Board Agenda

METRO FLOOD DIVERSION AUTHORITY

Diversion Board of Authority

September 23, 2021 @ 3:30 p.m. CST

This meeting will be held in-person at Fargo City Hall Commission Chambers (225 4th St N, Fargo, ND 58102)

1. Call to Order
    a. Roll Call of Members
2. Approve minutes from August 26, 2021 meeting
   [Attachment 00.01] (Pg. 3)
3. Approve Order of Agenda

CONSENT AGENDA – APPROVE THE FOLLOWING:

a. Finance Report [Attachment 01.00] (Pg. 9)

b. Voucher Approval [Attachment 02.00] (Pg. 36)

c. DA Board Approval Contract Actions [Attachment 03.00] (Pg. 41)
    i. CH2M/Jacobs, Task Order 05, Amendment 7
       [Attachment 03.01] (Pg. 43)
    ii. Neon Loon, New MSA
       [Attachment 03.02] (Pg. 65)
    iii. Industrial Builders, WP-43G, Change Order 7
       [Attachment 03.03] (Pg. 100)

d. DA Board Approval 2021 Cash Budget Adjustments – Nothing to Report

e. DA Board Approval MOU and Agreement Actions
   [Attachment 04.00] (Pg. 103)
    i. Pleasant Township MOU for SEAI [Attachment 04.01] (Pg. 106)
    ii. Cass Rural Water MOU for DCAI [Attachment 04.02] (Pg. 134)
    iii. T-Mobile/Sprint MOU for DCAI [Attachment 04.03] (Pg. 288)
    iv. Minnkota MURA for SEAI [Attachment 04.04] (Pg. 335)

REGULAR AGENDA:

4. Executive Director Report
   [Attachment 05.00] (Pg. 374)

5. General Counsel Update

    a. Resolution Authorizing Financial Close
    [Attachment 06.00] (Pg. 376)

6. USACE Project Update
7. Public Outreach Update
8. Land Management Updates

    a. Property Acquisition Status Report
    [Attachment 07.00] (Pg. 411)

9. Finance Update

    a. Draft 2022 Cash Budget
    [Attachment 08.00] (Pg. 421)

10. Other Business

    a. MFDA Org Chart for Existing and Proposed Positions
    [Attachment 09.00] (Pg. 423)

    b. Policy Development Working Group

11. Next Meeting: October 28, 2021
12. Adjournment

MEDIA AND PUBLIC PARTICIPATION INFORMATION

There are multiple ways to attend or watch this public meeting.

- View the Meeting on Fargo TV or at www.TVFargo.com
- View the Meeting on the City of Fargo's Facebook or Twitter feed.
- View the Meeting at FMDiversion.com/Meeting
- View the Meeting at Twitter.com/FMDiversion
- Attend the Meeting at the Fargo City Hall Commission Chambers (225 4th St N, Fargo, ND)
- General public can call dial in to listen to the Meeting at 701-298-6904, access code 4378#

Metro Flood Diversion Authority
Board of Authority
Meeting Minutes
3:30 PM – August 26, 2021

A regular meeting of the Metro Flood Diversion Authority Board of Authority was held on August 26, 2021. The following members were present: Shelly Carlson, Mayor, City of Moorhead; Dr. Tim Mahoney, Mayor, City of Fargo; Bernie Dardis, Mayor, City of West Fargo; Chad Peterson, Cass County Commissioner; Chuck Hendrickson, Moorhead City Council; Dave Piepkorn, Fargo City Commissioner; David Ebinger, Clay County Commissioner; John Strand, Fargo City Commissioner; Kevin Campbell, Clay County Commissioner; Mary Scherling, Cass County Commissioner; Rick Steen, Cass County Commissioner and Rodger Olson, Cass County Joint Water Resource District.

Member absent: Larry Seljevold, Moorhead City Council.

1. CALL TO ORDER

Mayor Carlson called the meeting to order at 3:31 PM. Roll call was taken, and a quorum was present.

2. APPROVE MINUTES FROM THE JULY 22, 2021, MEETING

MOTION PASSED

Mayor Dardis moved to approve the minutes from the July 22, 2021, meeting and Mr. Campbell seconded the motion. On a voice vote, the motion carried.

3. APPROVE MINUTES FROM THE AUGUST 9, 2021, SPECIAL MEETING

MOTION PASSED

Mr. Ebinger moved to approve the minutes from the August 9, 2021, special meeting and Mr. Steen seconded the motion. On a voice vote, the motion carried.

4. APPROVE ORDER OF AGENDA

MOTION PASSED

Mr. Campbell moved to approve the order of the agenda and Mr. Steen seconded the motion. On a voice vote, the motion carried.

CONSENT AGENDA APPROVAL

Mr. Shockley stated that there was discussion regarding voucher approval (item b) at the finance committee meeting and he indicated that if the consent agenda is approved as presented, the vouchers (item b) would be approved as well.

MOTION PASSED

Mr. Strand withdrew and re-motioned to approve the consent agenda as amended, removing the voucher approval (item b), and to discuss it during the finance committee update, and Mr. Olson seconded the motion. On a roll call vote, the motion carried.

5. EXECUTIVE DIRECTOR REPORT

Mr. Paulsen provided the following August update:

P3 updates

• Commercial close completed and financial close is scheduled for October
• Building relationships with RRVA and planning next steps
• Integrating the Chamber with RRVA

Planning

• MFDA Team - Org chart with future roles will be presented in the coming weeks
• Washington DC – Planning for and updating project information for the upcoming trip to Washington DC

On-going coordination

• Utility/Township/Municipality MOUs and Agreements
• Coordinating with EDC and partnering with NDSU on potential Economic Impact Study
• Coordination with NuStar Pipeline to provide cost savings

Mr. Paulsen reported that Lieutenant General Spellmon and Colonel Jansen were amongst the commanders who visited Fargo on August 12th and they were very impressed with the progress that has been made.

Mr. Bakkegard narrated the drone video that viewed showcasing progress to date. The video can be viewed in its entirety on the website fmdiversion.gov.

6. GENERAL COUNSEL UPDATE

Mr. Shockley provided a summary and explanation outlining the purpose and need for the following resolutions:

a. Resolution Establishing the Alternative Dispute Resolution Board

Mr. Shockley summarized the changes and indicated that the MnDak Coalition has been removed from the list of officers. Mr. Shockley reiterated that there will no activity with

the Alternative Dispute Resolution Board until after the project is complete and its sole purpose is only for those claims that cannot be resolved.

MOTION PASSED

Dr. Mahoney moved to approve the Resolution Establishing the Alternative Dispute Resolution Board as amended and Mr. Steen seconded the motion. On a roll call vote, the motion carried with Mr. Strand voting nay.

b. Resolution for County ROW Acquisition for the Red River Structure

Mr. Shockley summarized the purpose and need for the above-referenced resolution.

MOTION PASSED

Dr. Mahoney moved to approve the Resolution for County ROW Acquisition for the Red River Structure as presented by Mr. Shockley and Mr. Steen seconded the motion. On a roll call vote, the motion carried.

c. Review next steps to financial close with P3 Developer

Mr. Shockley reported that the commercial close transpired last week and that the financial close is set for November 15th. As an IRS compliance requirement, a TEFRA hearing is tentatively scheduled for September 20th. Mr. Shockley also reported that the MFDA will be receiving a $20 million closing guarantee from the proposer.

7. USACE PROJECT UPDATE

Ms. Williams provided the following USACE update:

1 Diversion Inlet Structure Construction

Structure includes 3-50 ft. wide Tainter gates. Work resumed in late-February. Construction is 70% complete with a required completion date of 7 June 2023. Anticipated remaining schedule:

2020: Foundations/site work, control structure, dam walls.

2021: Complete dam walls, concrete piers, stilling basin and walls. Complete gate fabrication.

2022: Install bridge deck, gates, and operating machinery.

2023: Paint gates, seed.

2024: Turf established.

2 Wild Rice River Structure Construction

Structure includes 2-40 ft. wide Tainter gates. Work resumed in late-February. Construction is 42% complete with a required completion date of 20 October 2023. Anticipated schedule:

2020: Foundations/site work, control structure, dam embankment.

2021: Approach walls and apron, stilling basin and walls, preloads. Complete gate fabrication.
2022: Control building, dam embankment, gate installation.
2023: Complete excavation, dam embankment, seed.
2024: Turf established.

3 I-29 Raise Construction

Includes approximately 4 miles of interstate raise south of the Wild Rice River. Utilizes excess borrow material from the future site of the Red River Structure. Required completion date NLT 1 January 2024.

4 Southern Embankment – Reach SE-1 (Western Tieback) Construction

Includes approximately 2 miles of dam embankment construction, starting southwest of the Diversion Inlet Structure location. Required completion date NLT 30 June 2023.

5 Red River Structure Design

Structure includes 3-50 ft. wide Tainter gates. The design of this critical-path feature remains on schedule. Final plans and specs were completed 26 August 2021. Award of a construction contract is being planned for late March 2022.

6 Southern Embankment – Reach SE-1B Design

65% review scheduled to begin in October 2021.

7 Southern Embankment – Reach SE-2A and 2B Design

The final design review began 24 August 2021. Final plans and specifications are scheduled for November 2021. Reach SE-2B 35% design review is scheduled to begin late-Oct 2021.

8 Drain 27 Wetland Mitigation Project Design

The final plans and specs were signed on 30 July 2021. Award of a construction contract is anticipated in 2nd quarter FY2022.

9 Drayton Dam Mitigation Project Design

The final plans and specs are currently due 1 October 2021 with a construction contract award planned for February 2022.

8. PUBLIC OUTREACH UPDATE

Mr. Olson reported that the committee did not meet but things continue to move forward and the primary focus now is integration and planning with the RRVA team.

9. LAND MANAGEMENT UPDATES

Property Acquisition Status Report

Mr. Dodds reported that field work continues and an additional five or six parcels have been acquired and two LRED properties have been resolved. Negotiations continue on the Red River Structure, Drain 27 and SE 2-A.

Mr. Campbell stated that the MCCJPA meeting was postponed and there was nothing to report.

Mr. Olson reported that CCJRWD met and expressed that value is what creates the issues turning into LRED. They trust the appraisers and strive to be fair, friendly, and flexible. Overall, things are going as expected.

10. FINANCE UPDATE

Mayor Dardis reported that the finance committee met and approved the following contract actions:

- i. Task Order 101, Amendment 0 – Design and Construction Support – New Task Order replacing existing task orders HMG $1,010,000
- ii. Task Order 102, Amendment 0 – H&H, Mitigation and Permitting Support – New Task Order replacing existing task orders HMG $610,000
- iii. Task Order 2, Amendment 4 – Cultural Resource Investigations & Architectural Evaluations – Additional Management and Coordination, Phase I Cultural Investigations – SE4 & SE5, Phase II Architectural Evaluations, Phase II Archaeological Evaluations, Cemetery studies
- iv. AECOM $534,099 Utility Relocation Agreement – Wild Rice River Structure Dakota Carrier Network
- v. DCN $612,542 Change Order 04 – WP43G – Change Proposal 6 – Furnish and replace gravel on 49th Street SE Industrial Builders $66,708

MOTION PASSED

Dr. Mahoney made a motion to approve contract action items i-v and Mr. Peterson seconded the motion. On a roll call vote, the motion carried.

Mayor Carlson motioned to approve the bills (item b on the Consent Agenda) as submitted by the City of Fargo less the 4% administrative fee that is being charged by Fargo. Until a policy is in place, these fees will continue to go unpaid.

MOTION PASSED

Mayor Dardis made a motion to approve the payment of the bills less the administrative fees and Mr. Steen seconded the motion. On a roll call vote, the motion carried with Dr. Mahoney, Mr. Piepkorn and Mr. Strand voting nay.

11. OTHER BUSINESS

There was no other business.

12. NEXT MEETING

The next meeting will be September 23, 2021, at 3:30 PM.

13. ADJOURNMENT

MOTION PASSED

Mr. Steen moved to adjourn the meeting and Mr. Peterson seconded the motion. The meeting adjourned at 4:29 PM.

FM Metropolitan Area Flood Risk Management Project
Fiscal Accountability Report Design Phase
As of 08/31/21

							790: FM Diversion Projet Fund	770: Budget Fund		773: Excess Capital Fund		
	2011-2016	2017	2018	2019	2020	2021	Total	2021	Fund	2021	Total	Grand Total
Revenues												
City of Fargo	105,418,227	30,112,100	30,150,091	32,835,957	30,746,840	18,792,091	248,055,305	-	-	-	-	248,055,305
Cass County	178,489,131	13,925,658	14,305,401	15,637,755	15,716,168	9,635,703	247,709,817	-	-	-	-	247,709,817
State Water Commission	139,942,984	25,892,783	9,227,010	26,655,616	69,249,584	21,074,710	292,042,686	-	-	-	-	292,042,686
Cass County Joint Water Resource District	-	-	-	-	-	28,630,991	28,630,991	-	-	-	-	28,630,991
Other Agencies	706,805	-	-	-	-	-	706,805	-	-	-	-	706,805
City of Oxbow MOU Repayment	428,392	1,158,044	-	358,178	878,020	122,038	2,944,671	-	-	-	-	2,944,671
Reimbursements	33,880	44,719	27,396	22,600	40,007	1,369	169,971	-	-	-	-	169,971
Lease/Rental Payments	612,685	354,466	527,903	653,883	802,745	60,958	3,012,639	-	-	-	-	3,012,639
Asset Sales	1,107,856	114,479	-	-	13,234	1,362,862	2,598,431	-	-	-	-	2,598,431
Interest Income	-	505,157	1,246,875	1,885,896	1,152,843	546,974	5,337,746	-	-	-	-	5,337,746
Miscellaneous	1,279	2,600	356	-	651	4,892	9,778	-	-	-	-	9,778
Total Revenues	426,741,239	72,110,007	55,485,032	78,049,884	118,600,091	80,232,588	831,218,842	-	-	-	-	831,218,842
Expenditures												
7905 Army Corp Payments	51,929,000	1,230,000	-	-	-	-	53,159,000	-	-	-		53,159,000
7910 WIK - Administration	1,276,502	729,947	849,081	1,201,725	2,068,489	1,680,883	7,806,627	159,259	159,259	-	-	7,965,885
7915 WIK - Project Design	25,491,276	2,907,309	2,142,880	2,516,133	3,258,835	983,696	37,300,129	-	-	-	-	37,300,129
7920 WIK - Project Management	29,993,888	15,211,372	6,817,589	8,326,357	10,369,118	6,707,520	77,425,845	-	-	-	-	77,425,845
7925 WIK - Recreation	163,223	-	-	40,000	75,000	-	278,223	-	-	-	-	278,223
7930 LERRDS - North Dakota	132,090,024	38,286,144	8,114,895	30,223,861	66,942,804	22,151,571	297,809,300	-	-	-	-	297,809,300
7931 LERRDS - Minnesota	2,176,988	25,949	4,914	5,352	2,769,551	973,897	5,956,652	-	-	-	-	5,956,652
7940 WIK Mitigation - North Dakota	587,180	256,326	69,283	12,357	97,512	35,266,250	36,288,908	-	-	-	-	36,288,908
7941 WIK Mitigation - Minnesota	-	-	-	-	-	-	-	-	-	-	-	-
7950 Construction - North Dakota	64,092,419	5,267,083	4,384,090	18,183,794	12,172,911	7,512,413	111,612,709	-	-	-	-	111,612,709
7951 Construction - Minnesota	-	-	-	-	-	-	-	-	-	-	-	-
7952 Construction - O/H/B	17,118,125	10,907,637	4,111,617	369,936	1,104,928	1,182,137	34,794,380	-	-	-	-	34,794,380
7955 Construction Management	9,169,855	1,002,575	296,092	685,741	444,536	77,293	11,676,091	-	-	-	-	11,676,091
7980 Operations & Maintenance	6,403	28,538	41,493	35,328	79,049	2,971	193,782	-	-	-	-	193,782
7990 Project Financing	7,847,599	6,914,504	9,879,405	11,434,046	12,017,311	8,573,250	56,666,115	-	-	-	-	56,666,115
7995 Project Eligible - Off Formula Costs	-	-	-	-	-	-	-	-	-	-	-	-
7999 Non Federal Participating Costs	116	221,568	-	-	-	-	221,684	-	-	-	-	221,684
Total Expenditures	341,942,599	82,988,952	36,711,339	73,034,630	111,400,046	85,111,879	731,189,445	159,259	159,259	-	-	731,348,704
Other Financing Sources (Uses)												
Transfers From Other Diversion Funds	-	-	-	-	-	-	-	219,855	219,855		-	219,855
7998 Transfers to Other Diversion Funds	-	-	-	-	-	(109,928)	(109,928)					(109,928)
Total Other Financing Sources (Uses)	-	-	-	-	-	(109,928)	982,533,186	219,855	219,855	-	-	109,928

FM Metropolitan Area Flood Risk Management Project
Statement of Net Position
August 31, 2021

	FM Diversion Project Fund	Budget Fund	Grand Total
Assets			
Cash	$ 99,695,933	$ 60,597	$ 99,756,530
Cash Held In Trust at BND			
Excess Revenue Fund	208,050	-	208,050
Temp Debt Obligation Fund	230,400	-	230,400
Authority Loan Fund	15,966	-	15,966
Receivables			-
State Water Commission *	-	-	-
Prepaid Expense	95,934	-	95,934
Total assets	**100,246,283**	**60,597**	**100,306,880**
Liabilities			
Vouchers payable	224,811	-	224,811
Retainage payable	194,330	-	194,330
Rent Deposit	17,600	-	17,600
Total liabilities	**436,741**	**-**	**436,741**
NET POSITION	**$ 99,809,542**	**$ 60,597**	**$ 99,870,139**

***** Receivable balance is as of 6/30/2021

FM Metropolitan Area Flood Risk Management Project
FY 2021 Summary Finacial Budget Report (In Thousands)
As of 31 Aug 2021

	2021 Approved Budget	Current Month	Fiscal Year To Date	% Expended	Outstanding Encumbrances	Remaining Budget Balance
Revenue Sources						
City of Fargo Sales Tax	32,000	3,622	18,792			
Cass County Sales Tax	16,000	1,812	9,636			
Cass County Joint Water Resource District	-	-	28,631			
State of ND - 50 % Match	109,900	-	20,547			
State of ND - 100% Match	-	-	527			
State of Minnesota	-	-	-			
Other Agencies	-	-	-			
City of Oxbow MOU Reimbursement	-	-	122			
Financing Proceeds	200	98	547			
Reimbursements	-	-	1			
Sales of Assets	-	-	1,363			
Property Income	1,100	6	61			
Miscellaneous	60,712	-	2			
MIT Inter-Fund Transfers		112	112			
Total Revenue Sources	**219,912**	**5,651**	**80,343**	**-**	**-**	**139,570**
Funds Appropriated						
Diversion Channel & Assoc. Infrastructure	52,010	487	4887	9%	3,608	43,515
Southern Embankment & Assoc. Infrastructure	1,410	269	1132	80%	377	(100)
Other Mitigation Projects	38,500	185	36439	95%	2,125	(64)
In-Town Flood Protection	35,249	5,973	7311	21%	96	27,842
Enabling Work / Other	62	-	15	0%	-	47
Land Acquisition & Mitigation	69,096	714	21561	31%	36,478	11,057
Engineering & Design Fees	3,035	241	1405	46%	2,877	(1,246)
Program Management	12,421	1,488	6913	56%	53,289	(47,781)
Contingency	-	-	0	0%		-
Debt Service	8,000	-	5606	70%	585	1,809
Maintenance	130	-	3	2%	-	127
Total Appropriations	**219,912**	**9,358**	**85,271**	**39%**	**99,434**	**35,208**

Summary Of Expenses
EXP-2021-08

Account Number	Check Date	Check Number	Vendor Name	Transaction Amount	Description	Project Number	Project Description
770-7910-429.11-00	8/12/2021	313265	Cass County Government	$52,595.67	SALARY REIMBURSEMENT	V00106	ED & STAFF-PR/ADMIN EXP
			Full Time Staff / Salaries	**$52,595.67**			
770-7910-429.11-01	8/12/2021	313265	Cass County Government	$139.05	SALARY REIMBURSEMENT	V00106	ED & STAFF-PR/ADMIN EXP
			Full Time Staff / Salaries / Overtime	**$139.05**			
770-7910-429.20-01	8/12/2021	313265	Cass County Government	$3,958.00	SALARY REIMBURSEMENT	V00106	ED & STAFF-PR/ADMIN EXP
			Employee Benefits / Health Insurance	**$3,958.00**			
770-7910-429.20-03	8/12/2021	313265	Cass County Government	$160.00	SALARY REIMBURSEMENT	V00106	ED & STAFF-PR/ADMIN EXP
			Employee Benefits / Dental Insurance	**$160.00**			
770-7910-429.21-01	8/12/2021	313265	Cass County Government	$3,489.50	SALARY REIMBURSEMENT	V00106	ED & STAFF-PR/ADMIN EXP
			Employee Benefits / Social Security	**$3,489.50**			
770-7910-429.21-02	8/12/2021	313265	Cass County Government	$746.50	SALARY REIMBURSEMENT	V00106	ED & STAFF-PR/ADMIN EXP
			Employee Benefits / Medicare	**$746.50**			
770-7910-429.22-07	8/12/2021	313265	Cass County Government	$6,448.23	SALARY REIMBURSEMENT	V00106	ED & STAFF-PR/ADMIN EXP
			Pension Benefits / Retirement	**$6,448.23**			
770-7910-429.25-00	8/12/2021	313265	Cass County Government	$12.74	SALARY REIMBURSEMENT	V00106	ED & STAFF-PR/ADMIN EXP
			Workers Compensation Benefits / Workers Compensation	**$12.74**			
770-7910-429.53-20	8/12/2021	313265	Cass County Government	$302.58	MISC EXPENSES	V00106	ED & STAFF-PR/ADMIN EXP
			Communications / Cellular Phone Service	**$302.58**			
770-7910-429.56-60	8/12/2021	313265	Cass County Government	$347.20	MISC EXPENSES	V00106	ED & STAFF-PR/ADMIN EXP
			In State Travel / In State Travel Expenses	**$347.20**			
770-7910-429.57-60	8/12/2021	313265	Cass County Government	$1,766.84	MISC EXPENSES	V00106	ED & STAFF-PR/ADMIN EXP
			Out of State Travel / Out of State Travel Exp	**$1,766.84**			
770-7910-429.61-10	8/12/2021	313265	Cass County Government	$4,175.17	MISC EXPENSES	V00106	ED & STAFF-PR/ADMIN EXP
			General Supplies / Office Supplies	**$4,175.17**			
770-7910-429.68-30	8/12/2021	313265	Cass County Government	$173.52	MISC EXPENSES	V00106	ED & STAFF-PR/ADMIN EXP
			Miscellaneous / Meeting Incidentals	**$173.52**			

Summary Of Expenses
EXP-2021-08

Account Number	Check Date	Check Number	Vendor Name	Transaction Amount	Description	Project Number	Project Description
770-7910-429.74-12	8/12/2021	313265	Cass County Government	$151.11	MISC EXPENSES	V00106	ED & STAFF-PR/ADMIN EXP
			Capital Outlay / Computer Software	**$151.11**			
			770 Subtotal	**$74,466.11**			
773-7910-429.34-56	8/25/2021	JB082100	City of Fargo	($16,000.00)	FISCAL AGENT FEE - 07/21	V05902	MONTHLY FISCAL AGENT FEE
	8/25/2021	JB082100	City of Fargo	($16,000.00)	FISCAL AGENT FEE - 06/21	V05902	MONTHLY FISCAL AGENT FEE
			Technical Services / FMDA Fiscal Agent Fees	**($32,000.00)**			
			773 Subtotal	**($32,000.00)**			
790-0000-206.10-00	8/19/2021	313507	Schmidt and Sons Inc.	$2,000.00	Pay Vendor Retainage	V03803	WP50C-STRUCTURE REMOVALS
	8/19/2021	313507	Schmidt and Sons Inc.	$15,208.00	Retainage	V03803	WP50C-STRUCTURE REMOVALS
	9/2/2021	313760	INDUSTRIAL BUILDERS INC	$17,328.85	Pay Retainage	V06003	WP50D.1-STRUCTURE REMOVL
			Retainage	**$34,536.85**			
790-7910-429.33-20	8/12/2021	313279	EIDE BAILLY LLP	$6,000.00	AUDITING SERVICES	V06402	2020 AUDIT SERVICES
			Other Services / Accounting Services	**$6,000.00**			
790-7910-429.34-20	8/5/2021	313220	PR for Good, Inc	$11,546.25	COMMUNICATIONS SUPPORT	V07101	COMMUNICATIONS SUPPORT
	8/19/2021	313495	PR for Good, Inc	$11,742.01	COMMUNICATIONS SUPPORT	V07101	COMMUNICATIONS SUPPORT
			Technical Services / Marketing / Public Relat.	**$23,288.26**			
790-7910-429.34-56	8/25/2021	JB082100	City of Fargo	$16,000.00	FISCAL AGENT FEE - 06/21	V05902	MONTHLY FISCAL AGENT FEE
	8/25/2021	JB082100	City of Fargo	$16,000.00	FISCAL AGENT FEE - 07/21	V05902	MONTHLY FISCAL AGENT FEE
	8/25/2021	JB082100	City of Fargo	$16,000.00	FISCAL AGENT FEE - 08/21	V05902	MONTHLY FISCAL AGENT FEE
				$48,000.00			
790-7910-429.38-68	8/19/2021	313442	GA Group, PC	$5,000.00	GOVT RELATIONS COUNSEL	V07601	2021 GOVERNMENT RELATIONS
			Other Services / Lobbyist	**$5,000.00**			

Summary Of Expenses
EXP-2021-08

Account Number	Check Date	Check Number	Vendor Name	Transaction Amount	Description	Project Number	Project Description
790-7915-429.33-05	8/19/2021	313399	AECOM	$27,626.10	CULTURAL RESOURCES INVEST	V01004	SEAI CULTURAL RES INVEST
	8/19/2021	313407	Beaver Creek Archaeology	$203.75	CULTURAL INVESTIGATION	V02601	CULTURAL INVESTIGATION
	8/19/2021	313454	HOUSTON-MOORE GROUP L	$7,592.00	DEV DRAFT OPERATION PLAN	V01615	DRAFT OPERATIONS PLAN
	8/19/2021	313454	HOUSTON-MOORE GROUP L	$14,752.75	PERMIT SUBMITTAL PREP	V01616	PERMIT SUBMITTAL PREP
	8/19/2021	313454	HOUSTON-MOORE GROUP L	$29,219.00	GRADE RAISE DESIGN	V01620	SEAI-I29 GRADE RAISE DSGN
	8/19/2021	313454	HOUSTON-MOORE GROUP L	$23,765.50	TASK ORDER 22	V01622	MITIGATION SUPPORT SRVCS
	8/19/2021	313454	HOUSTON-MOORE GROUP L	$50,704.94	WORK IN KIND	V01626	WORK-IN-KIND (WIK)
	8/19/2021	313454	HOUSTON-MOORE GROUP L	$9,509.50	PERMIT COMPLIANCE MONITOR	V01631	PERMIT COMPLIANCE MONITOR
	8/19/2021	313471	MAPLETON, CITY OF	$56,387.07	MOORE ENGINEERING, INC.	V08401	PRELIM ENGINEERING REIMB
	9/2/2021	313759	HOUSTON-MOORE GROUP L	$21,944.75	TASK ORDER #22	V01622	MITIGATION SUPPORT SRVCS
			Other Services / Engineering Services	**$241,705.36**			
790-7915-429.33-25	8/19/2021	313471	MAPLETON, CITY OF	$5,029.00	MOORE ENGINEERING, INC.	V08401	PRELIM ENGINEERING REIMB
			Other Services / Legal Services	**$5,029.00**			
790-7915-429.38-99	9/5/2021	879	MINNESOTA DNR	$3,000.00	DEPT OF NATURAL RESOURCES	V00703	MN DNR PERMIT-DRAYTON DAM
			Other Services / Other Services	**$3,000.00**			
790-7920-429.33-05	8/19/2021	313454	HOUSTON-MOORE GROUP L	$53,101.62	PROJECT MNGMT	V01601	HMG - PROJECT MANAGEMENT
			Other Services / Engineering Services	**$53,101.62**			
790-7920-429.33-79	8/19/2021	313420	CH2M Hill Engineers Inc	$526,130.21	PROGRAM MGMT	V00211	CH2M HILL-6/2019-12/2021
	8/19/2021	313420	CH2M Hill Engineers Inc	$339,118.62	SUPPORT SERVICES	V00212	P3 PROCUREMENT SUPPORT
	9/2/2021	313799	MOORE ENGINEERING INC	$2,262.10	MOORE ENGINEERING, INC	V02421	OXBOW MOU-MOORE PROJ MG
			Other Services / Construction Management	**$867,510.93**			
790-7930-429.33-05	8/5/2021	313159	HDR Engineering, Inc.	$68,911.55	HDR ENGINEERING INC	V01201	Cass Joint Water ROE
	8/5/2021	313159	Prosource Technologies, Inc	$62,626.83	PROSOURCE TECHNOLOGIES	V01201	Cass Joint Water ROE
	8/5/2021	313159	SRF Consulting Group	$134,159.97	SRF CONSULTING GROUP INC	V01201	Cass Joint Water ROE
	8/5/2021	313159	ULTEIG ENGINEERS INC	$29,424.35	ULTEIG ENGINEERING	V01201	Cass Joint Water ROE
	8/19/2021	313398	ADVANCED ENGINEERING I	$258,528.61	DIVERSION PROJECTS	V00302	PROGRAM MGMT SERVICES
	8/19/2021	313454	HOUSTON-MOORE GROUP L	$80,661.99	BOUNDARY SURVEYING	V01628	BOUNDARY SURVEYING SRVCS
	8/19/2021	313454	HOUSTON-MOORE GROUP L	$23,842.14	PROPERTY STRUCTURE MITIGAT	V01630	PROPERTY STRUCTURE MITGT
			Other Services / Engineering Services	**$658,155.44**			

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790-7930-429.33-25	8/5/2021	313159	Larkin Hoffman Attorneys	$28,771.82	LARKIN HOFFMAN ATTORNEYS	V01201	Cass Joint Water ROE
	8/5/2021	313159	OHNSTAD TWICHELL PC	$906.80	OHNSTAD TWICHELL, P.C.	V01203	Cass Joint Water OHB
	8/5/2021	313159	OHNSTAD TWICHELL PC	$294.00	OHNSTAD TWICHELL, P.C.	V01202	Cass Joint Water DPAC
	8/5/2021	313159	OHNSTAD TWICHELL PC	$163,254.51	OHNSTAD TWICHELL, P.C.	V01201	Cass Joint Water ROE
			Other Services / Legal Services	**$193,227.13**			
790-7930-429.33-32	8/5/2021	313159	GE Bock Real Estate, LLC	$17,100.00	GE BOCK REAL ESTATE LLC	V01201	Cass Joint Water ROE
	8/5/2021	313159	INTEGRA REALTY RESOURC	$3,000.00	INTEGRA REALTY RESOURCES	V01201	Cass Joint Water ROE
	8/5/2021	313159	Patchin Messner Valuation Coun	$24,500.00	PATCHIN MESSNER VALUATION	V01201	Cass Joint Water ROE
	8/5/2021	313159	Tinjum Appraisal Company, Inc.	$12,600.00	TINJUM APPRAISAL COMPANY	V01201	Cass Joint Water ROE
			Other Services / Appraisal Services	**$57,200.00**			
790-7930-429.33-79	8/19/2021	313420	CH2M Hill Engineers Inc	$35,110.11	PROPERTY ACQUISITION	V00210	CH2M HILL-LAND ACQUISITON
			Other Services / Construction Management	**$35,110.11**			
790-7930-429.34-65	8/5/2021	313159	0104 - ANDERSON, PATRICIA	$1,100.00	PATRICIA A ANDERSON	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	0105 - COLLIN & RENEE STA	$550.00	COLIN STANGELAND	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	0105 - COLLIN & RENEE STA	$550.00	RENEE STANGELAND	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	0277 - RODNEY M & PATRICI	$750.00	PATRICIA A HANGGI	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	0411 - AALAND, CASH H AN	$25,000.00	AALAND LAW OFFICE	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	0996 - BRENT & MELISSA QU	$2,000.00	MELISSA QUERN	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	5231 - JAMES A GRETTUM	$2,350.00	JAMES A GRETTUM	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	5237 - STEVEN V MCNAMEE	$750.00	STEVEN MCNAMEE	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	5260 - THOMAS A HALDIS	$4,900.00	THOMAS A HALDIS	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	9082 - JOHNSON, BRENT	$750.00	BRET JOHNSON	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	9345 - HORNE	$750.00	HORNE FAMILY LIMITED PART	V01701	ND LAND PURCH-OUT OF TOWN
			Technical Services / Right of Entry Requests	**$39,450.00**			
790-7930-429.38-95	8/31/2021	20814	Lindy Reierson	$250.00	9405-MOWING GRASS REIERSON	V01701	ND LAND PURCH-OUT OF TOWN
	9/2/2021	313799	CITY OF OXBOW	$1,350.00	MOWING & WEED CONTROL	V01701	ND LAND PURCH-OUT OF TOWN
			Other Services / Mowing Services	**$1,600.00**			
790-7930-429.41-05	8/5/2021	313159	Cass Rural Water	$84.35	CASS RURAL WATER USERS	V01701	ND LAND PURCH-OUT OF TOWN
			Utility Services / Water and Sewer	**$84.35**			

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790-7930-429.61-50	8/5/2021	313159	CASS COUNTY JOINT WATE	$243.21	CASS COUNTY JOINT WRD	V01201	Cass Joint Water ROE
	8/5/2021	313159	CASS COUNTY JOINT WATE	$64.10	UPS	V01201	Cass Joint Water ROE
			General Supplies / Postage	**$307.31**			
790-7930-429.62-51	8/5/2021	313159	Cass County Electric Cooperativ	$335.72	CASS COUNTY ELECTRIC COOP	V01701	ND LAND PURCH-OUT OF TOWN
			Energy / Electricity	**$335.72**			
790-7930-429.67-11	8/5/2021	313159	0220 - ANDERSON 2	$58,332.00	VERDEN ANDERSON	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	0227N - CASS COUNTY JOIN	$3,433.75	MARTIN & VICKI JOHNSON	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	0228N - CASS COUNTY JOIN	$3,433.75	MARTIN & VICKI JOHNSON	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	1906 - SABO	$32,858.50	JAMES SABO	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	9283 - VALAN	$5,469.53	JEREMY AND NICHOLE HOLCK	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	9393 - TYSDAL	$49,458.99	SCHELE ENTERPRISES	V01701	ND LAND PURCH-OUT OF TOWN
			Relocation / Residential Buildings	**$152,986.52**			
790-7930-429.68-10	8/5/2021	313159	CASS COUNTY JOINT WATE	$6.00	CASS COUNTY JOINT WRD	V01201	Cass Joint Water ROE
			Miscellaneous / Miscellaneous	**$6.00**			
790-7930-429.71-30	8/5/2021	313159	0525 - KROGH 1	($173,246.00)	CLERK OF DISTRICT COURT	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	0882 - KROGH 2	($245,314.00)	CLERK OF DISTRICT COURT	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	0886 - KROGH 1	($389,702.00)	CLERK OF DISTRICT COURT	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	1890 - MATHISON 3	$190,088.42	THE TITLE COMPANY	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	1906 - SABO	$199,525.83	THE TITLE COMPANY	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	8938 - KROGH 2	($245,314.00)	CLERK OF DISTRICT COURT	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	9162 - FREIER	$115,747.40	THE TITLE COMPANY	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	9164 - FREIER	$115,747.40	THE TITLE COMPANY	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	9165 - FREIER	$115,747.40	THE TITLE COMPANY	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	9426 - WILSON	$16,049.92	THE TITLE COMPANY	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	9427 - WILSON	$16,049.92	THE TITLE COMPANY	V01701	ND LAND PURCH-OUT OF TOWN
			Land / Land Purchases	**($284,619.71)**			
790-7930-429.71-31	8/5/2021	313159	2362X - LLOYD AMUNDSON	$2,575.00	LLOYD AMUNDSON	V01701	ND LAND PURCH-OUT OF TOWN
	8/5/2021	313159	2362X - LLOYD AMUNDSON	$2,575.00	LYNETTE FLICK	V01701	ND LAND PURCH-OUT OF TOWN
			Land / Easements	**$5,150.00**			

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790-7930-429.73-20	8/19/2021	313456	INDUSTRIAL BUILDERS INC	$193,288.50	WORK PKG 50D1 IBI	V06003	WP50D.1-STRUCTURE REMOVL
	8/19/2021	313507	Schmidt and Sons Inc.	$6,140.00	TOPSOIL, MULCH, SEEDING	V03803	WP50C-STRUCTURE REMOVALS
	9/2/2021	313760	INDUSTRIAL BUILDERS INC	$7,447.00	WORK PKG 50D1	V06003	WP50D.1-STRUCTURE REMOVL
	9/2/2021	313816	Schmidt and Sons Inc.	$23,324.00	PROPERTY STRUCTURE MITIGAT	V03804	WP50E-STRUCTURE REMOVALS
			Infrastructure / Site Improvements	**$230,199.50**			
790-7931-429.33-05	8/5/2021	313162	Prosource Technologies, Inc	$24,106.21	PROSOURCE TECHNOLOGIES	V06201	MCCJPA - MN ROE
	8/5/2021	313162	SRF Consulting Group	$9,709.13	SRF CONSULTING GROUP	V06201	MCCJPA - MN ROE
			Other Services / Engineering Services	**$33,815.34**			
790-7931-429.33-25	8/5/2021	313162	OHNSTAD TWICHELL PC	$23,906.29	OHNSTAD TWICHELL	V06201	MCCJPA - MN ROE
			Other Services / Legal Services	**$23,906.29**			
790-7931-429.34-65	8/5/2021	313162	0364 - JETVIG CHAD	$750.00	CHAD JETVIG	V02301	MN LAND PURCHASES
	8/5/2021	313162	0491 - DOCKTER GLENN & V	$750.00	GLENN & VIVIAN DOCKTER	V02301	MN LAND PURCHASES
	8/5/2021	313162	0493 - ANDERSON KEITH G	$750.00	KEITH & PAMELA ANDERSON	V02301	MN LAND PURCHASES
	8/5/2021	313162	1242 - MOEN, BRAD & JACQ	$2,100.00	BRADLEY MOEN	V02301	MN LAND PURCHASES
	8/5/2021	313162	1807 - WOLD 1	$750.00	JEFFREY WOLD	V02301	MN LAND PURCHASES
	8/5/2021	313162	1838 - ENGLISH	$750.00	THOMAS J ENGLISH RLT	V02301	MN LAND PURCHASES
	8/5/2021	313162	5194 - ODEGAARD/GLADYS	$750.00	GLADYS ODEGAARD	V02301	MN LAND PURCHASES
	8/5/2021	313162	5196 - NELSON/RAY & LUCIL	$750.00	RAY & LUCILLE NELSON FARM	V02301	MN LAND PURCHASES
	8/5/2021	313162	9074 - SCHEVING T C & LORI	$750.00	TC & LORI SCHEVING	V02301	MN LAND PURCHASES
	8/5/2021	313162	9076 - SCHEVING T C & LORI	$750.00	TC & LORI SCHEVING	V02301	MN LAND PURCHASES
	8/5/2021	313162	9117 - LENQUE, PAUL J	$750.00	CAROL LENOUE	V02301	MN LAND PURCHASES
	8/5/2021	313162	9118 - LENOUE/TRUSTEES M	$750.00	BETTE LENOUE	V02301	MN LAND PURCHASES
	8/5/2021	313162	9321 - DROMSTED	$2,050.00	DROMSTED LLC	V02301	MN LAND PURCHASES
			Technical Services / Right of Entry Requests	**$12,400.00**			
790-7931-429.62-51	8/5/2021	313162	RED RIVER VALLEY COOPE	$67.78	RED RIVER VALLEY COOP	V02301	MN LAND PURCHASES
			Energy / Electricity	**$67.78**			
790-7940-429.33-06	9/2/2021	313707	BRAUN INTERTEC CORP	$427.00	MATERIAL TESTING	V00402	TESTING - WP-43 & WP-28A
	9/2/2021	313707	BRAUN INTERTEC CORP	$228.75	MATERIALS TESTING	V00402	TESTING - WP-43 & WP-28A
			Other Services / Quality Testing	**$655.75**			

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790-7950-429.33-05	8/19/2021	313454	HOUSTON-MOORE GROUP L	$14,605.53	GRADE RAISE SERVICES	V01632	CONST SVCS-I29 ROAD RAISE
	9/7/2021	JB082100	City of Fargo	$146,211.53	City of Fargo	V05405	LEVEE/FLOODWALL - BELMONT
	9/7/2021	JB082100	HDR Engineering, Inc.	$1,907.50	HDR ENGINEERING INC	V05405	LEVEE/FLOODWALL - BELMONT
	9/7/2021	JB082100	HOUSTON ENGINEERING IN	$3,449.45	HOUSTON ENGINEERING INC	V05401	DEMOLITION/LEVEE-HARWOOD
	9/7/2021	JB082100	HOUSTON ENGINEERING IN	$75,470.41	HOUSTON ENGINEERING INC	V05407	FLOOD MIT-RIVERWOOD ADDTN
	9/7/2021	JB082100	HOUSTON ENGINEERING IN	$22,861.00	HOUSTON ENGINEERING INC	V05408	FLOOD MIT-ROYAL OAKS AREA
	9/7/2021	JB082100	HOUSTON ENGINEERING IN	$32,465.84	HOUSTON ENGINEERING INC	V05410	FLOOD MIT-ELM CIRCLE AREA
	9/7/2021	JB082100	HOUSTON ENGINEERING IN	$240,003.90	HOUSTON ENGINEERING INC	V05411	FLOOD MIT-OAK GROVE AREA
	9/7/2021	JB082100	HOUSTON ENGINEERING IN	$1,131.00	HOUSTON ENGINEERING INC	V05414	FLOOD MIT-ROSE COULEE
	9/7/2021	JB082100	HOUSTON ENGINEERING IN	$7,046.76	HOUSTON ENGINEERING INC	V05426	RR EROSION-UNIV & 52ND AV
	9/7/2021	JB082100	HOUSTON ENGINEERING IN	$21,179.69	HOUSTON ENGINEERING INC	V05427	FLOOD GEO TECH REVIEW
	9/7/2021	JB082100	Kadrmas Lee & Jackson, Inc.	$1,148.00	KLJ ENGINEERING, LLC	V05402	DEMO/LEVEE/WALL-ROSEWOOD
	9/7/2021	JB082100	MOORE ENGINEERING INC	$146,620.37	MOORE ENGINEERING INC	V05422	FLOOD MIT - NORTH SIDE
	9/7/2021	JB082100	SRF Consulting Group	$1,030.61	SRF CONSULTING GROUP, INC	V05407	FLOOD MIT-RIVERWOOD ADDTN
			Other Services / Engineering Services	**$715,131.59**			
790-7950-429.33-06	9/7/2021	JB082100	BRAUN INTERTEC CORP	$818.50	BRAUN INTERTEC CORP	V05412	DEMO - CITY WIDE
			Other Services / Quality Testing	**$818.50**			
790-7950-429.33-25	8/5/2021	313159	OHNSTAD TWICHELL PC	$5,964.10	OHNSTAD TWICHELL, P.C.	V01206	CCJWRD-SE Cass Relocation
	9/7/2021	JB082100	ERIK R JOHNSON & ASSOCI	$5,675.00	ERIK R JOHNSON & ASSOCIAT	V05418	FLOOD ACQUISITIONS
	9/7/2021	JB082100	RED RIVER TITLE SERVICES	$1,685.00	RED RIVER TITLE SERVICES	V05418	FLOOD ACQUISITIONS
	9/7/2021	JB082100	Serkland Law Firm	$3,665.00	SERKLAND LAW FIRM	V05418	FLOOD ACQUISITIONS
			Other Services / Legal Services	**$16,989.10**			
790-7950-429.33-32	9/7/2021	JB082100	Jorge Pagan	$4,500.00	PAGAN, JORGE L	V05410	FLOOD MIT-ELM CIRCLE AREA
	9/7/2021	JB082100	Jorge Pagan	$4,500.00	PAGAN, JORGE L	V05411	FLOOD MIT-OAK GROVE AREA
	9/7/2021	JB082100	RM HOEFS & ASSOCIATES I	$21,240.00	RM HOEFS & ASSOCIATES INC	V05410	FLOOD MIT-ELM CIRCLE AREA
	9/7/2021	JB082100	SRF Consulting Group	$3,021.10	SRF CONSULTING GROUP, INC	V05401	DEMOLITION/LEVEE-HARWOOD
	9/7/2021	JB082100	SRF Consulting Group	$1,992.29	SRF CONSULTING GROUP, INC	V05408	FLOOD MIT-ROYAL OAKS AREA
				$35,253.39			

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790-7950-429.38-99	9/7/2021	JB082100	Beaver Creek Archaeology	$2,275.00	BEAVER CREEK ARCHAEOLOGY	V05407	FLOOD MIT-RIVERWOOD ADDTN
	9/7/2021	JB082100	Beaver Creek Archaeology	$2,275.00	BEAVER CREEK ARCHAEOLOGY	V05411	FLOOD MIT-OAK GROVE AREA
	9/7/2021	JB082100	BIRNAMWOOD INC.	$275.00	BIRNAMWOOD INC.	V05410	FLOOD MIT-ELM CIRCLE AREA
	9/7/2021	JB082100	BRAUN INTERTEC CORP	$5,615.50	BRAUN INTERTEC CORP	V05412	DEMO - CITY WIDE
	9/7/2021	JB082100	BRAUN INTERTEC CORP	$20,995.25	BRAUN INTERTEC CORP	V05413	FLOOD MIT-52ND AVE/UNV DR
	9/7/2021	JB082100	BRAUN INTERTEC CORP	$528.00	BRAUN INTERTEC CORP	V05425	ASBESTOS TESTNG CITY WIDE
	9/7/2021	JB082100	BRAUN INTERTEC CORP	$9,182.00	BRAUN INTERTEC CORP	V05428	ASBESTOS TESTING
	9/7/2021	JB082100	CONSOLIDATED COMMUNI	$10,525.64	CONSOLIDATED COMMUNICATIO	V05422	FLOOD MIT - NORTH SIDE
	9/7/2021	JB082100	North Central Mitigation, LLC	$11,400.00	NORTH CENTRAL MITIGATION,	V05411	FLOOD MIT-OAK GROVE AREA
	9/7/2021	JB082100	Simplifile LC	$69.00	SIMPLIFILE LC	V05407	FLOOD MIT-RIVERWOOD ADDTN
	9/7/2021	JB082100	Simplifile LC	$23.00	SIMPLIFILE LC	V05408	FLOOD MIT-ROYAL OAKS AREA
	9/7/2021	JB082100	Simplifile LC	$138.00	SIMPLIFILE LC	V05410	FLOOD MIT-ELM CIRCLE AREA
	9/7/2021	JB082100	Simplifile LC	$205.00	SIMPLIFILE LC	V05411	FLOOD MIT-OAK GROVE AREA
	9/7/2021	JB082100	XCEL ENERGY-FARGO	$203.93	XCEL ENERGY	V05407	FLOOD MIT-RIVERWOOD ADDTN
	9/7/2021	JB082100	XCEL ENERGY-FARGO	$870.21	XCEL ENERGY	V05408	FLOOD MIT-ROYAL OAKS AREA
	9/7/2021	JB082100	XCEL ENERGY-FARGO	$628.53	XCEL ENERGY	V05410	FLOOD MIT-ELM CIRCLE AREA
			Other Services / Other Services	**$65,209.06**			
790-7950-429.41-05	9/7/2021	JB082100	City of Fargo	$2,160.96	City of Fargo	V05418	FLOOD ACQUISITIONS
				$2,160.96			
790-7950-429.54-10	9/7/2021	JB082100	FORUM COMMUNICATIONS	$376.74	THE FORUM	V05407	FLOOD MIT-RIVERWOOD ADDTN
	9/7/2021	JB082100	FORUM COMMUNICATIONS	$355.68	THE FORUM	V05408	FLOOD MIT-ROYAL OAKS AREA
	9/7/2021	JB082100	FORUM COMMUNICATIONS	$353.34	THE FORUM	V05410	FLOOD MIT-ELM CIRCLE AREA
	9/7/2021	JB082100	FORUM COMMUNICATIONS	$343.98	THE FORUM	V05411	FLOOD MIT-OAK GROVE AREA
				$1,429.74			
790-7950-429.62-50	9/7/2021	JB082100	XCEL ENERGY-FARGO	$61.20	FSI XCEL ENERGY PMTS	V05418	FLOOD ACQUISITIONS
	9/7/2021	JB082100	XCEL ENERGY-FARGO	$122.40	XCEL ENERGY	V05418	FLOOD ACQUISITIONS
				$183.60			

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790-7950-429.62-51	9/7/2021	JB082100	XCEL ENERGY-FARGO	$361.06	FSI XCEL ENERGY PMTS	V05418	FLOOD ACQUISITIONS
	9/7/2021	JB082100	XCEL ENERGY-FARGO	$642.44	XCEL ENERGY	V05418	FLOOD ACQUISITIONS
				$1,003.50			
790-7950-429.67-11	9/7/2021	JB082100	Denae Swalstad	$6,715.75	AACTION MOVING & STORAGE	V05408	FLOOD MIT-ROYAL OAKS AREA
	9/7/2021	JB082100	Denae Swalstad	$355.00	SWALSTAD, DENAE	V05408	FLOOD MIT-ROYAL OAKS AREA
	9/7/2021	JB082100	Peggy Barnum	$4,337.44	MIDWEST MOVING COMPANY LL	V05408	FLOOD MIT-ROYAL OAKS AREA
	9/7/2021	JB082100	Scott Seltveit	$21,221.06	SELTVEIT, SCOTT	V05407	FLOOD MIT-RIVERWOOD ADDTN
	9/7/2021	JB082100	Susan Montplaisir	$3,820.00	MONTPLAISIR, SUSAN	V05408	FLOOD MIT-ROYAL OAKS AREA
	9/7/2021	JB082100	Tara Shilling	$12,115.77	TWO MEN AND A TRUCK	V05407	FLOOD MIT-RIVERWOOD ADDTN
				$48,565.02			
790-7950-429.68-10	9/7/2021	JB082100	City of Fargo	$4,491.81	City of Fargo	V05405	LEVEE/FLOODWALL - BELMONT
	9/7/2021	JB082100	Fryn Pan	$46.00	FRYN PAN FAMILY RESTA	V05417	FLOOD ADMINISTRATION
				$4,537.81			
790-7950-429.71-30	9/7/2021	JB082100	Bryan Randerson	$72,000.00	RANDERSON, BRYAN	V05407	FLOOD MIT-RIVERWOOD ADDTN
	9/7/2021	JB082100	David Clardy	$104,486.00	CLARDY, DAVID	V05410	FLOOD MIT-ELM CIRCLE AREA
	9/7/2021	JB082100	Dmitri Kilin	$34,576.50	KILIN, DMIT RI	V05410	FLOOD MIT-ELM CIRCLE AREA
	9/7/2021	JB082100	Fargo Park District	$23,436.00	FARGO PARK DISTRICT	V05410	FLOOD MIT-ELM CIRCLE AREA
	9/7/2021	JB082100	Fargo Park District	$17,347.00	FARGO PARK DISTRICT	V05411	FLOOD MIT-OAK GROVE AREA
	9/7/2021	JB082100	Jason Nordstrom	$24,000.00	NORDSTROM, JASON & ONNOLE	V05410	FLOOD MIT-ELM CIRCLE AREA
	9/7/2021	JB082100	Kevin Odegaard	$7,923.00	ODEGAARD, KEVIN	V05407	FLOOD MIT-RIVERWOOD ADDTN
	9/7/2021	JB082100	OKeefe, OBrian, Lyson & Foss	$27,940.00	O'KEEFFE,O'BRIEN, LYSON &	V05410	FLOOD MIT-ELM CIRCLE AREA
	9/7/2021	JB082100	OKeefe, OBrian, Lyson & Foss	$334,328.89	O'KEEFFE,O'BRIEN, LYSON &	V05408	FLOOD MIT-ROYAL OAKS AREA
	9/7/2021	JB082100	OKeefe, OBrian, Lyson & Foss	$728,658.33	O'KEEFFE,O'BRIEN, LYSON &	V05401	DEMOLITION/LEVEE-HARWOOD
	9/7/2021	JB082100	OKeefe, OBrian, Lyson & Foss	$678,182.58	O'KEEFFE,O'BRIEN, LYSON &	V05407	FLOOD MIT-RIVERWOOD ADDTN
	9/7/2021	JB082100	OKeefe, OBrian, Lyson & Foss	($20.00)	City of Fargo	V05408	FLOOD MIT-ROYAL OAKS AREA
	9/7/2021	JB082100	Svetlana Kilina	$34,576.50	KILINA, SVETLANA	V05410	FLOOD MIT-ELM CIRCLE AREA
				$2,087,434.80			

Summary Of Expenses
EXP-2021-08

Account Number	Check Date	Check Number	Vendor Name	Transaction Amount	Description	Project Number	Project Description
790-7950-429.73-52	9/7/2021	JB082100	City of Fargo	$72,877.30	City of Fargo	V05405	LEVEE/FLOODWALL - BELMONT
	9/7/2021	JB082100	City of Fargo	$298,800.00	City of Fargo	V05419	STORM LIFT STATION #24
	9/7/2021	JB082100	Key Contracting Inc	$1,665,311.71	KEY CONTRACTING INC	V05422	FLOOD MIT - NORTH SIDE
	9/7/2021	JB082100	Linnco, Inc.	$329,620.74	LINNCO, INC	V05412	DEMO - CITY WIDE
	9/7/2021	JB082100	Meyer Contracting	$596,676.44	MEYER CONTRACTING INC	V05411	FLOOD MIT-OAK GROVE AREA
	9/7/2021	JB082100	Rick Electric Inc	$1,957.95	RICK ELECTRIC INC	V05407	FLOOD MIT-RIVERWOOD ADDTN
			Infrastructure / Flood Control	**$2,965,244.14**			
790-7950-429.74-10	9/7/2021	JB082100	City of Fargo	$56.43	City of Fargo	V05405	LEVEE/FLOODWALL - BELMONT
				$56.43			
790-7950-429.80-12	9/7/2021	JB082100	CASS COUNTY TREASURER	$36,656.76	City of Fargo	V05420	FLOOD BUYOUTS - SPECIALS
				$36,656.76			
790-7952-429.33-05	8/19/2021	313454	HOUSTON-MOORE GROUP L	$15,058.84	SERVICES DURING CONSTRUCT	V01623	CONSTRUCTN/BID SVCS WP43
			Other Services / Engineering Services	**$15,058.84**			
790-7952-429.73-52	9/2/2021	313760	INDUSTRIAL BUILDERS INC	$169,812.00	OHB WETLAND MITIGATION	V06002	WP43G-OHB WETLAND MITIGTN
			Infrastructure / Flood Control	**$169,812.00**			
790-7955-429.33-05	8/19/2021	313454	HOUSTON-MOORE GROUP L	$12,801.44	WORK PKG 42	V02806	CONSTRUCTION SVCS WP42
			Other Services / Engineering Services	**$12,801.44**			
790-7990-429.33-05	8/5/2021	313159	MOORE ENGINEERING INC	$10,822.50	MOORE ENGINEERING, INC	V01201	Cass Joint Water ROE
			Other Services / Engineering Services	**$10,822.50**			
790-7990-429.33-25	8/26/2021	313539	BANK OF NORTH DAKOTA	$2,204.30	WIFIA LEGAL REVIEW	V08501	LEGAL REVIEW FEES
			Other Services / Legal Services	**$2,204.30**			
790-7990-429.33-47	8/19/2021	313498	Program Advisor Services, LLC	$29,625.00	PROGRAM CONSULTING	V05801	CONSULTING SERVICES
			Other Services / Consulting Services	**$29,625.00**			
790-7990-429.34-55	8/5/2021	313139	AON RISK SERVICES CENTR	$2,425.00	DIVERSION ADVISORY SERVICE	V03201	PRE-AWARD P3 RISK ADVISOR
	8/12/2021	313283	Ernst & Young	$82,215.90	FINANCIAL ADVISORY	V03301	PPP FINANCL ADVISORY SVCS
			Technical Services / Financial Advisor	**$84,640.90**			

Summary Of Expenses
EXP-2021-08

Account Number	Check Date	Check Number	Vendor Name	Transaction Amount	Description	Project Number	Project Description
790-7990-429.34-57	8/31/2021	20832	BANK OF NORTH DAKOTA	$16,000.00	BND TRUSTEE FEE 8/2021	V08502	MONTHLY TRUSTEE FEE
			Technical Services / FMDA Trustee Fees BND	**$16,000.00**			
790-7990-429.80-90	8/13/2021	JB082100	UNITED STATES ENVIRONM	$547,726.35	WIFIA CREDIT PROCESS FEE	V06101	WIFIA LOAN APPLICATION FEE
	9/7/2021	JB082100	UNITED STATES ENVIRONM	$26,610.00	WIFIA SERVICING SET-UP	V06102	WIFIA SERVICING SETUP FEE
	9/7/2021	JB082100	UNITED STATES ENVIRONM	$6,650.00	WIFIA INITIAL CONSTRUCTION	V06103	WIFIA CONST SERVICING FEE
			Debt Service / WIFIA Servicing Fees	**$580,986.35**			
790-7998-555.90-81	9/1/2021	JB082100	Diversion Admin Budget Transfe	$0.00	ADMIN BUDGET TFR - AUG 21	VADMIN	Diversion Administration
			FMDA Admin. Budget Fund	**$0.00**			
			790 Subtotal	**$9,349,835.28**			

Total Amount Invoiced this period: **$9,392,301.39**

$34,536.85 **Less Paid Retainage**

$9,357,764.54 **Total Less Paid Retainage**

Data Through Date: Friday, August 27, 2021

Cummulative Vendor Payments Since Inception (Paid Only)

Vendor Name	Approved Contract/Invoiced Amount	Liquidated	Outstanding Encumbrance	Purpose
LAND PURCHASE	$234,911,221.23	$234,911,221.23	$0.00	Land Purchase
CH2M HILL ENGINEERS INC	$122,838,791.12	$80,306,349.86	$42,532,441.26	Project & Construction Management
HOUSTON-MOORE GROUP LLC	$61,528,096.24	$58,987,536.55	$2,540,559.69	Engineering Services
INDUSTRIAL BUILDERS INC	$58,215,028.56	$56,585,269.98	$1,629,758.58	2nd St N Pump Station Project and 2nd St Floodwall, South of Pu
ARMY CORP OF ENGINEERS	$53,159,000.00	$53,159,000.00	$0.00	Local Share
RICHLAND-WILKIN JPA	$35,000,000.00	$35,000,000.00	$0.00	Economic Impact Relief Fund
NORTH DAKOTA PUBLIC FINANCE AUTHORIT	$23,989,850.00	$23,989,850.00	$0.00	Debt Service
INDUSTRIAL CONTRACT SERVICES INC	$18,419,743.64	$18,419,743.64	$0.00	4th St Pump Station and 2nd Street Floodwall
ADVANCED ENGINEERING INC	$14,661,693.01	$5,736,857.20	$8,924,835.81	Lands Management and Public Outreach
MEYER CONTRACTING	$13,187,981.11	$13,187,981.11	$0.00	WP-43CD and Gatewell - PVD & Surcharge Installation
OHNSTAD TWICHELL PC	$12,941,391.87	$12,941,391.87	$0.00	Legal Services
WELLS FARGO	$11,607,080.05	$11,607,080.05	$0.00	Debt Service
DORSEY & WHITNEY LLP	$11,165,764.49	$11,165,764.49	$0.00	Legal Services
DAKOTA UNDERGROUND	$11,141,625.69	$11,141,625.69	$0.00	Utility Relocation
LANDSCAPES UNLIMITED	$11,007,612.78	$11,007,612.78	$0.00	Golf Course Construction - Oxbow Country Club
OKEEFE, OBRIAN, LYSON & FOSS LTD	$9,962,512.68	$9,962,512.68	$0.00	FLDBUY - COF Flood Home Buyouts
ASHURST LLP	$7,795,542.81	$6,008,374.96	$1,787,167.85	PPP Legal Counsel
ERNST & YOUNG	$5,377,000.00	$4,791,937.50	$585,062.50	P3 Financial Advisory Services
MOORE ENGINEERING INC	$5,149,755.97	$5,074,025.66	$75,730.31	Engineering Services
KEY CONTRACTING INC	$4,287,093.68	$4,287,093.68	$0.00	FM1413 - Oakcreek and Copperfield Court Levee
RILEY BROS	$3,656,841.67	$3,656,841.67	$0.00	Construction - OHB Ring Levee & WP-28A
CENTURYLINK COMMUNICATIONS	$3,425,723.78	$3,425,723.78	$0.00	Utility Relocation
CITY OF FARGO	$3,181,814.81	$3,181,814.81	$0.00	Utility Relocation, Accounting Svcs, Interest on Deficit Funds
PROSOURCE TECHNOLOGIES, INC	$2,918,291.71	$2,341,545.81	$576,745.90	Land Acquisition Services
MINNESOTA DNR	$2,636,755.60	$2,617,681.40	$19,074.20	EIS Scoping and Permit Application
SRF CONSULTING GROUP	$2,588,574.30	$1,038,859.92	$1,549,714.38	Engineering Services
OXBOW, CITY OF	$2,383,317.16	$2,383,317.16	$0.00	OXBOW MOU - LAND ADVANCE

Data Through Date: Friday, August 27, 2021

Cummulative Vendor Payments Since Inception (Paid Only)

Vendor Name	Approved Contract/Invoiced Amount	Liquidated	Outstanding Encumbrance	Purpose
LANDWEHR CONSTRUCTION INC	$2,304,622.16	$2,304,622.16	$0.00	In-Town and WP-43 Demolition Contracts
ACONEX (NORTH AMERICA) INC	$2,098,721.65	$871,995.20	$1,226,726.45	Electronic Data Mgmt and Record Storage System
HOUGH INC	$2,088,832.83	$2,088,832.83	$0.00	Construction WP-42F.2 and Oxbow River Intake & Pumping Syst
HOUSTON ENGINEERING INC	$2,048,026.69	$2,048,026.69	$0.00	Engineering Services
URS CORPORATION	$1,805,670.90	$1,805,670.90	$0.00	Cultural Resources Investigations
REINER CONTRACTING INC	$1,599,646.21	$1,599,646.21	$0.00	El Zagal Flood Risk Management
CROWN APPRAISALS	$1,574,455.00	$738,150.00	$836,305.00	Flowage Easements Valuation and Appraisal Services
ULTEIG ENGINEERS INC	$1,269,157.63	$1,109,946.01	$159,211.62	Land Acquisition Services
HDR ENGINEERING, INC.	$1,232,783.68	$745,212.78	$487,570.90	Engineering Services
US BANK	$1,205,546.13	$1,205,546.13	$0.00	Loan Advance Debt Service Payments
CASS COUNTY TREASURER	$1,116,960.74	$1,116,960.74	$0.00	Property Taxes
SCHMIDT AND SONS INC.	$1,100,294.86	$1,003,748.86	$96,546.00	Residential Demolition in Oxbow
CASS COUNTY GOVERNMENT	$1,090,444.84	$1,090,444.84	$0.00	Gravel on County Rd 17 Bypass
CONSOLIDATED COMMUNICATIONS	$1,073,621.75	$1,073,621.75	$0.00	Utility Relocation
KPH, INC.	$1,048,093.28	$993,616.42	$54,476.86	WP-43D5 Construction
CASS RURAL WATER	$1,023,401.00	$399,623.00	$623,778.00	Utilities and Utility Relocation WP43CD
PROGRAM ADVISOR SERVICES, LLC	$1,005,000.00	$839,987.29	$165,012.71	Program Consulting Services
XCEL ENERGY-FARGO	$991,782.81	$945,182.81	$46,600.00	Utility Relocation
CLERK OF DISTRICT COURT	$939,044.32	$939,044.32	$0.00	FLDBUY - COF Flood Home Buyouts
TERRACON CONSULTING ENGINEERS	$887,718.41	$887,718.41	$0.00	Materials Testing
AECOM	$838,725.00	$219,994.06	$618,730.94	Cultural Resources Investigations
BRAUN INTERTEC CORP	$807,530.77	$696,620.13	$110,910.64	Materials Testing
CASS COUNTY ELECTRIC COOPERATIVE	$773,549.25	$767,349.25	$6,200.00	Electrical Services
UNITED STATES ENVIRONMENTAL PROTECTI	$680,986.35	$680,986.35	$0.00	WIFIA LOAN APPLCATION FEE
ERIK R JOHNSON & ASSOCIATES	$653,234.73	$653,234.73	$0.00	Legal Services
METROPOLITAN COUNCIL OF GOVERNMENTS	$637,390.01	$637,390.01	$0.00	Digital Aerial Photography
DUCKS UNLIMITED	$587,180.00	$587,180.00	$0.00	Wetland Mitigation Credits

Cummulative Vendor Payments Since Inception (Paid Only)

Vendor Name	Approved Contract/Invoiced Amount	Liquidated	Outstanding Encumbrance	Purpose
AT&T	$586,269.60	$586,269.60	$0.00	Utility Relocation
COMPASS LAND CONSULTANTS, INC	$531,547.50	$466,007.50	$65,540.00	Property Appraisal Services
RED RIVER BASIN COMMISSION	$501,000.00	$501,000.00	$0.00	Retention Projects - Engineering Services
HOFFMAN & MCNAMARA CO.	$489,029.39	$483,034.67	$5,994.72	General Landscaping and Planting (WP-42G)
LINNCO, INC.	$485,221.25	$485,221.25	$0.00	House Demo and Removal
BUFFALO-RED RIVER WATERSHED DISTRICT	$471,568.00	$471,568.00	$0.00	Retention Projects - Engineering Services
MIDCONTINENT COMMUNICATIONS	$462,379.87	$462,379.87	$0.00	Utility Relocation
NUSTAR PIPELINE OPERATING PARTNERSHIP	$459,693.17	$442,844.05	$16,849.12	Utility Relocation
ROBERT TRENT JONES	$440,431.73	$440,431.73	$0.00	Oxbow MOU - Golf Course Consulting Agreement
BEAVER CREEK ARCHAEOLOGY	$425,750.20	$338,179.92	$87,570.28	Engineering Services
PATCHIN MESSNER VALUATION COUNSELORS	$392,437.50	$283,925.00	$108,512.50	Property Appraisal Services
MBA	$380,636.36	$380,636.36	$0.00	Golf course and pump house - Oxbow Country Club
NDSU BUSINESS OFFICE-BOX 6050	$356,145.00	$356,145.00	$0.00	Ag Risk Study Services
MVM CONTRACTING	$339,448.03	$339,448.03	$0.00	Fiber Relocation
AON RISK SERVICES CENTRAL INC	$330,000.00	$239,782.25	$90,217.75	Risk Advisory Services P3 Pre-Award
DFI BRIDGE CORPORATION	$316,211.21	$316,211.21	$0.00	Bridge Construction - Oxbow Country Club
FEDERAL STEEL SUPPLY, INC.	$307,378.00	$307,378.00	$0.00	OHB - 42 inch steel pipe
DIRT DYNAMICS	$301,332.37	$301,332.37	$0.00	HD18A1 - Oakcreek, Copperfield & Univerisy - Demo
MAGELLAN PIPELINE	$285,900.00	$0.00	$285,900.00	Utility Relocation
LARKIN HOFFMAN ATTORNEYS	$283,058.99	$283,058.99	$0.00	Legal Services
GARY KILLEBREW	$279,500.00	$279,500.00	$0.00	Project Manager Services - Oxbow Country Club
TURMAN & LANG	$277,139.55	$277,139.55	$0.00	Legal Services
MOODYS INVESTORS SERVICE, INC.	$274,375.00	$274,375.00	$0.00	WIFIA loan fees
INTEGRA REALTY RESOURCES	$271,062.50	$178,750.00	$92,312.50	Property Appraisal Services
702 COMMUNICATIONS	$266,892.07	$266,892.07	$0.00	Utility Relocation
SPRINT COMMUNICATIONS COMPANY L.P.	$256,409.37	$256,409.37	$0.00	Fiber Optic Relocation for WP-43CD
SWANSON HEALTH PRODUCTS, INC.	$252,949.00	$252,949.00	$0.00	FM1471 - Storm Lift Stations #55 and #56 - Drain 27

Cummulative Vendor Payments Since Inception (Paid Only)

