

Montgomery Place Storm Water Management

ISSUE

The Montgomery Place neighbourhood has a unique network of swales/ditches and culverts designed for storm water management in a rural setting. Over time, the drainage effectiveness has been compromised as new driveways, landscaping, and erosion altered the right-of-ways (ROWs) and contributed to flooding during spring snowmelt and intense rainfalls. Storm water management improvements are planned to take advantage of efficiencies gained through coordination with water main replacements and road reconstruction. Neighbourhood citizens have had mixed reactions to proposed drainage path improvements.

BACKGROUND

History

Montgomery Place has had ongoing drainage issues because of how the neighbourhood developed over time without an overall drainage plan. In 2009, the City of Saskatoon (City) upgraded strategic drainage ditches and culverts along Haida Avenue and Lancaster Boulevard. As part of that project, the City funded the installation of 450 mm culverts under driveways and restoration of driveways to their previous condition. The project significantly improved area drainage; however, the steepness of ditches has made regular maintenance more challenging for adjacent citizens. Flooding and some property damage continues to be an issue in some areas where drainage was not upgraded. From 2017 to 2020, the City responded to an average of 30 calls per year about spring snowmelt flooding in Montgomery Place. In November 2018, a water main break caused flooding and prompted renewed calls to improve area drainage along Caen Street.

Current Status

The Standard Ditch Crossing Requirements (2000) specifies standards for culverts and a maximum driveway width of 6.1 m; however, compliance has not been strictly enforced. An assessment of Montgomery Place drainage was completed in 2018 and found that approximately 75% of the 766 properties had non-compliant crossings because of driveways wider than 6.1 m (55%) and/or no culvert (28%).

The Administration developed a process to increase compliance for new driveway crossings. In 2020, Saskatoon Water assumed responsibility from Transportation for ROW ditch crossing standards in Montgomery Place. Changes to standards and bylaws are expected to address the unique drainage requirements and to provide for more effective enforcement.

Drainage improvement plans for sections of Dundonald Avenue, Caen Street, and Lancaster Boulevard, that impact 54 properties, are being coordinated with planned water main and road resurfacing work to capitalize on resource efficiencies. See Appendix 1 for a map of planned construction. The proposed drainage improvement design maximizes tree protection by increasing the ditch side slopes from 3.5:1 to up to

2:1 around trees to protect the majority of trees in the reconstructed ROW. The proposed ditch side slopes are more gradual compared to the previously constructed ditches on Haida Avenue and Lancaster Boulevard. The steeper slopes around the trees will be short to minimize maintenance challenges.

Public Engagement

Drainage has been a long-term discussion topic with Montgomery Place residents. The formal engagement process for the Montgomery Place Local Area Plan in 2018 highlighted drainage concerns. In June 2019 and February 2020, Saskatoon Water met with the Montgomery Place Community Association Board to present the results of the driveway, culvert, and ditch assessment and requested input to the proposed approach to improve drainage. A flyer was delivered to encourage residents to visit the Engage website; attend the open house on February 13, 2020; and complete an online survey that included questions about flooding, cost sharing, and driveway standards. Over 60 citizens attended the open house and 62 citizens completed the survey. See Appendix 2 for engagement feedback.

OPTIONS

Option 1: Status Quo

Under the status quo option, drainage improvements will not be made but water main, lead line replacement, and road reconstruction would be completed. No trees would be removed and no changes to existing landscaping or driveways would be made, thereby, generating the least opposition from citizens who may perceive the changes negatively because of the costs and impacts to parking, landscaping, and the more challenging maintenance. Compliance to driveway and culvert standards would be enforced for all future new driveways. The status quo is the least cost option.

Disadvantages to the status quo option are the high-likelihood of continuing complaints about inadequate drainage during spring melt and increased future flooding with property damage due to risks associated with climate change. The Montgomery Place resident survey results indicated that the status quo is not supported by 83% of 62 respondents who strongly agreed (65%) or moderately agreed (18%) that the City should improve the drainage. Restoring the downstream drainage path in the proposed project area is necessary so that the upstream run-off has somewhere to flow.

