of a separate report from the Director of Legal Services.

Public Works staff intend to move as quickly as possible to start construction of this additional facility. As Storage Systems Construction Corp. are providing and constructing the salt storage facility at the Woodbridge yard, it is recommended that staff be authorized to negotiate with them to supply and construct a second salt storage facility on the Greenwood Transformer lands, with an upset limit of \$250,000. By authorizing staff to negotiate with the supplier, delays associated with re-tendering, and the approval process, will be eliminated. By placing an upset limit on the costs, Council can be assured that costs are being kept in check, while still expediting construction.

### **Conclusion**

By approving the recommendations concerning levels of service, staff will be able to respond better to residents' enquiries, and future service contracts can be better developed.

A further report on vehicle towing will be forthcoming.

Clearing the windrow created by the road plough at mail boxes will assist residents in accessing the mail boxes.

GPS units are being installed in winter equipment to assist in tracking vehicle movement throughout the City, and provide the residents the opportunity to see in "real time" where the snow clearing equipment is located in relation to their residence.

The public communications program will provide residents information so that they will have realistic expectations when it comes to winter ploughing and windrow clearing services.

Rapid growth has necessitated the construction of satellite facilities for winter operations, and staff are working on getting these constructed as soon as possible. Approval to negotiate directly with the supplier of the salt storage dome will eliminate the tendering process and expedite construction.

### **Attachments**

N/A

**Report prepared by:**

Brian T. Anthony, CRS-S, C. Tech  
Director of Public Works  
ext. 6116

Respectfully submitted,

FRANK MIELE  
Commissioner of Development Services and Public Works

Bill Robinson, P. Eng.  
Executive Director of City Engineering and Public Works

Brian T. Anthony, CRS-S, C. Tech  
Director of Public Works