

METRO FLOOD DIVERSION AUTHORITY

Thursday, December 1, 2016

3:30 PM

Fargo City Commission Room

Fargo City Hall

200 3rd Street North

1. Call to order
2. Approve minutes from previous meeting Item 2. Action
3. Approve order of agenda Action
4. Management Information
5. Administrative/Legal Information/action
 - a. 404 Permit Item 5a.
6. Technical Information
7. Finance Information/action
 - a. Committee report
 - b. Recommended contracting actions Item 7b.
 - c. FY 2017 budget Item 7c.
 - d. Voucher approval Item 7d.
8. Other Business
9. Next Meeting – December 15, 2016
10. Adjournment

cc: Local Media

**METRO FLOOD DIVERSION AUTHORITY
NOVEMBER 10, 2016—3:30 PM**

1. MEETING TO ORDER

A meeting of the Metro Flood Diversion Authority was held Thursday, November 10, 2016, at 3:30 PM in the Fargo City Commission Room with the following members present: Cass County Commission representative Darrell Vanyo; Cass County Commissioner Mary Scherling; Cass County Commissioner Ken Pawluk; Fargo City Mayor Tim Mahoney; Fargo City Commissioner Dave Piepkorn; Fargo City Commissioner Tony Grindberg; Moorhead City Mayor Del Rae Williams; Moorhead City Council Member Nancy Otto; Moorhead City Council Member Chuck Hendrickson; Clay County Commissioner Kevin Campbell; Clay County Commissioner Grant Weyland; Cass County Joint Water Resource District Manager Mark Brodshaug; and West Fargo City Commissioner Mike Thorstad. Tom Dawson, Chairman, Business Leaders Task Force was also present.

2. MINUTES APPROVED

MOTION, passed

Mr. Mahoney moved and Mr. Campbell seconded to approve the minutes from the October 27, 2016, meeting as presented. Motion carried.

3. AGENDA ORDER

MOTION, passed

Mr. Mahoney moved and Mr. Weyland seconded to approve the order of the agenda with the addition of acknowledgements after the order of agenda. Motion carried.

4. ACKNOWLEDGEMENTS

Mr. Vanyo and Mr. Mahoney acknowledged Cass County Commissioner Ken Pawluk and Moorhead City Councilwoman Nancy Otto for their service on the board as both will be retiring from their respective commissions in the next month. They also thanked Tom Dawson and the Business Leaders Task Force for their efforts to get the message out about the flood sales tax extension vote.

5. MANAGEMENT UPDATE

Program management consultant (PMC) report

Randy Richardson from CH2M provided an update on activities over the last month including approval of the flood sales tax extension by Fargo and Cass County voters; continued outreach with the MN DNR; contact with the four short-listed Public Private Partnership (P3) proposers; continued development of the Request for Proposals (RFP) for the P3 contract; development of a draft 2017 annual budget; Phase 1 land acquisition and opportunistic land acquisitions; and support of the Army Corps of Engineers design efforts on the southern embankment inlet structure. He said priority areas for the next month are to encourage adoption of a working group with the MN DNR; prepare for 2017 legislative activities; continue development of the P3 RFP documents; finish in-town construction for the season; advertise the Oxbow home demolition package; and continue Phase 1 land acquisitions.

Ty Smith from CH2M provided an update on in-town levee work, El Zagal Phase 2 levee construction, and Mickelson levee extension construction.

6. ADMINISTRATIVE/LEGAL UPDATE

Attorney John Shockley said the finance and legal team are working on the current finance plan and will provide an update to the board next month. He said work continues on the technical requirements for the P3 RFP's.

7. TECHNICAL UPDATE

Recommended Contracting Actions Summary

Randy Richardson reviewed the following Task Order Amendments and Authority Work Directive:

Task Order Amendments

- HMG Task Order 7 Amendment 6 (Recreation and Use Master Plan and Design)—add design services for Oxbow Park relocation, add services for preparation of National Park Service conversion submittal, and extend period of performance for Subtask C to March 31, 2017, in the amount of \$128,703.
- HMG Task Order 9 Amendment 16 (Hydrology and Hydraulic Modeling)—add scope and budget for additional Subtask K Phase 8 Model update in the amount of \$119,426.
- HMG Task Order 13 Amendment 14 (Levee Design and Design Support)—closeout budget adjustment for in-town levees Phase 2 design in the amount of \$60,000.
- HMG Task Order 16 Amendment 5 (Permit Submittal Preparation)—add scope and budget to prepare 2nd Street FEMA Conditional Letter of Map Revision (CLOMR) submittal and additional support for overall FM Diversion Project CLOMR and staging area mitigation plan, and extend period of performance to December 31, 2017, in the amount of \$116,000.
- HMG Task Order 19 Amendment 2 (P3 Document Preparation Support)—add scope and budget for additional P3 RFP technical support services and review in the amount of \$125,000.

MOTION, passed

Mr. Grindberg moved and Ms. Otto seconded to approve the appropriation of funds for the outlined Task Order Amendments. On roll call vote, the motion carried unanimously.

Authority Work Directive

- HMG AWD-00061 REV-1 (Geotechnical Investigation)—geotechnical investigation services needed for the P3 RFP process to take soil borings at Cass County Highway 14 and 38th Street West bridge crossing sites before the right-of-entry expires on November 25, 2016, at a cost not to exceed \$64,000.

MOTION, passed

Mr. Mahoney moved and Mr. Campbell seconded to approve the appropriation of funds for the outlined Authority Work Directive. On roll call vote, the motion carried unanimously.

Ty Smith from CH2M reviewed the following Change Orders and Settlement Claim:

Construction Change Orders

- Industrial Builders, Inc. Change Order 11 (2nd Street North Pump Station)—final project cost adjustment and decorative fence removal for a deduction in the amount of \$36,492.02.
- Reiner Contracting, Inc. Change Order 4 (El Zagal Flood Risk Management Phase 2)—additional stop sign and milestone adjustment for final seeding in the amount of \$420.50.
- Industrial Builders, Inc. Change Order 3 (Mickelson Levee Extension)—final cost adjustment, asphalt millings, and final completion seeding adjustment in the amount of \$7,891.50.
- Industrial Builders, Inc. Change Order 14 (2nd Street North – South of Pump Station)—street light modifications, City of Fargo Library landscaping, epoxy paint for streets, differing site conditions material disposal, 3rd Street lighting modifications, 1st Avenue plaza bench modifications, topsoil import, and temporary straw mulch in the amount of \$75,816.44.
- Industrial Builders, Inc. Change Order 4 (2nd Street North – North of Pump Station)—8” plaza concrete, pull boxes, temporary straw mulch, and milestone changes in the amount of \$8,650.

MOTION, passed

Mr. Weyland moved and Ms. Otto seconded to approve the appropriation of funds for the outlined Change Orders. On roll call vote, the motion carried unanimously.

Contractor Settlement Claim

Reiner Contracting, Inc. Settlement of Claim (El Zagal Flood Risk Management Phase 2)—authorize Co-Executive Directors to finalize decision on contractor claim and approve subsequent change order in the amount of \$14,181.14. The contractor submitted a claim for compensation totaling \$28,362.77. The Technical Advisory Group (TAG) reviewed the claim and recommend the Authority pay half the amount totaling \$14,181.14. If the board approves the claim, this would be awarded to Reiner Contracting, Inc. in a subsequent change order.

MOTION, passed

Mr. Pawluk moved and Ms. Otto seconded to approve the settlement claim with Reiner Contracting, Inc. in an amount not to exceed \$14,181.14. On roll call vote, the motion carried unanimously.

8. PUBLIC OUTREACH UPDATE

Committee report

The Public Outreach Committee met on November 9th. Rocky Schneider from AE2S provided an update on activities, which include public education on the flood sales tax extension vote; presentations given to different community organizations and boards; distribution of pull-up educational maps in different locations to allow public interaction; and planning for the 2017 legislative session. The website saw a significant increase in user traffic last month due to the vote on sales tax measures, MN DNR information and P3 short list activity.

Business Leaders Task Force

Tom Dawson said the task force is pleased with the ad campaign on the two ballot measures to extend the flood sales tax in Fargo and Cass County, and the election results with voters approving both measures.

9. LAND MANAGEMENT

The Land Management Committee met on November 9th. Mrs. Scherling said the committee discussed recent property acquisitions and a draft mitigation plan summary.

Mr. Vanyo asked about contracting for home demolition work in Oxbow. Mr. Brodshaug said he anticipates there will be a combination of demolition and home re-use with the contractor. Some of the houses may be moved and re-used. The contract will include sufficient time to allow buyers to schedule moving of the homes.

10. FINANCE UPDATE

Resolution on Contracting Actions

The Finance Committee met on November 9th. Mr. Grindberg said one of the topics discussed was a resolution outlining the procedure to be used for construction contracts, professional services and change orders.

John Shockley said the resolution does not apply to contracts handled by the individual partner entities or associated with the P3 procurement. He referred to Section 5 of the resolution regarding the procedure for Diversion Authority approval of changes and amendments to existing contracts. He said in certain situations when public safety dictates action to be taken in order to stabilize work sites or mitigate costs, the Co-Executive Directors may authorize change orders prior to them being submitted to the Diversion Authority. He said prior to authorizing work to be done, the Co-Executive Directors would contact the Finance Chair and Diversion Authority Chair. The Finance Committee recommends approval of the proposed resolution.

MOTION, passed

Mr. Mahoney moved and Mr. Campbell seconded to approve the “Resolution Confirming the Procedure for Approval of Construction Contracts; Contracts for Engineering, Architectural, and Other Professional Services; and Change Orders and Amendments”. On roll call vote, the motion carried unanimously.

Voucher approval

The bills for the month are with CCJWRD for costs associated with the Metro Flood Diversion, in-town levees, OHB levee, and Oxbow Country Club project; Ohnstad Twichell, P.C. for P3 bond counsel; and Springsted, Inc. for financial feasibility analysis services.

MOTION, passed

Mr. Pawluk moved and Ms. Otto seconded to approve the vouchers in the amount of \$7,246,198.09 for October, 2016. On roll call vote, the motion carried unanimously.

Contract Amendments

Michael Redlinger, Assistant Fargo City Administrator and Co-Executive Director, said the Finance Committee approved contract amendments with CH2M and Ernst & Young Infrastructure Advisors to extend the period of performance from November 25, 2016, to December 16, 2016.

MOTION, passed

Mr. Mahoney moved and Mrs. Scherling seconded to approve contract amendments with CH2M and Ernst & Young Infrastructure Advisors to extend the period of performance through December 16, 2016. On roll call vote, the motion carried unanimously.


11. NEXT MEETING DATE

The next meeting will be held on Thursday, December 1, 2016.

12. ADJOURNMENT

MOTION, passed

On motion by Mr. Pawluk, seconded by Ms. Otto, and all voting in favor, the meeting was adjourned at 4:52 PM.



**An Overview of P3 Activities
in 2017**

Presented By:
John Shockley, General Counsel for Diversion Authority

Short listed Proposers

- ▶ October 13, 2016 – DA Board Approved Four (4)
Short listed Proposers
- ▶ Lake Agassiz Partners (Walsh/Meridiam)
- ▶ Red River Valley Partners (Fluor/Plenary)
- ▶ Red River Valley Alliance (Acciona/InfraRed)
- ▶ Red River Partners (Graham/Parsons)

Approval of Request For Proposals (RFP)

- ▶ December 14, 2016 – Recommend Approval of RFP & Issuance of RFP by Finance Committee
- ▶ December 15 – Concurrence of Approval of RFP & Issuance of RFP by CCJWRD
- ▶ December 15 – Approval of RFP & Issuance of RFP by Diversion Authority (DA) Board
- ▶ December 16 – RFP Released

Contents of RFP

- ▶ **TR's** = Technical Requirements – Establishes technical performance standards for bidders
- ▶ **ITP** = Instructions to Proposers – Establishes instructions that the four (4) short listed proposers must follow to prepare technical & financial proposals
- ▶ **PA** = Project Agreement – Draft contract between DA and successful proposer
- ▶ **Supporting Materials** = Appropriations & Financing Whitepaper, Geo-Tech Reports, USACE data, etc.

One-On-One Informal Meetings

- ▶ Meetings with each of the short listed proposers
 - ▶ Purpose: to review TR's and other matters related to the RFP

 - ▶ February 13, 2017 – Walsh/Meridiam
 - ▶ February 14, 2017 – Graham/Parsons
 - ▶ February 15, 2017 – Acciona/InfraRed
 - ▶ February 16, 2017 – Fluor/Plenary
- 

Additional One-On-One Informal Meetings

- ▶ Second Informal One-On-One Meetings
April 3 – 7, 2017


 - ▶ Third Informal One-On-One Meetings
May 8 – 12, 2017

 - ▶ Fourth Informal One-On-One Meetings
June 7 – 9, 2017
- 


Final RFP

- ▶ July 14, 2017 – Final RFP Issuance
 - ▶ August 24, 2017 – Technical Proposal Due from Each Short listed Proposer
 - ▶ Following receipt of Technical Proposals, the Evaluation Team (local engineers) will perform technical review & evaluation
- 

Financial Proposals

- ▶ September 21, 2017 – Financial Proposals Due
 - ▶ Following receipt of Financial Proposals, Financial Team (Kent C., Mike M., & Brian B., supported by EY, Ohnstad, Ashurst, & CH2M) will perform review and evaluation and submit recommendations to Co-Deputy Executive Directors
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Select Preferred Proposer

- ▶ Recommendations go to Co-Deputy Executive Directors
 - ▶ Report from Co-Executive Directors to Finance Committee, CCJWRD & DA
 - ▶ October 12, 2017 – DA to Select Preferred Proposer
 - ▶ Preferred Proposer to submit security, which will remain in place until financial close
- 

Closing Dates – Notice To Proceed

- ▶ December 2017 – Commercial Close
 - ▶ March 1, 2018 – Financial Close
 - ▶ March 2, 2018 – Notice to Proceed
- 

MEMORANDUM

TO: Diversion Authority Board

FROM: John T. Shockley, General Counsel

DATE: November 23, 2016

OhnstadTwichell
attorneys

RE: Department of the Army Permit for the non-Federal sponsor portion of the Fargo-Moorhead Metropolitan Area Flood Risk Management Project consisting of the Diversion Channel and Associated Infrastructure

Attached please find the Department of the Army Permit (NWO-2013-1723-BIS) for the non-Federal sponsor portion of the Fargo-Moorhead Metropolitan Area Flood Risk Management Project. Pursuant to Article IV of the Joint Powers Agreement and Article II of the Project Partnership Agreement (PPA) the sponsors of the Project will construct the Non-Federal Work.¹ The permit authorizes construction of the diversion channel and attendant features in accordance with the PPA. All work contemplated in the permit will occur in Cass County, North Dakota.

I have reviewed the permit and would recommend a motion to authorize the Chairman of the Diversion Authority Board to execute the permit and submit it to the Department of the Army.

Suggested Motion: *I move to approve Department of the Army Permit No. NOW-2013-1723-BIS and authorize the Chair of the Diversion Authority Board to execute the Permit on behalf of the Metro Flood Diversion Authority.*

¹ The term "Non-Federal Work" means that portion of the Project consisting of an approximately 30 mile 20,000 cubic feet per second (cfs) diversion channel and associated features; the channel outlet; the Rush and Lower Rush River hydraulic structures; the Maple River aqueduct; the Sheyenne River aqueduct; the inflow design flood levee; recreation features; environmental mitigation features located within the diversion channel and associated structures for the diversion channel; and applicable pre- and post-monitoring and adaptive management for the Project. See Article I, paragraph B.

DEPARTMENT OF THE ARMY PERMIT

Permittee Fargo-Moorhead Diversion Authority

Permit No. NWO-2013-1723-BIS

Issuing Office Omaha District, North Dakota Regulatory Office

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: The Fargo-Moorhead Diversion Authority (Diversion Authority) is authorized construct the diversion channel and attendant features associated with the Fargo-Moorhead Metropolitan Area Flood Risk Management Project in accordance with the Project Partnership Agreement executed 11 July 2016.

Work authorized includes: (1) a 30 mile diversion channel from the diversion inlet control structure near Cass County Road 17, just southeast of Horace, North Dakota, north around the west side of the FM metro area and to its outlet north of the confluence of the Red and Sheyenne Rivers near Georgetown, Minnesota; (2) An aqueduct at the point where the diversion channel intersects the Sheyenne River; (3) An aqueduct at the point where the diversion channel intersects the Maple River; (4) Diversion of the Lower Rush River into the diversion channel via a rock ramp at the point where the diversion channel intersects the Lower Rush River; (5) Diversion of the Rush River into the diversion channel via a rock ramp at the point where the diversion channel intersects the Rush River; (6) Improvement/modification of existing transportation and utility infrastructure at 19 locations along the diversion channel alignment, and; (7) Construction and/or modification of existing ditches and drains to accommodate local drainage along the diversion channel alignment. In addition, it includes excavation of approximately 800 linear feet of the left bank of the Red River of the North to connect the diversion channel to the Red River of the North near Georgetown, Minnesota. [Continued on Page 4]

Project Location: Authorized work is located in Cass County, North Dakota as depicted on Figure 1.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **31 December 2021**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions. (ND Department of Health Letter dated 20 October 2016 is Attachment B)

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

(General Conditions are continued on page 4.)

