



Ministry of Municipal Affairs & Housing



Association of Municipalities of Ontario

ONTARIO CENTRE FOR MUNICIPAL BEST PRACTICES

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BEST PRACTICE SUMMARY REPORT RO – WC – 04 - 05

Roads – Winter Control – Contract Terms which facilitate timely call-out decisions by front-line patrollers

Practice Identification: Roads Winter Control – Contract terms which facilitate
timely call-out decisions by front-line patrollers

Case Study Municipality: York Region

Key Word: Operational Procedures

Benefits

- **Stable year-over year unit cost structure**
- **Improved event response times through on-the-spot patrol decisions**

1. Description of Practice

York Region delivers winter control service across a primary road system consisting of more than 3,000 paved lane-kilometers. York's 2001 MPMP winter control unit costs were among the lowest, compared to other operators of primarily urban primary road systems. Winter event plowing/sanding/salting response is aggressive, in keeping with York's increasingly urban character and high traffic volumes. System-wide plowing passes are carried out in 3-3.5 hours or less, utilizing 63 combined plowing/sanding/salting units (49 "system response" lane kilometers per unit). System-wide spreading passes are carried out in 2 hours, utilizing 46-47 units (66 "system response" lane kilometers per unit). GPS tracking of sand/salt spreading practices, and pre-wetting techniques are widely utilized. York's winter event response is delivered primarily through contracted service providers. **It is important to note that each contract runs for several years.**

Winter control service contracts in many municipalities are characterized by “call out” rates, where private sector service providers charge municipal customers based on the frequency of winter event responses. In this typical model, the contracted service providers must generate the revenue they need by means of high per-hour billing rates - because of the impossible-to-predict frequency of event responses. In a mild winter with relatively few events, the “call out” model generates low winter control costs for the municipality (and low revenues for the contracted service provider). In a severe winter with numerous events, the “call out” model generates high winter control costs for the municipality and (high revenues for the service provider). The financial result of “call out” contracts can be a financial “roller coaster effect” over a number of years - where municipal winter control budgets are significantly over/under spent depending on weather fluctuations. Furthermore, contracts which run for short periods encourage contractors to recoup their equipment costs over a shorter period, by means of higher contract prices.

York’s multi-year winter control contracting model has taken the opposite approach. Contracted services are secured using a “stand-by” model that pre-purchases service provider effort for the entire winter, and guarantees the contractor a certain level of revenue. This model does not allow winter control costs to be driven by the frequency of call outs. In essence, York and its service providers each price a predicted number of winter event responses (based on multi-year winter call-out experience) into these flat price stand-by rates – thereby stabilizing costs year over year, and minimizing the “roller coaster” fiscal risk associated with weather related budget overruns.

York’s financially-predictable contract structure promotes a timely, public-safety-driven winter event response model. Winter patrol units of Regional staff are deployed 24/7 (with laptop computers that bring real-time RWIS information to front-line patrol decision-makers). Using these tools, winter patrol staff can make informed “on the spot” decisions on whether/when to trigger a call-out - based solely on weather and public safety considerations. Because of the chosen method of winter control contracting, no “chain of command” approvals are required. York’s contracted service providers must be lined up in the Region’s yards for loading within 30 minutes after being called out. A timely and aggressive event response decision (and subsequent contractor deployment) is the norm. The financial implications of initiating a system-wide response have already been internalized into the contract “stand-by” rates.

2. Evaluation of the Practice

Efficiency:

York Region has achieved relatively low winter control unit costs compared to other primary road systems. York has consistently identified its contract structuring as a key driver of unit cost performance. While contract costs have been trending upwards, the model continues to generate stable, highly competitive unit costs for winter control activities.

Effectiveness

An evaluation of York’s service effectiveness data (1. # deployable plowing/sanding/salting units per lane kilometer of system 2. Average response time for a system-wide pass) demonstrates a strong causal link between performance outcomes and the identified practice, namely the structure of the Region’s winter control service contracts.

3. Replication of the Practice

The York contracting model probably requires an upfront fundamental decision on direct delivery versus contracted delivery – large scale economies are required to ensure that enough “on call” contracted service hours are available to minimize financial risk for both the municipality and the private sector service provider.

The high service levels generated by the York model are likely to be most appropriate for urban primary road systems, regions, and some counties.

Multiple private sector bidders are also required to ensure competition in the negotiated rate for “stand by” services. A single provider would run the risk of monopolistic pricing. In this sense, the practice may be confined to larger markets.

The municipality’s weather event history (i.e. the expected number of winter season call-outs) will also impact on negotiated/tendered stand-by billing rates. Therefore, these billing rates will vary across the Province depending on local weather conditions.

The link to 24/7 winter patrol teams (equipped with laptops and RWIS) requires ongoing investment in information technology equipment costs – which in turn generate positive public safety outcomes through informed and timely responses to winter events. This cost-benefit trade-off should prove true for many medium and high-volume road system operators.

The York model could be implemented over a medium timeframe (e.g. a term of Council or less). Transition would feature a research and financial modeling phase, and a managed transition from a delivery model which is primarily either a direct delivery model or a “call out” contract model, toward a delivery model which is primarily a multi-year “pre-paid” contract model.

4. Contact

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NOTE: see “RO – WC – 04 – Methodology Report” for a description of the practice identification methodology, using 2001 MPMP data