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Memorandum

To: Bassett Creek Watershed Management Commission (BCWMC)
From: Barr Engineering Co. (Josh Phillips, Jim Herbert, and Joe Welna)
Subject: Item 5B – Consider Approval of Engineering Services Scope of Work for Double Box Culvert Repair Project (FCP - 1)
BCWMC November 19, 2025 Meeting Agenda
Date: November 13, 2025
Project: Double Box Culvert Repair Project
c: Stephanie Johnson (Barr)

Item 5B Consider Approval of Engineering Services Scope of Work for Double Box Culvert Repair Project (FCP – 1)

Recommendations

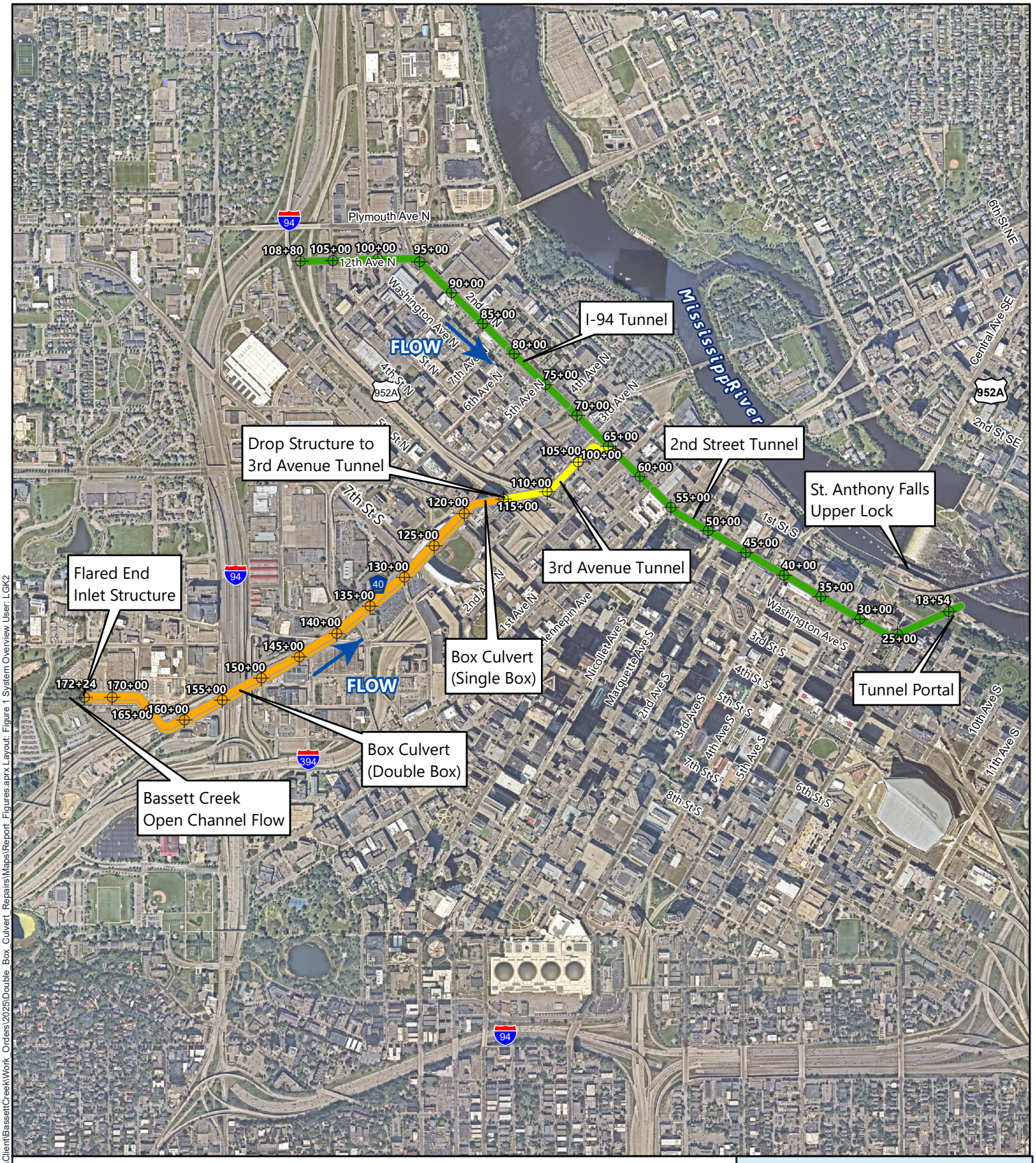
1. Consider approving the scope of work and $326,500 budget presented in this memorandum and direct the BCWMC Engineer to prepare final design, develop plans and specifications, and provide permitting assistance, bidding assistance and construction services for the referenced project, scheduled for construction in winter 2026 – 2027.