Special Conditions: (See pages 7 through 10)

After a detailed and careful review of all of the conditions contained in this permit, Fargo-Moorhead Diversion Authority (Diversion Authority) acknowledges that, although said conditions were required by the Corps of Engineers, nonetheless the Diversion Authority agreed to those conditions voluntarily to facilitate issuance of the permit and will comply fully with all the terms of the permit conditions.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

Section 10 of the River and Harbors Act of 1899 (33 U.S.C. 403).

Section 404 of the Clean Water Act (33 U.S.C. 1344).

Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE) (DATE)
FARGO-MOORHEAD DIVERSION AUTHORITY

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

JOHN W. HENDERSON
(DISTRICT ENGINEER) _____ (DATE)
Colonel, Corps of Engineers

By: _____
PATRICIA L. MCQUEARY, Reg Program Mgr
North Dakota, Reg Branch, Operations Division

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE) (DATE)

Project Description continued. Construction will result in: (1) Discharges of dredged or fill material into 1,487.5 acres of wetlands; (2) Discharges of dredged or fill material into 5,808 linear feet of the Maple River (10.7 acres) for construction of the Maple River aqueduct; (3) Discharges of dredged or fill material into 4,224 linear feet (8.4 acres) of the Sheyenne River for construction of the Sheyenne River aqueduct; (4) Discharges of dredged and fill material into 6,534 linear feet (3 acres) of the Lower Rush River for construction of the Lower Rush River inlet, and; (5) Discharges of dredged and fill material into 6,534 linear feet (3 acres) of the Rush River for construction of the Rush River inlet. Attachment A provides Narrative Descriptions of Project Features.

PERMIT CONDITIONS

The **point-of-contact** in conjunction with General Conditions [1 through 23] and Special Conditions [A through KK] will be the **United States Army Corps of Engineers - North Dakota Regulatory Office (NDRO)** in Bismarck, North Dakota, unless specifically designated to another party.

• **GENERAL CONDITIONS continued.** General Conditions 1 through 6 are preprinted on ENG Form 1721.

7. That all activities identified and authorized herein shall be consistent with the terms and conditions of this permit; and that any activities not specifically identified and authorized herein shall constitute a violation of the terms and conditions of this permit which may result in the modification, suspension, or revocation of this permit, in whole or in part, as set forth more specifically in General Conditions [11], [12] and [13] hereto, and in the institution of such legal proceedings as the United States Government may consider appropriate, whether or not this permit has been previously modified, suspended, or revoked in whole or in part.

8. That the Diversion Authority shall permit the District Engineer or his authorized representative(s) or designee(s) to make periodic inspections at any time deemed necessary in order to assure that the activity being performed under the authority of this permit is in accordance with the terms and conditions prescribed herein.

9. That this permit does not convey any property rights, either in real estate or material, or any exclusive privileges, and that it does not authorize any injury to property or invasion of rights or any infringement of Federal, State or local laws, or regulations nor does it obviate the requirement to obtain State or local assent required by law for the activity authorized herein.

10. That this permit does not authorize the interference with any existing or proposed Federal project, without consent from the responsible agency, and that the Diversion Authority shall not be entitled to compensation for damage or injury to the structures or work authorized herein which may be caused by or result from existing or future operations undertaken by the United States in the public interest.

11. That this permit may be summarily suspended, in whole or in part, upon a finding by the District Engineer that immediate suspension of the activity authorized herein would be in the general public interest. Such suspension shall be effective upon receipt by the Diversion Authority of a written notice thereof which shall indicate (1) the extent of the suspension; (2) the reasons for this action; and (3) any corrective or preventative measures to be taken by the Diversion Authority which are deemed necessary by the District Engineer to abate imminent hazards to the general public interest. The Diversion Authority shall take immediate action to comply with the provisions of this notice. Within 10 days following receipt of this notice of suspension, the Diversion Authority may request a hearing in order to present information relevant to a decision as to whether the permit should be reinstated, modified or revoked. If a hearing is requested, it shall be conducted pursuant to procedures by the Chief of Engineers. After completion of the hearing, or within a reasonable time after issuance of the suspension notice to the Diversion Authority if no hearing is requested, the permit will be reinstated, modified or revoked.

12. That this permit may be modified, suspended, or revoked in whole or in part if the Secretary of the Army or his authorized representative determines that there has been a violation of any of the terms or conditions of this permit or that such action would otherwise be in the public interest. Any such modification, suspension, or revocation shall become effective 30 days after the receipt by the Diversion Authority of written notice of such action which shall specify the facts or conduct warranting same unless (1) within the 30-day period the Diversion Authority is able to satisfactorily demonstrate that (a) the alleged violation of the terms and conditions of this permit did not, in fact, occur or (b) the alleged violation was accidental, the Diversion Authority has been operating in compliance with the terms and conditions of the permit; or (2) within the aforesaid 30-day comments period, the Diversion Authority requests that a public hearing be held to present oral and written evidence concerning the proposed modification, suspension or revocation. The conduct of this hearing and the procedures for making a final decision either to modify, suspend or revoke this permit in whole or in part shall be pursuant to procedures prescribed by the Chief of Engineers.

13. That in issuing this permit, the Government has relied on the information and data the Diversion Authority has provided in connection with its permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and/or the Government may, in addition, institute appropriate legal proceedings.

14. That any modification, suspension, or revocation of this permit shall not be the basis for any claim for damages against the United States.

15. The Diversion Authority understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the Diversion Authority will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

16. That the Diversion Authority, upon receipt of a notice of revocation of this permit, or upon its expiration before completion of the authorized structure or work, shall, without expense to the United States and in such time and manner as the District Engineer or his authorized representative may direct, restore the waterway to its former condition. If the Diversion Authority fails to comply with the direction of the District Engineer or his authorized representative, the District Engineer or his designee may restore the waterway to its former condition, by contract or otherwise, and recover the cost thereof from the Diversion Authority.

17. That this permit does not authorize or approve the construction of particular structures, the authorization or approval of which may require authorization by the United States Congress or other agencies of the Federal government.

18. The United States shall not be responsible for damage to property or injuries to persons which may arise from or be incident to the work herein authorized, and the Diversion Authority shall hold the United States harmless from any and all such claims, except to the extent that the damage or injury is caused solely by the negligence of the United States.

19. That there shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein.

20. That this permit shall authorize only the proposed work shown on the attached drawings and described within this permit instrument.

21. That after construction is completed no attempt shall be made by the Diversion Authority to prevent the full and free use by the public of all waters at or adjacent to the activity authorized by this permit.

22. That by signing this permit, the Diversion Authority has assumed full responsibility for construction and maintenance costs of this project. The Diversion Authority has agreed to undertake this project with full knowledge and the project, once constructed, may not be modified without written permission of the Corps.

23. That the Diversion Authority is responsible for ensuring that the contractor and/or workers executing the activity(s) authorized by this permit have full knowledge of the terms and conditions of the authorization and that a copy of the permit instrument is at the project site throughout the period work is underway.

SPECIAL CONDITIONS.

Non-Forested Wetland Compensatory Mitigation

A. The Diversion Authority shall compensate for unavoidable impacts to 1487.5 acres of non-forested wetlands by creating a minimum of 1304.6 acres of wetland mitigation within the diversion channel bottom as described in the Diversion Channel Site Mitigation Plan (DCMSP) dated March 2016. The wetland mitigation shall be completed prior to or concurrent with the discharges of dredged and fill material into waters of the United States authorized by this permit and shall result in the following types: seasonally flooded basin, wet meadow, and shallow marsh. No more than 20 percent of the total acreage of wetlands at this mitigation site shall be comprised of the shallow marsh wetland plant community type.

B. No later than 180 days prior to the start of construction of the diversion channel the Diversion Authority shall provide an updated DCMSP. The updated plan shall address each of the elements identified at 33 CFR 332.4(c). This submittal shall be of sufficient detail to be implemented without further amendment or clarification and shall take into account the differences between the various wetland types being created in the diversion channel. No work on the compensatory mitigation site shall commence until the NDRO has provided written approval of this submittal.

C. The Diversion Authority shall utilize native plant species for all upland and wetland areas at the diversion channel bottom mitigation site.

D. The Diversion Authority shall notify the NDRO when: (1) construction of the mitigation site(s) has commenced and, (2) construction of the mitigation site, or a phase of the mitigation site if constructed in phases, has been completed. The purpose of the notification is to allow the NDRO an opportunity to inspect the mitigation sites at these times.

E. The Diversion Authority shall provide annual monitoring reports as described in the mitigation plan. Monitoring requirements may be waived, modified, or extended at the discretion of the NDRO, based on the success of the mitigation site(s).

F. At the completion of the monitoring period, as contained in the DCMSP, the Diversion Authority shall provide a wetland delineation identifying that the required acreage of non-forested wetlands has been restored, created, and/or enhanced at the mitigation site(s) and that all other applicable performance standards for the sites have been achieved. The Diversion Authority may submit the final wetland delineation prior to the close of the monitoring period if the NDRO determines that the performance standards have been met and that additional monitoring of a site(s) is no longer necessary pending the outcome of the delineation.

Forested Wetland Compensatory Mitigation

G. The Diversion Authority shall compensate for unavoidable impacts to 26.1 acres of forested wetlands by restoring 56.2 acres of forested wetland within the Red River of the North watershed in the State of North Dakota. The mitigation shall be completed at three separate sites in the watershed as described in the Forested Wetland Mitigation Plan (FWMP) prepared by the U.S. Army Corps of Engineers, St. Paul District dated March 2016. The forested wetland mitigation shall be completed prior to or concurrent with the discharges of dredged and fill material into forested wetlands authorized by this permit at the Sheyenne and Maple River aqueduct sites.

H. The Diversion Authority shall provide annual monitoring reports as described in the monitoring plan. Monitoring requirements may be waived, modified, or extended at the discretion of the NDRO, based on the success of the mitigation site(s).

I. At the completion of the monitoring period, as contained in the FWMP, the Diversion Authority shall provide a wetland delineation identifying that the required acreage of forested wetlands has been restored, created, an/or enhanced at the mitigation sites and that all other applicable performance standards for the sites have been achieved. The Diversion Authority may submit the final wetland delineation prior to the close of the monitoring period if the NDRO determines that the performance standards have been met and that additional monitoring of a site(s) is no longer necessary pending the outcome of the delineation.

J. The Diversion Authority shall provide a copy of the executed long term mitigation site protection instrument within 90 days of the start of construction work at each site.

K. The Diversion Authority shall utilize native plant species for all re-vegetation of upland and wetland areas at the forested wetland mitigation sites.

Compensatory Mitigation for Aquatic Habitat Impacts

L. The Diversion Authority shall compensate for unavoidable impacts to 10 acres of riverine habitat in the Maple River and 8 acres of riverine habitat in the Sheyenne River by restoring 25 acres of riverine habitat on the Bois du Sioux River. The mitigation shall be completed in accordance with the Aquatic Habitat Mitigation Plan (AHMP) prepared by the U.S. Army Corps of Engineers, St. Paul District dated March 2016. The aquatic habitat mitigation shall be completed prior to or concurrent with the discharges of dredged and fill material into the Maple and Sheyenne Rivers authorized by this permit.

M. No later than 180 days prior to any discharges associated with construction of the Maple or Sheyenne River aqueducts the Diversion Authority shall provide an updated AHMP addressing each of the elements identified at 33 CFR 332.4(c). This submittals shall be of sufficient detail to be implemented without further amendment or clarification. No work on the compensatory mitigation site shall commence until the NDRO has provided written approval of this submittal.

N. The Diversion Authority shall provide annual monitoring reports as described in the AHWP. Monitoring requirements may be waived, modified, or extended at the discretion of the NDRO, based on the success of the mitigation site.

O. At the completion of the monitoring period, as contained in the AHMP, the Diversion Authority shall provide a final report summarizing the performance of the mitigation site and progress towards achieving applicable performance standards. The Diversion Authority may submit the final report prior to the close of the monitoring period if the NDRO determines that the performance standards have been met and that additional monitoring of a site(s) is no longer necessary.

P. The Diversion Authority shall provide a copy of the executed long term mitigation site protection instrument within 90 days of the start of construction work at each site.

Q. The Diversion Authority shall utilize native plant species for all re-vegetation of upland and wetland areas at the aquatic habitat mitigation site.

Notifications

R. The Diversion Authority is responsible for ensuring that any contractor and/or workers executing the activity(s) authorized by this permit have full knowledge of the terms and conditions of the authorization and that a copy of the permit is available at the project site(s) throughout the period the authorized work is performed.

S. The Diversion Authority shall notify the NDRO when the activity authorized by this permit begins, when there is any suspension of work (if for a period of more than one week) and subsequent resumption of work, and upon completion of the authorized work.

Best Management Practices and Construction Conditions

T. All work within, or discharges to, a watercourse resulting from permitted construction activities must meet applicable Federal, state, and local water quality and effluent standards on a continuing basis.

U. Erosion and sediment control practices shall be in place prior to any grading or other earthwork. They shall remain in place and be maintained until construction is completed and the area is stabilized. Erosion and sediment control measures shall be removed when construction is complete and the affected areas have been stabilized in accordance with the sediment and erosion control plan.

V. Measures must be adopted to prevent potential pollutants from entering a watercourse, including wetlands. Construction materials and debris, including fuel, oil and other liquid substances, shall not be stored in a manner that would allow them to enter a watercourse as a result of spillage, natural runoff, or flooding.

W. If materials are excavated from a water of the United States and placed at an upland disposal site (above the ordinary high water mark of a watercourse), the disposal site shall be securely diked or contained by an alternative method that prevents the return of pollutants to the watercourse by surface runoff or leaching from the disposal site. The containment area must be fully completed prior to the placement of any excavated material. Any portion of the disposal site constructed in a water of the United States not specifically authorized by this permit requires additional authorization.

X. Upon completion of earthwork operations, all exposed slopes, fills, and disturbed areas shall be stabilized using current industry accepted erosion control practices, including seeding and mulching.

Y. The Diversion Authority shall identify water intakes or other water related activities that may be affected by suspended solids and turbidity increases caused by construction activity in the Red, Maple, Wild Rice, Sheyenne, Rush, and Lower Rush Rivers. The Diversion Authority shall provide notice to the owner of each intake or facility ninety days prior to work that could affect water quality in one or more of the named watercourses.

Z. All work in the Red, Maple, Sheyenne, Wild Rice, Rush, and Lower Rush Rivers will be performed in such a manner so as to minimize increases in suspended solids and turbidity that may degrade water quality and damage aquatic life outside the immediate area of operation.

AA. All areas along the bank of an existing watercourse disturbed during construction or along newly created diversions or rerouted watercourses, which will not be rippedraped, shall be seeded or planted with vegetation indigenous to the area.

BB. All trees and shrubbery which are not specifically required to be cleared or removed for construction or operations purposes shall be preserved and shall be protected from any damage by construction operations and equipment.

CC. All temporary fill shall be removed in their entirety and the area restored to its preconstruction contours within 15 calendar days of completion of construction in the affected area and no longer than 30 days from the expiration date of this permit.

Wildlife Resource Protection Conditions

DD. The Diversion Authority shall follow the U.S. Fish and Wildlife Service's National Bald Eagle Management Guidelines to minimize the likelihood that the proposed project will affect any bald eagles nesting in the Fargo/Moorhead Project Area.

EE. The Diversion Authority shall conduct raptor nest surveys each spring in forested areas to determine the presence of existing or new nests that may be affected by the Project construction and excavation activities. The raptor surveys shall be completed annually prior to "leaf out" beginning the first year of construction of the work authorized by this permit and shall continue until construction is complete. The Diversion Authority shall provide the results of the raptor nest surveys to the Corps and shall not commence construction work affecting areas with raptor nests until the Corps provides written verification that work may proceed.

FF. No work shall be performed in the Red River of the North between April 15 and July 15 each year during construction of the project.

GG. No work shall be performed in the following tributaries to the Red River of the North between April 15 and June 15 each year during construction of the project: Sheyenne River, Maple River, Wild Rice River, Lower Rush River, and the Rush River.