Vendor Name	Approved Contract/Invoiced Amount	Liquidated	Outstanding Encumbrance	Purpose
WATTS AND ASSOCIATES, INC.	$250,000.00	$147,165.09	$102,834.91	Crop insurance product development services
PR FOR GOOD, INC	$246,975.00	$158,059.04	$88,915.96	Communications Support Services
FREDRIKSON & BYRON, PA	$241,881.28	$241,881.28	$0.00	Lobbying Services
NORTHERN IMPROVEMENT COMPANY	$235,531.95	$235,531.95	$0.00	CR-17 asphalt paving
GRAY PANNELL & WOODWARD LLP	$231,300.68	$231,300.68	$0.00	Legal Services
FORUM COMMUNICATIONS	$216,643.02	$216,643.02	$0.00	Advertising Services
AMERICAN ENTERPRISES, INC.	$200,281.00	$200,281.00	$0.00	Construction/Demolition
CITY OF OXBOW MOU	$200,000.00	$200,000.00	$0.00	Oxbow Park Relocation MOU Amendment
MAPLETON, CITY OF	$179,605.00	$61,416.07	$118,188.93	Prelim Engineering Services
SPRINGSTED INCORPORATED	$178,010.15	$178,010.15	$0.00	Financial Advisor
KADRMAS LEE & JACKSON, INC.	$176,164.00	$176,164.00	$0.00	Engineering Services
MUNICIPAL AIRPORT AUTHORITY	$166,981.00	$166,981.00	$0.00	Easement for Airport
SOIL BORINGS	$166,232.50	$166,232.50	$0.00	Soil Borings
SERKLAND LAW FIRM	$164,729.37	$164,729.37	$0.00	Legal services
UNITED STATES GEOLOGICAL SURVEY	$151,520.00	$151,520.00	$0.00	Water Level Discharge Collection & Stage Gage Installation
DAKOTA CARRIER NETWORK	$147,523.86	$147,523.86	$0.00	Utility Relocation
PFM PUBLIC FINANCIAL MANAGEMENT	$146,460.00	$146,460.00	$0.00	Financial Advisor
S&P GLOBAL RATINGS	$145,625.00	$145,625.00	$0.00	Ratings Evaluation Service
EXECUTIVE MANAGEMENT SYSTEMS, INC.	$145,224.98	$145,224.98	$0.00	Executive Coaching
DAILY NEWS	$141,989.76	$141,989.76	$0.00	Advertising Services
CHAPMAN AND CUTLER	$140,000.00	$140,000.00	$0.00	Legal Services
QUANTUM SPATIAL, INC.	$139,061.35	$139,061.35	$0.00	Digital Aerial Photography
C THREE MEDIA, LLC	$128,910.00	$7,380.00	$121,530.00	Videography Services
DAWSON INSURANCE AGENCY	$123,963.14	$123,963.14	$0.00	Property Insurance - Home Buyouts
SENTRY SECURITY, INC.	$121,212.85	$121,212.85	$0.00	Security Services
ENVENTIS	$115,685.62	$115,685.62	$0.00	Utility Relocation
GE BOCK REAL ESTATE, LLC	$113,690.00	$82,190.00	$31,500.00	Property Appraisal Services

Cummulative Vendor Payments Since Inception (Paid Only)

Vendor Name	Approved Contract/Invoiced Amount	Liquidated	Outstanding Encumbrance	Purpose
OXBOW COUNTRY CLUB	$110,391.68	$110,391.68	$0.00	Golf Course - Oxbow
TINJUM APPRAISAL COMPANY, INC.	$107,150.00	$33,600.00	$73,550.00	Property Appraisal Services
DAVID CLARDY	$104,486.00	$104,486.00	$0.00	Home buyouts - easement
111 Vendors	**Report Totals:**	**$794,581,519.81**	**$728,638,943.54**	**$65,942,576.27**

Data Through Date: Friday, August 27, 2021

Parcel (OIN) Physical Location Summary

Project / Physical Location	Parcels	Acquired	Cancelled OIN's (HC)	PCT Acquired / Cancelled	Remaining OIN's	Cost To Date
BIOGEO	**421**	**6**	**129**	**32%**	**286**	**$982,196**
BIOGEO	292	6	0	2%	286	$981,696
HC	129	0	129	100%	0	$500
CHANNEL	**679**	**434**	**211**	**95%**	**34**	**$87,727,046**
HC	214	3	211	100%	0	$2,402,417
LAP01	130	119	0	92%	11	$6,190,596
LAP02	97	92	0	95%	5	$9,226,395
LAP03	84	66	0	79%	18	$18,503,021
LEGACY	154	154	0	100%	0	$51,404,616
MOBILITY	**123**	**0**	**0**	**0%**	**123**	**$0**
DA_MOB37_MN	51	0	0	0%	51	$0
DA_MOB37_ND	19	0	0	0%	19	$0
DA_MOB38TH	53	0	0	0%	53	$0
NA	**7**	**0**	**7**	**100%**	**0**	**$0**
HC	7	0	7	100%	0	$0
SEAILAND	**275**	**178**	**28**	**75%**	**69**	**$26,221,102**
DRAIN 27	28	14	0	50%	14	$4,238,357
HC	29	1	28	100%	0	$50,981
LEGACY	37	37	0	100%	0	$6,756,472
SE_I29	12	12	0	100%	0	$1,061,872
SE-1	37	36	0	97%	1	$2,669,976
SE-2A	8	3	0	38%	5	$697,800
SE-2B	33	19	0	58%	14	$2,882,800
SE-3	6	5	0	83%	1	$25,000
SE-4	26	7	0	27%	19	$1,494,045
SE-5	7	0	0	0%	7	$1,000
UMA	1	0	0	0%	1	$0
WP26	9	8	0	89%	1	$2,438,442
WP30	8	8	0	100%	0	$0
WP35	34	28	0	82%	6	$3,904,358
WP36	**2**	**0**	**0**	**0%**	**2**	**$2,750**
WRDAM	2	0	0	0%	2	$2,750

Data Through Date: Friday, August 27, 2021

Parcel (OIN) Physical Location Summary

Project / Physical Location	Parcels	Acquired	Cancelled OIN's (HC)	PCT Acquired / Cancelled	Remaining OIN's	Cost To Date
WP38	**1,031**	**91**	**356**	**43%**	**584**	**$26,185,249**
BIOGEO	2	0	0	0%	2	$4,500
HC	358	2	356	100%	0	$511,938
LEGACY	1	1	0	100%	0	$750
SE-5	2	0	0	0%	2	$0
UMA	581	88	0	15%	493	$25,668,061
UMA-C	34	0	0	0%	34	$0
UMA-C2	16	0	0	0%	16	$0
UMA-C3	1	0	0	0%	1	$0
UMA-W	24	0	0	0%	24	$0
UMA-W2	6	0	0	0%	6	$0
UMA-W3	6	0	0	0%	6	$0
WP40	**16**	**0**	**7**	**44%**	**9**	**$0**
DRAYTON	9	0	0	0%	9	$0
HC	7	0	7	100%	0	$0
WP42	**66**	**50**	**3**	**80%**	**13**	**$37,850,061**
HC	4	1	3	100%	0	$0
LEGACY	6	6	0	100%	0	$18,014,935
WP42A1A3	8	5	0	63%	3	$376,008
WP42A2	2	2	0	100%	0	$0
WP42C1	4	3	0	75%	1	$0
WP42C2	2	1	0	50%	1	$9,948,373
WP42F1N	2	2	0	100%	0	$27,000
WP42F1S	13	11	0	85%	2	$5,852,463
WP42H1	4	4	0	100%	0	$76,000
WP42H2	8	8	0	100%	0	$2,463,170
WP42I2	13	7	0	54%	6	$1,092,111
WP43	**264**	**116**	**145**	**99%**	**3**	**$78,541,365**
Non-OIN Hard Land Cost	0	0	0	0%	0	$22,598,547
HC	145	0	145	100%	0	$500
LEGACY	4	4	0	100%	0	$2,422,914
WP43A	1	1	0	100%	0	$0
WP43B	6	6	0	100%	0	$675,833
WP43C	74	74	0	100%	0	$45,142,769
WP43D	20	20	0	100%	0	$6,437,831
WP43D5	5	5	0	100%	0	$1,175,055
WP43G	9	6	0	67%	3	$87,915

METRO FLOOD DIVERSION AUTHORITY

Tuesday, September 14, 2021

Data Through Date: Friday, August 27, 2021

Parcel (OIN) Physical Location Summary

Project / Physical Location	Parcels	Acquired	Cancelled OIN's (HC)	PCT Acquired / Cancelled	Remaining OIN's	Cost To Date
Totals	**2,884**	**875**	**886**	**61%**	**1,123**	**$257,509,768**

FM Metropolitan Area Flood Risk Management Project
Lands Expense - Life To Date
As of August 31, 2021

Property Address	Purchase Date	Purchase Price	Earnest Deposit	Relocation Assistance	Sale Proceeds	Total
Commercial Relocations - Fargo		16,099,989.70	-	16,300,462.10	(1,100.00)	32,399,351.80
Home Buyouts - Fargo		3,044,054.89	-	521,417.80	-	3,565,472.69
Home Buyouts - Moorhead		495,809.91	-	84,060.80	(8,440.00)	571,430.71
Home Buyouts - Oxbow		29,678,181.97	-	17,142,531.46	(368,167.87)	46,452,545.56
Home Buyouts - Hickson		1,031,674.37	-	120,422.18	-	1,152,096.55
Home Buyouts - Horace		7,454,394.93	-	516,910.36	-	7,971,305.29
Home Buyouts - Argusville		215,030.91	-	6,912.57	-	221,943.48
Easements - Fargo		504,716.00	-	-	-	504,716.00
Easements - Hickson		500.00	-	-	-	500.00
Easements - Oxbow		55,500.00	-	-	-	55,500.00
Easements - Diversion Inlet Control Structure		3,720,916.92	-	-	-	3,720,916.92
Easements - Piezometer		1,500.00	-	-	-	1,500.00
Easements - Minesota		1,542,370.79	-	-	-	1,542,370.79
Farmland Purchases		197,338,556.35	-	3,279,430.72	(1,460,296.28)	85,852,253.37
Land Purchases		84,917,273.65	-	1,638,127.86	(730,148.14)	85,852,253.37
Auditor's Lot Three (3) of the Southwest Quarter (SW¼) of Section Thirty-four (34), Township One Hundred Thirty-eight (138) North, Range Forty-nine (49) West	2/11/2021	259,591.06	-	-	-	
Right of way Easment for part of the Northeast Quarter (NE1/4) of Section 13, Township 138 North, Range 50 West of the 5th Principal Meridian,	2/11/2021	1,011,265.00	-	-	-	
Part of the North Half of the North Half (N1/2N1/2) of Section 24, Township 138 North, Range 50 West of the 5th Principal Meridian AND That part of the North Half of the Northeast Quarter (N1/2NE1/4) of Section 24, Township 138 North, Range 50 West of the 5th Principal Meridian	2/11/2021	948,000.00	-	-	-	

FM Metropolitan Area Flood Risk Management Project
Lands Expense - Life To Date
As of August 31, 2021

Property Address	Purchase Date	Purchase Price	Earnest Deposit	Relocation Assistance	Sale Proceeds	Total
Right of way easement that part of the Southeast Quarter (SE1¼) of Section 15, Township 139 North, Range 50 West of the 5th Principal Meridian	2/11/2021	64,000.00	-	-	-	
Lot 57 Oxbow Country Club Estates	2/11/2021	48,643.12	-	-	-	
That part of the Southeast Quarter (SE1/4) of Section 14, Township 139 North Range 50 West of the 5th Principal Meridian AND That part of the Southwest Quarter (SW¼) of Section 14, Township 139 North Range 50 West of the 5th Principal Meridian	2/11/2021	1,507,100.00	-	-	-	
That part of Auditor's Lot 5 of the Southeast Quarter (SE1/4) of Section 10, Township 139 North, Range 50 West of the 5th Principal Meridian	2/11/2021	22,000.00	-	-	-	
That part of the Southeast Quarter (SE1/4) of Section 35, Township 142 North, Range 49 West of the 5th Principal Meridian AND that part of the Southeast Quarter (SE1/4) of Section 35, Township 142 North, Range 49 West of the 5th Principal Meridian AND that part of the Southeast Quarter of Section 17, Township 141 North, Range 49 West of the 5th Principal Meridian	3/4/2021	870,684.48	-	-	-	
That part of the Southeast Quarter of the Northwest Quarter, that part of Government Lot 4 and that part of Government Lot 5, All in Section 6,Township 137 North, Range 49 West of the 5th Principal Meridian AND That part of Government Lot 6 of Section 6, Township 137 North, Range 49 West of the 5th Principal Meridian AND That part of the Southwest Quarter of the Southeast Quarter of Section 1,Township 137 North, Range 50 West of the 5th Principal Meridian AND That part of the Southeast Quarter of the Southeast Quarter of Section 1,Township 137 North, Range 50 West of the 5th Principal Meridian AND That part of Government Lot 7 of Section 6, Township 137 North, Range 49 West of the 5th Principal Meridian AND That part of the Southeast Quarter of the Northeast Quarter of Section 6, Township 137 North, Range 49 West of the 5th Principal Meridian AND That part of Government Lot 1 and that part of Government Lot 2, Section 6,Township 137 North, Range 49 West of the 5th Principal Meridian AND That part of Government Lot 3 of Section 6, Township 137 North, Range 49 West of the 5th Principal Meridian AND That part of Government Lot 3 of Section 6, Township 137 North, Range 49 West	5/6/2021	2,502,659.00	-	-	-	
The South Half of the Southeast Quarter of Section 28, Township 138 North, Range 49 West of the Fifth Principal Meridian	6/3/2021	2,113,349.06	-	-	-	
Government lot 3 of Section one Township 136, North Range 49, Wolverton Township	6/3/2021	556,336.63	-	-	-	
SW Corner of the NW quarter section of Section 6 Township 137 North of Range 54 West	6/3/2021	5,203.86	-	-	-	
NW Quarter of Section 33 Township 139, North Range 49 West of the 5th Principle Meridian EXCEPT Auditors Lot 1	6/3/2021	2,125,007.49	-	-	-	
That part of Government Lot 4 in Section 30, Township 137 North, Range 48 West of the Fifth Principal Meridian	8/5/2021	190,088.42				

FM Metropolitan Area Flood Risk Management Project
Lands Expense - Life To Date
As of August 31, 2021

Property Address	Purchase Date	Purchase Price	Earnest Deposit	Relocation Assistance	Sale Proceeds	Total
A tract of land in the Northwest Quarter of the Northeast Quarter of Section Nine, Township One Hundred Thirty-seven, Range Forty-nine West of the Fifth Principal Meridian	8/5/2021	199,525.83				
All of Job Third Subdivision, a replat of Block One, Job Second subdivision, a part of the NE quarter section 35, Township 137 North, Range 49 West Less Lot One, Block one	8/5/2021	347,242.20				
Lots 11 and 12 in block 2 of Rivershore Subdivision	8/5/2021	32,099.84				
That part of the SW quarter of Section 20, Township 141 North, Range 49West of the 5th Prinicpal Meridian	8/5/2021	5,150.00				
		261,183,196.74	-	37,972,147.99	(1,838,004.15)	297,317,340.58
					Property Management Expense	3,640,505.32
					Grand Total	**$ 300,957,845.90**

FM Metropolitan Area Flood Risk Management Project
In-Town Levee Work
as of August 31, 2021

Vcode #	Vendor Name	Descriptions	Contract Amount	Amount Paid
V02801	Industrial Builders	WP42.A2 - 2nd Street North Pump Station	$ 8,696,548.46	$ 8,696,548.46
V02802	Terracon Consulting	WP-42 (In Town Levees) Materials Testing	$ 884,070.41	$ 884,070.41
V02803	Consolidated Communications	2nd Street Utility Relocation	$ 1,178,781.73	$ 1,178,781.73
V02804	702 Communications	2nd Street Utility Relocation	$ 266,892.07	$ 266,892.07
V02805	ICS	WP-42A.1/A.3 - 4th St Pump Station & Gatewell and 2nd St Floodwall S	$ 18,365,229.13	$ 18,365,229.13
V02806	HMG	WP42 - Services During Construction	$ 6,661,323.82	$ 6,496,697.25
V02807	CCJWRD	In-Town Levee Work	$ 5,886,140.36	$ 5,886,140.36
V02808	City of Fargo	Relocation of fiber optic along 2nd Street North	$ 397,906.52	$ 397,906.52
V02809	AT & T	2nd Street Utility Relocation	$ 586,269.60	$ 586,269.60
V02811	Xcel Energy	2nd Street & 4th Street Utility Relocations	$ 769,791.73	$ 769,791.73
V02812	Industrial Builders	WP-42F.1S - 2nd Street North Floodwall, South of Pump Station	$ 16,720,591.15	$ 16,720,591.15
V02813	Landwehr Construction	Park East Apartments Demolition	$ 1,169,651.74	$ 1,169,651.74
V02814	Primoris Aevenia	2nd Street Utility Relocation	$ 16,230.00	$ 16,230.00
V02815	Centurylink Communications	2nd Street Utility Relocation	$ 2,660,937.92	$ 2,660,937.92
V02816	Landwehr Construction	WP-42C.1 - In-Town Levees 2nd Street/Downtown Area Demo	$ 907,999.08	$ 907,999.08
V02817	Reiner Contracting, Inc	WP-42H.2 - El Zagal Area Flood Risk Management	$ 1,599,646.21	$ 1,599,646.21
V02818	Industrial Builders	WP-42I.1 - Mickelson Levee Extension	$ 738,880.50	$ 738,880.50
V02819	Industrial Builders	WP42F.1N - 2nd Street North	$ 13,362,906.82	$ 13,362,906.82
V02820	CH2M Hill	WP42 - Construction Management Services	$ 851,775.30	$ 851,775.30
V02821	Hough Incorporated	WP42F.2 - 2nd Street South	$ 1,639,524.33	$ 1,639,524.33
V02822	City of Fargo	COF - 2016 O&M on Lifts	$ 184,958.12	$ 184,958.12
V02823	Hoffman & McNamara	WP-42G General Landscaping and Planting	$ 489,029.39	$ 483,034.67
V02824	City of Fargo	COF – In-Town Flood Protection Debt Payments	$ 23,989,850.00	$ 23,989,850.00
V01703	Various	In-Town Property Purchases	$ 39,409,623.22	$ 38,192,183.71
V02825	Industrial Builders	WP-42E - 2nd Street South and Main Avenue Flood Mitigation	$ 8,668,474.07	$ 8,625,353.73
V02826	City of Fargo	In-Town Levee Maintenance	$ 8,823.82	$ 8,823.82
V054XX	City of Fargo	In-Town Complementary Work - Reimbursements	$ 31,015,618.32	$ 31,015,618.32
			$ 187,127,473.82	$ 185,696,292.68

Fargo-Moorhead Metropolitan Area Flood Risk Management Project
State Water Commission Funds Reimbursement Worksheet
Fargo Flood Control Project Costs - HB1020 & SB2020

Time Period for This Request: May 1, 2021 - June 30, 2021

Drawdown Request No: 116	
Requested Amount:	**$ 11,724,123.55**
Total Funds Expended This Period:	11,724,123.55
Total Funds Requested at 100% Match	500.00
Remaining Funds Requested at 50% Match	11,723,623.55
SB 2020 Matching Requirements	50%
Total Funds Requested at 50% Match	5,861,811.78
Total Funds Requested:	**5,862,311.78**

STATE AID SUMMARY:		
Summary of State Funds Appropriated		
Appropriations from 2009 Legislative Session		$ 45,000,000
Appropriations from 2011 Legislative Session		30,000,000
Appropriations from 2013 Legislative Session		100,000,000
Appropriations from 2015 Legislative Session		69,000,000
Appropriations from 2015 Legislative Session - Interior Flood Control		60,000,000
Appropriations from 2017 Legislative Session		66,500,000
Appropriations from 2019 Legislative Session		44,000,000
Anticipated appropriations to be deferred from 2019 Legislative Session	22,500,000	
Anticipated appropriations to be funded in 2021 Legislative Session	66,500,000	
Anticipated appropriations to be funded in 2023 Legislative Session	66,500,000	
Anticipated appropriations to be funded in 2025 Legislative Session	66,500,000	
Anticipated appropriations to be funded in 2027 Legislative Session	66,500,000	
Anticipated appropriations to be funded in 2029 Legislative Session	47,000,000	
Total State Funds	335,500,000	414,500,000
Less: Payment #1 through #35 - City of Fargo		(55,510,209.00)
Less: Payment #1 - Cass County		(136,039.36)
Less: Payment #1 through #7 - Interior Flood Control		(60,000,000.00)
Less: Payment #1 through #28 - FM Diversion Authority		(38,049,107.00)
Less: Payment #29 through #100 - FM Metro Area Flood Risk Management Project		(124,750,848.66)
Less: Payment #101 - FM Metro Area Flood Risk Management Project		(1,432,479.03)
Less: Payment #102 - FM Metro Area Flood Risk Management Project		(5,519,481.17)
Less: Payment #103 - FM Metro Area Flood Risk Management Project		(228,188.72)
Less: Payment #104 - FM Metro Area Flood Risk Management Project		(1,650,055.35)
Less: Payment #105 - FM Metro Area Flood Risk Management Project		(15,060.94)
Less: Payment #106 - FM Metro Area Flood Risk Management Project		(1,159,089.95)
Less: Payment #107 - FM Metro Area Flood Risk Management Project		(544,675.95)
Less: Payment #108 - FM Metro Area Flood Risk Management Project		(824,088.63)
Less: Payment #109 - FM Metro Area Flood Risk Management Project		(36,169,631.64)
Less: Payment #110 - FM Metro Area Flood Risk Management Project		(8,334,015.02)
Less: Payment #111 - FM Metro Area Flood Risk Management Project		(1,070,511.23)
Less: Payment #112 - FM Metro Area Flood Risk Management Project		(12,927,737.07)
Less: Payment #113 - FM Metro Area Flood Risk Management Project		(1,087,207.37)
Less: Payment #114 - FM Metro Area Flood Risk Management Project		(9,862,646.70)
Less: Payment #115 - FM Metro Area Flood Risk Management Project		(4,262,543.72)
Less: Payment #116 - FM Metro Area Flood Risk Management Project		(5,862,311.78)
Total Funds Reimbursed		(369,395,928.29)
Total State Fund Balances Remaining		**45,104,071.72**

LOCAL MATCHING FUNDS SUMMARY:	
Matching Funds Expended To Date - FM Metro Area Flood Risk Management Project	$ 101,280,033
Less: Match Used on Payment #1 through #35 - City of Fargo	(41,506,620)
Less: Match used on Payment #1 - Cass County	(136,039)
Less: Match Used on Payment #1-28 - FM Diversion Authority	(11,052,710)
Less: Match Used on Payment #29 - 100 - FM Metro Area Flood Risk Management Project	(37,286,002)
Less: Match Used on Payment #101 - FM Diversion Authority	(447,649)
Less: Match Used on Payment #102 - FM Diversion Authority	(1,479,398)
Less: Match Used on Payment #108 - FM Diversion Authority	(488,259)
Less: Match Used on Payment #110 - FM Diversion Authority	(5,554,438)
Less: Match Used on Payment #112 - FM Diversion Authority	(2,801,614)
Less: Match Used on Payment #114 - FM Diversion Authority	(526,803)
Less: Match Used on Payment #116 - FM Diversion Authority	(500)
Balance of Local Matching Funds Available	**$ (0)**

Finance Committee Bills from September 2021

Vendor	Description		
Ohnstad Twichell, P.C.	Legal services rendered through August 21, 2021	$	171,308.01
Cass County	Reimburse misc expenses from Executive Director office	$	12,191.75
Schatz & Associates	Governance overview workshop	$	4,200.00
Total Bills Received through September 15, 2021		$	187,699.76

OHNSTAD TWICHELL, P.C.
Attorneys at Law

P.O Box 458
West Fargo, ND 58078-0458
701-282-3249

15-1395 **JTS Invoice # 177734**

Flood Diversion Board
Bond Counsel Work - PPP

Date: September 8, 2021

To: Flood Diversion Board
P.O Box 2806
Fargo, ND 58108-2806

PROFESSIONAL SERVICES RENDERED

	Hours	Rate	Totals
JTS	134.6	$340.00	$45,764.00
CMM	11.5	$340.00	$3,910.00
LDA	12.4	$340.00	$4,216.00
KJB	103.7	$340.00	$35,258.00
TJL	56.7	$320.00	$18,144.00
ABG	34.6	$290.00	$10,034.00
JRS	20.5	$280.00	$5,740.00
KJD	63.8	$250.00	$15,950.00
DCP	25.2	$290.00	$7,308.00
AJR	39.6	$185.00	$7,326.00
CRA	1.3	$165.00	$214.50
CMS	44.8	$165.00	$7,392.00
SKO	11.6	$165.00	$1,914.00
KK	6	$155.00	$930.00
KMM	0.8	$85.00	$68.00
ZDW	1	$100.00	$100.00
Total Fees:	**568.1**		**$164,268.50**
Westlaw			$86.23
Abstracting Fees			$5,625.00
NDRIN			$26.00
Photocopies			$929.40
UPS			$46.82
Office Supplies			$326.06
Total Expenses:			**$7,039.51**
Grand Total			**$171,308.01**

		Rates
JTS	John T. Shockley, Partner, Supervising Attorney	$340.00
CMM	Christopher M. McShane, Partner	$340.00
ADC	Andrew D. Cook, Partner	$340.00
SNW	Sarah M. Wear, Partner	$340.00
RGH	Robert G. Hoy, Partner	$340.00
KJB	Katie J. Bertsch, Partner	$340.00
MWM	Marshall W. McCullough, Partner	$340.00
TJL	Tyler J. Leverington, Partner	$320.00
LWC	Lukas W. Croaker, Associate	$300.00
ABG	Bo Gruchala, Associate	$290.00
JRS	J.R. Strom, Associate	$280.00
KJD	Kathryn J. DelZoppo, Associate	$250.00
LRC	Leah R. Carlson, Associate	$290.00
EMM	Elle M. Molbert, Associate	$290.00
BTB	Brent T. Boeddeker, Associate	$290.00
DCP	David C. Piper, Associate	$290.00
JAM	Jenna A. McPherson, Associate	$235.00
CAS	Carol A. Stillwell, Paralegal	$185.00
AJR	Andrea J. Roman, Paralegal	$185.00
CRA	Christie R. Axness, Paralegal	$165.00
DLR	Dena L. Ranum, Legal Administrative Assistant	$160.00
CMS	Cassie M. Smith, Paralegal	$165.00
SKO	Sharon K. Oliver, Paralegal	$165.00
KK	Kiara J. Klinkhammer, Paralegal	$155.00
KMM	Karla M. Maertens, Legal Administrative Assistant	$85.00
SAR	Stephanie A. Ruth, Legal Administrative Assistant	$70.00
TWS	Paralegal Tim W. Steuber	$170.00
ZDW	Zachary D. Wall, Law Clerk	$100.00
ADW	Alex D. Wegner, Law Clerk	$100.00

COST ADVANCES BY US FOR YOUR ACCOUNT, FOR WHICH WE HAVE NOT BEEN BILLED, WILL APPEAR ON YOUR NEXT STATEMENT.

PROFESSIONAL SERVICES RENDERED

15-1395 JTS Invoice # 177734	Flood Diversion Board	Bond Counsel Work - PPP
FILE NUMBER	MATTER DESCRIPTION	INVOICE - TOTAL FEES
151395-1	General Topics (Includes General Governance Questions, Notices, etc.)	$44,314.00
151395-3	P3 Procurement	$67,279.00
151395-4	Public Finance Issues	$5,869.50
151395-5	Consultant Contract Review/Development	$2,207.00
151395-8	MNDNR Permit Issues	$55.50
151395-9	Environmental Permitting Issues/NEPA	$5,712.00
151395-11	Legislative Interface/Lobbying Support	$238.00
151395-12	USACE Interface/Questions	$525.00
151395-13	Third Party Utility MOU's	$35,576.50
151395-17	EPA WIFIA Loan	$1,724.00
151395-20	USDOT PABs	$102.00
151395-21	CCJWRD Temporary Refunding Imp Bond	$666.00
TOTAL		**$164,268.50**

CASS COUNTY GOVERNMENT
PO BOX 2806
211 9th STREET SOUTH
Fargo, ND 58108

(701) 241-5600

DATE: 9/02/21

TO: CITY OF FARGO
PO BOX 2083
FARGO, ND 58107

CUSTOMER NO: 198/294 TYPE: CA - FINANCE OFFICE

	CHARGE	DATE	DESCRIPTION	REF-NUMBER	DUE DATE	TOTAL AMOUNT
		8/30/21	BEGINNING BALANCE			79,357.41
**	AUDIT	8/11/21	~~FM DIVERSION~~ PAYROLL EXPENSES			~~67,672.07~~
**	AUDIT	8/11/21	~~FM DIVERSION~~ MISC EXPENSES			~~6,739.84~~
**	NOTIC	8/30/21	~~ESTIMATED TAX NOTICES~~			~~4,945.50~~
	AUDIT	9/02/21	~~FM DIVERSION~~ PAYROLL EXPENSES			~~68,063.43~~
	AUDIT	9/02/21	FM DIVERSION MISC EXPENSES			12,191.75

Submitted for approval at Sept board mtg

** - PREVIOUSLY BILLED - INCLUDED IN BEGINNING BALANCE

Current	30 days	60 days	90 days
159612.59			

DUE DATE: 10/04/21

PAYMENT DUE: 159,612.59
TOTAL DUE: $159,612.59

PLEASE DETACH AND SEND THIS COPY WITH REMITTANCE

DATE: 9/02/21 DUE DATE: 10/04/21 NAME: CITY OF FARGO
CUSTOMER NO: 198/294 TYPE: CA - FINANCE OFFICE

REMIT AND MAKE CHECK PAYABLE TO:
CASS COUNTY FINANCE
211 9TH ST S
PO BOX 2806
FARGO ND 58108-2806
(701) 241-5606

TOTAL DUE: $159,612.59

Dr. Jeffry M. Schatz
jm.schatz@outlook.com • 701-213-3017
3423 22nd Street South • Fargo, ND 58104

Schatz & Associates, LLC
Strategic Planning Consultant

Date: September 3, 2021

Invoice To:

METRO FLOOD DIVERSION AUTHORITY

Joel Paulsen, Executive Director

Governance Overview Workshop Consultation

Consultant Fee Final				**$4,200.00**
Expense Total				**$4,200.00**

*Completion and final billing for the project consultant fee of $3,000.00.

Make all checks payable to Schatz & Associates, LLC

Thank you for your business!

METRO FLOOD DIVERSION AUTHORITY

Diversion Authority Board Meeting

September 23, 2021

Contracting Actions

Joel Paulsen

DA Board Approval Contract Actions (Action)

METRO FLOOD DIVERSION AUTHORITY

Description	Company	Budget/ Estimate ($)
Task Order 05, Amendment 7 – Program Management Services – Update period of performance to December 31, 2026, update scope to match changes to the P3 Project Agreement and Final Technical Requirements	CH2M Hill/Jacobs	$30,236,800
Master Services Agreement – Consulting Services – Communication	Neon Loon	$0
Change Order 07 – WP43G – Additional on-site fill required	Industrial Builders	$77,840

Executive Director Contracting Recommendation

Date: 09/13/2021

RECOMMENDATION FOR ACTION:

The Executive Director has reviewed and recommends approval of the following Contract Action(s).

SUMMARY OF CONTRACTING ACTION:

Per the contract review and approval procedures that were adopted by the Diversion Authority on November 10, 2016 and amended February 11, 2021, the Owner's Program Management Consultant (PMC) or Engineer of Record (EOR) is directed to prepare task orders and task order amendments for existing Master Services Agreements (MSA) and submit them to the Executive Director for review and action. If the task order or amendment is greater than $200,000, the Executive Director's recommendation shall be submitted to the Finance Committee for review and action, and the Finance Committee shall submit their recommendation to the Diversion Authority Board for approval.

The PMC has prepared the following Contract Action(s):

CH2M HILL Engineers, Inc.

Task Order 05, Amendment 7 - Program Management Services for the Fargo-Moorhead Metro Flood Diversion Project **$30,236,800.00**

- Update the period of performance until December 31, 2026,
- To update the scope to match changes to the P3 Project Agreement and Final Technical Requirements

BACKGROUND AND DISCUSSION:

In accordance with Article 1 of the STANDARD MASTER AGREEMENT FOR PROFESSIONAL SERVICES ("Agreement"), between the Diversion Board of Authority ("OWNER") and CH2M HILL ENGINEERS, INC. ("ENGINEER"), dated January 3, 2017, OWNER and ENGINEER agree to the scope of services, work schedule, and cost budget as follows:

CH2M, now Jacobs, has served as the Program Management Consultant (PMC) to the OWNER since November of 2011, with primary responsibilities to plan and implement the Fargo-Moorhead Area Diversion Project (the PROJECT). As such, the OWNER and CONSULTANT have agreed to enter into a Task Order focused on managing and reporting on the various aspects of the PROJECT. The PMC reports directly to the Executive Director and in the event of a vacancy in the position of the Executive Director, the PMC reports directly to the Co-Deputy Executive Directors. The PMC shall consultant with and coordinate all activities with the Owners Technical Advisory Group and Owners Technical Consultant.

The purpose of this Amendment No. 7 is to update the period of performance until December 31, 2026, to update the scope to match changes to the P3 Project Agreement and Final Technical Requirements and to modify Attachment B – Annual Budgetary Summary by Task.

This is a cost increase amendment of $30,236,800.00.

The table below summaries the contracting history for this task order and the current contracting action.

Summary of Contracting History and Current Contract Action:

Original Agreement or Amendment	Budget ($) Change	Revised Project Cost	Agreement Date	Project Completion	Comments
Task Order 05 Amendment 0	$ -	$19,927,992	29-Jun-19	31-Dec-21	Initial work Authorization.
Task Order 05 Amendment 1	$ -	$19,927,992	29-Jun-19	31-Dec-21	Budgetary Changes.
Task Order 05 Amendment 2	$ -	$19,927,992	29-Jun-19	31-Dec-21	Budgetary Changes.
Task Order 05 Amendment 3	$ -	$19,927,992	29-Jun-19	31-Dec-21	Add Luuceo Consulting, Inc. as a subcontractor and Budgetary Changes.
Task Order 05 Amendment 4	($2,540,395)	$17,387,597	29-Jun-19	31-Dec-21	Remove tasks now provided by other consultants; add tasks to scope
Task Order 05 Amendment 5	$ -	$17,387,597	29-Jun-19	31-Dec-21	Add scope of services for Task 5.A - Program Level Services; Add scope of services for Task 5.A - Technical Support Services; Revise Attachment C - Active Construction Contracts and Professional Services Contracts
Task Order 05 Amendment 6	($1,754,402)	$15,633,195	29-Jun-19	31-Dec-21	Modify Attachment B – Annual Budgetary Summary by Task to reduce the total budget by the amount of fee appropriated but not expended in FY2020.
Task Order 05 Amendment 7	$30,236,800	$45,869,995	29-Jun-19	31-Dec-26	Update the scope to match changes to the P3 Project Agreement

Summary of Budget Allocation – Per Year 2019 to 2026

Year	Original Agreement or Amendment	Cost account code	Estimated cost ($)	Budget Allocated ($)	Budget Remaining ($)	Comments
2019	Task Order 05 A7	SW-1150	2,932,245	2,932,245	0	Within allocated annual budget.
2020	Task Order 05 A7	SW-1150	5,312,957	5,312,957	0	Within allocated annual budget.
2021	Task Order 05 A7	SW-1150	7,387,993	7,387,993	0	Within allocated annual budget.
2022	Task Order 05 A7	SW-1150	7,535,000	7,535,000	0	Within allocated annual budget.
2023	Task Order 05 A7	SW-1150	6,593,000	6,593,000	0	Within allocated annual budget.
2024	Task Order 05 A7	SW-1150	5,946,000	5,946,000	0	Within allocated annual budget.
2025	Task Order 05 A7	SW-1150	5,312,400	5,312,400	0	Within allocated annual budget.
2026	Task Order 05 A7	SW-1150	4,850,400	4,850,400	0	Within allocated annual budget.
	Total	**SW-1150**	**45,869,995**	**45,869,995**	0	

The PMC prepared this contracting action, and feels the information is accurate, complete, and ready for Executive Director review.

ATTACHMENT(S):

1. Task Order 5 – Amendment 7

Prepared by: Program Management Consultant

Ian Joynes	09/13/2021
Ian Joynes Jacobs	Date

Submitted by:

Joel Paulsen

Joel Paulsen Diversion Authority Executive Director		
Concur: X	*Non-Concur:*	

Cc: Technical Advisory Group

- Nathan Boerboom, City of Fargo Engineer/Diversion Authority Project Manager
- David Overbo, Clay County Engineer
- Jason Benson, Cass County Engineer
- Robert Zimmerman, Moorhead City Engineer
- Matt Stamness, Assistant Cass County Engineer/Diversion Authority Project Manager
- Dustin Scott, West Fargo City Engineer
- Kris Bakkegard, PE, FMDA Director of Engineering

AMENDMENT NO. 7 to Task Order 5
Metro Flood Diversion Authority
Fargo-Moorhead Area Diversion Project
Program Management Services

This Amendment No. 7 is to CH2M Hill's Task Order 5 - Program Management Services for the Fargo-Moorhead Metro Flood Diversion Project.

The purpose of this Amendment No. 7 is to update the period of performance until December 31, 2026, to update the scope to match changes to the P3 Project Agreement and Final Technical Requirements and to modify Attachment B – Annual Budgetary Summary by Task. This is a cost increase amendment of $30,236,800.00.

1. Replace the existing Task Order 5 dated June 27, 2019 and as amended on September 25, 2019, again on December 12, 2019, again on February 20, 2020, again on April 28, 2020 and lastly on March 8, 2021, including all referenced attachments, with Exhibit A – Task Order 5, Amendment 7 including all referenced attachments.

Signature _____

Name Joel Paulsen

Title Diversion Authority Executive Director

Date September , 2021

CH2M HILL ENGINEERS, INC.:

Signature _____

Name _____

Title _____

Date _____

EXHIBIT A

Task Order 5, Amendment 7
Metro Flood Diversion Authority
Fargo-Moorhead Area Diversion Project

In accordance with Article 1 of the *MASTER AGREEMENT FOR PROFESSIONAL SERVICES* ("AGREEMENT"), between the Metro Flood Diversion Authority (MFDA) ("OWNER") and CH2M HILL ENGINEERS, INC. ("CONSULTANT"), a wholly owned subsidiary of Jacobs Engineering Group Inc., dated January 13, 2017 and amended as of January 31, 2020 and amended again on November 20, 2020, OWNER and CONSULTANT agree to the scope of services, work schedule, and compensation as follows.

Task Order Title: Program Management Services

Term: This Task Order shall commence on June 29, 2019 and terminate on December 31, 2026, unless terminated sooner in accordance with the AGREEMENT and/or as set forth in this Task Order.

Purpose and Goal:

CH2M, now Jacobs, has served as the Program Management Consultant (PMC) to the OWNER since November 2011 with primary responsibilities to plan and implement the Fargo-Moorhead Area Diversion Project (the PROJECT). As such, the OWNER and CONSULTANT have agreed to enter into a Task Order focused on managing and reporting on the various aspects of the PROJECT. The PMC reports directly to the Executive Director and in the event of a vacancy in the position of the Executive Director, the PMC reports directly to the Co-Deputy Executive Directors. The PMC shall consultant with and coordinate activities with all consultants contracted directly with the OWNER in performing this scope of services, as necessary.

Description:

The AGREEMENT establishes the terms and conditions for the CONSULTANT to assist the OWNER with the management and implementation of the PROJECT. For purposes of this Task Order, the term "program" comprises all aspects of the delivery of the PROJECT. OWNER responsibilities as PROJECT Non-Federal Sponsors are described in several agreements with the US Army Corps of Engineers (USACE), including the *Project Partnership Agreement* signed July 11, 2016 as amended on March 19, 2019.

This Task Order describes the functions and activities to be provided by the CONSULTANT to assist the OWNER with program management, technical, legislative, implementation, and public outreach aspects of the PROJECT.

CONSULTANT has committed and will provide staff and resources to support the anticipated activities and deliver the work described in the Scope of Services of this Task Order 5. CONSULTANT may contract with sub-consultants as necessary to meet the needs of the PROJECT, provided that any contract with sub-consultants shall be approved by the OWNER. CONSULTANT has agreed to provide services in an efficient and effective manner by managing the activities of its personnel and any sub-consultants.

Scope of Services:

The general scope of services is summarized in Table 1 and described in detail by task following the table.

Table 1 – Summary of Scope of Work Tasks

Task	Title	Purpose
5.A	Program Level Services	Provide program strategy assistance and serve as advisor; provide coordination and governance throughout the implementation of the PROJECT. Manage agreements with sub-consultants and OWNER contracts with other consultants (third-party consultants) and vendors; monitor compliance of contract terms and conditions. Provide contract administration support.
5.B	Financial Support	Advise and provide input on the program financial plan, cost estimates, funding sources, and financial-related schedules. Develop and maintain Diversion Authority program and annual budgets.
5.C	Program Controls and Reporting	Develop, maintain, and utilize a cost-loaded schedule, document controls systems, and cost management tools for tracking and reporting on program schedule and expenditures including program management services; maintain a program risk/opportunity register; manage and communicate change; report on the status of the program schedule and budget.
5.D	Technical and PROJECT Support	Manage, coordinate, and support activities of OWNER's third-party consultants; coordinate with USACE's technical and management teams; review deliverables prepared by others; develop bidding documents and provide bidding administration services; perform Construction Contract Management and Administration (CCMA) services for non-P3 work; and initiate the development of a Strategic Asset Management Plan including specific Asset Management Programs and Plans for four distinct areas of the Project .
5.E	Permitting and Permit Compliance Support	Develop and implement a plan for obtaining strategic permits required for the program and manage activities of OWNER's third party consultant's permitting and compliance monitoring through review of permit-related materials prepared by others and an audit process of OWNER's third party consultant's Permit and Compliance Tracking Plan.
5.F	Federal Legislative Support	Manage OWNER's legislative engagement efforts in Washington, D.C.; provide federal legislative outreach and engagement services.
5.G	State Legislative Support	Assist and coordinate with OWNER's legislative engagement efforts in Bismarck, ND and St. Paul, MN; support state legislative outreach and engagement services.
5.H	Public Involvement and Outreach Support	Assist and coordinate with OWNER's public outreach, involvement, and education program. Support local outreach services.
5.I	P3 Due Diligence	Provide services related to the preparation of re-engaging the P3 proposers, provide feedback on P3 impacts, continue working on MOUs and update the P3 cost estimate.
5.J	Resilience and Sustainability	Develop a resilience and sustainability program for the PROJECT through the application of the Envision Framework for Sustainable Infrastructure.
5.K	Program Acquisition and Property Management Support	Support the OWNER's Property Acquisition and Property Management Program including reporting on the schedule and budget of the Property Acquisition and Property Management Program.

Task 5.A-Program Level Services

The scope of services for Task 5.A is to provide direction and overall management to support development of the PROJECT through the following activities.

1. Program Assistance, Strategy Support, Advisory Services, Coordination, and Governance

    a. Provide guidance, strategy assistance, coordination, communications, and organizational assistance through prepared materials, meetings, and conference calls with OWNER.

    b. Coordinate, support as needed, and monitor activities of the OWNER's third-party consultants and vendors under the purview of property acquisition and property management, public outreach, state legislative efforts, and technical activities by providing:

        i. Over-arching program coordination of activities amongst OWNER's third-party consultants and vendors, stakeholders, stakeholder groups, OWNER's representatives, and OWNER's advisors through effective communications and regularly scheduled meetings.

        ii. Preparation for and attendance at meetings with the OWNER representative(s) during the first week of every month to discuss, coordinate, and build a consensus around the intended services to be performed during that month.

        iii. Preparation for and lead meetings with OWNER's third-party consultants during the first week of every month to discuss, coordinate, and build consensus around the intended services to be performed during that month.

        iv. Preparation for and attendance at OWNER's Board and committee meetings to report on program activities. Prepare monthly Executive Director report and recommended contracting actions for OWNER's Board meeting. Present to OWNER proposed OWNER's Board and Finance Committee agenda topics for approval prior to issuing agendas after coordinating with OWNER's third-party consultants and advisors.

    c. Review and provide comments as to the necessity and level of effort for PROJECT-related work assigned by others to the OWNER's third-party consultants and vendors.

    d. Review and provide comments on deliverables and work products, including studies, reports, meeting materials, and designs, produced by OWNER's third-party consultants and vendors and the USACE for general consistency with OWNER's program objectives.

    e. Verify OWNER's third-party consultants and vendors comply with OWNER's quality program.

    f. Assist OWNER's staff in planning, organizing, and directing activities required to implement the program.

    g. Prepare for and participate in OWNER's Executive Leadership meetings to assist executives in planning, organizing, and directing activities required to implement the program.

h. Consult and provide input to OWNER leadership and staff to support legal counsel activities for the PROJECT. Participate in conference calls and meetings as requested by OWNER.

i. Provide office and administrative support and assist program staff in the performance of activities on the PROJECT.

j. Secure and maintain a PROJECT office and support facilities to conduct the activities of the program team and to support the confidentiality requirements of the public-private partnership (P3) contract procurement. OWNER and CONSULTANT agree and acknowledge that upon a 90-day written notice given by OWNER to CONSULTANT, that OWNER may secure and select a PROJECT office to be maintained by OWNER, or as otherwise mutually agreed to between OWNER and CONSULTANT in writing. Upon exercise of OWNER of its option to create a PROJECT office, CONSULTANT will transfer any and all project materials to the OWNER's PROJECT office. This shall not void or relieve the OWNER of the requirements in the Master Agreement for Professional Services between the OWNER and CONSULTANT, Section 19 – Office Space. CONSULTANT shall not negotiate or agree to any extension of a lease for providing an office or support facility to conduct the activities of the program team without the express written consent of the OWNER.

2. Contract Administration

a. Develop and manage agreements and task orders, including amendments, work directives, and other changes with CONSULTANT's sub-consultants and OWNER's third-party consultant and vendor contracts for OWNER's review.

b. Monitor compliance of contract terms and conditions and support program delivery with respect to scope, schedule, and budget performance. Maintain compliance records for contract terms and conditions on OWNER's third-party consultant and vendor contracts including insurance certifications and related items.

c. Review and process OWNER's third-party consultant and vendor contract invoices for payment by OWNER.

d. Monitor compliance of contract terms and conditions with respect to scope, schedule, and budget performance through, among other methods, annual audits of PROJECT-related services contracts between the Cass County Joint Water Resource District or the Moorhead Clay County Joint Powers Authority and the service provider. Develop audit reports based upon findings of each audit.

3. Deliverables and Schedule

a. Decision papers, presentation materials, meeting agendas, conference calls, and policy papers as requested.

b. Material for OWNER's Board packet on the Friday prior to all Board meetings.

c. Program status report for OWNER's Board meeting, once per month.

d. Materials for Finance Committee packet one week prior to committee meeting.

e. Agenda and materials for the DA Executive Leadership meetings prior to the bi-weekly meeting.

f. Materials for USACE coordination as requested.

g. Monthly reports tracking the expenditures related to the operations of the program office.

h. OWNER's third-party consultant and vendor agreements and task orders, amendments, work directives, and other changes for OWNER review, as requested.

i. OWNER's final third-party consultant and vendor agreements and task orders for OWNER approval as required.

j. Monthly, or more frequently if required, OWNER's third-party consultant and vendor invoices for payment.

k. Audit reports based upon audit findings within 30 days of the date of the final audit meeting for each audit conducted.

Task 5.B-Financial Support

The scope of services for this Task 5.B generally includes the following:

1. Provide input and coordinate ongoing monitoring of the established PROJECT Financial Plan developed by Ernst & Young Infrastructure Advisors (EYIA), OWNER's Financial Advisor, as needed. Provide input to the financial plan for existing and potential new revenue sources and alternative sources of local and state financing. Provide input and coordinate updates to the PROJECT Financial Plan, as needed.

2. Develop and recommend the OWNER's annual Cash Budgets based on projected expenditures consistent with the OWNER's approved Program Budget. Update the Program Budget, as needed.

3. Deliverables and Schedule

    a. Adjustments to annual budgets as requested by OWNER.

    b. Financial Plan comments as needed.

    c. Data related to existing and potential funding sources and programs available to local and state entities as requested.

    d. Position papers, talking points, summaries, and other documents related to the funding and financing aspects of the PROJECT as requested by OWNER.

    e. Presentation of recommended annual Cash Budgets to OWNER's technical and administrative staff as required by the AGREEMENT or as requested by the OWNER.

    f. Presentation of recommended annual Cash Budgets to Finance Committee as required by the AGREEMENT or as requested by the OWNER.

    g. Presentation of recommended annual Cash Budgets to OWNER's Board as required by the AGREEMENT or as requested by the OWNER.

Task 5.C-Program Controls and Reporting

The scope of services for Task 5.C generally includes the following:

1. Develop and maintain a cost-loaded, Primavera P6 schedule of activities comprising work tasks to be accomplished by the USACE, land acquisition, P3 development, in-town projects and other items which are required to complete the PROJECT. The Primavera P6 schedule will be developed to the level of detail necessary (1) to track the progression of the PROJECT and (2) to be able to identify impacts to the overall PROJECT cost and schedule including the critical path. The Primavera P6 schedule will be updated regularly in order to provide

current PROJECT status of budget and schedule, typical of major program controls. The CONSULTANT will not independently develop P6 data but shall use data provided by the OWNER's third-party consultants, the USACE, and others as appropriate.

2. Develop, maintain, and facilitate use of document control systems, processes, and tools, including an OWNER-provided Electronic Data Management System (EDMS) for management and storage of program documents. Coordinate with ACONEX, the OWNER's selected provider for the EDMS platform. The EDMS will allow storage, preservation, management, and retrieval of records by OWNER, CONSULTANT, OWNER's third-party consultants, and USACE. Coordinate with P3 Developer for the integration of their document control systems into the OWNER's system.
3. Implement a cost management tool for managing program budget, fiscal year budget, contract budget, and invoiced costs. Develop and prepare reports for OWNER on program expenditures, budget status, and projected cash flows.
4. Maintain a Program Risk/Opportunity Register for the PROJECT by compiling existing risk registers and updating a compiled register with the OWNER's third-party consultants, the USACE, and others as appropriate on a quarterly basis or as directed by the OWNER. Updating shall be achieved through a quarterly meeting, facilitated by the CONSULTANT, with the OWNER, the OWNER's third-party consultants, the USACE, and the CONSULTANT.
5. Monitor program scope and execution of scope to track potential scope, schedule, and cost changes. Manage change with OWNER input and report results.
6. Support the development of an annual cash budget, in addition to an anticipated 5-year budget, based on projected expenditures for the property acquisition program.
7. Deliverables and Schedule
    a. Monthly report to the Finance Committee, the OWNER's Board, and the OWNER representative(s) on program expenditures, P6 Schedule status, budget status, and projected cash flows.
    b. Quarterly updated Program Risk/Opportunity Register for the Finance Committee, the OWNER's Board, and the OWNER representative(s).
    c. Quarterly updated Change Management Report for the Technical Advisory Group (TAG), the Finance Committee, the OWNER's Board, and the OWNER representative(s).

Task 5.D-Technical Support Services

The scope of services for Task 5.D includes the following.

1. Prepare for, participate in, and support meetings including:
    a. Technical Advisory Group (TAG),
    b. Technical Working Group (TWG),
    c. Local Sponsor/Local Consultant Technical Team (LSLCTT),
2. Coordinate OWNER-led technical activities with USACE through:
    a. Coordination with USACE and OWNER's third-party consultants to assure that studies, designs and other tasks requested to be completed by USACE are

necessary and being delivered efficiently and timely in accordance with the PROJECT's budget and timeline.

b. Communicate with USACE regarding PROJECT timelines, review USACE proposals and provide input to OWNER, TAG, and TWG regarding the impact of such proposals on the PROJECT's budget and timeline.

3. Perform bidding administrative services for non-P3 work on contracts that are expected to be active during the duration of this Task Order 5 (see Attachment C) as follows:

   a. Develop bidding documents for construction contracts from technical plans and specifications prepared by OWNER's third-party consultants.

   b. Provide bidding administration services including advertising for bids, preparing addenda, receiving bids, and recommending award of construction contracts. Tasks for bidding administrative services are:

      i. Arrange and facilitate a pre-bid conference and site visit.

      ii. Assist as required with the development of addenda.

      iii. Attend bid opening and prepare recommendation of award.

      iv. Prepare notice of award.

      v. Assist OWNER with execution of contract award documents.

4. Perform Construction Contract Management and Administration for non-P3 work on contracts that are expected to be active during the duration of this Task Order 5 (see Attachment C) as follows:

   a. Comply with the general guidelines of the Memorandum for Record No. 018 (MFR 018) "Fargo-Moorhead Metro (FMM) Flood Risk Management (FRM) Project – Sponsor Constructed Features Roles and Responsibilities" between the Diversion Authority, USACE, and the PMC as applicable and as modified herein.

      i. Manage, record, and store construction management (CM) documents including, but not limited to, requests for information (RFIs), submittals, shop drawings, invoices and payment applications, quality assurance documentation, official correspondence, and contract change documentation.

      ii. Use ACONEX or other document management platforms to perform these tasks, and develop, implement, and manage processing workflows by PROJECT team.

      iii. Maintain the PROJECT record for OWNER.

      iv. Quality assurance - receive and store testing results and reports (hard copy and electronic) as part of the permanent PROJECT documentation.

      v. Reporting - prepare periodic reports or other information for OWNER to present to the OWNER's Board and its committees.

5. Initiate development of an Asset Management Program for the PROJECT. The scope includes the following:

a. Develop a Strategic Asset Management Plan to serve as a holistic and overarching guidance document for the maintenance, repair, renewal, and upkeep of assets constructed by or under the jurisdiction of the Authority:

   i. Diversion Channel and Associated Infrastructure

   ii. Federal work, including the Southern Embankment and Associated Infrastructure

   iii. Local municipal entity assets

   iv. Upstream and other mitigation areas

b. Develop specific asset management programs and plans for each of the 4 distinct areas listed in a. above addressing needs during the design/construction phase of the PROJECT.

c. Develop a strategy for growth of the Asset Management Program as the PROJECT transitions from the design/construction phase to the operations and maintenance phase.

d. Estimate pricing of routine maintenance, major repair and replacement, and maintenance labor costs during the initial 30-year period of operations and forecasted 30-year period after handback of the assets from the P3 Developer where appropriate.

NOTE: The scope does not include the development of the final Asset Management Program, inclusive of specific asset management programs and plans for each of the distinct areas listed in a. above through the operations and maintenance phase of the PROJECT in this Task Order 5.

6. Deliverables and Schedule

   a. TAG agenda and materials per meeting.

   b. TWG agenda and materials per meeting as requested by OWNER.

   c. LSLCTT agenda and materials per meeting as requested by OWNER.

   d. Bidding documents for OWNER's review as needed.

   e. Final bidding documents for OWNER approval three days prior to scheduled advertisement date.

   f. Advertisements for bid twenty-one days prior to scheduled bid dates.

   g. Addenda to bidding documents as necessary.

   h. Bid results report three days after bid receipt.

   i. Recommendation of Award for inclusion into Finance Committee and OWNER's Board packets.

   j. CCMA Projects - Monthly status reports and final record of QA data for all CCMA projects.

   k. Preliminary Strategic Asset Management Plan by end of Q2 FY2021.

   l. Outlines of asset management plans specific for each of the 4 distinct areas listed in 5.a. above by end of Q2 FY2021.

m. Draft asset management plans specific for each of the 4 distinct areas listed in 5.a. above by the end of Q3 FY2021.

n. Strategy for growth of the Asset Management Program by end of Q3 FY2021.

o. Rough order of magnitude cost estimates for routine maintenance, major repair and replacement, and maintenance labor costs by mid-Q4 of FY2021.

Task 5.E-Permitting and Permit Compliance Support

The scope of services for Task 5.E generally includes the management of the permitting and permit compliance program through the following tasks.

1. Work with HMG to develop and implement a plan to identify and develop an approach to obtaining all outstanding program-required permits. HMG's plan shall include processes for identifying required permits through researching codes, laws, and regulations and for identifying the party responsible for obtaining the permit.
2. Develop and implement an audit process for monitoring permit compliance tracking activities being conducted by the OWNER's Technical Consultant to verify the activities are in accordance with the Permit and Compliance Tracking Plan. CONSULTANT shall deliver monthly audit reports to the OWNER.
3. Review and provide comments on OWNER's Technical Consultant's Permit and Compliance Tracking Plan and provide a recommendation to OWNER for acceptance of the plan. Confirm the plan indicates the method for verifying compliance with the permit conditions and the process for reporting permit compliance in addition to tracking permit expirations dates.
4. Coordinate with regulatory agencies, OWNER, USACE, and OWNER's consultants to achieve a strategic approach to obtaining certain required permits, for efforts necessary for and status of applying for permits, and for evaluating the impacts of permit conditions upon the PROJECT.
5. Review and provide comments on OWNER's Technical Consultant's permit compliance and monitoring reports.
6. Deliverables and Schedule
    a. Approach to obtaining all outstanding program-required permits.
    b. Audit process for monitoring permit compliance tracking activities.
    c. Comments on OWNER's Technical Consultant's Permit and Compliance Tracking Plan.
    d. Audit reports of OWNER's Technical Consultant's permit tracking and compliance tracking activities on a monthly basis.
    e. Comments on OWNER's Technical Consultant's permit compliance and monitoring reports.

Task 5.F-Federal Legislative Support Services

The scope of services for Task 5.F generally includes the following:

1. Advise, provide input, and manage the OWNER's legislative engagement efforts to obtain annual Congressional appropriations and USACE work plan funding at the direction of the OWNER.

a. Meet and confer with federal legislative staff to update and discuss status of the PROJECT.

b. Meet with US House and Senate members to communicate project status and receive input on congressional concerns.

c. Coordinate and provide feedback on legislative engagement efforts to OWNER leadership and staff.

2. Advise, provide input, coordinate, and participate in OWNER's periodic visits to Washington, D.C., provide coordination and lobbying assistance from CONSULTANT's Washington, D.C. staff, and coordinate national activities with the local public affairs team.

3. Deliverables and Schedule

a. Washington D.C. trip packets, including speaking points, biographies, and meeting logistics, as needed (assume three (3) trips to Washington D.C. per year).

b. Federal legislative update conference calls, as required.

c. Position papers, speaking points, briefing notes as required.

d. Regular updates at Executive Leadership coordination meetings, OWNER's Board and committee meetings, or as needed due to legislative session timelines.

e. Presentations, communications, and supporting materials as needed.

OWNER and CONSULTANT agree and acknowledge that upon a 90-day written notice given by OWNER to CONSULTANT, that OWNER may assume some and/or all of the tasks set forth in Task 5.F of this Task Order. Upon exercise of OWNER of its step-in-rights set forth in this section, CONSULTANT shall transfer any and all materials related to Task 5.F of this TASK ORDER to OWNER. In the event that Owner exercises its step-in-rights pursuant to this section, CONSULTANT acknowledges that its budget may be reduced or eliminated for Task 5.F of this Task Order for work not yet initiated under this Task 5.F. OWNER and CONSULTANT agree that in the event that OWNER exercises its step-in-rights under this section, CONSULTANT is entitled to be compensated for work already completed for Task 5.F of this Task Order but not invoiced to OWNER.

Task 5.G-State Legislative Support Services

The scope of services for Task 5.G includes activities to support local and state legislative outreach and engagement services being provided by the OWNER's third-party consultant as follows:

1. Provide input to the OWNER on pre-legislative session activities in North Dakota and Minnesota.

2. Provide input to the OWNER during the North Dakota and Minnesota legislative sessions including legislative committee meetings regarding the PROJECT.

a. Review a record of introduced legislation in North Dakota and Minnesota developed by OWNER's third party consultant responsible for public involvement as it pertains to the PROJECT.

b. Review a weekly legislative tracking and analysis report developed by OWNER's third party consultant responsible for public involvement for items pertaining to the PROJECT during the North Dakota and Minnesota legislative sessions.

c. Provide input to the OWNER on legislative reporting requirements, including to the ND Water Topics Overview Committee.

3. Provide input to the OWNER on routine reporting to the ND State Water Commission and other state agencies as required.
4. Assist the OWNER with facilitating conferences and engagement with local, state, and federal elected leaders or their representatives.
5. Review communications or information regarding legislative activities prepared by OWNER's third party consultant responsible for public involvement for OWNER to provide to local, state, and federal elected leaders at the OWNER's request.
6. Review information prepared by OWNER's third party consultant responsible for public involvement to provide to civic and business groups about PROJECT legislation at the OWNER's request.
7. Prepare for, participate in, and support OWNER's legislative group(s) meetings.
8. Deliverables and Schedule
    a. Review of position papers, speaking points, briefing notes as required.
    b. Review of North Dakota and Minnesota Legislative action planning for each legislative session.
    c. Review of regular legislative updates for Executive Leadership coordination meetings, OWNER's Board and committee meetings, or as needed due to legislative session timelines.
    d. Review of legislative-related materials as requested by OWNER.
    e. Presentations, communications, and supporting materials as needed.

OWNER and CONSULTANT agree and acknowledge that upon a 90-day written notice given by OWNER to CONSULTANT, that OWNER may assume some and/or all of the tasks set forth in Task 5.G of this Task Order. Upon exercise of OWNER of its step-in-rights set forth in this section, CONSULTANT shall transfer any and all materials related to Task 5.G of this TASK ORDER to OWNER. In the event that Owner exercises its step-in-rights pursuant to this section, CONSULTANT acknowledges that its budget may be reduced or eliminated for Task 5.G of this Task Order for work not yet initiated under this Task 5.G. OWNER and CONSULTANT agree that in the event that OWNER exercises its step-in-rights under this section, CONSULTANT is entitled to be compensated for work already completed for Task 5.G of this Task Order but not invoiced to OWNER.

Task 5.H-Public Involvement and Outreach Services

The scope of services for Task 5.H includes activities to support public involvement and outreach services being provided by the OWNER's third-party consultant as follows:

1. Verify compliance of outreach services related to the PROJECT with the OWNER-approved Communications Plan as periodically updated.
2. Coordinate with OWNER's staff and committees as necessary for outreach activities.
3. Provide input to OWNER's Communications Plan updates as needed.
3. Support public outreach activities with the PIOs from other entities involved in construction outreach as directed by the OWNER.
4. Prepare for, participate in, and support meetings with public outreach groups and the OWNER's Public Outreach Committee as directed by OWNER and in coordination with OWNER's third party consultant.

5. Deliverables and Schedule

    a. Review of correspondence, press releases, and talking points as needed

OWNER and CONSULTANT agree and acknowledge that upon a 90-day written notice given by OWNER to CONSULTANT, that OWNER may assume some and/or all of the tasks set forth in Task 5.H of this Task Order. Upon exercise of OWNER of its step-in-rights set forth in this section, CONSULTANT shall transfer any and all materials related to Task 5.H of this TASK ORDER to OWNER. In the event that Owner exercises its step-in-rights pursuant to this section, CONSULTANT acknowledges that its budget may be reduced or eliminated for Task 5.H of this Task Order for work not yet initiated under this Task 5.H. OWNER and CONSULTANT agree that in the event that OWNER exercises its step-in-rights under this section, CONSULTANT is entitled to be compensated for work already completed for Task 5.H of this Task Order but not invoiced to OWNER.

Task 5.I-P3 Due Diligence

The scope of services for Task 5.I generally includes the following:

1. In coordination with the OWNER's other advisors, provide general support for the P3 and guidance, strategy assistance, information and feedback on the effects of Program changes on the P3 project.
2. Update the independent probabilistic cost and schedule estimate of P3 construction activities.
3. On the OWNER's behalf, facilitate and manage negotiations with utilities and other third parties, whose assets are affected or require to be moved, due to the P3 construction.
4. Advance terms of memoranda of understanding (MOU), drafting documents and reviewing/commenting on agreements with agencies including but not limited to the following:
    a. AT&T.
    b. Cass County Electric.
    c. Cass Rural Water.
    d. Cenex.
    e. Centurylink.
    f. BNSF Railway.
    g. Dakota Carrier Network.
    h. Magellen.
    i. Midcontinent.
    j. Minnkota Power.
    k. NuStar Energy.
    l. Otter Tail Power Co.
    m. Red River Valley & Western Railroad.
    n. Sprint.
    o. WAPA.
    p. Xcel Energy.
    q. ND DOT
    r. Local agencies

5. Assist the OWNER to identify additional 3rd parties whose assets are affected by, or require to be relocated due to the P3 construction works
6. Attend meetings with the OWNER and the OWNER's other advisors to define and clarify the requirements of the Project Agreement, Technical Requirements and Memoranda of Understanding as it concerns the management and coordination of utilities and third parties as required.
7. Summarize the terms of memoranda of understanding to be incorporated into the executed P3 contract documents.
8. Deliverables and Schedule
    a. Summary of terms of memoranda of understanding as completed.

Task 5.J-Resiliance and Sustainability

The scope of services for Task 5.J generally includes the following:

1. Sustainability kick-off meeting to explain the Envision process and discuss how it will be applied to the Project through a Resilience and Sustainability Plan.
2. Develop a Resilience and Sustainability Plan outline.
3. Identify key documents and review them for relevance pertaining to the creation of a Resilience and Sustainability Plan and map the findings per Envision credits including baseline performance.
4. Prepare for and conduct a Sustainability Chartering Session.
5. Facilitate meetings and workshops for providing iterative feedback throughout the development of a Resilience and Sustainability Plan and provide a plan to track and incorporate feedback into the Resilience and Sustainability Plan.
6. Provide support for community and stakeholder meetings as required to support development of a Resilience and Sustainability Plan.
7. Develop a Resilience and Sustainability Plan which includes an implementation plan and set of best practices associated with sustainability and resilience strategies.
8. Assist with implementing relevant Resilience and Sustainability Plan initiatives.
9. Deliverables and Schedule:
    a. Resilience and Sustainability Plan outline within 30 days of notice to proceed with item 2.
    b. Memo/summary of findings mapped per Envision credits including baseline performance within 30 days of notice to proceed with item 3.
    c. Final Resilience and Sustainability Plan within 90 days of notice to proceed with item 7.

Task 5.K-Property Acquisition and Property Management Support

The scope of services for Task 5.K includes activities to support property acquisition and property management being provided by the OWNER's third-party consultant as follows:

1. Develop, update, and maintain a cost-loaded schedule of activities (Primavera P6) to monitor and track costs by categories associated with the property acquisition program for the PROJECT through completion. Review Land Acquisition expenses to ensure they are properly tracked to the Work Package & OIN level.

2. Prepare for, participate in, and support meetings with land acquisition and property management groups and the OWNER's Land Committee.
3. Review the data provided by the OWNER's third party consultant responsible for property acquisition services used in the ESRI Workflow Manager (WMX) tool to track the progress of property rights acquisition activities and serve as a repository for all property acquisition documents.
4. Deliverables and Schedule:
    a. Cost-loaded schedule of activities (Primavera P6), updated weekly to track the status of property acquisitions

References:

The following documents are referenced in this Task Order 5.

- Master Agreement for Professional Services between the OWNER and CONSULTANT dated January 13, 2017 and amended as of January 31, 2020, and amended again on November 20, 2020 and any attachments.

Attachments:

The following documents are attached to this Task Order 5.

- Attachment A – OWNER'S Responsibilities
- Attachment B (rev. 07) – Annual Budget Summary by Task
- Attachment C – Active Construction Contracts and Professional Services Contracts

Obligations of OWNER:

OWNER's responsibilities shall be as shown Sections Thirty-two (32) through Forty (40), inclusive, of the AGREEMENT and Attachment A to this Task Order 5.

SUBCONSULTANTS:

- Luuceo Consulting Inc.
- The Whiddon Group

Conflicts:

- If any part of this Task Order 5 is determined to be in conflict with the terms and conditions of the AGREEMENT, then the terms and conditions of the AGREEMENT shall prevail.

Times for Rendering Services:

Start: June 29, 2019
End: December 31, 2026

Budget and Payments to CONSULTANT:

The budgetary amount established for services under this Task Order 5 Amendment 7 is **$45,869,995**. Compensation and payments are as per the AGREEMENT, including the cost reimbursement provisions. The expected distribution of the budgetary amount by task and by year for the term of this Task Order 5 is presented in Attachment B. OWNER and CONSULTANT agree and acknowledge that Attachment B is an estimate.

CONSULTANT will advise OWNER when 80 percent of the budget on this Task Order 5 is expended. If necessary, CONSULTANT will prepare and submit to OWNER an amendment for additional compensation when 90 percent of the budget on this Task Order 5 is expended. CONSULTANT will not perform work beyond 100 percent of the budget without OWNER's written authorization by amendment to this Task Order.

OWNER's Rights

The OWNER may suspend services and/or terminate this Task Order 5 upon thirty (30) days' written notice. Suspension and termination provisions shall be in accordance with the AGREEMENT. In the event that the AGREEMENT is terminated, this Task Order 5 shall also terminate.

Effective Date of this Task Order Amendment
May 27, 2021 or when fully executed by both parties, whichever is later.

Electronic Signatures.
Fargo-Moorhead Flood Diversion Authority and CH2M, a wholly owned subsidiary of Jacobs Engineering Group Inc, agrees that the electronic signature to this Task Order No. 05, Amendment 7 Work-In-Kind (WIK) shall be as valid as an original signature of Fargo-Moorhead Flood Diversion Authority and CH2M, a wholly owned subsidiary of Jacobs Engineering Group Inc and shall be effective to bind the signatories to this Task Order No. 05, Amendment 7 Work-In-Kind (WIK). For purposes hereof: (i) "electronic signature" means a manually signed original signature that is then transmitted by electronic means or an electronic acknowledgment which provides the signatory the ability to validate and affix a digital signature that is then transmitted by electronic means; and (ii) "transmitted by electronic means" means sent in the form of a facsimile or sent via the internet as a portable document format ("pdf") or other replicating image attached to an electronic mail or internet message.

Metro Flood Diversion Authority

Signature: _____

Name _____

Title: _____

Date: _____

[Additional signatures on following page.]

CH2M HILL ENGINEERS, INC., a wholly-owned subsidiary of Jacobs Engineering Group Inc.

Signature: _____

Name _____

Title: _____

Date: _____

Attachment A

OWNER's Responsibilities

1. Review, process, and pay invoices for OWNER-held agreements and task orders.

2. Lead and facilitate Admin Advisory Staff meetings and monthly Board and Committee meetings.

3. Execute agreements to implement the project as approved.

4. Continue the agreement with ACONEX, subject to approval by the DA Board, to provide an EDMS platform and host an "ACONEX Local Copy" on the OWNER's IT infrastructure.

5. Develop and maintain an organizational chart of key program positions, including positions within the OWNER and their advisors, the CONSULTANT, and the USACE to clarify roles, responsibilities, and attendees at future meetings. The organizational chart shall cover all aspects of work performed by CONSULTANT as described in this task order.

