

Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 4D – Force Main Relocation & Floodplain Mitigation Project for the Overall METRO Blue Line Light Rail Transit (LRT) Extension Project – Minneapolis and Golden Valley, MN
BCWMC September 20, 2018 Meeting Agenda
Date: September 12, 2018
Project: 23270051 2018 3003

4D Force Main Relocation & Floodplain Mitigation Project for the Overall METRO Blue Line Light Rail Transit (LRT) Extension Project – Minneapolis and Golden Valley, MN BCWMC 2018-24

Summary:

Proposed Work: Force main relocation & floodplain mitigation for the overall Blue Line Light Rail Transit (LRT) extension project

Basis for Review at Commission Meeting: Work in the floodplain

Impervious Surface Area: No change

Recommendation: Conditional Approval

General Background & Comments

The above referenced force main relocation & floodplain mitigation project is proposed as the first phase of early construction components in preparation for the overall METRO Blue Line Light Rail Transit (LRT) extension project or Bottineau LRT extension project. The proposed force main relocation & floodplain mitigation project is located in the Bassett Creek Main Stem subwatershed, within Theodore Wirth Park, along Trunk Highway 55 (TH 55) and the Canadian Pacific railroad in Minneapolis and Golden Valley, MN. The proposed project includes the relocation of an existing Metropolitan Council Environmental Services (MCES) force main and excavation to create compensatory floodplain storage for future floodplain fill, which is proposed as part of the overall METRO Blue Line LRT extension project. The proposed force main relocation and floodplain mitigation project results in 3.91 acres of disturbance (grading) and does not create any net new impervious surfaces, but results in 0.48 acres of reconstructed impervious surfaces.

Floodplain

The proposed force main relocation & floodplain mitigation project and the overall METRO Blue Line LRT extension project include work in the Bassett Creek floodplain. The August 2017 BCWMC Requirements for Improvements and Development Proposals (Requirements) document states that projects within the floodplain must maintain no net loss in floodplain storage and no increase in flood level at any point along the trunk system (managed to at least a precision of 0.00 feet). The floodplain elevation of Bassett Creek at the force main relocation & floodplain mitigation site varies from 826.5 to 826.6 feet NAVD88.

The overall METRO Blue Line LRT extension project is anticipated to result in a total of 16,103 cubic yards of floodplain fill by expanding the embankment of the existing railroad corridor between TH 55 and Theodore Wirth Parkway. Mitigation for this proposed floodplain fill will be provided in four locations:

Location	Volume, CY
1. Around the Plymouth Avenue Bridge	3,049
2. In the stormwater management basin at Plymouth Ave	1,759
3. Expanded ditch at Hennepin County Forfeited Property	1,371
4. Floodplain Mitigation Site	10,005
Total Mitigation Proposed	16,184

The force main relocation & floodplain mitigation project will create 10,005 cubic yards of compensatory floodplain storage upstream of TH 55. An additional 6,179 cubic yards of compensatory floodplain storage will be provided as part of the overall METRO Blue Line LRT extension project or other phases of early construction components, to be reviewed under a future submittal. The overall METRO Blue Line LRT extension project will provide a final, net, 81-cubic-yard increase in floodplain storage, relative to existing conditions. Because the overall METRO Blue Line LRT extension project will occur after the force main relocation & floodplain mitigation project, there will be 10,005 cubic yards of additional floodplain storage in the interim.

The force main relocation & floodplain mitigation project narrative notes that the floodplain mitigation site was previously used as a railroad maintenance facility. During soil exploration, the site was found to contain construction debris and lead. A METRO Blue Line LRT consultant prepared a Response Action Plan (RAP) (approved by the Minnesota Pollution Control Agency) that defines parameters of removal and handling of the material, and how the area will be capped with 2 feet of clean soil in the final condition. The project narrative further notes that the lead was not found in groundwater samples and appears to be stable in its current, undisturbed condition.

As part of the project, measures will be taken to mitigate the risk of contaminated materials migrating from the site. All excavated materials will be tested and treated for lead contamination at a location above the 10-year water surface elevation. As part of this process, the material will be placed on and covered with poly plastic sheeting, and surrounded by super duty silt fence. The material will be stockpiled for 3-5 days or until the tested material is stable and ready for disposal at a certified landfill.

Additionally, the contractor will be required to assemble a proposed staging plan for approval by the METRO Blue Line LRT prior to commencing construction. This is intended to ensure that at no time will the contractor decrease the floodplain volume during construction.

Finally, a METRO Blue Line LRT consultant will develop a flood response plan that defines trigger points for the contractor to perform pre-established actions; the trigger points will be based on high Bassett Creek water elevations and the likelihood that the water elevations will rise (i.e. a storm is forecast). This flood response plan will not alleviate the contractor from the impacts of other unpredicted events, but is one measure being employed to protect against potential site inundation impacts.

Wetlands

The proposed force main relocation & floodplain mitigation project appears to involve work in or adjacent to wetlands. The City of Minneapolis and the City of Golden Valley are the local government units (LGUs)

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 4D – Force Main Relocation & Floodplain Mitigation for the Overall METRO Blue Line Light Rail Transit (LRT) Extension Project – Minneapolis and Golden Valley, MN
Date: September 12, 2018
Page: 3

responsible for administering the Wetland Conservation Act, therefore BCWMC wetland review is not required.

Stormwater Management

The proposed force main relocation & floodplain mitigation project does not create one or more acres of net new or fully reconstructed impervious surfaces and therefore does not trigger the BCWMC requirements for rate control.

Water Quality Management

The proposed force main relocation & floodplain mitigation project does not create one or more acres of net new or fully reconstructed impervious surfaces and therefore does not trigger the BCWMC requirements for water quality.

Erosion and Sediment Control

The proposed force main relocation & floodplain mitigation project involves more than 200 cubic yards of cut or fill and/or more than 10,000 square feet of land disturbance, therefore the proposed project must meet the BCWMC erosion and sediment control requirements. Proposed temporary erosion and sediment control features include silt fence, sediment control logs, poly plastic sheeting coverings on stockpiles, and rock construction entrances. Permanent erosion and sediment control features include stabilization with seed, mulch, disc anchoring, erosion control blankets, and sod.

Recommendation

Conditional approval based on the following comments:

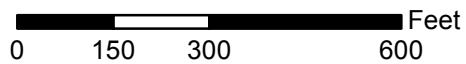
1. The overall METRO Blue Line LRT extension project and other early construction components must be submitted to the BCWMC for approval under a separate application.

Barr Footer: ArcGIS 10.6, 2018-09-12 08:04 File: I:\Client\BassettCreek\gis\maps\Permits\Maps-2018\2018-24.mxd User: EMA



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

- Project Location
- Municipality
- Bassett Creek
- WMC Boundary
- Major Subwatershed



BCWMC #2018-24
FORCEMAIN RELOCATION &
FLOODPLAIN MITIGATION
Golden Valley &
Minneapolis, MN
LOCATION MAP