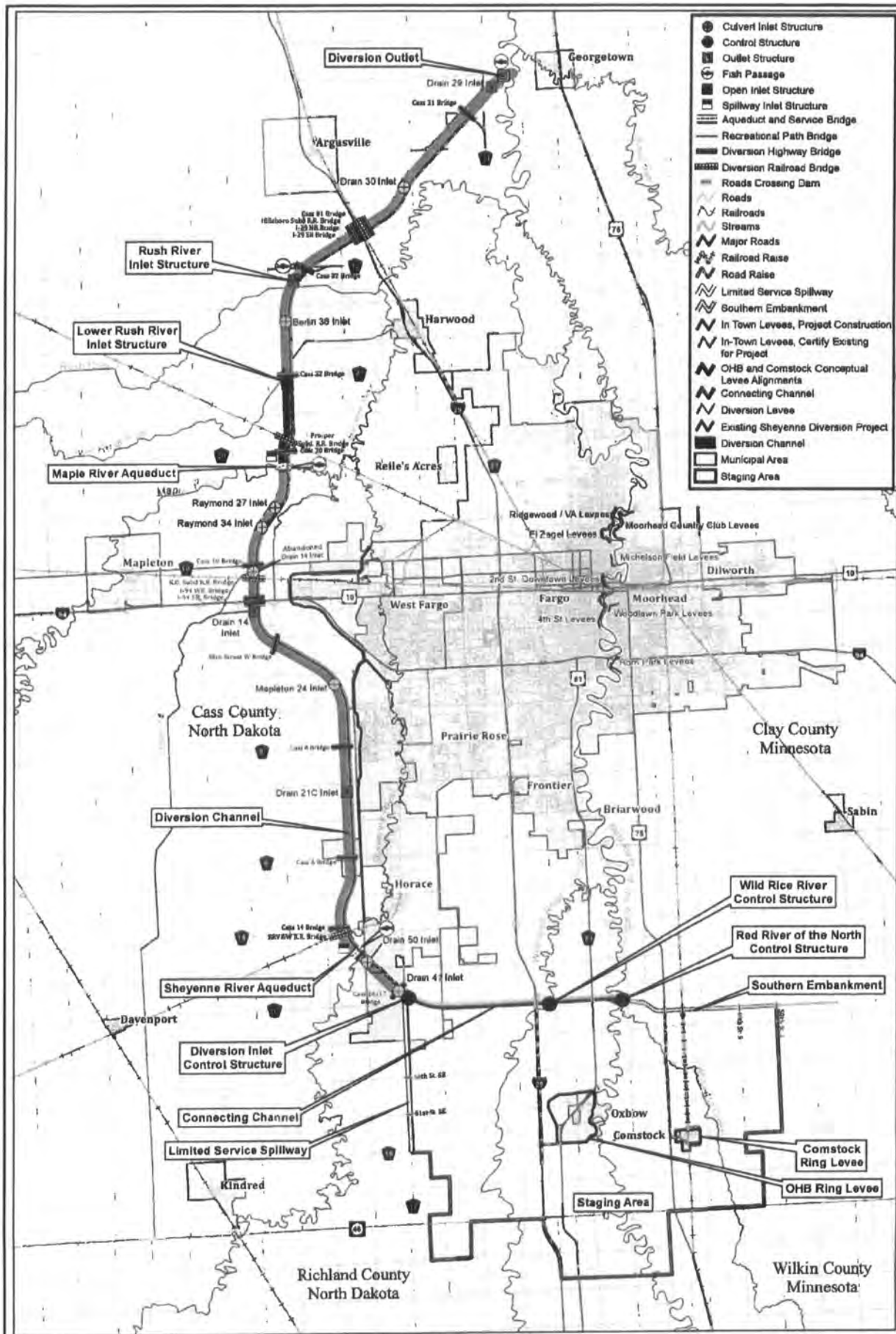
HH. Removal of mature trees (diameter at breast height greater than 3 inches) shall not occur in the project area during the northern long-eared bat pupping season of June 1 through July 31 each year during construction of the project.

II. The Diversion Authority shall avoid impacts (clearing, grading, cutting, mowing, discing, or other activities that disturb or remove native vegetation) to migratory bird nesting habitats (woodlands, native grasslands, and wetlands, except for farmed wetlands) between April 1 and August 31 of each year during construction of the project.

Cultural Resources

JJ. The Diversion Authority will request and obtain written verification from the Chief of Programs and Project Management Division, U.S. Army Corps of Engineers, St. Paul District that a phase or phases of the project are in compliance with the stipulations in the *Programmatic Agreement Among the U.S. Army Corps of Engineers, St. Paul District, the North Dakota State Historic Preservation Officer, and the Minnesota State Historic Preservation Officer Regarding the Fargo-Moorhead Metro Flood Risk Management Project, Cass County, North Dakota and Clay County, Minnesota* (Programmatic Agreement) and *Amendment No. 1* to the Programmatic Agreement prior to initiating construction in that portion of the project.

KK. The Diversion Authority shall monitor construction earthwork in river floodplains, terraces, oxbows, and within 100 meters (328 feet) of the top of the bank of a river or the outer edge of an oxbow. Cultural resource monitoring shall be performed by a qualified professional archeologist with a valid permit from the Archaeology and Historic Preservation Division (SHPO) of the State Historical Society of North Dakota. The archeologist shall be approved in advance by the Chief of Programs and Project Management Division, U.S. Army Corps of Engineers, St. Paul District. The Diversion Authority's archeologist shall follow the *North Dakota SHPO Guidelines Manual for Cultural Resource Inventory Projects, revised edition (2015)* when conducting fieldwork and preparing report(s). Should an unidentified site or property that may be eligible for inclusion on the National Register be discovered during construction, the Diversion Authority shall immediately cease work in that area of the project and notify the Chief of Programs and Project Management Division, U.S. Army Corps of Engineers, St. Paul District of the discovery. Work shall not resume in the area until the U.S. Army Corps of Engineers, St. Paul District provides written notification that construction work may continue.



- Culvert Inlet Structure
- Control Structure
- Outlet Structure
- Fish Passage
- Open Inlet Structure
- Spillway Inlet Structure
- ▬ Aqueduct and Service Bridge
- ▬ Recreational Path Bridge
- ▬ Diversion Highway Bridge
- ▬ Diversion Railroad Bridge
- ▬ Roads Crossing Dam
- ▬ Roads
- ▬ Railroads
- ▬ Streams
- ▬ Major Roads
- ▬ Railroad Raise
- ▬ Road Raise
- ▬ Limited Service Spillway
- ▬ Southern Embankment
- ▬ In Town Levees, Project Construction
- ▬ In-Town Levees, Carry Existing for Project
- ▬ OHB and Comstock Conceptual Levee Alignments
- ▬ Connecting Channel
- ▬ Diversion Levee
- ▬ Existing Sheyenne Diversion Project
- ▬ Diversion Channel
- ▭ Municipal Area
- ▭ Staging Area

Project Features - June 2015
 Fargo Moorhead Metro Area Flood Risk Management



Attachment A: Narrative Descriptions of the Project Features

Detailed Project Description

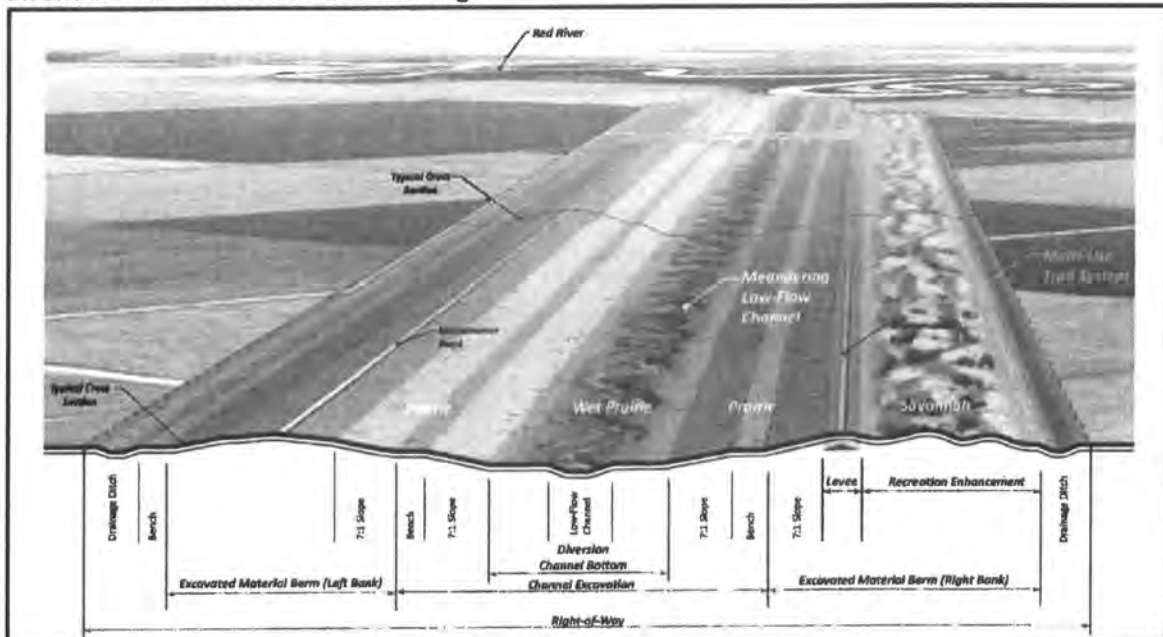
The following provides details on the Project components that will be constructed by the Diversion Authority, as the Public Private Partnership (P3) Diversion Channel and Associated Infrastructure (DCAI) Project. These include the diversion channel, Maple River and Sheyenne River aqueducts, Lower Rush River and Rush River rock ramp diversions. The Project also includes in-town levees and floodwalls, non-structural features, and recreation features. Information about Project components and general operation are provided below and identified in Figure 1 (attached separately).

The federal government is constructing the Southern Embankment and Associated Infrastructure (SEAI) under the agreed to split delivery of the overall project (figure 1).

Diversion Channel

The diversion channel starts from the diversion inlet control structure near Cass County Road 17, just southeast of Horace, North Dakota. From the diversion inlet control structure, the diversion channel would extend approximately 30 miles downstream to its outlet north of the confluence of the Red and Sheyenne Rivers near Georgetown, Minnesota. Illustration A.1 provides an artist rendering of the diversion channel design. The diversion channel is routed west of Horace, West Fargo, and Harwood and cross the Sheyenne, Maple, Lower Rush and Rush rivers. The diversion channel would continue west of and separate from the existing "Horace to West Fargo" and "West Fargo" diversion channels.

Illustration A.1 - Diversion Channel Design

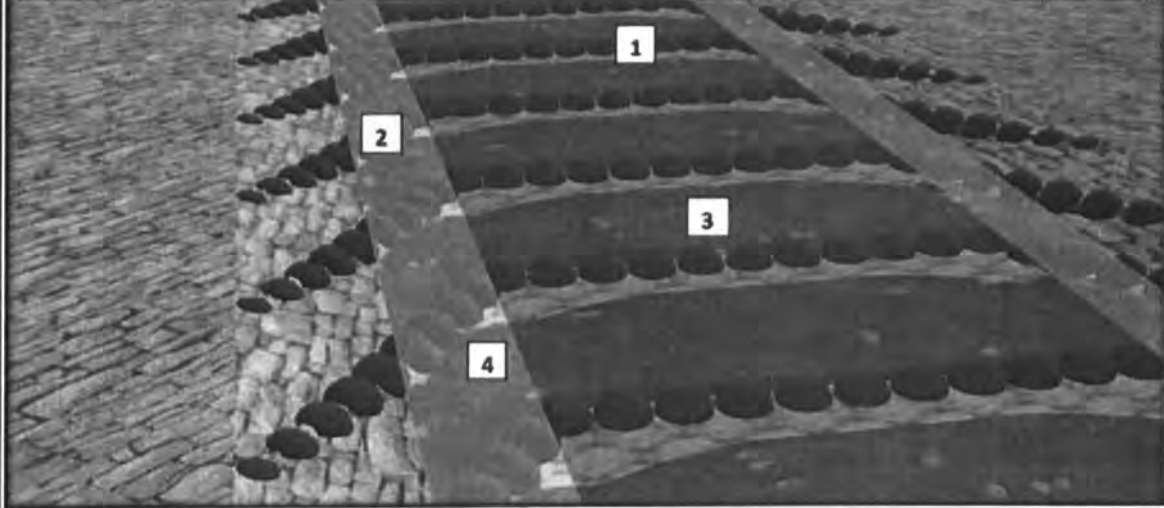


Source: Diversion Authority, 2015

The diversion channel outlet, located where the diversion channel returns to the Red River in Wiser Township, Cass County, North Dakota, would consist of a rock ramp spillway with a crest width of 300 feet and will also be designed to allow fish passage. Illustration A.2 is a rendering of the diversion channel outlet and provides estimated peak velocities through the outlet for various flow conditions.

Illustration A.2 - Diversion Channel Outlet

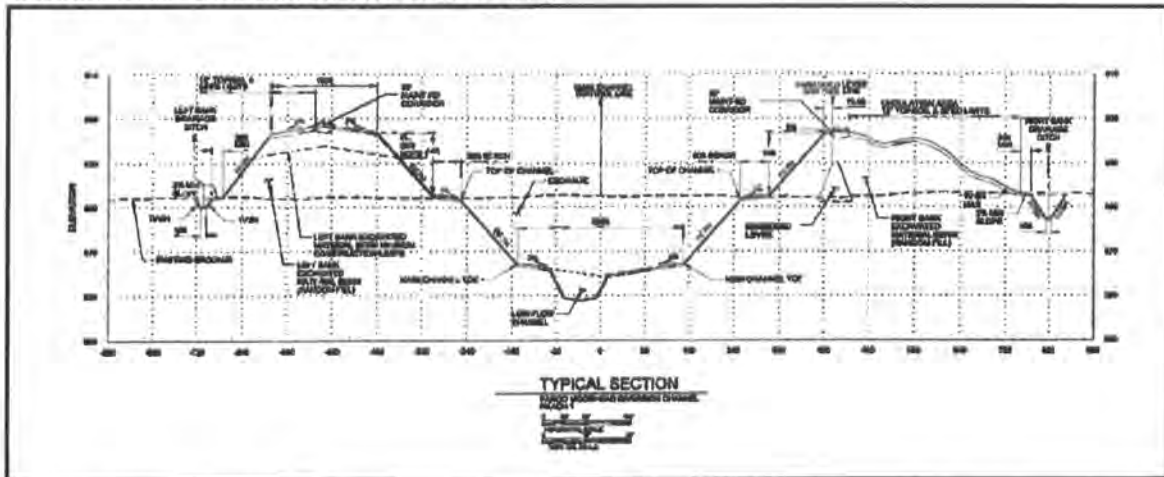
	Location	Feature	Description	Peak Velocities			
				100 cfs	1000 cfs	7000 cfs	20000 cfs
1	Center	Weir	High velocity area at the center of the channel through the boulder weirs which can accommodate passage for fish with stronger <i>maximum burst speeds</i>	5.5 ft/s	8.5 ft/s	10.8 ft/s	3.6 ft/s
2	Fringe	Weir	Fringe area through boulder weirs with moderate velocity to accommodate fish passage for a <i>full range of burst speeds</i>	4 ft/s	5 ft/s	6.4 ft/s	2.4 ft/s
3	Center	Pool	Pool area at the center of the channel with velocities in the range of <i>sustained swim speeds</i> for most flows	0.4 ft/s	2.2 ft/s	6.3 ft/s	3.3 ft/s
4	Fringe	Pool	Fringe areas of the pools with low velocities for <i>resting</i>	0.3 ft/s	1 ft/s	2.7 ft/s	2.3 ft/s



Source: Diversion Authority, 2015

The diversion channel is designed to receive 20,000 cfs for the 100-year flood at the diversion inlet control structure and additional water from drainages intersected downstream of the inlet control structure. The diversion will be designed to keep the 100-year flood flows in the diversion channel below existing ground elevations as much as practicable to limit impacts to drainage outside the channel. The diversion channel would have a bottom width of up to 300 feet and a variable-width, low-flow channel sized on sediment transport considerations (Illustration A.3). The low-flow channel would meander within a 200-foot belt width within the 300-foot bottom width from just upstream of the diversion channel outlet to just downstream of the Maple River aqueduct.

Illustration A.3 - Diversion Channel Cross Section



Source: Diversion Authority, 2015

The depth of the diversion channel would range from 15 to 25 feet deep excluding the low-flow channel and 20 to 30 feet deep including the low-flow channel. The general longitudinal slope of the diversion would be 0.9 ft/mile, with the low-flow channel having slightly less slope due to the meandering pattern. The side slopes outward from the up to 300-foot bottom width would be one vertical step to seven horizontal steps, and include geotechnical "benches" of 0 to 30 feet wide, as needed, to provide additional stability to meet the required factors of safety. Surfaces such as the bottom width and the geotechnical stability benches would be sloped at two percent toward the center of the channel to provide drainage. The low-flow channel increases in size and capacity as the diversion channel moves downstream to accommodate drainage inflows; its bottom width increases from 10 feet to 52 feet, and its depth below the main channel increases from 2.5 feet to 6.5 feet in four increments along the 30-mile channel alignment. Additional details are described in Appendix D of the Supplemental EA, September 2013.

Soil excavated from the diversion channel would be placed into excavated material berms adjacent to the channel to a typical height of 16 feet and maximum of 21 feet. The excavated material berms would be as wide as necessary to contain the excavated material. Portions of the berms on the east side of the channel would be constructed to serve as levees when the water surface in the channel is higher than the natural grade. The maximum width of the footprint along the diversion channel would be approximately one half mile including the diversion channel, excavated material berms, and local drainage ditches.