6. Provide studies, reports, including permit compliance and monitoring reports, schedule and budget information, and designs by HMG, USACE, and other third-party consultants for review and comment in regard to consistency and necessity.

7. Provide the OWNER’s Technical Consultant’s auditable Permit and Compliance Tracking Plan.

8. Organize and facilitate LSLCTT and TWG meetings including preparation and distribution of meeting minutes, decisions, and action items to attendees and the PMC.

Attachment B (rev. 07) – Annual Budgetary Summary by Task

Description	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	Budget Amount
Task 5.A – Program Level Services	1,208,900	2,933,612	2,945,000	3,538,000	3,552,000	3,385,000	3,178,000	2,932,000	23,672,512
Task 5.B – Financial Support	38,250	55,590	330,921	81,000	84,000	86,000	89,000	92,000	856,761
Task 5.C – Program Controls and Reporting	369,750	866,631	1,961,052	2,460,000	2,297,000	2,203,000	2,269,000	2,050,000	14,476,433
Task 5.D – Technical and PROJECT Support	512,325	783,892	794,369	294,000	296,000	0	0	0	2,680,586
Task 5.E – Permitting and Permit Compliance Support	0	17,900	240,000	160,000	165,000	106,000	0	0	688,900
Task 5.F – Federal Legislative Support Services	49,000	61,639	200,000	65,000	65,000	50,000	50,000	50,000	590,639
Task 5.G –State Legislative Support Services	34,620	24,934	71,000	0	0	0	0	0	130,554
Task 5.H – Public Involvement and Outreach Services	247,000	141,143	60,000	37,000	38,000	20,000	0	0	543,143
Task 5.I – P3 Due Diligence	336,800	0	0	0	0	0	0	0	336,800
Task 5.J – Resilience and Sustainability	0	102,455	317,545	0	0	0	0	0	420,000
Task 5.K – Program Acquisition and Property Management Support	0	0	137,000	64,800	0	0	0	0	201,800
Expenses	135,600	325,161	331,106	96,000	96,000	96,000	96,000	96,000	1,271,867
Task Order 5- Total Budgetary Amount	**2,932,245**	**5,312,957**	**7,387,993**	**6,795,800**	**6,593,000**	**5,946,000**	**5,682,000**	**5,220,000**	45,869,995

Attachment C

Active Construction Contracts and Professional Services Contracts

1) Bidding Services
    - WP-43G OHB Ring Levee - Phase WP-43G (Wetland Mitigation)
    - WP-43D5 OHB Ring Levee – Phase WP-43D5 (Hickson Main Ave. Stormsewer, Drainage, and Street Reconstruction)
    - WP-50B – Property Structure Mitigation
    - WP-50C – Property Structure Mitigation
    - WP-50D1 – Property Structure Mitigation (Diversion Channel)
    - WP-50D2 – Property Structure Mitigation (Diversion Channel)
    - WP-50E – Property Structure Mitigation (Red River Control Structure)
    - WP-50F – Property Structure Mitigation (Drain 27 Wetland)
2) Construction Contract Management and Administration, Contract Management, Closeout and Documentation
    - WP-42A.1/3 – In-Town Levees – 4th Street Pump Station and Floodwall
    - WP-42A.2 – In-Town Levees – 2nd Street Pump Station and Floodwall
    - WP-42E – 2nd Street South and Main Avenue Flood Mitigation
    - WP-42G – General Landscaping and Planting
    - WP-43CD – OHB Ring Levee, Phases C and D
    - WP-43E.2E – Residential Demolition-Schnell Drive and Oxbow Country Club
    - WP-43E.2F – Residential Demolition-Riverbend Road
    - WP-50A Property Structure Mitigation
    - WP-50B – Property Structure Mitigation
    - WP-50C – Property Structure Mitigation
    - WP-50D1 – Property Structure Mitigation (Diversion Channel)
    - WP-50D2 – Property Structure Mitigation (Diversion Channel)
    - WP-50E – Property Structure Mitigation (Red River Control Structure)
    - WP-50F – Property Structure Mitigation (Drain 27 Wetland)

3) New Construction Starts
    - WP-50F – Property Structure Mitigation (Drain 27 Wetland)

Executive Director Contracting Recommendation

Date: 09/15/2021

RECOMMENDATION FOR ACTION:

The Executive Director has reviewed and recommends approval of the following Contract Action(s).

SUMMARY OF CONTRACTING ACTION:

Per the contract review and approval procedures that were adopted by the Diversion Authority on November 10, 2016 and amended February 10, 2021, the Owner's Program Management Consultant (PMC) or Engineer of Record (EOR) is directed to prepare task orders and task order amendments for existing Master Services Agreements (MSA) and submit them to the Executive Director for review and action.

The Owner's PMC has prepared the following Contract Action(s):

Neon Loon Communications LLC

Master Service Agreement – Consulting Services **$0.00**

- Communications

BACKGROUND AND DISCUSSION:

The Owner and Neon Loon Communications LLC (Neon Loon) is to enter into a Master Service Agreement to provide a crisis communication plan and other communications assistance.

See the table below for a summary of the contracting history for this task order, including this amendment.

SUMMARY OF CONTRACTING HISTORY AND CURRENT CONTRACT ACTION:

Original Agreement or Amendment	Budget Change	Initial or Revised Project Cost	Project Start	Project Completion	Comments
Task Order 01 A0					To be developed

The PMC prepared this task order amendment, and feels the information is accurate, complete, and ready for Executive Director review.

Summary of Budget Allocation – Year 2021

Original Agreement or Amendment	Cost account code	Estimated cost 2021 ($)	Budget Allocated 2021 ($)	Budget Remaining 2021 ($)	Comments
Task Order 01 A0					To be developed
Total for 2021					

ATTACHMENT(S):

1. Neon Loon – Master Service Agreement

Prepared by: Program Management Consultant

Ian Joynes

Ian Joynes
Jacobs

09/15/2021
Date

Submitted by:

Joel Paulsen

Joel Paulsen Diversion Authority Executive Director	
Concur: X	*Non-Concur:*

Cc: Technical Advisory Group

- Nathan Boerboom, City of Fargo Engineer/Diversion Authority Project Manager
- David Overbo, Clay County Engineer
- Jason Benson, Cass County Engineer
- Robert Zimmerman, Moorhead City Engineer
- Matt Stamness, Assistant Cass County Engineer/Diversion Authority Project Manager
- Dustin Scott, West Fargo City Engineer
- Kris Bakkegard, Diversion Authority Director of Engineering

MASTER AGREEMENT FOR PROFESSIONAL SERVICES

Related to:

THE
FARGO-MOORHEAD AREA DIVERSION PROJECT

BY AND BETWEEN

METRO FLOOD DIVERSION AUTHORITY
as Diversion Authority

and

NEON LOON COMMUNICATIONS LLC
as Neon Loon

Dated as of September 23, 2021

DRAFT

This instrument was drafted by:
Ohnstad Twichell, P.C.
John T. Shockley
P.O. Box 458
West Fargo, North Dakota 58078-0458

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MASTER AGREEMENT FOR PROFESSIONAL SERVICES

THIS MASTER AGREEMENT FOR PROFESSIONAL SERVICES (the "Agreement") is made as of September 23, 2021 (the "Effective Date"), by and between the Metro Flood Diversion Authority ("Diversion Authority") and Neon Loon Communications LLC ("Consultant") (collectively, the "Parties").

WHEREAS, the Diversion Authority and the United States Army Corps of Engineers ("USACE") have completed significant work in readying the Fargo-Moorhead Metropolitan Area Flood Risk Management Project (the "Project") for implementation; and

WHEREAS, using a Split Delivery Method, the multiple Project features will be split into those implemented by the Diversion Authority and those implemented by the USACE, with the Diversion Authority delivering the majority of the Diversion Authority's features through a Public-Private Partnership ("P3") delivery method; and

WHEREAS, the portions of the Project that the Diversion Authority will implement through a P3 are collectively referred to as the Diversion Channel and Associated Infrastructure Work Package ("DCAI WP"); and

WHEREAS, the Diversion Authority has selected Consultant to provide the Diversion Authority with professional services, subject to the oversight of the Executive Director and the Diversion Authority Board; and

WHEREAS, the Diversion Authority desires to enter into a master agreement for professional services with Consultant and retain Consultant to provide professional services for the Fargo-Moorhead (FM) Area Diversion Project, commencing on September 23, 2021.

NOW THEREFORE, it is agreed by and between the Parties as follows:

1. EMPLOYMENT. The Diversion Authority hires Consultant, which accepts the hiring with the Diversion Authority pursuant to this Agreement. Consultant is an independent contractor under this Agreement. Nothing in this Agreement shall be construed to create an employer-employee relationship between the Parties.

2. DEFINITIONS. All capitalized terms used and not otherwise defined herein shall have the meanings given to them in this Agreement as defined in this Section, unless a different meaning clearly applies from the context.

   "Agreement" means this Master Agreement for Professional Services by and between the Metro Flood Diversion Authority and Neon Loon Communications.

   "Best Efforts" means that the parties to this Agreement will act in Good Faith, act in accordance with generally accepted commercial practices, and use reasonable due diligence to undertake all action contemplated by this Agreement, in accordance with applicable federal and state laws, regulations, and rules; however, the obligation to use Best Efforts does not mean a duty to take action that would be in violation of applicable federal or state law.

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"Cass County Joint Water Resource District" means the Cass County Joint Water Resource District, a political subdivision of the State of North Dakota, its successors and assigns.

"City of Fargo" means the City of Fargo, a North Dakota Home Rule City and political subdivision of the State of North Dakota.

"Consultant" means the individual or entity with which the Owner has contracted for performance of the services as set forth in this Agreement.

"Diversion Authority Board" means the Governing Body of the Metro Flood Diversion Authority.

"Effective Date" means September 23, 2021.

"Executive Director" means the Chief Administrative Officer of the Metro Flood Diversion Authority.

"Fargo-Moorhead Metropolitan Area" means Fargo, North Dakota, Moorhead, Minnesota, and surrounding communities; it is further defined by the United States Census Bureau as comprising all of Cass County, North Dakota, and Clay County, Minnesota, which includes the cities of Dilworth, Minnesota, West Fargo, North Dakota, and numerous other towns and developments from which commuters travel daily for work, education, and regular activities.

"Fargo-Moorhead Metropolitan Area Flood Risk Management Project" has the same definition as "Project" in this Agreement and is the name given to the Project by the USACE.

"Good Faith" means observance of reasonable commercial standards of fair dealing in a given trade of business.

"Governing Body" means the body which performs the legislative and governmental functions of a political subdivision, including but not limited to, a board, council, or commission. For example, the Cass County Commission, the Clay County Commission, the Moorhead City Council and the Fargo City Commission are the Governing Body of each of said entities as the board for the CCJWRD is the Governing Body for that entity.

"JPA" or "Joint Powers Agreement" means the agreement dated as of June 1, 2016, by and between the Member Entities.

"LJPA" or "Limited Joint Powers Agreement" means the agreement dated July 11, 2011, and subsequently amended, which was entered into between the City of Moorhead, the City of Fargo, Clay County, Cass County, the Buffalo-Red River Watershed District and the Cass County Joint Water Resource District in order to cooperate in the planning and design phase of the Locally Preferred Plan.

"Member Entities" shall mean the City of Moorhead, the City of Fargo, Clay County, Cass County, and Cass County Joint Water Resource District.

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"Metro Flood Diversion Authority" means the political subdivision created by the LJPA and continued through and vested with the powers set forth in the JPA.

"Owner" means the individual or entity with which the Consultant has contracted regarding the services set forth herein, and which has agreed to pay Consultant for the performance of the services, pursuant to the terms of this Agreement.

"Person" means any natural or legal person, county, city, municipality, political subdivision, public benefit corporation, corporation, limited liability company, trust, joint venture, association, company, partnership, Governmental Authority, or other entity.

"Project" means the LPP Flood Risk Management Features and the Recreation Features as generally described in the Final Feasibility Report and Environmental Impact Statement, Fargo-Moorhead Metropolitan Area Flood Risk Management Project, dated July 2011 and approved by the Chief of Engineers on December 19, 2011, as amended by the Supplemental Environmental Assessment, Fargo-Moorhead Metropolitan Area Flood Risk Management Project, dated September 2013 and approved by the District Engineer, St. Paul District on September 19, 2013, and as further amended by the Final Supplemental Environmental Assessment, Modifications to the Fargo Moorhead Metropolitan Area Flood Risk Management Program dated February 2019 and the Fargo-Moorhead Flood Risk Management Project, Final Supplemental Environmental Impact Statement dated November 12, 2018.

3. AUTHORIZATION TO PROCEED. Execution of this Agreement by the Diversion Authority will be authorization for Consultant to proceed with the services, unless otherwise provided for in this Agreement.

4. PRIOR AGREEMENTS. Any prior agreements between the Diversion Authority or its Member Entities and Consultant shall, upon execution of this Agreement, be terminated and have no further force and effect. Except with respect to the Cass County Joint Water Resource District, any Task Orders between the Diversion Authority or its Member Entities and Consultant entered into on or after the effective date of this Agreement shall be subject to the terms of this Agreement.

5. SCOPE OF SERVICES. Consultant's detailed scope of services, work schedule, and cost budget will be mutually agreed upon in writing and set forth in Task Orders issued by the Diversion Authority under this Agreement directly or through the Diversion Authority's designated Project Consultant. Each Task Order will specifically refer to and incorporate this Agreement by reference, and the provisions of this Agreement shall apply to all Task Orders entered into subsequent to the effective date of this Agreement. In general, Consultant's services will include services in support of the Project as mutually agreed upon between the Parties.

6. CHANGES TO SCOPE OF SERVICES. The Diversion Authority may make or approve changes within the general scope of services in this Agreement. If such changes affect Consultant's cost of or time required for performance of the services as set out in any applicable Task Order, then an equitable adjustment will be made through an amendment to the applicable Task Order or this Agreement.

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7. RESPONSIBILITY FOR ERRORS OR DELAYS FROM INACCURATE DATA. Consultant and the Diversion Authority acknowledge that the reliability of Consultant's services depends upon the accuracy and completeness of the data supplied to Consultant. The Diversion Authority accepts sole responsibility for errors or delays in services resulting from inaccurate or incomplete data supplied to Consultant, and the Diversion Authority acknowledges and agrees that any additional services thereby necessitated will result in additional fees payable by the Diversion Authority to Consultant. Consultant must receive promptly the information to deliver the services as well as the Diversion Authority's prompt updates to any information where there has been a material change which may affect the scope or delivery of the services, such as a change in the nature of the Diversion Authority's products or equipment, systems, and/or processes that are the focus of Consultant's services.

8. TASK ORDERS. Consultant shall receive assignments for services under this Agreement through Task Orders authorized and provided by the Diversion Authority directly or through its designated Project Consultant. The Diversion Authority shall compensate Consultant only for work contained within the Task Orders. Consultant shall not be obligated to perform any work or services unless such services are set forth in an executed Task Order. If Consultant engages in work beyond the scope of a Task Order, the Diversion Authority shall not compensate Consultant for that work, unless agreed to in writing by the Diversion Authority prior to the work being completed. All amendments to Task Orders must be authorized and provided by the Diversion Authority in writing.

9. PERSONNEL. All persons assigned by Consultant to perform services as set forth in Task Orders issued under this Agreement shall be fully qualified to perform the work assigned to them. Consultant shall devote such personnel and resources, time, attention, and energies to the Diversion Authority's business as are necessary to fulfill the duties and responsibilities required by the Diversion Authority and agreed to by Consultant in any given Task Order. Consultant must endeavor to minimize turnover of personnel performing services under this Agreement. If the Diversion Authority is dissatisfied with any of Consultant's personnel, the Diversion Authority reserves the right to require removal of those personnel from the Task Order. The Diversion Authority shall provide Consultant with a written statement, including reasonable detail, outlining its reasons for desiring removal. Replacement personnel for the removed person shall be fully qualified for the position.

10. SUBCONTRACTORS. Consultant may enter into agreements with subcontractors in furtherance of their services under this Agreement, as approved by the Executive Director.

11. TERM. Unless terminated under Section 33, this Agreement shall remain in full force and effect for a period of approximately three (3) years from the Effective Date through December 31, 2024. This Agreement shall take full force and effect on September 23, 2021, upon approval and execution by the Diversion Authority Board. Pursuant to Section 12 of this Agreement and upon expiration of the initial term of this Agreement, this contract may be renewed by mutual agreement of the Parties.

12. EXTENSION OF TERM. This Agreement may be extended by written amendment.

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13. COMPENSATION. For all services rendered by Consultant, the Diversion Authority will pay Consultant an amount based on the time spent by those Consultant employees working on the Project and the Standard Hourly Rates applicable to those Consultant employees, plus certain reimbursable expenses (as set forth in this paragraph) and Consultant's subconsultant charges, plus a service charge of five percent (5%) on Consultant's approved subconsultants and reimbursable expenses, plus applicable sales, use, value added, business transfer, gross receipts, or other similar taxes. Consultant's Standard Hourly Rates for services rendered from the Effective Date through December 31, 2021, are listed in Exhibit A. Beginning January 1, 2022, and annually thereafter on January 1, Consultant's Standard Hourly Rates may be increased by amounts agreed upon by the Executive Director and the Consultant. The Executive Director shall be allowed to review the Standard Hourly Rates of Consultant on a quarterly basis to review the gross profit margins of the Consultant on the Project. Reimbursable expenses shall include non-unit based costs incurred by the Consultant, such as airfare, lodging, and meals and are listed in Exhibit B. Reimbursable expenses shall not include unit-based expenses, such as mileage and printing costs.

A. Budgetary amounts, excluding taxes, will be established for each Task Order executed under the Agreement. Consultant will make reasonable efforts to complete the services within the budget amount stated therein and will keep the Diversion Authority informed of progress toward that end so that the budget or work effort can be adjusted if found necessary. Consultant is not obligated to incur costs beyond the indicated budgets, as may be adjusted, nor is the Diversion Authority obligated to pay Consultant beyond these limits. When any budget has been increased, Consultant's costs expended prior to such increase will be allowable to the same extent as if such costs had been incurred after the approved increase.

B. If a Task Order issued under this Agreement contains a not-to-exceed compensation amount, the Diversion Authority will only pay compensation to Consultant for fees and/or expenses that are less than or equal to the not-to-exceed amount stated on the Task Order, unless the Task Order has been amended pursuant to Section 7 of this Agreement.

C. The compensation is payable following the end of each month upon submission by Consultant of a monthly invoice setting forth the services performed in that month on behalf of the Owner. Invoices shall be sent as required in Section 14 of this Agreement. Invoices are due and payable within thirty (30) days of receipt.

14. INVOICING AND PAYMENT.

A. Consultant must submit invoices to the Diversion Authority on the thirtieth (30th) day of each month for all services provided and allowed expenses incurred during the preceding month. Consultant's Project Principle or Project Manager must personally review each invoice before it is sent to the Diversion Authority to determine its accuracy and fairness, and to ensure the invoice complies with the requirements in this Agreement. Each invoice will be entered into the Aconex system and processed by the Diversion Authority for the following month.

B. Consultant must submit each original invoice to:

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Diversion Authority: APInvoicesFMDiv@jacobs.com
and
Joel Paulsen: PaulsenJ@FMDiversion.gov

C. Consultant's invoices must be detailed and precise. Consultant's invoices must clearly indicate fees and expenses incurred for the current billing period month and include at least the following information:

(1) Consultant's name and address;
(2) Consultant's federal employer identification number;
(3) Unique invoice number;
(4) Billing period;
(5) Description of each activity performed for each day in which services were performed;
(6) Work order number associated with each activity, in accordance with the Task Order Budgetary Breakdown;
(7) Name, billing rate, and hours worked by each person involved in each activity, in accordance with the Task Order Budgetary Breakdown;
(8) Total amount of fees and costs "billed to date," including the preceding month;
(9) Preferred remittance address, if different from the address on the invoice's coversheet; and
(10) All of the work performed during that billing period, in accordance with the Task Order Budgetary Breakdown.

D. Consultant's invoice must be printed on a printed bill head and signed by the Project Principle or other authorized signatory.

E. If any Consultant invoices contain requests for expense reimbursement, Consultant must include copies of the corresponding invoices and receipts with that invoice.

F. After the Diversion Authority receives Consultant's invoice, the Diversion Authority will either process the invoice for payment or give Consultant specific reasons, in writing within fifteen (15) business days, why part or all of the Diversion Authority's payment is being withheld and what actions Consultant must take to receive the withheld amount.

G. In the event of a disputed billing, only the disputed portion will be withheld from payment, and the Diversion Authority shall pay the undisputed portion. The Diversion Authority will exercise reasonableness in disputing any bill or portion thereof. Interest will accrue on any disputed portion of the billing determined to be due and owing to Consultant.

H. Payment does not imply acceptance of services, that expenses are allowable, or that the invoice is accurate. In the event an error is identified within three (3) months of receipt of payment, Consultant must credit any payment in error from any payment that is due or that may become due to Consultant under this Agreement.

I. The Diversion Authority will be charged interest at the rate of one-half percent (1/2%) per month, or that permitted by law if lesser, on all past-due amounts starting thirty (30) days after receipt of invoice. Payments will be first credited to interest and then to principal.

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J. If the Diversion Authority fails to make payment in full within thirty (30) days of the date due for any undisputed billing, Consultant may, after giving seven (7) days' written notice to the Diversion Authority, suspend services under this Agreement until paid in full, including interest. In the event of suspension of services, Consultant will have no liability to the Diversion Authority for delays or damages caused by the Diversion Authority because of such suspension.

K. Without waiving any rights to recover payment for reimbursable taxes, fees or other costs per the provisions of Paragraph 14 herein, Consultant must pay in the first instance all fees, fines, taxes, or other costs of doing business related to the services.

15. RELATIONSHIP BETWEEN PARTIES. Consultant is retained by the Diversion Authority only for the purposes and to the extent set forth in this Agreement, and its relationship to the Diversion Authority shall, during the period or periods of services under this Agreement, be that of an independent contractor. Consultant shall be free to use such portion of Consultant's entire time, energy and skill during the course of this Agreement to meet its contractual obligation to the Diversion Authority. Neither Consultant, nor its personnel, shall be considered to be employed by the Diversion Authority or entitled to participate in any plans, arrangements or distributions by the Diversion Authority pertaining to or in connection with any benefits accorded the Diversion Authority's regular employees. The Diversion Authority shall not be financially responsible to Consultant, except for the payment of compensation specifically set forth in this Agreement, and shall not be responsible for the payment of any cost of living allowances, merit increases, medical insurance, employee's retirement, life or disability coverage, sick leave or holiday pay or vacation pay or any benefit of any kind not specifically set forth in this Agreement. Likewise, the Diversion Authority shall not be responsible for wage or salary withholding to the federal or any state government.

16. REPRESENTATIONS AND WARRANTIES. Consultant represents that the following statements are true:

A. Consultant has not directly or indirectly offered or given any gratuities (in the form of entertainment, gifts, or otherwise) to any member of the Diversion Authority with a view toward securing this Agreement or securing favorable treatment with respect to any determinations concerning the performance of this Agreement.

B. The Consultant team members performing the services hereunder have no interest that would constitute a conflict of interest with the Diversion Authority during the term of the Project. This does not preclude or prohibit other Consultant employees or representatives from working with other parties who may participate on the Project and have potential or actual adverse interest to the Diversion Authority.

C. This Agreement does not constitute a conflict of interest or default under any of Consultant's other agreements.

D. No suit, action, arbitration, or legal, administrative, or other proceeding or governmental investigation is pending or threatened that may adversely affect Consultant's ability to perform under this Agreement.

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E. Consultant is in compliance with all laws, rules, and regulations applicable to its business, including rules of professional conduct (the "Laws and Regulations").

F. During the term of this Agreement, Consultant must not take any action, or omit to perform any act, that may result in a representation becoming untrue. Consultant must immediately notify the Diversion Authority if any representation and warranty becomes untrue.

G. THIS WARRANTY SHALL BE IN LIEU OF AND EXCLUDES ALL OTHER IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.

17. WORKING RELATIONSHIP. Consultant's President shall be the individual(s) that will engage with the Diversion Authority's Executive Director and Director of Communications. Consultant shall work in close cooperation and coordinate with the Diversion Authority's Program Management Consultant, advisors, and their staff as appropriate: Paul Barthel and Peggy Harter, PMC; Martin Nicholson, Program Advisor Services, LLC; John T. Shockley, local counsel, under such terms and conditions as may be set from time to time by the Diversion Authority.

18. INDEPENDENT PROFESSIONAL JUDGMENT. Nothing in this Agreement shall be construed to interfere with or otherwise affect the rendering of services by Consultant in accordance with the independent professional judgment of each of its employees. Consultant shall perform the services rendered in accordance with accepted principals of its profession. Consultant personnel are subject to the rules and regulations of any and all licensing and professional organizations or associations to which those personnel may from time to time belong, and the laws and regulations in the locale of the services performed for the Project.

19. STANDARD OF CARE. The standard of care applicable to Consultant's services will be the degree of skill and diligence normally employed by professional consultants or consultants performing the same or similar services at the time said services are performed. Consultant will re-perform any services not meeting this standard without additional compensation.

20. CONSULTANT'S PERSONNEL AT CONSTRUCTION SITE.

A. The presence or duties of Consultant's, or its subcontractor's or subconsultant's, personnel at a construction site, whether as onsite representatives or otherwise, do not make Consultant or Consultant's personnel, or Consultant's subcontractors or subconsultants, in any way responsible for those duties that belong to the Diversion Authority and/or the construction contractors or other entities, except as specifically outlined in a Task Order, and do not relieve the construction contractors or any other entity of their obligations, duties, and responsibilities, including, but not limited to, all construction methods, means, techniques, sequences, and procedures necessary for coordinating and completing all portions of the construction work in accordance with the construction contract documents and any health or safety precautions required by such construction work; for the safety precautions and programs incident thereto; for security or safety at any Project Site; or for any failure of a contractor to comply with laws and regulations applicable to such contractor's furnishing and performing of its work.

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B. Consultant and Consultant's personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions and have no duty for inspecting, noting, observing, correcting, or reporting on health or safety deficiencies of the construction contractor(s) or other entity or any other persons at the site except Consultant's own personnel.

C. For this Agreement only, construction sites include places of manufacture for materials incorporated into the construction work, and construction contractors include manufacturers of materials incorporated into the construction work.

D. Consultant neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform work at the Project in accordance with any plans, specifications, drawings, details, or other construction or design documents prepared for the Project.

E. For each service performed or furnished, Consultant shall be responsible only for those construction phase services that have been itemized and expressly required of Consultant in the authorizing Task Order. With the exception of such expressly required services, Consultant shall have no design, shop drawing review, or other obligations during construction and Diversion Authority assumes all responsibility for the application and interpretation of the Contract Documents, contract administration, construction observation and review, and all other necessary construction phase engineering and professional services. Consultant shall not be liable to the Diversion Authority for any construction phase professional services except for those services that are expressly required of Consultant in the authorizing Task Order.

21. OPINIONS OF COST, FINANCIAL CONSIDERATIONS, AND SCHEDULES.

A. Consultant has no control over cost or price of labor and materials; unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by operating personnel or third parties; and other economic and operational factors that may materially affect the ultimate Project cost or schedule. Therefore, Consultant makes no warranty that the Diversion Authority's actual Project costs, financial aspects, economic feasibility, or schedules will not vary from any opinions of Project costs, financial analyses, economic feasibility projections, or schedules for the Project included in Consultant's services deliverables for the Project.

B. If the Diversion Authority wishes greater assurance as to any element of Project cost, feasibility, or schedule, the Diversion Authority will employ an independent cost estimator, contractor, or other appropriate advisor.

22. CONSULTANT'S INSURANCE. Consultant shall maintain throughout this Agreement the following insurance:

A. Consultant shall purchase and maintain throughout this Agreement such insurance as is required by this Agreement in the categories and amounts set forth below:

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(1) Claims under workers' compensation, disability benefits, and other similar employee benefit acts;

(2) Claims for damages because of bodily injury, occupational sickness or disease, or death of Consultant's employees;

(3) Claims for damages because of bodily injury, sickness or disease, or death of any person other than Consultant's employees;

(4) Claims for damages insured by reasonably available personal injury liability coverage which are sustained:

(a) by any person as a result of an offense directly or indirectly related to the employment of such person by Consultant, or

(b) by any other person for any other reason;

(5) Claims for damages, other than to the services itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

(6) Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle.

B. The policies of insurance required by this Section will:

(1) With respect to insurance required by Sections 22(A)(3) through 22(A)(5) inclusive, be written on an occurrence basis, included as additional insureds (subject to any customary exclusion regarding Professional liability and Workers Compensation) the Diversion Authority, the State of North Dakota, and any other individuals or entities identified, all of whom will be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insured, and the insurance afforded to these additional insureds will provide primary coverage for all claims covered in the General Liability and Automobile Liability Policies;

(a) All insurance policies required under this Agreement, including the Excess or Umbrella Liability policies, must be from insurers rated "A-" or better by the A.M. Best Company, Inc.

(2) Include at least the specific coverages and be written for not less than the limits of liability specified or required by Laws or Regulations, whichever is greater;

(3) Contain a provision or endorsement that the coverage afforded will not be canceled or renewal refused until at least thirty (30) days prior written notice has been given to the Diversion Authority and to each other additional insured identified to whom a

certificate of insurance has been issued (and the certificates of insurance furnished by Consultant pursuant to this section will so provide);

(4) Remain in effect at least until final payment and at all times thereafter when Consultant may be correcting, removing, or replacing defective services;

(5) Not limit in any way Consultant's duties to defend, indemnify, and hold harmless the Diversion Authority and the State of North Dakota, and those parties' officers, employees, agents, consultants, subcontractors, and representatives in accordance with Section 30;

(6) Either in the policies or in endorsements, contain a "waiver of subrogation" (except for in the Professional Liability Policy and Workers Compensation policy) that waives any right to recovery any of Consultant's insurance companies might have against the Diversion Authority or the State of North Dakota;

(7) Either in the policies or in endorsements, contain a provision that Consultant's insolvency or bankruptcy will not release the insurers from payment under the policies, even when Consultant's insolvency or bankruptcy prevents Consultant from meeting the retention limits under the policies;

(8) Either in the policies or in endorsements, contain cross liability/severability of interests, to ensure that all additional parties are covered as if they were all separately covered (with the exception of Workers' Compensation and Professional Liability policies);

(9) Either in the policies or in endorsements, contain a provision that the legal defense provided to the Diversion Authority and the State of North Dakota must be free of any conflict of interest, even if retention of separate legal counsel is necessary;

(10) Either in the policies or in endorsements, contain a provision that any attorney who represents the State of North Dakota must first qualify as and be appointed by the North Dakota Attorney General as a special assistant attorney general as required under N.D.C.C § 54-12-08;

(11) Either in the policies or in endorsements, contain a provision that Consultant's policies will be primary and noncontributory regarding any other insurance maintained by or available to the Diversion Authority or the State of North Dakota, and that any insurance maintained by those parties will be in excess of Consultant's insurance and will not contribute with it (except for Workers' Compensation and Professional Liability Policies).

C. The limits of liability for the insurance required by this Section will provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

(1) Workers' Compensation, and related coverages under Sections 22(A)(1) and 22(A)(2):

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(a) State: Statutory;
(b) Applicable Federal (e.g. Longshoreman's): Statutory;
(c) Employer's Liability: $500,000.

(2) Consultant's General Liability under Sections 24(A)(3) through 24(A)(6) which will include premises or operations coverage, completed operations and product liability coverages, and will eliminate the exclusion with respect to property under the care, custody, and control of Consultant:

(a) General Aggregate: $500,000
(b) Personal and Advertising Injury: $500,000
(c) Each Occurrence (Bodily Injury and Property Damage): $500,000
(d) Property damage liability insurance will provide Explosion, Collapse, and Under-ground coverages where applicable.

(3) The following will be included as additional insured on all of Consultant's general liability and automobile insurance policies required under this Agreement:

(a) Cass County Joint Water Resource District;
(b) Diversion Authority; and
(c) State of North Dakota.

(4) If Consultant is domiciled outside of the State of North Dakota, Consultant will purchase and maintain employer's liability or "stop gap" insurance of not less than $1,000,000 as an endorsement on Consultant's Workers' Compensation and General Liability Policies.

D. Consultant will ensure that any of its subcontractors or subconsultants secure and maintain insurance policies and endorsements required of Consultant and the Diversion Authority in limits no less than those specified and required to be passed down to subcontractors in paragraph 8 of the Diversion Authority's contract with the North Dakota State Water Commission.

E. If any required policy is written on a "claims made" form, Consultant must maintain the coverage continuously throughout the term of this Agreement, and, without lapse, for three (3) years beyond the termination or expiration of this Agreement and the Diversion Authority's acceptance of all services provided under this Agreement. The retroactive date or "prior acts inclusion date" of any "claims made" policy must be no later than the date that services commence under this Agreement.

F. Before Consultant begins performing services, Consultant must send the Diversion Authority certificates of insurance and any applicable endorsements attesting to the existence of coverage. Consultant will not allow its polices to be cancelled, lapse, and/or terminate or be amended to reduce coverage below the minimums called for in this Agreement without thirty (30) days' notice to the Diversion Authority. The certificates of insurance issued to confirm Consultant's compliance must reference this Agreement.

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G. If required insurance lapses during the term of this Agreement, the Diversion Authority is not required to process invoices after such lapse until Consultant provides evidence of reinstatement that is effective as of the lapse date.

H. The Diversion Authority shall have no specific responsibility to provide any general liability coverage or workers' compensation coverage for the benefit of Consultant's employees during the terms of this Agreement.

23. THIRD PARTIES. The Diversion Authority and Consultant acknowledge and agree that some of the design services for the Project will be separately engaged by the Diversion Authority through retention of separate professionals. Notwithstanding any provision to the contrary, Consultant shall have no responsibility for the accuracy or sufficiency of the services provided by such individuals. Consultant will notify the Diversion Authority of errors, discrepancies and inconsistencies it may discover in such services. If such errors, discrepancies or inconsistencies cause an increase in cost or the time for performance, Consultant shall be entitled to an equitable adjustment.

24. OPEN RECORDS. Consultant will cooperate with the Diversion Authority in responding to any request for documents by any third party to the extent such documents may be required to be disclosed under Chapter 44-04 of North Dakota Century Code regarding open records laws.

25. DATA FURNISHED BY THE DIVERSION AUTHORITY. The Diversion Authority will provide to Consultant all data in the Diversion Authority's possession relating to Consultant's services on the Project. Consultant may reasonably rely upon the accuracy, timeliness, and completeness of the information provided by the Diversion Authority.

26. TIMELY REVIEW. The Diversion Authority will examine Consultant's studies, reports, proposals, and other documents; obtain advice of an attorney, insurance counselor, accountant, auditor, bond and financial advisors, and other consultants as the Diversion Authority deems appropriate; and render in writing decisions required by the Diversion Authority in a timely manner.

27. PROMPT NOTICE. The Diversion Authority will give prompt written notice to Consultant whenever the Diversion Authority observes or becomes aware of any development that affects the scope or timing of Consultant's services, or of any suspected or actual defect in the work of Consultant or its subcontractors.

28. OWNER'S INSURANCE.

A. The Diversion Authority will maintain property insurance on all pre-existing physical facilities associated in any way with the Project.

B. The Diversion Authority will provide for a waiver of subrogation as to all Owner-carried property damage insurance, during construction and thereafter, in favor of Consultant, Consultant's officers, employees, affiliates, and subcontractors.

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C. The Diversion Authority is not responsible for the payment of deductibles owed under Consultant's insurance policies.

D. The Diversion Authority reserves the right to enter into a program-wide insurance plan at its expense. Consultant agrees to participate in such a program if named as an insured party and if commercially reasonable terms are available.

29. LITIGATION ASSISTANCE. Services required or requested of Consultant by the Diversion Authority to support, prepare, document, bring, defend, or assist in litigation undertaken or defended by the Diversion Authority, except for suits or claims between the parties to this Agreement, will be defined in an authorized Task Order and reimbursed as mutually agreed.

30. INDEMNIFICATION. Consultant will defend, indemnify, and hold harmless the Diversion Authority and the State of North Dakota, and those parties' officers, employees, agents, consultants, subcontractors, and representatives, from and against any and all claims, losses, liabilities, damages, expenses, demands, suits, fines, judgments, costs, expenses, and fees (including all fees and charges of attorneys, engineers, architects, and other professionals and all court, arbitration, mediation, or other resolution costs) arising out of or relating to claims by third parties for property damage or bodily injury, including death, to the proportionate extent caused by any negligent act or omission of Consultant, any subcontractor, any supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the services or anyone for whose acts any of them may be liable, and including all costs, expenses, and fees incurred by the Diversion Authority or the State of North Dakota in establishing and litigating the existence, scope, or any other matters relating to Consultant's obligations to defend, indemnify, and hold harmless. Consultant's obligations to defend will be free of any conflicts of interest, even if retention of separate legal counsel is necessary. Consultant's duties to defend, indemnify, and hold harmless include anything in excess of any minimum insurance requirements described in the Contract Documents, and anything in excess of any of Consultant's insurance policy limits. Consultant's obligations to defend, indemnify, and hold harmless will continue for a period of not less than six (6) years following completion of the Project or any termination or expiration of the Contract Documents.

The indemnified party shall provide notice to Consultant after obtaining knowledge of any claim that it may have pursuant to this Section 36. In the event the indemnified party pursues a claim pursuant to this Section, the indemnified party will also provide relevant information and assistance to Consultant.

31. LIMITATION OF LIABILITY. To the maximum extent permitted by law, Consultant's liability for the Diversion Authority's damages will not, in the aggregate, exceed one million dollars ($1,000,000). This article takes precedence over any conflicting article of this Agreement or any document incorporated into it or referenced by it. This limitation of liability will apply whether Consultant's liability arises under breach of contract or warranty; tort, including negligence, strict liability, statutory liability, or any other cause of action, and shall include Consultant's officers, affiliated corporations, employees, and subcontractors.

32. BREACH AND REMEDIES.

A. A breach exists under this Agreement if either Party:

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(1) Makes a material misrepresentation in writing; or

(2) Fails or is unable to meet or perform any material promise in this Agreement, and

(a) Is incapable of curing the failure, or

(b) Does not cure the failure within twenty (20) calendar days following notice (or within a longer period if specified in the notice).

B. Consultant must give the Diversion Authority notice immediately if Consultant breaches, or if a third party claim or dispute is brought or threatened that alleges facts that would constitute a breach under this Agreement.

C. The Parties will use their Best Efforts to resolve amicably any dispute, including use of alternative dispute resolution options.

D. All remedies provided for in this Agreement may be exercised individually or in combination with any other available remedy.

33. TERMINATION.

A. Either Party may terminate this Agreement, in whole or in part, for cause if either Party fails substantially to perform through no fault of the other and does not commence correction of such nonperformance within twenty (20) calendar days of written notice and diligently complete the correction thereafter.

B. The Diversion Authority may terminate this Agreement, in whole or in part, or modify or limit Consultant's services, and proportionately, Consultant's compensation, if:

(1) The Diversion Authority determines that having Consultant provide services has become infeasible due to changes in applicable laws or regulations, or

(2) Expected or actual funding to compensate Consultant is withdrawn, reduced, or limited.

C. Either Party may terminate this Agreement, in whole or in part, for any or no reason upon thirty (30) calendar days' written notice.

D. On termination, Consultant will be paid for all authorized services performed up to the termination date plus termination expenses, such as, but not limited to, reassignment of personnel, subcontract termination costs, and related closeout costs.

E. In the event a federal or state tax or employment agency concludes that an independent contractor relationship does not exist, either Consultant or the Diversion Authority may terminate this Agreement immediately upon written notice.

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F. Upon receipt of any termination notice from the Diversion Authority related to any specific Task Order, Consultant must promptly discontinue all affected services under the Task Order unless the Parties mutually agree otherwise.

G. Upon the end date of the Agreement, which is the date when this Agreement as a whole, along with any pending Task Orders, expires or are terminated pursuant to their terms:

(1) The Diversion Authority will be released from compensating Consultant for services other than those Consultant satisfactorily performed prior to the end date.

(2) Consultant must submit Consultant's final invoice for payment within sixty (60) calendar days of the end date. The Diversion Authority will not pay any Consultant invoice received after this period.

(3) Consultant will be released from performing services, except for services in any non-terminated portion of the Agreement.

H. All rights and duties with respect to services performed prior to the expiration or termination of this Agreement, and continuing obligations specified in this Agreement to be performed following expiration or termination of this Agreement, will survive the expiration or termination of this Agreement.

I. In the event of termination, expiration, or removal/withdrawal, Consultant must terminate its services as soon as it is reasonably possible to do so without (1) prejudice to the Diversion Authority's interests (or the interest of any person represented on the Diversion Authority's behalf) or (2) violation of Consultant's statutory or ethical duties. Consultant must notify the Diversion Authority of any further services, prior to withdrawal or substitution, which Consultant believes are necessary to avoid prejudice to the Diversion Authority's interests (or the interest of any person represented on the Diversion Authority's behalf), and obtain the Diversion Authority's consent prior to performing such services.

34. ADDITIONAL PAYMENT. Nothing contained in this Agreement shall obligate the Diversion Authority to make any payment for services rendered in any period after the termination of Consultant's retention by the Diversion Authority.

35. SUSPENSION, DELAY, OR INTERRUPTION OF WORK. The Diversion Authority may suspend, delay, or interrupt the services of Consultant for the convenience of the Diversion Authority. In such event, Consultant's contract price and schedule shall be equitably adjusted.

36. NOTICE. Any notice or election required or permitted to be given or served by any Party to this Agreement upon any other will be deemed given or served in accordance with the provisions of this Agreement if said notice or election is (1) delivered personally, or (2) mailed by United States certified mail, return receipt requested, postage prepaid and in any case properly addressed as follows:

If to Consultant: Neon Loon Communications LLC
Amy Wieser Willson, president

41793 Riviera Dr.
Ottertail, MN 56571

If to Diversion Authority: Executive Director
Metro Flood Diversion Authority
207 4th St. N, Suite A
Fargo, ND 58102

Each such mailed notice or communication will be deemed to have been given on the date that is three (3) calendar days after the same is deposited in the United States mail. Each such delivered notice or communication will be deemed to have been given upon the delivery. Any Party may change its address for service of notice in the manner specified in this Agreement.

37. PROHIBITION AGAINST ASSIGNMENT. This is a bilateral personal services Agreement. Neither Party shall have the power to, nor will, assign any of the duties or rights or any claim arising out of or related to this Agreement, whether arising in tort, contract, or otherwise, without the written consent of the other Party. Any unauthorized assignment is void and unenforceable.

38. NO THIRD PARTY BENEFICIARIES. This Agreement gives no rights or benefits to anyone other than the Diversion Authority and Consultant and has no third-party beneficiaries.

39. CONSEQUENTIAL DAMAGES. To the maximum extent permitted by law, Consultant and Consultant's affiliated corporations, officers, employees, and subcontractors shall not be liable for the Diversion Authority's special, indirect, or consequential damages, whether such damages arise out of breach of contract or warranty, tort including negligence, strict or statutory liability, or any other cause of action.

40. CONSULTANT'S DELIVERABLES. A Party may rely on data or information that the Party receives from the other Party by hard copy or electronic media. When transferring documents in electronic media format, the transferring party makes no representations as to long-term compatibility, usability, or readability of such documents. Consultant's deliverables are for the Diversion Authority or others' convenience. Any conclusions or information derived or obtained from these files will be at user's sole risk.

41. ACCESS TO CONSULTANT'S ACCOUNTING RECORDS AND AUDIT RIGHTS.

A. Consultant must allow the Diversion Authority and its designees to review and audit Consultant's financial documents and records relating to this Agreement. Consultant will maintain accounting records, in accordance with generally accepted accounting principles. These records will be available to the Diversion Authority for a period of two (2) years after Consultant's final invoice for examination to the extent required to verify the direct costs (excluding established or standard allowances and rates) incurred hereunder. The Diversion Authority may only audit accounting records applicable to a cost-reimbursable type compensation. Upon finalization of the audit, the Diversion Authority will submit to Consultant a notice of audit results and a copy of the audit

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report, which may supplement or modify any tentative findings verbally communicated to Consultant at the completion of an audit.

B. Within 180 calendar days after the date of the notice of audit results, Consultant will respond, in writing, to the Diversion Authority indicating (a) whether it concurs with the audit report, (b) clearly explaining the nature and basis for any disagreement as to a disallowed item of expense, and (c) providing a written explanation as to any questioned or no opinion expressed item of expense ("Response"). The Response will be clearly stated and will provide any supporting documentation necessary to resolve any disagreement or questioned or no opinion expressed item of expense. Where the documentation is voluminous, Consultant may supply appropriate excerpts and make alternate arrangements to conveniently and reasonably make that documentation available for review by the Diversion Authority. The Response will refer to and apply the language of this Agreement. Consultant agrees that failure to submit a Response within the 180-day period constitutes agreement with any disallowance of an item or expense and authorizes the Diversion Authority to finally disallow any items of questioned or no opinion expressed cost.

C. The Diversion Authority will make its decision with regard to any notice of audit results and Response within 120 calendar days after the date of the notice of audit results. If it is determined by a court of competent jurisdiction or by mutual agreement that an overpayment has been made to Consultant, Consultant will repay the amount to the Diversion Authority or reach an agreement with the Diversion Authority on a repayment schedule within thirty (30) calendar days after the date of an invoice from the Diversion Authority. If Consultant fails to repay the overpayment or reach an agreement with the Diversion Authority on a repayment schedule within the thirty (30) calendar day period, Consultant agrees that the Diversion Authority will deduct all or a portion of the overpayment from any funds then or thereafter payable by the Diversion Authority to Consultant for this project. Interest will be assessed on any partial payments or repayment schedules based on the unpaid balance at the end of each month until the balance is paid in full. The assessment of interest will begin thirty (30) calendar days from the date of the invoice. The rate of interest will be the interest rate on judgments in North Dakota as calculated by the state court administrator pursuant to N.D.C.C. § 28-20-34. The rate of interest will be reviewed annually by the Diversion Authority and adjusted as necessary. Consultant expressly consents to this withholding or offsetting of funds under those circumstances, reserving the right to file a lawsuit to contest the Diversion Authority's decision.

42. OWNERSHIP. Ownership of work product and inventions created by Consultant shall be as follows:

A. Pre-Existing Consultant Materials. The Diversion Authority acknowledges and agrees that in the performance of the services, Consultant will utilize its proprietary data, concepts, methods, techniques, processes, protocols, ideas, inventions, know-how, trade secrets, algorithm, software, works of authorship, software and hardware architecture, databases, tools, other background technologies and standards of judgment that developed or licensed from third parties prior to the Effective Date of this Agreement (the "Pre-Existing Consultant Materials") and that Consultant shall retain all right, title and interest, including

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intellectual property rights in the Pre-existing Consultant Materials. Subject to the terms and conditions of this Agreement, Consultant hereby grants to the Diversion Authority a non-exclusive, non-transferable, royalty-free license, fully assignable to the Diversion Authority's member entities, to utilize the Pre-Existing Consultant Materials for the purpose of the Diversion Authority's Project.

B. Derivative Consultant Materials. The Diversion Authority acknowledges and agrees that in the performance of the services, Consultant will utilize and develop customization, enhancements, improvements, modifications and adaptations of and to the Pre-Existing Consultant Materials (the "Derivative Consultant Materials"). Consultant shall retain all right, title and interest, including intellectual property rights in the Derivative Consultant Materials. Subject to the terms and conditions of this Agreement, Consultant hereby grants to the Diversion Authority a non-exclusive, non-transferable, royalty-free license, fully assignable to the Diversion Authority's Member Entities, to utilize the Derivative Consultant Materials.

C. New Consultant Materials. The Diversion Authority acknowledges and agrees that in the performance of Consultant's services, Consultant may utilize and develop new software, hardware and other technology or processes that do not utilize or incorporate, or are not based upon, the Pre-Existing Consultant Materials ("New Consultant Materials"). Between the Parties, subject to the license grant-back set forth below, the Diversion Authority will retain all right, title and interest, including without limitation intellectual property rights, in and to the New Consultant Materials. The Diversion Authority shall have the full ownership of such New Consultant Materials without any limitation or restriction.

D. License Grant Back. Subject to the terms and conditions of the Agreement, the Diversion Authority hereby grants to Consultant a non-exclusive, transferable, royalty-free license to utilize the concepts, methods, techniques, processes, protocols, ideas, inventions, know-how, trade secrets, algorithm, software and hardware architecture, and other background technologies that are newly developed by Consultant under the Agreement and assigned to the Diversion Authority under this Agreement, to make, have made, use, reproduce, license, display, perform, distribute, sell, offer for sale, service, support, import, and otherwise disposed of any products, technologies, and services and for any purposes without restriction.

E. License Restrictions. Except as otherwise permitted above, the Diversion Authority and its Member Entities shall not, and shall not allow any third party to: (i) modify or otherwise create derivative works of the Pre-Existing Consultant Materials; (ii) use the Pre-Existing Consultant Materials for any other purpose, other than the Diversion Authority's Project; (iii) make, have made, use, reproduce, license, display, perform, distribute, sell, offer for sale, service, support, or import any product that incorporates, embodies and/or is based upon the Pre-Existing Consultant Materials; (iv) sublicense, distribute or otherwise transfer to a third party any of the Pre-Existing Consultant Materials by itself or as incorporated in the services; or (v) reverse engineer, disassemble, decompile or attempt to derive the source code or underlying ideas or algorithms of the Pre-Existing Consultant Materials. Any additional use of the Pre-Existing Consultant Materials shall require a separate written license agreement.

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F. Miscellaneous. Nothing contained in this Agreement shall be construed as conferring to the Diversion Authority or any third party any license or right by implication, estoppel or otherwise to any intellectual property rights of Consultant, other than the rights expressly granted under this Agreement. The Diversion Authority and its Member Entities may use said work products for the specific purpose for which the work product was intended. Any other use or reuse, without written verification or adaptation by Consultant will be at the user's sole risk.

G. Diversion Authority Material. As between the Parties, the Diversion Authority is the exclusive owner of all material Consultant collects from the Diversion Authority in connection with the services under this Agreement, including copyrights. Within thirty (30) calendar days of the end date of the Agreement, or upon the Diversion Authority's notice at any time, Consultant must give all materials collected to the Diversion Authority (or to another party at the Diversion Authority's direction). Unless the Diversion Authority specifies otherwise, all files must be saved in Microsoft Word and Excel formats, as applicable. Consultant must maintain Consultant's records relating to services under this Agreement and Consultant's invoices, and all other materials, in an accessible location and condition for a period of not less than one (1) year after the later of:

(1) The date when Consultant receives final payment under this Agreement; or

(2) The date when the Diversion Authority resolves with Consultant the findings of any final audit.

Consultant may retain copies of any original documents Consultant provides to the Diversion Authority and a copy of any material collected from the Diversion Authority in Consultant's confidential files for the purpose of complying with applicable laws or established company procedure regarding the preservation of business records.

43. REUSE OF PROJECT DOCUMENTS. Services and deliverables are for the exclusive use of the Diversion Authority and are not to be relied upon by third parties. All reports, drawings, specifications, documents, and other deliverables of Consultant, whether in hard copy or in electronic form, are instruments of service for this Project, whether the Project is completed or not. Upon full payment for services due under this Agreement, Consultant agrees to grant to the Diversion Authority an irrevocable license to the instruments of service.

44. CONFIDENTIAL INFORMATION AND PUBLICITY.

A. Consultant agrees to hold in confidence the following confidential information:

(1) All information that the Diversion Authority discloses to Consultant; and
(2) All information to which Consultant gains access while providing services under this Agreement.

B. Confidential information does not include any information that Consultant can demonstrate has been made available to the public (other than through a breach of this

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Agreement). As between Consultant and the Diversion Authority, the Diversion Authority owns the confidential information, and the Diversion Authority authorizes Consultant to use it only for purposes of performing this Agreement. Consultant may also disclose the Diversion Authority's confidential information to the extent necessary to comply with law, provided Consultant gives the Diversion Authority prior written notice. Upon the end date of this Agreement, Consultant must destroy or return all confidential information to the Diversion Authority, at the Diversion Authority's discretion, and certify to the Diversion Authority, in writing, that it has done so; provided, however, such destruction shall include, without limitation, the process of expunging, to the extent reasonably practicable, all such confidential information from any computer, hard drive, word processor, server, backup tape, or other electronic device containing such confidential information. Notwithstanding the foregoing, Consultant may retain one archival copy of the confidential information in its confidential files for the purpose of complying with applicable laws or established company procedure regarding the preservation of business records.

C. Consultant must not make any public announcement, press release, or other writing relating to the services under this Agreement without the Diversion Authority's prior written approval.

D. Consultant understands a breach under this Section may result in irreparable damage for which no adequate remedy may be available. Accordingly, injunctive relief and other equitable relief are remedies available to the Diversion Authority.

45. MODIFICATION. This Agreement, including its attachments and schedules, constitutes the entire Agreement, supersedes all prior written or oral understandings, and may only be changed by a written amendment approved by the Diversion Authority and executed by Consultant, the Executive Director, and the Chair of the Diversion Authority on behalf of the Diversion Authority. It may be modified as to terms and conditions from time to time upon the mutual consent of the parties; however, such modification shall be reduced to writing, signed by the parties and the document appended to and made a part of this Agreement.

46. FORCE MAJEURE. Consultant is not responsible for damages or delay in performance caused by acts of God, strikes, lockouts, accidents, or other events beyond the control of Consultant. In any such event, Consultant's contract price and schedule shall be equitably adjusted.

47. WAIVER. A Party's waiver of enforcement of any of this Agreement's terms or conditions will be effective only if it is in writing. A Party's specific waiver will not constitute a waiver by that Party of any earlier, concurrent, or later breach or default.

The Diversion Authority waives all claims against Consultant, including those for latent defects, which are not brought within six (6) years of substantial completion of the facility designed or final payment to Consultant, whichever is earlier.

48. BINDING EFFECT. This Agreement shall be binding upon and inure to the benefit of the Diversion Authority, its successors and assigns, and any such successor shall be deemed substituted for the Diversion Authority under the terms of this Agreement. This Agreement

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shall likewise be binding upon Consultant, its successors and assigns. As used in this Agreement, the term "successor" shall include any person, firm, corporation or other business entity which at any time whether by merger, purchase or otherwise acquires all or substantially all of the assets or business of the corporation.

49. NEGOTIATED AGREEMENT. This Agreement has been arrived at through negotiation between the Parties.

50. INTEGRATED SERVICES. Notwithstanding anything in the Agreement to the contrary, the Parties recognize and support the integrated nature of the Project team in the performance and delivery of professional services by Consultant. This Agreement, and particularly the contractual risk allocation and liability provisions, shall be interpreted and applied, and the professional accountability determined in such a manner that the integrated nature, shared control of the Service performance, and joint decision making roles of the Parties and Consultant's role as agent for the Diversion Authority shall be given due and full consideration. Further, the Parties agree to re-visit this Agreement, if necessary, to better reflect the Parties' changing roles on the Project, and any changes in Consultant's role as the Project proceeds.

51. SEVERABILITY AND SURVIVAL. If any court of competent jurisdiction declares, for any reason, any provision or part of this Agreement to be invalid, illegal, or unenforceable, all remaining terms and provisions of this Agreement will remain binding and enforceable. Limitations of liability, indemnities, and other express representations shall survive termination of this Agreement for any cause.

52. WAIVER OF JURY TRIAL. THE PARTIES HEREBY KNOWINGLY, IRREVOCABLY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY RIGHTS THAT THEY MAY HAVE TO A TRIAL BY JURY WITH RESPECT TO ANY ACTION, PROCEEDING, COUNTERCLAIM OR DEFENSE BASED ON THIS AGREEMENT, OR ARISING OUT OF, UNDER OR IN ANY CONNECTION WITH THIS AGREEMENT, OR WITH RESPECT TO ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN) OR ACTIONS OF ANY PARTY HERETO RELATING TO THIS AGREEMENT. THIS PROVISION IS A MATERIAL INDUCEMENT FOR ALL PARTIES ENTERING INTO THIS AGREEMENT. THIS PROVISION APPLIES ONLY TO SUITS BETWEEN THE PARTIES ARISING OUT OF OR RELATED TO THIS AGREEMENT AND DOES NOT APPLY TO THIRD PARTY CLAIMS OR SUITS BY OR ON BEHALF OF THE PARTIES FOR PROJECT PROPERTY ACQUISITION AND/OR CONSTRUCTION CONTRACT CLAIMS AND DEFENSES.

53. CONTROLLING LAW AND VENUE. This Agreement, its interpretation and performance, and any other claims related to it shall be controlled by the laws of the State of North Dakota, and any action brought as a result of any claim, demand or cause of action arising under the terms of this Agreement shall be brought in an appropriate venue in the State of North Dakota.

54. FEDERAL LOBBYING RESTRICTIONS. Recipients of federal financial assistance may not pay any person for influencing or attempting to influence any officer or employee of a federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress with respect to the award, continuation, renewal, amendment, or

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modification of a federal grant, loan, or contract. These requirements are implemented for USEPA in 40 CFR Part 34, which also describes types of activities, such as legislative liaison activities and professional and technical services, which are not subject to this prohibition. Upon award of this contract, Consultant shall complete and submit to the Diversion Authority the certification and disclosure forms in Appendix A and Appendix B to 40 CFR Part 34, which are attached as Exhibits to this Agreement. Consultant shall also require all subcontractors and suppliers of any tier awarded a subcontract over $100,000 to similarly complete and submit the certification and disclosure forms pursuant to the process set forth in 40 CFR 34.110.

55. DEBARMENT AND SUSPENSION. Consultant certifies that it will not knowingly enter into a contract with anyone who is ineligible under the 40 CFR Part 32 to participate in the Project. Suspension and debarment information can be accessed at http://www.sam.gov. Consultant represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its subcontracts under this Agreement. Upon award of this contract, Consultant shall complete and submit to the Diversion Authority the federal certification form regarding debarment and suspension, which is attached as an Exhibit to this Agreement.

56. CIVIL RIGHTS OBLIGATIONS. Consultant shall comply with the following, federal non-discrimination requirements:

A. Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, and national origin, including limited English proficiency (LEP).
B. Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination against persons with disabilities.
C. The Age Discrimination Act of 1975, which prohibits age discrimination.
D. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex.
E. 40 CFR Part 7, as it relates to the foregoing.
F. Executive Order No. 11246.

Upon award of this contract, Consultant shall complete and submit to the Diversion Authority the federal certification form regarding civil rights, which is attached as an Exhibit to this Agreement.

This Agreement is executed the day and year above noted.

(Signatures contained on the following pages.)

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DIVERSION AUTHORITY:

Metro Flood Diversion Authority

By: _____
_____, Chair
Diversion Authority Board

By: _____
Joel Paulsen, Executive Director
Metro Flood Diversion Authority

(Additional signature contained on the following page.)

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CONSULTANT:

Neon Loon Communications

By: _____
Amy Wieser Willson, President

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EXHIBIT A

FEDERAL CERTIFICATION FORMS REGARDING LOBBYING, DEBARMENT AND SUSPENSION, AND CIVIL RIGHTS

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CERTIFICATION REGARDING FEDERAL LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in any award documents for any of its subcontractors at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subcontractors shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into a contract with the Authority. By executing this certificate the undersigned agrees and acknowledges that he/she has been duly authorized to execute this certificate.

Company/
Entity Name: Neon Loon Communications LLC

Signed: _____

Its: Amy Wieser Willson, President

Date: _____

PLEASE RETURN TO:
Metro Flood Diversion Authority
207 4th St. N, Suite A
Fargo, ND 58102

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CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 13 CFR Part 145. The regulations were published as Part VII of the May 26, 1988 *Federal Register* (pages 19160-19211).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON PAGE 2)

(1) The official representative of the party contracting with the Metro Flood Diversion Authority certifies to the best of its knowledge and belief that it and its principals:

(a) Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application had one or more public transactions, including contracts (Federal, State, or local) terminated for cause or default.

(e) Are not presently debarred, suspended, declared ineligible or voluntarily excluded from performing work for the State of North Dakota, the State of Minnesota, the Metro Flood Diversion Authority or any of its Member Entities.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective primary participant shall attach an explanation to this proposal.

(3) The Official signing this certificate has been and is duly authorized to sign this certificate on behalf of the entity or entities which intend to enter into a contract with the Metro Flood Diversion Authority.

Official Business Name: Neon Loon Communications LLC _____

Date: _____

By: Amy Wieser Willson, President
Name and Title of Authorized Representative

_____
Signature of Authorized Representative

PLEASE RETURN TO:
Metro Flood Diversion Authority
207 4th St. N, Suite A
Fargo, ND 58102

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PAGE 2 - INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this certification, the prospective contracting party is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contracting party shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the Metro Flood Diversion Authority's (the "Authority") determination whether to enter into this transaction. However, failure of the prospective contracting party to furnish a certification or an explanation shall disqualify such person from entering into contracts with the Authority.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the Authority determined to enter into a contract with the prospective contracting party. In order to qualify for participation in the U.S. EPA WIFIA program the Authority is required to obtain this certification. If it is later determined that the prospective contracting party knowingly rendered an erroneous certification, in addition to other remedies available to both the Authority and the Federal Government, the Authority may terminate this transaction for cause or default.
4. The prospective contracting party shall provide immediate written notice to the Authority to which this Certificate is submitted if at any time the prospective contracting party learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the Authority for assistance in obtaining a copy of those regulations (13 CFR Part 145).
6. The prospective contracting party agrees by submitting this certification that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the Authority.
7. The prospective contracting party further agrees by submitting this certification that it will require a "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions," from all sub-contractors without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A contracting party in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contracting party may decide the method and frequency by which it determines the ineligibility of its principals.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contracting party is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a contracting party in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the Authority may terminate this transaction for cause or default.

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ASSURANCE OF COMPLIANCE – CIVIL RIGHTS CERTIFICATE

TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, SECTION 504 OF THE REHABILITATION ACT OF 1973, THE AGE DISCRIMINATION ACT OF 1975, SECTION 13 OF THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, 40 CFR PART 7, AND EXECUTIVE ORDER NO. 11246

The undersigned provides this assurance for the purpose of entering into a contract with the Metro Flood Diversion Authority (Authority) related to the Fargo-Moorhead Metropolitan Area Flood Risk Management Project (Project), which is receiving federal financial assistance. Specifically, the US EPA WIFIA Program requires this assurance of all contractors and subcontractors providing services for the Project.

The undersigned assures that it will comply with:

1. Title VI of the Civil Rights Act of 1964, as amended, which prohibits discrimination on the basis of race, color, or national origin including limited English proficiency (LEP).
2. Section 504 of the Rehabilitation Act of 1973, as amended, which prohibits discrimination against persons with disabilities.
3. The Age Discrimination Act of 1975, as amended, which prohibits age discrimination.
4. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex.
5. 40 CFR Part 7, as it relates to the foregoing.
6. Executive Order No. 11246.

The undersigned understands that this Assurance is binding on the undersigned, its successors, transferees, and assignees at any time during which federal financial assistance is provided to the Project. The undersigned will ensure that all contractors, subcontractors, or others with whom it arranges to provide services or benefits are not discriminating in violation of items 1-6. Otherwise, the contracts for services can be terminated for cause and the undersigned can be declared ineligible to contract for the Project.

By signing this form, the undersigned is agreeing to the above provisions and that he/she is duly authorized to execute this form.

_____	President
Signature of Authorized Official	Title
Amy Wieser Willson	Neon Loon Communications LLC
Print Name	Name of Institution or Agency
_____	41793 Riviera Drive
Date	Street
	Ottertail, MN 56571
	City, State, Zip Code
	amywieserwillson@gmail.com
	Office Email Address

PLEASE RETURN TO:
Metro Flood Diversion Authority
207 4th St. N, Suite A
Fargo, ND 58102

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METRO FLOOD DIVERSION PROJECT

Executive Director Contracting Recommendation

Date: 09/01/2021

RECOMMENDATION FOR ACTION:

The Executive Director has reviewed and recommended approval of the following Contract Action(s).

SUMMARY OF CONTRACTING ACTION:

Per the contract review and approval procedures that were adopted by the Diversion Authority on November 10, 2016 and amended February 11, 2021, the Owner's Program Management Consultant (PMC) or Engineer of Record (EOR) shall submit construction Change Order requests that are greater $50,000 then submit to TAG and ED approval. Submit to Finance Committee and submit to Board for approval.

The Owner's PMC has prepared the following Contract Action(s):

Description	Budget Estimate ($)
WP43G: Industrial Builders Inc.	
Change Order #07	***$77,840.00***
• **Change Proposal 9 – Additional On-Site Fill Required**	

Summary of Contracting History and Current Contract Action:

The Diversion Authority awarded the WP43G construction contract to Industrial Builders Inc. (Contractor). The Effective Date of the Contract was October 13, 2020.

Since the start of construction, the Contractor and Owner have executed 6 change orders to this Contract.

The following is a summary of contracting history to date along with the current contracting action.

Original Agreement or Amendment	Budget ($) Change	Previous Project Cost	Revised Project Cost	Project Start	Project Completion	Comments
WP43G contract	2,326,992.44	0.00	2,326,992.44	October 13, 2020	May 27,2022	Contract award.
Change Order 01	13,175.55	2,326,992.44	2,340,167.99	October 13, 2020	May 27,2022	Change Order 1
Change Order 02	102,152.00	2,340,167.99	2,442,319.99	October 13, 2020	May 27,2022	Additional excavation and fill at ponds.

Original Agreement or Amendment	Budget ($) Change	Previous Project Cost	Revised Project Cost	Project Start	Project Completion	Comments
Change Order 03	804.00	2,442,319.99	2,443,123.99	October 13, 2020	May 27,2022	Additional Pavement Removal.
Change Order 04	66,708.00	2,443,123.99	2,509,831.99	October 13, 2020	May 27,2022	Furnish and place gravel.
Change Order 05	26,488.00	2,509,831.99	2,536,319.99	October 13, 2020	May 27,2022	Riprap pedestrian crossing
Change Order 06	6,970.00	2,536,319.99	2,543,289.99	October 13, 2020	May 27,2022	Remove and Backfill Additional Manhole
Change Order 07	77,840.00	2,543,289.99	2,621,129.99	October 13, 2020	May 27,2022	Additional On-Site Fill Required

Summary of Budget Allocation – 2021

Original Agreement or Amendment	Cost account code	Total cost ($)	Revised Contract Amount	Budget Allocated ($)	Budget Remaining ($)	Comments
Allocation for 2021	CN-6810	2,326,992.44	2,326,992.44	2,326,992.44	0.00	
Change Order 01	CN-6810	13,175.55	2,340,167.99	13,175.55	0.00	Change Proposals 1, 2 and 3.
Change Order 02	CN-6810	102,152.00	2,442,319.99	102,152.00	0.00	Change Proposal 4.
Change Order 03	CN-6810	804	2,443,123.99	804	0.00	Change Proposal 5.
Change Order 04	CN-6810	66,708.00	2,509,831.99	66,708.00	0.00	Change Proposal 6.
Change Order 05	CN-6810	26,488.00	2,536,319.99	26,488.00	0.00	Change Proposal 7.
Change Order 06	CN-6810	6,970.00	2,543,289.99	6,970.00	0.00	Change Proposal 8.
Change Order 07	CN-6810	77,840.00	2,621,129.99	77,840.00	0.00	Change Proposal 9.
Total for 2021	CN-6810	2,621,129.99	2,621,129.99	2,621,129.99	0.00	Work expected to be completed in 2021.

Financial Considerations:

Attached for your review and action is Change Order No. 07. This change order increases the total Contract Price $77,840.00.

The PMC prepared this change order, and feels the information is accurate, complete, and ready for Executive Director review.

ATTACHMENT(S):

1. Change Order No. 07 with unit price schedule.
2. Submittal Review Response - Owner's Representative

Prepared by: Program Management Consultant

Ian Joynes
Ian Joynes
Jacobs

September 1, 2021
Date

Submitted by:

Joel Paulsen

Joel Paulsen Diversion Authority Executive Director
Concur: X *Non-Concur:*

Cc: Technical Advisory Group

- Nathan Boerboom, City of Fargo Engineer/Diversion Authority Project Manager
- David Overbo, Clay County Engineer
- Jason Benson, Cass County Engineer
- Robert Zimmerman, Moorhead City Engineer
- Matt Stamness, Assistant Cass County Engineer/Diversion Authority Project Manager
- Dustin Scott, West Fargo City Engineer
- Kris Bakkegard, Diversion Authority Director of Engineering

METRO FLOOD DIVERSION AUTHORITY

Diversion Authority Board Meeting

September 23, 2021

MOU and Agreement Actions for Consideration

John Shockley

DA Memorandum of Understanding (Action)

METRO FLOOD DIVERSION AUTHORITY

MOU Parties	Project	MOU Cost and Summary
Pleasant Township & MFDA	SEAI	The MOU addresses design, construction, operations and maintenance, future changes or additions, insurance and liability, etc. Reimbursement includes the following: (i) costs and expenses incurred as a result of construction work provided in the MOU up to $3,000 annually; (ii) costs and expenses incurred in relation to the Comprehensive Project, post-construction, up to $1,500 annually; (iii) extraordinary expenses incurred by the Township must receive authorization from the Authority prior to incurring the expense and (iv) a one-time lump sum payment for lost tax revenue of $132,000.00. The MOU also includes an Exhibit of the proposed building permit fees for Pleasant Township for six (6) work packages which is estimated at a total of $40,000.
Cass Rural Water & MFDA	DCAI	The purpose of this Memorandum of Understanding is to ensure a coordinated, time-efficient, equitable and cost-effective process for completing the Utility Relocation Project and coordination of the operations and maintenance activities after completion of the Utility Relocation Project. The MOU includes the proposed utility adjustments scope of work that will be required for construction of the DCAI. The utility relocates associated with this MOU are to be completed by the P3 Developer.
T-Mobile/Sprint & MFDA	DCAI	The purpose of this Memorandum of Understanding is to ensure a coordinated, time-efficient and cost-effective process for completing the Utility Relocation Project. The utility relocates associated with this MOU are to be completed by the P3 Developer.

