



Department Source: Public Works

To: City Council

From: City Manager & Staff

Council Meeting Date: October 5, 2020

Re: Report: Winter Weather Response for 2020/2021 Winter Season

## Executive Summary

Staff has prepared for Council consideration a report concerning snow priority routes for winter 2020/2021, with a recommendation that no changes be made to first, second or third priority routes.

## Discussion

The efficiency of snow removal operations in Columbia continues to improve. However, due to reductions in staffing for Street Division (reduction of 3 Operator positions) and other reductions in Divisions that help with winter response operations, no additional priority lane miles are recommended.

COVID-19 related impacts are also a factor for this winter season. At this point we think operations will be able to match the last few years with respect to first and second priority route treatment and plowing timing, but there may be some delay in timing for third priority and residential streets (timing modifications below).

While staff has been able to make significant strides with respect to pre-wetted salt and other efficiency improvements, the level of staff and equipment resources remain the primary factor in determining lane mile coverage for continuous operations.

Street Division (41 FTE) is the lead agency for Columbia's winter weather response with a combined fleet of 21 tandem and single axle trucks, 13 one-ton trucks, and a dedicated motor grader with a wing plow. Fleet Operations provides critical support during events by repairing equipment and having it ready for response. The Street Division also relies on shared resources from the Parks & Recreation department, Columbia Utilities and other City departments, utilizing their plow drivers and equipment operators to complete the roster for plow trucks.

With respect to potential COVID-19 impacts, Street Division has pursued sanitation equipment and modified certain operation locations to limit the interaction of personnel during operations and maintain social distancing. Communication with Operators prior to and during events will focus on the importance of personal responsibility and expectation to follow guidance. The biggest threat most agencies face from an operational perspective is a positive test result from one or more individual impacting most of the entire unit due to a required quarantine situation. Other agencies such as MoDOT are facing the same concerns. Issues with MoDOT's local resources could significantly impact response in the City due to major route challenges. We will continue to work with other agencies and the Health



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Department to minimize the potential for a personnel incident, but a quarantine situation that impacts staffing for an event is a possibility.

For events with 4" of snow or less, the Street Division along with some shared operators are able to respond to the event. As weather is forecasted to move into the area for a larger event, more resources from the other departments such as Solid Waste roll-off containers, Sewer, Stormwater, Water and Electric Division operators and equipment, are added in preparation for response.

Generally, for first and second priority routes, the outcome for 6" or less of snow is to have near normal, prudent winter weather driving conditions within 24 to 36 hours of event's end (no change from previous year). Staff also seek to maintain at least one (1) bare wheel path (may still be wet) as much as possible throughout the event, though during portions of active snow, some roads may become overwhelmed and totally snow covered. This requires continuous operations during the events as well as focused attention after the end of the event. If there is between 4" – 6" of snow, crews will also methodically plow within neighborhoods with a targeted goal of getting all streets to a passable condition within 84 hours of the event's end (increase of 12 hours from previous year). Passable condition is defined as passable by a front wheel drive vehicle at slow speeds utilizing prudent winter weather driving. Extenuating circumstances such as extreme cold that can lead to re-freeze or added precipitation might require shifting resources back to first and second priorities.

For events between 6" – 10", additional time is typically necessary to get non-first or second priority streets to passable condition. First priority streets should be near normal within 24-36 hours of event's end (no change), and second priority streets to a minimum of passable within 44 hours (increase of 8 hours), with all streets to passable conditions by 108 hours after event's end (increase of 12 hours). For storms greater than 10", focus is on getting first priority routes to passable condition within 36 hours (no change), but specific conditions (especially temperature) dictate response and the state of the street.

In 2016, staff identified thirteen (13) specific routes throughout the city that are not classified as first or second priority routes, but provide a connection inside a neighborhood to other neighborhood streets, or have specific characteristics. For simplicity, these specific routes are termed "Third Priority" routes. Staff recommended adding 50 lane miles to third priority routes last year (again specific streets). Even with the reduction of 3 positions from Street Division this year, Staff is recommending keeping the same lane miles and streets for third priority routes, with the understanding that it may increase the time to fully establish passable conditions along all these routes and might slightly delay shifting to non-priority routes. The delay is not fully known, but thought to be less than 8 hours given the current resources.

For clarification, third priority routes were developed with the thought to provide better response with one-ton trucks assisting with first and second priority routes. Although the path may not be entirely free of snow, it should help to decrease the amount of snow pack on those streets, easing snow removal operations once plows have moved onto neighborhood streets, and provide some relief to the neighborhoods. Vehicles will be allowed to continue



to park on the third priority streets during larger snow events, although staff will continue to encourage residents to move vehicles off the street via public outreach. With the current recommended third priority route additions, a first, second or third priority route will generally be no more than two streets away from any local street. After examining the situation the last two years, Staff thinks that some form of parking restriction along third priority streets would be beneficial. Something such as establishing a park only on even or odd numbered address sides might be the recommended approach, but we would like to evaluate the routes.

There has been some discussion of Homeowner's Associations (HOA) performing their own winter weather response for snow and ice control. To date, no HOA has formalized this type of approach; however, if an HOA has a firm desire to commit resources for a defined area, staff would recommend a pilot with just one HOA working with Street Operation's staff to test the feasibility of this concept.

The Priority Neighborhood concept continues to be beneficial, even though there are some challenges. The Priority Neighborhood concept allows for a local contact to help coordinate local residents removing parked cars from streets. Parked vehicles significantly slow down response and having a local resident coordinate and communicate that they are removed improves efficiency. An example of previous correspondence with past Neighborhood Priority representatives is attached. At some point, we may not be able to add additional neighborhoods to this process and will monitor the situation.

Due to current limitations in manpower and equipment, if additional priority routes are desired, staff would recommend caution and would want to examine what mileage would need to be removed from the current list, as well as examine the street. First and second priority routes are required to comply with the no parking requirements when snow is more than 2" deep, so the impact to adjacent property owners should be considered.

## Fiscal Impact

Short-Term Impact: Additional overtime, if any, should remain within current budget.

Long-Term Impact: Unknown at this time, but funding will be reviewed as part of the annual budget approved by Council.

## Strategic & Comprehensive Plan Impacts

### Strategic Plan Impacts:

Primary Impact: Public Safety, Secondary Impact: Infrastructure, Tertiary Impact: Operational Excellence

### Comprehensive Plan Impacts:

Primary Impact: Mobility, Connectivity, and Accessibility, Secondary Impact: Livable & Sustainable Communities, Tertiary Impact: Environmental Management



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## Legislative History

| Date       | Action                                                                             |
|------------|------------------------------------------------------------------------------------|
| 11/04/2019 | REP101-19 Winter Weather Response for 2019/2020 Winter Season                      |
| 11/05/2018 | REP96-18-Winter Weather Response for 2018/2019 Winter Season                       |
| 12/04/2017 | REP100-17-Winter Weather Response for 2017/2018 Winter Season                      |
| 10/07/2013 | Ord. 21841-Prohibiting parking on priority routes when there is 2" or more of snow |
| 10/18/1993 | PR174-93A-Establishing a snow removal policy                                       |

## Suggested Council Action

For information only.