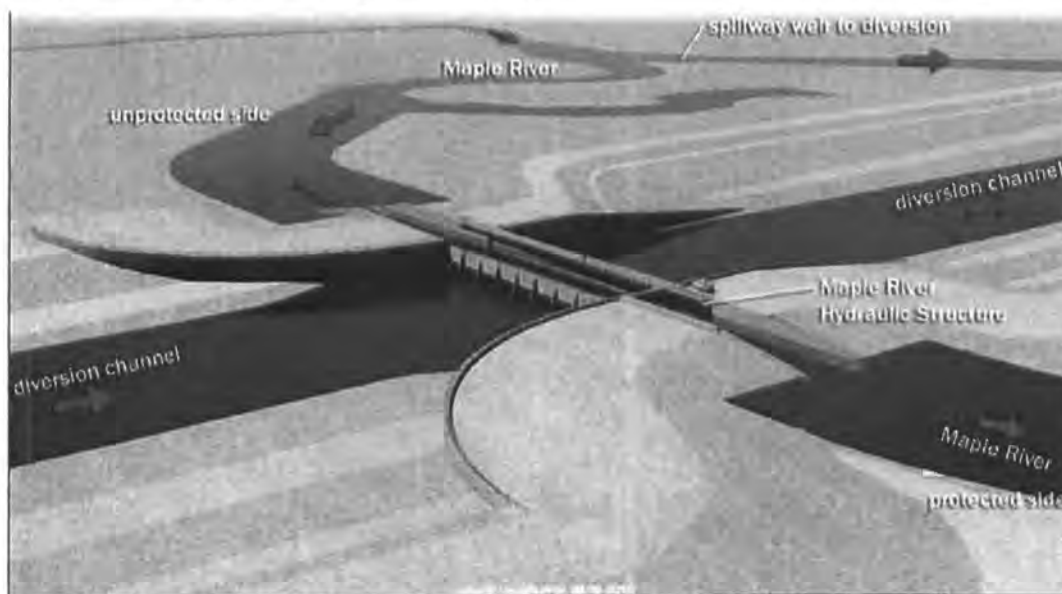
Drainage ditches adjacent to the berms intercept local drainage and direct it to the nearest downstream diversion inlet control structure. The drainage ditches would run along the exterior excavated material berm toe on both sides of the diversion channel. The left-bank (looking downstream) ditch would direct flow to the diversion inlet structures (e.g., Drain 30 and Rush River). The right-bank ditch would direct flow into existing drainage features that would direct flow away from the diversion channel.

Maple River and Sheyenne River Aqueducts

Aqueducts (bridge-like structures) convey the Maple and Sheyenne Rivers over the diversion channel. The preliminary concept for both structures is an open aqueduct that crosses over the diversion channel

to allow continuous connectivity of these two rivers and the diversion channel. The Maple River aqueduct concept is shown in Illustration A.4.

Illustration A.4 - Maple River Aqueduct Concept



Source: Diversion Authority, 2015

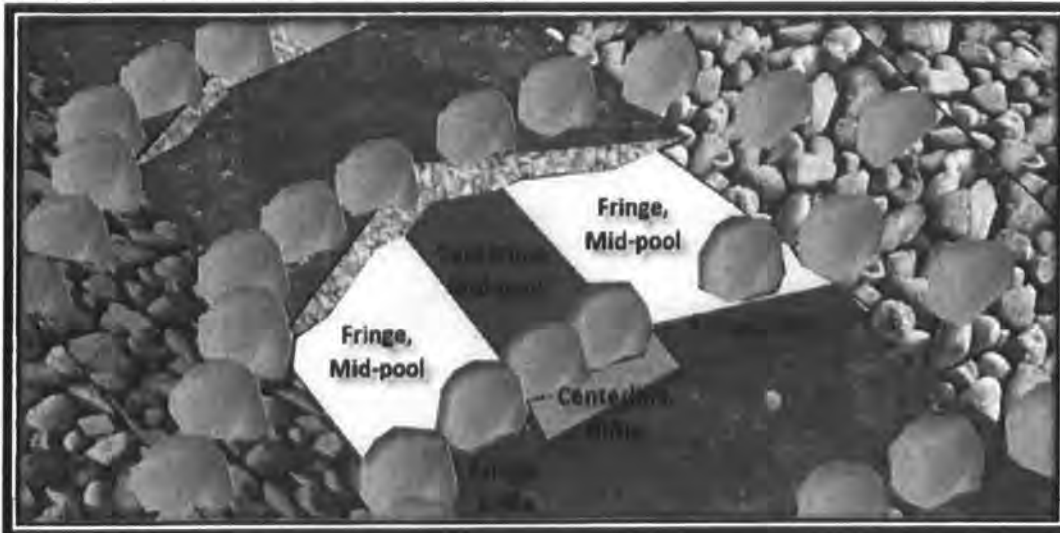
During non-flooding operation, flows up to the channel forming flow, from the Maple and Sheyenne Rivers pass over the aqueduct and continue downstream in their natural channels, and no Maple or Sheyenne river flow enters the diversion channel.

During flood events, channel forming Maple and Sheyenne river flow crosses over the aqueducts, flood water (higher than the channel forming flow) flows over the weir spillways into the diversion channel, while at the same time flows in the diversion channel pass underneath the aqueducts. Once bank-full flows are exceeded in the river channels, excess water would be diverted into the diversion channel. The purpose of maintaining bank-full flows (the flow at which water fills the channel without overtopping the banks – an average recurrence is one and one half years in North Dakota) in the rivers is to maintain existing geomorphologic processes and existing habitat conditions in the natural channels. The intended operation of the Sheyenne and Maple River aqueducts, is to maintain biological connectivity and fish passage in the rivers. The two aqueducts are similar in concept; each includes a grade control structure to prevent headcutting on the tributary, an inlet structure weir spillway to control diversion of tributary flood flows, heating components for cold weather operation, and an aqueduct to pass a limited flow over the diversion channel to maintain the desired downstream flow. The aqueducts would be constructed off-channel with the river diverted across the aqueduct upon completion.

Lower Rush River and Rush River Rock Ramps

At the Lower Rush River and Rush River, rock ramps would be used to continuously divert the entire flow into the diversion channel. The Lower Rush River and Rush River would be diverted into the diversion channel and no longer would flow into the Sheyenne River downstream. The Rush River rock ramp concept is shown in the Illustration A.5.

Illustration A.5 - Rush River Rock Ramp Concept



Source: Diversion Authority, 2015

Ditches, Inlets, and Smaller Control Structures

Ditches parallel to the diversion channel and smaller control structures are required to accept existing drainages intersected by the diversion channel. Ditches running outside and parallel to the diversion channel would direct local drainage to a reasonable number of inlet structure locations. Existing ditches, field swales, and drain tile would be directed into these parallel ditches. The larger inlet structures, such as Drain 14 (a drainage ditch which runs generally south to north from Davenport to the Maple River near its mouth), would be open inlet structures similar to Lower Rush River and Rush River rock ramp structures. These larger inlet structures would be either concrete drop structures or rock ramps. The smaller inlet structures would be culvert structures with flap gates and energy dissipation chambers at the outlet. The culvert flap gates would prevent backflow from the diversion channel after peak flows.

Uncontrolled inlet structures (inlet structures without backflow prevention) would be placed at drainages that have either natural or manmade levees which would prevent widespread flooding from diversion channel backflow for events up through the 100-year flood. The project design along the diversion channel is to maintain the existing 100-year flood floodplain in adjacent upstream drainages.

Transportation and Utility Features

Within the staging area of the Southern Embankment, Interstate 29, U.S. Highway 75, and the BNSF railroad (BNSF Moorhead Subdivision rail line) near U.S. Highway 75 would be raised slightly above the 500-year flood elevation to maintain access during flood inundation. The OHB and Comstock ring levee access roads will connect to these raised roadways. Other roads within the inundation areas would be allowed to flood when the Project is operating. Utilities located in the inundation area will be evaluated during final Project design. Known utilities include, but are not limited to, electric power lines, rural water supply, and sewer facilities. Utilities that cannot withstand occasional flooding will be abandoned, modified or relocated, depending on the situation in accordance with applicable regulations.

Along the length of the diversion channel, 18 crossings, including four railroad bridges, and twelve highway relocations occurring at approximately three mile intervals, primarily for county and interstate roads. Other roads will be terminated at the diversion channel or rerouted to the local road network.

Recreation Features

A recreational concept has been developed for the Project. Below is a description of the conceptual recreation features.

The conceptual recreation plan for the Project includes one concrete multi-purpose trail and one aggregate equestrian trail loop with a combined length of approximately 47-miles. These trails are in addition to the aggregate maintenance road that is included in the Project. The multi-purpose trails would be 10-foot wide concrete, while the equestrian trail would be 12-foot wide compacted gravel. Both trails would be situated within an undulating landscape on top of the right bank excavated material berm (EMB) of the diversion channel, and designed to be a trail system that would provide varying distances and aesthetic experiences to the users along the length of the diversion channel. At this time, the aqueducts have planned service maintenance bridges that could allow for pedestrian traffic to cross, and the proposed County and local road bridge designs allow for shared-use. At railroad and interstate bridges, the trails would merge and be constructed down the side slopes of the main diversion channel so that the trail can pass underneath the bridge structures. Along the trails, benches, trash receptacles, and interpretive signage would be located approximately every mile to provide the trail users information about the wildlife, history, culture, and ecology of the area as well as respite.

Recreation use along the left bank EMB would be limited to a winter snowmobile trail, which could be located along the base of the outside EMB slope. The maintenance road on both the left and right bank EMB could serve as a bird watching trail or for other passive recreation opportunities. This access road would be closed to motorized vehicles, but public non-motorized use may be allowed.

In addition to the proposed trail system, other activities have been identified and planned for in key locations. These locations are known as Activity Hubs. There are four hubs identified for the Project; Red River Hub, Maple River Hub, Sheyenne River Hub, and Diversion Structure Hub. These Activity Hubs would function as primary trail access locations as well as recreation destinations. While the individual hubs would vary in character, recreation features would include parking, restrooms, trail way-finding signage, picnic facilities, drinking water, interpretative signage, fishing, and boat access to the river channels.

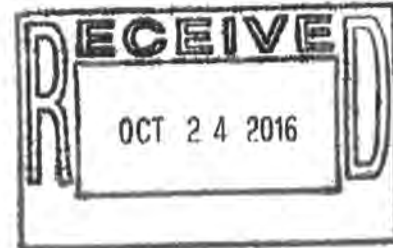
Also included in the conceptual recreation plan are Activity Nodes. Nodes are similar to hubs but provide less intensive site-specific activities and could serve as secondary access points to the trails. Proposed activity nodes include the following:

Landscaping of trees and shrubs at the trailheads, Activity Hubs and Nodes are proposed along with trees, native prairie grasses and forbs along the trail. All proposed recreation facilities would meet the guidelines for Americans with Disabilities Act (ADA) and the Architectural Barriers Act (ABA) as well as the final draft of the ADA-ABA Accessibility Guidelines for Outdoor Developed Areas.



October 20, 2016

Toni R. Erhardt
Project Manager
U.S. Corps of Engineers
1513 South 12th Street
Bismarck, ND 58504-6640



Conditional Section 401 Clean Water Quality Certification: NWO 2013-1723-BIS [Fargo-Moorhead Metropolitan Area Diversion Channel]

Dear Ms. Erhardt:

Pursuant to §401 of the Clean Water Act the North Dakota Department of Health (department) has reviewed the U.S. Army Corps of Engineers construction specification, design documentation, plans, and wetland mitigation options of the Fargo-Moorhead Metropolitan Diversion Channel for consistency in supporting the State's Standards of Quality for Waters of the State. Based on this evaluation the department grants provisional clean water certification under the assurance that the Environmental Impact Assessment will be adhered to and the following conditions are met:

- 1) The contractor/contractors obtain a National Pollution Discharge Elimination System (NPDES) storm water permit from the department and follow all requirements including having appropriate erosion and sediment in place prior to construction and constantly maintained until construction is completed.
- 2) At least 90 days prior to beginning construction on all crossings and outfalls into classified rivers (Sheyenne River, Maple River, Lower Rush River, Rush River, and Red River) the department will be supplied a detailed plan for review, conditioning and approval.
- 3) Compensatory mitigation for unavoidable no-forested wetland impacts will be mitigated within the diversion channel bottom.
- 4) Compensatory mitigation for unavoidable forested wetland impacts will be mitigated within the Red River of the North Watershed and the State of North Dakota.
- 5) Compensatory mitigation for unavoidable aquatic habitat impacts will be mitigated on the Bois du Sioux River or other department approved site(s) within the Red River of the North Watershed and the State of North Dakota.

ATTACHMENT B

Environmental Health
Section Chief's Office
701.328.5150

Division of
Air Quality
701.328.5188

Division of
Municipal Facilities
701.328.5211

Division of
Waste Management
701.328.5166

Division of
Water Quality
701.328.5210

The department reserves the right to amend this certification if it is determined that the impacts to water quality were underestimated, conditions change, or for any reason it is no longer reasonable to assume that the project is complying with the standards or other appropriate requirements of State law. Should you have any questions, I may be reached at 701.328.5268.

Sincerely,

A handwritten signature in black ink, appearing to read 'Peter Wax', with a large, stylized flourish extending to the right.

Peter Wax
Environmental Scientist
Division of Water Quality

PW: dlp

xc. Keith Berndt, Co-Executive Director, FM Diversion Authority, Fargo, ND



Pending Finance Committee Recommendation

Recommended Contracting Actions Summary

Date: December 1, 2016

Description	Company	Budget Estimate (\$)
Construction Change Orders		
9.b. WP-42A.1/A.3, 4th Street Pump Station Change Order 08 <ul style="list-style-type: none">Reprogram display to match the 2nd St. N Pump Station display for operational consistencyAdd Generator Building Fuel Storage Area Drainage solution	ICS, Inc.	2,386.00
Total Construction Change Orders		2,386.00

Technical Advisory Group Recommendation

Meeting Date: 11/22/2016

RECOMMENDATION FOR ACTION:

The Technical Advisory Group has reviewed and recommends approval of the following Contract Action(s).

SUMMARY OF CONTRACTING ACTION:

The Owner’s Representative has reviewed and recommends the following Contract Action(s):

List description of Contract Action(s):

Description	Budget Estimate (\$)
ICS, Inc. <i>Change Order #08</i>	\$2,386.00

WP-42A.1/A.3, 4th Street Pump Station – Reprogramming the station’s wet well display from elevation to depth.

Summary of Contracting History and Current Contract Action:

Original Agreement or Amendment	Budget (\$) Change	Previous Project Cost	Revised Project Cost	Project Start	Project Completion	Comments
WP-42A.1/A.3 contract	17,361,616.35	0.00	17,361,616.35	11-Dec-14	11-Nov-16	Awarded 4 th Street Pump Station and 2 nd Street South Floodwall
Change Order 1	268,555.24	17,361,616.35	17,630,171.59	11-Dec-14	11-Nov-16	Fargo Highrise parking lot modifications and other costs
Change Order 2	176,462.97	17,630,171.59	17,806,634.56	11-Dec-14	11-Nov-16	Unknown underground structures and other costs
Change Order 3	(10,570.93)	17,806,634.56	17,796,063.63	11-Dec-14	11-Nov-16	Deduct exterior electrical work and install fence, bollards, and lights at Fargo Highrise
Change Order 4	15,174.67	17,796,063.63	17,811,238.30	11-Dec-14	11-Nov-16	Time extensions and multiple cost adjustments for Engineer- and Owner-directed items.
Change Order 5	70,363.71	17,811,238.30	17,881,601.31	11-Dec-14	11-Nov-16	Last of suspended changes, sanitary overflow connection, T&M budget for ACM removal
Change Order 6	147,079.47	17,881,601.31	18,028,681.48	11-Dec-14	11-Nov-16	Last of suspended changes, erosion blanket, still wells, unsuitable materials and additional asbestos wrapped pipe.

Change Order 7	11,147.81	18,028,681.48	18,036,371.39	11-Dec-14	13-Sept-17	Sanitary Overflow Brackets, ST-4 Flared End with Grate, Sluice Gate Actuator Covers and 2" nuts, Updated Lot Grading Plan, Milestone and Project Completion Date Resets, and Time Additions.
Change Order 8	2,386.00	18,036,371.39	18,038,757.39	11-Dec-14	13-Sept-17	Reprogramming Display and Generator Building Fuel Storage Area Drain

DISCUSSION

Change Order No. 8 increases the Contract Price by a total of **\$2,386.00** as listed below:

1. **Reprogramming Display.** The pump station’s wet well currently reads in elevation. The city’s preference is to have the display read in depth to match the 2nd St. N Pump Station display for operational consistency. Add \$1,386.00 to the contract price to facilitate the reprogramming to depth and retest the control system afterward. The Owner’s Representative and Engineer have reviewed this cost and found it to be reasonable.
2. **Generator Building Fuel Storage Area Drain.** As designed, the generator building’s fuel storage area consists of a poured concrete floor surrounded by three walls and no roof. Drainage concerns have been identified by the engineer and two solutions considered. Changing the floor to crushed rock was not the preferred alternative. A trench drain was identified as the preferred solution by the engineer and approved in WCD 011. Add \$1000 to the Contract Price and two days to the Generator Building Milestone and Substantial Completion dates. The Owner’s Representative and Engineer have reviewed the cost and time and found them to be reasonable.