DA Utility Relocation Agreements (Action)

Agreement Parties	Project	Agreement Cost and Summary
Minnkota & MFDA	SEAI	The purpose of this MURA is to ensure a coordinated, time-efficient, and cost-effective process for completing the Utility Relocation Project and coordination of the operations and maintenance activities after completion of the Utility Relocation Project. Specific scopes of work and cost will be executed separately under task orders.

Execution Version

MEMORANDUM OF UNDERSTANDING

BY AND BETWEEN

METRO FLOOD DIVERSION AUTHORITY

AND

PLEASANT TOWNSHIP

Dated as of _____, 2021

Relating to:

A Memorandum of Understanding outlining the respective roles and responsibilities of the Parties in regard to the impacts resulting from construction of Reaches SE-1, SE-2, and SE-3, the control structure on the Wild Rice River, and the control structure on the Red River of the North of the Fargo-Moorhead Metropolitan Area Flood Risk Management Project.

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MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING (hereinafter the "MOU") is made and entered into this ___ day of _____, 2021 (the "Effective Date"), by and between METRO FLOOD DIVERSION AUTHORITY (the "Authority"), and PLEASANT TOWNSHIP (the "Township").

In consideration of the mutual covenants made herein and for other valuable consideration, the receipt of which is hereby acknowledged, the Authority and the Township agree as follows:

ARTICLE I.
DEFINITIONS AND INTERPRETATION

Section 1.01 DEFINITIONS. All capitalized terms used and not otherwise defined herein shall have the meanings given to them in this MOU and as defined in this Section unless a different meaning clearly applies from the context.

"Comprehensive Project" means the project commonly known as the Fargo-Moorhead Metropolitan Area Flood Risk Management Project, which includes the SEAI, the Elements, and the Mobility Improvements described in this MOU.

"Diversion Inlet Structure" means the hydraulic control structure being constructed by USACE at the confluence of County Road 16 and County Road 17.

"Element" means Reaches SE-1, SE-2, and SE-3, the control structure on the Wild Rice River, or the control structure on the Red River of the North, as the context requires, and wherever a reference in this MOU is made to Elements, **"Elements"** means Reaches SE-1, SE-2, and SE-3, the control structure on the Wild Rice River, and the control structure on the Red River of the North.

"Final Completion" means the time at which the work performed under the construction contract between USACE and its contractor or the Authority and its contractor, as applicable, has progressed to the point of being complete, as defined by such contract.

"Party" means the Authority or the Township, as the context may require, and its respective legal representatives, successors, and permitted assigns, and wherever a reference in this MOU is made to any Parties hereto, **"Parties"** means the Authority and the Township, collectively, and their respective legal representatives, successors, and permitted assigns.

"Reach SE-1" means that portion of the SEAI that will be constructed south and west of the Diversion Inlet Structure and includes any subsections into which that portion of the SEAI may be divided.

"Reach SE-2" means that portion of the SEAI that will be constructed between the Diversion Inlet Structure and the control structure on the Wild Rice River and includes any subsections in which that portion of the SEAI may be divided.

"Reach SE-3" means that portion of the SEAI that will be constructed between the control structure on the Wild Rice River and the control structure on the Red River of the North and includes any subsections in which that portion of the SEAI may be divided.

"SEAI" or **"Southern Embankment and Associated Infrastructure"** means the Diversion Inlet Structure, the control structure on the Red River of the North, the control structure on the Wild Rice River, and the southern embankment in its entirety (including Reaches SE-1, SE-2, and SE-3).

"Substantial Completion" means the time at which the work performed under the construction contract between USACE and its contractor or the Authority and its contractor, as applicable, has progressed to the point of being substantially completed, as defined by such contract.

ARTICLE II.
POINT OF CONTACT

Section 2.01 POINT OF CONTACT. On the Effective Date, the Authority will assign a point of contact ("Point of Contact") to work with the Township Representative. The intended purpose of this Point of Contact is to allow the Township Representative to provide information to the Authority and the United States Army Corps of Engineers ("USACE") regarding activities that may be occurring on property near active construction that may have an impact on USACE's work, e.g., agricultural spraying on neighboring property, as well as allow the Township Representative to inform the Authority and USACE of conflicts or concerns the Township may have. A map of the Comprehensive Project for the Township is attached as Exhibit D.

ARTICLE III.
DESIGN

Section 3.01 ELEMENTS. USACE is responsible for designing the Elements and will submit periodic designs to the Authority for review and comment. The Authority will share these designs with the Township for review and comment. Once the engineer for the Township has completed his or her review, he or she will submit comments to the Authority, and the Authority will submit the comments to USACE.

Section 3.02 MOBILITY IMPROVEMENTS. The Authority, in consultation with the engineer for the Township, will design improvements to 172nd Avenue Southeast between County Road 16 and 48th Street Southeast and to 48th Street Southeast between 172nd Avenue Southeast and 173rd Avenue Southeast and between 174th Avenue Southeast and County Road 81 (collectively, the "Mobility Improvements") in accordance with the following:

Minimum Design Standards for the Mobility Improvements							
Typical Section	**Design Speed**	**Right of Way Width**	**Roadway Width**	**Turn Lanes**	**Minimum Section Thickness**	**Access Controls**	**Bike/Ped Facilities**
Two-Lane Township Gravel Section	55 mph	100 feet*	24 feet	No	4 inches gravel	¼ Mile Spacing	Not Applicable

*Included right of way width is based on a preliminary design and is subject to modification based on input from adjacent landowners. In no event, however, will the right of way width be less than 66 feet – 33 feet on each side of the section line.

Section 3.03 FINANCING. The Township may seek reimbursement from the Authority in accordance with Article X for expenses incurred in reviewing designs. This reimbursement is not counted toward the amounts of reimbursement that may be sought in Sections 10.01 or 10.02.

ARTICLE IV.
PRELIMINARY PLANNING AND ENGINEERING ACTIVITIES

Section 4.01 SITE TESTING. The Authority will ensure all applicable preliminary engineering activities for the Elements and the Mobility Improvements, including: (a) technical studies and analyses; (b) geotechnical, seismic, flooding, and biological investigations; (c) right-of-way mapping, surveying, and appraisals; (d) utility subsurface investigations and mapping; (e) hazardous materials investigations; and (f) archeological, paleontological, and cultural investigations are completed.

Section 4.02 MITIGATION. The Authority will ensure that remediation and removal of all hazardous materials necessary to complete construction of the Elements and the Mobility Improvements is completed.

Section 4.03 ENVIRONMENTAL REVIEW. The Authority will ensure that all work described in this MOU complies with applicable environmental laws.

Section 4.04 UTILITY RELOCATION. The Authority is responsible for coordinating and/or performing utility relocations for the Elements and the Mobility Improvements and will be responsible for costs incurred for these relocations.

Section 4.05 PERMITS AND APPROVALS.

(a) Floodplain Permit. The Comprehensive Project, as currently designed, will result in an increase of water beyond that which is currently allowed under the Township Floodplain Ordinance. Nonetheless, due to the receipt of a CLOMR for the Comprehensive Project from the Federal Emergency Management Agency, the Township considers the Comprehensive Project to be a variance to its Floodplain Ordinance and, as a result, will amend its Floodplain Ordinance to indicate the same and not require a floodplain permit for the Comprehensive Project. A resolution

adopted by the Township amending the Floodplain Ordinance is attached to this MOU as Exhibit E.

(b) Building Permits. The Authority will file an application with the Township for building permit for those Elements identified on Exhibit F. The Authority has already secured a building permit from the Township for the control structure on the Wild Rice River. The Authority need not seek a building permit from the Township for any other Element described herein. The Township will review and decide upon the Authority's application within fifteen (15) calendar days of submission.

(c) Excavation Permit. The Authority will file an application with the Township for an excavation permit for each Element if the excavation for the Element exceeds the threshold set forth in the Township's ordinance. The Township will review and decide upon the Authority's application within fifteen (15) calendar days of submission.

Section 4.06 FINANCING. The Township will not have to incur any costs or expense for preliminary planning or engineering activities. In the event the Township incurs expenses to review permit applications filed by the Authority, the Township will include those costs and expenses, as determined by the Township in its sole discretion, in the cost of the permit.

ARTICLE V.
PROPERTY INTERESTS

Section 5.01 ACQUISITION. The Township is not responsible for obtaining any property interests for the Elements or the Mobility Improvements.

Section 5.02 ELEMENTS FOOTPRINT. The Authority intends to plat the footprint of the Elements. Cass County, pursuant to N.D.C.C. § 24-05-09, will declare, by resolution, those portions of Township roads, as determined by the design for the Elements, that will be impacted by the Elements to be part of the Cass County highway system.

Section 5.03 WEED CONTROL. On property in which the Authority has obtained an interest for the development of the Comprehensive Project, the Authority will designate personnel to monitor and maintain control of weeds in accordance with all applicable noxious weed control ordinances.

ARTICLE VI.
CONSTRUCTION

Section 6.01 ELEMENTS. USACE will be responsible for constructing the Elements and any other physical alterations necessary for construction, operation, and maintenance of the Elements.

Section 6.02 MOBILITY IMPROVEMENTS. The Authority will be responsible for constructing the Mobility Improvements and any other physical alterations necessary for construction, operation, and maintenance of the Mobility Improvements.

Section 6.03 DESIGN MODIFICATIONS. If USACE submits a design modification for an Element, the Authority will share the proposed modification with the engineer for the Township for review and comment. Once the engineer for the Township has completed his or her review, he or she will submit comments to the Authority, and the Authority will submit the comments to USACE. If the Authority proposes a design modification for a Mobility Improvement, the Authority will share the design modification with the engineer for the Township for review and approval.

Section 6.04 CONSTRUCTION SCHEDULE. Once available, the Point of Contact will provide the Township Representative with a proposed schedule for construction of the Elements and the Mobility Improvements and for road closures, as well as a map of designated haul routes. The Point of Contact will provide schedule updates to the Township Representative as they become available. The Authority will try to sequence road closures as much as possible in order to maintain public access to areas impacted by the Comprehensive Project.

Section 6.05 MAINTENANCE DURING CONSTRUCTION. The construction contractors will be responsible for maintaining haul routes used during construction. In the event the Township believes maintenance is not being performed or is being underperformed, it will notify the Point of Contact, and the Authority will coordinate the maintenance, which may include, if agreed upon, the Township performing the maintenance and seeking reimbursement from the Authority.

Section 6.06 PROJECT UPDATES AND COMPLETION. The Point of Contact will interact with the Township Representative on a regular basis to provide updates on the construction of the Elements and the Mobility Improvements. The Authority will coordinate with USACE on when any milestones are reached on the Elements, including Substantial Completion and Final Completion. The Authority will coordinate with the Township on when any milestones are reached on the Mobility Improvements, with the engineer for the Township completing the inspection and signoff for Substantial Completion and Final Completion for the Mobility Improvements. Upon signoff by the engineer for the Township of Final Completion of a Mobility Improvement, the Authority will turn over control of the Mobility Improvement to the Township.

Section 6.07 INSPECTION. The Township and the Authority will have the ability to conduct inspections of the Elements during construction following protocols established by USACE to ensure it complies with the provisions of this MOU. The Township will have the ability to conduct inspections of the Mobility Improvements during their construction. Inspections may be made upon reasonable notice to the Authority, during business hours, and in compliance with any safety requirements established by the Authority.

Section 6.08 FINANCING. The Township will not be responsible for any costs or expenses associated with the construction of the Elements or of the Mobility Improvements.

ARTICLE VII.
MAINTENANCE

Section 7.01 MAINTENANCE. The Authority will be responsible for maintenance, at its sole cost and expense, of the Elements. The Township will be responsible for maintenance, at its sole cost and expense, of the Mobility Improvements.

ARTICLE VIII.
COMPREHENSIVE PROJECT OPERATION AND CLEAN-UP

Section 8.01 NOTICE OF OPERATION. The Point of Contact will provide the Township Representative with reasonable advanced notice of the anticipated operation of the Comprehensive Project. The Authority will coordinate with the Township in the Authority's placing and removing of road barriers and signage, as necessary, for the operation of the Comprehensive Project. The Authority will be responsible for procuring any such road barriers or signage.

Section 8.02 POST-OPERATION CLEAN-UP. Following operation of the Comprehensive Project, the Authority will provide reimbursement for repair and clean-up work on Township lands, including Township roads. Aside from the requirement set forth in this section to provide such reimbursement, the Authority is additionally required to do so by the North Dakota Office of the State Engineer in the Post-Operation Public Lands Repair and Clean-Up Plan. The current form of the Post-Operation Public Lands Repair and Clean-Up Plan, which is a portion of the Authority's Property Rights Acquisition and Mitigation Plan, is attached to this MOU as Exhibit B. The Post-Operation Public Lands Repair and Clean-Up Plan may be amended, but the requirement that the Authority provide reimbursement for the repair and clean-up work on Township lands will not be eliminated, and any amendments are subject to approval by the North Dakota Office of the State Engineer.

ARTICLE IX.
INSURANCE

Section 9.01 ADDITIONAL INSURED. In the Authority's contracts for the construction of the Mobility Improvements, it will require that the contractor list the Township as an additional insured on any insurance policies procured for the construction.

ARTICLE X.
REIMBURSEMENT AND INVOICING

Section 10.01 CONSTRUCTION COSTS AND EXPENSES. Between the Effective Date and completion of the later of the following: (i) the final Element or (ii) the final Mobility Improvement, in addition to any reimbursable costs or expenses set forth herein, the Township may seek reimbursement from the Authority for any costs and expenses incurred as a result of work provided under this MOU, in an amount up to $3,000.00 annually. The reimbursement of costs or expenses incurred in excess of $3,000.00 may be sought under other applicable provisions of this MOU, including under Section 10.03. The first annual period shall be from the Effective Date until the date preceding the first anniversary of the Effective Date. Annual periods thereafter shall run from the anniversary of the Effective Date until the earlier of: (i) the date preceding the next anniversary of the Effective Date or (ii) the date of completion of the later of either the final Element or the final Mobility Improvement.

Section 10.02 POST-CONSTRUCTION COSTS AND EXPENSES. Following the completion of the later of the following: (i) the final Element or (ii) the final Mobility Improvement, in addition to any reimbursable costs and expenses set forth herein, the Township may seek reimbursement from the Authority for any costs or expenses incurred in relation to the Comprehensive Project in an amount up to $1,500.00 annually. The reimbursement of costs or expenses incurred in excess of $1,500.00 may be sought under other applicable provisions of this MOU, including under Section 10.03. The first annual period shall be from the date of the completion of the later of either the final Element or the final Mobility Improvement until the date preceding the first anniversary of such date. Annual periods thereafter shall run from the anniversary of such date to the date preceding the next anniversary of such date.

Section 10.03 EXTRAORDINARY EXPENSES. In addition to the allowable reimbursements set forth in Sections 10.01 and 10.02, the Township may seek reimbursement from the Authority for extraordinary expenses if, except as set forth herein, prior to incurring the expense, the Township receives written authorization from the Authority. The Authority will not unreasonably withhold approval of these requests. If emergency circumstances exist, in the discretion of the Township, and it is unreasonable to secure written authorization prior to incurring the expense, the Township may incur the expense and notify the Authority of the incurrence of the expense within a reasonable time following the resolution of the emergency. The Authority will also not unreasonably withhold approval of these requests.

Section 10.04 INVOICING.

(a) The Township will remit hard copy invoices to the Authority at the Authority's main office, and the invoices will be processed by the Authority for the following month. The Township will also submit copies of the invoices to the Authority electronically at APInvoicesFMDiv@jacobs.com, copied to jpaulsen@fmdiversion.gov. Each invoice should include the identification of the Township, a description of the activity included in the invoice, and the address where payment should be remitted. The Township may (i) initially pay for work included in an invoice and then seek reimbursement from the Authority for the payment or (ii) submit invoices directly to the Authority for initial payment. In either instance, the Authority will remit payment to the Township.

(b) After the Authority receives a Township invoice, the Authority will either process the invoice for payment or give the Township specific reasons, in writing, within fifteen (15) calendar days, why part or all of the Authority's payment is being withheld and what actions the Township must take to receive the withheld payment.

(c) In the event of disputed billing, only the disputed portion will be withheld from payment and the Authority will pay the undisputed portion. The Authority will exercise reasonableness in disputing any bill or portion thereof. Interest will accrue on any disputed portion of the billing determined to be due and owing to the Township.

(d) Payment does not imply acceptance of services or that the invoice is accurate. In the event an error is identified within three (3) months of receipt of payment, the Township must credit any payment error from any payment that is due or that may become due to the Township under this MOU.

(e) The Authority will be charged interest at the rate of one-half percent (1/2%) per month, or the maximum amount permitted by North Dakota law if a lesser amount, on all past-due amounts thirty (30) days after receipt of invoice. Payments will first be credited to interest and then to principal.

Section 10.05 LOST TAX REVENUE. Due to the construction of the Elements and ownership thereof by the Authority and to the removal of structures within the upstream mitigation area, the Authority recognizes that the Township will experience a loss of revenue from ad valorem taxes. The Authority estimates that approximately 650 acres in the Township will be owned by the Authority for the Elements and approximately 74 structures will be removed from the upstream mitigation area. In order to assist the Township in recouping some of this loss of revenue, on or prior to the Effective Date, the Authority will remit funds to the Township for a total of $132,000.00.

ARTICLE XI.
TERM AND TERMINATION

Section 11.01 TERM. This MOU will continue in full force and effect for ten (10) years following the Effective Date and will automatically renew for successive 1-year terms unless a Party gives a 1-year advanced written notice of a desire to not renew to the other Party.

Section 11.02 TERMINATION. The Parties may also mutually agree, in writing, to terminate this MOU.

ARTICLE XII.
MISCELLANEOUS

Section 12.01 AMENDMENTS. This MOU may be amended only by written instrument duly executed by the Parties or their respective successors or assigns, except to the extent expressly provided otherwise in this MOU.

Section 12.02 SEVERABILITY AND SAVINGS CLAUSE. Each provision, section, sentence, clause, phrase, and word of this MOU is intended to be severable. If any provision, section, sentence, clause, phrase, or word hereof is held by a court with jurisdiction to be illegal or invalid for any reason whatsoever, such illegality or invalidity will not affect the validity of the remainder of this MOU.

Section 12.03 FORCE MAJEURE. No Party will be liable to the other Party during any period in which its performance is delayed or prevented, in whole or in part, by circumstances beyond its reasonable control. Circumstances include, but are not limited to, the following: act of God (e.g., flood, earthquake, wind), fire, war, act of public enemy or terrorist, act of sabotage, strike or other labor dispute, riot, misadventure of the sea, inability to secure materials and/or transportation, or a restriction imposed by legislation or an order or a rule or regulation of a governmental entity. If such a circumstance occurs, the Party claiming the delay must undertake reasonable action to notify the other Party of the same.

Section 12.04 AUTHORIZED REPRESENTATIVES. Each of the Authority and the Township hereby designates the following individuals as its initial authorized representatives, respectively, to administer this MOU on its respective behalf:

(a) Authority Representative: Kris Bakkegard, Director of Engineering

(b) Township Representative: Township Clerk

Section 12.05 NOTICE.

(a) All notices to the Authority will be marked as regarding the Comprehensive Project and will be delivered to the following addresses or as otherwise directed by the Authority Representative:

207 4th Street North, Suite A
Fargo, North Dakota 58108-2806

(b) All notices to the Township will be marked as regarding the Comprehensive Project and will be delivered to the following address or as otherwise directed by the Township Representative:

305 7th Street
Hickson, North Dakota 58047

Section 12.06 GOVERNING LAW. This MOU will be governed and construed in accordance with the laws of the State of North Dakota.

Section 12.07 FEDERAL LOBBYING RESTRICTIONS. Recipients of federal financial assistance may not pay any person for influencing or attempting to influence any officer or employee of a federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress with respect to the award, continuation, renewal, amendment, or modification of a federal grant, loan, or contract. These requirements are implemented for the United States Environmental Protection Agency ("EPA") in 40 CFR Part 34, which also describes types of activities, such as legislative liaison activities and professional and technical services, which are not subject to this prohibition. On or prior to the Effective Date, the Township will complete and submit to the Authority the certification and disclosure forms in Appendix A and Appendix B to 40 CFR Part 23, which are attached within Exhibit C to this MOU. The Township will also require all subcontractors and suppliers of any tier awarded a subcontract over $100,000 to similarly complete and submit the certification and disclosure forms pursuant to the process set forth in 40 CFR 34.110.

Section 12.08 DEBARMENT AND SUSPENSION. The Township certifies it will not knowingly enter into a contract with anyone who is ineligible under 40 CFR Part 32 to participate in the Comprehensive Project. Suspension and debarment information can be accessed at http://www.sam.gov. The Township represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its subcontracts under this MOU. On or prior to the Effective Date, the Township will complete and submit to the Authority the federal

certification form regarding debarment and suspension, which is attached within Exhibit C to this MOU.

Section 12.09 CIVIL RIGHTS OBLIGATIONS. The Township will comply with the following federal non-discrimination requirements:

(a) Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, and national origin, including limited English proficiency (LEP).

(b) Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination against persons with disabilities.

(c) The Age Discrimination Act of 1975, which prohibits age discrimination.

(d) Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex.

(e) 40 CFR Part 7, as it relates to the foregoing.

(f) Executive Order No. 11246.

On or prior to the Effective Date, the Township will complete and submit to the Authority the federal certification form regarding civil rights, which is attached within Exhibit C to this MOU.

Section 12.10 LITIGATION; VENUE. All litigation between the Parties arising out of or pertaining to this MOU or its breach will be filed, heard, and decided in the State District Court of Cass County, North Dakota, which will have exclusive jurisdiction and venue. If there is litigation, regardless of the outcome, each Party will be responsible for its own attorney's fees.

IN WITNESS WHEREOF, the Authority and the Township caused this Agreement to be executed.

(Remainder of page intentionally left blank.)

Signature Page for the Metro Flood Diversion Authority

The Metro Flood Diversion Authority approved this Memorandum of Understanding on the ___ of _____, 2021.

METRO FLOOD DIVERSION AUTHORITY

By: _____
Michelle (Shelly) Carlson, Chair

By: _____
Joel Paulsen, Executive Director

ATTEST:

_____
Dawn Lindblom, Secretary

Signature Page for Pleasant Township

The governing body of Pleasant Township approved this Agreement on the ___ day of _____, 2021.

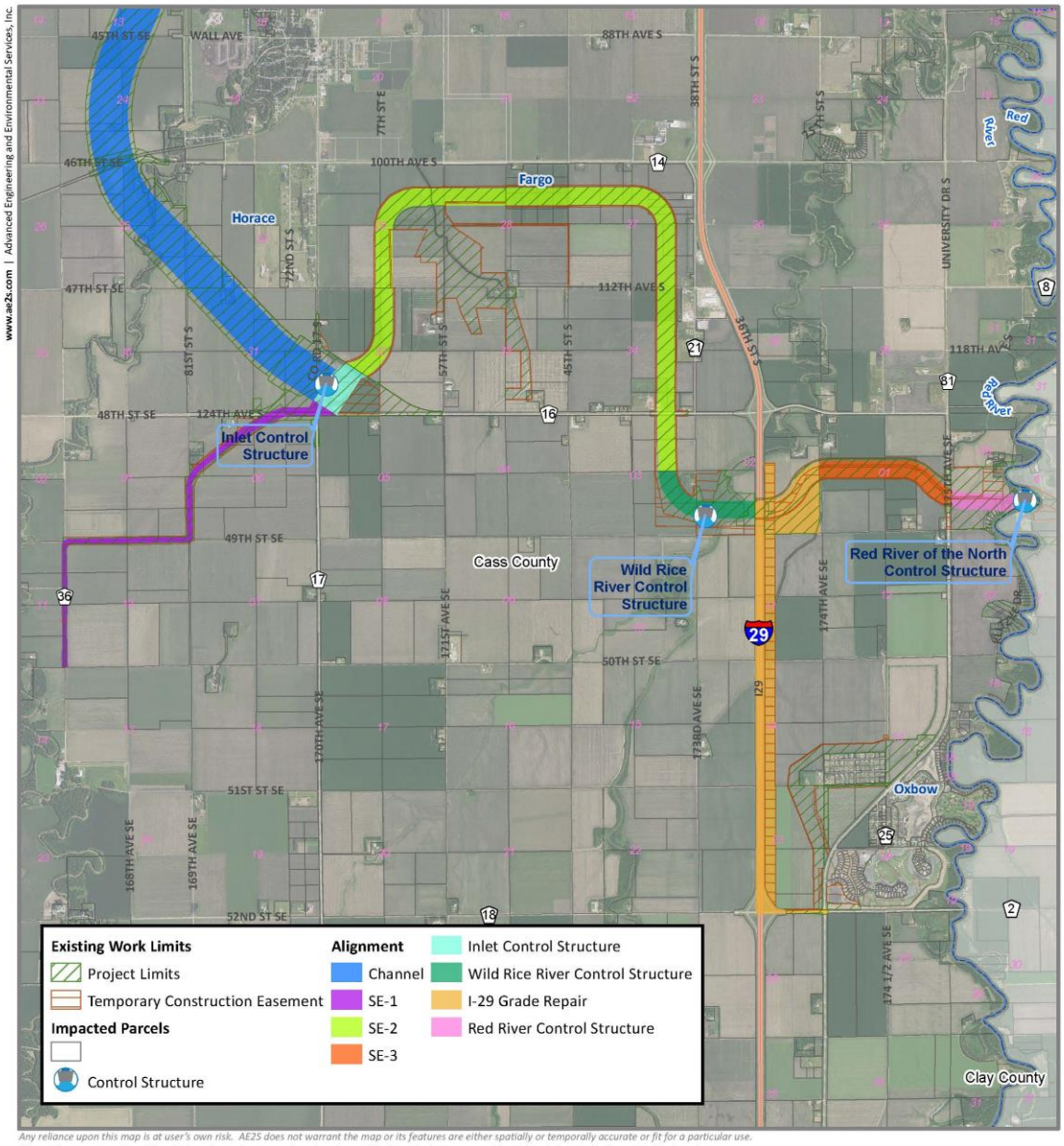
PLEASANT TOWNSHIP

By: _____
Mark Hiatt, Chairman

ATTEST:

_____
Nicole Bice, Clerk

EXHIBIT A
MAP OF ELEMENTS



Any reliance upon this map is at user's own risk. AE2S does not warrant the map or its features are either spatially or temporally accurate or fit for a particular use.
All parcel acreages and legal descriptions shown hereon are based on County GIS data. Final acreages and legal descriptions to be determined by boundary survey.
Coordinate System: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet | Produced by: dlee, AE2S, Inc. | C:\Data\Projects\GIS Projects\FM Area Diversion\Projects\Land Acquisition\Project Work Package\WP27-Red River West Embankment\SEAI_ND_overall.mxd

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0 0.2 0.4 0.8
Miles

SOUTHERN EMBANKMENT (ND)
AND ASSOCIATED INFRASTRUCTURE

FM AREA DIVERSION
Map Date: 9/30/2020

FM AREA DIVERSION PROJECT

EXHIBIT B
POST OPERATION PUBLIC LANDS REPAIR AND CLEAN-UP POLICY

Post-Operation Repair and Clean-Up Plan: Public Lands

Introduction

Operation of the Project will result in the staging and retention of flood waters upstream of the Southern Embankment. The upstream retention of flood waters will impact a different amount of acres for each flood event depending on the magnitude of the flood and a variety of other factors. There are a variety of "public lands" in the upstream mitigation area such as township and county roads, drainage ditches, cemeteries, and parks. In recognition that operation of the upstream retention area may cause some damage to these public lands as well as the accumulation of debris (logs, straw, trash, etc.), the Diversion Authority has developed the following post-operation public lands repair and clean-up plan.

Post-Operation Public Lands Repair and Clean-Up Plan

If the Project operates, the Diversion Authority will enact the following post-operation public lands repair and clean-up plan. The plan is specific to repair and clean-up of public lands in the upstream mitigation area from operation of the Project. Public lands include township and county roads, drainage ditches, cemeteries, and parks. This plan will allow local government entities (townships, water boards, etc.) to contract for the repair and clean-up work on the public lands, and then submit for reimbursement to the Diversion Authority. This plan allows the local government entities the ability to contract for the work as they prefer.

- The plan will pattern the approach that FEMA uses for post-disaster damage assessment and reimbursements.
- The Diversion Authority will declare the Project operated.
- The Diversion Authority will define the boundary of the upstream mitigation cleanup area based on the actual flood event.
- The Diversion Authority will distribute an annual newsletter that will include information related to post-operation mitigation programs.
- The Diversion Authority will notify public entities of eligible areas and request that the public entity identify any damage that may have been caused by the Project operation, including debris removal.
- The Diversion Authority will send a representative to meet with the public entities to verify damage on a site by site basis.
- The public entities shall solicit quotes (in conformance with procurement, legal, and regulatory requirements) for the repairs or clean-up work at each site, and submit the quotes for each site to the Diversion Authority for review.
- The Diversion Authority shall review the quotes for reasonableness, and either approve, request additional details, or deny the quote.
- The Diversion Authority will confirm the work was completed in accordance with the quote, and then reimburse the public entity.

- The Diversion Authority will also consider reimbursement of emergency repairs that may be needed in advance of following this process.
- The Diversion Authority will establish a reasonable deadline for submission of damage claims.

EXHIBIT C
FEDERAL CERTIFICATION FORMS
CERTIFICATION REGARDING FEDERAL LOBBYING

The undersigned certifies to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in any award documents for any of its subcontractors at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subcontractors shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into a contract with the Authority. By executing this certificate the undersigned agrees and acknowledges that he/she has been duly authorized to execute this certificate.

Company/
Entity Name: _____

Signed: _____

Its: _____

Date: _____

PLEASE RETURN TO:
Metro Flood Diversion Authority
P.O. Box 2806
Fargo, ND 58108-2806

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 13 CFR Part 145. The regulations were published as Part VII of the May 26, 1988 *Federal Register* (pages 19160-19211).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON PAGE 2)

(1) The official representative of the party contracting with the Metro Flood Diversion Authority certifies to the best of its knowledge and belief that it and its principals:

(a) Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application had one or more public transactions, including contracts (Federal, State, or local) terminated for cause or default.

(e) Are not presently debarred, suspended, declared ineligible or voluntarily excluded from performing work for the State of North Dakota, the State of Minnesota, the Metro Flood Diversion Authority or any of its Member Entities.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective primary participant shall attach an explanation to this proposal.

(3) The Official signing this certificate has been and is duly authorized to sign this certificate on behalf of the entity or entities which intend to enter into a contract with the Metro Flood Diversion Authority.

Official Business Name _____

Date: _____

By: _____
Name and Title of Authorized Representative

PLEASE RETURN TO:

Metro Flood Diversion Authority
P.O. Box 2806
Fargo, ND 58108-2806

_____
Signature of Authorized Representative

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this certification, the prospective contracting party is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contracting party shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the Metro Flood Diversion Authority's (the "Authority") determination whether to enter into this transaction. However, failure of the prospective contracting party to furnish a certification or an explanation shall disqualify such person from entering into contracts with the Authority.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the Authority determined to enter into a contract with the prospective contracting party. In order to qualify for participation in the U.S. EPA WIFIA program the Authority is required to obtain this certification. If it is later determined that the prospective contracting party knowingly rendered an erroneous certification, in addition to other remedies available to both the Authority and the Federal Government, the Authority may terminate this transaction for cause or default.

4. The prospective contracting party shall provide immediate written notice to the Authority to which this Certificate is submitted if at any time the prospective contracting party learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the Authority for assistance in obtaining a copy of those regulations (13 CFR Part 145).

6. The prospective contracting party agrees by submitting this certification that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the Authority.

7. The prospective contracting party further agrees by submitting this certification that it will require a "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions," from all sub-contractors without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. A contracting party in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contracting party may decide the method and frequency by which it determines the ineligibility of its principals.

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contracting party is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a contracting party in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the Authority may terminate this transaction for cause or default.

ASSURANCE OF COMPLIANCE – CIVIL RIGHTS CERTIFICATE

TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, SECTION 504 OF THE REHABILITATION ACT OF 1973, THE AGE DISCRIMINATION ACT OF 1975, SECTION 13 OF THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, 40 CFR PART 7, AND EXECUTIVE ORDER NO. 11246

The undersigned provides this assurance for the purpose of entering into a contract with the Metro Flood Diversion Authority (Authority) related to the Fargo-Moorhead Metropolitan Area Flood Risk Management Project (Project), which is receiving federal financial assistance. Specifically, the US EPA WIFIA Program requires this assurance of all contractors and subcontractors providing services for the Project.

The undersigned assures that it will comply with:

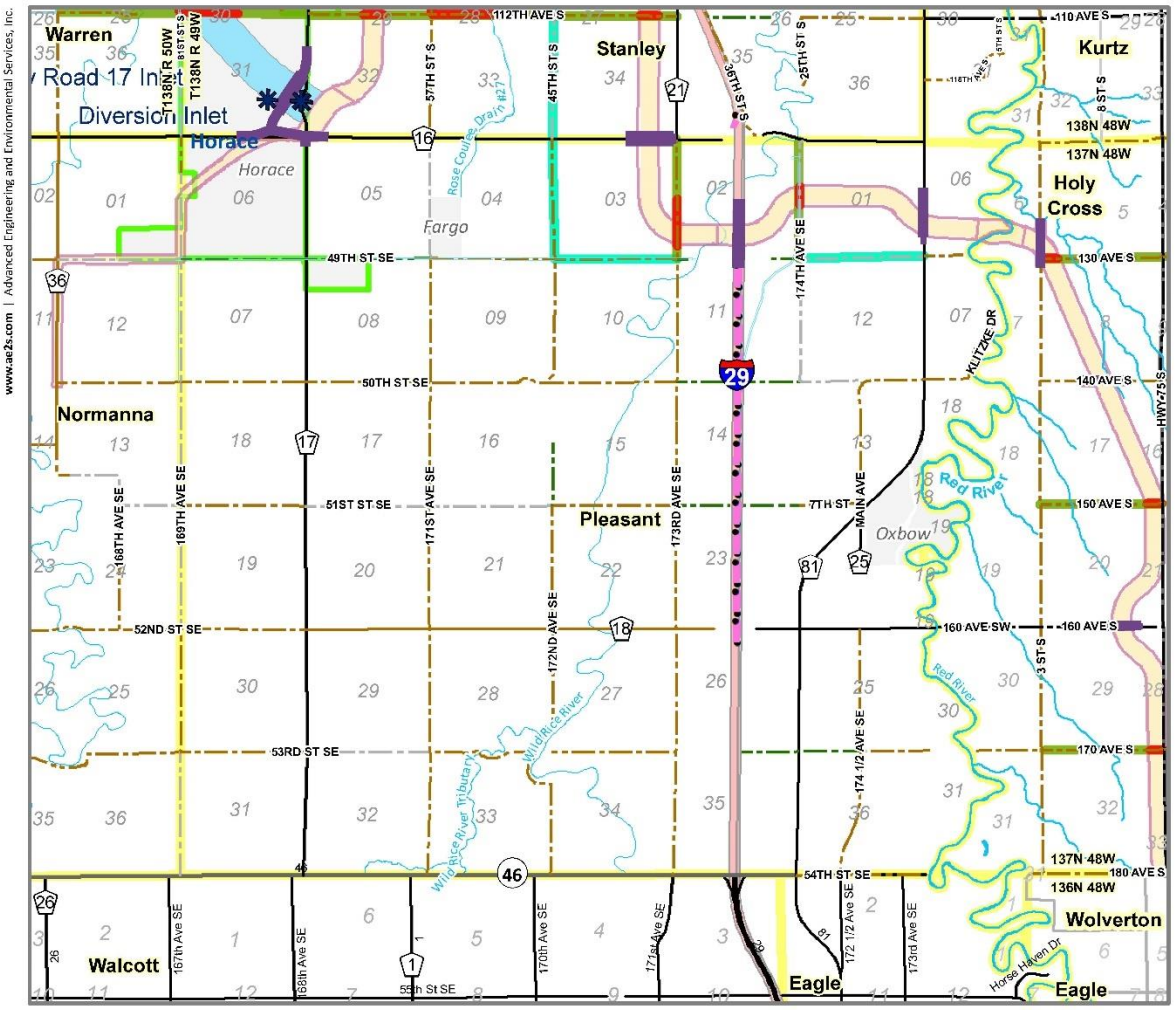
1. Title VI of the Civil Rights Act of 1964, as amended, which prohibits discrimination on the basis of race, color, or national origin including limited English proficiency (LEP);
2. Section 504 of the Rehabilitation Act of 1973, as amended, which prohibits discrimination against persons with disabilities;
3. The Age Discrimination Act of 1975, as amended, which prohibits age discrimination;
4. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex;
5. 40 CFR Part 7, as it relates to the foregoing; and
6. Executive Order No. 11246.

The undersigned understands that this Assurance is binding on the undersigned, its successors, transferees, and assignees at any time during which federal financial assistance is provided to the Project. The undersigned will ensure that all contractors, subcontractors, or others with whom it arranges to provide services or benefits are not discriminating in violation of items 1-6. Otherwise, the contracts for services can be terminated for cause and the undersigned can be declared ineligible to contract for the Project.

By signing this form, the undersigned is agreeing to the above provisions and that he/she is duly authorized to execute this form.

Signature of Authorized Official	Title
Print Name	Name of Institution or Agency
Date	Street
	City, State, Zip Code
PLEASE RETURN TO: Metro Flood Diversion Authority P.O. Box 2806 Fargo, ND 58108-2806	Office Email Address

EXHIBIT D
PROJECT IMPACTS MAP



Any reliance upon this map is at user's own risk. AE2S does not warrant the map or its features are either spatially or temporally accurate or fit for a particular use.
All parcel acreages and legal descriptions shown hereon are based on County GIS data. Final acreages and legal descriptions to be determined by boundary survey.
Coordinate System: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet | Produced By:cwickenheiser - AE2S, Inc. |
C:\Data\Projects\GIS Projects\FM Area Diversion\Projects\Land Acquisition\Project Work Package\!Project Wide\Overall LA Maps\MOU byTownship 8 x11.mxd

N

0 0.375 0.75 1.5
Miles

Pleasant

FM Area Diversion
Map Date: 2/11/2021

FM AREA DIVERSION PROJECT

EXHIBIT E
FLOODPLAIN ORDINANCE VARIANCE RESOLUTION

Supervisor _____ introduced the following resolution and moved its adoption:

RESOLUTION TO AMEND THE
PLEASANT TOWNSHIP FLOODPLAIN ORDINANCE

WHEREAS, in accordance with N.D.C.C. chapter 61-16.2, Pleasant Township has adopted a floodplain ordinance (the "Floodplain Ordinance"), allowing for participation in the National Flood Insurance Program ("NFIP") administered by the Federal Emergency Management Agency ("FEMA"); and

WHEREAS, Pleasant Township now desires to amend the Floodplain Ordinance to create a variance for certain flood control projects.

NOW, THEREFORE, be it resolved by the Board of Supervisors of Pleasant Township that Section 4.4(2) Conditions for Variances of the Floodplain Ordinance is hereby amended to read as follows:

4.4-2 Conditions for Variances

(1) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.

(2) <u>Variances may be issued for the construction, reconstruction, rehabilitation, or restoration of a flood control project, without regard to the procedures set forth in the remainder of this section, if the project demonstrates the following:</u>

<u>(i) The project sponsor has obtained a Conditional Letter of Map Revision (CLOMR) for the project from FEMA; and</u>

<u>(ii) the North Dakota Office of State Engineer has approved a mitigation plan for the project.</u>

(3) Variances shall not be issued within the identified floodplain if any increase in flood levels during the base flood discharge would result.

(4) Variances should only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(5) Variances shall only be issued upon:

(i) a showing of good and sufficient cause;

(ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant; and

(iii) a determination that the granting of a variance will not result in increased flood heights, additional threats of public safety, cause fraud on or victimization of the public as identified in Section 4.4-1(4), or conflict with existing local laws or ordinances.

(6) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

(*Remainder of page intentionally left blank.*)

APPROVED:

_____
Mark Hiatt, Chairman

ATTEST:

_____
Nicole Bice, Clerk

The motion for the adoption of the foregoing resolution was duly seconded by Supervisor _____. On roll call vote, the following members voted aye: _____. The following members voted nay: _____. The following members were absent and not voting: _____. The majority having voted aye, the motion carried and the resolution was duly adopted.

EXHIBIT F
BUILDING PERMITS AND FEES

Project Element	*Building Permit Fee*
Control Structure on the Wild Rice River	$5,000*
Control Structure on the Red River of the North	$10,000
I-29 Grade Raise	$5,000
Southern Embankment Reach 2B (SE-2B)	$5,000
Southern Embankment Reach 3 (SE-3)	$10,000
Oxbow-Hickson-Bakke Levee	$5,000
TOTAL BUILDING PERMIT FEES	**$40,000**

*The Authority has received a building permit from the Township for the control structure on the Wild Rice River, having submitted the appropriate application and permit fee.

MEMORANDUM OF UNDERSTANDING

By and Between

METRO FLOOD DIVERSION AUTHORITY

and

CASS RURAL WATER USERS DISTRICT

Dated as of September 2, 2021

Relating to:

Diversion Channel and Associated Infrastructure for the Fargo-Moorhead Metropolitan Area Flood Risk Management Project

This instrument was drafted by:
Ohnstad Twichell, P.C. (TJL)
John T. Shockley
P.O. Box 458
West Fargo, North Dakota 58078

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MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING is made and entered into this ___ day of _____, 2021 (hereinafter referred to as the "Effective Date"), by and between the Metro Flood Diversion Authority, a North Dakota political subdivision, whose post office address is P.O. Box 2806, Fargo, ND 58108-2806, and Cass Rural Water Users District, a North Dakota political subdivision, whose post office address is 131 Maple Street, P.O. Box 98, Kindred, ND 58051.

RECITALS

WHEREAS, the Metro Flood Diversion Authority is undertaking a Private Public Partnership for the construction of the Storm Water Diversion Channel and Associated Infrastructure; and

WHEREAS, the Utility has property interests (hereinafter referred to as "Prior Property Interests") as described in Article III and further described in Exhibits 1 through 49 and Exhibit 51; and

WHEREAS, it will be necessary for the Prior Property Interests to be removed and relocated or protected by the Metro Flood Diversion Authority or the Utility in coordination with construction on the Project; and

WHEREAS, this Memorandum of Understanding is only intended to bind the Parties in regard to the portion of the Comprehensive Project north of the Southern Embankment and shall have no implications for or binding power in regard to the Parties work, efforts, or relations in the Southern Embankment or in the Project area south of the Southern Embankment. The Parties interactions with one another in the Southern Embankment and in the Project area south of the Southern Embankment shall be governed by a separate agreement between the Parties.

WHEREAS, the Utility and the Metro Flood Diversion Authority, on its own behalf and on behalf of the P3 Developer, desire to set forth in writing their mutual understandings and to define the terms and conditions, and each party's rights and obligations in connection with the Project and the Utility Relocation Project.

NOW, THEREFORE, in consideration of the mutual promises contained herein and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby state as follows:

ARTICLE I.
DEFINITIONS AND INTERPRETATION

Section 1.01 DEFINITIONS. All capitalized and bolded terms used and not otherwise defined herein shall have the meanings given to them in this **Memorandum of Understanding** and as defined in this Section unless a different meaning clearly applies from the context.

"Best Efforts" means acting in **Good Faith** and in accordance with generally accepted commercial practices and using reasonable due diligence to undertake all action contemplated by this **Memorandum of Understanding**, in accordance with applicable federal and state laws, regulations, and rules; however, the obligation to use **Best Efforts** does not mean a duty to take action that would be in violation of applicable federal or state law.

"Betterment" means any upgrading of **Utility** that is not attributable to or made necessary by the **Project**, made for the benefit of and at the election of the **Utility**. The following are not considered **Betterments**: (a) replacement devices or materials of equivalent standards, though not identical; (b) replacement of devices or materials no longer regularly manufactured with an equivalent or next higher grade or size; (c) any upgrading required by applicable law or regulation; and (d) work described in Exhibit 51. The foregoing list does not necessarily cover everything that may be excluded from being a **Betterment**.

"Business Day(s)" means any day that is not a Saturday, a Sunday, or a public holiday under the law of North Dakota.

"CCJWRD" means the Cass County Joint Water Resource District, a political subdivision of the State of North Dakota, its successors and assigns.

"Comprehensive Project" means construction and operation of a diversion channel through North Dakota that is designed to convey twenty thousand (20,000) cubic feet per second at the one percent (1%) annual event or 100-year event return and is approximately thirty (30) miles long, tie-back embankments, a staging area, a diversion inlet structure, a 6-mile connecting channel, a control structure on each of the Red River and Wild Rice River, an aqueduct hydraulic structure on each of the Maple and Sheyenne Rivers, a drop structure of each of the Rush and Lower Rush Rivers, four (4) railroad bridges, various road bridges, in-town levees, community ring levees, and environmental mitigation, as generally described in the Final Feasibility Report and Environmental Impact Statement, Fargo-Moorhead Metropolitan Area Flood Risk Management, dated July 2011 and approved by the Chief of Engineers on December 19, 2011, as amended by the Supplemental Environment Assessment, Fargo-Moorhead Metropolitan Area Flood Risk Management Project, dated September 2013 and approved by the District Engineer, St. Paul District on September 19, 2013 and the Final Supplemental Environmental Assessment #2, Fargo Moorhead Metropolitan Area Flood Risk Management Project, dated February 2019 and approved by the District Engineer, St. Paul District on February 28, 2019.

"Construction Documents Submittal" means the submittal described in Section 6.05(c) of this **Memorandum of Understanding**.

"Costs" means all costs, expenses, and fees of whatever nature and kind, excluding internal costs that would have been incurred by the Utility regardless of the existence of the Comprehensive Project. **Costs** is further defined and described in Section 7.02.

"Excavated Material Berm" or **"EMB"** means a berm constructed from materials that have been excavated from within the **Project Property**.

"Final Design Submittal" means the design submittal described in Section 6.05(b) of this **Memorandum of Understanding**.

"Good Faith" means observance of reasonable commercial standards of fair dealing in a given trade of business.

"IDF Line of Protection" means inflow design flood line of protection.

"LFC" means the low-flow channel constructed in the bottom section of the diversion channel from the diversion outlet to the diversion inlet structure designed to convey minimum low-flow rates of seven hundred twenty (720) cubic feet per second from the diversion outlet to the Rush River inlet; four hundred seventy (470) cubic feet per second from the Rush River inlet to the Maple River aqueduct; and flow rates determined by the **P3 Developer** from the Maple River aqueduct to the diversion inlet structure.

"Member Entities" means those entities—the City of Moorhead, the City of Fargo, Clay County, Cass County, and the **CCJWRD**—signing the Joint Powers Agreement Dated as of June 1, 2016, establishing and continuing a joint powers entity called the **Metro Flood Diversion Authority**.

"Memorandum of Understanding" means this **Memorandum of Understanding** by and between the **Metro Flood Diversion Authority** and Cass Rural Water Users District.

"Metro Flood Diversion Authority" means the political subdivision created by the Joint Powers Agreement, effective June 1, 2016, by and between the City of Moorhead, a political subdivision of the State of Minnesota; the City of Fargo, a political subdivision of the State of North Dakota; Clay County, a political subdivision of the State of Minnesota; Cass County, a political subdivision of the State of North Dakota; and Cass County Joint Water Resource District, a political subdivision of the State of North Dakota and vested with the powers therein.

"Operating Period" means the period following completion of all design and construction requirements for **Project Substantial Completion** of the **SWDCAI**, plus one (1) day and ending on the first October 1st to occur following the 29th anniversary of **Project Substantial Completion** of the **SWDCAI**.

"Other Approvals" means all approvals and permits legally required to complete approved work on the **Utility Relocation Project** including, but not limited to, construction permits and permits from the applicable water resource district.

"Party" means a signatory to this **Memorandum of Understanding**, that is, the **Metro Flood Diversion Authority** and/or the **Utility** and "**Parties**" means the **Metro Flood Diversion Authority** and the **Utility** collectively.

"P3 Developer" means the private party or entity that enters into the **Project Agreement** whereby that party agrees to design and build the **Project**.

"Prior Property Interest(s)" means any property interest(s) owned by the **Utility** that the **Metro Flood Diversion Authority** deems necessary to **Relocate**.

"Project" means the design, construction, financing, operations, and maintenance of the **SWDCAI**.

"Project Agreement" means a Public-Private Partnership Agreement as authorized by Chapter 48-02.1 of the North Dakota Century Code, by and between the **Metro Flood Diversion Authority**, or one or more **Member Entities** authorized by the **Metro Flood Diversion Authority**, and a **P3 Developer** for design, construction, financing, operation and maintenance of the **Project**.

"Project Property" means real property acquired for the **Project**, including, but not limited to, land, rights-of-way, easements, licenses, and leases.

"Project Substantial Completion" means the completion of all substantial completion conditions as outlined in the **Project Agreement** for substantial completion of the **DCAI**.

"Relocate" and **"Relocation"** mean providing facilities for the **Utility** that are functionally equivalent to the facilities identified in Article III, which need to be **Relocated** or removed from their current locations to accommodate construction of the **Project** or presence of the SW**DCAI**. Providing a functionally equivalent facility may include, altering, lowering, or raising, or replacement and attendant demolition or removal of the affected facility or any part thereof.

"Reservoir Site D" means two tracts of land owned by the **Utility** that adjoin one another and are located in the southeast quarter of the southeast quarter of Section 10, Township 139 North, Range 50 West. These two tracts are Auditor's Lot 4 and a tract immediately to the east of Auditor's Lot 4 known as Parcel Number 53000009061040 in Cass County's property tax system. Exhibit 55 to this **Memorandum of Understanding** contains a plat of Auditor's Lot 4 that depicts its location and provides a metes and bounds description of it. Exhibit 55 also contains Cass County's Parcel Information Report for Parcel Number 53000009061040. This Report contains a metes and bounds description for this tract, which is also depicted on the plat of Auditor's Lot 4.

"**Reservoir Site D Associated Infrastructure**" means the **Reservoir Site D** and the three underground holding tanks at the site (two 100,000 gallon tanks and one 50,000 gallon tank) and infrastructure related to the tanks that includes buildings; electrical and monitoring equipment; pipe, pumps, and valves that fill and draw water from the tanks; overflow pipes and land and drainageways that allow overflow from the tanks and surface and groundwater to drain away from the tanks; as well as any additional tanks, infrastructure, facilities, and activities on **Reservoir Site D** that the **Utility** may construct or undertake to further the **Utility's** purposes of water storage and distribution.

"Shop Drawings and Samples" means shop drawings, laying drawings, erection drawings, fabrication drawings, product information, catalog information, samples, mock-ups, plans, test procedures and results, descriptions of services, descriptions of specific means and methods and related documentation.

"Site" means the physical location at which any **Utility Adjustment Construction Work** is being done, has been done, or will be done.

"Southern Embankment" means the earthen embankment designed to keep flood waters out of the Fargo-Moorhead metro area. Waters backed up behind the embankment will be directed into the thirty (30) mile diversion channel. The planned location of the **Southern Embankment** is depicted on the map at Exhibit 56.

"Southern Embankment and Associated Infrastructure" or **"SEAI"** means the **Southern Embankment** and infrastructure associated with the **Southern Embankment** consisting of the diversion inlet, Wild Rice control structure, Red River control structure, associated road raises, earthen embankment, and western tie-back levee.

"Supplemental Plan" means a plan submitted for approval in the event that **Undisclosed Prior Property Interests** are identified after one or more plans have already been approved pursuant to Article VI.

"SWDCAI" means the Storm Water Diversion Channel and Associated Infrastructure portion of the **Comprehensive Project** which is being procured by the **Metro Flood Diversion Authority** and includes the thirty (30) mile diversion channel, outlet, river and drain inlets, road bridges, railroad bridges, aqueducts, utility relocations, and recreational features.

"Undisclosed Prior Property Interests" mean **Prior Property Interests** not disclosed in Section 3.02 of this **Memorandum of Understanding**.

"USACE" means the United States Army Corps of Engineers.

"Utility" means the Cass Rural Water Users District, a North Dakota political subdivision.

"Utility Adjustment" means each **Relocation** (temporary or permanent), abandonment, protection in place, removal (of previously abandoned **Utility** infrastructure and property as well as of newly abandoned **Utility** infrastructure and property), replacement, reinstallation, or modification of existing **Utility** infrastructure and property necessary to accommodate construction, operation, maintenance or use of the **Project**. The **Utility Adjustment Work** for each crossing of the **Project** right-of-way by **Utility** infrastructure and property that crosses the **Project** right-of-way more than once will be considered a separate **Utility Adjustment**. For any **Utility** infrastructure and property installed longitudinally within the **Project** right-of-way, the **Utility Adjustment Work** for each continuous segment of that **Utility** infrastructure and property located within the **Project** right-of-way will be considered a separate **Utility Adjustment**.

"Utility Adjustment Completion" means that the **Utility Adjustment Construction Work** for a **Utility Adjustment** is sufficiently complete in the opinion of the **Metro Flood Diversion Authority** and the **Utility**.

"Utility Adjustment Construction Work" means all **Utility Adjustment Work** related to construction.

"Utility Adjustment Design Work" means all **Utility Adjustment Work** related to design.

"Utility Adjustment Work" means all efforts and **Costs** necessary to accomplish the required **Utility Adjustments**, including all coordination, **Utility Adjustment Design Work**, design review, permitting, **Utility Adjustment Construction Work**, inspection and maintenance of records, whether provided by **Metro Flood Diversion Authority** or by the **Utility**.

"Utility Completion Acceptance" means agreement by the **Metro Flood Diversion Authority** and the **Utility** that the responsible party has completed its portion the **Utility Adjustment Construction Work** in accordance with the approved **Construction Documents Submittal** and approved changes during construction for a **Utility Adjustment**.

"Utility Relocation Project" means the process of **Relocating** any **Prior Property Interests** and any **Undisclosed Prior Property Interests** owned by the **Utility**, and all other steps necessary as reasonably determined by the **Metro Flood Diversion Authority**, to prepare the **Project Property** for construction of the **Project.**

"Water Resource District Infrastructure" means any infrastructure or property right of any kind owned by or attributable to the Maple River Water Resource District, Southeast Cass Water Resource District, Rush River Water Resource District, North Cass Water Resource District, or the Cass County Joint Water Resource District.

Section 1.02 TERMS GENERALLY. The definition of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine, and neuter forms. The words "include," "includes," and "including" shall be deemed to be followed by the phrase "without limitation." The word "will" shall be construed to have the same meaning and effect as the word "shall." Unless the context requires otherwise (a) any reference herein to any person shall be construed to include that person's successors and assigns, (b) the words "herein," "hereof," and "hereunder," and words of similar import, shall be construed to refer to this **Memorandum of Understanding** in its entirety and not to any particular provision hereof, and (c) all references herein to articles, sections, exhibits, and schedules shall be construed to refer to articles and sections of, and exhibits and schedules to, this **Memorandum of Understanding**.

Section 1.03 SURVIVAL OF TERMS. The terms of this **Memorandum of Understanding** shall survive through the **Operating Period** and for successive ten-year terms until a Party hereto terminates this **Memorandum of Understanding** with at least one-year notice to the other Party. The provisions of Sections 3.03 ("Reservoir Site D"), 3.07 ("Utility Easements"), 8.01 ("P3 Developer Rights – Indemnification"), 13.04 ("Indemnification"), and 13.24 ("Service to Ethanol Plant"), and Article IX ("Future Rights and Responsibilities") shall survive the termination of this **Memorandum of Understanding** and bind the **Parties** for as long as the **Utility** has property on, over, under, or across **Project Property**.

Section 1.04 INTENT TO ASSIGN. **Utility** acknowledges the **Metro Flood Diversion Authority's** intent to assign certain rights and obligations under this **Memorandum of**

Understanding to the **P3 Developer**, and hereby irrevocably waives any right to object to any such assignment.

ARTICLE II.
PURPOSE OF MEMORANDUM OF UNDERSTANDING

Section 2.01 PURPOSE. The purpose of this **Memorandum of Understanding** is to ensure a coordinated, time-efficient, equitable, and cost-effective process for completing the **Utility Relocation Project** and coordination of the operations and maintenance activities after completion of the **Utility Relocation Project**.

Section 2.02 COORDINATION BETWEEN ENGINEERS. The **Parties** are likely to employ the use of professional engineers in the analysis, design, and completion of designs, plans, and completion of work. Engineers employed by the **Parties** shall maintain open lines of communication and shall coordinate and collaborate with one another.

ARTICLE III.
REAL PROPERTY INTERESTS

Section 3.01 INTENT. It is the intent of the **Parties** that all **Prior Property Interests** shall be identified herein. Specifically, **Prior Property Interests** shall be detailed in the table contained in Section 3.02 and further documented in the Exhibits to this **Memorandum of Understanding**.

Section 3.02 PRIOR PROPERTY INTERESTS. The **Prior Property Interests** the **Metro Flood Diversion Authority** is to **Relocate** pursuant to the terms and conditions of this **Memorandum of Understanding** include the **Prior Property Interests** documented in Exhibits 1 through 49 and described in the table below:

Exhibit No.	Section	Town-ship	Range	Type	Preliminary Diversion Channel Station	Right of Way Document
1	35	142	49	1.5” water pipe	55+00	Book Z-6, pg 379-381
2	35	142	49	3” water pipe	84+03	688465
3	35	142	49	3” water pipe	84+03	688464
4	2	141	49	1.5” & 3” water pipe	E of Channel in DA ROW, on W side CR 31	688446
5	2	141	49	1.5” & 3” water pipe	E of Channel in DA ROW, on W side CR 31	688447
6	2	141	49	1.5” & 3” water pipe	E of Channel in DA ROW, W side CR 31	Book C-7, pg 309-311

7	2	141	49	1.5” water pipe	No lines show in SW ¼ and S ½ SE ¼ of Sec. 2	Book E-7, pg 569-571
8	2	141	49	1.5” water pipe	153+81	Book E-7, pg 572-574
9	3	141	49	1.5” water pipe	153+81	Book Z-6, pg 364-366
10	3	141	49	1.5” water pipe	153+81	Book E-7, pg 592-594
11	9	141	49	2” water pipe	204+16	No documents found.
12	17	141	49	1.5” water pipe	304+98	Book C-7, pg 321-323
13	17	141	49	1.5” water pipe	304+98	Book E-7, pg 635-637
14	17	141	49	6” water pipe	309+20	1344454
15	17	141	49	6” water pipe	309+20	1344457
16	20	141	49	6” water pipe	309+20	1344455
17	20	141	49	6” water pipe	No WL found in N ½ Sec.20 W of BNSF ROW	Book E-7, pg 641-643
18	20	141	49	6” water pipe	No WL found in SW ¼ Sec.20	Book E-7, pg 644-646
19	2	140	50	1.5” water pipe	570+25	Book F-7, pg 113-115
20	2	140	50	1.5” water pipe	570+25	Book F-7, pg 119-121
21	14	140	50	1.5” water pipe	677+85	Book C-7, pg 357-359
22	23	140	50	8” water pipe	679+23	859879
23	23	140	50	12” water pipe	679+32	1216350
24	23	140	50	12” water pipe	679+32	1242094
25	23	140	50	12” water pipe	679+32	Book X-6, pg 354-356

26	34	140	50	Water pipe to Residences	847+00	824602
27	34	140	50	8” water pipe	851+00	859880
28	3	139	50	1.5” & 8” water pipe	900+00	Book W-6, pg 258-260
29	3	139	50	1.5” & 8” water pipe	900+00	Book W-6, pg 331-333
30	10	139	50	8” & 1.5” water pipe	905+00	Book X-6, pg 180-182
31	10	139	50	8” & 1.5” water pipe	905+00	Book D-7, pg 574-576
32	10	139	50	8” & 1.5” water pipe	905+00	1083643
33	10	139	50	1.5” & 2” & 8” water pipe	955+00	683146
34	10	139	50	1.5” & 2” & 8” water pipe	955+00	866138
35	10	139	50	1.5” & 2” & 8” water pipe	955+00	859823
36	10	139	50	1.5” & 8” water pipe	962+00	Book F-7, pg 309-311
37	10	139	50	1.5” & 8” water pipe	962+00	Book X-6, pg 183-185
38	10	139	50	1.5” & 8” water pipe	962+00	Book F-7, pg 93-95
39	15	139	50	6” water pipe	978+00	Book C-7, pg 443-445
40	15	139	50	6” water pipe	978+00	Book A-7, pg 503-505
41	25	139	50	6” water pipe	1119+00	747944
42	25	139	50	6” water pipe	1119+00	913137
43	25	139	50	6” water pipe	1171+00	747943
44	36	139	50	8” water pipe	1198+00	850272
45	36	139	50	8” water pipe	1198+00	842019

46	12	138	50	1.5" water pipe	1325+00	900239
47	13	138	50	6” water pipe	1331+00	Book W-6, pg 237-239
48	13	138	50	6” water pipe	1331+00	Book W-6, pg 240-242
49	30	138	49	3” water pipe	1508+00	No documents found.

Section 3.03 RESERVOIR SITE D. Notwithstanding anything to the contrary in this **Memorandum of Understanding**, the **Utility** shall have at all times, including during construction of the **Project**, access to **Reservoir Site D** and at all times the right to operate and manage **Reservoir Site D** and **Reservoir Site D Associated Infrastructure**.

Section 3.04 UNDISCLOSED PRIOR PROPERTY INTERESTS. If the **Metro Flood Diversion Authority**, for any reason, determines **Undisclosed Prior Property Interests** should be **Relocated**, such **Relocation** shall occur pursuant to the terms of this **Memorandum of Understanding**.

Section 3.05 DISCOVERY OF UNDISCLOSED PRIOR PROPERTY INTERESTS. **Undisclosed Prior Property Interests** identified for **Relocation** prior to submission of the first submittal required by Article VI shall be **Relocated** through the same process as if the **Undisclosed Prior Property Interests** were disclosed herein. A separate accounting and recording of **Costs** shall be maintained for **Undisclosed Prior Property Interests** and **Prior Property Interests** disclosed herein. Should **Undisclosed Prior Property Interests** be identified after the submission of one or more submittals pursuant to Article VI, the **Utility** shall, within sixty (60) days of written notification of identifying **Undisclosed Prior Property Interests** to be **Relocated**, submit a **Supplemental Plan** meeting the requirements of Article VI, for the **Relocation** of **Undisclosed Prior Property Interests**. Each **Party** shall have the same rights and responsibilities as they would have if the **Supplemental Plan** were included in previously approved plans, as detailed in Article VI, unless explicitly provided otherwise herein. If the **Utility** fails to submit a **Supplemental Plan** for approval within sixty (60) days, the **Utility** shall be assessed a fee of two hundred dollars ($200) for each calendar day. The **Utility** may appeal assessment of the fee by submitting a written appeal to the **Metro Flood Diversion Authority** within thirty (30) days after the **Utility** submits the **Supplement Plan**. Within thirty (30) days of submission of the appeal explaining the reasons for the late **Supplemental Plan** and other mitigating factors that the **Metro Flood Diversion Authority** should consider when deciding whether to waive the fee, the **Metro Flood Diversion Authority** shall, at its own discretion, approve or deny the appeal of assessed fees.

Section 3.06 COOPERATION IN PLATTING. The **Metro Flood Diversion Authority** intends to plat right-of-way acquired for **Project** purposes. **Utility** shall reasonably cooperate with said platting efforts if requested to do so by the **Metro Flood Diversion Authority**.

Section 3.07 UTILITY EASEMENTS. The **Utility** owns easements and rights-of-way in the **Project Property**. These easements and rights-of-way continue in force and effect after the **Effective Date**, though the **Utility's** exercise of its rights under these easements and rights-of-way is subject to Article IX.

ARTICLE IV.
RIGHT OF SITE ACCESS

Section 4.01 RIGHT OF SITE ACCESS – AUTHORITY. To ensure the **Metro Flood Diversion Authority** is able to proceed with the **Utility Relocation Project**, the **Metro Flood Diversion Authority** shall have a right-of-way in, on, over, and across any and all **Sites** as well as the right to access, enter, inspect, and conduct **Utility Adjustment Construction Work** on all **Sites**. The only notice the **Metro Flood Diversion Authority** is required to give the **Utility** before accessing a **Site** is the notice required by Section 4.04 of this **Memorandum of Understanding**.

Section 4.02 RIGHT OF SITE ACCESS – UTILITY. The **Utility** shall have the right to monitor and inspect **Utility Adjustment Construction Work**. To ensure it can exercise these rights, as well as exercise any other rights it may have, the **Utility** shall have the right to access all **Sites** from the time **Utility Adjustment Construction Work** begins until **Utility Adjustment Completion**. It is not the intent of this Section to limit, and this **Memorandum of Understanding** does not limit, any right the **Utility** would otherwise have to access a **Site** before **Utility Adjustment Construction Work** commences or after completion of **Utility Adjustment Construction Work**.

Section 4.03 NON-REVOCABLE RIGHT OF THE METRO FLOOD DIVERSION AUTHORITY. So long as this **Memorandum of Understanding** is in force, nothing herein shall be construed as limiting or providing for the termination of the rights described herein as it pertains to the **Metro Flood Diversion Authority**.

Section 4.04 NOTICE. The **Metro Flood Diversion Authority** shall give the **Utility** five (5) calendar days' written notice of **Utility Adjustment Construction Work** that could disrupt the service provided by the **Utility** to its patrons.

Section 4.05 DUTY TO TAKE CARE. Any **Party** accessing a **Site** after **Utility Adjustment Construction Work** commences and prior to **Utility Adjustment Completion** shall follow a safety plan to be developed by the **Metro Flood Diversion Authority** as well as any reasonable safety directives issued by the **Metro Flood Diversion Authority**, whether orally or in writing.

ARTICLE V.
REQUIRED REPORTS

Section 5.01 REQUIRED REPORTS. The **Utility** will provide information within the scope of the **Comprehensive Project**, as is requested by the **Metro Flood Diversion Authority**, after consultation with the **Utility**. Information requested pursuant to this Article shall be limited in scope to information relevant to the **Comprehensive Project** and to information already possessed by the **Utility**.

Section 5.02 DEADLINES. All information requested by the **Metro Flood Diversion Authority** under Section 5.01 shall be provided before the expiration of a reasonable deadline determined by the **Metro Flood Diversion Authority** after consultation with the **Utility**.

Section 5.03 FAILURE TO TIMELY PRODUCE. If the **Utility** fails to provide information requested of it under Section 5.01, it shall be assessed a fee of two hundred dollars ($200) for each calendar day the requested information is past due.

Section 5.04 APPEAL OF FEES ASSESSED. Within thirty (30) days of submitting requested information after the due date, the **Utility** may appeal the assessment of fees described in Section 5.03, by submitting a written appeal to the **Metro Flood Diversion Authority**. Within thirty (30) days of submission of a written appeal of assessed fees explaining the reasons for failure and other mitigating factors which the **Metro Flood Diversion Authority** should consider when deciding whether to waive the fee, the **Metro Flood Diversion Authority** shall, at its own discretion, approve or deny the appeal of assessed fees.

Section 5.05 APPLICATION AND DURATION. In responding to a request made under this Article, the **Utility** has no obligation to provide confidential information. Requirements imposed on the **Utility** in this Article apply only to matters directly related to the **Utility Relocation Project** and terminate six (6) months after **Utility Adjustment Completion**.

ARTICLE VI.
PERFORMANCE AND CONSTRUCTION

Section 6.01 UTILITY ADJUSTMENT DESIGN WORK. The **Metro Flood Diversion Authority** shall be responsible for all aspects of the **Utility Adjustment Design Work**, including the development of the submittals described in Section 6.05 for review and approval by the **Utility**. **Utility Adjustment Design Work** shall meet the requirements of Exhibit 52 attached hereto. The submittals may either describe all **Utility Adjustment Construction Work**, or, alternatively, may describe a portion of the **Utility Adjustment Construction Work**, with subsequent submittals detailing portions of the **Utility Adjustment Construction Work** not included in earlier submittals. To the extent the **Utility Adjustment Design Work** calls for **Utility** infrastructure or property of any kind to cross above, below, or through **Water Resource District Infrastructure**, the **Utility** and **Metro Flood Diversion Authority** shall work together to obtain a permit in **Utility's** name from the relevant water resource district prior to the initiation of **Utility Adjustment Construction Work**.

Section 6.02 UTILITY ADJUSTMENT CONSTRUCTION WORK. The **Metro Flood Diversion Authority** shall be responsible for the **Utility Adjustment Construction Work** as shown in Exhibit 51, attached hereto. **Utility Adjustment Construction Work** shall meet the requirements of Exhibit 52, attached hereto.

Section 6.03 ADDITIONAL RIGHT OF WAY. Should the **Utility** require additional right-of-way to complete the **Utility Relocation Project**, the **Utility** shall notify the **Metro Flood Diversion Authority** of said need as soon as reasonably possible after discovering the need. The **Metro Flood Diversion Authority** shall use its **Best Efforts** to acquire the necessary right-of-

way but shall not be responsible for any damages related to time delays associated with the acquisition of additional right-of-way. The **Utility** shall be responsible for the acquisition of any additional right-of-way needed to accommodate **Betterments**, and the work associated with which shall not delay work undertaken pursuant to this **Memorandum of Understanding**. In the event the **Utility Relocation Project** directly or indirectly causes the **Utility** to acquire additional property interests, the **Utility** shall consult with **Metro Flood Diversion Authority** prior to determining the price at which they will offer to purchase said property interests. The **Utility** will only offer to purchase additional property interests at a price consented to by the **Metro Flood Diversion Authority**.