Option 2: Proposed Cost-Shared Drainage Improvements

Under this option, drainage improvements to reduce the flood damage risk will be completed cost effectively with water main replacements and road reconstruction. Citizens within the proposed project area will have the option to have their driveways restored to existing width (i.e. grandfathered in) and existing material (i.e. asphalt to asphalt, paving stone to paving stone). For concrete driveways with a unique “stamped finish”, the contractor will attempt to match the replacement concrete material to the existing colour; however, small variations in color between existing and replaced driveway sections may occur. Depending on the specific circumstances of the driveways, the costs may be shared between the City and the property owner. The proposed cost sharing program is summarized below:

- For properties with compliant driveway crossings (maximum 6.1 m width with culvert):
 - The City to pay all culvert installation and driveway restoration costs.
- For properties with non-compliant driveway crossings greater than 6.1 m width with culverts:
 - The City to pay costs equivalent to a standard asphalt driveway crossing (6.1 m width) of approximately \$6,800, which includes a new culvert (\$4,100 estimated average) and resurfacing (\$2,700 estimated average).
 - The City and property owners to (60% to 40%, respectively) divide culvert and driveway restoration costs exceeding the standard cost.
- For properties with non-compliant driveway crossings with no culverts:
 - Property owners to pay 100% of the culvert installation costs.
 - The City and property owners to (60% to 40%, respectively) divide driveway resurfacing costs exceeding the standard cost of approximately \$2,700.

Property owners required to cost share will have the opportunity to decrease their crossing width and/or alter restoration material to reduce their costs, and/or spread the costs on a property tax deferral program similar to the lead line program.

The estimated costs to install culverts and restore driveways in the City ROW range from \$2,900 to \$34,000 per property, depending on the type of surface material (gravel, asphalt, concrete, or paving stone) and length. Under this option, the share for 37 property owners is estimated to be 30% or \$138,000 of \$460,000 in total costs to install culverts and restore driveways to existing conditions. See Appendix 3 for a financial impact summary with more details.

A cost sharing option is aligned with the user-pay principle and reduces subsidization by those not benefitting from the improvements. Citizens in some older neighbourhoods have paid local improvement levies for improved drainage infrastructure, and citizens in new neighbourhoods have paid for storm water infrastructure through development levies incorporated in their lot costs. This option recognizes that citizens have a responsibility for ensuring that drainage is not impeded by private driveways that cross public ROWs. A significant majority (79%) of Montgomery Place residents responding to the survey indicated support for a cost sharing option for restoring non-compliant driveways.

The proposed reconstruction is opposed by some residents who do not currently flood, but who will see impacts to their parking and landscaping (rocks; shrubs; other vegetation; and in some cases, trees removed from the ROWs in front of their properties). The new ditch slopes will require more effort to maintain, particularly around trees. Approximately two-thirds of survey respondents support maintaining widths for existing driveways, but one-third oppose grandfathering in driveways to widths wider than the maximum allowed for new driveways. While restoring to existing driveway widths in the project area is not expected to significantly impede drainage, this may not be the same situation in all areas and may set a precedent for consideration for future drainage improvement projects.

Under this option, not all non-compliant crossing property owners will be required to cost share. For example, if a property has a culvert and a gravel crossing that exceeds the 6.1 m maximum width, the restoration costs are expected to be less than the standard value proposed of \$6,800 to be paid by the City. Only costs in excess of the standard crossing will require cost sharing.

The cost sharing could create additional challenges for some citizens, particularly those who may still be enduring financial hardships from the impacts of COVID-19 restrictions. A proposed tax deferral for this program, similar to the lead line program, would need to be enacted by bylaw. Property owners will also have the opportunity to lessen their cost sharing contribution if they make changes to their crossing width or replacement material.

Option 3: City-Funded Drainage Improvements

Under this option, the City would pay all costs for driveway reconstruction to existing conditions. This option would be more streamlined than Option 2 for the City to implement because cost sharing agreements would not be needed, and there would be less opposition from affected homeowners. Fourteen percent of survey respondents indicated that the City should pay for all costs, with some saying that the City had not done enough in the past to communicate and enforce compliance. Some non-compliant driveways had been installed by previous owners or prior to the current standards.

This option is consistent with previous Montgomery Place drainage improvements funded by the City. New storm water infrastructure is also being constructed through the Flood Control Strategy in other areas without cost sharing by those who benefit, but these areas do not involve private driveway crossings. Montgomery Place was not included in the Flood Control Strategy because the drainage infrastructure, modelling, and flood risk impacts are different from the other prioritized areas.