ATTACHMENT(S):

- Draft Change Order No. 8
- Reprogramming Cost Letter from ICS dated 11/4/2016
- Drain Price Letter from ICS dated 11/16/2016

Submitted by:



Tyler Smith, P.E.
CH2M
Project Manager
Metro Flood Diversion Project

11/18/2016

Date

Nathan Boerboom, Diversion Authority Project
Manager

Concur: 11/21/2016 Non-Concur: _____

April Walker, Fargo City Engineer

Concur: 11/21/2016 Non-Concur _____

Mark Bittner, Fargo Director of Engineering

Concur: 11/21/2016 Non-Concur: _____

Jason Benson, Cass County Engineer

Concur: 11/18/2016 Non-Concur _____

David Overbo, Clay County Engineer

Concur: 11/19/2016 Non-Concur: _____

Robert Zimmerman, Moorhead City Engineer

Concur: 11/19/2016 Non-Concur _____



Change Order No. 08

Date of Issuance:	<u>12/01/2016</u>	Effective Date:	<u>12/01/2016</u>
Owner:	<u>Metro Flood Diversion Authority</u>	Owner's Contract No.:	<u>WP-42A.1/A.3</u>
Owner's Representative:	<u>CH2M HILL Engineers, Inc.</u>	Owner's Representative Project No.:	<u>435534</u>
Contractor:	<u>ICS, Inc.</u>	Contractor's Project No.:	<u>1114</u>
Engineer:	<u>Houston-Moore Group, LLC</u>	Work Package No.:	<u>WP-42A.1/A.3</u>
Project:	<u>Fargo-Moorhead Area Diversion</u>	Contract Name:	<u>4th Street Pump Station and Gatewell and 2nd Street Floodwall South</u>

The Contract is modified as follows upon execution of this Change Order:

Description:

1. REPROGRAM DISPLAY FROM ELEVATION TO DEPTH

Add \$1,386.00 to the Contract Price to reprogram the pump station's wet well display to read in depth instead of elevation.

GENERATOR BUILDING FUEL STORAGE AREA DRAIN

Add \$1000.00 to the Contract Price and two days to the Generator Building Milestone and Substantial Completion dates to furnish and install a drain for the Generator Building Fuel Storage Area as listed in WCD 011.

Attachments:

- Change Order 8 Unit Price Schedule dated 11/16/2016
- WCD 011 Signed 11/17/2016
- Redline Foundation Plan Sheet S-201

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES
Original Contract Price:	Original Contract Times:
	Milestone 4.02.A.02: <u>November 1, 2015</u>
	Milestone 4.02.A.02a: <u>NA</u>
	Milestone 4.02.A.03: <u>July 31, 2015</u>
	Milestone 4.02.A.04: <u>August 20, 2015</u>
	Milestone 4.02.A.05: <u>November 13, 2015</u>
	Milestone 4.02.A.06: <u>January 26, 2016</u>
	Milestone 4.02.A.07: <u>September 5, 2016</u>
	Substantial Completion 4.02 B: <u>September 5, 2016</u>
	Final Completion 4.02 B: <u>November 11, 2016</u>
17,361,616.35	

[Increase] [Decrease] from previously approved Change Orders No. <u>01</u> thru <u>07</u> : 674,755.04	[Increase] [Decrease] from previously approved Change Orders No. <u>01</u> thru <u>06</u> : Milestone 4.02.A.02: <u>30 days</u> Milestone 4.02.A.02.a: <u>14 days</u> Milestone 4.02.A.03: <u>29 days</u> Milestone 4.02.A.04: <u>29 days</u> Milestone 4.02.A.05: <u>30 days</u> Milestone 4.02.A.06: <u>309 days</u> Milestone 4.02.A.07: <u>309 days</u> Substantial Completion 4.02 B: <u>309 days</u> Final Completion 4.02 B: <u>306 days</u>
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Contract Price prior to this Change Order: 18,036,371.39	Contract Times prior to this Change Order: Milestone 4.02.A.02: <u>December 1, 2015</u> Milestone 4.02.A.02a: <u>November 15, 2015</u> Milestone 4.02.A.03: <u>August 29, 2015</u> Milestone 4.02.A.04: <u>September 18, 2015</u> Milestone 4.02.A.05: <u>December 13, 2015</u> Milestone 4.02.A.06: <u>December 3, 2016</u> Milestone 4.02.A.07: <u>July 11, 2017</u> Substantial Completion 4.02 B: <u>July 11, 2017</u> Final Completion 4.02 B: <u>September 13, 2017</u>
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[Increase] [Decrease] of this Change Order: 2,386.00	[Increase] [Decrease] of this Change Order: Milestone 4.02.A.07: <u>2 days</u> Substantial Completion 4.02 B: <u>2 days</u>
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Contract Price incorporating this Change Order: 18,038,757.39	Contract Times with all approved Change Orders: Milestone 4.02.A.02: <u>December 1, 2015</u> Milestone 4.02.A.02a: <u>November 15, 2015</u> Milestone 4.02.A.03: <u>August 29, 2015</u> Milestone 4.02.A.04: <u>September 18, 2015</u> Milestone 4.02.A.05: <u>December 13, 2015</u> Milestone 4.02.A.06: <u>December 3, 2016</u> Milestone 4.02.A.07: <u>July 13, 2017</u> Substantial Completion 4.02 B: <u>July 13, 2017</u> Final Completion 4.02 B: <u>September 13, 2017</u>
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RECOMMENDED:		ACCEPTED:		ACCEPTED:	
By: _____	By: _____	By: _____	By: _____	By: _____	By: _____
Owner's Representative (Authorized Signature)	Owner (Authorized Signature)	Owner (Authorized Signature)	Owner (Authorized Signature)	Contractor (Authorized Signature)	Contractor (Authorized Signature)
Title: <u>Construction Manager</u>	Title: _____	Title: _____	Title: _____	Title: _____	Title: _____
Date: <u>12/01/2016</u>	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____

WP-42A.1/A.3
4th Street Pump Station and Gatewell - 2nd Street Floodwall South

Change Order 7 Unit Price Schedule
 DATE: 10/14/2016



WP-42A.1/A.3 - 4th Street Pump Station and Gatewell - 2nd Street Floodwall South											
ITEM	DESCRIPTION	UNIT	Current Budget (thru CO-06)			Net Change			New Budget		
			QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT
0001	Mobilization	LS	1	\$ 350,000.00	\$ 350,000.00	0	\$ -	\$ -	1	\$ 350,000.00	\$ 350,000.00
0002	Remove Sanitary Sewer Manhole	EA	2	\$ 1,100.00	\$ 2,200.00	0	\$ -	\$ -	2	\$ 1,100.00	\$ 2,200.00
0003	F&I Pipe SDR 26 - 10" Dia PVC	LF	145	\$ 70.00	\$ 10,150.00	0	\$ -	\$ -	145	\$ 70.00	\$ 10,150.00
0004	Remove Sanitary Sewer Pipe All Sizes All Types	LF	140	\$ 11.00	\$ 1,540.00	0	\$ -	\$ -	140	\$ 11.00	\$ 1,540.00
0005	Rem & Repl Sanitary Sewer Casting - Floating Manhole	EA	1	\$ 800.00	\$ 800.00	0	\$ -	\$ -	1	\$ 800.00	\$ 800.00
0006	Sanitary Sewer Manhole	EA	2	\$ 4,500.00	\$ 9,000.00	0	\$ -	\$ -	2	\$ 4,500.00	\$ 9,000.00
0007	Sanitary Sewer Exterior Drop Manhole	EA	1	\$ 12,000.00	\$ 12,000.00	0	\$ -	\$ -	1	\$ 12,000.00	\$ 12,000.00
0008	F&I 5" Hydrant	EA	2	\$ 6,000.00	\$ 12,000.00	0	\$ -	\$ -	2	\$ 6,000.00	\$ 12,000.00
0009	Salvage Hydrant	EA	2	\$ 600.00	\$ 1,200.00	0	\$ -	\$ -	2	\$ 600.00	\$ 1,200.00
0010	F&I Pipe C900 DR 18 - 6" Dia PVC	LF	479	\$ 60.00	\$ 28,740.00	0	\$ -	\$ -	479	\$ 60.00	\$ 28,740.00
0011	F&I Pipe C900 DR 18 - 10" Dia PVC	LF	416	\$ 65.00	\$ 27,040.00	0	\$ -	\$ -	416	\$ 65.00	\$ 27,040.00
0012	Remove Water Main Pipe All Sizes All Types	LF	697	\$ 11.00	\$ 7,667.00	0	\$ -	\$ -	697	\$ 11.00	\$ 7,667.00
0013	F&I Gate Valve 6" Dia	EA	5	\$ 2,200.00	\$ 11,000.00	0	\$ -	\$ -	5	\$ 2,200.00	\$ 11,000.00
0014	F&I Gate Valve 10" Dia	EA	3	\$ 4,000.00	\$ 12,000.00	0	\$ -	\$ -	3	\$ 4,000.00	\$ 12,000.00
0015	Watermain Fittings	LBS	4,157	\$ 12.00	\$ 49,884.00	0	\$ -	\$ -	4,157	\$ 12.00	\$ 49,884.00
0016	F&I Overflow Structure	EA	1	\$ 18,000.00	\$ 18,000.00	0	\$ -	\$ -	1	\$ 18,000.00	\$ 18,000.00
0017	F&I Manhole 4' Dia Reinf Conc	EA	3	\$ 5,000.00	\$ 15,000.00	0	\$ -	\$ -	3	\$ 5,000.00	\$ 15,000.00
0018	F&I Manhole 5' Dia Reinf Conc	EA	1	\$ 5,000.00	\$ 5,000.00	0	\$ -	\$ -	1	\$ 5,000.00	\$ 5,000.00
0019	F&I Manhole 6' Dia Reinf Conc	EA	2	\$ 20,000.00	\$ 40,000.00	0	\$ -	\$ -	2	\$ 20,000.00	\$ 40,000.00
0020	F&I Manhole 7' Dia Reinf Conc	EA	3	\$ 22,000.00	\$ 66,000.00	0	\$ -	\$ -	3	\$ 22,000.00	\$ 66,000.00
0021	F&I Manhole Type E Reinf Conc	EA	2	\$ 70,000.00	\$ 140,000.00	0	\$ -	\$ -	2	\$ 70,000.00	\$ 140,000.00
0022	F&I Manhole Type E Reinf Conc (ST-4)	EA	1	\$ 250,000.00	\$ 250,000.00	0	\$ -	\$ -	1	\$ 250,000.00	\$ 250,000.00
0023	F&I Manhole Type E Reinf Conc (ST-3)	EA	1	\$ 225,000.00	\$ 225,000.00	0	\$ -	\$ -	1	\$ 225,000.00	\$ 225,000.00
0024	F&I Manhole Type E Reinf Conc (ST-2)	EA	1	\$ 225,000.00	\$ 225,000.00	0	\$ -	\$ -	1	\$ 225,000.00	\$ 225,000.00
0025	F&I Manhole Type E Reinf Conc (ST-1)	EA	1	\$ 225,000.00	\$ 225,000.00	0	\$ -	\$ -	1	\$ 225,000.00	\$ 225,000.00
0026	Remove Storm Sewer Manhole	EA	5	\$ 600.00	\$ 3,000.00	0	\$ -	\$ -	5	\$ 600.00	\$ 3,000.00
0027	F&I Inlet - Manhole (MHI) 4' Dia Reinf Conc	EA	1	\$ 5,000.00	\$ 5,000.00	0	\$ -	\$ -	1	\$ 5,000.00	\$ 5,000.00
0028	F&I Inlet - Manhole (MHI) 6' Dia Reinf Conc	EA	1	\$ 15,000.00	\$ 15,000.00	0	\$ -	\$ -	1	\$ 15,000.00	\$ 15,000.00

WP-42A.1/A.3
4th Street Pump Station and Gatewell - 2nd Street Floodwall South

Change Order 7 Unit Price Schedule
 DATE: 10/14/2016



WP-42A.1/A.3 - 4th Street Pump Station and Gatewell - 2nd Street Floodwall South											
ITEM	DESCRIPTION	UNIT	Current Budget (thru CO-06)			Net Change			New Budget		
			QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT
0029	F&I Inlet - Single Box (SBI) Reinf Conc	EA	1	\$ 5,000.00	\$ 5,000.00	0	\$ -	\$ -	1	\$ 5,000.00	\$ 5,000.00
0030	F&I Inlet - Double Box (DBI) Reinf Conc	EA	1	\$ 7,000.00	\$ 7,000.00	0	\$ -	\$ -	1	\$ 7,000.00	\$ 7,000.00
0031	F&I Inlet - Special (SPI) Reinf Conc	EA	2	\$ 2,000.00	\$ 4,000.00	0	\$ -	\$ -	2	\$ 2,000.00	\$ 4,000.00
0032	Riprap (Outlet)	CY	410	\$ 125.00	\$ 51,250.00	0	\$ -	\$ -	410	\$ 125.00	\$ 51,250.00
0033	Box Culvert End Section with Grate	EA	1	\$ 25,000.00	\$ 25,000.00	0	\$ -	\$ -	1	\$ 25,000.00	\$ 25,000.00
0034	PLUG PIPE 33" DIA.	EA	1	\$ 1,500.00	\$ 1,500.00	0	\$ -	\$ -	1	\$ 1,500.00	\$ 1,500.00
0035	PLUG PIPE 72" DIA.	EA	1	\$ 3,300.00	\$ 3,300.00	0	\$ -	\$ -	1	\$ 3,300.00	\$ 3,300.00
0036	PLUG PIPE 78" DIA.	EA	2	\$ 4,500.00	\$ 9,000.00	0	\$ -	\$ -	2	\$ 4,500.00	\$ 9,000.00
0037	F&I Pipe 18" Dia Reinf Conc	LF	291	\$ 95.00	\$ 27,645.00	0	\$ -	\$ -	291	\$ 95.00	\$ 27,645.00
0038	F&I Pipe 24" Dia Reinf Conc	LF	86	\$ 120.00	\$ 10,320.00	0	\$ -	\$ -	86	\$ 120.00	\$ 10,320.00
0039	F&I Pipe 30" Dia Reinf Conc	LF	137	\$ 220.00	\$ 30,140.00	0	\$ -	\$ -	137	\$ 220.00	\$ 30,140.00
0040	F&I Pipe 36" Dia Reinf Conc	LF	8	\$ 250.00	\$ 2,000.00	0	\$ -	\$ -	8	\$ 250.00	\$ 2,000.00
0041	F&I Pipe 48" Dia Reinf Conc	LF	79	\$ 300.00	\$ 23,700.00	0	\$ -	\$ -	79	\$ 300.00	\$ 23,700.00
0042	F&I Pipe 54" Dia Reinf Conc	LF	79	\$ 800.00	\$ 63,200.00	0	\$ -	\$ -	79	\$ 800.00	\$ 63,200.00
0043	F&I Pipe 72" Dia Reinf Conc	LF	51	\$ 900.00	\$ 45,900.00	0	\$ -	\$ -	51	\$ 900.00	\$ 45,900.00
0044	F&I Pipe 12" Dia PVC	LF	99	\$ 120.00	\$ 11,880.00	0	\$ -	\$ -	99	\$ 120.00	\$ 11,880.00
0045	Remove Storm Sewer Pipe All Sizes All Types	LF	2,788	\$ 85.00	\$ 236,980.00	0	\$ -	\$ -	2,788	\$ 85.00	\$ 236,980.00
0046	30" Flapgate	EA	-	\$ 25,000.00	\$ -	0	\$ -	\$ -	-	\$ 25,000.00	\$ -
0047	54" Flapgate	EA	1	\$ 30,000.00	\$ 30,000.00	0	\$ -	\$ -	1	\$ 30,000.00	\$ 30,000.00
0048	F&I Pipe w/GB 30" Dia Reinf Conc	LF	240	\$ 1,100.00	\$ 264,000.00	0	\$ -	\$ -	240	\$ 1,100.00	\$ 264,000.00
0049	F&I Pipe w/GB 36" Dia Reinf Conc	LF	88	\$ 1,200.00	\$ 105,600.00	0	\$ -	\$ -	88	\$ 1,200.00	\$ 105,600.00
0050	F&I Pipe w/GB 54" Dia Reinf Conc	LF	19	\$ 2,000.00	\$ 38,000.00	0	\$ -	\$ -	19	\$ 2,000.00	\$ 38,000.00
0051	F&I Box Culvert 8'x5' Wide Reinf Conc Cast in Place with depth of fill 1' to 10'	LF	495	\$ 1,500.00	\$ 742,500.00	0	\$ -	\$ -	495	\$ 1,500.00	\$ 742,500.00
0052	F&I Box Culvert 8'x5' Wide Reinf Conc Cast in Place with depth of fill 10' to 31'	LF	128	\$ 2,800.00	\$ 358,400.00	0	\$ -	\$ -	128	\$ 2,800.00	\$ 358,400.00
0053	F&I Box Culvert 8'x5' Wide Reinf Conc Precast	LF	186	\$ 1,300.00	\$ 241,800.00	0	\$ -	\$ -	186	\$ 1,300.00	\$ 241,800.00
0054	Remove Pavement All Thicknesses All Types	SY	8,226	\$ 10.00	\$ 82,260.00	0	\$ -	\$ -	8,226	\$ 10.00	\$ 82,260.00
0055	Subgrade Preparation	SY	10,496	\$ 4.50	\$ 47,232.00	0	\$ -	\$ -	10,496	\$ 4.50	\$ 47,232.00
0056	F&I Woven Geotextile	SY	10,496	\$ 2.50	\$ 26,240.00	0	\$ -	\$ -	10,496	\$ 2.50	\$ 26,240.00