Section 6.04 TECHNICAL SPECIFICATIONS. The technical aspects of the **Utility Relocation Project** and **Utility Adjustment Construction Work** shall meet the following specifications:

a. Diversion Channel and Levee Crossings.

1. Depth – Determine the depth of the diversion channel, including **LFC**, and the elevation of the **IDF Line of Protection** feature (i.e., original ground minus stripping layer). Include an allowance for five (5) feet of erosion when determining the elevation of the utilities below the diversion channel or the **LFC**. Locate the top of the utility ten (10) feet below the allowance for the eroded bottom of the diversion channel and the **LFC** and a minimum of fifteen (15) feet below the bottom of the lowest compacted fill layer for levees and the bottom of flood wall foundations (i.e., for **LFC**: design the **LFC** invert elevation with 5-foot erosion allowance, 10-foot cover). Place open cut utilities that go over the IDF Line of Protection above the **IDF Line of Protection** elevation, including freeboard and overbuild.

2. Method of construction – Utilities may be directionally drilled or open cut unless otherwise indicated. Direct trenching of utilities using a plow type installation process and jack and bore installation are not permitted. When installed using an open cut, provide bedding and pipe zone using controlled low strength material (CLSM), except beneath the levee. Design and construct CLSM for fifty (50) to one hundred fifty (150) psi, 28-day compressive strength. Use material excavated for utility placement as backfill above the pipe zone, except as noted for the area under the levee. Compact backfill to a minimum of ninety-five percent (95%) of maximum dry density. For areas under the levee (defined by the area between the extension of the levee side slopes to the depth of the utility, plus fifteen (15) feet in each direction), match the levee material in properties and installation requirements for backfill above the pipe zone.

3. Horizontal directional drilling – If horizontal directional drilling is used, follow the **USACE** *Guidelines for Installation of Utilities Beneath Corps of Engineers Levees Using Horizontal Directional Drilling*, latest edition. For the diversion channel, conduct direction drilling in accordance with ASTM F1962. If the conditions of these drilling requirements conflict for work under the channel, the requirements of this **Memorandum of Understanding** apply. Do not locate

pipe entry/exit locations (pits) within fifty (50) feet of the **IDF Line of Protection**. Fill the annulus between the borehole and casing or pipe with drilling fluid or an equivalent material approved by the **Metro Flood Diversion Authority** in writing.

4. Design requirement – Design and construct utilities crossing the **IDF Line of Protection** in accordance with the latest edition of the following **USACE** publication. In the case of a conflict with stated requirements, design and construct in accordance with this **Memorandum of Understanding**.

i. *Engineer Manual, EM 1110-2-1913, "Design and Construction of Levees.*"

b. Excavated Material Berms, Local Drainage Ditch Crossings, and Other Areas.

1. Method of Construction – Install utilities by directionally drilling or open cutting, unless otherwise indicated. Do not direct trench utilities using a plow type installation process. Do not install utilities by jack and bore process. When installed using an open cut, the bedding and pipe zone of utility lines can be backfilled with CLSM or the standard bedding and pipe zone material the **Utility** uses. Use material excavated for utility placement as backfill above the pipe zone. Compact backfill to a minimum ninety-five percent (95%) of maximum dry density. For directional drilling, conform to the requirements for crossing the diversion channel.

2. Depth – Design and construct utilities to the desired depth and accommodate the following:

i. Stripping work areas of topsoil.
ii. Heavy equipment loads.
iii. Removal of the EMBs in the future.
iv. Except as indicted otherwise, construct the top of water lines a minimum of seven and one-half (7.5) feet below the stripped surface and drainage ditch inverts.

3. Geotechnical Calculations – Consider the expected loading, rebound, and settlement, as well as utility strength, flexibility, and slack in the design of the **Utility Relocations**.

4. Water Resource District Crossings – The relocation of **Utility** property and infrastructure pursuant to this **Memorandum of Understanding** shall also be subject to the approval of the applicable water resource district if said **Relocation** includes locating **Utility** property or infrastructure above, beneath, or through **Water Resource District Infrastructure.** The **Utility** and **Metro Flood Diversion Authority** shall work together and obtain approval from the appropriate water resource district before final review and approval of the **Utility Adjustment Design Work**.

a. Other Requirements.

1. Manual Isolation Valves – Install new manual isolation valves for emergency closure that are consistent with the **Utility's** safety requirements in a location accessible by the **Metro Flood Diversion Authority** and the **Utility** to the west of the west **EMB** and to the east of the **IDF Line of Protection** for pressurized utility crossings (e.g., water, gas, and petroleum). Manual isolation valves may be placed outside of the **Project Property**. Provide security and protective features as required by the **Utility**.

2. Grouting – Where horizontal directional drilling is used, grout the annular space between the borehole and the casing with cementitious grout for fifty (50) linear feet from the end of the casing or pipe at the entrance and exit pits. Inject grout into the annular space at multiple points around the circumference of the pipeline throughout this 50-foot length. Install baskets or other devices on the pipeline just beyond the 50-foot length to prevent the grout from flowing more deeply into the hole, but completely fill the annular space between the basket and the ground surface. Limit grout pressure to the mud pressure used for the directional drill.

3. Install utility crossings inside a casing for at least fifteen (15) feet beyond both sides of the toe of the **IDF Line of Protection**. Limit casing pipe installations to those that can be joined together continuously (welded, glued, or fused joints) and maintain sufficient strength to resist the tensile stresses imposed during pullback operations. If it is not practical to terminate the casing on the diversion channel side of the **IDF Line of Protection**, use a casing for the entire diversion channel crossing. Provide proper support for the carrier pipe. If appropriate, use casing spacers to position and support the carrier pipe.

4. Casings are not required where the utility crosses above the **IDF Line of Protection** and restrained joints are used.

5. Unless installed using horizontal directional drilling, fill the annular space between the carrier pipe and casing with grout or foamed concrete.

6. Where horizontal directional drilling is used, seal the annular space between the carrier pipe and casing on each end with a non-porous expanding foam. Rubber boots and expanding plugs are not acceptable.

7. Crossing Identification – Install four (4) color-coded fiberglass service line marker posts for underground utilities at each crossing point. Install the marker posts at the perimeter of the **Project** right-of-way and on the offset bench area (if any) between the diversion channel and the **EMB**. Use markers (length seventy-two (72) inches; width four (4) inches) to identify service lines and underground facilities. In addition, install one (1) color-coded fiberglass service-line marker post immediately adjacent to each manual isolation valve or other buried appurtenance within the right-of-way.

8. Abandonment and Removal – Abandoned portions of existing utilities within the **Project Property** shall be removed and disposed of consistent with law and industry standards. This duty includes not only removal of utilities presently abandoned but those that will be replaced during the **Utility Relocation Project**.

Section 6.05 PROPOSALS AND PLANS. The **Metro Flood Diversion Authority** shall submit to the **Utility**, for each **Utility Adjustment**, a preliminary design submittal, a **Final Design Submittal**, and a **Construction Document Submittal** for review, comment, and approval by the **Utility**.

a. Preliminary Design Submittal. The **Metro Flood Diversion Authority** shall complete a preliminary design submittal to a minimum of approximately thirty percent (30%) level of design completion and define the basis of design for all aspects of each **Utility Adjustment** of the **Utility Relocation Project**. The preliminary design submittal shall include calculations demonstrating that the proposed configuration meets and satisfies the technical requirements contained herein. The preliminary design submittal shall also provide sufficient detail to demonstrate compliance with all design and construction requirements as described herein. All of the following should also be included in the preliminary design submittal:

1. A plan for completion of **Utility Adjustment Construction Work** including the intended sequence of **Utility Adjustment Construction Work**.

2. A plan describing how the **Metro Flood Diversion Authority** will coordinate with the **Utility** to ensure the **Utility** is informed of the commencement, progress, and completion of work**,** to avoid or limit service disruptions to **Utility** patrons, and to require and ensure that during **Utility Adjustment** the **Utility's** patrons will not have service to them disrupted for longer than eight hours. The plan shall also describe what constitutes completion of the **Utility Adjustment** so that the date of completion can be readily identified.

3. A schedule outlining start of construction, testing, outages, and completion dates.

b. Final Design Submittal. The **Metro Flood Diversion Authority** shall complete and provide to the **Utility** a **Final Design Submittal** including the information described in Section 6.05(a) as well as a plan for compliance with the terms of Section 13.24 (Service to Ethanol Plant), a completed design, an updated specifications content sheet, calculations verifying the design performance, geotechnical information, **Project** test and survey data, and all other related design and engineering reports, studies, and analyses. The **Final Design Submittal** shall also contain complete applicable technical specifications. In addition to the aforementioned information, the **Final Design Submittal** shall include:

1. **Utility** plan and profile alignments demonstrating conformance with the terms of this Section.

2. **Site** plans for the location of appurtenances and structures and **Utility** line markers.

3. When horizontal directional drilling is used, submittals and testing referenced in the design guidelines described or referenced in this **Memorandum of Understanding**.

4. A schedule with work breakdown structure that identifies utility outages, testing, and other critical dates.

5. Geotechnical calculations.

c. Construction Documents Submittal. The **Metro Flood Diversion Authority** shall complete and provide the **Utility** a **Construction Documents Submittal**. The **Construction Documents Submittal** shall include the final plans for construction, the **Final Design Submittal**, the final specifications content sheet, calculations detailing design performance, geotechnical information, **Project** test and survey data, and other related design and engineering reports, studies, and analyses. The **Construction Documents Submittal** shall incorporate and address review comments from the **Final Design Submittal** and describe each change made since submission of the **Final Design Submittal**. Upon completion of the **Construction Documents Submittal**, the **Metro Flood Diversion Authority** shall sign and seal the contents of the **Construction Documents Submittal** as required by applicable laws.

d. Review. The **Utility** shall complete a full review of each submittal and provide comments and/or approval.

1. The **Utility** may review and provide comment on any/every aspect of submittals. However, the **Utility's** approval or rejection of submittals shall be restricted to a determination of whether the submittal complies with the specifications and requirements set forth in this **Memorandum of Understanding** and the performance specifications provided by the **Utility**.

2. The **Utility** shall complete a full review and provide comments on submittals within twenty (20) **Business Days** of the date on which the **Utility** receives a full and complete submittal. Should the **Utility** determine that a submittal is not in compliance with the terms and specifications provided in this **Memorandum of Understanding**, and the **Metro Flood Diversion Authority** resubmits the submittal, the **Utility** shall review the submittal and respond within ten (10) **Business Days**. The **Utility's** review of the re-submittal shall be limited to the portions of the initial submittal deemed insufficient as well as any other portions of the submittal which have been amended or added since the initial submission. In the event that the **Utility** does not provide comments within the period prescribed

by this **Memorandum of Understanding**, the **Metro Flood Diversion Authority** shall provide written notice of the failure to respond. If the **Utility** does not respond within five (5) **Business Days** of receiving written notification, the submittal shall be deemed approved.

Section 6.06 OTHER APPROVALS. The **Metro Flood Diversion Authority** shall promptly apply for all **Other Approvals** necessary for the **Utility Relocation Project**. The **Utility** shall, to the best of its ability, advise the **Metro Flood Diversion Authority** on what **Other Approvals** are required and shall take reasonable steps to assist the **Metro Flood Diversion Authority** in acquiring **Other Approvals** at the request of the **Metro Flood Diversion Authority**.

Section 6.07 INITIATION OF UTILITY ADJUSTMENT CONSTRUCTION WORK. After the submittals required by Section 6.05 have been approved, subject to any notice requirements contained in this **Memorandum of Understanding**, the **Metro Flood Diversion Authority** may begin **Utility Adjustment Construction Work**.

Section 6.08 SHOP DRAWING AND SAMPLE SUBMITTALS. The **Metro Flood Diversion Authority** shall submit to the **Utility Shop Drawings and Samples** that detail the **Utility Adjustment Construction Work** to be performed by the **Metro Flood Diversion Authority** on the **Utility Relocation Project**. The **Utility** shall review the **Shop Drawings and Samples** in accordance with procedure and timelines in Section 6.05 for the review of submittals.

Section 6.09 ADJUSTMENTS TO THE PROJECT. Should the planned route of the SW**DCAI** change in a material manner, the **Utility** and **Metro Flood Diversion Authority** shall immediately interface to adjust plans for the **Utility Relocation Project** as necessary. The **Utility** shall be reimbursed for any **Costs** associated with such change in accordance with the terms of Sections 7.02, 7.03, and 7.04.

Section 6.10 ADJUSTMENT TO THE UTILITY ADJUSTMENT WORK. Any changes or modifications to the **Construction Documents Submittal** during construction that materially affect the performance of **Utility Adjustment Construction Work** will be subject to written approval by the **Utility**. The **Metro Flood Diversion Authority** will submit the proposed changes or modifications to the **Utility**. The **Utility** will provide approval or a written explanation of its specific objections to the changes or modifications within the timelines set forth in Section 6.05. The **Utility** shall be reimbursed for any **Costs** associated with such changes or modifications in accordance with the terms of Sections 7.02, 7.03, and 7.04.

Section 6.11 INSPECTION. The **Utility** and the **Metro Flood Diversion Authority** shall each conduct a final inspection of each **Utility Adjustment**.

Section 6.12 UTILITY COMPLETION. The **Metro Flood Diversion Authority** will provide the **Utility** with written notices of any anticipated **Utility Adjustment Completion** at least sixty (60) calendar days and fifteen (15) **Business Days** prior to the anticipated date for **Utility Adjustment Completion**. Within ten (10) **Business Days** of the anticipated date for **Utility Adjustment Completion**, the **Utility** and the **Metro Flood Diversion Authority** will conduct a final inspection of the **Metro Flood Diversion Authority's** portion of **Utility Adjustment Construction Work** to determine whether the **Utility Adjustment** meets the final design and any

changes or modifications made pursuant to Section 6.09 or 6.10. If the **Utility** finds the **Utility Adjustment Construction Work** is not in conformance with the final design or any approved changes or modifications, the **Utility** will notify the **Metro Flood Diversion Authority** of such fact and the **Metro Flood Diversion Authority** will correct such nonconformance and re-notify the **Utility** for inspection. Once the **Utility** finds a **Utility Adjustment** has reached **Utility Adjustment Completion**, the **Utility** will provide a certificate of **Utility Completion Acceptance**. The certificate does not relieve the **Metro Flood Diversion Authority** of any warranties it makes or that are implied or statutory and does not relieve the **Metro Flood Diversion Authority** of any obligation it has under either this **Memorandum of Understanding** or the law.

Section 6.13 WARRANTY. The **Metro Flood Diversion Authority** warrants that: (1) material used to complete the **Utility Adjustment Construction Work** and **Utility Relocation Project** will be new materials of good quality; (2) the **Utility Adjustment Construction Work** and **Utility Relocation Project** will conform to the submittals approved pursuant to this Article, except to the extent the **Utility** consents to deviations from said submittals; (3) the material used and workmanship of the **Utility Adjustment Construction Work** and **Utility Relocation Project** will be free from material defects causing a measurable change in the functionality of the **Utility's** facilities; and (4) the quality of the **Utility Adjustment Construction Work** and **Utility Relocation Project** shall be completed in a diligent and reasonably skillful workmanlike manner. These warranties continue for a period of forty-eight (48) months from the **Utility Completion Acceptance** of each **Utility Adjustment**. The **Metro Flood Diversion Authority** shall promptly remedy at its expense any violation of the warranties described above and any damages or injuries caused in satisfying the warranties, compensate the **Utility** for any damages or injuries the **Utility** incurs due to a warranty violation, and indemnify and hold harmless the **Utility** for any such damages or injuries.

Section 6.14 RECORD DRAWINGS. The **Metro Flood Diversion Authority** shall record and provide to the **Utility** the location and depth of each new or relocated pipe at fifty (50) yard intervals using the North American Datum of 1983 (NAD83) (NSRS2007), North Dakota State Plane Coordinate System, South Zone, and the North American Vertical Datum of 1988 (NAVD88) (GEOID09). The **Metro Flood Diversion Authority** shall provide to the **Utility**, in shapefile format (*.shp), data for the utility location and depth for incorporation into the **Utility's** GIS, and shall also provide to the **Utility** photographs of all appurtenances such as gate valves, fittings, and tie-ins.

ARTICLE VII.
REIMBURSEMENT OF COSTS

Section 7.01 NECESSITY TO KEEP COSTS REASONABLE. The **Utility** and **Metro Flood Diversion Authority** each recognize the need to minimize the costs of the **Utility Relocation Project**. The **Utility** and the **Metro Flood Diversion Authority** shall be diligent in keeping costs reasonable, while ensuring **Utility Adjustment Construction Work** is performed and completed in a quality manner in accordance with the submittals approved pursuant to Article VI and other provisions of this **Memorandum of Understanding**.

Section 7.02 GENERALLY. The **Metro Flood Diversion Authority** shall pay all costs it incurs regarding the **Project**, **Utility Adjustment**, **Utility Adjustment Work**, and the **Utility Relocation Project**. The **Metro Flood Diversion Authority** shall also reimburse the **Utility** all reasonable **Costs** the **Utility** has incurred since October 1, 2016, including those incurred in reviewing and negotiating this **Memorandum of Understanding**, and that the **Utility** will incur in carrying out, dealing with, and responding to matters directly related to the **Utility Adjustment**, **Utility Adjustment Work**, and **Utility Relocation Project**. **Costs** incurred by the **Utility** and payable or reimbursable by the **Metro Flood Diversion Authority** include those incurred for right-of-way acquisition, design work, engineering, construction, inspection, and monitoring (including inspecting and monitoring **Utility Adjustment**, **Utility Adjustment Work**, and the **Utility Relocation Project**), legal advice, administration, time spent by **Utility** employees, and insurance that would not have been necessary, obtained, or incurred absent the **Project**. Field personnel shall be billed at a rate of $75 per hour, administrator and supervisor time shall be billed at $90 per hour; both sums are inclusive of wages, overhead, mileage, etc. No additional sums or fees shall be billed, except as specifically provided otherwise herein. Nothing in this Section shall be read or interpreted to make the **Metro Flood Diversion Authority** responsible for **Costs** associated with **Betterments**. However, none of the work, changes, or replacements described in Exhibit 51 to this **Memorandum of Understanding**, nor anything else described in that exhibit, shall be considered a **Betterment**.

Section 7.03 REVIEW OF COSTS. For any **Costs** for which the **Utility** seeks reimbursement, the **Utility** shall submit a report or reports to the **Metro Flood Diversion Authority** setting out the amount and nature of the **Costs**. Within thirty (30) calendar days after receiving the **Utility's** report of **Costs**, the **Metro Flood Diversion Authority** shall provide a written response to the **Utility** stating whether it accepts or rejects any requested reimbursement. The **Metro Flood Diversion Authority** may only reject reported **Costs** to the extent that the Costs are unreasonable. Any rejection must be accompanied with an explanation for the rejection. The **Metro Flood Diversion Authority** shall pay **Costs** within ten (10) calendar days after it accepts the **Costs** for payment. Any failure by either the **P3 Developer** or **Metro Flood Diversion Authority** to make payments owed to the **Utility** when due under this **Memorandum of Understanding** shall have interest added to the amount owed at the annual rate of three percent (3%). Interest shall not be paid for any time period during which the reasonableness of a **Cost** is in dispute.

Section 7.04 APPEAL OF A DECISION TO REJECT COSTS. The **Utility** may appeal a decision rejecting any **Cost** by providing the **Metro Flood Diversion Authority** with written notice of the appeal from the rejection of **Costs** within twenty (20) calendar days of its receipt of the rejection notice described in Section 7.03. Within twenty (20) calendar days of receiving said notice of appeal, the **Metro Flood Diversion Authority** shall issue a final determination as to whether the rejected **Costs** are reasonable.

Section 7.05 BETTERMENTS. In no situation shall any **Party** other than the **Utility** be responsible for the **Costs** and expenses of **Betterments** installed during the **Utility Relocation Project.** However, none of the work, changes, or replacements described in Exhibit 51, nor anything else described in that exhibit, shall be considered a **Betterment**.

ARTICLE VIII.
THIRD-PARTY

Section 8.01 P3 DEVELOPER RIGHTS - INDEMNIFICATION. The **Metro Flood Diversion Authority** and **Utility** specifically agree, acknowledge, and covenant that the **P3 Developer** selected to build the **SWDCAI** under the **Project Agreement** is an intended third-party beneficiary of this **Memorandum of Understanding** and may enforce the terms and conditions of this **Memorandum of Understanding** including securing a court judgment against the **Utility** to perform its obligations under this **Memorandum of Understanding**. In addition to the foregoing, the **P3 Developer** shall have all other rights available to it at law or in equity, and all of the rights and remedies provided hereunder are deemed cumulative and not exclusive of any right or remedies. The **Metro Flood Diversion Authority** may assign any of its rights, responsibilities, or obligations under this **Memorandum of Understanding** to the **P3 Developer**. If the **Metro Flood Diversion Authority** does so assign, it shall promptly inform the **Utility**, and if the **P3 Developer** fails to fulfill any duty, obligation, or requirement under this **Memorandum of Understanding** that the **Metro Flood Diversion Authority** would be required to fulfill had it not assigned, the **Metro Flood Diversion Authority** remains responsible for fulfilling and shall fulfill any such duty, obligation, or requirement.

Section 8.02 PROPERTY OWNERS – INDEMNIFICATION. If, on **Project Property**, the owner of the property on which the **Relocation** occurs asserts that the **Relocation** constitutes a trespass or other interference with the owner's property rights, the **Metro Flood Diversion Authority** and **Utility** specifically agree, acknowledge, and covenant that the **Metro Flood Diversion Authority** will indemnify the **Utility** for all attorney fees and legal costs it incurs in addressing the owner's claim, including litigating them; all court-ordered costs and damages the **Utility** pays regarding the claim; and all payments the **Utility** makes to settle the claim, provided the **Metro Flood Diversion Authority** has agreed in advance of the settlement to pay the amount proposed in the settlement.

ARTICLE IX.
FUTURE RIGHTS AND RESPONSIBILITIES

Section 9.01 USE WITHIN THE PROJECT PROPERTY. The **Utility's** use of property rights, regardless of whether initially acquired by the **Metro Flood Diversion Authority** or the **Utility** shall be subject to the following restrictions:

a. Maintenance of Utility Property. Following completion of the **Utility Relocation Project**, the **Utility** shall be responsible for all maintenance of **Utility** property and associated infrastructure. The **Metro Flood Diversion Authority** shall maintain the vegetative or other cover within the **Project Property**.

b. Post-Construction Access. Following completion of the **Utility Relocation Project**, the **Utility** shall provide the **Metro Flood Diversion Authority** with seven (7) calendar days' prior written notice of any maintenance it intends to do within the **Project Property**. In the event of an emergency or malfunction of **Utility** property, the **Utility** may perform reasonable non-ground disturbing maintenance without meeting the notice requirements of this subsection. Before

exercising this right, the **Utility** shall, if time and circumstances allow, attempt to notify the **Metro Flood Diversion Authority**. If the **Utility** exercises the rights given in this subsection, it shall promptly submit to the **Metro Flood Diversion Authority** a report explaining the action taken.

c. Approval for Ground Disturbing Maintenance or Repairs. The **Utility** must request and obtain approval from the **Metro Flood Diversion Authority** for any and all plans for maintenance or repair that requires the ground within the **Project Property** to be disturbed. Approval shall not be unreasonably withheld by the **Metro Flood Diversion Authority**. To the extent the **Utility** and the **Metro Flood Diversion Authority** agree in writing, certain ground disturbing maintenance may be exempted from the approval requirements of this Section.

d. Clean Up. The **Utility** shall ensure that after any maintenance or repairs to **Utility** property, the ground within the **Project Property** is returned to the state in which it existed prior to the maintenance or repair that caused the ground within the **Project Property** to be disturbed.

e. Metro Flood Diversion Authority Access. In the event that **Utility** property malfunctions, destructs, or otherwise begins to cause on-going damage to the **SWDCAI**, the **Metro Flood Diversion Authority** shall have the authority to access the damage-causing **Utility** property or facility within the **Project Property** and take any action necessary to stop on-going damage to the **SWDCAI**. Before exercising this right, the **Metro Flood Diversion Authority** shall, if time and circumstances allow, attempt to notify the **Utility** of the problem and coordinate a response with the **Utility**. If the **Metro Flood Diversion Authority** exercises the access right given in this Section, it shall promptly submit to the **Utility** a report explaining the action taken.

f. Access. The **Metro Flood Diversion Authority** shall have unrestricted access in, over, and across the Project Property, without regard to existence of an easement, license, permit, or right-of-way granted to **Utility** within the Project Property.

g. Damage to the SWDCAI. Should **Utility** property malfunction, deconstruct, or otherwise cause damage to the **SWDCAI**, the **Utility** shall take immediate action to stop on-going damage to the **SWDCAI** and repair all damage that occurs.

h. Abandonment. Should the **Utility** abandon or remove a utility line within the Project Property and fail to replace the line within three (3) years of removal, the **Utility** shall forfeit and the right to replace it.

Section 9.02 USE OF EXISTING EASEMENT. In the event **Utility** property is **Relocated** within the **Utility's** currently-existing easement, the **Utility** and **Metro Flood Diversion Authority** shall be bound by the requirements and obligations contained in Article IX. The requirements of this Section shall survive so long as the **Utility** has property located within the **Project Property**.

Section 9.03 RECORD KEEPING. The **Utility** shall maintain or cause to be maintained (by way of contract and enforcement of such contract) a complete set of records detailing all **Costs** it incurs in the **Utility Relocation Project**.

Section 9.04 FUTURE PERMITS. Should the **Utility** file a formal permit application with the **Metro Flood Diversion Authority** after the **Effective Date**, pertaining to a **Utility** line **Relocated** pursuant to this **Memorandum of Understanding**, the **Metro Flood Diversion Authority** shall grant, at no cost to the **Utility**, the permit application so long as the permit application meets all reasonable requirements listed in the instructions to said permit application and the proposed action regarding the line would not unreasonably risk harm to the **SWDCAI** or interfere with other facilities already contained within the **Project Property**, as determined by the **Metro Flood Diversion Authority**. Should, within the **Project Property**, the **Utility** desire after the **Effective Date** to modify a pipeline that was not **Relocated,** to add a new pipeline, or modify or add to existing infrastructure, the **Metro Flood Diversion Authority**, in its sole discretion, reasonably exercised, shall determine whether the modification or addition is allowed under a previously existing permit or whether the modification or addition is significant enough in its nature or effect to require the **Utility** to apply for a new permit, which the **Metro Flood Diversion Authority** shall grant so long as the permit application meets all reasonable requirements listed in the instructions to said permit application and the modification or addition would not unreasonably risk harm to the **SWDCAI** or interfere with other facilities already contained within the **Project Property**, as determined by the **Metro Flood Diversion Authority**.

Section 9.05 DAMAGE TO THE UTILITY. Should any part of the **Comprehensive Project** or **SWDCAI** malfunction, deconstruct, or otherwise cause damage to property owned by the **Utility**, the **Metro Flood Diversion Authority** shall take reasonable action to stop on-going damage to the **Utility's** property as soon as reasonably possible and repair all damage resulting from said malfunction or deconstruction or other related cause.

Section 9.06 LOCATION OF PROJECT PROPERTY BOUNDARIES. Following completion of the **Utility Relocation Project**, the **Metro Flood Diversion Authority** shall provide to the **Utility** information sufficient to allow the **Utility** to readily identify the boundaries of the **Project Property**.

ARTICLE X.
COORDINATION WITH CONTRACTORS AND OTHER THIRD PARTIES

Section 10.01 DISPUTES. The **Parties** shall coordinate with respect to any dispute with third parties. Such coordination shall include any potential or ongoing litigation.

Section 10.02 COORDINATION WITH USACE. All communication and coordination between the **Utility** and **USACE** regarding the **Comprehensive Project** or any other subject-matter referenced in or related to this **Memorandum of Understanding** shall run through the **Metro Flood Diversion Authority.** Under no circumstances shall the **Utility** communicate directly with the **USACE** regarding any aspect of the **Comprehensive Project** or any other subject-matter referenced in or related to this **Memorandum of Understanding**, without the prior written authorization of the **Metro Flood Diversion Authority**. The **Metro Flood Diversion**

Authority shall keep the **Utility** reasonably informed about its communications to and from the **USACE** regarding the relocation of **Utility's** property.

ARTICLE XI.
DISPUTES AMONG THE UTILITY, P3 DEVELOPER, AND METRO FLOOD DIVERSION AUTHORITY

Section 11.01 INTENT AND PROCEDURE. The **Parties** shall cooperate and use their **Best Efforts** to ensure that the provisions of this **Memorandum of Understanding** are fulfilled. The **Parties** agree to act in **Good Faith** to undertake resolution of disputes in an equitable and timely manner and in accordance with the provisions of this **Memorandum of Understanding**. If disputes cannot be resolved informally by the **Parties** or under other, situation-specific dispute resolution mechanisms contained herein, the following procedure shall be used.

Section 11.02 MEDIATION. If the **Parties** fail to resolve a dispute on their own, the **Parties** shall first attempt to mediate the dispute. The **Parties** shall agree upon a single mediator, or, if they cannot agree on a mediator, the **Parties** shall select a mediator from the North Dakota Statewide ADR Neutral Roster of Mediators maintained by the State Court Administrator by alternately striking names until one remains. Mediators who focus primarily on family law matters shall not be included on the initial list of mediators. The **Metro Flood Diversion Authority** shall strike the first name, followed by the **Utility**, until one name remains.

Section 11.03 LITIGATION IF DISPUTE NOT RESOLVED. If the dispute is not resolved within thirty (30) days after the end of mediation proceedings, the **Parties** may litigate the matter.

Section 11.04 LEGAL FEES. Each **Party** will be responsible for their own attorney's fees in connection with a dispute under this **Memorandum of Understanding**.

Section 11.05 WAIVER OF JURY TRIAL. THE **PARTIES** HEREBY KNOWINGLY, IRREVOCABLY, VOLUNTARILY, AND INTENTIONALLY WAIVE ANY RIGHTS THAT ANY MAY HAVE TO A TRIAL BY JURY WITH RESPECT TO ANY ACTION, PROCEEDING, COUNTERCLAIM, OR DEFENSE BASED ON THIS **MEMORANDUM OF UNDERSTANDING**, OR ARISING OUT OF, UNDER, OR IN ANY CONNECTION WITH THIS **MEMORANDUM OF UNDERSTANDING**, OR WITH RESPECT TO ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN), OR ACTIONS OF ANY **PARTY** HERETO RELATING TO THIS **MEMORANDUM OF UNDERSTANDING**. THIS PROVISION IS A MATERIAL INDUCEMENT FOR ALL **MEMBER ENTITIES** ENTERING INTO THIS **MEMORANDUM OF UNDERSTANDING**. THIS PROVISION APPLIES ONLY TO SUITS BETWEEN THE **UTILITY**, **P3 DEVELOPER**, AND **METRO FLOOD DIVERSION AUTHORITY** ARISING OUT OF OR RELATED TO THIS **MEMORANDUM OF UNDERSTANDING** AND DOES NOT APPLY TO THIRD-PARTY CLAIMS OR SUITS BY OR ON BEHALF OF THE **PARTIES** FOR **PROJECT PROPERTY** ACQUISITION AND/OR CONSTRUCTION CONTRACT CLAIMS AND DEFENSES.

ARTICLE XII.
USE OF EMINENT DOMAIN

Section 12.01 EMINENT DOMAIN. Nothing in this **Memorandum of Understanding** shall be construed as limiting the **Metro Flood Diversion Authority's**, or one of its **Member Entity's**, ability to exercise its powers of eminent domain.

Section 12.02 NULLIFICATION BY EMINENT DOMAIN. Should the **Metro Flood Diversion Authority** initiate eminent domain proceedings against the **Utility** to accomplish the goals of the **Utility Relocation Project**, the terms of this **Memorandum of Understanding** shall be null and void at the option of the **Metro Flood Diversion Authority**. However, the **Metro Flood Diversion Authority** will initiate eminent domain proceedings against the **Utility** only if: (1) the **Utility** has failed to fulfill a duty under this **Memorandum of Understanding** and that failure has or is likely to cause material and substantial disruption to timely completion of the design or construction of the **SWDCAI**; and (2) the **Metro Flood Diversion Authority** has given the **Utility** at least fourteen (14) days written notice of its intent to initiate eminent domain proceedings and the **Utility** has failed within those fourteen (14) days to fulfill its duty or to make substantial progress in doing so.

Section 12.03 NULLIFICATION AFTER COSTS INCURRED. Should the terms of this **Memorandum of Understanding** be nullified under Section 12.02 or terminated under Section 13.23, after the **Utility** has commented on the preliminary design submittal described in Section 6.05, the **Utility** shall, within thirty (30) days of being notified of the nullification or termination, submit a report of its **Costs** to the **Metro Flood Diversion Authority** in the same manner it would have submitted a report of **Costs** had the **Utility Relocation Project** been completed. In the event of nullification or termination, the **Utility** and the **Metro Flood Diversion Authority** shall have all of the rights and obligations created by Articles VI and VII.

ARTICLE XIII.
MISCELLANEOUS

Section 13.01 NOTICE. All notices under the **Memorandum of Understanding** will be in writing and: (a) delivered personally; (b) sent by certified mail, return receipt requested; (c) sent by a recognized overnight mail or courier service, with delivery receipt requested; or (d) sent by facsimile or email communication followed by a hard copy and with receipt confirmed by telephone or return receipt (in the case of email communication), to the following addresses:

a. All notices to the **Metro Flood Diversion Authority**, including **Project** correspondence, submittals, and samples will be marked as regarding the **Project** and will be delivered to the following address or as otherwise directed by the **Metro Flood Diversion Authority's** authorized representative:

   Jacobs Engineering Group, Inc.
   64 4th Street N, Suite 300
   Fargo, North Dakota 58102

   and

Metro Flood Diversion Authority
Attention: Executive Director
207 4th Street N, Suite A
Fargo, North Dakota 58102

b. All legal notices to the **Metro Flood Diversion Authority**, in addition to being provided to the **Metro Flood Diversion Authority's** representative as provided above, will also be provided to the Executive Director at the following address or as otherwise directed in writing by the **Metro Flood Diversion Authority's** representative:

Metro Flood Diversion Authority
Attention: Executive Director
207 4th Street N, Suite A
Fargo, North Dakota 58102

And

APInvoicesFMDiv@jacobs.com
PaulsenJ@FMDiversion.gov

c. All notices to the **Utility** will be marked as regarding the **Project** and will be delivered to the following address or as otherwise directed in writing by the **Utility's** authorized representative:

Cass Rural Water Users District
131 Maple Street
P.O. Box 98
Kindred, ND 58051

d. Notices will be deemed received when actually received in the office of the addressee (or by the addressee if personally delivered) or when delivery is refused, as shown on the receipt of the U.S. Postal Service, private courier, or other person making the delivery. Notwithstanding the foregoing, notices sent by facsimile after 4:00 p.m. Central Time and all other notices received after 5:00 p.m. Central Time will be deemed received on the first **Business Day** following delivery.

Section 13.02 WORKERS' COMPENSATION. Each **Party** shall be financially responsible for injuries or deaths of its own personnel and, to carry out this duty, each **Party** will maintain workers' compensation insurance covering its own personnel while they are performing any activities contemplated by this **Memorandum of Understanding**. Each **Party** shall require that each independent contractor or sub-contractor they hire to perform any activities contemplated by this **Memorandum of Understanding** shall be required to maintain workers compensation insurance covering that contractor's personnel while they are performing any activities contemplated by this **Memorandum of Understanding**. A **Party**, if requested by the other **Party**, shall provide documentation showing that this Section's requirements for maintaining workers

compensation insurance are being or have been complied with. Each **Party** waives the right to pursue a legal action against one another for any workers' compensation benefits paid to its own employee or volunteer or their dependents, even if the injuries are caused wholly or partially by the negligence of any other **Party** or its officers, employees, or volunteers.

Section 13.03 INSURANCE.

a. The **Utility** shall list the **Metro Flood Diversion Authority**, **CCJWRD**, and **P3 Developer** as additional insureds on any insurance policy obtained in connection with the **Project**. Promptly after the **Effective Date** and also upon renewal of its policy, the **Utility** shall provide to the **Metro Flood Diversion Authority** and **P3 Developer** a certificate of insurance listing the **Metro Flood Diversion Authority** and **P3 Developer** as additional insureds under the policy obtained by the **Utility**.

b. The **Metro Flood Diversion Authority** shall list the **Utility** as an additional insured on any insurance policy it obtains in connection with the **Project**. Promptly after the **Effective Date** and also upon renewal of its policies, the **Metro Flood Diversion Authority** shall provide to the **Utility** certificates of insurance listing the **Utility** as an additional insured under the policies obtained by the **Metro Flood Diversion Authority**. The duty to list an additional insured requires that the additional insured be included under the following coverages, commercial general liability, automobile liability, and excess liability, for liability or loss arising out of or in any way associated with any act, error, omission, or product of the insuring party, its directors, officers, workforce, contractors, or anyone else for whose actions or products the insuring party may be held responsible, with coverage to an additional insured at least as broad as the policy provides to the insuring party.

c. Certificates of insurance required under this Section shall contain sufficient information to show that the endorsements, coverages, and insurance amounts required by this Section are in force. If requested by an additional insured, the insuring party shall provide to the additional insured a copy of the endorsement to its insurance policy that implements the requirements of this Section and shall also provide, if requested, a copy of the insurance policy itself.

d. An additional insured shall be given notice at least thirty (30) days before an insurance policy on which it is an additional insured is canceled or allowed to expire or materially amended or changed. In the event that the policy is terminated for any reason and notice has not been previously given to the additional insureds, the formerly insured shall give notice to the additional insureds as soon as is reasonably possible.

e. The **Utility, Metro Flood Diversion Authority**, and **P3 Developer** shall each obtain a general liability insurance policy providing no less than two million dollars ($2,000,000) of coverage in connection with the **Project**.

f. The insurance obligations under this Section are separate and distinct from any obligations, including indemnification obligations, imposed by this **Memorandum**

of Understanding. Carrying insurance as required under this Section does not relieve the **Utility**, the **Metro Flood Diversion Authority**, or the **P3 Developer** of any other obligations they may have under this **Memorandum of Understanding**.

Section 13.04 INDEMNIFICATION. The **Metro Flood Diversion Authority** shall indemnify, save, and hold the **Utility**¸ a political subdivision of the state of North Dakota, its member entities, directors, officers, employees, and agents harmless from any liability, loss, damage, or expense, including legal fees, arising out of the negligent performance of the **Metro Flood Diversion Authority's** obligations under this **Memorandum of Understanding** and arising out of any intentional acts or negligence in the construction, operation, and maintenance of the **Comprehensive Project** and **SWDCAI**. This duty to indemnify, save, and hold harmless extends not only to acts and negligence by the **Metro Flood Diversion Authority**, but also to acts and negligence by anyone for whom the **Metro Flood Diversion Authority** is in law responsible, including the **P3 Developer** and other agents and contractors of the **Metro Flood Diversion Authority**. The **Parties** shall cooperate with each other in the defense of any such action, including providing each other with prompt notice of any such action and providing all material documentation. The **Parties** have a right to retain their own counsel to conduct a full defense of any such action.

Section 13.05 NO LIABILITY LIMITATIONS. Nothing contained in this **Memorandum of Understanding** shall be deemed a waiver by either **Party** of any limitations on liability set forth in any statute, including N.D.C.C. § 32-12.1-03, as any such statutes may be amended from time to time, or a waiver of any available immunities or defenses.

Section 13.06 RELATIONSHIPS CREATED. This **Memorandum of Understanding** does not create any agency, partnership, joint venture, or any other relationship between the **Parties**. The **Utility** is solely responsible for its own actions or omissions and the **Metro Flood Diversion Authority** is solely responsible for its own actions or omissions.

Section 13.07 GOVERNING LAW. This **Memorandum of Understanding** shall be controlled by the laws of the State of North Dakota. Any action brought as a result of any claim, demand, or cause of action arising under the terms of this **Memorandum of Understanding** shall be venued in Cass County in the State of North Dakota, and the **Parties** waive any objection to personal jurisdiction.

Section 13.08 CONFLICT. In the event of a conflict between this **Memorandum of Understanding** and any other agreement between the **Parties**, this **Memorandum of Understanding** shall control and govern the relocation of **Utility** infrastructure, lines, and property for purposes of the **SWDCAI**, but not the relocation of **Utility** infrastructure, lines, and property for purposes of the **SEAI**.

Section 13.09 SEVERABILITY. Each provision, section, sentence, clause, phrase, and word of this **Memorandum of Understanding** is intended to be severable. If any provision, section, sentence, clause, phrase, and word hereof is held by a court with jurisdiction to be illegal or invalid for any reason whatsoever, such illegality or invalidity shall not affect the validity of the remainder of this **Memorandum of Understanding**.

Section 13.10 MODIFICATIONS. Any modifications or amendments to this **Memorandum** must be in writing and signed by both **Parties** to this **Memorandum of Understanding**.

Section 13.11 BINDING EFFECT. This **Memorandum of Understanding** shall be binding upon and inure to the benefit of the **Parties** hereto and their respective personal representatives, successors, and assigns.

Section 13.12 REPRESENTATION. The **Parties**, having been represented by counsel or having waived the right to counsel, have carefully read and understand the contents of this **Memorandum of Understanding**, and agree they have not been influenced by any representations or statements made by any other parties.

Section 13.13 HEADINGS. Headings in this **Memorandum of Understanding** are for convenience only and will not be used to interpret or construe its provisions.

Section 13.14 COUNTERPARTS. This **Memorandum of Understanding** may be executed in counterparts, each of which shall be deemed to be an original but all of which taken together shall constitute one and the same agreement and shall become effective when one or more counterparts have been signed by each of the **Parties** and delivered to the other **Party**.

Section 13.15 REPRESENTATION OF AUTHORITY. Each **Party** signing this **Memorandum** represents and warrants that he or she is duly authorized and has legal capacity to execute and deliver this **Memorandum of Understanding** and that the **Memorandum of Understanding** is a valid and legal agreement binding on such **Party** and enforceable in accordance with its terms.

Section 13.16 FEES. The fees provided for in Sections 3.05 and 5.03 shall not be interpreted or deemed to be the **Metro Flood Diversion Authority's** sole source of recovery for damages in any way arising from or related to **Utility's** delay, actions, or failure to act. The **Metro Flood Diversion Authority** shall have all remedies available to it at law in addition to any fees paid to the **Metro Flood Diversion Authority** by **Utility** pursuant to this **Memorandum of Understanding**.

Section 13.17 ELECTRONIC SIGNATURES. The parties acknowledge and agree that this **Memorandum of Understanding** may be executed by electronic signature, which shall be considered an original signature for all purposes and shall have the same force and effect as an original signature.

Section 13.18 FEDERAL LOBBYING RESTRICTIONS. Recipients of federal financial assistance may not pay any person for influencing or attempting to influence any officer or employee of a federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress with respect to the award, continuation, renewal, amendment, or modification of a federal grant, loan, or contract. These requirements are implemented for US EPA in 40 CFR Part 34, which also describes types of activities, such as legislative liaison activities and professional and technical services, which are not subject to this prohibition. Upon award of this contract, **Utility** shall complete and submit to the **Metro Flood Diversion Authority** the certification and disclosure forms in Appendix A and Appendix B to 40 CFR Part 34, which

are attached as Exhibits to this **Memorandum of Understanding**. **Utility** shall also require all subcontractors and suppliers of any tier awarded a subcontract over $100,000 to similarly complete and submit the certification and disclosure forms pursuant to the process set forth in 40 CFR 34.110.

Section 13.19 DEBARMENT AND SUSPENSION. **Utility** certifies that it will not knowingly enter into a contract with anyone who is ineligible under the 40 CFR Part 32 to participate in the **Project**. Suspension and debarment information can be accessed at http://www.sam.gov. **Utility** represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its subcontracts under this **Memorandum of Understanding**. Upon award of this contract, **Utility** shall complete and submit to the **Metro Flood Diversion Authority** the federal certification form regarding debarment and suspension, which is attached as an Exhibit to this **Memorandum of Understanding**.

Section 13.20 CIVIL RIGHTS OBLIGATIONS. **Utility** shall comply with the following, federal non-discrimination requirements:

a. Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, and national origin, including limited English proficiency (LEP);

b. Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination against persons with disabilities;

c. The Age Discrimination Act of 1975, which prohibits age discrimination;

d. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex;

e. FR Part 7, as it relates to the foregoing; and

f. Executive Order No. 11246.

Section 13.21 AMERICAN IRON AND STEEL. The **Utility** acknowledges to and for the benefit of the **Metro Flood Diversion Authority** and the United States Environmental Protection Agency ("EPA") that it understands the goods and services under this **Memorandum of Understanding** are being funded with monies made available by the Water Infrastructure Finance and Innovation Act program of the EPA that has statutory requirements commonly known as "American Iron and Steel" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the **Utility** pursuant to this **Memorandum of Understanding**. **Utility** hereby represents, warrants, and covenants to and for the benefit of the **Metro Flood Diversion Authority** and the EPA that:

a. the **Utility** has reviewed and understands the American Iron and Steel Requirement;

b. all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved; and

c. the **Utility** will provide any further verified information, certification, or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the **Metro Flood Diversion Authority** or the EPA.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the **Utility** shall permit the **Metro Flood Diversion Authority** or the EPA to recover as damages against the **Utility** any loss, expense, or cost (including without limitation attorney's fees) incurred by the **Metro Flood Diversion Authority** or the EPA resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the EPA or any damages owed to the EPA by the **Metro Flood Diversion Authority**). While the **Utility** has no direct contractual privity with the EPA, as a lender to the **Metro Flood Diversion Authority** for the funding of its project, the **Metro Flood Diversion Authority** and the **Utility** agree that the EPA is a third-party beneficiary and neither this paragraph (nor any other provision of this **Memorandum of Understanding** necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the EPA.

Section 13.22 CERTIFICATION. **Utility** shall complete and submit to the **Metro Flood Diversion Authority** the federal certification form regarding civil rights, which is attached as an Exhibit to this **Memorandum of Understanding**.

Section 13.23 TERMINATION. This **Memorandum of Understanding** may be terminated by the **Metro Flood Diversion Authority**, at any time and for any reason, upon written notice delivered to the **Utility**. If this **Memorandum of Understanding** is terminated, Section 12.03 applies to allow the **Utility** the right to recover its **Costs**.

Section 13.24 SERVICE TO ETHANOL PLANT. The Tharaldson Ethanol Plant, located at Casselton, North Dakota, is a customer of the **Utility**. The plant's operations require a continuous supply of water. The plant shuts down for maintenance twice a year, typically in the spring and autumn, for approximately seven (7) calendar days. Two water pipelines that serve the plant are subject to **Relocation** and part of the **Utility Adjustment**. **Relocation** of these pipelines will disrupt service to the plant. To ensure the plant has a continuous supply of water when it is in operation, any **Relocation** work that would disrupt service to the plant shall be conducted only during one of the plant's twice-a-year maintenance shutdown periods.

(Signatures appear on the following pages.)

IN WITNESS WHEREOF, the **Parties** executed this **Memorandum of Understanding** on the date first written above.

METRO FLOOD DIVERSION AUTHORITY

BY: _____
Dr. Timothy Mahoney, Chair

BY: _____
Joel Paulsen, Executive Director

CASS RURAL WATER USERS DISTRICT

BY: _____
Jon Zuther, Chairman

BY: _____
Barry Bowman, Secretary/Treasurer

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EXHIBITS 1- 49

RIGHT-OF-WAY DOCUMENTS

EXHIBIT 50

MAP

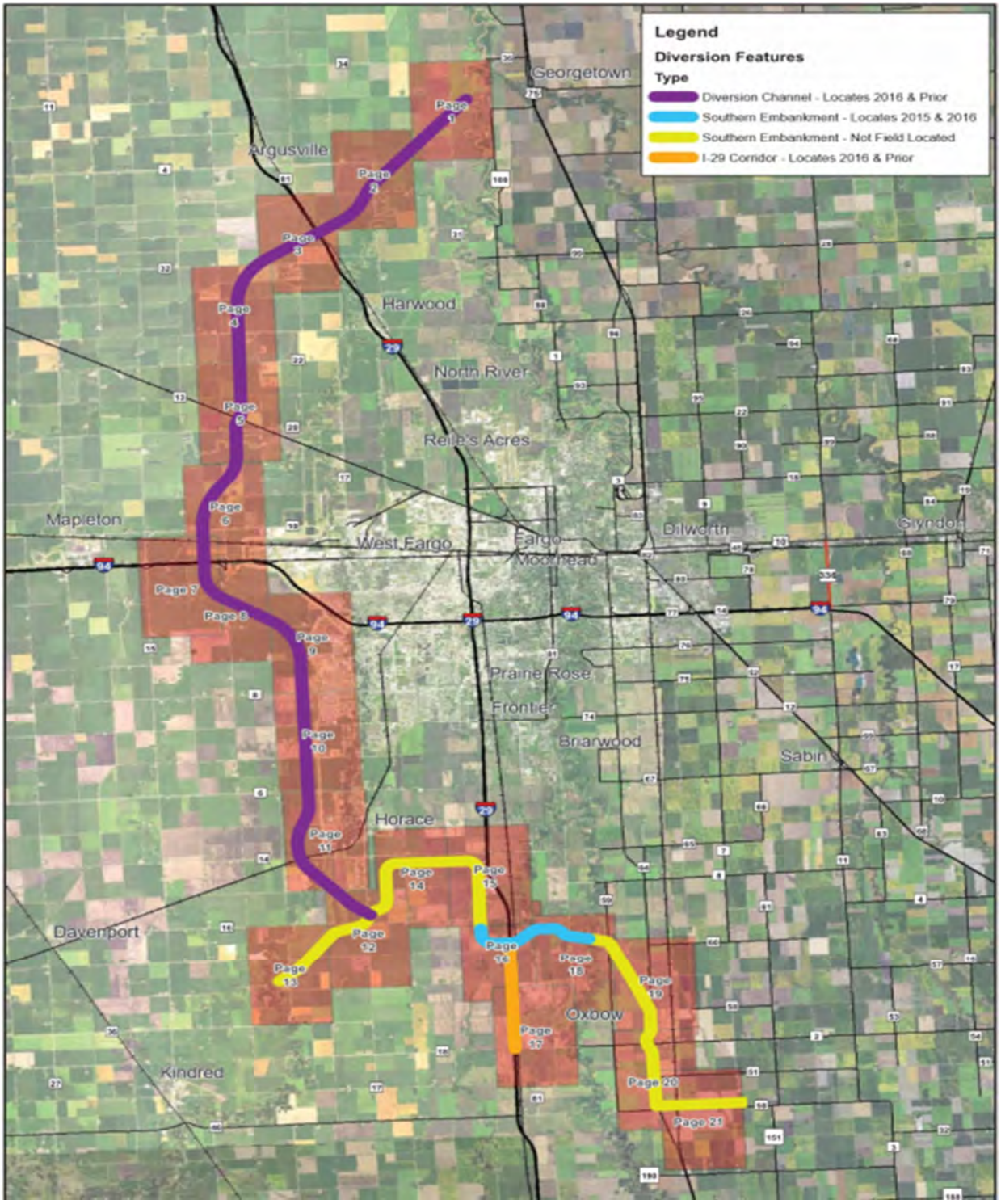

EXHIBIT 51
UTILITY ADJUSTMENT SCOPE OF WORK

Diversion Channel Station	Existing Crossing Type	Replace / Consolidate / Retire
55+00	1.5" line	Retire and remove
84+03	3” line	Replace with 6" line
153+81	1.5" line	Replace with 2" line
204+16	2” line	
304+98	1.5" line	Retire and remove, and connect building from 8" line at ST 309+20
309+20	6” line	Replace with 8" line
570+25	1.5” line	Replace with 2" line
677+85	1.5” line	Replace with 2" line
679+23	8” Line	Replace
679+32	12” line	Replace
851+00	8" line	Replace with 10" line
900+00	1.5" & 8" lines	Cap existing 1.5” line on each side of DA ROW. Connect existing 1.5” line to the new 6” line under I-94 West of the Channel.
905+00	1.5" & 8" lines	Retire and remove 1.5" line on south side of I-94. Replace with 6" line. Six-inch line shall connect to 8" line on east side of the diversion channel and the disconnected portion of the 1.5” line on the west side of the diversion channel. Also connect to the new 6” under I-94
962+00	1.5", 8” line	Cap existing 1.5” line at Reservoir Site D and also west of the DA ROW where the line crosses N/S under 38th St. SE east of 166th Avenue SE. Connect existing 1.5” on south side of 38th St. SE to new 6” line on south side of I-94 with new 4” along 166th Avenue SE from 38th St. SE to I-94 (1 mile). This new 4” line will cross under proposed Drain 14
978+00	6" line	Replace with 8" line
1119+00	6" line	Replace with 8" line
1171+00	6” line	Retire and remove
1198+00	8" line	Replace with 10" line
1331+00	6" Line	Replace with 8" line
1508+00	3" line	Retire and remove

EXHIBIT 52

UTILITY DESIGN AND CONSTRUCTION STANDARDS

Application of Cass Rural Water District Standard Specifications

This Specification is based upon the *Cass Rural Water* Standard Specifications including applicable Reference Documents, all subject to Section 1.3 (PART A – PRELIMINARY) of the Project Agreement and with the following amendments:

a) Standard Specifications requirements related to design and submission requirements and quality assurance do not apply to this Project;

b) specifications related to equipment for performing the works do not apply, except by agreement with the Authority;

c) Sections of the Standard Specifications that are not applicable to this form of agreement, such as bidding requirements, contract award and execution and payment terms do not apply;

d) any and all references to “approval by” the Contractor or other such reference in the Standard Specifications, in terms of acceptance of materials, permission to proceed, work methodology or end product, shall be construed as being the responsibility of Developer in accordance with the Project Agreement, but each such instance shall be in consultation with the Authority. The Authority shall retain the right to object to the submission as set out in the Project Agreement.

To the extent not otherwise provided for in the Project Agreement, the Developer shall consult with the Authority to determine which Standard Specifications submissions are to be submitted.

SECTION 01015 SPECIAL PROVISIONS

A. General

In addition to all the project plans and specifications, Contractor shall abide by all federal, state, and local laws, including but not limited to adherence to the Great Lake – Upper Mississippi River Board's 10 State Standards, the North Dakota Department of Environmental Quality recommendations and regulations, the North Dakota Department of Health recommendation and regulations, and any other regulatory agencies.

B. Aggregate Surfacing

Any aggregate surfacing restoration shall have a compacted thickness equal to the existing surfacing, but in no case less than three inches and meet local road department aggregate recommendation/specification for criteria of use.

C. Traffic Control

Install barricades, lights, etc. at all potentially dangerous locations. The traffic control and signing shall be in conformance with the latest edition of the M.U.T.C.D.

D. Haul Roads

Ensure that no overloading of roads occurs. Ensure that no city, township, county, state or other restrictions are violated. Become familiar with all local regulations before starting construction. Any road damaged shall be repaired to the original condition at the Contractor's expense.

E. Existing Property Improvements

Exercise care to minimize damage to existing property improvements. Damage to existing improvements due to carelessness shall be repaired at the Contractor's expense. Improvements which must be removed and replaced to facilitate advancement of construction shall be done only after approval by the Engineer and an extra order for replacement cost agreed upon.

F. Utility Location and Protection

Coordinate with all utility companies for location of buried utilities prior to excavation. All measures necessary to locate and protect utilities during construction shall be taken. Damage to utilities resulting from construction activities shall be the sole responsibility of the Contractor performing the Work and be repaired at such Contractor's expense.

END OF SECTION

SECTION 01340 RECORD DRAWINGS AND SHOP DRAWINGS

A. Record Drawings

Maintain on the site and in good condition a complete set of blueline drawings, which include modifications made by addenda, staking changes, field orders, change orders, addendum drawings, clarification drawings, and any other drawings which are a part of the Contract Documents. After each portion of work is completed, mark upon these drawings, neatly and legibly, and in red ink any variances from the original design. Prepare additional plans, elevations, sections or details necessary to clearly show the construction. Make drawings to scale and provide all dimensions, notes and callouts which would be necessary for construction of that portion of the work. Turn over all drawings to the Owner's Representative upon completion of the project. Quality and completeness of the records must be such that the Engineer can accurately transfer the information to the Contract Drawing originals. The Contractor shall also be responsible for updating and keeping current all drawings utilized by construction personnel to complete the Project.

B. Shop Drawings

Submit shop drawings in accordance with the Standard EJCDC General Conditions and the following:

1. Where materials, equipment, apparatus or other products are specifically designated by manufacturer, brand name, type or catalog number, such designation is to establish standards of desired quality and style. Where materials are so specified, it is understood to imply or approved equal.

2. Certification that the proposed material meets the Use of American Iron & Steel (AIS) provision of the Consolidated Appropriations Act, 2014. Documentation must be provided on company letterhead using the appropriate Sample Certification for AIS or Sample Step Certification for AIS letter template included at the end of this section.

3. Prior to submittal to the Owner's Representative for review, the Contractor shall fully review the items to be submitted. **Shop drawings not containing the Contractor's mark of approval will be returned un-reviewed.** The Contractor's approval shall be evidenced by a stamp on the shop drawings or a certification on the letter of transmittal stating the shop drawings have been reviewed and are in compliance with the Contract Documents, or exceptions are noted. The review is to include verification of all dimensions, interfacing, catalog numbers, field data and conditions, and other similar data.

4. Submittals which apply to numerous items such as valves, pumps, flowmeters, etc. shall have each item properly designated according to the labels appearing on the drawings.

5. Complete shop drawings shall be submitted as required by the appropriate Specification Section(s) and/or drawings for the following items.

   a. Pipe and Fittings.

   b. Valves.

   c. Casing Pipe.

   d. Appurtenance Assemblies. Combination air valve assemblies, air release valve assemblies, blowoff assemblies, pressure reducing assemblies, cleanout assemblies, turnouts, in-valve assemblies, etc.

   e. Prefabricated Vault items including electrical.

   The Owner's Representative may require additional submittals or certifications. Submittals are required for all proposed substitutions.

6. The Contractor shall use the form at the end of this section to document and transmit all submittals. Shop drawings transmitted without this form may be returned unreviewed.

7. The use of electronic submittals to both the Authority and the Owner is required. All submittals shall be uploaded to the Authority via Aconex and to the Owner via the Engineers Info-Exchange file transfer system and shall be complete **with electronic bookmarks** and labels identifying each equipment component submitted. The access to the Engineers Info-Exchange site, once granted to the Contractor shall remain with that user. Any sharing of these accounts is prohibited. The electronic submittals, once reviewed and accepted, will be published to Info-Exchange for the Contractor and Owner to view.

   Electronic Submittals to Info-Exchange

   a. Assemble complete submittal package into a single indexed file incorporating submittal requirements of the materials identified in Item #7 above and a transmittal form. The Specification Section, Drawing Number, submittal name, date, subcontract or supplier, and Contractor's approval stamp shall be clearly indicated on each cover page. WITHIN THE ELECTRONIC SUBMITTAL ALL DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE CLEARLY INDICATED ON THE SHOP DRAWINGS AND IN THE LETTER OF TRANSMITTAL.
   b. Contents:

      (1) Cover sheet with at least a 4"x4" blank space for Engineer's Review Stamp.

      (2) The Contractor Approval and Use of American Iron & Steel (AIS) Certification Statement shall be included on each submittal/shop drawing or respective Letter of Transmittal; SHOP DRAWINGS SUBMITTED WITHOUT AN ACCOMPANYING CONTRACTOR APPROVAL AND AIS CERTIFICATION STATEMENT WILL BE RETURNED UNREVIEWED.

      (3) The Contractor shall include in his shop drawing certification that the proposed materials meet the Use of American Iron & Steel (AIS) provision for iron and steel. FINAL APPROVAL OF ALL SUBMITTALS CONTAINING MATERIALS SUBJECT TO THE AIS PROVISION SHALL BE CONTINGENT UPON RECEIPT OF THE AIS COMPLIANCE DOCUMENTATION.

         (a) Utilize the appropriate Sample Certification for AIS or Sample Step Certification for AIS letter template. Documentation must be provided on company letterhead.

      (4) Table of Contents for all major equipment/devices/components/descriptions specified.

      (5) Notification of all exceptions taken to the specifications and contract drawings

      (6) Do not base Shop Drawings on reproduction of Contract Documents.

      (7) On catalog cut sheets:

         (a) Identify series and complete model number proposed.

         (b) Identify information pertinent to proposed model and conformance to specification by arrow, underline, or circular enclosure.

         (c) Minimize non-specific information that does not indicate conformance or cross out non-pertinent information.

8. If the Contractor submits shop drawings of equipment by manufacturers other than those listed in the specifications, he shall provide the following information with the submittal:

   a. The name and address of at least three companies or agencies who are currently using the equipment.

   b. The name and telephone number of at least one person at each of the above companies or agencies whom the Owner's Representative may contact.

   c. A description of the equipment that was installed at the above locations. The description shall be in sufficient detail to allow the Owner's Representative to compare it with the equipment that is proposed to be installed in this project.

9. The Contractor shall have readily available a copy of the approved submittals pertaining to the work in progress at a particular location.
10. The Contractor shall submit the completed Certificate of Warranty for prefabricated vaults. The Certificate shall be signed by the vault manufacturer and shall be in the name of the Owner.

11. All products that may come into contact with water intended for use in a public water system shall meet American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) International Standards 60 and 61, as appropriate. A product will be considered as meeting these standards if so certified by NSF, the Underwriters Laboratories, or other organizations accredited by ANSI to test and certify such products.

12. All brass and bronze valves and fittings that may come into contact with water intended for use in a public water system shall be made of a “No-lead Brass” or “No-lead Bronze” respectively and shall meet National Sanitary Foundation (NSF) International Standard
372. All brass and bronze valves and fittings shall have the certifier’s mark (e.g. NSF) and identifier text (e.g. NSF/ANSI 372 or NSF 61-G) permanently stamped or cast on it. The no-lead brass and no-lead bronze designation shall be indicated on all submittals.

SHOP DRAWING SUBMITTAL NO. _____

Advanced Engineering and Environmental Services, LLC **4170 28th Ave S** **Fargo, ND 58104**	(Contractor Name) (Contractor's street address) (Contractor's city, state and zip) ATTN: **(Contractor's contact name and phone number)**

FM DIVERSION AUTHORITY RELOCATION PROJECT

AE2S PROJECT NO.	OWNER PROJECT NO.	CONTRACTOR PROJECT NO.
3057.065		

ITEM NO.	COPIES	DESCRIPTION	PREVIOUS SUBMITTAL NO.	SPEC. SECTION NO.	PLAN SHEET NO.

SUBMITTED BY:_____ _____

CONTRACTOR DATE

SUBMITTAL RETURN (TO BE COMPLETED BY ENGINEER)

ITEM NO.	COPIES	RESUBMIT		COMMENTS
		YES	NO	

COPY: **RETURNED BY:_____ _____**

ENGINEER DATE

Sample Certification for AIS

The following information is provided as a sample letter of certification for AIS compliance. **Documentation must be provided on company letterhead.**

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the following products and/or materials shipped/provided to the subject project are in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. Xxxx
2. Xxxx
3. Xxxx

Such process took place at the following location:
_____

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

Sample Step Certification for AIS

The following information is provided as a sample letter of **step** certification for AIS compliance. **Documentation must be provided on company letterhead.**

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Step Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:
1. Xxxx
2. Xxxx
3. Xxxx

Such process took place at the following location:
_____

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

SECTION 01501 CONSTRUCTION FACILITIES & TEMPORARY UTILITIES

A. General

Provide the following utilities and facilities. Maintain the site and environment at an acceptable standard throughout the course of the project.

B. Sanitary System

Provide sanitary facilities and an acceptable method for disposing of sanitary sewage.

C. Compliance With Codes

Comply with all codes and regulations applicable to the installation and maintenance of temporary utilities.

D. Dust Control

Perform dust control operations at the time, location and in such a manner to prevent the construction activities from producing dust in a harmful or annoying amount as determined by the Owner, Owner's Representative, State or local agencies, and nearby residents. Use water or dust preventative for control.

E. Water Control

Make provisions for maintaining proper drainage of the work area. Preserve and maintain natural drainage patterns. Remedy situations which could cause excessive erosion including the use of drainage checks or water bars on slopes subject to erosion.

F. Noise Control

Maintain equipment, particularly muffling systems on internal combustion engines, so that acceptable noise levels are not exceeded. If on-site generators are used, locate it in area where the sound will be least offensive. Provide sound barriers if needed.

G. Electric Power

1. Construction Power:

   The Contractor shall make arrangements for a reliable source of power for construction purposes either from the electric company or from on-site generators. The Contractor shall also make arrangements with the electric company to provide for the extension of utility lines to the point of usage.

2. Permanent Power:

   The Owner shall make application(s) for permanent power to the prefabricated steel vault site(s). The Contractor shall coordinate with the Owner regarding the use of such power and the time frame in which it is required.

H. Construction Water

The Contractor shall make his own arrangements for all labor and equipment to collect, load, transport and apply water as necessary for compaction and consolidation of materials, construction operations, dust control and other construction uses.

I. Filling & Hydrostatic Testing Water

1. The Contractor shall make arrangements with the Cass Rural Water District (CRW) for obtaining potable water from the existing CRW facilities. The filling rate shall not exceed one (1) fps.

2. The Contractor shall coordinate his water use with the CRW. Requests for water shall be made at least three (3) working days in advance of the planned usage. The Contractor shall provide the CRW, the Authority and the Owner with a schedule of intended usage, delivery rate desired, and time requested. The CRW retains authority to decrease or increase the flowrate requested depending on affects to customer service and other pertinent factors. The Contractor shall be responsible for all labor, equipment, or materials required to temporarily connect to and obtain service from the existing CRW facilities.
3. The Contractor shall purchase CRW potable (treated) water to be used for filling, pigging, hydrotesting, disinfection, and flushing purposes of new pipelines and reservoirs from the CRW. The Contractor will be charged at the rate of $3.50/1000 gallons for the actual CRW treated water used to complete the work. The Contractor shall provide the necessary meters, piping, valves and connections to measure the actual amount of CRW water used. Accurate registers or meter heads shall be utilized. The actual amount of water utilized will be dependent on the Contractor's methods, quality control, and techniques utilized. The Contractor will be billed monthly by the CRW. The Contractor shall render payment to the CRW within fifteen (15) calendar days of billing.
4. Work under this Contract will not be accepted until after the hydrostatic tests, disinfection and flushing processes have been successfully completed in accordance with the Contract Documents.

J. Fences

All existing fences (including chain link fences) interfering with the construction operations shall be maintained by the Contractor until completion of the work affected thereby, unless written permission is obtained from the owner and tenant thereof to leave an interfering fence dismantled for any agreed period of time. A copy of such written permission shall be provided to the Owner. Where existing fences must be maintained across the pipeline right-of-way, adequate temporary gates shall be installed in such fences which gates shall be kept closed at all times when they are not in use.

On completion of the work across any tract of land, the Contractor shall restore all fences to the original or to a better condition and quality, with new material to replace all material lost, damaged or destroyed. Temporary gates installed by the Contractor in any fence line may be left in place with the permission of the Owner and tenant of such fence. When a fence must be removed to access the work area, it shall be preferential to remove the fencing at the nearest corner post. Only as a last resort should a fence be cut for access. The Contractor shall contact property owners prior to opening of fences. All materials used in fence repairs or replacements shall be as nearly as possible the same material as original fence. Factory-made wire splices (pinch-type Nicopress or equal) shall be used if required by the affected landowner/tenant.

K. Rights-of-Way, Permits, Laws, and Ordinances

The Owner will procure all rights-of-way outside of the limits of the Diversion Authority right of way.

1. The Contractor shall confine his construction to the area within the Project Limits as as defined in the Project Agreement. The Contractor shall be responsible for all damage to crops and property outside the boundaries of the right-of-way and shall make satisfactory settlement for such damage directly with the property owner and/or tenants involved.

2. The rights-of-way and temporary working easements outside of the Project Limits have

been acquired or will be acquired by the Owner prior to the time the Contractor's work is commenced in the field.

3. The Owner has obtained or is in the process of obtaining the necessary permits to cross State highway, County road and railroad rights-of-way, etc. Copies of each of the documents applicable to this project are available from the Owner. The Contractor shall comply with all pertinent provisions of the permits.

4. After completion of construction, the Contractor shall, within the length of time stipulated in these specifications, restore the permanent and temporary construction easements, as nearly as possible to the condition in which they existed prior to the Contractor's use.

5. If it is necessary or desirable that the Contractor use or occupy land outside of the Owner's easement, the Contractor shall obtain written consent from or execute a written agreement with the owner and tenant of such land permitting such operation and furnish a copy of the signed consent form or written agreement to the Owner. The Contractor shall not enter for pipe delivery or occupy for any other purpose with men, tools, equipment, construction materials, or with materials excavated from the pipe trench, any private property outside the designated easement boundaries without such written permission from the owner and tenant of the entered or occupied property.

6. The Contractor shall, procure all permits, certificates, and licenses required of him by law for the execution of his work. He shall comply with all Federal, State, or Local Law ordinances or rules and regulations relating to the performance of the work. Unless otherwise shown in the plans and specifications, all plumbing work shall be in accordance with the North Dakota Plumbing Code.

7. The permits obtained for crossing existing structures/facilities contain requirements which affect the cost of project work and some permanent permits may require supplementary work permits and fees to execute construction. These fees may include costs associated with required flagmen, location fees, or any other fees requested by the respective entity being crossed. Comply with the permit requirements and obtain and pay the fees involved with the supplementary work permits. Copies of the permits are available from the Owner.