Background

The past two Double Box Culvert inspection reports (2019 and 2024) identified both structural and operation and maintenance defects within the box culvert. The Double Box Culvert Repair project will address needed repairs along the 5,600-foot-long tunnel (Figure 1). The feasibility study identified the following needed repairs: shear key joint repairs; crack and fracture repairs; concrete surface repairs; existing tap repair; invert repairs; reinforcement spacer repairs; encrustation, sediment and debris removal; and access improvements. The BCWMC Engineer's opinion of project cost for engineering, construction, and contingency is $1,410,000. The BCWMC will design and construct this project, in close coordination with the City of Minneapolis.

The feasibility report for the project (Double Box Culvert Repair Project (FCP-1) Feasibility Report, June 2025, Barr) will form the basis for the project design. The feasibility report was approved at the June 18, 2025 meeting and can be found online at https://www.bassettcreekwmo.org/application/files/5617/5459/3081/Double_Box_Culvert_Repairs_Feasibility_Study.pdf.

At the September 18, 2025 meeting, the BCWMC held a public hearing and officially ordered the Double Box Culvert Repair Project (FCP-1).



Stationing

Phase 1: I-94/2nd Street Tunnel

Phase 2: 3rd Avenue Tunnel

Phase 3: Double Box Culvert

N

0 750 1,500

Feet

Imagery Source: NearMap, 9-11-2024

SYSTEM OVERVIEW
Double Box Culvert
Repair Project (FCP-1)
Bassett Creek Watershed
Management Commission

FIGURE 1

BARR

Bar Footer: ArcGISPro 3.3.1, 2025-06-10 14:54 File: I:\Client\BassettCreek\Work_Orders\2025\Double_Box_Culvert_Repairs\Maps\Report_Figures.aprx Layout: Figure 1 System Overview User: LGK2

Proposed Scope of Work

Below is a summary of the work scope components for this project:

1) Stakeholder Engagement and BCWMC Meetings

a) Meetings with BCWMC staff, Minneapolis staff, US Army Corps of Engineers (USACE), and other stakeholders.

   i) Design Kickoff

   ii) Review draft 60% design plans. Although the BCWMC typically reviews at 50% design, this has been adjusted to 60% for consistency with the City of Minneapolis' review requirements.

   iii) Review draft 90% design plans

b) BCWMC Meetings:

   i) Present 60% design plans, including memo

   ii) Present 90% design plans, including memo

   iii) Present final report upon project completion

c) USACE – In accordance with the Bassett Creek Flood Control Project Operations and Maintenance Manual, BCWMC Engineer will provide plans to the USACE for review. The 60% design and 90% design stages will be submitted in order to incorporate USACE comments into the final plans.

d) City of Minneapolis - The BCWMC Engineer will coordinate with the City of Minneapolis staff during the design process and will provide plans for City review. For projects that propose changes to the City's infrastructure, the City's Public Works Department coordinates the Capital Projects Task Force (CPTF) review process for compliance with the City's requirements. The project is expected to need CPTF review at the 60% design and 90% design stages. This scope includes budget for two additional review meetings, based on previous experiences with the CPTF.

e) Other stakeholder coordination: The scope includes up to 30 hours for additional coordination with other stakeholders, as necessary.

2) Public Engagement

Public engagement will not be required for this project.

3) Permitting

The project is not anticipated to require any permits. The tunnel is not a designated public water; therefore, Minnesota Department of Natural Resources permits are not required. Coordination with and approvals from stakeholders is addressed in Task 1.

4) Design

Final project designs will build upon the feasibility study concept design. This task also includes preparation of documents to be used for bidding and construction.

a) *Access and Easements:* The BCWMC Engineer will review access options and alternatives, determine easement requirements, and prepare easement documents and exhibits. They will also coordinate with City of Minneapolis staff and others, as necessary, for the access and easement considerations.

b) *Construction Drawings*: The following documents will be developed for project stakeholders for review and comment:

i. 60% plans and memo to BCWMC
ii. 90% plans and memo to BCWMC
iii. 100% plans for bidding and construction
iv. Following each submittal, plans will be edited based on reviews from City of Minneapolis and BCWMC.

Anticipated drawings include:

- Cover sheet (1 sheet)
- Tunnel layout plan (1 sheet)
- Access, staging and erosion control plan (1 sheet)
- Typical sections (1 sheet)
- Repair details (2 sheets)
- Plan, profile, and repair tables (20-25 sheets)
- Restoration plan (1 sheet)

c) *Specifications*: The BCWMC Engineer will develop front-end documents (EJCDC format including instructions to bidders, bid form, contract (form of agreement), performance and payment bonds, general and supplementary conditions, prevailing wages, etc.) and technical specifications for the 90% & 100% submittals. The BCWMC Engineer will coordinate with the BCWMC attorney regarding the front-end documents.

d) *Engineer's opinion of cost*: An engineer's opinion of probable construction costs for the 60%, 90% & 100% submittals will be prepared and reported to the BCWMC in a unit price format.