WP-42A.1/A.3
4th Street Pump Station and Gatewell - 2nd Street Floodwall South

Change Order 7 Unit Price Schedule
 DATE: 10/14/2016



WP-42A.1/A.3 - 4th Street Pump Station and Gatewell - 2nd Street Floodwall South											
ITEM	DESCRIPTION	UNIT	Current Budget (thru CO-06)			Net Change			New Budget		
			QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT
0057	F&I Class 5 Agg - 6" Thick	SY	5,578	\$ 10.00	\$ 55,780.00	0	\$ -	\$ -	5,578	\$ 10.00	\$ 55,780.00
0058	F&I Class 5 Agg - 7" Thick	SY	2,212	\$ 12.00	\$ 26,544.00	0	\$ -	\$ -	2,212	\$ 12.00	\$ 26,544.00
0059	F&I Class 5 Agg - 8" Thick	SY	733	\$ 13.00	\$ 9,529.00	0	\$ -	\$ -	733	\$ 13.00	\$ 9,529.00
0060	F&I Class 5 Agg - 12" Thick	SY	1,973	\$ 20.00	\$ 39,460.00	0	\$ -	\$ -	1,973	\$ 20.00	\$ 39,460.00
0061	F&I Crushed Conc - 6" Thick	SY	120	\$ 13.00	\$ 1,560.00	0	\$ -	\$ -	120	\$ 13.00	\$ 1,560.00
0062	F&I Curb & Gutter Standard (Type II)	LF	2,030	\$ 40.00	\$ 81,200.00	0	\$ -	\$ -	2,030	\$ 40.00	\$ 81,200.00
0063	Remove Curb & Gutter	LF	1,924	\$ 10.00	\$ 19,240.00	0	\$ -	\$ -	1,924	\$ 10.00	\$ 19,240.00
0064	F&I Pavement 6" Thick Reinf Conc	SY	3,744	\$ 66.00	\$ 247,104.00	0	\$ -	\$ -	3,744	\$ 66.00	\$ 247,104.00
0065	F&I Pavement 7" Thick Reinf Conc	SY	1,484	\$ 75.00	\$ 111,300.00	0	\$ -	\$ -	1,484	\$ 75.00	\$ 111,300.00
0066	F&I Pavement 9" Thick Doweled Conc	SY	1,519	\$ 90.00	\$ 136,710.00	0	\$ -	\$ -	1,519	\$ 90.00	\$ 136,710.00
0067	F&I Sidewalk 4" Thick Reinf Conc	SY	1,401	\$ 60.00	\$ 84,060.00	0	\$ -	\$ -	1,401	\$ 60.00	\$ 84,060.00
0068	Remove Sidewalk All Thicknesses All Types	SY	1,112	\$ 15.00	\$ 16,680.00	0	\$ -	\$ -	1,112	\$ 15.00	\$ 16,680.00
0069	Temp Construction Entrance	EA	4	\$ 1,700.00	\$ 6,800.00	0	\$ -	\$ -	4	\$ 1,700.00	\$ 6,800.00
0070	Traffic Control - Type 1	LS	1	\$ 26,000.00	\$ 26,000.00	0	\$ -	\$ -	1	\$ 26,000.00	\$ 26,000.00
0071	F&I Aggregate for Asph Pavement Class 29	TON	930	\$ 80.00	\$ 74,400.00	0	\$ -	\$ -	930	\$ 80.00	\$ 74,400.00
0072	F&I Asphalt Cement PG 58-28	GAL	13,385	\$ 4.00	\$ 53,540.00	0	\$ -	\$ -	13,385	\$ 4.00	\$ 53,540.00
0073	F&I Impressioned 4" Thick Reinf Conc	SY	72	\$ 220.00	\$ 15,840.00	0	\$ -	\$ -	72	\$ 220.00	\$ 15,840.00
0074	F&I Det Warn Panels Cast Iron	SF	109	\$ 70.00	\$ 7,630.00	0	\$ -	\$ -	109	\$ 70.00	\$ 7,630.00
0075	F&I Sign Assembly	EA	18	\$ 220.00	\$ 3,960.00	0	\$ -	\$ -	18	\$ 220.00	\$ 3,960.00
0076	Relocate Sign Assembly	EA	13	\$ 220.00	\$ 2,860.00	0	\$ -	\$ -	13	\$ 220.00	\$ 2,860.00
0077	F&I Engineering Grade	SF	23	\$ 30.00	\$ 690.00	0	\$ -	\$ -	23	\$ 30.00	\$ 690.00
0078	F&I Diamond Grade Cubed	SF	6	\$ 40.00	\$ 252.00	0	\$ -	\$ -	6	\$ 40.00	\$ 252.00
0079	F&I High Intensity Prismatic	SF	28	\$ 35.00	\$ 966.00	0	\$ -	\$ -	28	\$ 35.00	\$ 966.00
0080	F&I Flexible Delineator	EA	2	\$ 130.00	\$ 260.00	0	\$ -	\$ -	2	\$ 130.00	\$ 260.00
0081	F&I Grooved Plastic Film Message	SF	80	\$ 50.00	\$ 4,000.00	0	\$ -	\$ -	80	\$ 50.00	\$ 4,000.00
0082	F&I Grooved Plastic Film 4" Wide	LF	1,485	\$ 10.00	\$ 14,850.00	0	\$ -	\$ -	1,485	\$ 10.00	\$ 14,850.00
0083	F&I Grooved Plastic Film 24" Wide	LF	72	\$ 40.00	\$ 2,880.00	0	\$ -	\$ -	72	\$ 40.00	\$ 2,880.00
0084	Paint Epoxy Message	SF	32	\$ 20.00	\$ 640.00	0	\$ -	\$ -	32	\$ 20.00	\$ 640.00

WP-42A.1/A.3
4th Street Pump Station and Gatewell - 2nd Street Floodwall South

Change Order 7 Unit Price Schedule
 DATE: 10/14/2016



WP-42A.1/A.3 - 4th Street Pump Station and Gatewell - 2nd Street Floodwall South											
ITEM	DESCRIPTION	UNIT	Current Budget (thru CO-06)			Net Change			New Budget		
			QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT
0085	Paint Epoxy Line 4" Wide	LF	3,244	\$ 6.00	\$ 19,464.00	0	\$ -	\$ -	3,244	\$ 6.00	\$ 19,464.00
0086	Paint Epoxy Line 8" Wide	LF	234	\$ 10.00	\$ 2,340.00	0	\$ -	\$ -	234	\$ 10.00	\$ 2,340.00
0087	Paint Epoxy Line 24" Wide	LF	-	\$ 20.00	\$ -	0	\$ -	\$ -	-	\$ 20.00	\$ -
0088	Obliterate Pavement Markings	SF	182	\$ 35.00	\$ 6,370.00	0	\$ -	\$ -	182	\$ 35.00	\$ 6,370.00
0089	Temp Fence - Safety	LF	2,167	\$ 6.00	\$ 13,002.00	0	\$ -	\$ -	2,167	\$ 6.00	\$ 13,002.00
0090	Remove Fence	LF	202	\$ 27.00	\$ 5,454.00	0	\$ -	\$ -	202	\$ 27.00	\$ 5,454.00
0091	Temp Pumping	LS	1	\$ 95,000.00	\$ 95,000.00	0	\$ -	\$ -	1	\$ 95,000.00	\$ 95,000.00
0092	Clear & Grub	LS	1	\$ 15,000.00	\$ 15,000.00	0	\$ -	\$ -	1	\$ 15,000.00	\$ 15,000.00
0093	Remove Tree	EA	19	\$ 600.00	\$ 11,400.00	0	\$ -	\$ -	19	\$ 600.00	\$ 11,400.00
0094	Silt Fence - Standard	LF	784	\$ 4.00	\$ 3,136.00	0	\$ -	\$ -	784	\$ 4.00	\$ 3,136.00
0095	Floating Silt Fence	LF	93	\$ 30.00	\$ 2,790.00	0	\$ -	\$ -	93	\$ 30.00	\$ 2,790.00
0096	Sediment Control Log 6" to 8" Dia	LF	1,130	\$ 3.00	\$ 3,390.00	0	\$ -	\$ -	1,130	\$ 3.00	\$ 3,390.00
0097	Inlet Protection - New Inlet	EA	7	\$ 300.00	\$ 2,100.00	0	\$ -	\$ -	7	\$ 300.00	\$ 2,100.00
0098	Inlet Protection - Existing Inlet	EA	9	\$ 200.00	\$ 1,800.00	0	\$ -	\$ -	9	\$ 200.00	\$ 1,800.00
0099	Salvage Signal Standard	EA	1	\$ 300.00	\$ 300.00	0	\$ -	\$ -	1	\$ 300.00	\$ 300.00
0100	Lighting System	LS	1	\$ 20,000.00	\$ 20,000.00	0	\$ -	\$ -	1	\$ 20,000.00	\$ 20,000.00
0101	Propane Tanks Remove and Replace	LS	1	\$ 20,000.00	\$ 20,000.00	0	\$ -	\$ -	1	\$ 20,000.00	\$ 20,000.00
0102	Replace Unsalvagable Bollards	EA	40	\$ 1,000.00	\$ 40,000.00	0	\$ -	\$ -	40	\$ 1,000.00	\$ 40,000.00
0103	Revise Flashing Beacon System	LS	1	\$ 15,000.00	\$ 15,000.00	0	\$ -	\$ -	1	\$ 15,000.00	\$ 15,000.00
0104	Revise Traffic Control System	LS	1	\$ 20,000.00	\$ 20,000.00	0	\$ -	\$ -	1	\$ 20,000.00	\$ 20,000.00
0105	F&I Bus Shelter	EA	1	\$ 30,000.00	\$ 30,000.00	0	\$ -	\$ -	1	\$ 30,000.00	\$ 30,000.00
0106	F&I Sheet Piling - Steel	SF	168	\$ 65.00	\$ 10,920.00	0	\$ -	\$ -	168	\$ 65.00	\$ 10,920.00
0107	Topsoil - Strip	CY	5,870	\$ 5.00	\$ 29,350.00	0	\$ -	\$ -	5,870	\$ 5.00	\$ 29,350.00
0108	Topsoil - Spread	CY	2,784	\$ 5.00	\$ 13,920.00	0	\$ -	\$ -	2,784	\$ 5.00	\$ 13,920.00
0109	Embankment	CY	45,017	\$ 13.00	\$ 585,221.00	0	\$ -	\$ -	45,017	\$ 13.00	\$ 585,221.00
0110	Embankment Import	CY	8,617	\$ 22.00	\$ 189,574.00	0	\$ -	\$ -	8,617	\$ 22.00	\$ 189,574.00
0111	Excavation	CY	36,400	\$ 9.00	\$ 327,600.00	0	\$ -	\$ -	36,400	\$ 9.00	\$ 327,600.00
0112	Grading North of 2nd St S and West of 4th St S	LS	1	\$ 20,000.00	\$ 20,000.00	0	\$ -	\$ -	1	\$ 20,000.00	\$ 20,000.00

WP-42A.1/A.3
4th Street Pump Station and Gatewell - 2nd Street Floodwall South

Change Order 7 Unit Price Schedule
 DATE: 10/14/2016



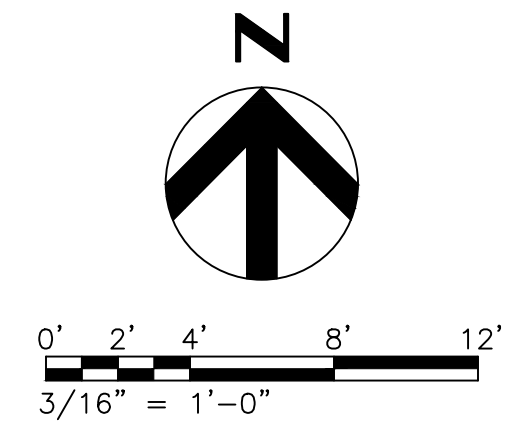
WP-42A.1/A.3 - 4th Street Pump Station and Gatewell - 2nd Street Floodwall South											
ITEM	DESCRIPTION	UNIT	Current Budget (thru CO-06)			Net Change			New Budget		
			QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT
0113	Mulching Type 1 - Hydro	SY	16,703	\$ 0.50	\$ 8,351.50	0	\$ -	\$ -	16,703	\$ 0.50	\$ 8,351.50
0114	Seeding Type B	SY	16,703	\$ 0.35	\$ 5,846.05	0	\$ -	\$ -	16,703	\$ 0.35	\$ 5,846.05
0115	Overseeding	SY	33,405	\$ 0.25	\$ 8,351.25	0	\$ -	\$ -	33,405	\$ 0.25	\$ 8,351.25
0116	Weed Control Type B	SY	16,703	\$ 0.15	\$ 2,505.45	0	\$ -	\$ -	16,703	\$ 0.15	\$ 2,505.45
0117	Removable Floodwall	LS	1	\$ 120,000.00	\$ 120,000.00	0	\$ -	\$ -	1	\$ 120,000.00	\$ 120,000.00
0118	F&I Floodwall Reinf Bars - Steel	LB	63,445	\$ 1.10	\$ 69,789.50	0	\$ -	\$ -	63,445	\$ 1.10	\$ 69,789.50
0119	F&I Floodwall Reinf Bars - Epoxy Coated Steel	LB	59,852	\$ 1.30	\$ 77,807.60	0	\$ -	\$ -	59,852	\$ 1.30	\$ 77,807.60
0120	F&I Floodwall - Structural Conc	CY	828	\$ 1,100.00	\$ 910,800.00	0	\$ -	\$ -	828	\$ 1,100.00	\$ 910,800.00
0121	F&I Floodwall - Misc.	LS	1	\$ 225,000.00	\$ 225,000.00	0	\$ -	\$ -	1	\$ 225,000.00	\$ 225,000.00
0122	Demolition Pump Stations, Storm Sewers, Force Mains	LS	1	\$ 110,000.00	\$ 110,000.00	0	\$ -	\$ -	1	\$ 110,000.00	\$ 110,000.00
0123	Force Mains and Sump Pump Discharge	LS	1	\$ 600,000.00	\$ 600,000.00	0	\$ -	\$ -	1	\$ 600,000.00	\$ 600,000.00
0124	Pump Station - Structural and Architectural	LS	1	\$ 2,700,000.00	\$ 2,700,000.00	0	\$ -	\$ -	1	\$ 2,700,000.00	\$ 2,700,000.00
0125	Stormwater Pumps and Motors	LS	1	\$ 1,200,000.00	\$ 1,200,000.00	0	\$ -	\$ -	1	\$ 1,200,000.00	\$ 1,200,000.00
0126	Sump Pumps	LS	1	\$ 60,000.00	\$ 60,000.00	0	\$ -	\$ -	1	\$ 60,000.00	\$ 60,000.00
0127	Trash Racks and Miscellaneous Metals	LS	1	\$ 320,000.00	\$ 320,000.00	0	\$ -	\$ -	1	\$ 320,000.00	\$ 320,000.00
0128	Sluice Gates and Wall Thimbles	LS	1	\$ 250,000.00	\$ 250,000.00	0	\$ -	\$ -	1	\$ 250,000.00	\$ 250,000.00
0129	Generator Building - Structural and Architectural	LS	1	\$ 550,000.00	\$ 550,000.00	0	\$ 1,000.00	\$ 1,000.00	1	\$ 551,000.00	\$ 551,000.00
0130	Gatewell Structural	LS	1	\$ 870,000.00	\$ 870,000.00	0	\$ -	\$ -	1	\$ 870,000.00	\$ 870,000.00
0131	Gatewell - Miscellaneous Metals	LS	1	\$ 100,000.00	\$ 100,000.00	0	\$ -	\$ -	1	\$ 100,000.00	\$ 100,000.00
0132	Sheetpiling (Pump Station)	LS	1	\$ 1,200,000.00	\$ 1,200,000.00	0	\$ -	\$ -	1	\$ 1,200,000.00	\$ 1,200,000.00
0133	Health and Safety	LS	1	\$ 165,000.00	\$ 165,000.00	0	\$ -	\$ -	1	\$ 165,000.00	\$ 165,000.00
0134	Diesel Generator	LS	1	\$ 385,000.00	\$ 385,000.00	0	\$ -	\$ -	1	\$ 385,000.00	\$ 385,000.00
0135	Switchboard SWBDA, Motor Control Center MCLA, Automatic Transfer Switch, Panel HP1	LS	1	\$ 280,000.00	\$ 280,000.00	0	\$ -	\$ -	1	\$ 280,000.00	\$ 280,000.00
0136	Electrical-Interior	LS	1	\$ 105,000.00	\$ 105,000.00	0	\$ -	\$ -	1	\$ 105,000.00	\$ 105,000.00
0137	Electrical-Exterior	LS	1	\$ 138,066.65	\$ 138,066.65	0	\$ -	\$ -	1	\$ 138,066.65	\$ 138,066.65
0138	Instrumentation and Controls	LS	1	\$ 25,000.00	\$ 25,000.00	0	\$ -	\$ -	1	\$ 25,000.00	\$ 25,000.00
0139	Programming	LS	1	\$ 4,300.00	\$ 4,300.00	0	\$ -	\$ -	1	\$ 4,300.00	\$ 4,300.00
0140	HVAC - General	LS	1	\$ 20,000.00	\$ 20,000.00	0	\$ -	\$ -	1	\$ 20,000.00	\$ 20,000.00