L. Barricades and Light in Streets and in Public Right-of-Way

All open trenches and other excavations shall be provided with suitable barriers, signs and lights to the extent that adequate protection is provided to the public against accident by reason of such open construction. Obstructions, such as material piles and equipment, shall be provided with similar warning signs and lights.

Materials stored upon or alongside public streets, roads and highways shall be so placed that the work at all times shall be so conducted as to cause the minimum obstruction and inconvenience to the traveling public. All barricades, signs, warning lights and other protective devices shall be in conformance with the minimum requirements of the Manual on Uniform Traffic Control Devices and shall be installed and maintained in conformance with applicable statutory requirements, and where within highway rights-of-way, as required by the authority having jurisdiction thereover.

END OF SECTION

SECTION 02110 CLEARING, GRUBBING, AND STRIPPING

PART 1 - GENERAL

A. Description

This section describes the work included in clearing, grubbing, stripping, and otherwise preparing the project site for construction operations.

B. Related Work Specified Elsewhere

1. Earthwork: 02200

2. Trenching, Backfilling, and Compacting: 02223

C. Clearing

Remove and dispose of trees, snags, stumps, shrubs, brush, limbs, and other vegetal matter. Protect trees, shrubs and fencing which are not designated for removal.

D. Grubbing

Remove and dispose of wood or root matter that is below the ground surface after clearing, including stumps, trunks, roots, or root systems greater than 2-inches in diameter or thickness to a depth of 12-inches below the ground surface.

E. Stripping

Remove topsoil after clearing and grubbing, and replace after completion of pipeline, structure, or appurtenance installation.

Soil stripping shall be performed as follows:

1. Trencher method: topsoil must be stripped a minimum width of 8 feet, excavated material may not be placed on non-stripped topsoil.

2. Excavator method: topsoil must be stripped a minimum width of 12 feet, and excavated material may not be placed on non-stripped topsoil, but must be placed on stripped surfaces.

Topsoil shall be defined as black and brown soil material and end where the soil color changes from black and brown to gray, yellow, or white. Topsoil shall be stripped to the soil color change but no greater than to a depth of 12-inches. The maximum particle size shall be 3-inches. The topsoil may be stored in an embankment parallel to the pipe trench along the outer portion of the temporary working space. It shall be maintained separated and not mixed with underlying soils.

PART 2 - MATERIALS

A. Trees and Shrubbery

Existing trees, shrubbery, and other vegetal material may not be shown on the drawings. Inspect the site as to the nature, location, size and extent of vegetal material to be removed or preserved, as specified herein. Preserve in place trees that are specifically shown, on the drawings, designated to be preserved.

B. Preservation of Trees, Shrubs, and Other Plant Material

1. All plant materials (trees, shrubbery, and plants) beyond the limits of clearing and grubbing shall be saved and protected from damage resulting from the work. No filling, excavating, trenching, or stockpiling of materials will be permitted within the drip line of these plant materials. The drip line is defined as a circle drawn by extending a line vertically to the ground from the outermost branches of a plant or group of plants. To prevent soil compaction within the drip line area, no equipment will be permitted within this area.

PART 3 - EXECUTION

A. Clearing, Grubbing and Stripping Limits

All previously designated (Part 1, Subsection E) excavation and embankment areas shall be cleared, grubbed and stripped. Minimum width of stripping shall be the width of the machine used for trenching.

B. Disposal of Clearing and Grubbing Debris

Remove all cleared and grubbed material from the worksite and dispose of in accordance with all local laws, codes, and ordinances.

C. Preservation of Topsoil

Stripped topsoil shall be preserved and replaced after the completion of the pipeline installation.

END OF SECTION

SECTION 02200 EARTHWORK

PART 1 - GENERAL

A. Work Included

Provide all operations necessary to complete clearing, grubbing, excavation, embankment, preparation of subgrade, structural excavation, backfilling, sloping, trimming the subgrade, and finish grading at appurtenance and structure locations which include existing structures, prefabricated steel vault items, air valves, manholes, pressure reducing valves, and other appurtenances. Work also includes removal of water and disposal of excess material, vegetation and rubbish.

Construct and maintain all temporary drainage swales, berms, and diversions; furnish, operate, and maintain all necessary pumping and other equipment for dewatering. After above items have served their purpose, remove them and restore site.

B. Related Work Described Elsewhere

1. Clearing, Grubbing, and Stripping: 02110.

2. Trenching, Backfilling, and Compacting: 02223.

3. General Concrete Construction: 03000.

C. Submittals

None required, unless material gradations are requested by Owner's Representative.

D. Testing for Compaction

1. Determine the density of soil in place by the sand cone method, ASTM D 1556; or rubber-balloon method, ASTM D2167; or by nuclear methods, ASTM D 2922 and D 3017.

2. Determine laboratory moisture-density relations of soils by ASTM D 698.

3. In the event that the material does not produce a well-defined moisture density relationship when tested in accordance with ASTM D 698, determine maximum density in accordance with ASTM Test Method D 4253. The highest maximum density shall govern.

4. Determine relative compaction by calculating the ratio, expressed as a percentage, of the in-place (dry) density to the laboratory maximum (dry) density.

5. The Contractor shall conduct the compaction testing..

6. Sample backfill materials by ASTM D 75.

E. Disposal of Excess Materials

Wasted material such as large rocks or other material unsuitable for fills, embankments, or backfill shall be removed from the site and suitably disposed of. The Contractor shall coordinate with local landowners, the Authority and local officials regarding the disposal of such materials.

PART 2 - MATERIALS

A. Gravel Base

Gravel base is defined as natural or crush rock free from organic matter, and meeting the following gradation:

Sieve Size	Percent Passing By Weight
1-1/2 inches	100
1 inch	95 - 100
1/2 inch	25 - 65
3/8 inch	15 - 55
No. 4	0 - 10
No. 8	0 - 5

B. Earth Backfill

Earth material from the excavation is considered to be an acceptable backfill material provided it is free of vegetal matter, roots, debris, frozen matter, and stones larger than 3 inches in the greatest dimension. Moisture content is to be maintained at a level sufficient to obtain the specified compaction.

C. Water for Compaction

Water shall be clean and free of acid, alkali, or organic materials and shall have a pH of 7.0 to 9.0, a maximum chloride concentration of 500 mg/l. Provide all water needed for earthwork. Provide temporary piping and valves to convey water from the source to the point of use. Provide any meters required if the water is taken from a water district or agency pipeline.

PART 3 - EXECUTION

A. Open Excavations and Stockpiles

Control excavation to prevent water from running in. Do not obstruct surface drainage or existing waterways with stockpiles.

B. Dewatering

Provide and maintain devices at all times during the construction to remove and dispose of all water from any source from the excavation.

Dispose of water in a manner that will not damage adjacent property or be a menace to public health. Water may be discharged into the public road ditches located adjacent to the project site.

Excavations that may entrap snow and subject the subgrade soils to a change in the moisture content shall not be left open during winter construction shut-down periods. Any snow that does become entrapped in excavations shall be removed within twenty-four hours.

C. Excavation

1. General: Perform all excavations required regardless of type, nature, or condition of the material encountered. The types of excavations shall be as defined in Section 02223, Part 1. Excavation includes the removal and selected disposal of all excess or unsuitable materials of whatever nature.

2. Sections and Slopes: Excavate to full depth and width required to accommodate the lines and grades shown on the design drawings for the vault or appurtenance to be constructed. Remove all materials which become blown or washed into excavations.

3. Placement of Materials: Excavated material which meets required specifications may be used in backfill.

4. The Contractor, in consultation with the Authority, shall select sloping or near-vertical trench and structure excavation slopes as he finds compatible with the soil conditions. The Contractor, in consultation with the Authority, shall select any shoring which he deems appropriate and compatible with the soil conditions. These selections shall be exercised as a portion of the Contractor's responsibility for safety of site operations. The Contractor is responsible for conforming to OSHA requirements as may be applicable during structural excavating, trench excavations, site work, and in other areas of the work.

D. Structural Earthwork

1. General: Structural earthwork shall be completed at all vaults, manholes, existing structures, valves, blowoff assemblies, and other such similar appurtenances. Structural excavation is the removal of all material of whatever nature to approved structural subgrade as necessary for construction of the structures. Where excavation is inadvertently carried below the design elevation or approved structural subgrade, adjust the construction as required to meet the structural requirements.

   Rectify over-depth excavation in such locations by backfilling with native material compacted to 95 percent maximum density in accordance with ASTM D698. Side slopes of excavation shall be only as steep as is safe for material to stand. Avoid unnecessary disturbance of adjacent ground.

2. Subgrade:

   a. Remove all loose natural clays, sands and compressible materials under proposed structures.

   b. The exposed bottoms of excavations shall consist of undisturbed native material.

   c. Exercise careful excavation procedures to provide relatively smooth subgrade.

3. Earth Backfill:

   a. Place backfill in 6-inch maximum loose lifts and compact to at least 90 percent relative compaction in accordance with ASTM D698. Larger lifts may be utilized if it is demonstrated to the Owner's Representative that satisfactory results can be obtained.

b. Backfill shall be placed and compacted in uniform lifts.

4. Compaction: Compact backfill by mechanical means. Jetting or flooding is not permitted. Compact each layer with mechanical tampers. Use light vibratory or hand tamping equipment adjacent to the structures. Protect pipe spools during placing and compacting of backfill.

E. Finish Grading

Upon completion of appurtenances and all underground work, clean the entire site area affected by the construction of trash and debris and grade and smooth to drain all areas not covered with sod or other permanent vegetation so that no depressions, vehicle tracks, or ridges are left which could accumulate rainwater.

END OF SECTION

SECTION 02223 TRENCHING, BACKFILLING, AND COMPACTING

PART 1 - GENERAL

A. Description

Work under this section consists of materials, equipment and testing for pipeline installation, trenching and excavation for pipeline, backfilling trenches, and compacting (where specified) as a unit of work operation in connection with the construction of the water pipeline system. This includes preparatory work necessary such as incidental clearing, grading through steep banks, ravines, terraces, backslopes, and road ditches as may be necessary to provide uniform and adequate cover over the pipeline.

Excavation and trenching work shall also include the removal, handling, and disposal of all materials so removed and shall further include:

1. Removal as required for construction purposes all pavement, road surfacing, concrete, junk, and structures or parts thereof.

2. Sheeting, shoring, bracing, and protection of adjacent property, trees, and structures.

3. Protection and maintenance, and crossing of existing pipelines, telephone lines, electric lines, drains, conduits, sewers, poles and overhead utilities.

4. Preparation of subgrades, bedding for pipe, backfilling, and disposal of excess excavation as required.

5. Removal of cobble, stones, boulders, and other isolated materials commonly found in the soils to be encountered.

All trenching, except where otherwise stated, shall be done with a ladder or wheel type machine, commonly referred to as "trenching machines" or earth excavating machines such as trackhoes/backhoes. In areas where pipeline and appurtenance installation the topsoil shall be stripped in accordance with Section 02110.

In areas where installation of pipelines occurs by the use of any boring method, restrained joint pipe, such as fusible PVC or PE pipe, shall be used. Refer to Section 02226, 02227, 15064, and 15067 and the Contract Drawings for specific requirements on the restrained joint pipe. Mechanical locking devices at the pipe joint are not acceptable. Long body couplings are required at each end of a restrained joint area. The maximum distance from the end of the restrained joint pipe to the edge of the adjoining pipe to be bridged by a long body coupling shall be two (2) inches.

The end of the pipe which is in the direction of drilling shall be capped or plugged with an acceptable pipe plug. The plug shall be capable of preventing drilling fluid from entering the pipe.

This section also includes work and equipment required for completion of landscaping, seedbed preparation, and seeding of all disturbed ground. This work shall include blading, chisel plowing, discing, rock picking, harrowing or any other operation necessary to return the ground surface as nearly as practical to its original condition.

B. Class of Material Excavated

Excavated or trenched materials shall be one of the following:

1. Class A Material

Class A Material is defined as being hard shale, sandstone, limestone, granite or similar materials which is encountered in monolithic ledges greater than 8" in thickness and which, in the opinion of the Owner's Representative, require jackhammering, use of a special headache ball or hydrohammer for removal. A toothed bucket is not considered as special "ripping" equipment. Class A Material encountered in two or more ledges with inter-lying strata of earth, clay, or gravel not more than eight (8) inches in thickness in each strata will be classified as a solid monolithic formation from the top of the top ledge to the bottom of the bottom ledge. Boulders that are encountered within glacial till or other soil and are not a portion of a continuous monolithic formation shall not be considered Class A Material under the provisions of these Specifications. Blasting of Class A Excavation Material shall not be permitted.

Fragments of the Class A Material shall not be used in the trench zone backfill unless particle sizes are less than 12-inches in diameter and/or length. However, in no event shall Class A Material or rubble from the excavation be placed in the upper 18 inches of the trench. Class A material shall not be placed in the pipe zone.

2. Class B Material

Class B Material is defined as common or unclassified excavation and includes all earth or other materials that do not meet the requirements of Item 1 above.

C. Related Work Specified Elsewhere

1. Clearing, Grubbing, and Stripping: 02110.

2. Earthwork: 02200.

3. Plowing for Pipeline Installation: 02224

4. Restrained Joint Areas: 02226.

5. Underground Crossings: 02227.

6. General Concrete Construction: 03000.

7. Hydrostatic Testing of Pressure Pipelines: 15042.

8. PVC Distribution Pipe (AWWA C900 and C905): 15064.

9. PVC Distribution Pipe (ASTM D2241): 15067.

D. Testing for Compaction

1. Determine the density of soil in place by the sand cone method, ASTM D 1556; or rubber-balloon method, ASTM D 2167; or by nuclear methods, ASTM D 2922 and D 3017.

2. Determine laboratory moisture-density relations of soils by ASTM D 698.

3. In the event that the material does not produce a well-defined moisture density relationship when tested in accordance with ASTM D 698, determine maximum density in accordance with ASTM Test Method D 4253. The highest maximum density shall govern.

4. Determine relative compaction by calculating the ratio, expressed as a percentage, of the in place (dry) density to the laboratory maximum (dry) density.

5. The Contractor will conduct the compaction testing.

6. Sample backfill materials by ASTM D 75.

PART 2 - MATERIALS

A. Pipe Zone

Material for backfill of the pipe zone shall consist of native earth material that consists of fine, loose material, free from stones, hard frozen clods, or other material that may cause damage to the pipe. The pipe zone shall extend to 12-inches above the pipe.

B. Trench Zone

Material for the backfill of the trench zone shall consist of native earth material which is free from boulders and Class A Material exceeding 12-inches in length and/or diameter, except in areas where Class A Material excavation occurs and loose dirt is not available from the trench excavation.

C. Aggregate Base

Aggregate base material shall be used in wet areas or subcut areas for the development of the required uniform bearing of the pipe. The aggregate base material shall consist of angular aggregates or sands that meet the following gradation:

Sieve Size	Percent Passing By Weight
3/4 inch	100
No. 4	0 - 35
No. 8	0 - 17
No. 200	0 - 10

Other gradations may be utilized provided all the material passes the 3/4-inch sieve and it can be demonstrated that they provide adequate base support for the pipe.

D. Pipeline Marker Tape

The pipeline marker tape shall be visual non-detectable (by electronic means) type marker tape and shall have a minimum width of 3 inches. The marker tape shall be designed for prolonged underground use and shall be highly resistant to alkalies, acids, and other destructive elements found in the soil. The tape shall be colored safety blue and contain a continuous warning message repeated a minimum of every 30-inches. Acceptable products shall be Terra-Tape or approved equal. Samples of the type of material to be used shall be submitted to the Owner's Representative for review.

E. Water for Compaction

Water used in compaction shall have a maximum chloride concentration of 500 mg/l, a maximum sulfate concentration of 500 mg/l, and shall have a pH of 7.0 to 9.0. Water shall be clean and free of acid, alkali, or organic materials injurious to the pipe or pipe coatings.

PART 3 - EXECUTION

A. Pipeline Trenching and Excavation

Perform all excavation necessary to accomplish the construction regardless of type, nature or condition of the material encountered.

Pipelines shall be located approximately as shown on the drawings. Pipelines shall be installed within ± 2 feet of the alignment staked (flagged) by the Owner's Representative. Appurtenances shall be located adjacent to right-of-way lines or fence lines where required. Where the grade, elevation, or minimum depth of cover of any pipe part thereof is shown on the drawings, the pipe shall be installed to conform to such requirement. Where not otherwise specified, the minimum depth of cover for the pipe shall be ninety (90) inches. The minimum depth shall be measured from the original ground line level to the nearest surface (including bells or couplings) of the pipe.

Where the pipe elevation is determined by minimum depth only, excavations at all points shall be of sufficient depth to properly grade the pipe on tangents and vertical curves as dictated by the minimum bending radius of the pipe recommended by the manufacturer. The maximum depth of cover on the pipe shall not be more than 108-inches except beneath roadways, railroads, through terraces, in stream banks, or in special conditions where greater pipe depths cannot be avoided.

The bottom of all trenches regardless of type of pipe, shall be graded to provide uniform bearing and support for the pipe. Each section of pipe in the trench shall rest upon the pipe bed for the full length of the pipe barrel. The bottom of the trench (pipe bed) shall be free from rocks, cobble, clods, frozen chunks, or other sharp-edged objects. If uniform support cannot be obtained along the entire length of pipe due to unstable soil conditions or hardness of ground conditions, the excavations shall be carried to a depth of not less than four (4) inches, nor more than six (6) inches below the grade, and a sand or earth fill or cushion provided for the purpose of bedding and grading the pipe. The bedding material shall be sufficiently damp to ensure the proper compaction and shaping of the bed. Class A Material, boulders and large stones shall be removed to provide a minimum clearance of six (6) inches on all pipe, fittings and valves.

When Class A Material, and/or isolated cobble, stones, and boulders common to glacial till is encountered in trenches, it shall be removed to a level of at least 6-inches below grade. Where blasts are to be made, the Contractor shall cover the trench with such suitable brush, timber or matting as required to prevent injury to persons or property. Before the pipe is laid, all irregularities of the Class A Material or the trench bottom in cobble or glacial till areas shall be filled with earth or sand well tamped into place and the bottom of the trench shall be brought to the proper grade

elevation for pipe laying using sand, native earth, or other suitable bedding material. The embedment and the first foot of backfill shall be made in accordance with these specifications. All embedment and backfilling in Class A Material excavation shall be completed in the presence of the Owner's Representative.

B. Trench Widths

Trench width at the ground line may vary with and depend upon the type of soils encountered and the position of surface structures. If the pipe is joined in the trench, the minimum clear width of trenches at the top of the pipe shall be twelve (12) inches greater than the outside diameter of the pipe. If the pipe is to be joined above the trench, the width of the trench shall provide adequate space for the placement of the joined pipe in the trench. In no case shall there be less than four (4) inches clear on both sides of the pipe between the widest part of the joint and the narrowest part of the trench wall.

C. Backfilling of Pipe (Outside the DCAI)

Backfilling of the pipe shall be made by depositing backfill materials of fine, loose material, free from stones greater than 3/4 inch in diameter, hard or frozen clods, or other material that may cause damage to the pipe to a depth of not less than twelve (12) inches above the top of the pipe. The placing of this portion of the backfill shall be done by hand if the trench is dug with a backhoe, or may be placed by mechanical means if the trench is dug with a trenching machine or other excavation equipment that breaks the soil into a fine loose material. The Owner's Representative may approve the use of mechanical methods for placement of this portion of the backfill for trenches dug with a backhoe if the Contractor can demonstrate that the particle size of the backfill material is sufficiently fine in relation to the pipe size. Equipment to be utilized for mechanical backfill shall use an angled approach and be an angle blade dozer, motor patrol, or similar equipment. Perpendicular backfill methods are not allowed. The method shall be such that the material is not dropped from the top of the trench onto the unprotected pipe.

D. Backfilling of Trenches (Outside the DCAI)

After the bedding and first one foot of backfill above the top of pipe has been made, the remainder of the backfill shall be in accordance with this provision of the specifications. The remainder of the backfill shall be placed by hand or mechanical methods, compacted, and shall be left in a uniform mound over the centerline of the trench, as detailed in the Construction Drawings. Compaction shall be in accordance with Subsection L.

When compaction is required, the backfill shall be deposited and compacted in layers. The thickness of the layers shall be such that the compaction requirements can be met. When trenching machines, either of the wheel or ladder type, are used to excavate the trench, the backfill must be placed back into the trench in multiple layers to prevent bridging of the backfill material. Deposit the "trenched" backfill material in three equal lifts, however, more layers may be required if the material consists of cohesive soils.

The backfill shall be made of fill material which shall be free from rock or Class "A" excavation of over 12-inches in length and/or diameter. Where suitable backfill material is not available from the excavation, the required material shall be obtained from a borrow area arranged for by the Contractor. No topsoil shall be stripped from the adjacent area of the trench and used for backfill material. The upper 18 inches, measured from the original ground surface, of the trenches in all disturbed areas shall be rock-free for seeding purposes. The character of the land adjacent to the trench shall be maintained.

The requirement for the rock free zone is within the limits of the trench and backfill only and does not pertain to removal of the rock from areas adjacent to the trench which were not disturbed or

brought to the surface by the trenching operation. All backfilling shall be carefully done in a manner that shall not harm the pipe. Wherever trench settlement occurs, the trench shall be refilled, compacted (where required), and mounded so that any further settlement will leave the ditch to conform to the surface of the original ground.

Backfill through wetland will be such that the original basin contours shall be maintained. Backfill material will be compacted sufficiently to prevent wetland drainage along the trench through the trench bottom. Stream channels shall be restored to original contours and drainage lines.

At locations in fields where contour farming practices (such as terraces) are encountered, special care shall be taken to replace the contours as originally encountered. Said practices shall also apply to road crossings, including ditches, backslope and roadway.

At locations where soil conditions or slopes are such that erosion may occur along the pipeline trench, the Contractor will be required to construct earth berms perpendicular to the trench line at intervals sufficient to divert water from the trench.

In pasture and hayland, straw wattles shall be furnished and installed within 14 days of pipeline installation, at approximately the following intervals:

% Slope	Interval – Feet
7-10	120
10+	50

The straw wattles shall be a minimum of 6” diameter, and shall be installed across the entire width, plus 3’ either side, of the disturbed area.

E. Clean-Up and Landscaping After Backfilling

The accomplishment of clean-up including the removal of construction and utility staking (flags) by the Contractor and landscaping of the pipeline trenches shall be made as soon as possible and shall be considered as a factor of prime importance in the completion of the project. Components of the clean-up and landscaping work shall conform to the following provisions:

1. Uniform mounding of soil over the trench, replacement of topsoil (if applicable), and landscaping of the trenches and disturbed area shall be completed at the time of installation of the pipeline.

2. Major clean-up items including removal of brush, branches, stumps, rock, Class A Material (not used in backfill), debris, utility flags, and Owner flags shall be completed within fourteen (14) calendar days of the installation of pipeline through each quarter (1/4) section of land. This work shall include chisel plowing of the completed trench in cultivated areas which shall be completed prior to picking of rock from the trench. For this purpose, all cultivated fields, legumes, and CRP land shall be considered cropland.

3. All backfill within a 20' radius of appurtenances and within 50' of meter pits shall, upon completion of the installation, be raked and left in a manner that the landowner may re-establish his yard. This work shall be completed at the time of installation of the work.

F. Seedbed Preparation (Outside the DCAI)

1. Intentionally Deleted

2. Seedbed preparation and seeding of disturbed areas in City limits, Public R/W areas, and subdivisions shall be completed in the immediate fall season following pipeline construction in such areas. Seeding in such areas shall not commence prior to September 1st. Seeding operations in these areas can be completed earlier depending on weather conditions and construction progress if authorized by the Owner. Areas seeded which were not authorized shall be reseeded as directed by the.

3. Final seedbed preparation shall consist of final discing of the disturbed areas of the trenches constructed in those areas noted above. The work accomplished shall involve only the areas disturbed by the trenching operation and in which the root zones of the affected vegetation were destroyed and not revived. Areas outside this disturbed area should not be extensively disturbed by the final discing and seedbed preparation. The end product of this work shall result in an area free of large clods and be an area ready to be seeded using a grass drill. The Contractor is responsible for maintaining the trenches including settlement prior to the completion of the seedbed preparation and is responsible for the removal of any vegetation or weeds that will interfere with the seedbed preparation prior to commencing the work.

4. Seeding operations shall comply with the requirements stipulated in the Technical Requirements.

G. Sheeting, Shoring, and Bracing of Trenches

Trenches shall have sheeting, shoring, and bracing conforming to 29 CFR 1926 Subpart P - Excavations and OSHA Requirements. Sheeting or shoring may be required in areas where the pipeline parallels a particular utility's facilities, and which may be disturbed if a sloped trench configuration is utilized. If such situations arise, precautions shall be taken by the Contractor to avoid or minimize disturbance of the utility and such precautions shall be discussed with the respective utility prior to construction. All sheeting, shoring and bracing shall be subsidiary to pipeline installation.

H. Dewatering and Installation in Wet Areas

Provide and maintain means and devices to maintain proper pipe cover in all areas of high groundwater, waterways, or drainage areas; to remove and dispose of all water entering the trench excavation during the time the trench is being prepared for the pipe laying and during the laying of the pipe and backfilling of the pipe zone. These provisions shall apply during the noon hour as well as overnight. Dewatering operations shall be implemented if pipe is assembled in the trench and/or in areas where the pipe begins to float. Pipe weights (such as earth backfill, imported materials, etc.) may be used as an alternate to dewatering in pipe floatation areas. Pipe weights shall not damage the pipe and shall be acceptable to the Owner's Representative. Dispose of the water in a manner to prevent damage to adjacent property. Do not drain trench water through the pipeline under construction. All dewatering shall be subsidiary to pipeline installation.

I. Location of Excavated Material

During trench excavation, place excavated material only within the working area. Minimize obstructing any roadways or streets. The Contractor shall provide access for Law Enforcement and/or Emergency/Medical units if a particular street or city block in city areas or subdivisions is closed to traffic at any time. In City work areas and subdivisions, the Contractor may elect to

temporarily haul material off the construction site until the pipe zone has been completed. Additional gravel shall be placed at a minimum rate of 18 c.y. per 100 ft. of roadway on any road section which has been used as a temporary stockpile site for excavated trench material. Conform to federal, state, and local codes governing the safe loading of trenches with excavated material.

J. Trench Excavation in Backfill and Embankment Areas

Construct trench excavation for pipe, pipes, or conduit in backfill or embankment areas in accordance with the following procedures:

1. Construct and compact the embankment to an elevation of 1-foot minimum over the top of the largest pipe or conduit to be installed.

2. Excavate trench in the compacted backfill or embankment. Place pipe base material, install pipe or conduit, and backfill with pipe zone material. Compact backfill above the pipe zone to the same density requirement as the adjacent embankment as specified in Section 02200.

K. Compaction Requirements (Outside the DCAI)

Unless otherwise shown on the drawings or otherwise described in the specifications for the particular type of pipe installed, relative compaction throughout the pipe trenches shall be as follows:

1. Backfill above pipe zone beneath asphalt/concrete paved streets, roadways, and aprons: 95% relative compaction.

2. Backfill above pipe zone at gravel surfaced county road crossings, at gravel surfaced subdivision or city streets/roadways, at driveways: 95% relative compaction.

3. Backfill and Compaction Requirements above pipe zone in cultivated fields, hay lands and pastures: 85% relative compaction.

4. Backfill above pipe zone not beneath paving or road surface but at trails, field entrances, in subdivisions or City Limits, and in yard areas: A compactive effort of 90% relative compaction. Compaction tests will not generally be taken unless deemed necessary by the Owner's Representative. The Contractor shall provide assistance to the Owner's Representative as requested during any testing to verify that the effort being applied by the Contractor meets the Contract requirements. Other methods of Compaction may be implemented by the Contractor, if acceptable to the Owner's Representative, and if it achieves the percent of compaction required.

5. Backfill above pipe zone in state or county right-of-way: As required by encroachment permit(s). In any event, the minimum level of compaction shall be 90% relative compaction.

6. Backfill above pipe zone at utility crossings (water, sewer, gas, etc.): As required by the respective utility.

L. Surface Obstructions

Surface obstructions such as curb and gutter, pavement, culverts, utilities, streams, drives and sidewalks may be tunneled or bored under; otherwise the obstruction shall be cut in straight lines parallel to the pipeline or along the nearest parallel construction joint located not more than five
(5) feet from the centerline of the trench, except that the line of cut shall not be closer than one (1) foot to the edge of the trench.

Surface obstructions removed shall be reconstructed in accordance with standard practice and to the lines and grades of the original structure. Backfill of tunneled sections shall be carefully rammed in place.

M. Subsurface Obstructions

Trenching or excavation may encounter other water mains, pipe culverts, gas lines, telephone conduit, and other buried obstructions. The Contractor shall locate the obstructions by digging in advance of the trench when information is not available as to the exact locations (i.e., flagging by utility owner or landowner). Care must be taken in excavating around all obstructions to see that they are not damaged. If, however, damage should occur, repairs shall be made quickly as possible.

N. Excess Excavated Material

Excess excavated material not required for backfill or grading shall be removed from the site of excavation when within streets, roadways, highways, parking and driveways, both public and private by the Contractor. The Contractor shall be responsible for obtaining a proper disposal site. Excess excavated earth material free from rock shall be distributed directly over the pipe trench located in open fields to a depth of 18-inches above the original ground surface across the trench width. The mounding over the trench shall be uniform and shall extend not greater than 3 feet from each side of the center of the trench. Other limits on mounding are stipulated on the drawings. Rock material excavated and not used or too large to be used in the backfill provisions of these specifications shall be hauled from the site the Contractor. The Contractor shall be responsible for obtaining suitable disposal sites. With the landowner's written permission, rocks may be buried so as not to interfere with farming operations in lieu of hauling and shall not be buried within the pipeline easement area or other existing utility easements. Any topsoil removed to bury rocks shall be stripped, stockpiled and replaced.

O. Pipeline Marker Tape

Pipeline marker tape shall be installed in the trench backfill at a depth of 24-inches below the original ground line. Pipeline marker tape shall be installed above the pipeline centerline within all subdivisions, within the City Limits and in locations required in accordance with the utility permits. It shall also be installed in the areas or locations designated on the drawings. The marker tape shall be subsidiary to the pipeline installation.

P. Responsibility of Contractor for Backfill Settlement

The Contractor shall be responsible for:

1. Any and all settlement of trench and other backfill which may occur from the time of original backfilling until the expiration of a period of two years from and after the date of substantial completion of the entire Contract under which the backfilling work was performed. Substantial completion for this purpose is defined as the entire system is operational.

2. The refilling and repair of all backfill settlement and the repair or replacement to the original or better condition of all pavement, top surfacing, driveways, areaways, curbs, gutters, walks, surface structures, utilities, drainage facilities, sod and shrubbery which have been damaged as a result of said backfill settlement or which have been removed or destroyed in connection with backfill replacement operations.

3. Any and all damage claims filed with or court actions brought against the Owner for and on account of any damage(s) directly or indirectly caused by said backfill settlement.

The Contractor shall make or cause to be made all necessary backfill replacements and repairs or replacements appurtenant thereto, within ten (10) days from and after due notification by the Owner or his representative, of backfill settlement and resulting damage at any designated location(s).

Q. Seeding Requirements (Outside the DCAI)

1. Seeding of disturbed areas in public right-of-way, pastureland, hayland and subdivisions within the prescribed right-of-way limits shall be completed by the Contractor. All areas outside the prescribed right-of-way limits which have been disturbed by the Contractor and which require grass seeding shall be seeded by the Contractor. The Contractor shall make the necessary arrangements to provide for seeding of these disturbed areas and shall provide the Owner with written evidence of such proposed arrangements. Seedbed preparation may be performed outside of regular working hours but seeding shall be performed during regular working hours to allow observation by the Owner's Representative. The Contractor shall provide a minimum of 48 hours' notice upon completion of seedbed preparation to allow the Owner's Representative an opportunity to review and approve prior to the commencement of seeding. All proposed arrangements with a third party to complete seeding shall be subject to approval by the Owner.

2. Seed requirements and seeding operations shall comply with the N.D.D.O.T. Standard Specifications for road and bridge construction, Erosion Control, Latest Edition and NDSU Extension Service/USDA, Successful Reclamation of Lands publication However, all seeding shall be completed by the "grass drill" method. Mulching is not required. The seedbed shall be free from competing vegetation. Seedbed shall be sufficiently firm to allow seed to be placed 1/4" to 1/2" deep and have firm contact with soil after packing. The Contractor shall coordinate with the Owner and the Natural Resources Conservation Service on seeding requirements for CRP. No additional compensation will be provided to the Contractor for seeding of CRP land.

3. A firm seedbed is critical for a successful seeding. Final soil preparation for seeding should provide a firm, relatively uniform seedbed that is not compacted. Loose soil will result in seed being planted too deeply, resulting in poor vegetative stand success, while areas with compaction will result in shallow rooting and poor plant survival rates. Agricultural practices for seedbed preparation should be used prior to seeding.

4. Identify areas of potential excess erosion risk and stabilize them accordingly.

   a. See the erosion control section NDSU Extension Service/USDA, Successful Reclamation of Lands.

5. Seed an appropriate seed mix approximately ¼ inch deep.

   a. Use drills equipped with depth-control bands.

b. Hydro seeding, broadcast and harrowing or other seeding methods may be used as necessary.

c. Rake in all fence lines, meters, standpipes and other obstructions within the disturbance areas.

d. Use high-quality clean and conditioned seed that has been tested for germination (germ) and purity.

e. Buy seed on a live seed (PLS) basis.

f. Calibrate and seed on an adjusted bulk seeding rate of PLS/(germ x purity). For example, 20 pounds/acre PLS with 85 percent germ and 90 percent purity = 13.07 bulk pounds/acre.

Seed mixtures shall be provided per the Technical Requirements For CRP areas, coordinate seed mixtures with Natural Resource Conservation Service (NRCS) prior to seeding.

R. Repairs After Job Completion

A break in the lines or backfill settlement presenting a potential hazard shall be deemed as an emergency and must be repaired immediately. The Contractor, therefore, prior to leaving the project shall have an understanding and agreement by signed letter addressed to the Owner as to the procedure for making said emergency repairs and notification to the Contractor. Said procedure shall include a local agent of the Contractor or a local contractor (who will perform as a subcontractor to the general contractor) acceptable to the Owner.

S. Contractor Responsibility for Damage to Seeded Areas

Upon completion of seeding, the Contractor shall be responsible for any damage to seeded areas subsequently caused by their operations. The Contractor shall relandscape and properly prepare a seedbed on all areas damaged by their operations. Trenches which have settled within the two- year backfill warranty period, and which were previously seeded, shall be reshaped and a seedbed prepared by the Contractor. The Contractor shall reseed all areas per Part R. of this section of the Specifications.

T. Crop Damages

The Authority will pay for crop damages (within the easements acquired) caused by the Contractor's operations for the initial installation of the pipeline across a given cultivated parcel of land. Crop damages outside of the easement limits and crop damages which are due to subsequent excavations by the Contractor for lowering of the pipe in shallow areas, Class A Material excavation areas, tie-ins, appurtenance installations, and other similar type work which results in additional crop damages shall be paid by the Contractor based on the following schedule of payments:

1.	Wheat, Durum, and Flax	-	$575/acre.
2.	Barley	-	$400/acre.
3.	Corn and Alfalfa	-	$900/acre.
4.	Oats	-	$300/acre.
5.	Oil Sunflowers	-	$900/acre.
6.	Non-oil Sunflowers	-	$1,200/acre.
7.	Canola	-	$700/acre.
8.	Mustard	-	$400/acre.
9.	Safflower	-	$300/acre.
10.	Beans	-	$585/acre.

All other minor crops shall be paid for at $400/acre.

U. Responsibility of Contractor for Weed Control

The Contractor shall be responsible, financially and otherwise, for controlling the growth of weeds in areas disturbed during construction until completion of all seeding, as may be deemed necessary by the Authority, Owner and/or Owner's Representative.

END OF SECTION

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SECTION 02226 RESTRAINED JOINT AREAS

PART 1 - GENERAL

A. Description

Work under this section consists of furnishing all necessary materials and labor to complete the installation of restrained joint areas in the general locations designated on the Drawings for the pipelines to be installed. The restrained joint areas are to be complete with all materials, excavation, backfill, drilling, boring, and casings as required to complete the work as specified herein and as detailed on the Drawings.

B. Related Work Specified Elsewhere

1.

2. Clearing, Grubbing, and Stripping: 02110

3. Earthwork: 02200

4. Trenching, Backfilling, and Compacting: 02223

5. Underground Crossings: 02227

6. General Concrete Construction: 03000

7. PVC Pipe (AWWA C900 & C905): 15064

8. PVC Pipe (ASTM D2241): 15067

C. Testing for Compaction

Per Section 02200, Part 1.D.

PART 2 - MATERIALS

A. PVC Casing Pipe

PVC casing pipe where required for restrained joint areas shall comply with Section 15067, with the exception that the joints shall be heat fusion (butt fusion) joining system. Minimum pipe class shall be as noted on the Drawings. Materials to be utilized for the solvent weld joints of the casing pipe shall be in accordance with the manufacturer's recommendations and shall be compatible with the pipe utilized. As an alternate, Polyethylene (PE) pipe may be used as casing pipe. Minimum class of PE pipe shall be SDR 17. The PE pipe shall be of the heat fusion (butt fusion) joining system, PLEXCO HDPE 4710 or equal.

B. Steel Casing Pipe

Casing pipe where required for restrained joint areas shall be smooth steel pipe. Steel pipe used for steel casing shall meet one of the following material specifications: ASTM A53, Grade B; ASTM A139, Grade B; or ASTM A135, Grade B.

C. Concrete

Concrete for restrained joint area locations where concrete encasement is required, when denoted on the Drawings, shall be Class C per Section 03000.

D. Pipe for Restrained Joint Areas

1. Restrained joint areas shall be installed utilizing polyethylene (PE) or Fusible PVC piping. Minimum pressure class of the piping shall be the same as the carrier pipe adjacent to the restrained joint areas unless otherwise indicated on the drawings. The pipe shall conform to the requirements of Specification Section 15064 and/or 15067 depending on the adjacent pipe and pressure ratings.
The PE pipe shall be of the heat fusion (butt fusion) joining system manufactured of resin with designation 4710 and having the NSF seal of approval for potable water by PLEXCO HDPE 4710, or equal. For all PE pipe in diameters 8" through 12", the size of the PE pipe shall be one size larger than the PVC pipe being substituted; and for diameters greater than 12", the size of the PE pipe shall be two sizes larger than the PVC pipe being substituted.

Fusible PVC shall utilized as manufactured by Underground Solutions, or equal.

To maintain a comparable pressure rating to the ASTM and AWWA PVC Pipe being substituted, the Standard Dimension Ratio (SDR) for the PE pipe (as compared to the ASTM and AWWA PVC pipe being substituted) shall be as follows:

PE Pipe	ASTM PVC Pipe	AWWA C-900 Pipe	AWWA C-905 Pipe
SDR 9	Cl. 250	DR 18	Cl. 235
SDR 11	Cl. 200	-	-
SDR 13.5	Cl. 160	DR 25	Cl. 165

2. For restrained joint areas where AWWA C-900, DR 14 PVC pipe is required fusible PVC shall utilized as manufactured by Underground Solutions, or equal. Where AWWA C-900 DR 14 PVC pipe is required and equivalent pressure rated restrained joint pipe is not available, a restrained joint casing pipe shall be used in the restrained joint areas to 'encase' the AWWA C-900 DR 14 PVC pipe if approved by Owner. The casing pipe shall be Yelomine or equal and shall be restrained for the entire length of the restrained joint areas as specified on Drawings. The AWWA C-900, DR 14 PVC pipe shall be non-restrained integral bell. The casing pipe and pressure class to encase the various sizes of AWWA C-900 DR 14 PVC pipe shall be as follows:

Carrier Pipe	Restrained Casing Pipe
10" C-900, DR 14	16" Cl. 125, SDR 26 (Yelomine)
12" C-900, DR 14	20" x 0.250" Thick Welded Steel
14" C-905, Cl. 235	24" x 0.312" Thick Welded Steel

3. PE or Fusible PVC pipe shall be utilized for all restrained joint areas unless noted otherwise on the Drawings. In those instances, ductile iron pipe shall be utilized for restrained joint area and shall be of a flexible restrained joint system. External locking fasteners such as retainer glands for mechanical joints are not acceptable. The pressure class of the ductile iron pipe shall be the same or greater than the carrier pipe adjacent to the restrained joint area unless specifically indicated on the drawings. The ductile iron pipe shall conform to the requirements of AWWA C150. The ductile iron pipe segment will not be required to be laid to line and grade. The pipeline grading requirements shall be no less than that required for PVC pipe and the ductile iron pipe manufacturer.

PART 3 - EXECUTION

A. Restrained Joint Areas

Pipelines which have been designated as Restrained Joint Areas on the Drawings and which have been flagged as such in the field by the Owner's Representative shall be installed by the 'Directional Drilling' method. The Contractor shall make a minimum of two (2) attempts to 'Directional Drill' in the restrained joint area before resorting to an open-cut installation. The

Contractor shall provide additional restrained joint pipe per the provisions of the specifications at each side of the restrained joint area as designated on the drawings or as requested by the Owner's Representative during installation, due to actual field conditions.

All pipelines provided in the restrained joint area shall be installed to a minimum depth of 96" to top of pipe. All work associated with installing restrained joint pipe in the designated areas and if crossing wetlands, creeks, rivers, streams or other waterways, shall conform to all permit requirements and to state and federal regulations. The restrained joint areas depicted on the drawings are not to be considered exact and represent the generalized location of the restrained joint pipe. The actual location, length, and size of the restrained joint area will be staked in the field by the Owner's Representative and may differ from that shown on the drawings. The actual field location, length and size may differ due to, but not limited to, staking the pipelines alignment to avoid or minimize disturbance to surface obstructions, reroutes due to pipeline easement changes, reroutes authorized by the Owner or Owner's Representative based on actual field conditions, and or any other reasons deemed necessary by the Owner or Owner's Representative.

When the 'Directional Drilling' method is used, the following provisions apply.

1. Pipe specified in Part 2.D.1. of this Specification shall be used.

2. Maintain the eight-foot minimum cover to top of pipe required at each restrained joint area. Do not exceed the pipe manufacturer's minimum pipe bending radius. Provide a written statement from the pipe manufacturer as to the minimum pipe bending radius allowed and as to the acceptance/requirements of using their pipe in the Directional Drilling method. Provide this information during the submittal phase of the project.

3. Provide the required long body transition couplings and reducers/increasers as necessary to complete the connection to the adjoining pipe. Where PVC pipe is connected to PE pipe, a Specified Fittings long bodied transition coupler rated for a minimum working pressure of 250 psi or equal shall be utilized. Specified Fittings long bodied coupler or equal transition couplers shall be a minimum 4 foot long for PE pipe section less than 400 feet and shall be a minimum 8 foot long for PE pipe section greater than or equal to 400 feet. Specified Fittings long bodied coupler or equal transition couplers shall be installed with 2/3 of the long coupler on the PE pipe and 1/3 on the PVC pipe. Where PE pipe is joined to PE pipe, a fused connection is required. Couplings shall be supported by virgin ground. If the ground below the coupling has been over-excavated, Contractor shall be responsible for installing flowable fill or rock to provide uniform support beneath the coupling. The maximum distance from the end of the restrained joint pipe to the end of the adjoining pipe to be bridged by a long body coupling shall be two (2) inches. The Contractor shall provide the required depth of cover over the pipe upon tie-ing in the restrained joint pipe with the adjoining pipeline. The total length of restrained pipe specified on the drawings in the designated areas shall be provided prior to the transition area of the restrained joint piping to the ground surface as denoted on the construction details.

   Contractor shall not disturb the ground surface over areas installed by 'Directional Drilling' method. This includes tracking of equipment over restrained joint areas.

4. A factory trained, licensed representative from the Contractor shall be on-site to complete the heat fusing of each section of PE pipe or PVC pipe, if used. The Contractor's representative shall be trained and licensed by the pipe manufacturer.

5. If at the time of construction any of the following conditions should appear the Owner's Representative shall be notified:

   a. Evidence of recent severe cutting or erosion.

   b. Crossing of recent channel improvements where new stream location is not stabilized such as pilot channels, newly constructed pond spillways, etc.

c. Crossing of proposed channel improvements.

The Owner's Representative shall review said areas following notification. If, in the opinion of the Owner's Representative, such areas warrant the addition of a restrained joint section, the Owner's Representative shall authorize the addition of a restrained joint area under the provisions of this section.

6. The end of the pipe which is in the direction of drilling shall be capped or plugged with an acceptable pipe plug. The plug shall be capable of preventing drilling fluid from entering the pipe.

7. The Contractor shall take into consideration the anticipated expansion and contraction of PE pipe after it has been directionally drilled before connecting the ends of the PE pipe to the PVC pipe. The Contractor shall not immediately connect the PE pipe to the PVC pipe after the directional drilling has been completed until the expansion and contraction effects are minimized. The length of this time period will be affected by the length and size of the bore and by the air temperature at the time of the bore. The Contractor shall proceed per the pipe manufacturer's recommendations and with the use of a 4-foot or 8-foot-long bodied transition coupler as required and as manufactured by Specified Fittings or equal.

END OF SECTION

SECTION 02227 UNDERGROUND CROSSINGS

PART 1 - GENERAL

A. Description

Work under this section consists of materials and installation of crossings utilized on the pipelines to be installed. The crossings are to be complete with all materials, excavation, backfill, drilling, boring, and casings as required to complete the crossings as specified herein or as detailed on the Drawings.

B. Related Work Specified Elsewhere

1. Clearing, Grubbing, and Stripping: 02110
2. Earthwork: 02200
3. Trenching, Backfilling, and Compacting: 02223
4. Restrained Joint Areas: 02226
5. General Concrete Construction: 03000 7.
6. PVC Pipe (AWWA C900 & C905): 1 5064
7. PVC Pipe (ASTM D2241): 15067

C. Testing for Compaction

Per Section 02200, Part 1.D.

PART 2 - MATERIALS

A. PVC Casing Pipe

PVC casing pipe shall comply with Section 15067, with the exception that the joints shall be of the heat fusion (butt fusion) joining system. Minimum pipe class shall be as noted on the Drawings. Materials to be utilized for the solvent weld joints of the casing pipe shall be in accordance with the manufacturer's recommendations and shall be compatible with the pipe utilized. As an alternate, Polyethylene (PE) pipe may be used as casing pipe. Minimum class of PE pipe shall be SDR 17. The PE pipe shall be of the heat fusion (butt fusion) joining system, PLEXCO HDPE 4710, or equal. A schedule of casing pipe sizes for the carrier pipe is provided on the Contract Drawings.

B. Steel Casing Pipe

Casing pipe shall be smooth steel pipe. Steel pipe used for steel casing shall meet one of the following material specifications: ASTM A53, Grade B; ASTM A139, Grade B; or ASTM A135, Grade B.

C. Concrete

Concrete for encasements utilized in crossing of sewer facilities or other locations where concrete encasement is required shall be Class C per Section 03000.

PART 3 - EXECUTION

A. Cased Underground Crossings

Cased underground crossings for pipelines which pass under railroad tracks, State or Federal paved highways, designated county paved roads, or other designated roads or facilities as staked in the field by the Owner's Representative shall be encased with the type of encasement pipe necessary to meet the requirements of the Railroad, Highway Department, County, or other governing agencies. Material type and wall thickness shall be as directed .

The pipeline and casing shall be installed by directional drill within the limits shown on the Drawings. Open trench excavation or casing installation may be utilized for areas outside the boring limits. Railroad crossings require encasement from R/W line to R/W line as indicated on permit and detailed on the Drawings. Work within the R/W shall conform to the requirements of the applicable permit and shall be completed to the limits shown on the Drawings. Compaction of backfill within these areas shall conform to the requirements of Section 02223, Part 3.L. The Contractor shall notify the responsible officials of the Railroad, Highway Department, or County Road Department prior to commencing the work. At the points of entry and exit from the casing, the plastic pipe shall be protected from cutting and pinching by a sleeve which extends at least 12" from the end of the casing. Such sleeve may be made of sections of larger sizes of PVC pipe. Where space permits the sleeve shall be doubled. Casing pipe shall utilize synthetic rubber pull-on end seal with stainless steel clamps to seal the annular space between the carrier and casing pipes.

Carrier pipe shall be restrained joint type pipe (such as yelomine, fusible PVC, or polyethylene (PE) pipe) as outlined in Specification Sections 02226, 15064, and/or 15067 and as indicated on Drawings. The restrained joint carrier pipe shall extend a minimum of 10’ beyond ends of casing pipe. Backfill at the ends of the casing pipe shall be hand placed and shall be thoroughly compacted for a distance along the axis of the pipe at least 3 feet out from the end of the casing for the full width of the trench and to a height at least 1 foot above the pipe. This also pertains to all over- excavated areas along the alignment of the pipe. Following completion of the installation and prior to final acceptance, approval of the installation must be obtained from the governing authority.

B. Uncased Underground Road Crossings

Pipeline crossings of other roads may be designated by the Owner's Representative as uncased road crossings). Permits for crossing these roads will be obtained by the Owner. The pipeline shall be installed beneath the roadbed by directional drilling within the limits shown on the drawings. Under no circumstances shall jetting be allowed. Carrier pipe shall be provided in standard laying lengths. The Contractor shall make every attempt to eliminate installation of pipe joints beneath the limits of the roadbed. If joints need to be installed beneath the roadbed the Contractor shall review the installation with the Owner's Representative to determine the most desirable placing of those joints. Open trench excavation for the pipeline shall be used outside the boring limits and shall conform to the requirements of Section 02223. Complete the installation of the pipeline from the boring pits at the road crossing to the R/W lines such that the installation is complete as one continuous segment to the R/W lines. Upon completion of the work and prior to final acceptance, approval must be obtained from the governing agency. Restrained joint pipe, per Section 02226, is required if more than one length of pipe (one pipe stick) is to be installed within the bore area. This applies to all boring methods.

Contractor shall provide the required long body transition couplings and reducers/increasers as necessary to complete the connection to the adjoining pipe. Couplings shall be supported by virgin ground. If the ground below the coupling has been over-excavated, Contractor shall be

responsible for installing flowable fill or rock to provide uniform support beneath the coupling. The maximum distance from the end of the restrained joint pipe to the end of the adjoining pipe to be bridged by a long body coupling shall be two (2) inches. The Contractor shall provide the required depth of cover over the pipe upon tying in the restrained joint pipe with the adjoining pipeline.

Some pipelines crossing roadways, approaches, or trails may not be designated as road crossings and shall be installed as a portion of and subsidiary to pipeline installation. Compaction of such crossings is required and shall be in accordance with Section 02223.

C. Stream Crossings

Pipelines which cross under streams, waterways and drainage areas are not specifically shown or designated on the drawings. The Contractor shall be responsible for reviewing the work site and making his own investigations and determinations of the types of stream crossings, waterway crossings, drainage crossings, and soil conditions to be encountered. All stream crossings, and crossings of waterways and other drainage areas shall be subsidiary to pipeline installation. Some stream crossings may coincide with specified restrained joint areas. All pipelines placed beneath streams and/or drainage crossings having a defined channel shall be installed to a minimum depth of 96" below the bottom of the stream bed. All work associated with the stream crossing shall conform to the permit requirements and to State and Federal regulations. A listing of criteria and guidelines is contained in Appendix A.

Contractor shall provide the required long body transition couplings as manufactured by Specified Fittings or equal and reducers/increasers as necessary to complete the connection to the adjoining pipe. Couplings shall be supported by virgin ground. If the ground below the coupling has been over-excavated, Contractor shall be responsible for installing flowable fill or rock to provide uniform support beneath the coupling. The maximum distance from the end of the restrained joint pipe to the end of the adjoining pipe to be bridged by a long body coupling shall be two (2) inches. The Contractor shall provide the required depth of cover over the pipe upon tie-ing in the restrained joint pipe with the adjoining pipeline.

D. Sewage Systems, High Pressure Water Lines for Oil Wells, and Crude Oil Line Crossings

The following provisions shall pertain to crossings of high pressure water lines for oil wells, crude oil lines, sewage system crossings, septic tanks, lateral fields, waste stabilization ponds, sewer lines discharging to the ditch, or when other sources of pollution are encountered. These crossings shall be subsidiary to pipeline installation.

1. All water main distribution and supply lines shall be installed at least 25 feet (horizontal distance) from any septic tank or waste stabilization pond.

2. When it is necessary for a water line to cross high pressure water lines for oil wells or crude oil lines, the water line shall be encased for 20 feet (horizontal distance) either side of the high pressure water line, crude oil line, or point of discharge with solvent weld PVC pipe. Casing pipe size shall be the size as described in the detailed drawings. Center the waterline at the crossing, such that the waterline pipe joint is located at least 10 ft. horizontally from the crossing.

3. When it is absolutely necessary for a water line to cross a perforated sewer line or pass through a drainfield, the water line shall be encased for the entire distance of the drainfield plus 25 feet on either side of the drainfield with solvent weld PVC pipe. Casing pipe size shall be the size as described in the detailed drawings. However, prior to making the proposed crossing, a written request asking for approval shall be submitted to the N.D. State Health Department.

4. When it is necessary to install a water service line parallel to a sewer drain, a minimum horizontal distance of 10 feet shall be maintained.

5. Maintain at least 18" vertical separation between the waterline and the crossing. In any event the vertical separation requirements and encasement shall be no less than the requirements of the N.D. State Health Department.

E. Utility Crossings

Utility crossings are not shown either expressed or implied on the drawings. Generalized locations of some utilities may be shown on the drawings. If shown, such locations were derived from the utility's general location maps and are not to be considered exact.

The following items shall pertain to utility crossings encountered on the Project.

1. All utility crossings shall be made in accordance with the provisions of the utility permit.

2. If a utility crossing permit is not required, the crossing shall be made in accordance with the guidelines of the utility.

3. Excavation and backfill shall comply with Section 02223.

4. Prior to crossing any utility, proper notification shall be provided to the utility as required in accordance with applicable laws, regulations, and ordinances.

END OF SECTION

SECTION 03000 GENERAL CONCRETE CONSTRUCTION

PART 1 - GENERAL

A. Description

This section describes materials, installation, and testing of formwork, reinforcing steel, joints, concrete, and finishing and curing for general concrete construction.

B. Related Work Specified Elsewhere

1. Earthwork: 02200

2. Trenching, Backfilling and Compacting: 02223

C. Submittals

1. Submit shop drawings in accordance with the General Provisions and Special Condition Section 01340.

2. Submit manufacturer's catalog data and descriptive literature for form coatings and curing compound, and joint filler.

3. Submit mill test certificates identifying chemical and physical analyses of each load of reinforcing steel delivered. If mill test reports are unavailable and the quantity of steel for a structure exceeds 5 tons, provide a laboratory test to prove conformance with the specified ASTM standard.

4. Submit reinforcing bending lists and placing drawings for all reinforcing. Placing drawings shall indicate all openings (mechanical, electrical, equipment, and architectural) including additional reinforcing at openings and corner bar arrangements at intersecting beams, walls, and footings indicated in the typical detail and structural drawings. Placing drawings shall be coordinated with the concrete placing schedule. Each bending list and placing drawing submitted shall be complete for each major element of a structure (grade slabs, footings, walls, deck, floor, or roof slabs) including dowels and corner bars. By furnishing such lists it shall not be construed that the lists will be reviewed for accuracy. The Contractor shall be wholly and completely responsible for the accuracy of the lists and for furnishing and placing reinforcing steel in accordance with the details shown on the plans and as specified.

5. Submit concrete mix design at least 15 days before placing concrete.

PART 2 - MATERIALS

A. Formwork

1. Design forms according to ACI 347.

2. Class I Forms: Use steel forms, ply form, or smooth-surface plywood 3/4 inch minimum thickness for straight surfaces and 1/2 inch minimum thickness for curved surfaces.

3. Class II Forms: Use plywood in good condition, metal, or smooth-planed boards free from large or loose knots with tongue and groove or ship lap joints. Forms shall be oiled.

4. Class II forms may be used for exterior concrete surfaces which are 1 foot or more below finished grade. Use Class I forms for all other surfaces.

B. Form Release Agent

1. Form release agent shall effectively prevent absorption of moisture and prevent bond with the concrete. Agent shall be nonstaining and nontoxic after 30 days.

2. For steel forms, release agent shall prevent discoloration of the concrete due to rust.

C. Reinforcing Steel

1. Reinforcement shall conform to ASTM A 615, Grade 60.

2. Fabricate reinforcing in accordance with the current edition of the Manual of Standard Practice, published by the Concrete Reinforcing Steel Institute. Bend reinforcing steel cold.

3. Deliver reinforcing steel to the site bundled and tagged with identifying tags.

D. Welded Wire Fabric

Welded wire fabric shall conform to ASTM A 185.

E. Tie Wire

Tie wire shall be 16 gage minimum, black, soft annealed.

F. Bar Supports

Bar supports and spacers for rebar shall be provided in accordance with ACI 315. Bar supports in beams and slabs exposed to view after form stripping shall be plastic coated. Use concrete supports for reinforcing in concrete placed on grade.

G. Bar Couplers

Reinforcing steel bar splicing couplers shall be a mechanical type as manufactured by Dayton Barsplice, Inc. or equal. Use couplers which do not reduce tensile or ultimate strength of bars.

H. Bond Breaker Tape

Bond breaker tape shall be an adhesive-backed glazed butyl or polyethylene tape which will adhere to the premolded joint material or concrete surface. The tape shall be the same width as the joint. The tape shall be compatible with the sealant.

I. Premolded Joint Filler

Joint filler shall be preformed, nonextruded type constructed of closed-cell neoprene conforming to ASTM D 1752, Type I, as manufactured by W.R. Grace Company of Cambridge, Massachusetts; W.R. Meadows, Inc., Elgin, Illinois; or equal.

J. Cement

Cement shall conform to ASTM C 150, Type II, with maximum tricalcium aluminate not to exceed 8%. The maximum percent alkalies shall not exceed 0.6%.

K. Aggregates

Aggregates shall comply with ASTM C 33 and shall be free from asbestos and any substances that will react with the cement alkalies.

L. Concrete Admixtures

1. Concrete shall contain an air-entraining admixture. Admixture shall conform to ASTM C 260, except it shall be nontoxic after 30 days and shall contain no chlorides. Admixtures shall be Master Builders MB-AE 10, Sika AER (Sikamix 104), or equal.

2. Concrete may contain a water-reducing admixture. The admixture shall conform to ASTM C 494, Type A, except it shall contain no chlorides, shall be nontoxic after 30 days, and shall be compatible with the air-entraining admixtures. The amount of admixture added to the concrete shall be in accordance with the manufacturer's recommendations. Admixtures shall be Master Builders Pozzolith polymer-type normal setting, Plastocrete (Sikamix 160) Normal Set, Sika Chemical Corporation, or equal.

3. Do not use any admixture that contains chlorides or other corrosive elements in any concrete.

M. Grout

1. Non-shrink grout shall conform to the Corps of Engineers Specification for Non-shrink Grout, CRD-C588-78, and to these specifications. Use a non-gas-liberating type, cement base, premixed product requiring only the addition of water for the required consistency. Grout shall be UPCON High Flow, Master Flow 713, or equal. Components shall be inorganic.

2. Ordinary type grout (dry pack) shall consist of one part portland cement to two parts sand (100% passing a No. 8 sieve). Add sufficient water to form a damp formable consistency.

N. Mortar

1. Mortar or grout placed on horizontal construction joints shall be a mixture of cement, sand, and water in the same proportions used in the concrete but with coarse aggregate omitted.

2. Mortar used for repair of concrete shall be made of the same materials as used for concrete, except that the coarse aggregate shall be omitted and the mortar shall consist of not more than one part cement to two and one-half parts sand by damp loose volume. The quantity of mixing water shall be no more than necessary for handling and placing.

O. Concrete Mix Design

1. Conform to ASTM C 94, except as modified by these specifications.

2. Air content as determined by ASTM C 231 shall be 6% +/-1%.

3. Maximum water-cement ratio for Class A concrete = 0.44 by weight.

4. Use classes of concrete as described in the following table:

Class	Type of Work	28-day Compressive Strength (in psi)	Minimum Cement Content (in lbs per C.Y.
A	Concrete for all structures and concrete not otherwise specified.	3,500	564
C	Thrust Blocks and Miscellaneous un-reinforced concrete	2,000	329

5. Measure slump in accordance with ASTM C 143. Slump shall be as follows:

   Slab on grade or heavy sections wider (in plan view) than 3 feet: 3 inches +/- 1 in.

   Footings, walls suspended slabs, beams, and columns: 4 inches +/- 1 in.

   Proportion and produce the concrete to have a slump as shown. Concrete of lower than usual slump may be used provided it is properly placed and consolidated.

6. Aggregate size shall be 3/4 inch maximum for slabs and sections 8 inches thick and less. Aggregate size shall be 1-1/2 inches maximum for all larger slabs and sections.

7. Mix design for pumped concrete shall produce a plastic and workable mix. The percentage of sand in the mix shall be based on the void content of the coarse aggregate.

P. Concrete Tests

1. Concrete quality testing will be performed on the concrete by the Contractor as follows:

   a. Frequency of Sampling: Cast four concrete test cylinders from each 50 cubic yards, or fraction thereof, of each class of concrete placed in any one day. Sampling and curing of cylinders shall conform to ASTM C 31.

   b. Strength Testing: Test cylinders in accordance with ASTM C 39. Test one cylinder at 7 days for information; test two cylinders at 28 days for acceptance; and hold one cylinder for verification. Strength acceptance will be based on the average of the strengths of the two cylinders tested at 28 days. If one cylinder of a 28 day test manifests evidence of improper sampling, molding, or testing, other than low strength, discard it and use the fourth cylinder for the test result.

c. Determine concrete slump by ASTM C 143 with each strength test sampling and as required to establish consistency.

d. Determine air content of the concrete using ASTM C 231 to verify the percentage of air in the concrete immediately prior to depositing in forms.

e. The average value of concrete strength tests shall be equal to or greater than the specified 28-day strength. No test shall be less than 90% of the specified 28-day strength.

f. If the 28-day strength tests fail to meet the specified minimum compressive strength, the concrete will be assumed to be defective and one set of three cores from each area may be taken as selected by the Owner's Representative and in accordance with ASTM C42. If the average compressive strength of the set of three concrete cores fails to equal 85% of the specified minimum compressive strength or if any single core is less than 75% of the minimum compressive strength, the concrete will be considered defective. The Owner may require additional coring, nondestructive load testing, or repair of defective concrete.

2. To facilitate concrete sampling and testing, the Contractor shall Furnish labor to assist the Owner's Representative in obtaining and handling samples at the project site.

3. Advise the Owner's Representative in advance of concrete placing operations to allow for scheduling and completion of quality tests.

4. Provide and maintain facilities for safe storage and proper curing of concrete test specimens on the project site, as required by ASTM C 31.

Q. Curing Compound

1. Curing compound shall conform to ASTM C 309, Type 1-D, Class B.

2. Curing compound shall be compatible with required finishes and coatings.

R. Mats, Paper, and Sheeting for Curing

1. Burlap mats shall conform to AASHTO Specification M182.

2. Sisal-kraft paper and polyethylene sheets shall conform to ASTM C 171.

S. Epoxy Bonding Compound

Eva-Pox fresh concrete bonder #2, E-Poxy Industries; Master Builders 1001LPL, Master Builders Technologies, or equal.

PART 3 - EXECUTION

A. Form Tolerances

1. Failure of the forms to produce the specified concrete surface and surface tolerance shall be grounds for rejection of the concrete work. Rejected work shall be repaired or replaced.

2. The following table indicates tolerances or allowable variations from dimensions or positions of structural concrete work:

Sleeves and inserts	+1/2" -1/2"
Projected ends of anchors	+1/2" -0.0"
Anchor bolt setting	+1/4" -1/4"
Finish concrete, all locations	+1/4" -1/4" in 10 feet Max +/- 1" in total length

The planes or axes from which the above tolerances are to be measured shall be as follows:

Sleeves and inserts:	Centerline of sleeve or insert.
Projected ends of anchors:	Plane perpendicular to the end of the anchor as located on the drawings.
Anchor bolt setting:	Centerline of anchor bolt.
Finish concrete:	The concrete surface as located on the drawings.

Where equipment is to be installed, comply with manufacturer's tolerances if more severe than above.

B. Beveled Edges (Chamfer)

Form 3/4-inch bevels on all exposed concrete edges and corners, beam soffit corners, and where indicated on the drawings.

C. Construction Joints

1. Provide construction joints where shown on the drawings. In case of emergency, place additional construction joints. (An interval of 45 minutes between placements shall constitute cause for an emergency construction joint.)

2. Construction joints shall be keyed, unless otherwise detailed. Form keyways by beveled strips or boards placed at right angles to the direction of shear. Except where otherwise shown on the drawings or specified, keyways shall be at least 1-1/2 inches in depth over at least 25% of the area of the section.

1. When it is necessary to make a joint because of an emergency, furnish and place reinforcing dowels across the joint. Embed dowels 48 bar diameters each side of the joint. Size and number of dowels shall match reinforcing in the member.

3. After the pour has been completed to the construction joint and the concrete has hardened, thoroughly clean the entire surface of the joint of surface laitance, loose or defective concrete, and foreign material, and expose clean aggregate by sandblasting the surface of construction joints before placing the new concrete. Cover horizontal construction joints with mortar. Spread uniformly and work thoroughly into all irregularities of the surface. The water-cement ratio of the mortar in place shall not exceed that of the concrete to be placed, and the consistency of the mortar shall be suitable for placing and working.

D. Expansion Joints

Provide expansion joints with continuous edge reservoirs, which shall be filled with a joint sealant. Leave the material used for forming the reservoirs in place until immediately before the grooves are cleaned and filled with joint sealant. After removing edge forms from the reservoir, remove grout, loose concrete, and fins; then sandblast the slots. Allow the reservoirs to become thoroughly dry; then blow out the reservoirs and immediately prime and fill with the expansion joint sealant and backup materials. The primer used shall be supplied by the same manufacturer supplying the joint sealant.

E. Time Between Pours

At least two hours shall elapse after depositing concrete in the columns or walls before depositing in beams, girders, or slabs supported thereon. Place beams, girders, brackets, column capitals, and haunches monolithically as part of the floor or roof system, unless otherwise indicated on the drawings.

F. Installation of Premolded Joint Filler

Install in joint accurately as shown. Attach to concrete with a bonding agent recommended by the joint sealant and joint filler manufacturer for compatibility.

G. Placing Reinforcement

1. Place reinforcement steel in accordance with the current edition of Recommended Practice for Placing Reinforcing Bars, published by the Concrete Reinforcing Steel Institute.

2. Reinforcing steel, before being positioned, shall be free from loose mill and rust scale and from any coatings that may destroy or reduce the bond. Clean reinforcing steel by sandblasting or wire brushing and remove mortar, oil, or dirt to remove materials that may reduce the bond.

3. Do not straighten or rebend reinforcing steel in the field. Do not use reinforcing with bends not shown on the drawings.

4. Position reinforcing steel in accordance with the drawings and secure by using annealed wire ties or clips at intersections and support by concrete or metal supports, spacers, or metal hangers. Do not place metal clips or supports in contact with the forms. Bend tie wires away from the forms to provide the specified concrete coverage. Bars additional to those shown on the drawings, which may be found necessary or desirable by the Contractor for the purpose of securing reinforcement in position, shall be provided by the Contractor.

5. Place reinforcement a minimum of 2 inches clear of any metal pipe or fittings.

6. Secure reinforcing dowels in place prior to placing concrete. Do not press dowels into the concrete after the concrete has been placed.

7. Roll wire mesh used for reinforcement flat before placing concrete. Support and tie wire mesh to prevent movement during concrete placement.

H. Site-Mixed Concrete

Conform to ACI 304.

I. Ready-Mixed Concrete

Conform to ASTM C 94.

J. Placing and Consolidating Concrete

Conform to ACI 304 and ACI 309.

K. Pumping Concrete

Conform to ACI 304.2R-71.

L. Weather Requirements

1. Conform to ACI 305 for placing during hot weather.

2. Conform to ACI 306 for placing during cold weather.

M. Bonding to Old Concrete

Coat the contact surfaces with epoxy bonding compound. The method of preparation and application of the bonding compound shall conform to the manufacturer's printed instructions and recommendations for specific application for this project.

N. Form Removal

The minimum allowable time after the last cast concrete is placed before forms, shoring, or wall bracing may be removed from:

1. Prefabricated vault slabs, sides of footings and encasements: 36 hours

2. Structural slabs, beams, girders: Until concrete strength reaches specified 28-day strength.

O. Grouting Machinery Foundations

Block out the original concrete or finish off a sufficient distance below the bottom of the machinery base to provide for the thickness of grout shown on the drawings. After the machinery has been set in position and wedged to the proper elevation by steel wedges, fill the space between the bottom of the machinery base and the original pour of concrete with a pourable nonshrink grout.

P. Backfill Against Walls

1. Do not place backfill against walls until the concrete has obtained a compressive strength equal to the specified 28-day compressive strength. Where backfill is to be placed on both sides of the wall, place the backfill uniformly on both sides.

2. Do not backfill the walls of structures that are laterally restrained or supported by suspended slabs or slabs on grade until the slab is poured and the concrete has reached the specified compressive strength.

Q. Concrete Finishes

1. Complete concrete surfaces in accordance with the following schedule:

Finish Designation	Area Applied
F-1	Exterior walls below grade.
F-3	Walls of structures or buildings exposed to view. Underside of formed floors or slabs.
S-4	Slabs and floors of structures or buildings exposed to view.
S-5	Slabs and floors at slopes greater than 10%.
E-1	Exposed edges of slabs, floors, and wall tops.

2. Finish F-1: Repair defective concrete, fill depressions deeper than 1/2 inch, and fill tie holes.

Finish F-3: In addition to Finish F-1, remove fins, fill depressions 1/4 inch or deeper, fill depressions and airholes with mortar.