A disadvantage to this option is the City would be paying for private driveway costs across ROWs for property owners who may have not followed standards that were in place at the time. This option also sets another precedent for paying for future drainage improvements in the area. Fully funding private driveways across City ROWs may not be supported by those who have followed driveway standards, and by citizens in other areas of the City.

RECOMMENDATION: That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

1. That the Administration proceed with Option 2 to coordinate Montgomery Place drainage improvements with other planned construction, and implement the proposed cost sharing program for property owners with non-compliant driveways to install culverts and restore driveways across right-of-ways to existing conditions.
2. That the City Solicitor be instructed to prepare the necessary bylaw.

RATIONALE

The proposed construction project to restore the drainage path will reduce the flood risk in the area and can be done cost effectively in coordination with other construction projects. Cost sharing to reconstruct non-compliant driveways balances the user pay principle with contributions from the City, recognizing that the City has a role for enforcement. This option is a compromise based on the feedback from the community engagement. The proposed construction would be scheduled for 2021, to allow for time required to put individual cost-sharing agreements in place.

FINANCIAL IMPLICATIONS

The total cost for the drainage, water main, and roadway reconstruction in Montgomery Place is expected to be \$3.4 million, with the drainage improvements to be \$1.4 million of total costs. Driveway reconstruction and culvert costs to the City are estimated to be \$460,000 without cost sharing, or \$322,000 with the proposed cost sharing. Drainage improvements will be funded through the Storm Water Utility Capital Project #1619 – Storm Sewer Trunk. Other costs for the water main replacement and the roadway resurfacing have already been approved.

The Administration will also seek funding opportunities for the drainage project from other levels of government. If an application is successful, the amount funded by the Storm Water Utility would be reduced.

TRIPLE BOTTOM LINE IMPACT

A Triple Bottom Line assessment was conducted for the status quo versus moving ahead with the drainage improvement project. The value of the project will be perceived differently by citizens depending on whether they are required to cost share and whether they have flooded. Triple Bottom Line considerations for the project include the following:

- Environmental Health and Integrity: Mitigating and adapting to climate change through minimizing greenhouse gas emissions associated with construction by coordinating projects, protecting as many trees as possible, and improved storm water management.
- Social Equity and Cultural Wellbeing: Improving wellbeing for citizens who experience flooding through reducing stress and improving safety of property.
- Economic Benefits: Improving asset management and maintenance.
- Good Governance: Addressing legacy drainage issues and improving service delivery.

Proceeding with the drainage improvement in conjunction with the other planned construction, contributes positively overall to the City's Triple Bottom Line objectives.

ADDITIONAL IMPLICATIONS/CONSIDERATIONS

Modelling shows that for the project area, the proposed design with existing driveway lengths will convey water for at least a 1-in-2 year rain event, similar to the service level for underground storm sewers, which will be facilitated by a new super catch basin at Caen Street and Dundonald Avenue. There may be other areas in Montgomery Place

where driveways cannot be reconstructed to existing widths while maintaining a similar service level.

The Administration intends to develop a longer-term drainage improvement plan that considers drainage priorities and other infrastructure asset management plans. During 2020, further evaluation will determine an appropriate maximum width for new ROW crossings in Montgomery Place to balance drainage needs with citizens' preferences for driveways. Property owners who are planning to make any changes to the ROW will require a permit from Saskatoon Water, and an expected new or amended bylaw will provide for more effective enforcement of the standards.

The City's legal position on enforcing this work is outlined in a separate response provided by the City Solicitor (Appendix 4).

COMMUNICATION ACTIVITIES

Prior to 2021 construction, a significant amount of property owner interaction is required to review construction plans and the impact on driveways and landscaping. If cost sharing is approved, property owners will be provided with information on their estimated contribution costs and options to reduce costs, and cost sharing agreements will be finalized. These interactions would normally be conducted in-person door-to-door, but the process could be impacted by COVID-19 restrictions. The interactions could be conducted by online methods (Skype, e-mail, etc.). However, the new processes are likely to take more time, which could impact the expected construction timing if significant delays are experienced.

Other communication through coordinated construction notices and flyers will provide information about the timing and impact of the proposed construction, the impacts of flooding, the role that all neighbourhood residents have in minimizing flooding, and requirements for property owners planning to make changes to the ROWs.

APPENDICES

1. Map of Planned Construction
2. Montgomery Place Community Engagement Feedback Summary
3. Financial Impact Summary
4. Confidential – Solicitor/Client Privilege

Report Approval

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