WP-42A.1/A.3
4th Street Pump Station and Gatewell - 2nd Street Floodwall South

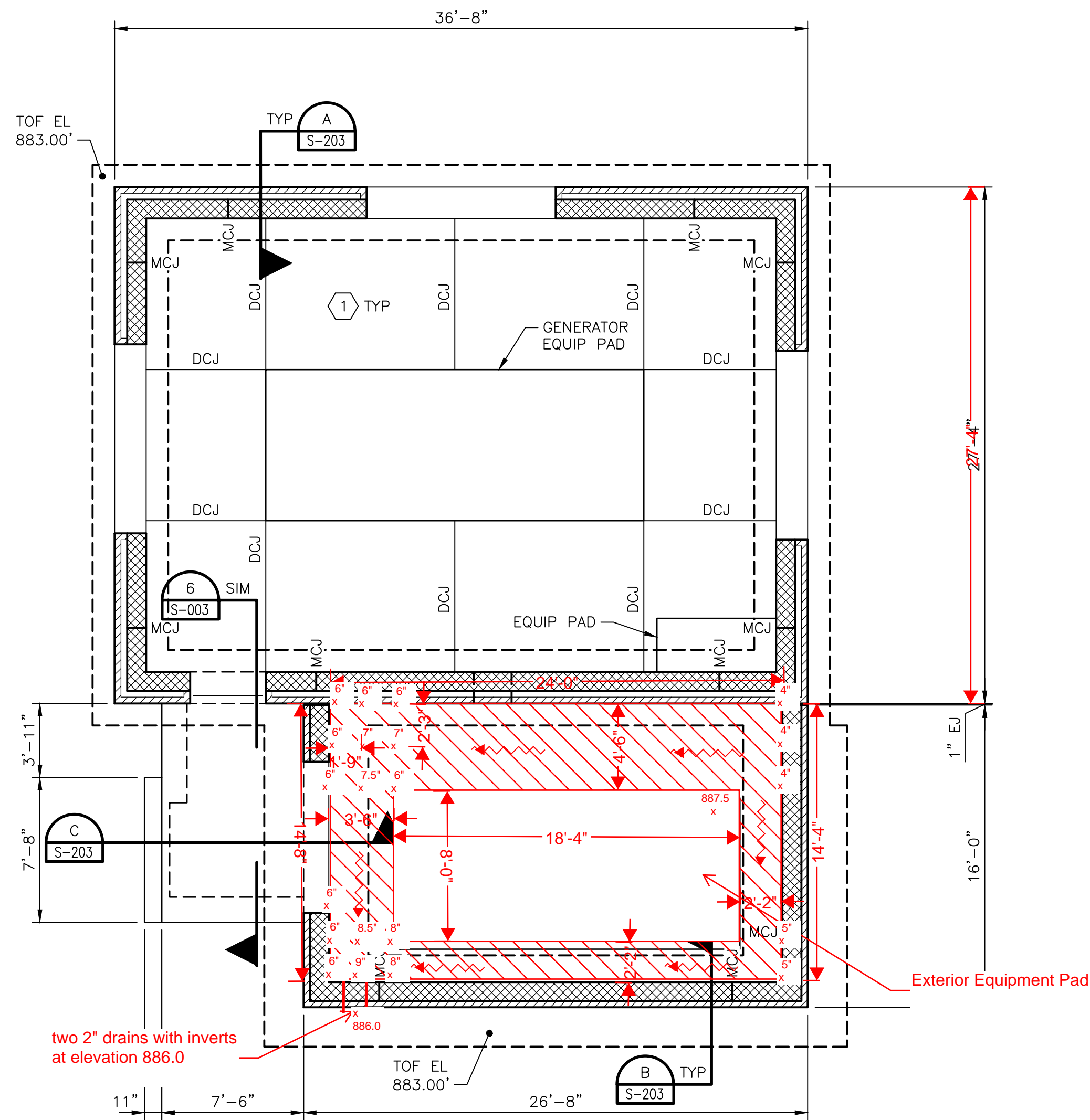
Change Order 7 Unit Price Schedule
 DATE: 10/14/2016



WP-42A.1/A.3 - 4th Street Pump Station and Gatewell - 2nd Street Floodwall South											
ITEM	DESCRIPTION	UNIT	Current Budget (thru CO-06)			Net Change			New Budget		
			QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT	QUANTITY	UNIT PRICE	AMOUNT
0141	Plumbing General	LS	1	\$ 9,570.00	\$ 9,570.00	0	\$ -	\$ -	1	\$ 9,570.00	\$ 9,570.00
0142	Generator Accessories, Fuel Storage and Fuel System	LS	1	\$ 156,200.00	\$ 156,200.00	0	\$ -	\$ -	1	\$ 156,200.00	\$ 156,200.00
0143	Plug Pipe 30" Dia.	EA	1	\$ 860.00	\$ 860.00	0	\$ -	\$ -	1	\$ 860.00	\$ 860.00
0144	F&I Curb & Gutter Standard (Type I)	LF	281	\$ 43.00	\$ 12,083.00	0	\$ -	\$ -	281	\$ 43.00	\$ 12,083.00
0145	F&I Grooved Plastic Film 8" Wide	LF	224	\$ 13.00	\$ 2,912.00	0	\$ -	\$ -	224	\$ 13.00	\$ 2,912.00
0146	F&I Pipe 15" Dia Reinf Conc	LF	18	\$ 82.31	\$ 1,481.58	0	\$ -	\$ -	18	\$ 82.31	\$ 1,481.58
0147	Warming House Electrical Service	LS	1	\$ 49,834.89	\$ 49,834.89	0	\$ -	\$ -	1	\$ 49,834.89	\$ 49,834.89
0148	Bore 36" Pipe	LS	1	\$ 80,566.24	\$ 80,566.24	0	\$ -	\$ -	1	\$ 80,566.24	\$ 80,566.24
0149	Plug Pipe 6" Dia	EA	3	\$ 439.69	\$ 1,319.07	0	\$ -	\$ -	3	\$ 439.69	\$ 1,319.07
0150	F&I Flared End Section 48" Dia Reinf Conc	EA	1	\$ 5,119.28	\$ 5,119.28	0	\$ -	\$ -	1	\$ 5,119.28	\$ 5,119.28
0151	Connect Water Service	EA	2	\$ 2,643.38	\$ 5,286.76	0	\$ -	\$ -	2	\$ 2,643.38	\$ 5,286.76
0152	F&I Pipe 1" Dia Copper	LF	124	\$ 49.35	\$ 6,119.40	0	\$ -	\$ -	124	\$ 49.35	\$ 6,119.40
0153	F&I Pipe w/GB C900 DR 18 - 6" Dia PVC	LF	80	\$ 193.20	\$ 15,456.00	0	\$ -	\$ -	80	\$ 193.20	\$ 15,456.00
0154	Special Order Asbestos Fittings	EA	1	\$ 5,484.57	\$ 5,484.57	0	\$ -	\$ -	1	\$ 5,484.57	\$ 5,484.57
0155	Unknown Structures	LS	1	\$ 87,262.68	\$ 87,262.68	0	\$ -	\$ -	1	\$ 87,262.68	\$ 87,262.68
0156	CO-01 Field Changes	LS	1	\$ 14,998.89	\$ 14,998.89	0	\$ -	\$ -	1	\$ 14,998.89	\$ 14,998.89
0157	CO-02 Misc Requirements	LS	1	\$ 15,394.85	\$ 15,394.85	0	\$ -	\$ -	1	\$ 15,394.85	\$ 15,394.85
0158	Fargo Highrise Work	LS	1	\$ 6,362.42	\$ 6,362.42	0	\$ -	\$ -	1	\$ 6,362.42	\$ 6,362.42
0159	CO-04	LS	1	\$ 15,174.67	\$ 15,174.67	0	\$ -	\$ -	1	\$ 15,174.67	\$ 15,174.67
0160	Sanitary Overflow Connection	LS	1	\$ 10,363.71	\$ 10,363.71	0	\$ -	\$ -	1	\$ 10,363.71	\$ 10,363.71
0161	T&M Budget for Asbestos Pipe and Unsuitable Material Removal	LS	1	\$ 140,000.00	\$ 140,000.00	0	\$ -	\$ -	1	\$ 140,000.00	\$ 140,000.00
0162	CO-06	LS	1	\$ 67,079.47	\$ 67,079.47	0	\$ -	\$ -	1	\$ 67,079.47	\$ 67,079.47
0163	CO-07	LS	1	\$ 7,689.91	\$ 7,689.91	0	\$ -	\$ -	1	\$ 7,689.91	\$ 7,689.91
0164	Reprogramming Display	LS	1		\$ -	0	\$ 1,386.00	\$ 1,386.00	1	\$ 1,386.00	\$ 1,386.00
42A.1/A.3 - TOTAL AMOUNT			CURRENT BUDGET		\$ 18,036,371.39	NET CHANGE		\$ 2,386.00	NEW BUDGET		\$ 18,038,757.39



This document was originally issued and sealed by Svein K. Magnussen, Registration No. PE-9375, on 9/19/14 and the original document is stored at CH2M Hill Engineering, Inc., Fargo, N.D.



GENERAL NOTES:

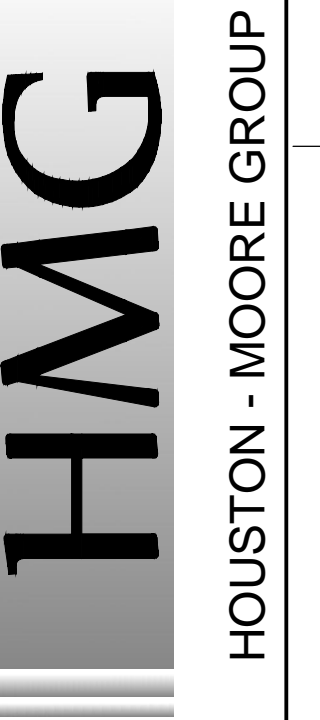
1. FOR GENERAL STRUCTURAL NOTES, SEE SHEET S-001.
2. FOR TYPICAL STRUCTURAL DETAILS, SEE SHEETS S-002 TO S-011.
3. COORDINATE ALL SLAB AND WALL PENETRATIONS WITH ARCH, MECH, PROCESS AND ELEC DRAWINGS.
4. COORDINATE ALL EQUIPMENT PAD LOCATIONS WITH MECH AND ELEC DRAWINGS. COORDINATE PAD SIZES WITH EQUIPMENT FURNISHED PER TYPICAL DETAILS ON SHEET S-003.

KEY NOTES:

- 1 12" SLAB-ON-GRADE W/#6@12 EW (TOC EL = 887.00')

FOUNDATION PLAN

3/16"=1'-0"



2ND STREET/DOWNTOWN - IN-TOWN LEVEES
 4TH ST. PUMP STATION AND 2ND ST. SOUTH FLOODWALL
 RED RIVER OF THE NORTH RIVER BASIN
 FARGO-MOORHEAD FLOOD RISK MANAGEMENT
 CASS COUNTY, NORTH DAKOTA
 GENERATOR BUILDING FOUNDATION PLAN

DATE:	11/17/2014
REVISED:	
REVISED:	
REVISED:	
RECORD:	
FILE NAME:	S-201.DWG
PROJECT No.	228479-164
DRAWN BY:	JAS
CHECKED BY:	SKM
PROJ. MANAGER:	KTD
PROJ. ENGINEER:	APG

S-201



P.O. Box 13158 • Grand Forks, ND 58208-3158
(P) 701.775.8480 (F) 701.775.8479
www.icsgf.com

November 4, 2016

Tyler Smith
CH2M Hill
94 4th Street South
Fargo, ND 58105

Re: Contract No. WP-42A.1/A.3 4th Street Pump House

Dear Ty,

See attached price quote from Fusion Automation for re-programming the pump at the new pump station as per your request.

Fusion Automation quote	\$ 1,320.00
ICS 5% markup	66.00
	\$ 1,386.00

Thanks.

Sincerely yours

A handwritten signature in blue ink, appearing to read "Jonathan R. Chose", is written over a blue ink scribble.

Jonathan R. Chose
Project Manager



CHANGE ORDER PROPOSAL # E19

DATE: NOVEMBER 4TH, 2016

PROJECT: FARGO 4TH STREET PUMP HOUSE FLOOD RISK MANAGEMENT

SUMMARY: RE-PROGRAMMING OF PUMPS

INCLUDES:

- Setting the pumps to display depth instead of elevation on the HMI screens in the pump station and that which is transmitted to the city. Set depth needs to be communicated from the engineer
- Retesting of system to confirm it functions correctly after programming changes

Total : \$ 1320.00

Price includes all applicable taxes.

Anne Mayer
Fusion Automation Inc
701-757-0852
Anne.Mayer@fusionautomationinc.com



P.O. Box 13158 • Grand Forks, ND 58208-3158
(P) 701.775.8480 (F) 701.775.8479
www.icsgf.com

November 16, 2016

Tyler Smith
CH2M Hill
520 Main Avenue, Suite 601
Fargo, ND 58105

Re: Contract No. WP-42A.1/A.3 4th Street Pump House

Dear Ty,

As per Glen Krogman's direction ICS quotes \$ 1,000.00 to furnish and install the trench drain in the generator building.

This will also cause a two day delay in receiving the drain, so ICS requests a two day time extension for the generator building.

Please add this to Change Order #8.

Thanks.

Sincerely yours

A handwritten signature in blue ink, appearing to read "Jonathan R. Chose", is written over the typed name.

Jonathan R. Chose
Project Manager

R-4990

HEAVY DUTY TRENCH

\$ 226.10 + Freight

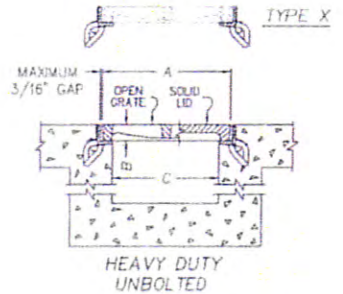
Frame, Grate, 2 End caps

Materials: All frames and grates/lids are furnished standard in gray iron, meeting ASTM-A48 Class 35-B for heavy-duty use. For extra heavy-duty use or superior durability requirements, see our ductile iron Airport and Port Grating Series on page 286.

Neenah recommends project designers avoid the use of light duty trench installations because it is likely that applications will be subjected to heavy delivery vehicle traffic at some time. Furthermore, the use of a site could be changed to heavy duty use patterns at some unanticipated future date.

Un-Bolted Catalog No.	Dimensions in inches			Type					
	A	B	C	Type A	Type C	Type D	Type E	Type P	Type Q
R-4990-AX	8	1 1/2	6	x	x	x	x	x	
R-4990-BX	10	1 1/2	8	x	x	x	x	x	
R-4990-CX	12	1 1/2	10	x	x	x	x	x	x
R-4990-DX	14	1 1/2	12	x	x	x	x	x	x
R-4990-EX	17	1 1/2	15	x	x	x	x	x	
R-4990-FX	20	1 1/2	18	x	x	x	x	x	
R-4990-GX	23	1 1/2	21	x	x*	x			
R-4990-HX	26	1 1/2	24	x	x*	x	x		x
R-4990-JX	30	2	27	x	x	x			
R-4990-KX	33	2	30	x	x	x*	x		
R-4990-LX	36	2	33	x	x	x*			
R-4990-MX	39	2	36	x	x*	x			
R-4990-NX	45	2	42	x	x*	x			
R-4990-OX	51	2	48	x		x*			

x - Indicates availability.
 * Deep Ribs (consult shop drawing for dimensions).
 Deep Ribs = "B" dimension times 2 or greater.



General schematic shown may not apply to all designs. Bar and rib depths, plate thicknesses and seating widths vary on different sizes and styles. If your project has design restrictions, contact your sales representative or product engineering.



Illustrating Type C trench. Trench sections are furnished in 24" standard lengths.

Note: In Type A and P grates the slots are perpendicular to the trench run. In Type C and Q grates the slots are parallel with the trench run.

APPROX 12" x 24"

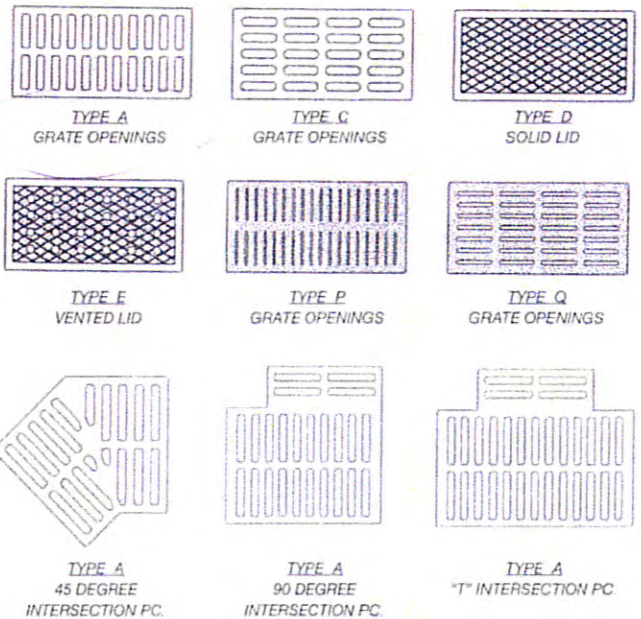
Read Carefully Before Ordering

The various standard trench drains are available with a number of alternatives. It is important to examine all of the variables carefully and specify your requirements fully. Your order will be entered correctly and promptly if it includes the following information:

- Complete catalog number
- Frame end pieces, when required
- Type of Lid or Grate: A, C, D, E, P or Q
- Length of trench sections
- Angles and intersections *
- Load requirements

*Trenches with angles, intersections, size changes or other special requirements require detail drawings prior to ordering. Contact your sales representative or product engineering for assistance.