Finish S-4: Steel trowel finish without local depressions or high points and apply a light hair-broom finish. Do not use stiff bristle brooms or brushes. Leave hair-broom lines parallel to the direction of slab drainage.

Finish S-5: Steel trowel finish without local depressions or high points. Apply a stiff bristle broom finish. Leave broom lines parallel to the direction of slope drainage.

Finish E-1: Exposed edges of slabs, floors, and tops of walls, finish with a 1/2-inch-radius edger if a chamfer is not indicated.

R. Curing Concrete

Use curing compounds in accordance with manufacturer's recommendations and conform to ACI 308.

S. Repair of Surface Defects

1. Remove honeycombed and other defective concrete down to sound concrete. Edges shall be perpendicular to surface and at least 3/8 inch deep. Sandblast surfaces to receive repair.

2. Coat sandblasted surface with epoxy bonding compound.

3. Place mortar in layers having a compacted thickness of 3/8 inch. Scratch surface of each layer to promote bonding with next layer.

4. Match finish on adjacent concrete and cure as specified.

5. Repair defective areas of more than 1 foot square and deeper than the reinforcing steel as above, except fill the area with pneumatically applied concrete.

END OF SECTION

SECTION 09900 PAINTING AND COATING

PART 1 - GENERAL

A. Work Included

Provide all labor, materials and equipment and perform all operations required to paint the facilities including, but not limited to, metal, equipment surfaces, piping, and valves.

B. Submittals

1. Submit shop drawings in accordance with the General Provisions.

2. Submit manufacturer's data sheets showing the following information:

   a. Percent solids by volume.

   b. Minimum recommended dry-film thickness per coat for prime, intermediate, and finish coats.

   c. Recommended surface preparation.

   d. Recommended thinners.

   e. Statement verifying that the prime coat used is recommended by the manufacturer for use with the intermediate and finish coats.

   f. Application instructions including recommended equipment and temperature limitations.

   g. Curing requirements and instructions.

C. Workmanship

Perform all painting to meet standards of the best grades of painting using only thoroughly experienced workmen. Place drop cloths as required to protect floors and equipment from sprays, spatter, and droppings. Make the finished surfaces free from runs, drops, ridges, waves, laps, holidays, brush marks, or other imperfections. Use particular care to obtain an unbroken coating over bolts, threads, nuts, welds, edges and corners. Apply all coats in a manner to obtain even films of uniform thickness completely coating all corners and crevices.

Use only good, clean brushes and other equipment. Clean brushes, buckets and spraying equipment immediately at the end of each painting period.

Do not damage adjacent work during sandblasting operations. Do not leave blasted surfaces overnight before coating. Remove dust from the surface immediately prior to painting. Conduct spray painting under controlled conditions. Prevent damage to other facilities as a result of the spraying work. Correct any that does occur. Use air pressures consistent with recommendations of both the paint and spray equipment manufacturers. Use properly sized nozzles. Equip the spraying equipment with mechanical agitators, pressure gauges, and pressure regulators. Exercise care during spraying to hold the nozzle sufficiently close to the surface being painted to avoid excessive evaporation of the volatile constituents and loss of material into the air, or the bridging over of crevices and corners.

D. Inspection of Surfaces

Obtain an inspection by the Owner's Representative of each surface to be painted subsequent to surface preparation and prior to application of each field coat of paint. Obtain inspection initially before beginning any surface preparation or painting operations on each surface.

Tint alternate coats of paint to ensure all surfaces are properly coated with the specified number of coats. Match the color of each undercoat to the color of the final finish coat unless directed otherwise as provided in this paragraph.

E. Special Attention Coating

Prior to application of each complete coat, apply a brush coat of the specified paint to surfaces that are difficult to coat, including sharp edges, nuts, bolts, and welds.

F. Film Thickness and Continuity

Do not exceed surface coverage rates specified by the manufacturer. References to the first coat mean the first full coat of paint and not surface preparation or pretreatment coatings. Dry film thickness indicated for each coat in each system represent minimums unless otherwise indicated (for example: a range -- 0.8 mils to 1.2 mils, or a maximum -- 6 mils maximum).

During and after final application of protective coatings, check all metal surfaces with a dry film thickness gauge to ensure specified dry film thickness have been attained. Check the thickness mechanically with an Elcometer, Mikrotest, or equivalent. Check all submerged or intermittently wetted metal surfaces for film continuity electrically using an approved low voltage flow detector such as Tinker-Rasor's M-1, K-D's "Bird Dog", or equivalent. In testing for continuity in the vicinity of welds, projections such as nuts and bolts, and crevices, the Owner's Representative will determine the minimum conductivity for smooth areas of like coating found adequate and apply it to these rough, irregular areas. Repaint pinholes and holidays to the required coat coverage. Make all metal surfaces meet the minimum continuity requirements for their coating.

G. Paint Properties, Mixing and Thinning

Assure all paints provide a satisfactory film with a smooth, even surface. Lightly sand glossy undercoats to provide a suitable surface for the proper application and adhesion of subsequent coats. Thoroughly stir, strain and keep paints at a uniform consistency during applications. Add paste pigments at the time of use and mix as follows: Place the pigment in a separate container and add small increments of the required vehicle or base paint with thorough stirring until a viscous smooth, homogeneous, lump-free paste is obtained. Mix in the remainder of the vehicle or base paint by boxing or stirring. Mix powdered metallic pigments at the time of use by adding the powder in small increments to about one third of the required base paint or vehicle with thorough mixing to obtain a smooth paste. Thoroughly stir in the remainder of the vehicle or base paint.

When necessary to suit conditions of the surface, temperature, weather, and method of applications, thin packaged paint immediately prior to use. Use the proper thinner as recommended by the manufacturer of the paint. Do not exceed either the maximum recommended thinning rate per the manufacturer or a thinning rate of 10% by volume. In no case, thin paint more than is absolutely necessary to obtain the proper application characteristics. Thinning in no way reduces the required film thicknesses specified for each system. If approved by the Owner's Representative, film thickness per coat may be reduced if the number of coats is increased to result in the same overall thickness of each type of paint in each system. In no case, will a dry film thickness less than the minimum recommended by the manufacturer be allowed.

H. Atmospheric Conditions

Except as specified or required for water thinned paint, apply paints only to thoroughly dry surfaces which are free of rust and condensation. Apply paint only when the dewpoint is adequately below the temperature of the surface. Do not apply paint during rainy, misty weather without protecting the area to be painted in a manner satisfactory to the Owner's Representative. Do not apply paint when the surrounding air temperature is below 40 degrees F. Do not apply paint when the temperature is expected to drop to 32 degrees F before the paint has dried. Do not apply paint to metal that is more than 5 degrees F cooler than the surrounding air or hotter than 120 degrees F. In no case, apply paint to metal which is at a temperature that will cause blistering or porosity or otherwise will be detrimental to life of the paint. When metal is painted in hot weather, special precautions are necessary to ensure that the specified thickness of paint is obtained. Do not apply paint during rain, fog, snow or mist when the relative humidity exceeds 85%. Do not apply paint when there is visible water, ice, or frost on the surface. In no case, apply paints under atmospheric conditions contrary to recommendations of the paint manufacturer.

I. Protection of Painted Surfaces

Where protection is provided for a surface during paint application, maintain such protection until the paint film has properly dried. Do not handle, work on, or otherwise disturb an item or surface that has been painted until the paint is completely dry and hard.

J. Transitions at Dissimilar Metals

At junctions of dissimilar metals, one of which does not require a protective coating, carry the coating across the juncture point onto the surface not requiring the coating in a manner that will preclude the presence of any cracks or pinholes. Properly prepare the surface of the metals to receive the coatings applied. If other preparations are unspecified, use a solvent cleaning and a commercial grade blast (SSPC-SP6) cleaning.

K. Special Instructions

1. Furnish, at no charge for use during this project, necessary dry film thickness gauges and electrical flaw detection equipment.

2. Furnish all necessary equipment and protective clothing as well as be responsible for proper instruction and supervision of their use.

3. Two weeks prior to the beginning of any painting deliver the specified test equipment and establish with the Owner's Representative a mutually agreeable schedule for the painting work. Design the schedule to allow for all inspections required. Include the entire duration of the project in the schedule.

4. Immediately prior to expiration of the guarantee period, the Owner's Representative will inspect the project and require all defects revealed to be corrected. Provide all work and materials necessary to eliminate the defects. Complete repair work within one calendar month of notification of the defects.

L. Color Schedule

The color schedule is located at the end of this section.

PART 2 - PRODUCTS

A. General

Deliver materials to the job site in their original unopened containers bearing the manufacturer's name, brand, and batch number. Do not use materials until the contents are inspected and data obtained from the label. Store materials in enclosed structures to protect them from the weather and excessive heat and cold. Protect materials from freezing.

All coatings applied to the interior of valves, piping, fittings, and pumps, and which convey potable water shall meet American National Standards Institute/National Sanitation Foundation International (ANSI/NSF) Standard 61. Coatings shall be considered as meeting this standard if certified as such by the NSF, UL, or other organizations accredited by ANSI to test and certify such materials.

B. Manufacturers and Distributors

Paint listed in the system description refers to the following manufactures and distributors:

1. Ameron, Protective Coatings Division, Brea, California
2. Koppers Company, Inc., Pittsburgh, Pennsylvania
3. Tnemec Company, Inc., Kansas City, Missouri

C. Touch-Up Paint

Furnish a minimum of 1 gallon of each paint in each color used for touch-up and minor repair work. Furnish the paints in unbroken containers clearly labeled with the manufacturer's name, product number or name, color, date of manufacture and coating system used.

PART 3 - EXECUTION

A. Surface Preparation

1. General: Properly condition all surfaces to be painted or coated before performing any work. Perform no more sandblasting or surface preparation than can be painted or coated in a normal working day. Remove all sharp edges, burrs, and weld splatter. Suppliers are instructed to provide shop work, in accordance with these specifications. Remove, suitably mask or protect hardware, electrical fixtures, and similar accessories. Disconnect and move equipment adjacent to walls as necessary to permit cleaning and painting and replace such equipment subsequent to work.

2. Preliminary cleaning: Remove oil, grease, dirt, rust, loose mill scale, and other foreign substances. Remove oil and grease prior to any mechanical cleaning. Minor amounts of grease and oil contaminates will be tolerated on the surface prior to sandblasting, provided the abrasive is not reclaimed and reused.

3. Surface preparation methods:

   a. General: Use clean cloths and fluids in solvent cleaning to avoid leaving a film or greasy residue. Program work to prevent dust or spray from the cleaning process from falling on wet, newly painted surfaces. Produce an adequate surface to securely bond the products used.

   b. Metal Surfaces: Prepare surfaces in accordance with the Steel Structures Painting Council (SSPC) method specified for the particular system used. When

reference to a particular method is omitted, use SSPC-SP-2 (Hand Tool Cleaning). A brief summary of the SSPC methods presented below refer to the SSPC Manual for complete text of the specifications.

(1) SSPC-SP1 Solvent Cleaning

The removal of dirt, oil, grease and foreign matter with solvents or commercial cleaners using various methods of cleaning such as wiping, dipping, steam cleaning or vapor degreasing.

(2) SSPC-SP2 Hand Tool Cleaning

The removal of loose rust and mill scale by hand wire brushing, scraping, chipping or sanding. Hand Tool Cleaning will not remove all rust residue or intact, firmly adhering, mill scale.

(3) SSPC-SP3 Power Tool Cleaning

The removal of loose rust and mill scale by mechanical means such as power sanders, wire brushes, chipping, hammers, abrasive grinding wheels or needle guns. Power Tool Cleaning provides a slightly higher degree of cleanliness than Hand Tool Cleaning, but is not regarded as adequate surface preparation for long-term exterior exposure of most high-performance coating systems.

(4) SSPC-SP5 White Metal Blast Cleaning

The complete removal of all visible rust, mill scale, paint and foreign matter by compressed air nozzle blasting, centrifugal wheels or other specified method, leaving an overall, uniformly gray-white metallic appearance.

(5) SSPC-SP6 Commercial Blast Cleaning

The removal of at least two-thirds of all visible rust, mill scale, paint and other foreign matter from each square inch of surface by compressed air nozzle blasting, centrifugal wheels or other specified method.

(6) SSPC-SP7 Brush-Off Blast Cleaning

The removal of loose rust, mill scale, paint and foreign matter from the surface by compressed air nozzle blasting, centrifugal wheels or other specified methods.

(7) SSPC-SP10 Near-White Metal Blast Cleaning

The removal of 95% of all visible rust, mil scale, paint and other foreign material from each square inch of surface by compressed air blasting, centrifugal wheels or other specified method.

B. Paint Application

1. Conform to the requirements of SSPC PA-1. Follow the recommendations of the coating manufacturer including the selection of spray equipment, brushes, rollers, cleaners, thinners, mixing, drying time, temperature and humidity of application, and safety precautions.

2. Stir, strain, and keep coating materials at a uniform consistency during application. Apply each coating evenly, free of brush marks, sags, runs, and other evidence of poor workmanship. Use a different shade or tint on succeeding coating applications to indicate coverage where possible. Finished surfaces shall be free from defects or blemishes.

3. Do not use thinners unless recommended by the coating manufacturer. If thinning is allowed, do not exceed the maximum allowable amount of thinner per gallon of coating material. Stir coating materials at all times when adding thinner. Do not flood the coating material surface with thinner prior to mixing. Do not reduce coating materials more than is absolutely necessary to obtain the proper application characteristics and to obtain the specified dry-film thicknesses.

4. Remove dust, blast particles, and other debris from blast cleaned surfaces by dusting, sweeping, and vacuuming. Allow ventilator fans to clean airborne dust to provide good visibility of working area prior to coating applications. Remove dust from coated surfaces by dusting, sweeping, and vacuuming prior to applying succeeding coats.

5. Apply coating systems to the specified minimum dry-film thicknesses as measured from above the peaks of the surface profile.

6. Apply primer immediately after blast cleaning and before any surface rusting occurs, or any dust, dirt, or any foreign matter has accumulated. Reclean surfaces by blast cleaning that have surface colored or become moist prior to coating application.

7. Apply a brush coat of primer on welds, sharp edges, nuts, bolts, and irregular surfaces prior to the application of the primer and finish coat. The brush coat shall be done prior to and in conjunction with the spray coat application. Apply the spray coat over the brush coat.

C. Paint Systems

1. General: Paint systems include surface preparations, prime coatings, and finish coatings. Field clean and touch up with the same shop applied primers. Paint materials specified herein are given to illustrate the type, quantity and quality of materials required. Thickness as shown represents dry film requirements.

2. System A: Not used.

3. System B: Metal exposed to normal interior and exterior moisture.

   a. Work Included: Exposed steel work, handrails, pipework, valves and appurtenances, fittings, mechanical equipment.

   b. Surface Preparation: SSPC-SP10 (Near-White)

   c. Alternate Coatings:

Manufacturer	Product	Description
(1) Ameron	5101 Primer 5401 Enamel	One 1.5 mil coating Two or more 1.5 mil coats
(2) Kop-Coat	622 Primer 500 Enamel	One 1.5 mil coat Two or more 1.5 mil coats
(3) Tnemec	66 Color Epoxoline (Primer)	Pretreatment 3.0 dry mils

Finish (Interior)	66-Color Epoxoline	3.0 dry mils
Finish (Exterior)	74-Color Endurashield IV	2.0 dry mils

d. Note: Use Product 32-1210 as a pretreatment for galvanized metals and non-ferrous metals only. The pretreatment specified for these metals in System F maybe omitted with the use of Product 21-1210.

4. System C: Not Used.

5. System D: Not Used.

6. System E: Not used.

7. System F: Not used.

8. System G: Factory painted metal items with additional field applied coats.

a. Work Included: Manufactured items which are factory painted.

b. Surface Preparation: SSPC-SP1 (solvent) and as recommended by the manufacturer for damaged areas requiring special attention. Apply touch-up priming as recommended by the manufacturer or in accordance with these specifications as applicable. Apply an intermediate special coating if the factory applied coating and the coating applied under these specifications are incompatible.

c. Alternate Coating:

Manufacturer	Product	Description
(1) Ameron	5401 Enamel	Two 1.5 mil coats
(2) Kop-Coat	500 Enamel	Two 1.5 mil coats
(3) Tnemec	135 Chembuild	One coat 5.0 dry mils

9. System H: Insulation between Aluminum and Concrete

a. Work Included: All locations where aluminum items are to be placed against Portland cement work.

b. Surface Preparations: Clean concrete surface to remove all dirt and loose matter. Use SSPC-SP-1 on respective aluminum surfaces.

c. Alternate Coatings:

Manufacturer	Product	Description
(1) Kop-Coat	40	One wash coat on aluminum
	654 Epoxy	Primer, 2 mil Coat
	200HB Epoxy	Two or more 6 mil

(2) Tnemec	66-Color Epoxoline	Two coats 4.0 dry mils/coat

10. System I: Not Used.

11. System J: Submerged metal, potable water.

    a. Work Included: Valves, sluice gates, bolts, nuts, structural steel, fittings, pump columns, hydraulic diffuser cone, discharge elbows (interior), exterior of bowl assemblies, and suction bell.

    b. Surface Preparation: SSPC SP10.

    c. Requirements: Must be NSF - Approved for use in potable water.

    d. Color of Topcoat: White

    e. Alternative Coatings:

Manufacturer	Product	Description
Tnemec	Series 20 (Pota-Pox)	Two 8.0 mil coats
Kop-Coat	Hi-Gard	Two 8.0 mil coats
Ameron	395	Two 8.0 mil coats

12. System K: Nongalvanized, ferrous metal buried.

    a. Work Included: Nongalvanized ferrous metal buried.

    b. Surface Preparation: SSPC-SP10.

    c. Alternate Coatings:

Manufacturer	Product	Description
Kop-Coat	Bitumastic 300-M	Two 8.0 mil coats
Ameron	71 78 HB	Primer 2 mil coat One 16 mil coat
Tnemec	46-413 Tneme-tar	Two 8.0 mil coats

13. System L: Submerged, Exposed Metal and Buried Metal Coating System:

    a. Type: Coal-tar epoxy having a minimum volume solids of 70%, conforming to MIL-P-23236.

    b. Service Conditions: For use with metal structures, pipes, and buried metal; such as valves, flanges, bolts, nuts, structural steel, and fittings.

    c. Surface Preparation: SSPC SP-10.

d. Prime Coat: As per manufacturer's written recommendations, to be compatible with finish coat, Carboline, or equal.

e. Finish Coat: Carboline Kop-Coat (300-M), 16 mils; Ameron 78, 16 mils; Tnemec 46H413, 16 mils; or equal.

D. Surfaces Not To Be Painted

The following surfaces shall not be painted and shall be protected during the painting of adjacent areas:

1. Reinforcement for reinforced concrete.

2. Interior and exterior concrete surfaces.

3. Stainless steel.

4. Fencing.

5. Electrical fixtures except for factory coatings.

6. Nameplates.

7. Grease fittings.

8. Buried pipe, unless specifically required in the piping specification.

9. PVC piping.

10. Galvanized handrails, grating, ladders, and framework.

E. Protection Of Surfaces Not To Be Painted

Remove, mask, or otherwise protect hardware, lighting fixtures, switch plates, aluminum surfaces, machined surfaces, couplings, shafts, bearings, nameplates on machinery, galvanized metal including conduits, and other surfaces not intended to be painted. Provide drop cloths to prevent paint materials from falling on or marring adjacent surfaces. Protect working parts of mechanical and electrical equipment from damage during surface preparation and painting process. Mask openings in motors to prevent paint and other materials from entering the motors.

F. Cleanup

Remove surplus materials and rubbish upon completion of work. Repair damage caused by the painting operations and leave the premises in a clean and orderly condition.

COLOR SCHEDULE

SERVICES	COLOR (see note below)
1. All piping, valves, and other equipment inside, above grade structures or inside below grade, vaults	BB42 Clear Sky
2. Outdoor, exposed, above ground metal, pipes, and accessories	AP62 Putty

3.	Electrical Panels	BJ45 #70 Light Gray, ANSI No. 70

NOTE: Color names are based on Tnemec Company Chromacolors

END OF SECTION

SECTION 15041 DISINFECTION OF PIPING AND STRUCTURES

PART 1 - GENERAL

A. Description

This section includes materials and procedures for disinfection of water mains by the continuous feed method and by the slug method and disinfection of structures. Do not use the tablet method to disinfect pipelines. Disinfect piping in accordance with AWWA C651 and disinfect structures in accordance with AWWA C652 as modified below.

B. Related Work Described Elsewhere

1. Construction Facilities & Temporary Utilities: 01501.

2. Pressure Testing of Piping: 15042.

C. Job Conditions

1. Discharge of chlorinated water into watercourses or surface waters is regulated by the National Pollutant Discharge Elimination System (NPDES). Apply to the N.D. State Department of Health and obtain permit for permission to discharge chlorinated water and water utilized for dewatering and/or hydrostatic testing. Disposal of the chlorinated disinfection water and the flushing water shall be in accordance with N.D. Pollutant Discharge Elimination System (NDPDES) Permit Application and is the Contractor's responsibility. The State of North Dakota has advised that the highly-chlorinated water in the pipeline shall not be flushed into a creek, stream, lake or other waterways. Past experience has demonstrated the highly toxic effect chlorine has on fish and aquatic life. It may be necessary to eliminate the chlorine induced toxicity by dechlorination.

2. Schedule the rate of flow and locations of discharges in advance to permit review and coordination with Owner, the Authority and cognizant regulatory authorities.

3. Use only potable water for cleaning, disinfecting, and flushing. It is anticipated that the Owner will be able to supply potable water at those points which connect to the existing system. The Contractor shall be cognizant of the requirements stipulated in Special Condition Section 01501, Part I. for hydrotesting and disinfecting.

PART 2 - MATERIALS

A. Liquid Chlorine

Inject with a solution feed chlorinator and a water booster pump. Use an experienced operator and follow the instructions of the chlorinator manufacturer.

B. Calcium Hypochlorite (Dry)

Dissolve in water to a known concentration in a drum and pump into the pipeline at a metered rate.

C. Sodium Hypochlorite (Solution)

Further dilute in water to desired concentration and pump into the pipeline at a metered rate.

D. Chlorine Residual Test Kit

For measuring chlorine concentration, the Contractor will supply and use a medium range, drop count, titration kit or an orthotolidine indicator comparator with wide range color discs. Range 1.0 to 20 mg/l. The product used may be Hach Chemical or Hellige.

PART 3 - EXECUTION

A. Disinfection

After segments of new pipelines have been completed, tested, and pigged, all pipelines, valves, and appurtenances to be in contact with potable water and affected by construction shall be disinfected in accordance with AWWA C651. Disinfection shall be scheduled to maintain maximum continuity of the completed pipeline segments. The highly-chlorinated water shall be allowed to stand in the pipeline for a minimum of 24 hours after which there should be at least a 25 parts per million chlorine residual in the water. Additional requirements are as follows:

1. Continuous Feed Method for Pipelines

   Introduce potable water into the pipeline at a constant measured rate. Feed the chlorine solution into the same water at a measured rate. Proportion the two rates so that the chlorine concentration in the pipeline is maintained at a minimum concentration of 50 mg/l. Check the concentration at points downstream during the filling to ascertain that sufficient chlorine is being added. The Contractor shall provide the Owner's Representative and the Authority documentation of high chlorine levels at all locations requested by the Owner's Representative. This shall not cause any adverse effects to the Owner's ability to provide water to the Owner's users.

After the system has been chlorinated, the highly chlorinated water shall be flushed from the system by the Contractor. Upon the expiration of at least 48 hours after flushing by the Contractor, two (2) consecutive samples of water from each sampling point taken via one of the options below:

1. Option A: Before approving a main for release, take an initial set of samples and then resample again a minimum of 16 hours using the sampling site procedures outlined. Both sets of samples must pass for the main to be approved for release.
2.
3. Option B: Before approving a main for release, let the main sit for a minimum of 16 hours without any water use. Then collect, using the sampling site procedures outlined and without flushing the main, two sets of samples a minimum of 15 min apart while the sampling taps are left running. Both sets of samples must pass for the main to be approved for release.

Sets of samples shall be collected every 1,200 feet of the new water main, plus one set from the end of the new main lines, and one set from each branch greater than one pipe length

The Contractor shall collect or assist the Owner's Representative in collecting the samples as directed. Within twenty-four hours of sample collection, the sample must be submitted to a North Dakota certified laboratory, and remit payment to a certified laboratory. Assistance shall include operation of valves and any other incidental work deemed necessary by the Owner's Representative. The Contractor shall continue with disinfection until the samples or additional samples, if necessary, are found to be free of coliform bacteria. The Owner's Representative may require additional sampling points.

B. Disinfection of Valves and Appurtenances

During the period that the chlorine solution or slug is in the section of pipeline, open and close valves to obtain a chlorine residual at hydrants and other pipeline appurtenances.

C. Disinfection of Connections to Existing Pipelines

Prior to disinfection flush with potable water until discolored water, mud, and debris are eliminated. Disinfect per AWWA C651, Section 9. After disinfection, flush with potable water in accordance with Paragraph E. of this Section.

D. Confirmation of Residual

1. After the chlorine solution applied by the continuous feed method has been retained in the pipeline for 48 hours, confirm that a chlorine residual of 25 mg/l minimum exists along the pipeline by sampling at air valves and other points of access. The Contractor shall supply the Owner's Representative and Authority written and signed documentation of sampling points, verifying locations of high chlorine levels, before flushing of highly chlorinated water of points which have been sampled.

E. Pipeline Flushing

After confirming the chlorine residual, flush the excess chlorine solution from the pipeline until the chlorine concentration in the water leaving the pipe is within 0.5 mg/l of the replacement water.

F. Bacteriologic Tests

Two samples taken via Option A or B above will be collected by the Contractor from each defined or selected sampling point. The samples will be collected at least 48 hours after the Contractor has flushed the applicable pipeline segments. The samples collected will be delivered to a North Dakota certified laboratory within twenty-four hours of obtaining the samples. The Contractor will be responsible for delivery of the samples to a certified laboratory. A bacteriologic quality test will be conducted by the certified laboratory to demonstrate the absence of coliform organisms and/or high background bacteria in each separate section of the pipeline and in each structure after chlorination and refilling. Two consecutive passing tests are required to demonstrate successful disinfection. If two bacteriological tests have failed within a pipeline segment, a heterotrophic plate count test may be performed on the pipeline segment area. The Contractor shall re-chlorinate the pipeline segment that is being tested after three (3) bacteriological tests have failed.

When the samples are taken, the chlorine residual in the applicable segment(s) must be at least 1.5 mg/l. If less than 1.5 mg/l, the Contractor will be required to flush the applicable pipeline segment(s). If less than 0.5 mg/l, the Contractor will be responsible to re-chlorinate and flush the applicable pipeline segment(s). No samples will be submitted for testing until the chlorine residual is maintained at 1.2 mg/l upon the expiration of at least 48 hours after flushing has ceased by the Contractor. No flushing will be allowed by the Contractor within this minimum 48 hour time period. The Contractor may also be required to re- pig the pipeline segment(s) if the pipeline segment cannot meet the aforementioned requirements.

G. Repetition of Procedure

If the initial chlorination fails to produce required residuals and bacteriologic tests, repeat the chlorination, pigging if necessary, and retesting until satisfactory results are obtained. After all chlorination and flushing and the chlorine residual requirements in subsection F. are met, either the Owner's Representative or the Cass Rural Water Users District will test the applicable pipeline segments for the following chlorine residuals:

A chlorine residual of at least 1.2 mg/l must be maintained in each pipeline segment upon the expiration of one week after both bacteriologic test samples have been taken. The Contractor will not be permitted to flush the pipeline segment(s) within this time period unless specifically requested by the Owner's Representative or the Cass Rural Water Users District.

A chlorine residual of at least 1.0 mg/l must be maintained in each pipeline segment upon the expiration of two weeks after both bacteriologic test samples have been taken and 0.8 mg/l after a three week time period. The Contractor will not be permitted to flush the pipeline segment(s) within this time period unless specifically requested by the Owner's Representative or the Cass Rural Water Users District.

The chlorine residuals will be randomly checked by the Owner's Representative or the Cass Rural Water Users District on a weekly basis. If the above stipulated residuals cannot be

maintained through their respective time periods, the Contractor shall repeat the chlorination and/or flushing operations until such residuals can be maintained.

H. Test Facility Removal

After satisfactory disinfection, replace air valves, restore the pipe coating, and complete the pipeline where temporary disinfection or test facilities were installed.

I. Piping to be Disinfected

1. Disinfect all watermain piping including:

   a. Piping and appurtenances for town and bulk user connections.

   b. Connections to existing pipelines.

   c. Service line piping and appurtenances.

2. Disinfect all water piping to prefabricated steel vaults.

J. Wet Trench Construction

If it is not possible to keep the pipe and fittings dry during installation, every effort shall be made to ensure that any of the water that may enter the pipe-joint spaces contains an available chlorine concentration of approximately 25 mg/L. This may be accomplished by adding calcium hypochlorite granules or tablets to each length of pipe before it is lowered into a wet trench, or by treating the trench water with hypochlorite tablets.

END OF SECTION

SECTION 15042 HYDROSTATIC TESTING OF PRESSURE PIPELINES

PART 1 - GENERAL

A. Work Included

Pigging, pressure and leakage testing of new pressure pipelines and those pipelines and appurtenances affected by construction. All segments of pipeline shall be tested. Provide test bulkheads at ends of piping runs and other locations as necessary depending upon the methods of testing employed.

B. Submittals

Submit manufacturer's catalog data showing pigging products and describing materials.

PART 2 - MATERIALS

A. Pigs

The swab-type pigs shall be properly sized for the size and class of pipe utilized. Pigs shall be suitable for removal of the dirt and debris in the pipeline. No undersized pigs shall be allowed. Pigs shall be properly labeled for each size and class of pipe.

B. Water

Water to be utilized for pigging, flushing, and hydrotesting shall be as specified in Special Condition Section 01501, Subsection I.

PART 3 - EXECUTION

A. Pigging

Prior to testing and disinfection, pig all new pipelines 2-inch and larger to remove dirt, debris, and foreign material. On all pipelines three pigs shall be used, in series. The three pigs shall consist of swab-type having a density of 8-10 pounds per cubic foot (Pipeline Pigging Products #C3 or equal). Pigs shall be properly sized for the appropriate class of pipe. Pigs shall be labeled for each size and class of pipe. No undersized pigs will be allowed. In no case, shall a pigging segment be longer than 5 miles. At that time, the pigs shall be flushed out at pig-out points, and examined before reusing. The Contractor shall not re-use any damaged pigs. Any pigs that are found to be damaged shall be disposed of immediately. If leaks occur or are encountered after pigging, the Contractor may be required to re-pig the line. After the pigs have been flushed from a pipeline segment, the Contractor shall temporarily plug the pig-out points and fill the pipeline segment. After at least 48 hours has expired, the Contractor shall again flush the entire segment of pipeline using the pig-out points to discharge water. The Contractor shall flush the pipeline at least three times the volume of the pipeline segment after the pigs have been removed.

B. Air Gap Separation

Locate and install test bulkheads, valves, connections to existing pipelines, and other appurtenances in a manner to provide air gap separation between existing potable water pipelines and pipelines being tested.

C. Initial Pipeline Filling

The Contractor shall coordinate filling of the pipeline with the Owner. Refer to Section 01501. Maximum rate of filling shall not cause water velocity in pipeline to exceed 1 fps. Filling may be facilitated by removing automatic air valves and releasing air manually.

D. Testing New Pipe Which Connects to Existing Pipe

Test new pipelines which are to be connected to existing pipelines by isolating the new line from the existing line by means of pipe caps, spectacle flanges, or blind flanges, or if authorized by the Owner, test to the nearest existing valve. After the new line has been successfully tested, remove caps or flanges and connect to the existing piping. After completing the connection and permitting the water to enter the pipeline, visually inspect the connection for leakage. Correct any leakage.

E. Hydrostatic Testing of Aboveground or Exposed Piping

1. Fill the pipe to be tested with water and allow it to soak at least 48 hours to absorb water before conducting the pressure test.

2. Open vents at high points of the piping system to purge air while the pipe is being filled with water. Venting during system filling may also be provided by temporarily loosening flanges. Subject the piping system to the test pressure indicated in Part 3.F.1. Maintain the test pressure for a minimum of eight hours plus additional time required to inspect the system for leakage. Examine joints, fittings, valves, and connections for leaks. The piping system shall show zero leakage or weeping. Correct leaks and retest until zero leakage is obtained.

F. Pressure and Duration of Test

1. Pipelines installed in trenches shall be tested with water to a pressure equal to the rated working pressure of the pipe for ASTM D2241 and AWWA C905 PVC pipe. AWWA C-900 DR 14 pipe shall be tested to 250 psi, AWWA C-900, DR 18 pipe shall be tested to 150% of the rated working pressure. At locations where 1-1/2" PVC Cl. 200 pipe is used but a pressure rating of Cl. 160 would have been adequate, such Cl. 200 pipe shall be considered as Cl. 160 for testing purposes.

2. The test point pressure shall be corrected so as not to exceed the pressure rating calculated to the lowest ground elevation in the test section. A test section shall be no greater than 1 mile except where required due to the lack of valves, and at such time the section shall be no greater than the distance to the next valve.

3. All tests and testing equipment shall be provided by the Contractor. Prior to the testing, all air shall be expelled from the pipeline. The test shall be conducted with all appurtenances in place. The test shall be made by pumping water into a test section through one of the meter setters, ball valves for an appurtenance, or through corporation cocks installed for testing purposes and bringing the pressure up to the corrected pressure rating.

4. The test section shall be closed and allowed to remain for 30 minutes, after which time the pressure shall be released approximately 10 pounds and then repumped up to the test pressure.

5. Following the reaching of the test pressure, the test pressure shall be maintained for a minimum of two hours. If at any time during the test the gauge reading falls 5 psi below the beginning test pressure, repump the section to the initial pressure reading and record the amount of water required to do so.

6. All exposed pipes, fittings, valves, hydrants, and joints shall be examined for leakage during the test. Any joint having visible leakage or seepage shall be repaired. Anytime that the pressure has dropped by 5 psi or at the end of the test, the pressure shall be brought back to the test pressure by pumping a measured amount of water into the test section.

7. Following the completion of the test period (2 hour minimum) repump the test section to the pressure reading at the beginning of the test and record the amount of water required to do so.

8. Add the amount of water added during the test period to maintain the test pressure (per 5. above) to the amount of water required to bring the ending pressure back to the pressure at the beginning of the test. The total water added shall not exceed that calculated according to the formula in Subsection G.

G. Allowable Leakage of Buried Piping

Permit one to three days for the filled pipeline to soak and to release entrapped air. Apply the test pressure with a positive displacement pump. Provide a snubber or dampener between the pump and the pipeline to reduce pressure pulses to 10% of the specified test pressure. Draw from containers in which the volume of water can be readily measured or through a positive displacement meter. The amount of water used to maintain the test pressure during the test period shall be the rate of leakage.

The allowable leakage for the test section during the test period at the pressure specified for each segment of the test section shall be calculated as follows:

$$Q = \frac{LDP}{148{,}000}$$

Where: Q = allowable leakage (gallon/hour) during the test period.
L = length of pipe section being tested, in ft.
D = diameter of the pipe (inches)
P = square root of the specified test pressure (psig)

The total allowable leakage for the test section shall be the sum of the allowable leakage for each of the pipeline segments (at various size and class) which comprise the test section.
Regardless of the rate of leakage, all detectable leaks shall be stopped.

H. Repetition of Test

If the actual leakage exceeds the allowable, locate and correct the faulty work and repeat the test. Restore the work and all damage resulting from the leak and its repair. All visible leakage shall be eliminated.

I. Bulkhead and Test Facility Removal

After a satisfactory test, drain the water, remove test bulkheads and other test facilities.

END OF SECTION

SECTION 15064 PVC DISTRIBUTION PIPE (AWWA C900 & C905)

PART 1 - GENERAL

A. Description

This section includes materials, installation, and testing of polyvinyl chloride (PVC) distribution pipe conforming to AWWA C900 and C905.

B. Related Work Specified Elsewhere

1. Trenching, Backfilling and Compacting: 02223

2. Painting and Coating: 09900

3. Disinfection: 15041

4. Hydrostatic Testing of Pressure Pipelines: 15042

5. Miscellaneous Piping Specialties: 15080

6. Manual Valves and Check Valves: 15100

C. Submittals

1. Submit shop drawings in accordance with the General Provisions and Special Condition Section 01340.

2. Provide an affidavit of compliance with AWWA C900 and/or AWWA C905 and these specifications. The certificate forms are included in the Appendix.

3. Submit manufacturer's literature of ductile-iron fittings including dimensions, thickness, weight, coating, lining, and a statement of inspection and compliance with the acceptance tests of AWWA C110.

4. Submit outline drawings and materials description of service connection saddles and pipe plugs.

PART 2 - MATERIALS

A. Pipe

AWWA C900 and C905, rubber-ring gasket bell end or plain end with elastomeric gasket coupling, DR 14, 18, or 25. Cast iron equivalent OD, material and hydrostatic design stress designation: PVC 1120. Regrind material shall not be used in the manufacturing process. Pipe shall be extruded through a die and pin set(s) specifically sized for each DR required. Provide pipe of the pressure classes shown on the Drawings.

The manufacturer's recommended minimum pipe bending radius shall be not greater than 300 times the nominal diameter of the pipe. The joined pipeline shall be suitable for installation in trenches curved at radii equal to or greater than the above without requiring thrust blocking or backfill compaction. The pipeline shall be capable of sustaining the short term stresses imposed by joining the pipe above the trench, and then lowering the joined pipeline into the trench. Any restrictions pertaining to installation by this method shall be provided (in writing) to the Owner's Representative by the pipe manufacturer at least thirty (30) days prior to construction.

Integral bell joints shall be capable of being stressed as required to obtain horizontal and vertical

curvature of the pipeline without causing joint leakage due to stressing and distortion of the bell joint. Integral bell joints shall have a depth **(measured from the end of the bell to the point of beginning of the convergence of the bell into the pipe section)** not less than those following:

Nominal Pipe Diameter Inches	Minimum Bell Depth Inches
14	10.0
16	10.0
18	11.0

B. Restrained Joint PVC Pipe and Fittings

Restrained joint PVC pipe and fittings are required as indicated on Drawings, restrained joint PVC shall comply with the manufacturing requirements stated in Paragraph A of this section and be of the Fusible PVC type as manufactured by Underground Solutions or equal.. The restrained joint shall fusible PVC pipe of the heat fusion (butt fusion) joining system. The restrained joint shall meet the requirements of ASTM D3139. Gaskets shall comply with ASTM F477. A factory trained, licensed representative from the Contractor shall be on-site to complete the heat fusing of each section of Fusible PVC pipe as outlined in Section 02226. The Contractor's representative shall be trained and licensed by the pipe manufacturer.

C. PE pipe to PVC Pipe Transition

Where PVC pipe is connected to PE pipe, a Specified Fittings long bodied transition coupler rated for a minimum working pressure of 250 psi or equal shall be utilized. Specified Fittings long bodied coupler or equal transition couplers shall be a minimum 4 foot long for PE pipe section less than 400 feet and shall be a minimum 8 foot long for PE pipe section greater than or equal to 400 feet. Specified Fittings long bodied coupler or equal transition couplers, shall be installed with 2/3 of the long coupler on the PE pipe and 1/3 on the PVC pipe. Where PE pipe is joined to PE pipe, a fused connection is required.

D. Ductile Iron Fittings

Fittings for 4-inch and larger PVC pipe shall conform to the following requirements:

1. Fittings shall conform to AWWA C110 or C153 with a minimum rated working pressure not less than that required for the pipeline as shown on the Construction Drawings. Fittings shall be ductile iron. It shall be the responsibility of the Contractor to verify compatibility of all pipe ends, flanges, and appurtenances. Size bells specifically for OD of PVC pipe including rubber-ring retaining groove. Fittings shall use push-on style connections if available and not indicated otherwise on Drawings. For 8” and larger fittings or as indicated on Drawings, mechanical joint style connections to PVC/PE pipe are required. All bolts and nuts shall be stainless steel, Type 304.

2. Grooved-end fittings shall conform to AWWA C110 and ANSI B16.1 with grooved ends conforming to AWWA C606, radius cut rigid joints. Fitting material shall conform to ASTM A48, Class 30, or ASTM A126, Class B.

3. Fittings with weld-on bosses (which includes straight pipe with weld-on bosses) shall conform to the following requirements:

   a. Material for fittings shall have a Charpy notch impact value of minimum 10 ft-lb. under the conditions defined in AWWA C151.

   b. Fittings shall be designed for the pressure class shown on the Construction Drawings. Minimum pipe wall thickness shall be Class 52 for pipe sized up to 12-inch diameter and Class 51 for pipe sizes greater than 12-inch diameter.

c. Maximum diameter of bossed outlet shall be as follows:

Pipe Diameter (inches)	Maximum Boss Diameter (inches)
12	4
10	3
8	2
6	2

4. Steel Flexible Pipe Couplings shall meet the following requirements.

a. Steel coupling bodies shall be made of center sleeves fabricated of high strength carbon steel tubing meeting ANSI/AWWA C200. The coupling shall have one gasket compression end ring per coupling end. End rings shall be of either one or two bolt design, fabricated of carbon steel meeting ASTM A576. Interior and exterior coating shall be NSF-61 approved fusion bonded epoxy coating. The epoxy coating shall be 12 mils, DFT and conform to the requirements of AWWA C213-01 section 4.5.

b. Gaskets shall be chloramines resistant NSF-61 approved EPDM designed with a multi-layered wide range removable outer layer. Gaskets shall be hydraulically actuated with a pressure-equalizing dam, pressure cavity and sealing lip for working pressures of 260 psi (16-inch and smaller) and 230 psi (18-inch to 24-inch)

c. Nuts and Bolts shall be ANSI 304 Stainless Steel.

d. Flexible pipe couplings shall be long body Hymax couplings as manufactured by Total Piping Solutions, Inc or approved equal. Note: Contractor may be responsible for submitting a waiver to utilize Hymax couplings in accordance with the “Use of American Iron & Steel” requirements

E. Coating for Metal Fittings

1. Ductile iron fittings shall have an interior and exterior epoxy coating of 6 mil minimum conforming to AWWA C550. Wrap buried metal fittings with two wraps of 8 mil polyethylene per AWWA C105.

F. Mechanical Joint Transition Gaskets

When required for valve settings or other various specified connections to mechanical joint fittings, connections shall be made by using transition gaskets especially manufactured for use in converting ductile iron mechanical joint fittings for use on PVC pipe.

G. Gaskets for Flanges

Gaskets for flanges shall be fullface, 1/8 inch thick, cloth-inserted rubber: Johns-Manville 109, John Crane Co. Style 777, or equal. Gaskets shall be suitable for a water pressure of 350 psi at a temperature of 180° F.

H. Bolts and Nuts for Fittings

1. Bolts and nuts for flanges or mechanical joints located indoors and in enclosed vaults and structures shall be stainless steel, Type 304, anti-seize lubricant shall be applied.

2. Bolts and nuts for buried and submerged flanges or mechanical joints and flanges located outdoors above ground or in open vaults in structures shall be stainless steel, Type 304, anti-seize lubricant shall be applied.

3. For flanged fittings, provide washers for each nut. Washers shall be of the same material as the nuts.

4. Lubricate all bolt threads with graphite and oil prior to installation.

I. Outlets and Small Line Connections

1. Provide outlets 2 inches and smaller by tapping the pipe and attaching a service saddle/tapping sleeve as specified in Section 15080, Part 2.F.

2. For outlets larger than 2 inches, use a tee.

J. Factory Testing

1. In accordance with AWWA C900 and C905.

2. Do not use test results from other projects.

PART 3 - EXECUTION

A. Product Marking

Legibly mark pipe at 5-foot intervals and each coupling to identify the nominal diameter, the OD base, that is, cast-iron or steel pipe (IPS), the material code PVC 1120 for pipe and PC 1 for couplings, the dimension ratio number, AWWA C900 or C905, and the seal of the testing agency that verified the suitability of the material for potable water service (NSF in the United States).

B. Delivery and Temporary Storage of Pipe

1. Ship, store, and place pipe at the storage yard or installation site supporting the pipe uniformly. Avoid scratching the pipe surface. Do not stack higher than recommended by the pipe manufacturer nor stack with weight on bells. Do not subject the pipe to undue stresses while shipping, loading, unloading, or stacking.

2. Unload pipe close to point of installation to avoid handling damage. Avoid scratching the pipe surface.

3. Remove and do not install pipe that is gouged, scratched forming a clear depression, scratched (having a depth equal to or greater than 5% of the wall thickness of the pipe), or marred.

4. Provide to the Owner's Representative a listing of the quantity of PVC pipe shipped to the jobsite for each code. The Owner may require that factory "Quality Control Reports" for each code also be provided.

C. Pipe Layout for Curved Alignment

Pipe lengths may be bent for curved alignment as allowed by the manufacturer's recommended minimum pipe bending radius. Joint deflections shall be per the manufacturer's recommendations.

D. Handling Pipe

Hoist pipe with mechanical equipment using a cloth belt sling or a continuous fiber rope which avoids scratching the pipe. Do not use a chain. Pipe up to 14 inches in diameter may be lowered by rolling on two ropes controlled by snubbing. Pipe up to 6 inches in diameter can be lifted by hand.

During hauling, stringing, and laying operations the pipe shall be kept clean. Pipe which is strung out and assembled prior to installation in the trench shall have the ends of the assembled segment properly capped. Pipe which is rejected because of foreign matter may be cleaned by passing a swab, of sufficient size to lightly touch the walls, through the pipe until all foreign matter is removed.

E. Installing Pipe in Trenches

1. Inspect each pipe and fitting before lowering the pipe or fitting into the trench. Clean ends of pipe thoroughly. Remove foreign matter and dirt from inside of pipe and keep clean during and after laying.
2. Handle pipe in a manner to avoid any damage to the pipe. Do not drop or dump pipe into trenches under any circumstances.

3. Deflections from a straight line or grade made necessary by vertical or horizontal curves shall not exceed the tolerances as recommended by the pipe and joint manufacturer. Should the alignment require deflections in excess of those stipulated, the Contractor shall provide special fittings or use shorter lengths of pipe. The location shown on the plans is approximate and necessary minor deviations to avoid obstacles may necessitate deflections not indicated by the plans. The Contractor shall maintain a supply of fittings at the job site to maintain continuity of construction.

4. The trench bottom shall form a continuous and uniform bearing and support for the pipe, except that the grade may be disturbed for the removal of lifting tackle.

5. Keep the trench in a dewatered condition during pipelaying in areas where buoyancy of the pipe is a concern by the Owner's Representative, if the pipe is assembled in the trench, and as stipulated in Section 02223.

6. Piping installed by directional drilling, such as in restrained joint areas, stream crossings, waterways, drainage areas, applicable road crossings, open areas, and other areas selected by the Contractor, shall be restrained joint pipe (Certa-Lok or PE pipe per Section 02226). Mechanical restraining devices will not be acceptable. Long body couplings are required on each end of the restrained joint area. The maximum distance from the end of the restrained joint pipe to the end of the connecting pipe to be bridged by a long body coupling shall be two (2) inches. The end of the pipe which is in the direction of drilling shall be capped or plugged. The plug shall be capable of preventing drilling fluid from entering the pipe. The end of the pipe which is in the direction of the drilling shall be capped with an approved pipe plug.
7. When the pipelaying is not in progress, including the noon hours, close the open ends of pipe. Do not permit trench water, animals, or foreign material to enter the pipe.

8. Provide thrust blocks at all fittings as required by the Drawings.

F. Assembly of Pipe Joint

1. The spigot and bell or bell coupling shall be dirt free and slide together without displacing the rubber ring. Lay the pipe section with the bell coupling facing the direction of laying.

2. Insert the rubber ring into the groove in the bell just before joining the pipes. First clean the groove. Observe the correct direction of the shaped ring. Feel that the ring is completely seated.

3. Lubricate the spigot over the taper and up to the full insertion mark, with the lubricant supplied by the pipe manufacturer. If the lubricated pipe end touches dirt, clean the pipe end and reapply lubricant. Do not use lubricant in excess of the pipe manufacturer's recommendations. Provide written recommendations or an on-site demonstration by the pipe manufacturer on the proper amount of lubricant to be used on the joint.

4. Insert the spigot into the bell and force it slowly into position.

5. Check that the rubber has not left the groove during assembly by passing a feeler gage around the completed joint.

6. Tighten mechanical joint bolts to the torque recommended by the manufacturer with a torque wrench. When tightening bolts, it is essential that the gland be brought up toward the flange evenly, maintaining approximately the same distance between the gland and the face of the flange at all points around the socket.

7. Assemble the joint per the pipe manufacturer's recommendations.

8. After the pipe has been installed in the trench and prior to backfilling, the Contractor shall check to make sure that the joint has not been partially separated in handling.

G. Factory Representative

The Contractor shall make arrangements with the pipe manufacturer to have a factory representative, skilled in the installation of the specified pipe to be present for a minimum of one day at the starting of the laying of the pipe. A pipe supply house representative will not be considered as being a factory representative. Following the visit the factory representative shall provide a letter regarding the site visit and the Contractor's procedures which were observed. The Contractor shall be advised of any practices which are not acceptable to the factory representative.

H. Field Hydrostatic Testing

Test in accordance with Section 15042.

I. Thrust Blocking

All fittings at bends in the pipeline and at points where the pipe is reduced in size shall be firmly blocked against the undisturbed face of the trench. This blocking shall be completed by placing 2000 psi concrete in the opening between the fitting and the undisturbed trench face. Thrust blocking shall be required at all points where the pipeline changes direction, such as the following: tees, elbows, wyes, caps, valves, hydrants, blow-offs, reducers, etc. except at restrained joint PVC fitting unless shown otherwise on the Drawings. The thrust blocks should be constructed so that the bearing surface is in direct line with the major force created by the pipe or fitting. The earth bearing surface shall be undisturbed and only the simplest of forms shall be required.

The minimum distance from the fitting or pipe being blocked to the bearing face at the undisturbed trench face shall be twice the pipe diameter but not less than twelve (12) inches. Minimum sizes of blocking shall be as outlined on the Drawings. Immediately after placement of concrete, the Contractor will be allowed to cover the fresh concrete block with 8 mil polyethylene and commence backfilling operations except in locations which require compactions. Such locations shall be left open a minimum of 24 hours.

J. Pipe Sampling

The Owner may obtain samples of pipe to be utilized for this work, excluding restrained joint PVC pipe, at the time of delivery to the jobsite. Samples obtained may be used for impact testing as well as other applicable tests. Pipe samples may be taken from each production length provided. The Contractor shall inform the Owner’s Representative at least 48 hours in advance of the time and place of pipe delivery so that the Owner's Representative can schedule obtaining the necessary samples. The Contractor shall be responsible for providing the necessary assistance in obtaining the samples and shall be responsible for rebeveling the pipe from which samples are taken.

K. Installation of Flexible Couplings or Solid Sleeves

1. Couplings or sleeves shall be used as shown on the Drawings. The coupling or sleeve joints shall be completed in the trench after the pipe has been laid. Each pipe end for a sufficient distance back from the end shall be thoroughly cleaned to remove oil, dirt, and other foreign matter to effectively seal the joint. Remove burrs from pipe ends. Clean gaskets before installing. Glands, gaskets, and sleeves shall then be assembled on the pipe ends, in accordance with the manufacturer's recommendations. Glands and sleeves shall be accurately centered over the pipe ends and one pipe end shall touch the coupling sleeve centering stop if the coupling sleeve is so equipped.

2. Install couplings and sleeves per manufacturer's recommendations. Install couplings and sleeves so that 50% of the total travel is available for expansion and 50% is available for contraction. The maximum distance between two ends of pipe to be connected by a long body coupling shall be two (2) inches.

3. All Hy-Max couplings shall be of the long body coupling type.

4. Bolts shall be tightened to the torque recommended by the manufacturer with a torque wrench. When tightening bolts, it is essential that the gland be brought up toward the pipe flange evenly, maintaining approximately the same distance between the gland and the face of the flange at all points around the socket.

5. Wrap complete assembly with two wraps of 8-mil polyethylene tubing per AWWA C105.

END OF SECTION

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SECTION 15067 PVC DISTRIBUTION PIPE (ASTM D2241)

PART 1 - GENERAL

A. Description

This section includes materials, installation, and testing of polyvinyl chloride (PVC) pipe conforming to ASTM D 2241 and as modified herein.

B. Related Work Specified Elsewhere

1. Trenching, Backfilling and Compacting: 02223

2. Painting and Coating: 09900

3. Disinfection: 15041

4. Hydrostatic Testing of Pressure Pipelines: 15042

5. Miscellaneous Piping Specialties: 15080

6. Manual Valves and Check Valves: 15100

C. Submittals

1. Submit shop drawings in accordance with the General Provisions and Special Condition Section 01340.

2. Provide an affidavit of compliance with ASTM D2241, ASTM D3139, ASTM D1784, ASTM F477, National Sanitation Foundation Standards 14 and 61 and these specifications.

3. Submit manufacturer's literature of ductile-iron fittings including dimensions, thickness, weight, coating and lining and a statement of inspection and compliance with the acceptance tests of AWWA C110.

4. Submit outline drawings and materials description of service connection saddles, corporation stops, and pipe plugs.

PART 2 - MATERIALS

A. Pipe

The pipe shall be manufactured of Class 12454-B Polyvinyl Chloride Compound, 2000 psi design stress for water at 73.4□ F. and shall conform to ASTM D-1784 compound specifications. All pipe shall conform to the requirements of ASTM D-2241. Pipe products shall be included under the NSF Standard 14 and 61 Listings. The pipe shall be homogeneous throughout and shall be free from cracks, holes, foreign inclusions, or other defects. Regrind material shall not be used in the manufacturing process. Provide pipe of the pressure classes shown on the Drawings. Pipe shall be extruded through a die and pin set(s) specifically sized for each pressure class required.

Provide elastomeric seal joints of the twin gasket or integral bell type conforming to ASTM D 3139. Gaskets shall comply with ASTM F 477. Twin gasket couplings shall have a positive stop in the center that will automatically position the pipe ends within the coupling. The pressure rating of the couplings shall equal or exceed that of the pipe and shall be marked on each coupling. The couplings shall permit up to 3" of deflection (1-1/2" each side of the coupling) at each joint without creating stress at the joint. PVC to PVC couplings shall be CertainTeed Fluid-Tite twin gasket or equal. Integral bell joints shall be capable of being stressed as required to obtain horizontal and vertical curvature of the pipeline without causing joint leakage due to stressing and distortion of the bell joint. Integral bell joints shall have a depth **(measured from the end of the bell to the**

point of beginning of the convergence of the bell into the pipe section) not less than those following:

Nominal Pipe Diameter Inches	Minimum Bell Depth Inches
6	6.5
8	7.0
10	8.0
12	8.5

The manufacturer's recommended minimum pipe bending radius shall be not greater than 300 times the nominal diameter of the pipe. The joined pipeline shall be suitable for installation in trenches curved at radii equal to or greater than the above without requiring thrust blocking or backfill compaction. The pipeline shall be capable of sustaining the short term stresses imposed by joining the pipe above the trench, and then lowering the joined pipeline into the trench. Any restrictions pertaining to installation by this method shall be provided (in writing) to the Owner's Representative by the pipe manufacturer at least thirty (30) days prior to construction.

PVC pipe 12" and smaller shall be supplied in standard laying lengths of 40 feet nominal. A limited quantity of pipe may be supplied in shorter lengths of 20 or 30 feet to accommodate installation in wet areas and in areas of obstruction.

B. Restrained Joint PVC Pipe and Fittings

Polyethylene (PE) pipe manufactured shall be used in lieu of restrained joint PVC pipe and fittings and shall comply as specified in Section 02226. Provide PE pipe and fittings where indicated on the Drawings, up sizes shall be as specified in Section 02226 unless indicated otherwise on Drawings.

C. PVC Fittings

Fittings for 5-inch and smaller diameter PVC pipe shall be PVC gasket joint fitting designed for use with ASTM D2241 pipe. The fittings shall be sized specifically for use with ASTM D2241 PVC pipe. Fittings shall be of the same material as the pipe, have a pressure rating no less than the adjoining pipe, and shall bear the NSF seal of approval. Solvent weld fittings shall not be used except for 1½" to 1" reducing couplings or bushings, and for couplings used with casing pipe.

PVC long body repair couplings shall be used in lieu of the metallic pipe couplings. Where PVC pipe is connected to PE pipe, a Specified Fittings long bodied transition coupler rated for a minimum working pressure of 250 psi or equal shall be utilized. Specified Fittings long bodied coupler or equal transition couplers shall be a minimum 4 foot long for PE pipe section less than 400 feet and shall be a minimum 8 foot long for PE pipe section greater than or equal to 400 feet. Specified Fittings long bodied coupler or equal transition couplers, shall be installed with 2/3 of the long coupler on the PE pipe and 1/3 on the PVC pipe. Where PE pipe is joined to PE pipe, a fused connection is required. However, for 10" and 12" Cl. 250 PVC Pipe, metallic pipe couplings, as specified, shall be used. If Hy-Max couplings are used, they shall also be the long body type.

Factory produced High Density Polyethylene (HDPE) fittings may be used for pipe size reductions or increases, or as directional fittings when polyethylene pipe is used at restrained joint areas. HDPE fittings shall have NSF seal of approval, be compatible for fusion with adjacent PE pipe, and meet or exceed pressure class rating of the adjacent pipe. HDPE reducers shall be of a gradual concentric reduction, reducers which consist of sharp or abrupt size changes will not be allowed, the length of the HDPE reducer which will be fused to the adjacent PE restrained joint pipe shall be at least 6". Dimensions and tolerances of the HDPE reducer shall conform to AWWA C906. . The portion of the HDPE fittings which connects to the adjacent PVC pipe/s shall have an eight -foot length fused PE pipe out from fitting which is connected with a Specified Fitting Long Coupler to PVC as outlined above.. Heat fusing of HDPE fittings shall be accomplished by trained personnel in accordance with Specification Section 02226.

D. Ductile-Iron Fittings

Fittings for 6-inch and larger PVC pipe shall conform to the following requirements.

1. Size bells specifically for OD of ASTM PVC pipe including rubber-ring retaining groove. Fittings shall use push-on style connections, if available and not indicated as a restrained joint segment. If unavailable or restrained joint is required, mechanical joint style connections to PVC/PE pipeline may be used. All bolts and nuts shall be stainless steel, type 304.

2. Fittings shall conform to AWWA C110 or C153 with a minimum rated working pressure not less than that required for the pipeline as shown on the Construction Drawings. Fittings shall be ductile iron. It shall be the responsibility of the Contractor to verify compatibility of all pipe ends, flanges, and appurtenances.

3. Grooved-end fittings shall conform to AWWA C110 and ANSI B16.1 with grooved ends conforming to AWWA C606, radius cut rigid joints. Fitting material shall conform to ASTM A48, Class 30, or ASTM A126, Class B.

4. Fittings with weld-on bosses (which includes straight pipe with weld-on bosses) shall conform to the following requirements:

   a. Material for fittings shall have a Charpy notch impact value of minimum 10 ft-lb. under the conditions defined in AWWA C151.

   b. Fittings shall be designed for the pressure class shown on the Construction Drawings. Minimum pipe wall thickness shall be Class 52 for pipe sized up to 12-inch diameter and Class 51 for pipe sizes greater than 12-inch diameter.

   c. Maximum diameter of bossed outlet shall be as follows:

Pipe Diameter (inches)	Maximum Boss Diameter (inches)
12	4
10	3
8	2
6	2

5. Steel Flexible Pipe Couplings shall meet the following requirements.

   a. Steel coupling bodies shall be made of center sleeves fabricated of high strength carbon steel tubing meeting ANSI/AWWA C200. The coupling shall have one gasket compression end ring per coupling end. End rings shall be of either one or two bolt design, fabricated of carbon steel meeting ASTM A576. Interior and exterior coating shall be NSF-61 approved fusion bonded epoxy coating. The epoxy coating shall be 12 mils, DFT and conform to the requirements of AWWA C213-01 section 4.5.

   b. Gaskets shall be chloramines resistant NSF-61 approved EPDM designed with a multi-layered wide range removable outer layer. Gaskets shall be hydraulically actuated with a pressure-equalizing dam, pressure cavity and sealing lip for working pressures of 260 psi (16-inch and smaller) and 230 psi (18-inch to 24-inch)

   c. Nuts and Bolts shall be ANSI 304 Stainless Steel.

   d. Flexible pipe couplings shall be long body Hymax couplings as manufactured by Total Piping Solutions, Inc or approved equal. Note: Contractor may be

responsible for submitting a waiver to utilize Hymax couplings in accordance with the “Use of American Iron & Steel” requirements.

E. Coating for Metal Fittings

1. Ductile iron fittings shall have an interior and exterior epoxy coating of 6 mil minimum conforming to AWWA C550. Wrap buried metal fittings with two wraps of 8 mil polyethylene per AWWA C105.

F. Mechanical Joint Transition Gaskets

When required for valve settings or other various specified connections to ductile iron size mechanical joint fittings, connections shall be made by using transition gaskets especially manufactured for use in converting ductile iron mechanical joint fittings for use on PVC pipe.

G. Gaskets for Flanges

Gaskets for flanges shall be full face, 1/8 inch thick, cloth-inserted rubber: Johns-Manville 109, John Crane Co. Style 777, or equal. Gaskets shall be suitable for a water pressure of 350 psi at a temperature of 180° F.

H. Bolts and Nuts for Flanges

1. Bolts and nuts for flanges located indoors and in enclosed vaults and structures shall be stainless steel, Type 304, anti-seize lubricant shall be applied.
2. Bolts and nuts for buried and submerged flanges and flanges located outdoors above ground or in open vaults in structures shall be stainless steel, Type 304, anti-seize lubricant shall be applied.
3. Provide washers for each nut. Washers shall be of the same material as the nuts.
4. Lubricate all bolt threads with graphite, oil, and anti-seize prior to installation.

I. Outlets and Small Line Connections on New Pipelines

1. For outlets 2” and smaller, refer to Specification Section 15080, Part 2.F.
2. For outlets larger than 2 inches or for outlets on pipe 2½" and smaller, use a tee.

J. Factory Testing

1. In accordance with ASTM D2241.
2. The phrase "beginning of production" means the beginning of production of pipe for this project. Do not use test results from other projects.

PART 3 - EXECUTION

A. Product Marking

Legibly mark pipe at 5-foot intervals and each coupling to identify the nominal diameter, the material code for pipe, the dimension ratio number, ASTM D 2241, and the seal of the testing agency that verified the suitability of the material for potable water service (NSF in the United States).

B. Delivery and Temporary Storage of Pipe

1. Ship, store, and place pipe at the storage yard or installation site supporting the pipe uniformly. Avoid scratching the pipe surface. Do not stack higher than recommended by the manufacturer, nor stack with weight on bells. Do not subject the pipe to undue

stresses while shipping, loading, unloading, or stacking.

2. Unload pipe close to point of installation to avoid handling damage. Avoid scratching the pipe surface.

3. Remove and do not install pipe that is gouged, scratched forming a clear depression, scratched (having a depth equal to or greater than 5% of the wall thickness of the pipe), or marred.

4. Provide to the Owner's Representative a listing of the quantity of PVC pipe shipped to the jobsite for each code. The Owner may require that factory "Quality Control Reports" for each code also be provided.

C. Pipe Layout for Curved Alignment

Pipe lengths may be bent for curved alignment as allowed by the manufacturer's recommended minimum pipe bending radius. Joint deflections shall be per the manufacturer's recommendations

D. Handling Pipe

Hoist pipe with mechanical equipment using a cloth belt sling or a continuous fiber rope which avoids scratching the pipe. Do not use a chain. Pipes up to 12 inches in diameter may be lowered by rolling on two ropes controlled by snubbing. Pipe up to 6 inches in diameter can be lifted by hand.

During hauling, stringing, and laying operations the pipe shall be kept clean. Pipe which is strung out and assembled prior to installation in the trench shall have the ends of the assembled segment properly capped. Pipe which is rejected because of foreign matter may be cleaned by passing a swab, of sufficient size to lightly touch the walls, through the pipe until all foreign matter is removed.

E. Installing Pipe in Trenches

1. Inspect each pipe and fitting before lowering the pipe or fitting into the trench. Clean ends of pipe thoroughly. Remove foreign matter and dirt from inside of pipe and keep clean during and after laying.

2. Handle pipe in a manner to avoid any damage to the pipe. Do not drop or allow pipe to fall into trenches.

3. Deflections from a straight line or grade made necessary by vertical or horizontal curves shall not exceed the tolerances as recommended by the pipe and joint manufacturer. Should the alignment require deflections in excess of those stipulated, the Contractor shall provide special fittings or use shorter lengths of pipe. The location shown on the plans is approximate and necessary minor deviations to avoid obstacles may necessitate deflections not indicated by the plans. The Contractor shall maintain a supply of fittings at the job site to maintain continuity of construction.

4. The trench bottom shall form a continuous and uniform bearing and support for the pipe, except that the grade may be disturbed for the removal of lifting tackle.

5. Keep the trench in a dewatered condition during pipe laying in areas where buoyancy of the pipe is a concern by the Owner's Representative, if the pipe is installed in the trench, and as stipulated in Section 02223.

6. Piping installed by any boring method, such as in restrained joint areas, stream crossings, waterways, drainage areas, applicable road crossings, open areas, and other areas selected by the Contractor, shall be restrained joint pipe (Certa-Lok or PE pipe per Section 02226). Mechanical restraining devices will not be acceptable. Long body couplings are required on each end of the restrained area. The end of the pipe which is

on the direction of drilling shall be capped or plugged with an acceptable pipe plug. The plug shall be capable of preventing drilling fluid from entering the pipe.

7. When the pipe laying is not in progress, including the noon hours, close the open ends of pipe. Do not permit trench water, animals, or foreign material to enter the pipe.

8. Provide thrust blocks at all fittings as required by the Drawings.

F. Assembly of Pipe Joint

1. The spigot and bell or bell coupling shall be dirt free and slide together without displacing the rubber ring. Lay the pipe section with the bell coupling facing the direction of laying.

2. Insert the rubber ring into the groove in the bell just before joining the pipes. First clean the groove. Observe the correct direction of the shaped ring. Feel that the ring is completely seated.

3. Lubricate the spigot over the taper and up to the full insertion mark, with the lubricant supplied by the pipe manufacturer. If the lubricated pipe end touches dirt, clean the pipe end and reapply lubricant. Do not use lubricant in excess of the pipe manufacturer's recommendations. Provide written recommendations or an on-site demonstration by the pipe manufacturer on the proper amount of lubricant to be used on the joint.

4. Insert the spigot into the bell and force it slowly into position.

5. Check that the rubber has not left the groove during assembly by passing a feeler gage around the completed joint.

6. Tighten mechanical joint bolts to the torque recommended by the manufacturer with a torque wrench. When tightening bolts, it is essential that the gland be brought up toward the flange evenly, maintaining approximately the same distance between the gland and the face of the flange at all points around the socket.

7. Assemble the joint per the pipe manufacturer's recommendations.

8. After the pipe has been installed in the trench and prior to backfilling, the Contractor shall check to make sure that the joint has not been partially separated in handling.

G. Solvent Weld Joints

Solvent welding may be used to join separate pieces of casing pipe or for 1½" to 1" reducing couplings or bushings. A complete description of the process recommended by the pipe manufacturer shall be maintained on the jobsite and shall be followed by the Contractor. The description shall include, but not limited to the following: Instructions of procedures; materials including solvents, cements and fittings; tools required; set- up times before handling joints and testing; and the pipe size, type and size of fittings and temperature or humidity range for which the methods are recommended. Solvent welding shall be done in strict conformance with the method recommended by the manufacturer. All solvent weld joints shall be made under "shop conditions". Field welding of solvent joints will not be allowed except for casings.

H. Factory Representative

The Contractor shall make arrangements with the pipe manufacturer to have a factory representative, skilled in the installation of the specified pipe to be present for a minimum of one day at the starting of the laying of the pipe. A pipe supply house representative will not be considered as being a factory representative. Following the visit the factory representative shall provide a letter regarding the site visit and the Contractor's procedures which were observed. The Contractor shall be advised of any practices which are not acceptable to the factory representative.

I. Field Hydrostatic Testing

Test in accordance with Section 15042.

J. Thrust Blocking

All fittings, at bends in the pipeline, and at points where the pipe is reduced in size shall be firmly blocked against the undisturbed face of the trench. This blocking shall be completed by placing 2000 psi concrete in the opening between the fitting and the undisturbed trench face. Thrust blocking shall be required at all points where the pipeline changes direction, such as the following: tees, elbows, wyes, caps, valves, hydrants, blow-offs, reducers, etc. except at restrained joint PVC fitting unless shown otherwise on the Drawings. The thrust blocks should be constructed so that the bearing surface is in direct line with the major force created by the pipe or fitting. The earth bearing surface shall be undisturbed and only the simplest of forms shall be required. The minimum distance from the fitting or pipe being blocked to the bearing face at the undisturbed trench face shall be twice the pipe diameter but not less than twelve (12) inches. Minimum sizes of blocking shall be as outlined on the Drawings. Immediately after placement of concrete, the Contractor will be allowed to cover the fresh concrete block with 8 mil polyethylene and commence backfilling operations except in locations which requires compaction. Such locations shall be left open a minimum of 24 hours.

K. Pipe Sampling

The Owner may obtain samples of pipe to be utilized for this work, excluding restrained joint PVC pipe, at the time of delivery to the jobsite. Samples obtained may be used for impact testing as well as other applicable tests. Pipe samples may be taken from each production length provided. The Contractor shall inform the Owner's Representative at least 48 hours in advance of the time and place of pipe delivery so that the Owner's Representative can schedule obtaining the necessary samples. The Contractor shall be responsible for providing the necessary assistance in obtaining the samples and shall be responsible for rebeveling the pipe from which samples are taken.

