

ENGINEER'S REPORT
STORM SEWER DISTRICT 123
CITY PROJECT 4393

Project Background

10th Street SW from 37th Avenue to 31st Avenue SW and surrounding areas have long been identified as known storm water problem areas. 10th Street SW and much of the residential neighborhood to the west do not currently have any storm sewer inlets. Runoff is collected in the curb and gutter system which is often overwhelmed during even minor rain events. The 2015 City of Minot Storm Water Management Plan analyzed this area and provided preliminary engineering and cost estimates to address these drainage problems. This project is included in the approved capital improvements plan for 2019 design and 2020 construction.

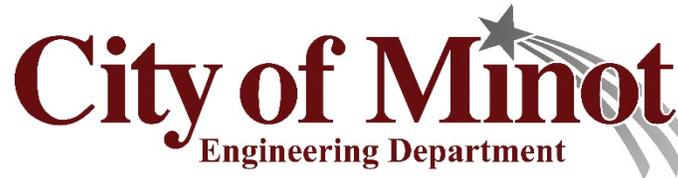
Proposed Improvements

The preliminary design includes:

- Storm sewer extended south along 7th Street SW and 10th Street SW
- Storm sewer extend on local roads west of 10th Street SW
- Disconnect existing storm at the intersection of 10th Street SW and 31st Avenue SW so that 10th Street SW does not outlet to Puppy Dog Coulee at 7th Street SE, through the existing pipe
- Extend new pipe north in 10th Street SW to outlet to Puppy Dog Coulee at 10th Street SW

The installation of 55 storm water inlets, drain tile in low areas, and associated pipe, as well as the additional outlet into Puppy Dog Coulee to take pressure off of the 7th St SW system, results in greatly improved conditions throughout the district area. Additionally, 10th Street SW will be reconstructed following the storm sewer installation, as it is currently in very poor condition, with constant storm water inundation contributing to its poor condition. The street reconstruction costs are not a part of the proposed storm sewer district.

This design alternative was selected over the planning level design which was completed in 2015. The planning level design was to upsize the existing infrastructure in 31st Avenue and 7th Street SW in place. By disconnecting the system, routing 10th Street SW storm sewer north to Puppy Dog Coulee, and leaving existing 31st Avenue and 7th Street SW infrastructure in place, there is a cost savings of \$400,000. Additionally, this alternative minimizes the construction in 31st Avenue SW, which is a minor arterial roadway.



Project Justification and Benefits

The intent of the project is to collect runoff from storm events within the proposed storm sewer system and reduce roadway flooding during storm events. Currently, even small rain storms can cause intersection flooding at 10th Street SW and 31st Avenue SW, as well as 7th Street SW and 28th Avenue SW. Additionally, water pools all along 10th Street SW, south of 31st Avenue SW, as there are no existing inlets. Upon completion of the project, roadway flooding will be reduced in both depth and duration allowing for safer travel along the 10th Street SW and 31st Avenue corridors. The improvements are feasible to construct.

Cost Estimate

The project has three different components of work included in the contract documents which include the storm sewer improvements, minor watermain improvements, and street improvements. The storm sewer improvements are part of Storm Sewer District 122 and will be special assessed. The watermain replacement improvements will be paid by the watermain utility. The street improvement costs over and above those needed to replace the street section above the storm sewer will be paid with street improvement funds. The cost breakdown is as follows:

Storm Sewer:

Estimated Construction Cost	\$ 1,623,675.00
Contingency, 15%	\$ 245,551.25
Total Storm Construction	\$ 1,867,226.25
Engineering	\$ 433,000.00
City Administration, 8%	\$ 149,378.10
City Finance, 6%	\$ 112,033.58
Miscellaneous, 1%	\$ 18,672.26
Right-of-Way and Easement Acquisition	\$ 20,000.00
Total Costs	\$ 2,600,310.19
- Storm Sewer Development (50%)	\$ 1,300,155.09
Total Assessed Cost	\$ 1,300,155.09

Watermain Replacement:

\$29,871.25 includes construction and 15% contingency.

Street Improvements:

\$934,835.00 includes construction and 15% contingency.

Total project cost including Storm Sewer District 123 costs, watermain replacement costs, and street improvement costs is \$3,565,016.44



Recommendation

It is recommended that the City Council adopt the following resolutions:

1. Create Storm Sewer District 123.
2. Direct preparation of the Engineer's Report.
3. Approve the Engineer's Report.
4. Waive the resolution of necessity since the project is a storm sewer district listed in NDCC 40-22-01.1
5. Direct preparation of Plans and Specifications.

Prepared By:

Attachments

1. Map of the District
2. Engineer's Opinion of Cost
3. Schedule
4. Preliminary Assessment Roll