800-558-5075



Note: 45°, 90° and "T" available in limited sizes and types.

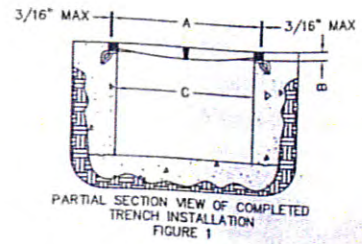
Suggested Forming Instructions for R-4990 Frame and Grate/Lid

Unbolted Units

A typical installation is shown in Figure 1. Details and suggestions are based on using the Neenah Foundry Type X Frame.

Materials

Under normal situations, use 3/4 inch plywood for forming walls. 2x4s are suitable for studs, plates, bracing and spreaders.



Forming Procedures

Pour the floor slab of the trench according to the plans and specifications. The width of the forming, (see Figure 2) measured from the outside edges of the forms, corresponds to the "C" dimension on Figure 1. During the entire forming procedure, verify that the forms are plumb, straight, solid and level.

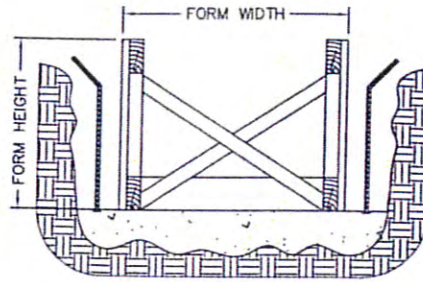


FIGURE 2

The height of the form corresponds to the final grade elevation. Extend the spreaders beyond the edge of the forms (see Figure 3 and 4) to provide a stop for the frame and seat form.

To attach the cast iron frame to the forming, the use of a "seat form" is recommended to assure that the frame is at the proper elevation and true. The seat form has the same dimensions as the frame, with the height corresponding to the frame height (the "B" dimension), and the width the same as the seat width of the frame. The seat width should be field measured to assure as proper fit. All Neenah frames have a slight radius at the corner of the seat and vertical face so the seat form should be beveled to accommodate the radius. Most 2x4's have this radius.

Nail the seat form to the frame using the holes in the frame. (Figures 3 & 4)

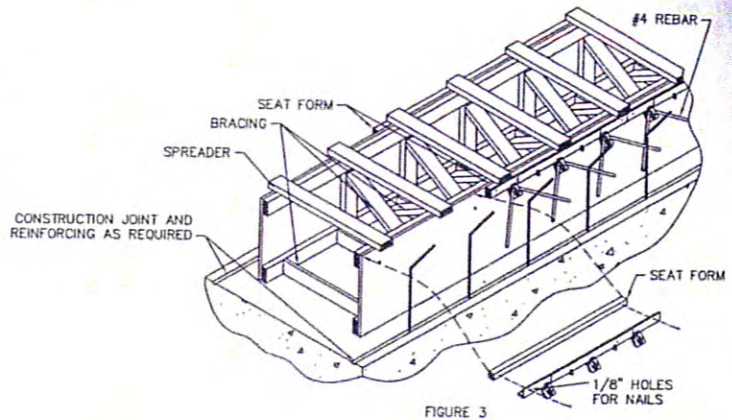


FIGURE 3

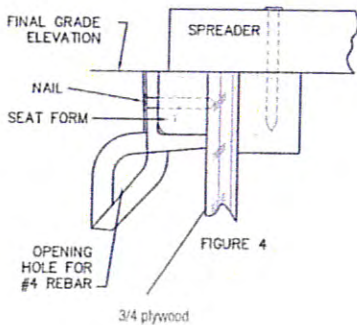


FIGURE 4

(The rebar shown in the vertical walls of the trench is for illustrative purposes only. Proper sizing and placement is the responsibility of the engineering firm providing the project design.)

Frames should butt together snugly, leaving as little gap as possible. Place a 90 degree bent #4 rebar through the holes in the anchor lugs to provide anchorage in the concrete. Verify the space between the edges of the grate and frame so grates will fit properly. There should be a gap but no greater than 3/16" (see Figure 1).

Pour concrete and use the top edge of the frame as a screed point.

FM Area Diversion Project
FY2017 CASH BUDGET

DRAFT as of 11/28/2016

Schedule Budget Categories	Program Budget (2015\$)	Actuals thru 28 Oct 2016	Remaining Program Budget	Unspent Amount from FY2016 to Carry Forward	Additional Cash Required for FY2017	FY2017 Proposed Cash Budget
PROGRAM	2,205,566,043	323,987,814	1,881,578,229	45,737,957	195,573,273	241,311,231
Diversion Channel & Assoc. Infrastructure	763,768,516	2,552,324	761,216,192	8,411,973	8,164,025	16,575,999
Southern Embankment & Assoc. Infrastructure	371,353,664	51,929,000	319,424,664	-	100,000	100,000
Other Mitigation Projects	64,712,848	7,310,689	57,402,159	14,956,692	9,289,556	24,246,248
In-Town Flood Protection	204,863,752	69,687,190	135,176,562	11,838,039	34,337,683	46,175,722
Enabling Work / Other	14,113,749	-	14,113,749	-	9,810,803	9,810,803
Land Acquisition & Mitigation	426,589,476	128,830,150	297,759,327	7,255,115	100,164,426	107,419,540
Engineering & Design Fees	80,539,955	31,424,767	48,279,220	3,276,138	7,417,436	10,693,575
Program Management	119,725,500	32,253,695	87,471,805	-	17,247,196	17,247,196
Contingency	159,898,584	-	159,898,584	-	804,879	804,879
Debt Service					8,137,268	8,137,268
Maintenance					100,000	100,000

Fiscal Year 2017 Budget Summary

December 01, 2016

Overview

The Diversion Authority Fiscal Year 2017 (FY17) cash budget is presented to continue to implement the FM Area Diversion Project and achieve the following:

1. Fulfill non-federal sponsor requirements
2. Procurement of a P3 Developer for the Diversion Channel and Associated Infrastructure
3. Support Corps construction of the Southern Embankment and Associated Infrastructure
4. Acquire property rights
5. Complete in-town levee projects
6. Obtain federal and state appropriations
7. Implement the Mitigation Plan

Background

The Diversion Authority FY17 is on a calendar year basis, which will begin January 1, 2017 and end December 31, 2017. The fiscal year is based on approval by the Diversion Authority Board in 2015 to change to a calendar year basis.

Summary of previous budgets:

FY12 -- \$13M

FY13 -- \$32M

FY14 -- \$70M

FY15 -- \$224M (\$13M carryover from FY2014 and \$211M new)

FY16 -- \$237.5M (\$96.3M carryover from FY2015 and \$141.2M new)

Fiscal Year 2017

The FY2017 cash budget is \$241.3M, including \$45.7M in carryover from FY2016, and \$195.6M in additional cash required for FY2017.

The proposed FY17 budget assumes the following will occur in Q1/Q2 2017:

- Additional federal appropriations will be identified, and
- The Preliminary Injunction for construction of the OHB Ring Levee will be lifted.

The budget consists of eleven main categories:

Diversion Program

Diversion Channel & Associated Infrastructure	\$	16.6 M
Southern Embankment & Associated Infrastructure	\$	0.1 M
Other Mitigation Projects	\$	24.2 M
In-Town Flood Protection	\$	46.2 M
Enabling Works	\$	9.8 M
Land Acquisition & Mitigation	\$	107.4 M
Engineering & Design Fees	\$	10.7 M
Program Management	\$	17.2 M
Contingency	\$	<u>0.8 M</u>
Subtotal Diversion Program	\$	233.1 M

Other Program Related Items

Debt Service	\$	8.1 M
Maintenance	\$	<u>0.1 M</u>
Subtotal Other Program Related Items	\$	8.2 M

Total Proposed FY2017 Cash Budget \$ **241.3 M**

DIVERSION PROGRAM

Diversion Channel & Associated Infrastructure (\$16.6M)

The budget includes outside counsel and financial advisor support for P3 Developer procurement. Also, PMC and engineering support during the P3 procurement and protest waiver agreements for P3 respondents. This category also includes budget for utility relocations within the diversion channel work limits.

Southern Embankment & Associated Infrastructure(\$0.1M)

The budget includes a nominal amount for U.S. Army Corps of Engineer support and oversight. No additional local share payments are anticipated for FY2017.

Other Mitigation Projects (\$24.2M)

The budget includes work in Oxbow-Hickson-Bakke (OHB). This includes resuming construction of the OHB Ring Levee (WP-43) and associated storm water pump station, utility relocations, ponds, piping, and road raises, as well as demolition or relocation of houses in Oxbow. Also includes construction management, materials testing, and construction surveying for these mitigation projects.

In-Town Flood Protection (\$46.2M)

Complementary In-Town Flood Protection (\$25.1M)

The budget includes projects identified as part of the Complementary In-Town Flood Protection for FY 2017. The scope includes levee, floodwalls, gatewells and demolition work in various areas within the City of Fargo (Northside; Harwood, Hackberry River Drives; Rosewood addition, Prairie Rose & Mistwood Phase 3; Oakcreek & Copperfield; Rose Creek Golf Course Area Phase 2; Belmont Area and Phase 2). This work is funded by the Diversion Authority and managed by the City of Fargo.

In-Town Levees (WP-42) (\$21.1M)

This budget item for construction includes final closeout activities for 2nd Street and 4th Street pump stations, the 2nd Street floodwall and road relocation, El Zagal and Mickelson levees. The budget includes landscaping, planting (WP42G) and recreation areas (WP42J) along the completed downtown levee sections. Also includes the remaining utility relocations (WP42D) for the Main Avenue Pump Station and Floodwall Utility (WP42D5), and commencement of construction activities for the Main Avenue Lift Station and Gatewell (WP42E).

Enabling Works (\$9.8M)

The budget includes construction, construction management and engineering support for Cass County Road 16 and 17 bridge project and road work (WP28).

Land Acquisition & Mitigation (\$107.4M)

The budget includes land acquisition for the Diversion Channel and Associated Infrastructure (DCAI). These land acquisitions are planned to be completed over the next three years.

The budget also includes the completion of land acquisitions for In-Town Levees (WP-42), and OHB Ring Levee (WP-43). It also includes remaining land acquisitions for CR16/17 bridge and road project (WP-28).

Additionally there is budget for the Southern Embankment, Upstream staging area (WP38), other mitigation projects, and opportunistic acquisitions. The Land Acquisition and Mitigation category includes real estate services costs and relocation benefits.

Engineering & Design Fees (\$10.7M)

The budget includes engineering and design work for In-Town Levees (WP42) and Other Mitigation Projects, including OHB (WP43), Wild Rice River Dam (WP36), Drayton Dam (WP40) and Retention. Also support for preconstruction activities, cultural surveys, permit preparation and USACE Certification for the In-Town Levees (WP42). Also included is carry-over funding from FY2016 for

existing contract commitments for work-in-kind, permitting, hydrology & hydraulic (H&H) modeling, utility designs, CR16/17 and CR20 bridge designs.

Program Management (\$17.2M)

The budget includes services for program management, including oversight of Diversion Authority contracts, coordination with the Corps, MN DNR and ND SWC. Additional program management services include technical, financial, permitting and permit compliance support, public involvement & outreach, government affairs, schedule & budget control, change management, and document control. Legal services are incorporated for local development, review of contracts and agreements to include outside counsel for litigation support.

This budget also includes support through the federal budgeting process and obtaining federal appropriations. In addition, this budget supports ND legislative efforts to support anticipated state appropriations of \$66.5 Million.

Contingency (\$0.8M)

The contingency budget is a cost allowance for the direct cost budget of the various work packages where costs will be incurred in FY 2017.

OTHER PROGRAM RELATED ITEMS

Other program related costs are for items associated with the finance and maintenance expenses not included in the program's engineering, construction and management estimate.

Debt Service (\$8.1M)

The budget includes expenses for interest on bank loans to support the financing of the program.

Maintenance (\$0.1M)

The budget includes maintenance expenses for completed projects. These expenses include costs for utilities, insurance and other facility maintenance items.

Finance Committee Bills through November 23, 2016

Vendor	Description		
Dorsey & Whitney LLP	Legal services rendered through September 30, 2016	\$	71,057.74
Erik R. Johnson & Associates, Ltd.	Legal services rendered through October 25, 2016	\$	5,409.45
			<hr/>
Total Bills Received through November 23, 2016		\$	<hr/> 76,467.19 <hr/>



MINNEAPOLIS OFFICE
612-340-2600

(Tax Identification No. 41-0223337)

STATEMENT OF ACCOUNT FOR PROFESSIONAL SERVICES

Fargo-Moorhead Flood Diversion Bd of Authority
c/o Erik R. Johnson & Associates, Ltd.
Attn: Erik Johnson
505 Broadway, Suite 206
Fargo, ND 58102

October 25, 2016
Invoice No. 3311891

RECEIVED
BY _____ DATE 10-4-16

Client-Matter No.: 491379-00001
Red River Diversion Project

For Legal Services Rendered Through September 30, 2016

INVOICE TOTAL

Total For Current Legal Fees	\$70,205.50
Total For Current Disbursements and Service Charges	\$852.24
Total For Current Invoice	\$71,057.74

For your convenience, please remit payment to the address below or we offer the option of remitting payment electronically by wire transfer. If you have any questions regarding this information, please contact the lawyer you are working with on this project or Dorsey's Accounts Receivable Department at 1-800-361-0760. Thank you.

Mailing Instructions:
Dorsey & Whitney LLP
P.O. Box 1680
Minneapolis, MN 55480-1680

Wire Instructions:
U.S. Bank National Association
800 Nicollet Mall
Minneapolis, MN 55402

(This account is only for Wire/ACH payments)
ABA Routing Number: 091000022
Account Number: 1047-8339-8282
Swift Code: USBKUS44IMT

Please make reference to the invoice number

Service charges are based on rates established by Dorsey & Whitney. A schedule of those rates has been provided and is available upon request. Disbursements and service charges, which either have not been received or processed, will appear on a later statement.

ALL INVOICES ARE DUE 30 DAYS FROM DATE OF INVOICE UNLESS OTHERWISE EXPRESSLY AGREED BY DORSEY & WHITNEY



Office of the City Attorney

City Attorney
Erik R. Johnson

Assistant City Attorney
Nancy J. Morris

November 4, 2016

Kent Costin
Finance Director
City of Fargo
200 North Third Street
Fargo, ND 58102

Re: Red River Diversion Project

Dear Kent:

I am enclosing a Summary Invoice dated October 25, 2016 from the Dorsey & Whitney Firm in Minneapolis for their professional services rendered through September 30, 2016 on the Red River Diversion Project. If you have any questions, please feel free to contact me. Please remit payment directly to Dorsey Whitney.

Sincerely,

A handwritten signature in black ink, appearing to be "Erik R. Johnson", written over a circular stamp or seal.

Erik R. Johnson

ERJ/lmw
Enclosure
cc: Bruce Grubb



Erik R. Johnson & Associates, Ltd.
Attorneys at Law

STATEMENT OF ACCOUNT FOR PROFESSIONAL SERVICES

City of Fargo-Auditor's Office
Attn: Kent Costin
200 North Third Street
Fargo, ND 58102

October 25, 2016

RE: Metro Flood Project-General Legal Matters

For Legal Services Rendered Through October 25, 2016

INVOICE TOTAL

Total for Current Legal Fees	\$5350.60
Total for Current Disbursements and Service Charges	\$58.85
Total for Current Invoice	\$5409.45

Summary of Account

*Prior Balance Due	\$
Total Amount Due	\$5,409.45

*If payment has been submitted for prior balance due, please disregard.

We appreciate your business.

Erik R. Johnson & Associates, Ltd

Attorneys at Law

Erik R. Johnson - Nancy J. Morris

505 Broadway - Suite 206

Fargo, ND 58102

(701) 280-1901

Invoice

City of Fargo -- Auditor's Office

Attn: Kent Costin

200 North 3rd Street

Fargo, ND 58102

Date	10/25/2016
Invoice #	2484

Description	Qty	Rate	Amount
METRO FLOOD PROJECT -- GENERAL LEGAL MATTERS: Erik Johnson: Sept 26 thru Oct 25, 2016 - itemization enclosed	18.8	211.00	3,966.80
Nancy J. Morris: Sept 26 thru Oct 25, 2016 - itemization enclosed	7.4	187.00	1,383.80
ND Telephone Co. - Conference Call re Diversion Authority		58.85	58.85
<i>We appreciate your business.</i>			TOTAL: \$5,409.45