5) Bidding Services

The scope includes the following bidding services:

a) Prepare bidding documents and issue addenda (if necessary)

b) Conduct a pre-bid meeting, site visit, and tunnel tour with prospective bidders. Prepare meeting minutes.

c) Post the bid via QuestCDN online bidding and administer the bidding process, including responding to questions from bidders and preparing any required addenda

d) Prepare bid tabulation, review bids and assist the BCWMC with selection of Contractor

6) Construction Services

The scope includes the following construction services:

a) *Pre-construction meeting*: The BCWMC Engineer will hold a pre-construction meeting and prepare an attendance roster and meeting notes, as necessary. Invitees to include contractor, City of Minneapolis, and BCWMC administrator.

b) *Construction Observation*: The BCWMC Engineer will provide resident engineering services (up to 50 hours onsite per week for up to 13 weeks of construction) and act as BCWMC's representative in observing the project. The BCWMC Engineer will visit the project as appropriate to observe that the progress and quality of the work conform to the Contract Documents. Construction activities will be documented with photographs and daily construction reports.

c) *Construction Progress Meetings:* The BCWMC Engineer will attend weekly or other periodic construction meetings and prepare meeting notes, as necessary.

d) *Construction Administration*: The BCWMC Engineer will provide office project support (up to 10 hours per week for 18 weeks) during the preconstruction phase, construction phase, and post-construction phase of the project and will provide the following services:

i. Issue necessary clarifications and interpretations of the Contract Documents and, subject to BCWMC approval, and prepare field orders and change orders, as necessary.
ii. Evaluate alternate materials and equipment proposed by Contractor and make recommendations to BCWMC regarding substitution.
iii. Review shop drawings, samples, and other data which Contractor is required to submit for conformance with the Contract Documents.
iv. Assist BCWMC staff and the Contractor with local agreements, permitting, and construction issues.
v. If the observed work does not conform to the Contract Documents, and is determined to jeopardize the integrity of the repair, the BCWMC Engineer will provide a recommendation to BCWMC regarding rejection of the affected work.
vi. Review applications for payment from Contractor and provide payment recommendation to BCWMC in writing. In the case of unit price work, the recommendation will include determinations of quantities and classifications of the work.
vii. Perform a final inspection of the completed work, prepare punch lists as necessary, and review submittals that are to be assembled by the Contractor in accordance with the Contract Documents to obtain final payment. A recommendation for final payment to the Contractor will be made in writing.
viii. Assist BCWMC with final contract closeout services, as necessary.

e) *Record drawings*: Record drawings showing locations of repairs of project features will be provided following completion of the project. These drawings will also serve as a reference point for future projects.

f) *Construction Documentation Report*: At the conclusion of construction, the BCWMC Engineer will prepare a construction documentation report which will include relevant construction documentation and incorporate record drawings.

g) *Warranty Inspection*: The BCWMC Engineer will perform a warranty inspection in late 2027 or early 2028 and prepare a memo documenting our observations and identifying deficient work necessitating corrective action, as necessary.

7) Project Management

The BCWMC Engineer will manage project scheduling and budgeting, in close coordination with the BCWMC Administrator and prepare and send monthly project updates.

List of Deliverables

The following deliverables will be provided during the proposed work:

a) 60%, 90%, and 100% construction drawings

b) 60%, 90% and 100% opinion of cost

c) 90%, and 100% specifications

d) Technical memorandums accompanying the 60% and 90% construction plans. The technical memorandums will describe the project, how the project follows or departs from the feasibility study.

e) Required temporary or permanent easement documents.

f) Daily construction reports

g) Record drawings

h) Construction documentation report

i) Warranty inspection memo

j) Meeting agendas and minutes

k) Project email updates

Cost Estimate

The table below summarizes our cost estimate for the scope of work outlined above.

Tasks	Estimated Total
1) Stakeholder Engagement and BCWMC Meetings	$28,500
2) Public Engagement	Not Applicable
3) Permitting	Not Applicable
4) Design	$98,000
5) Bidding Services	$10,000
6) Construction Services	$177,000
7) Project Management	$13,000
Total	**$326,500**

Schedule

We will complete the tasks outlined in the scope of work on the following schedule.

Tasks	Estimated Schedule
1) Stakeholder Engagement and BCWMC Meetings	Ongoing
2) Public Engagement	Not Applicable
3) Permitting	Not Applicable
4a) 60% Design	March 2026
4b) 90% Design	May 2026
4c) 100% Design	July 2026
5) Bidding Services	August 2026
6) Construction Services	Fall 2026 – Spring 2028
7) Project Management	Ongoing