L. Installation of Flexible Couplings, Hy-Max, or Solid Sleeves

1. Couplings or sleeves shall be used as shown on the Drawings. The coupling or sleeve joints shall be completed in the trench after the pipe has been laid. Each pipe end for a sufficient distance back from the end shall be thoroughly cleaned to remove oil, dirt, and other foreign matter to effectively seal the joint. Remove burrs from pipe ends. Clean gaskets before installing. Glands, gaskets, and sleeves shall then be assembled on the pipe ends, in accordance with the manufacturer's recommendations. Glands and sleeves shall be accurately centered over the pipe ends and one pipe end shall touch the coupling sleeve centering stop if the coupling sleeve is so equipped.

2. Install couplings and sleeves per manufacturer's recommendations. Install couplings and sleeves so that 50% of the total travel is available for expansion and 50% is available for contraction. The maximum distance between two ends of pipe to be connected by a long body coupling shall be two (2) inches.

3. Hy-Max couplings shall be of the long body type.

4. Bolts shall be tightened to the torque recommended by the manufacturer with a torque wrench in the presence of the Owner's Representative. When tightening bolts, it is essential that the gland be brought up toward the pipe flange evenly, maintaining approximately the same distance between the gland and the face of the flange at all points around the socket.

5. Wrap complete assembly with two wraps of 8-mil polyethylene tubing per AWWA C105.

END OF SECTION

SECTION 15080 MISCELLANEOUS APPURTENANCES & PIPING SPECIALTIES

PART 1 - GENERAL

A. Description

This section includes materials and installation of the miscellaneous appurtenances and piping specialties.

B. Related Work Specified Elsewhere

1. Record Drawings and Shop Drawings: 01340.
2. Painting and Coating: 09900.
3. PVC Pipe (AWWA C900 & C905): 15064.
4. PVC Pipe (ASTM D2241): 15067.
5. Manual Valves and Check Valves: 15100.

C. Submittals

1. Submit shop drawings in accordance with Section 01340, "Record Drawings and Shop Drawings".
2. Submit manufacturer's catalog data showing dimensions and materials of construction by ASTM reference and grade. Show coatings where coatings are to be applied.
3. All brass valves and fittings that may come into contact with water intended for use in a public water system shall be made of a “No-lead Brass” and shall meet National Sanitary Foundation (NSF) International Standard 372. All brass valves and fittings shall have the manufacturers name and/or trademark permanently stamped or cast on it. Another marking such as “NL”, “EBIT”, “FD” or other commonly accepted identifier, indicating the alloy as “No-lead” shall also be cast or stamped into the fitting or valve. The no-lead brass designation shall be indicated on all submittals.

PART 2 - MATERIALS

A. Stainless Steel Threaded Nipples

Threaded nipples shall be stainless steel, Type 304. Threads shall conform to ANSI B2.1. Meeting NSF 61 approval.

B. Brass Threaded Nipples & Fittings

2” and smaller threaded brass nipples shall be Schedule 40 Red Brass, conforming to ASTM B687.

C. Galvanized Steel Pipe

Pipe shall be galvanized steel conforming to ASTM A 53, Type E or S, or ASTM A 135. Pipe 12 inches and smaller shall be standard weight per ANSI B36.10. Meeting NSF 61 approval.

D. Galvanized Steel Fittings

Fittings 3 inches and smaller shall be Class 300, threaded, malleable iron (ASTM A 47, Grade 35018) conforming to ANSI B16.3. Alternatively, use threaded forged steel fittings (ASTM A 105) conforming

to ANSI B16.11, 3,000-pound CWP. Threads shall conform to ANSI B2.1. Meeting NSF 61 approval.

E. Galvanized Steel Unions

Unions shall be class 300, malleable iron (ASTM A 47, Grade 35018) brass to iron seat, conforming to ANSI B16.39. Ends shall be threaded per ANSI B2.1. Meeting NSF 61 approval.

F. Thread Lubricant

Use liquid teflon thread lubricating compound meeting NSF 61 approval..

G. Saddles for PVC Pipe

Saddles shall be sized specifically for use with the size and type (AWWA C-900, AWWA C-905, or ASTM D2241) of pipe to be tapped. The saddles shall be pressure rated for the pressure rating of the pipe shown on the Construction Drawings (including test pressures). Saddles for Class 250 PVC Pipe shall be certified by the manufacturer for working pressures up to 200 psi and test pressure up to 250 psi.

a. Appurtenance Vaults, Manholes, or Well Curbing:

i. Saddles used on 6” and larger PVC pipe shall be full body stainless steel, Tomac 306/305 or equal.

ii. Saddles used on 4” and smaller PVC shall be dual strap stainless steel, Ford Style FC202, Romac Style 202N or equal.

b. Small Line Connections:

i. Saddles for making 1” connections to 4” and larger PVC distribution pipe shall be dual strap stainless steel, Romac Style 202N or equal.

ii. Saddles for making 1” connections to 3” and smaller PVC distribution pipe may be bronze 2-piece service saddles, Ford Style S71 or equal. However, saddles on Class 250 PVC pipe shall be of the type specified in Item No. 1. above.

iii. 1½" and larger connections shall use tees, or stainless steel saddles of the size and type specified in Item No. 1 above.

H. Pipe Restraint at 10" and Larger Valve Locations

Restraint devices on ASTM, C-900, or C-905 PVC pipe at connections to 10" and larger valves (unless specifically specified otherwise) as indicated on Drawings shall incorporate a series of machined serrations on the inside diameter to provide positive restraint, 360° contract and support of the pipe wall. Restraint at valve connections shall be UNI-FLANGE Block Buster 1300, Stargrip Series 4000, or approved equal sized for ASTM, C-900, or C-905 PVC pipe. A portion of the PVC pipe joints adjacent to the valve shall be restrained also in accordance with the construction details. Restraint devices for bell and spigot joints of PVC pipe shall consist of a split restraint ring installed on the spigot, connected to a

solid back-up ring seated behind the bell. Restraint device at PVC pipe joints shall be UNI-FLANGE Block Buster 1350 (or 1390), Stargrip Series 1350, or approved equal, sized for ASTM or C-900 PVC pipe. Restraint devices shall be manufactured of high strength ductile iron, ASTM A536, Grade 65-45-12. Bolts and connecting hardware shall conform to ANSI/AWWA C11/A21.11. Restraint devices shall have a working pressure rating equal to the full rated pressure of the adjoining PVC pipe. The use of these restraint devices are not allowed as a substitute of Yellomine or Certa-Lok restraint joint pipe at designated restrained joint areas or at any stream crossing.

I. 4" Cleanouts

The 4" cleanout assemblies shall consist of a mainline size by 4" outlet tee, 4" resilient seat gate valve with valve & box, 4" PVC Cl. 250 pipe and fittings, Sch. 80 PVC threaded nipple, 1" curbstop assembly and service saddle with 1" IPS outlet, curbstop extension stem and valve box, thrust blocking, and aggregate drain around terminus of curbstop piping. The curbstop assembly shall be placed downstream of 4" gate valve to drain water from 4" riser pipe.

J. 2" Cleanouts

The 2" cleanout assemblies shall consist of a service saddle with 2" IPS outlet, a Ford 2" IPS x pack joint coupling (or equal) and a 2" Ford No. B77-777-NL, AY McDonald No. 76004-44 or equal ball valve with stop and waste feature (or equal). The valve shall have a 2" pack joint on both ends. Pipe for the cleanout assembly shall be Schedule 80 PVC meeting the requirements of this section. Fittings for the PVC portion of the cleanout shall be solvent welded under "shop conditions". Field welding of solvent joints will not be allowed.

K. 1-1/2" Cleanouts

The 1-1/2" cleanout assemblies shall consist of a service saddle and a 1-1/2" Ford No. B77-666-NL, AY McDonald No. 76004-44 or equal ball valve with stop and waste feature (or equal). The valve shall have a 1-1/2" pack joint on both ends. Pipe for the cleanout assembly shall be Schedule 80 PVC meeting the requirements of this section. Fittings for the PVC portion of the cleanout shall be solvent welded under "shop conditions".

L. Schedule 40 and 80 PVC Pipe

Schedule 40 and 80 PVC pipe shall be manufactured in accordance with ASTM D-1784. Materials used shall meet or exceed the requirements of ASTM D-1785. The pipe shall bear the NSF seal of approval. Schedule 40 or Schedule 80 pipe nipples as shown on the drawings or as required in the Specifications shall be used to connect to all pack joints.

M. Testing Tap Boxes

Testing tap boxes at designated stream crossings shall be a meter box. Meter box shall be of extrusion grade PVC material with a diameter of 15 inches and a wall thickness of .300 inches. The lid shall be cast iron, tar coated, designed with a rim extending 1/2-inch below the top of the box. The lid shall be complete with a lifting device and clearly marked "Water Meter". All fittings, valves and connections shall be manufactured of red brass. The setting shall be complete with the following equipment, or approved equals:

Angle Valve	-	Mueller Ball Valve Rated for 300 psi
Pipeline Adapter	-	Mueller 700066
Polybutylene Coil (250 psi)	-	Conform to ASTM D1598; ASTM D2581; and ASTM D2666; as manufactured by Van Guard Plastics, Inc.

The meter box and setting shall be as manufactured by Mueller Company, Ford Meter Box Company, or approved equal, and as detailed on the drawings.

N. Type 2M Pressure Reducing Valves (Modified T-2 PRV's)

The pressure reducing valve shall be a Cla-Val Model 90G-01BCDSY (or equal) with check feature, valve position indicator, sight tube, opening and closing speed controls with stainless steel needles and seats, "Y"-strainers, shutoff cocks to isolate the pilot control system, female iron pipe thread end connections, ductile iron body with stainless steel trim, and adjustable from 30 to 300 psi.

The valve shall have an exterior and interior protective coating of 6-mil minimum thickness conforming to AWWA C550 and certified to meet NSF Standard 61. The valve shall be installed as detailed on the drawings. The full body stainless steel saddles and brass piping shall be as specified elsewhere in this section. Provide valves of the type detailed on the drawings, and as specified in Section 15100.

Gauges shall be 2 inch dial pressure gauges, graduated in psi and feet of head. Gauges shall have a range suitable for the pressures indicated on the drawing and shall be furnished with maximum pressure indicator hands. Each gauge shall be furnished with a gauge cock and stainless steel nipples as required, and shall be installed on the inlet and outlet ports of the pressure reducing valve. The PRV shall be housed in a precast concrete manhole with appurtenant items as detailed on the drawings.

O. Type 3 Pressure Reducing Valves (T-3 PRV's)

Type 3 PRV assemblies shall consist of a meter box of the type described in Part 2, Subsection L. All fittings, valves and connections shall be manufactured of red brass. The setting shall be complete with the following equipment, or approved equals:

Angle Valve	-	Ball Valve Rated for 300 psi
Dual Check Backflow Preventor	-	H-14244
Pressure Reducing Valve	-	(1" or 3/4" as designated on the Drawings) or equal
Pipeline Adapter	-	Mueller 700065 or 700066
Polybutylene Coil (250 psi)	-	Conform to ASTM D1598; ASTM D2581, and ASTM D2666;

The meter box and setting shall be as manufactured by Mueller Company, Ford Meter Box Company, or approved equal, and as detailed on the drawings.

P. 2" Special Meter in Manhole

The 2" special meter shall consist of a 60" I.D. precast concrete manhole, frame and cover, insulation cover, ladder, concrete slab and other appurtenant items as detailed on the drawings. The meter shall be a 2-inch positive displacement magnetic drive meter, as manufactured by Sensus Technologies, Inc. or equal and shall have flanged connections as shown on the drawings. The meter shall be furnished with the High Speed Pickup Register to provide high frequency digital signal suitable for operation of ACT-PAK instruments. The pressure reducing valve shall be Cla-Val Model 90G-01BCDSY or equal, with features described in Part 2.L. of this section for the Type 2 PRV assemblies. A bronze meter flange shall be installed on each end of the pressure reducing valve, Ford No. CF31, or approved equal. The valve shall have an exterior and interior protective coating as specified in Part 2.L. of this section. The meter and pressure reducing valve shall be installed in a 2" Custom Tandem Setter by Ford, No. VBH 77-21B-11-77 with bypass, or approved equal. The

Tandem Setter shall include an angle ball valve, angle check valve, in-line ball valve, special "s" tube and meter flange adaptors. The Contractor shall determine the proper length of setter. A PVC pack joint coupling shall be installed on each end of the setter and shall be Ford No. C87-77 (or equal).

Gauges shall be 4-½ inch dial pressure gauges, Marsh Type 7, graduated in psi and feet of head, or approved equal. Gauges shall have a range suitable for the pressures indicated on the drawing and shall be furnished with maximum pressure indicator hands. Each gauge shall be furnished with a pulsation dampener, a gauge cock, copper sensing line containing a tee and valve located below the gauge to be utilized for flushing the sensing line, and shall be securely fastened to the concrete manhole. Insulation, such as polystyrene Board, one-inch thick shall be provided between the pressure gauge and the concrete wall. Gauge sensing lines shall be connected to the line with stainless steel double strap or full body tapping saddles as manufactured by Ford, Romac,(or equal), with 1/2 inch I.P.T. outlet.

Q. 1" Special Meter

The 1" Special Meter shall consist of a meter box constructed of extrusion grade PVC material with a diameter of 18 inches and a wall thickness of .300 inches. The lid shall be cast iron, tar coated, designed with a rim extending 1/2 inch below the top of the box. The lid shall be complete with a locking device, a lifting device and clearly marked "Water Meter". All fittings, valves and connections shall be manufactured of red brass. The signal cable to the remote register shall exit the side of the meter box as shown on the drawings. The setting shall be complete with the following equipment, or approved equals:

1" Displacement Type Meter	-	Badger
Angle Valve	-	Mueller Ball Valve Rated for 300 psi
Dual Check Backflow Preventer	-	Mueller
Pressure Reducing Valve	-	Watts 5M3-Z6
Pipeline Adapter	-	Mueller 700066
Polybutylene Coil(250 psi)	-	Conform to ASTM D1598; ASTM D2581; ASTM D2666 as manufactured by Van Guard Plastics, Inc.
Flow Control valve (if required on plans)	-	Dole SSGX

The displacement meter shall be in accordance with Section 15110. Meter setters shall be assembled for a 1" meter and a pressure reducing valve. The setter assembly shall include all items detailed on the Drawings including necessary support and anchoring brackets. All fittings shown shall be constructed of brass and shall be equivalent to items manufactured by the Ford Meter Box Company. The pressure gauge shall be a 2½" No. 800 Series TRERICE, or equal. The assembly shall be configured in such a manner to achieve the most efficient layout for the equipment used and for maintenance.

R. 2½" and Larger Connections (Taps) to Existing Pipelines

2½" and larger connections to existing pipelines shall be the same size as the new pipe being connected. The connections shall be rated for the pressure rating of the pipe and shall be accomplished by the following methods as designated on the drawings:

a. Wet tap the existing pipeline within the pipe size range provided on the drawings or in accordance with the pipe manufacturer's recommendations, whichever results in the smaller tap size. The wet tap shall be accomplished with a ductile iron tapping sleeve and valve. Tapping sleeve shall be mechanical joint with flange outlet, Mueller H-615 or equal. Provide reducers on 3" branches. Wrap ductile iron tapping sleeves, valves, and fittings with two wraps of 8-mil polyethylene tubing per AWWA C105. Stainless steel tapping sleeves with S.S. flange outlet may be substituted for the ductile iron tapping sleeves. S.S. tapping sleeves shall be Romac or equal. Polyethylene wrap is not required for S.S. tapping sleeves.

b. Cut open the existing pipeline for those pipelines which are not wet taps as indicated on the drawings or as directed by the Owner's Representative. Install tees and couplings of the type specified in the piping specifications for the appropriate branch size valve. Wrap ductile iron fittings with two wraps of 8-mil polyethylene tubing per AWWA C105.

Provide valves of the type specified in Section 15100. Provide any other items, transition gaskets, reducers, etc. to complete the connection.

S. 2" and Smaller Connections (Taps) to Existing 3" and Larger Pipelines

2" and smaller connections to existing pipelines shall be the same size as the new pipe being connected and shall be completed as shown on the drawings. The connections shall be made as detailed on the drawings. Wet taps for 2" connections shall not be made on existing pipe sizes less than 4". Wet taps for 1-1/2" connections shall not be made on existing pipe sizes less than 3". Tees shall be cut-in on pipes less than 4" in diameter for 2" connections and on pipes less than 3" in diameter for 1-1/2" connections. The connections shall be rated for the pressure rating of the pipe and shall be accomplished with a service saddle or tees, pack joint couplings, and valves of the type specified in these Specifications. Wet taps (if necessary) shall be accomplished by using corporation stops with MIP inlet threads. Provide any other items to complete the connection.

PART 3 - EXECUTION

A. Installation of Saddles

1. Clean all dirt, oil, or other foreign material from pipe to be saddled.

2. Install saddle per manufacturer's recommendations, including recommended torquing of bolts and nuts.

3. Pipe cutting tool used to tap pipe shall conform to the pipe manufacturers recommendations.

B. Installing Threaded Piping

Ream, clean, and remove burrs from threaded piping before making up joints. Apply thread lubricant to threaded ends before installing fittings, couplings, unions, or joints.

C. 6" Flush Hydrants, and 4”, 2" and 1-1/2" Cleanouts

The above items shall be installed per manufacturer's recommendations and as shown on the Drawings. Installation shall include all blocking and aggregate drain materials.

D. Type 2M Pressure Reducing Valves (PRV)

Type 2 pressure reducing valves shall be installed in a concrete manhole as detailed on the Drawings. Excavation, backfilling and compaction shall be in accordance with Section 02200. The concrete manhole shall be set on an aggregate base. Pressure gauges shall be installed on the inlet and outlet ports of the PRV. Brace assembly to the concrete manhole as shown on the Drawings. Alternate configurations of the bracing will be considered.

E. Testing Tap Boxes and Type 3 PRV

Install assemblies as detailed on the drawings. Meter boxes shall be set plumb on top of three (3) equally spaced concrete blocks and backfilled in uniform layers. Each layer shall be compacted to 85% relative compaction per ASTM D698. The area around the box shall be sloped to drain and blended to match existing groundlines.

F. 2" Special Meter in Manhole

2" special meter shall be installed in a precast concrete manhole as detailed on the Drawings. The installation shall be similar to that specified for the Type 2 PRV's specified in Part 3.D. above.

G. 1" Special Meter

Assemble the meter and setter as shown on the Drawings. The assembly shall be complete with all items detailed including the remote readout, remote readout cable, mounting brackets, ball valves, backflow preventer, meter, pressure reducing valve, and fittings.

Meter boxes are to be set on 3 equally spaced concrete blocks as detailed on the Drawings. Meter boxes are to be plumb. Backfill to be completed in uniform layers, each layer compacted to 85% compaction per ASTM D698. Area around meter box to be sloped to drain and blended to match existing groundlines. The contractor shall assemble the ¾" rigid PVC conduit in the field and extend from the meter box to the remote readout as shown on the drawings. The contractor shall pull the readout cable through the conduit and secure to remote readout and post. Sufficient slack in the readout cable shall be provided inside the meter box. Care shall be exercised not to damage the conduit during backfilling operations. The 4" x 4" post used for the remote readout support shall be installed as shown on the drawings.

H. Connections to Existing Pipelines

Connections to existing pipelines shall be accomplished as specified herein and as detailed on the Drawings. 2" connections to pipe sizes less than 4" in diameter and 1-1/2" connections to pipe sizes less than 3" in diameter shall be accomplished by cutting in gasketed tees. The Contractor has the option to preassemble the tees and adjoining piping (to the couplings) as one complete unit and solvent weld the tees in a "dirt-free" and in an "environmentally controlled" shop. All solvent welds shall be performed in accordance with the pipe manufacturer's written recommendations.

I. Installation of Restraint Devices at Valve Locations

1. Clean all dirt, oil, or other foreign material from pipe to be restrained.

2. Install restraint device per manufacturer's recommendations, including recommended torquing of bolts and nuts.

3. Wrap restraint devices with two wraps of 8 mil polyethylene per AWWA C105.

END OF SECTION

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SECTION 15089 AIR-RELEASE AND VACUUM RELIEF VALVES

PART 1 - GENERAL

A. Description

This section includes materials and installation of air and vacuum valves, air-release valves, combination air-release valves, slow-closing air and vacuum vales, and slow-closing combination air-release valves for water service and sewage service.

B. Related Work Specified Elsewhere

1. Painting and Coating: 09900.

2. Disinfection: 15041

3. Hydrostatic Testing of Pressure Pipelines: 15042.

4. Miscellaneous Piping Specialties: 15080.

5. Manual Valves and Check Valves: 15100.

C. Submittals

Submit manufacturer's catalog data, showing dimensions, materials of construction by ASTM reference and grade, and linings and coatings.

PART 2 - MATERIALS

A. Valve Identification

Valves are identified on the drawings by size and type.

B. Lining and Coating

1. All valves shall have an exterior and interior protective coating of 6-mil minimum thickness conforming to AWWA C550. Interior coating shall be certified as meeting NSF Standard 61.

2. Coat interior and exterior surfaces of metallic valves at the place of manufacture. Sandblast surfaces in accordance with SSPC SP-10. Prime coat shall be 3 to 5 mils. Each coat shall be 4 to 6 mils. Total dry film thickness of completed lining shall be 9 mils. Follow the paint manufacturer's application recommendations including minimum and maximum drying time between the required two coats. Remove all contaminants adjacent to the seats in order to obtain a bond. Do not coat seating areas and plastic, bronze, stainless steel, or other high alloy parts.

D. Bolts and Nuts for Flanged Valves

1. Bolts and nuts for flanged valves shall be stainless steel, Type 304.

2. Provide washers for each nut. Washers shall be of the same material as the nuts.

E. Gaskets

Gaskets for flanged end valves shall be as described in the detail piping specifications.

F. Valve Design and Operation

Combination air valves shall have a float with lever arm to actuate a poppet valve. A needle shall be attached to the float arm. The poppet valve shall serve to admit large quantities of air when the pipeline drains or releases large quantities of air as the pipeline fills. The needle shall serve to release small quantities of air as air accumulates during pipeline operation.

Materials of construction of combination air valves for water service shall be as follows:

Item	Material	Specification
Body	Cast Iron	ASTM A 48, Class 30
Seat, plug, bushing	Bronze	ASTM B 62
Spring, retaining ring, seat retaining ball	Stainless Steel	AISI Type 316

G. Valve End Connections

1. Valves smaller than 3 inches shall have threaded ends. Valves 3 inches and larger shall have flanged ends.

2. Flanges for Class 150 valves shall comply with ANSI B16.1, Class 125. Flanges for Class 300 valves shall be as described in the detail piping specifications.

3. Threaded ends shall comply with ANSI B2.1.

H. Valves

1. Combination Air Valves, 1-inch and Larger.

   Valves shall have an operating pressure of 150 psi or the pressure rating of the pipeline whichever is greater. Minimum orifice size for the air-release valve shall be 3/32 inch, except for 6-inch combination air valves, the minimum orifice size shall be 1/8-inch. In lieu of a protective hood, provide a vent pipe constructed of Schedule 40 PVC pipe terminating in a 180° bend. The bend shall be constructed of standard solvent weld PVC fittings and shall be a minimum of 24 inches above ground elevation. The outlet end shall be screened with No. 24 mesh copper screen. Combination air valves shall be APCO 140C/150C Series, Val-Matic Series or equal.

2. Air Release Valves.

   Valves shall have an operating pressure of 150 psi or the pressure rating of the pipeline whichever is greater. Valves shall have stainless steel trim, stainless steel floats, and resilient seats. Valves shall be Val-Matic No. 15 for sizes up to 1", Val-Matic No. 22 for sizes up to 1" and pressure greater than 150 psi, and Val-Matic No. 45, APCO Model 50, or equal for 2" or equal.

PART 3 - EXECUTION

A. Combination Air Valves

Combination air valves shall be installed where indicated and as detailed on the Drawings.

B. Air Release Valves

The air release valves shall be installed in a manhole as detailed on the Drawings. The valve shall be connected to the top of the distribution pipeline by a saddle and ball valve. The vent pipe shall be Schedule 80 PVC pipe terminating in a 180˚ bend. The bend shall be constructed of standard solvent weld PVC fittings and shall be a minimum of 24 inches above the ground elevation. The outlet end shall be screened with No. 24 mesh copper screen. Check valves shall be per Section 15100 and as shown on drawings.

C. Installation

1. Clean faces of flanges to bare metal by wire brushing before installing flanged valves. Clean flange bolts and nuts, lubricate threads with oil, graphite, anti-seize and tighten nuts uniformly and progressively. If flanges leak under pressure testing, loosen or remove the nuts and bolts, reseat or replace the gasket, reinstall or re-tighten the bolts and nuts, and retest the joints. Joints shall be watertight.

2. Clean threaded joints by wire brushing or swabbing. Apply NSF approved Teflon joint compound or Teflon Tape to pipe threads before installing threaded valves. Joints shall be watertight.

D. Valve Pressure Testing

Test valves at the same time that the connecting pipelines are pressure tested. See Section 15042 for pressure testing requirements. Protect or isolate any parts of valves, operators, or control and instrumentation systems whose pressure rating is less than the test pressure.

END OF SECTION

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SECTION 15100 MANUAL VALVES AND CHECK VALVES

PART 1 - GENERAL

A. Description

This section includes materials, testing and installation of manually operated valves and check valves.

B. Related Work Specified Elsewhere

1. Painting and Coating: 09900
2. Disinfection: 15041
3. Hydrostatic Testing of Pressure Pipelines: 15042
4. PVC Pipe (AWWA C-900 & C-905): 15064
5. PVC Pipe (ASTM D2241): 15067
6. Air-Release and Vacuum-Relief Valves: 15089

C. Submittals

1. Submit manufacturer's catalog data and detail construction sheets showing all valve parts and describing material of construction by material and specification (such as AISI, ASTM, SAE or CDA).
2. Show valve dimensions including laying lengths. Show dimensions and orientation of valve operators, as installed on the valves.
3. Show valve linings and coatings.

PART 2 - MATERIALS

A. General

1. Valves are identified on the plans by size.
2. Valves shall be installed complete with appropriate gaskets, nuts and bolts, operating handwheels, extension stems, floor stands, operating nuts and wrenches required for operation.
3. Valves shall bear the AWWA seal and have the name of the manufacturer, year, size and pressure rating of the valve cast or molded onto the valve body or bonnet or shown on a permanently attached plate.

B. Valve Operators

1. Provide 2-inch AWWA operating nuts for 2-inch and larger buried valves. Provide handwheels for butterfly and gate valves in prefabricated steel vaults, manholes, and other structures. Provide factory assembled handles for ball valves in prefabricated steel vaults, manholes, and structures.

2. For buried or submerged service, provide watertight shaft seals and watertight valve and actuator cover gaskets. Provide totally enclosed operators designed for buried or submerged service.

3. Design operators on buried valves to produce the required torque on the operating nut with a maximum input of 150 foot-pounds.

4. Valve operators, handwheels or levers shall open by turning counterclockwise.

C. Valve Boxes for Buried Valves

Valve boxes shall be as shown on the drawings. Coat valve box lids per Section 09900, System L.

D. Extension Stems for Buried Valve Operators

1. 2-Inch and Larger Buried Valves:

Provide extension stems in standard lengths of 5'-0". Extension stems shall be steel and shall be complete with 2-inch square operating nut and centering device. Coat stems per Section 09900, System L. For each Contract (not each service area), provide two 'T' handle wrenches which adapt to the 2" operating nut.

2. 1-Inch, 1½-Inch, and 2-Inch Buried Ball Valves:

Provide standard stationary rods in lengths of 6'± pinned to the valve operator nut. For each contract (not each service areas) provide only two 'T'-handle keys which adapt to the stationary rod.

E. Bolts and Nuts for Flanged Valves

Bolts and nuts for flanged valves shall be as described in Specification Section 15064 and/or 15067.

F. Gaskets

Gaskets for flanged end valves shall be as described Specification Section 15064 and/or 15067.

G. Lining and Coating

1. All gate and butterfly valves shall have an exterior and interior protective coating of 6-mil minimum thickness conforming to AWWA C550. Interior coating shall be certified as meeting NSF Standard 61.

2. Wrap buried ferrous metal valves with two wraps of 8 mil polyethylene per AWWA C105.

H. Valves

1. Gate Valves:

Valves 2-inch through 16-inch shall be resilient seat gate valves with non-rising stems (NRS) conforming to AWWA C509 or AWWA C515, with ductile iron body. Stem sealing shall be accomplished with O-Ring gaskets. All gaskets shall be constructed of a non-asbestos material. The following items shall be stainless steel Type 304 or 306: exposed body capscrews, exposed nuts and bolts, and fastening devices. The valves shall have a minimum working pressure of 250 psi cold water. The valves shall be manufactured by American or Equal.

2. Butterfly Valves:

Butterfly valves shall conform the latest edition of AWWA C504 with the exception of those items specified elsewhere within this section and the following:

a. Minimum working differential pressure across the valve disc shall be 200 psi.

b. Valve discs shall be made of Type 304 stainless steel or cast iron with Type 304 stainless steel edge trim.

c. Where the rubber seat is applied to the disc, it shall be vulcanized to a stainless steel seat which is clamped to the disc by Type 304 or 316 stainless steel screw fasteners.

d. The following items shall be stainless steel Type 304 or 306: exposed body cap screws, exposed nuts and bolts, disc fasteners, seat retention and fasteners, seat retention and fastening devices.

e. Hand wheel operators for valves in steel vaults need not comply with the requirement of AWWA C504.

3. Plug Valves:

Class 300 -- Non-Lubricated Plug Valves

Non-lubricated plug valves shall have carbon steel (ASTM A216, Grade WCB) bodies and plugs. Valve shall be of the venturi or regular pattern with bolted or screwed glands. Plug coating shall be Teflon, permanently bonded to the plug. Valve ends shall be flanged, Class 300, ANSI B16.5. Valve shall have a pressure rating of 285 psi CWP. Valves shall be DeZurik Series 100, American, or equal.

4. Check Valves:

All 3 inch and larger check valves shall be swing style valves with a resilient seat. Internal components shall be stainless steel. The check valves shall be as manufactured by, Val-Matic Series 500, CLOW Style 1106 or equal and as indicated on the drawings. Wafer-style check valves are not acceptable. All 2 inch and smaller check valves shall be bronze, spring loaded check valve as manufactured by Stratflow Products, Inc. or equal.

5. Ball Valves; 2-inches and Smaller:

a. All brass valves and fittings that may come into contact with water intended for use in a public water system shall be made of a “No-lead Brass” and shall meet National Sanitary Foundation (NSF) International Standard 372. All brass valves and fittings shall have the manufacturers name and/or trademark permanently

stamped or cast on it. Another marking such as “NL”, “EBIT”, “FD” or other commonly accepted identifier, indicating the alloy as “No-lead” shall also be cast or stamped into the fitting or valve. The no-lead brass designation shall be indicated on all submittals.

b. Stainless steel ball valves, in vaults or structures shall be rated at 300 psi minimum working pressure. Ends shall be threaded ends, NP. Ball and stem material shall be stainless steel Type 316. Ball valves shall be of the pad-locking type. Valves shall be Apollo, Ford, or equal.

c. Ball valves for 1½" lines shall be 1½" ball valves with compression type ends (pack joint) for PVC pipe. The valves shall be manufactured by Ford, No. B77-666-NL, with quarter turn check, Mueller, or approved equal.

d. Ball valves for 1” curb stops shall be 1” ball valves with insta-tite connections for HDPE 4710 SDR7 pipe on both sides of the valve. The valves shall be manufactured by Mueller, Oriseal III H-1505-2, with quarter turn check, Ford, or approved equal.

6. Valve Ends:

The type of valve end shall be appropriate for the piping system and appurtenances of which they are a part. The Contractor shall verify the compatibility of valve ends, including class of flanges. End fillings for various types of pipe shall be as follows:

a. PVC pipe (2 inch through 8 inch) shall have hubs and compression gaskets especially designed for PVC pipe. The hub depth shall be 3/4 the diameter of the pipe (+/- 1/2"), but never less than 3 inches. If mechanical joint connections are indicated on Drawings, refer to Paragraph b, immediately succeeding this Paragraph.

b. PVC pipe (10-inch and larger) shall be standard mechanical joint ends with duck-tipped transition gaskets for adaption to PVC pipe, if required. All 10-inch and larger valves shall be restrained in accordance with the drawings.

c. Ductile iron pipe (all sizes) shall be standard mechanical joint ends unless otherwise specifically called for on the Drawings.

PART 3 - EXECUTION

A. Joints

1. Bolt holes of flanged valves shall straddle the horizontal and vertical centerlines of the pipe run to which the valves are attached. Clean the faces of flanges by wire brushing to bare metal before installing flanged valves. Clean flange bolts and nuts, lubricate threads with oil, graphite, and anti-seize and tighten nuts uniformly and progressively. If flanges leak under pressure testing, loosen or remove the nuts and bolts, reseat or replace the gasket, reinstall or retighten the bolts and nuts, and retest the joints. Joints shall be watertight.

2. Clean threaded joints by wire brushing or swabbing. Apply Teflon joint compound or Teflon tape to pipe threads before installing threaded valves. Joints shall be watertight.

3. Compression and push-on joints shall be made per the manufacturer's recommendations. Connections to compression type joints shall be made with Schedule 40 or Schedule 80 pipe nipples a minimum of one (1) foot in length, or as shown on the drawings, whichever is greater.

4. The Contractor shall be responsible for correcting and repairing leakage at all joints, including the compression joint on the downstream side (user side) of the 1” curb stops and meter pits.

B. Valve Installation

Valves, curb stops, and valve or service boxes installed in trenches shall be placed where shown on the drawings. Valves, curb stops and valve or service boxes shall be set plumb with the valve or service box positioned directly over the valve. After being correctly positioned, the earth fill shall be carefully tamped around the valve or service box for a distance of 4 feet on all sides of the box.

Before installing any valve or curb stop, care shall be taken to see that all foreign material and objects are removed from the interior of the barrel. Stuffing boxes shall be tightened and the valve, hydrant or stop shall be opened and closed to see that all moving parts are in working order.

Wrap buried ferrous valves with two wraps of 8-mil polyethylene per AWWA C 105.

C. Valve Leakage Testing

Test valves for leakage at the same time that the connecting pipelines are tested. See Section 15042 for pressure testing requirements. Protect or isolate any parts of valves, operators, or control and instrumentation systems whose pressure rating is less than the test pressure.

END OF SECTION

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SECTION 15110 WATER METERS AND SETTERS

PART 1 - GENERAL

A. Description

This section includes materials, testing, furnishing, and installation of water meters, meter setters, and remote readouts.

B. Related Work Specified Elsewhere

1. Earthwork: 02200
2. Disinfection: 15041
3. Hydrostatic Testing of Pipelines: 15042
4. PVC Pipe (AWWA C900): 15064
5. PVC Pipe (ASTM D2241): 15067
6. Miscellaneous Piping Specialties: 15080
7. Manual Valves: 15100

C. Submittals

1. Submit manufacturer's catalog data showing all components and describing materials used in manufacture.
2. Show dimensions, end types, and laying lengths.
3. Submit accuracy curves and/or calibration data where applicable.
4. Submit installation requirements including any clear length laying requirements.
5. Interior and internal components of water meters must be certified to meet NSF Standard 61.

PART 2 - MATERIALS

A. Meters, 5/8" X 3/4"

Water meters shall be new meters and shall be Neptune. The meters shall read in U.S. gallons and be equipped with an e-coder sealed register. The meters shall be capable of producing an electronic signal sending the signal to either a remote register or a meter interface unit. All meters shall be guaranteed by the manufacturer to conform to all requirements of the AWWA Accuracy Specifications for a minimum of 5 years. If a meter other than those listed above is selected by the Contractor, it must be previously approved and accepted by the Owner's Representative.

B. Meters, 3/4", 1", 1-1/2" and 2" (When Required)

Water meters shall be as specified above, except shall be of the size as indicated. The 3/4 inch and 1-inch meters shall be furnished with external threaded spuds and the 1-1/2 inch and 2 inch meters shall be furnished with two (2) bolt oval flanged spuds. The meters shall be of the same manufacturer as selected by the Owner for the above selection.

C. Meter Setters

Standard meter setters shall be assembled for a 5/8" x 3/4" meter and a 3/4" pressure reducing valve. The setter assembly shall include all items detailed on the Drawings including necessary support and anchoring brackets. All fittings shown shall be constructed of brass and shall be equivalent to items manufactured by the Ford Meter Box Company. The pressure reducing valve shall be a Watts 5M3-Z6 with integral strainer or equal. Where designated on the drawings, a flow control device shall be furnished and installed adjacent to the pressure regulator. The flow control devices shall be variable orifice type flow control valves as manufactured by Griswold Controls of Irvine, CA. The devices shall be suitable for controlling flow at the designed rate within a pressure range of 8 - 128 psi. Devices shall be furnished with 3/4-inch female IPS connections. Modifications may be required to accommodate insertion of the flow control valve.

D. Meter Box

Meter box shall be of extrusion grade PVC material with a diameter of 15 inches and a wall thickness of .300 inches as manufactured by Mueller Company or approved equal. The lid shall be cast iron, tar coated, designed with a rim extending 1/2 inch below the top of the box. The lid shall be complete with a locking device, a lifting device and clearly marked "Water Meter". All fittings, valves and connections shall be manufactured of red brass. The setting shall be complete with the following equipment, or approved equals. The meter box shall include a 4”x 4” cedar post for mounting of the remote readout.

5/8” x ¾” Displacement Meter	-	Neptune Type
Angle Valve	-	Ball Valve Rated for 300 psi
Dual Check Backflow Preventer	-	Mueller H-14244, Ford HHA31-323, or equal
Pressure Reducing Valve	-	Watts 5M3-Z6
Coil(250 psi)	-	Polybutylene conforming to ASTM D1598; ASTM D2581; ASTM D2666.
	-	Polyethylene (HDPE) conforming to ASTM D2737

The meter box and setting shall be as manufactured by Mueller Company, Ford Meter Box Company, or approved equal, and as detailed on the drawings. The installation shall include a 1" Mueller Insta-tite coupling, PE x F.I.P. thread, and a 35' stub of 1" ASTM D-2239 HDPE 3408 SDR7 pipe on the outlet side of the meter box. Provide stiffeners with compression type ends for connections to PE pipe. Contractor shall be responsible for mating compatibility of Mueller meter box to adjacent piping.

E. Modified Meter Box

The modified meter box assembly shall be of the same configuration as the meter box specified in Subsection D. above except for the following modifications:

Meter Box	- 18" diameter
2 Pressure Reducing Valves	- Watts 5M3-Z6

The assembly shall be configured in such a manner to achieve the most efficient layout for the equipment used and for maintenance. The placement of the pressure reducing valves (PRV's)

may consist of one PRV located upstream of the meter and the other PRV located downstream of the meter, depending upon the meter manufacturer's acceptance of such a layout.

F. Pasture Tap Meter Box

The pasture tap meter box assembly shall be of the same configuration as the meter box specified in Subsection D. of this section except for the following addition:

5 GPM Flow Control Valve	Dole SSGC (¾")

The assembly shall be configured in such a manner to achieve the most efficient layout for the equipment used and for maintenance. The placement of the flow control valve shall be downstream of the PRV and of the meter, depending upon the meter manufacturer’s acceptance of such layout.

PART 3 - EXECUTION

A. Meter and Setter

Assemble the meter and setter as shown on the Drawings and provide to the Owner for distribution to the users. The assembly shall be complete with all items detailed including the remote readout, remote readout cable, ball valves, backflow preventer, meter, pressure reducing valve, ball valves, and fittings.

Where meter boxes are to be supplied, install the meter setting, meter, and remote within the electrical enclosure box as detailed on the Drawings.

B. Meter Boxes

Meter boxes are to be set on 3 equally spaced concrete blocks as detailed on the Drawings. Meter boxes are to be plumb. Backfill to be completed in uniform layers, each layer compacted to 85% compaction per ASTM D698. Area around meter box to be sloped to drain and blended to match existing groundlines.

END OF SECTION

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EXHIBIT 53

AUTHORITY INVOICING REQUIREMENTS

In addition to any requirements set forth in the **Memorandum of Understanding**, **Utility** shall submit copies of each invoice to:

PaulsenJ@FMDiversion.gov and APInvoicesFMDiv@jacobs.com

Utility's invoices must be detailed and precise, clearly detailing each fee and expense for the amounts due on a line item basis and include at least the following information:

i. **Utility**'s name and address;
ii. **Utility**'s federal employer identification number;
iii. Unique invoice number;
iv. Billing period;
v. Description of each activity performed for each day in which services were performed;
vi. Work order number associated with each activity;
vii. Name, billing rate, and hours worked by each person involved in each activity;
viii. Total amount of **Costs** "billed to date," include the preceding months;
ix. Preferred remittance address, if different from the address on the invoice's coversheet; and
x. All of the work performed during that billing period;
xi. And any other information referenced within the Memorandum of Understanding. In the event of a conflict between these invoicing requirements and the **Memorandum of Understanding,** the **Memorandum of Understanding** shall control.

Reimbursement does not imply acceptance of services nor that the invoice is accurate. In the event **Utility** discovers an error in the amount of reimbursement following the receipt of payment, **Utility** must provide written notice of the overpayment to **Metro Flood Diversion Authority,** and credit any payment in error from any reimbursement that is due or that may become due to **Utility** under this **Memorandum of Understanding** or return the overpayment to **Metro Flood Diversion Authority** within thirty (30) calendar days of the identification of the error.

EXHIBIT 54

FEDERAL CERTIFICATION FORMS

CERTIFICATION REGARDING FEDERAL LOBBYING

The undersigned certifies to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in any award documents for any of its subcontractors at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subcontractors shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into a contract with the Authority. By executing this certificate, the undersigned agrees and acknowledges that he/she has been duly authorized to execute this certificate.

Company/
Entity Name: _____

Signed: _____

Its: _____

Date: _____

PLEASE RETURN TO:

Metro Flood Diversion Authority
207 4th St. N, Suite A
Fargo, ND 58102

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 13 CFR Part 145. The regulations were published as Part VII of the May 26, 1988 *Federal Register* (pages 19160-19211).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON PAGE 2)

(1) The official representative of the party contracting with the Metro Flood Diversion Authority certifies to the best of its knowledge and belief that it and its principals:

(a) Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application had one or more public transactions, including contracts (Federal, State, or local) terminated for cause or default.

(e) Are not presently debarred, suspended, declared ineligible or voluntarily excluded from performing work for the State of North Dakota, the State of Minnesota, the Metro Flood Diversion Authority, or any of its Member Entities.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective primary participant shall attach an explanation to this proposal.

(3) The Official signing this certificate has been and is duly authorized to sign this certificate on behalf of the entity or entities which intend to enter into a contract with the Metro Flood Diversion Authority.

Official Business Name _____

Date: _____ By: _____

Name and Title of Authorized Representative

_____

Signature of Authorized Representative

PLEASE RETURN TO:
Metro Flood Diversion Authority
207 4th St. N, Suite A
Fargo, ND 58102

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this certification, the prospective contracting party is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contracting party shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the Metro Flood Diversion Authority's (the "Authority") determination whether to enter into this transaction. However, failure of the prospective contracting party to furnish a certification or an explanation shall disqualify such person from entering into contracts with the Authority.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the Authority determined to enter into a contract with the prospective contracting party. In order to qualify for participation in the U.S. EPA WIFIA program the Authority is required to obtain this certification. If it is later determined that the prospective contracting party knowingly rendered an erroneous certification, in addition to other remedies available to both the Authority and the Federal Government, the Authority may terminate this transaction for cause or default.
4. The prospective contracting party shall provide immediate written notice to the Authority to which this Certificate is submitted if at any time the prospective contracting party learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the Authority for assistance in obtaining a copy of those regulations (13 CFR Part 145).
6. The prospective contracting party agrees by submitting this certification that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the Authority.
7. The prospective contracting party further agrees by submitting this certification that it will require a "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions," from all sub-contractors without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A contracting party in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contracting party may decide the method and frequency by which it determines the ineligibility of its principals.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contracting party is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a contracting party in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the Authority may terminate this transaction for cause or default.

ASSURANCE OF COMPLIANCE – CIVIL RIGHTS CERTIFICATE

TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, SECTION 504 OF THE REHABILITATION ACT OF 1973, THE AGE DISCRIMINATION ACT OF 1975, SECTION 13 OF THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, 40 CFR PART 7, AND EXECUTIVE ORDER NO. 11246

The undersigned provides this assurance for the purpose of entering into a contract with the Metro Flood Diversion Authority (Authority) related to the Fargo-Moorhead Metropolitan Area Flood Risk Management Project (Project), which is receiving federal financial assistance. Specifically, the US EPA WIFIA Program requires this assurance of all contractors and subcontractors providing services for the Project.

The undersigned assures that it will comply with:

1. Title VI of the Civil Rights Act of 1964, as amended, which prohibits discrimination on the basis of race, color, or national origin including limited English proficiency (LEP);
2. Section 504 of the Rehabilitation Act of 1973, as amended, which prohibits discrimination against persons with disabilities;
3. The Age Discrimination Act of 1975, as amended, which prohibits age discrimination;
4. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex;
5. 40 CFR Part 7, as it relates to the foregoing; and
6. Executive Order No. 11246.

The undersigned understands that this Assurance is binding on the undersigned, its successors, transferees, and assignees at any time during which federal financial assistance is provided to the Project. The undersigned will ensure that all contractors, subcontractors, or others with whom it arranges to provide services or benefits are not discriminating in violation of items 1-6. Otherwise, the contracts for services can be terminated for cause and the undersigned can be declared ineligible to contract for the Project.

By signing this form, the undersigned is agreeing to the above provisions and that he/she is duly authorized to execute this form.

Signature of Authorized Official	Title
Print Name	Name of Institution or Agency
Date	Street
	City, State, Zip Code
PLEASE RETURN TO: Metro Flood Diversion Authority 207 4th St. N, Suite A Fargo, ND 58102	Office Email Address

American Iron and Steel (AIS) Certification

[The following information is provided as a sample letter of certification for AIS compliance. Documentation must be provided on company letterhead.]

Date

[Diversion Authority]

Subject: American Iron and Steel Certification for Project No. _____

Authority Work Package No. _____

To: [Authority Representative]

I, [company representative], certify and warrant that the following products and/or materials shipped/provided to Project No. _____ are in full compliance with the American Iron and Steel requirement as mandated in EPA's Water Infrastructure Finance and Innovation Act (WIFIA) Program.

Item, Products and/or Materials:

1. _____

2. _____

3. _____

Such process took place at the following location:

I understand and agree that EPA is a third party beneficiary to this certification and that I am duly authorized to give this certification on behalf of [Company Name]. If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed [company representative]

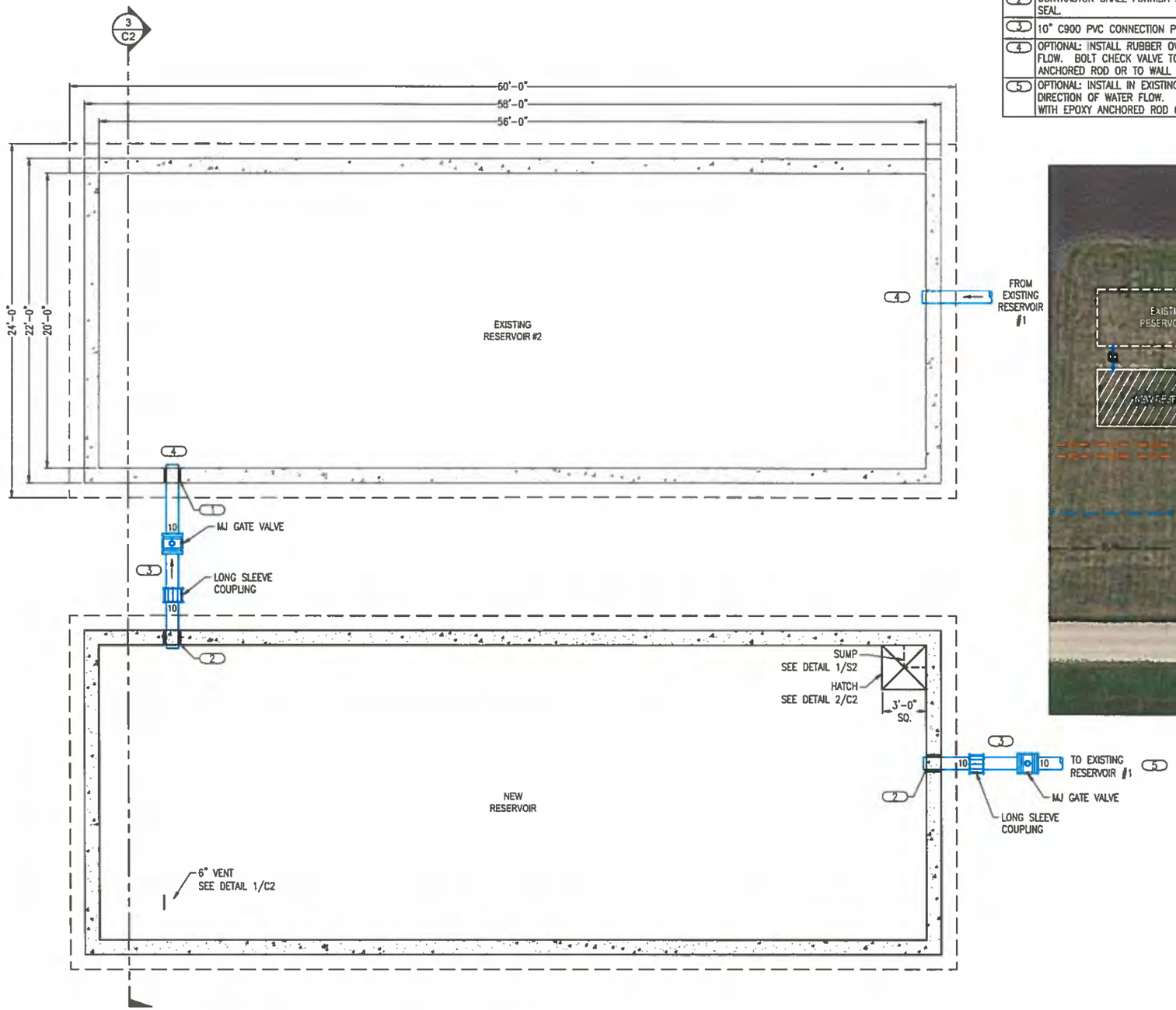
PLEASE RETURN TO:
Metro Flood Diversion Authority
207 4th St. N, Suite A
Fargo, ND 58102

EXHIBIT 55

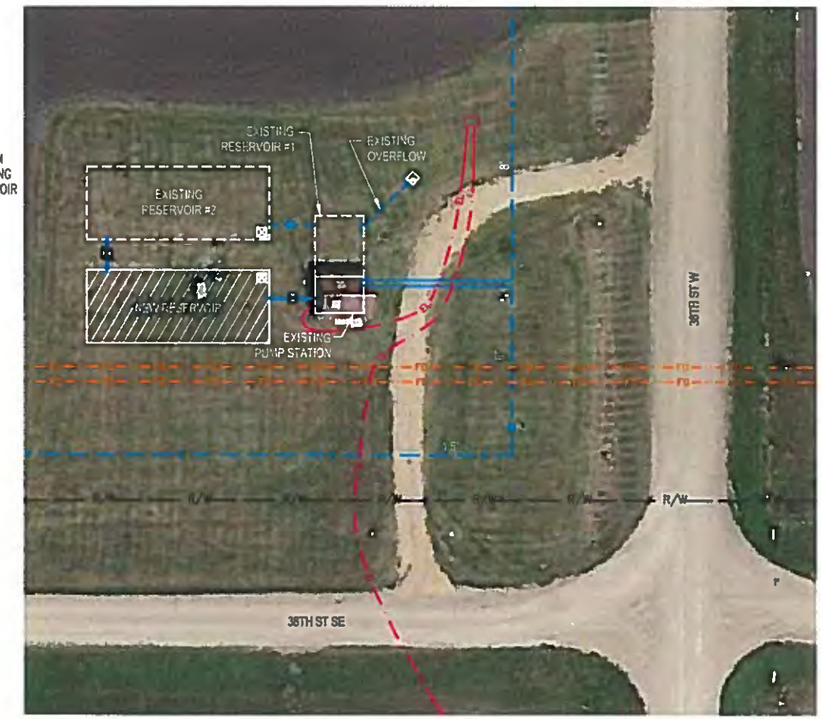
RESERVOIR D – SITE PLAN

PROPOSED IMPROVEMENTS	
1	CONTRACTOR SHALL CORE HOLE AND PROVIDE LINK-TYPE SEAL AND GROUT.
2	CONTRACTOR SHALL FURNISH AND INSTALL NEW WALL SLEEVE WITH LINK-TYPE SEAL.
3	10" C900 PVC CONNECTION PIPE.
4	OPTIONAL: INSTALL RUBBER OVERFLOW CHECK VALVE IN DIRECTION OF WATER FLOW. BOLT CHECK VALVE TO WALL INTERIOR CONCRETE WITH EPOXY ANCHORED ROD OR TO WALL PIPE FLANGE.
5	OPTIONAL: INSTALL IN EXISTING RESERVOIR, RUBBER OVERFLOW CHECK VALVE IN DIRECTION OF WATER FLOW. BOLT CHECK VALVE TO WALL INTERIOR CONCRETE WITH EPOXY ANCHORED ROD OR TO WALL PIPE FLANGE.

This document was originally issued and sealed by Russell R. Sorenson, PE, Registration Number 4694 on June 29, 2018 and the original documents are stored at the office of WaterSmart.



1 C1 RESERVOIR PLAN VIEW
SCALE: 1/4" = 1'-0"



2 C1 SITE LAYOUT
SCALE: 1" = 300'

GENERAL NOTES:
1. ALL PRODUCTS THAT MAY COME INTO CONTACT WITH WATER INTENDED FOR USE IN A PUBLIC WATER SYSTEM SHALL MEET AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)/NATIONAL SANITATION FOUNDATION (NSF) INTERNATIONAL STANDARDS 60 AND 61, AS APPROPRIATE. A PRODUCT WILL BE CONSIDERED AS MEETING THESE STANDARDS IF SO CERTIFIED BY NSF, THE UNDERWRITERS LABORATORIES, OR OTHER ORGANIZATION ACCREDITED BY ANSI TO TEST AND CERTIFY EACH PRODUCT.
2. PERFORM DISINFECTION WORK IN ACCORDANCE WITH AWWA C652 FOR THE DISINFECTION OF STORAGE FACILITIES. APPROVED CHEMICALS:
AWWA B300, HYPOCHLORITE: SHALL CONFORM TO FEDERAL SPECIFICATION O-C-114A, TYPE II, GRADE B, OR FEDERAL SPECIFICATION O-C-602B.
AWWA B301, LIQUID CHLORINE: SHALL CONFORM TO FEDERAL SPECIFICATION BB-C-120A.

SCALE 1" = 300'
300' 0 300' 600'

SCALE 1/4" = 1'-0"
2' 0 2' 4' 6' 8' 10'

8/30/2017 2:36 PM

No	Date	Rev Description	By

Drawing Type: Construction
Date: 6/29/18
Engineer: RRS
Drafted By: JRH
Scale: As Shown

NEW WEST FARGO RESERVOIR
CASS RURAL WATER USERS
Cass County, North Dakota
RESERVOIR SITE AND PLAN

WaterSmart

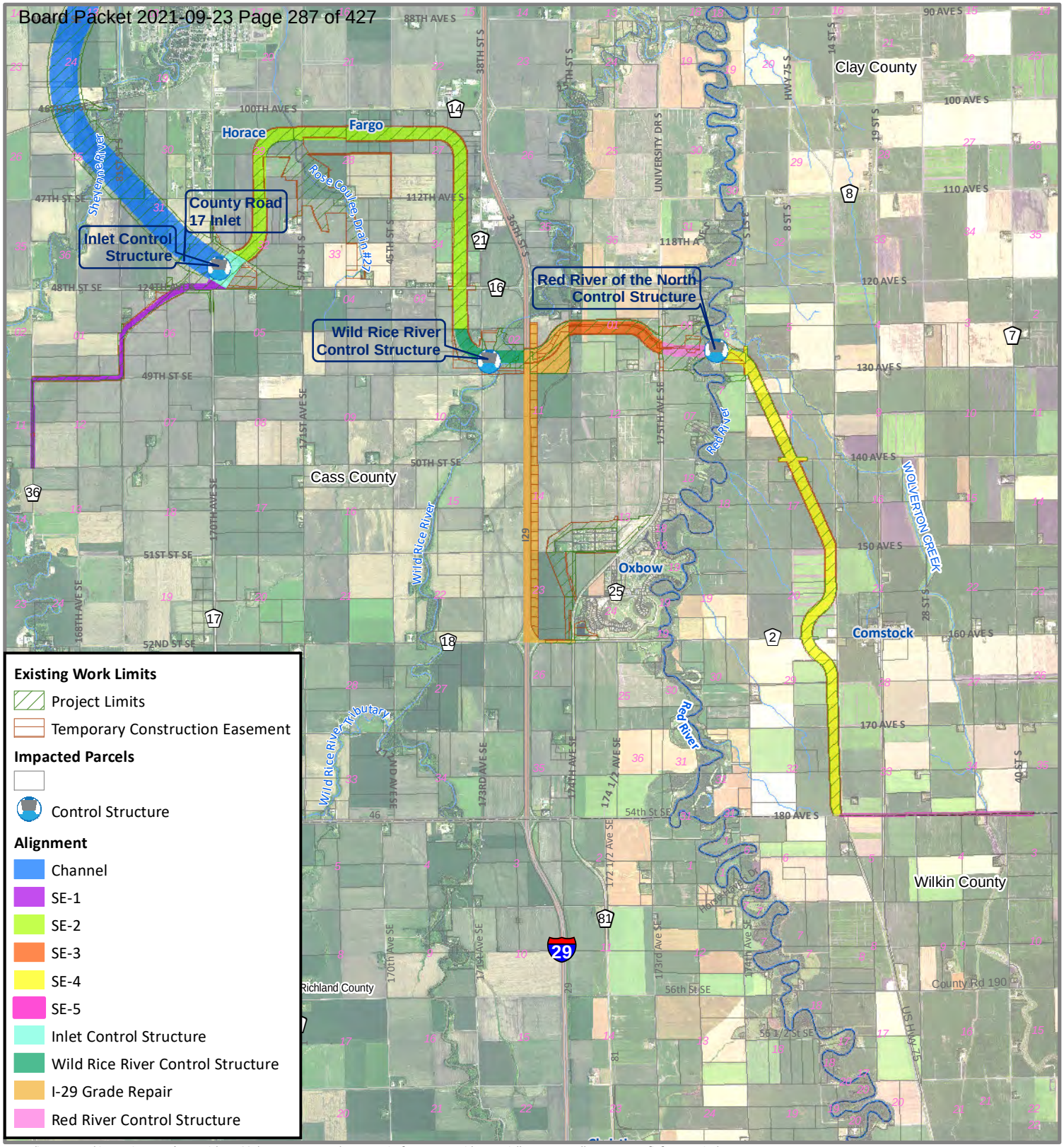
Project No: —

Sheet 2 of 5

C1

EXHIBIT 56

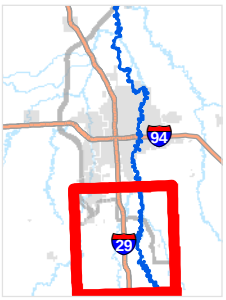
SOUTHERN EMBANKMENT LOCATION MAP



Any reliance upon this map is at user's own risk. AE2S does not warrant the map or its features are either spatially or temporally accurate or fit for a particular use.
All parcel acreages and legal descriptions shown hereon are based on County GIS data. Final acreages and legal descriptions to be determined by boundary survey.
Coordinate System: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet | Produced by: cwickenheiser, AE2S, Inc. | C:\Data\Projects\GIS Projects\FM Area Diversion\Projects\Land Acquisition\Project Work Package\WP27-Red River West Embankment\SEAI_overall.mxd

N

0 0.375 0.75 1.5
Miles



SOUTHERN EMBANKMENT AND ASSOCIATED INFRASTRUCTURE

FM AREA DIVERSION
Map Date: 1/25/2021

FM AREA DIVERSION PROJECT

MEMORANDUM OF UNDERSTANDING

By and Between

METRO FLOOD DIVERSION AUTHORITY

and

SPRINT COMMUNICATIONS COMPANY L.P.

Dated as of _____, 2021

Relating to:

Diversion Channel and Associated Infrastructure for the Fargo-Moorhead Metropolitan Area Flood Risk Management Project

DRAFT

This instrument was drafted by:
Ohnstad Twichell, P.C. (TJL)
John T. Shockley
P.O. Box 458
West Fargo, North Dakota 58078

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DRAFT

MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING is made and entered into this ____ day of _____, 2021 (hereinafter referred to as the "Effective Date"), by and between the Metro Flood Diversion Authority, a North Dakota political subdivision, whose post office address is P.O. Box 2806, Fargo, ND 58108-2806, and Sprint Communications Company L.P., whose post office address is 6391 Sprint Parkway, Mailstop: KSOPHT0101-Z2040, Overland Park, KS 66251 (hereinafter referred to as the "Utility").

RECITALS

WHEREAS, the Metro Flood Diversion Authority is undertaking a Private Public Partnership (hereinafter referred to as "P3") for the construction of the Diversion Channel and Associated Infrastructure and the Project (as hereinafter defined); and

WHEREAS, the Utility has real property interests (hereinafter referred to as "Prior Property Interests") within the area generally described in Article III of this Memorandum of Understanding and further described in the Exhibits hereto; and

WHEREAS, it will be necessary for the Prior Property Interests to be relocated, protected, removed, or adjusted (hereinafter referred to as the "Utility Relocation Project") by the Metro Flood Diversion Authority, at its cost, in coordination with construction on the Project; and

WHEREAS, the Utility and Metro Flood Diversion Authority desires to set forth in writing their mutual understandings and to define the terms and conditions, and each party's rights and obligations in connection with the Utility Relocation Project.

WHEREAS, this Memorandum of Understanding is only intended to bind the Parties in regard to the portion of the Comprehensive Project north of the Southern Embankment and shall have no implications for or binding power in regard to the Parties work, efforts, or relations in the Southern Embankment. The Parties interactions with one another in the Southern Embankment shall be governed by a separate agreement between the Parties; and

NOW, THEREFORE, in consideration of the mutual promises contained herein and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby state as follows:

ARTICLE I.
DEFINITIONS AND INTERPRETATION

Section 1.01 DEFINITIONS. All capitalized and bolded terms used and not otherwise defined herein shall have the meanings given to them in this **Memorandum of Understanding** and as defined in this Section unless a different meaning clearly applies from the context.

"Approved Subcontractors" means contractors approved by the **Utility** to do work on the **Utility Relocation Project**. **Approved Subcontractors** include only the following: Master Construction Co., Inc., whose principal address is 1572 4th St. N, Fargo, ND 58102; MasTec, Inc., whose principal address is 800 S. Douglas Road, 12th Floor, Coral Gables, FL 33134 and whose

local address is 17385 Forest Blvd. Hugo, MN 55038; and MP Nexlevel, LLC, whose principal address is 500 County Rd. 37 NW, Maple Lake, MN 55358; as well as any other contract approved in writing by the **Utility**, at the **Utility's** sole discretion.

"Betterment" means any upgrading of **Utility** that is not attributable to or made necessary by the **Project**, made for the benefit of and at the election of the **Utility**. The following are not considered **Betterments**: (a) replacement devices or materials of equivalent standards, though not identical; (b) replacement of devices or materials no longer regularly manufactured with an equivalent or next higher grade or size; or (c) any upgrading required by applicable law or regulation.

"Best Efforts" means acting in **Good Faith** and in accordance with generally accepted commercial practices, and using reasonable due diligence to undertake all action contemplated by this **Memorandum of Understanding**, in accordance with applicable federal and state laws, regulations, and rules; however, the obligation to use **Best Efforts** does not mean a duty to take action that would be in violation of applicable federal or state law.

"Business Day(s)" means any day that is not a Saturday, a Sunday, or a public holiday under the law of North Dakota.

"CCJWRD" means the Cass County Joint Water Resource District, a political subdivision of the State of North Dakota, its successors and assigns.

"Comprehensive Project" means construction of a storm water diversion channel through North Dakota that conveys twenty thousand (20,000) cubic feet per second at the one percent (1%) annual event or 100-year event return and is approximately thirty (30) miles long, tie-back embankments, a staging area, a diversion inlet structure, a 6-mile connecting channel, a control structure on each of the Red and Wild Rice Rivers, an aqueduct hydraulic structure on each of the Maple and Sheyenne Rivers, a drop structure of each of the Rush and Lower Rush Rivers, four (4) railroad bridges, in-town levees, community ring levees, and environmental mitigation, as generally described in the Final Feasibility Report and Environmental Impact Statement, Fargo-Moorhead Metropolitan Area Flood Risk Management, dated July 2011 and approved by the Chief of Engineers on December 19, 2011, as amended by the Supplemental Environment Assessment, Fargo Moorhead Metropolitan Area Flood Risk Management Project, dated September 2013 and approved by the District Engineer, St. Paul District on September 19, 2013, 2013, and the Final Supplemental Environmental Assessment #2, Fargo Moorhead Metropolitan Area Flood Risk Management Project, dated February 2019 and approved by the District Engineer, St. Paul District on February 28, 2019.

"Construction Documents Submittal" means the design submittal described in Article VII of this **Memorandum of Understanding**.

"Emergency" means any unscheduled repair that is necessary to prevent injury, loss of property, or return a Utility asset to service. Emergency shall include, but not be limited to, any fiber optic cable cut or damaged Utility facility or any circumstances where the fiber optic cable or Utility facilities are reasonably anticipated to be cut or damaged if prompt action is not taken by the Utility to prevent such cut or damage.

"Excavated Material Berm" or **"EMB"** means a berm constructed from materials that have been excavated from within the **Project Property**.

"Final Design Submittal" means the design submittal described in Article VII of this **Memorandum of Understanding**.

"Good Faith" means observance of reasonable commercial standards of fair dealing in a given trade of business.

"IDF Line of Protection" means inflow design flood line of protection.

"LFC" means the low-flow channel constructed in the bottom section of the diversion channel from the diversion outlet to the diversion inlet structure with minimum low-flow rates of seven hundred twenty (720) cubic feet per second from the diversion outlet to the Rush River inlet; four hundred seventy (470) cubic feet per second from the Rush River inlet to the Maple River aqueduct; and flow rates determined by the **P3 Developer** from the Maple River aqueduct to the diversion inlet structure.

"Memorandum of Understanding" means this **Memorandum of Understanding** by and between the **Metro Flood Diversion Authority** and the **Utility**.

"Metro Flood Diversion Authority" means the political subdivision created by the Joint Powers Agreement, effective June 1, 2016, by and between the City of Moorhead, a political subdivision of the State of Minnesota; the City of Fargo, a political subdivision of the State of North Dakota; Clay County, a political subdivision of the State of Minnesota; Cass County, a political subdivision of the State of North Dakota; and Cass County Joint Water Resource District, a political subdivision of the State of North Dakota and vested with the powers therein.

"Other Approvals" means all approvals and permits legally required to complete approved work on the **Utility Relocation Project**, including, but not limited to, construction permits and permits from the applicable water resource district.

"P3 Developer" means the private party or entity that enters into the **Project Agreement** whereby that party agrees to design and build the **Project**.

"Parties" means the entities party to this **Memorandum of Understanding**, specifically the **Metro Flood Diversion Authority** and the **Utility**.

"Preliminary Design Submittal" means the design submittal described in Section 7.07(a) of this **Memorandum of Understanding**.

"Prior Property Interest(s)" means any property interest(s) owned by the **Utility** that the **Metro Flood Diversion Authority** deem necessary to **Relocate**, including without limitation those set forth in Section 3.02 and Exhibit 1 attached hereto.

"Project" means the design, construction, finance, operations, and maintenance of the **SWDCAI**.

"Project Agreement" means a Public-Private Partnership Agreement as authorized by Chapter 48-02.1 of the North Dakota Century Code, by and between the **Metro Flood Diversion Authority**, or one or more member entities authorized by the **Metro Flood Diversion Authority**, and a **P3 Developer** for design, construction, financing, operation and maintenance of the **Project**.

"Project Property" means real property acquired for the **Project**, including, but not limited to, land, rights-of-way, easements, licenses, and leases.

"Project Substantial Completion" means the completion of all substantial completion conditions as outlined in the **Project Agreement** for the substantial completion of the **SWDCAI**.

"Record Drawings" means an organized set of plans, details, specifications, calculations, and related documentation that accurately represents the structure constructed, and the conditions encountered during construction all as described in the technical requirements.

"Relocate" (as well as **Relocation, Relocating, Relocated,** and other tenses) means providing a functionally equivalent facility to the **Utility**, owner of a utility, cemetery, highway, railroad (excluding railroad bridges and approaches thereto required for construction of the **Comprehensive Project**), or public facility when such action is required by this **Memorandum of Understanding**, or by law or authorized in accordance with applicable legal principles of just compensation; or providing a functionally equivalent facility when such action is specifically provided for, and is identified as a **Relocation** in the authorizing legislation for the **Project** or any report referenced therein. Providing a functionally equivalent facility may take the form of alteration, lowering, rising, or replacement and attendant demolition of the affected facility or part thereof.

"Shop Drawings and Samples" means shop drawings, laying drawings, erection drawings, fabrication drawings, product information, catalog information, samples, mock-ups, plans, test procedures and results, descriptions of services, descriptions of specific means and methods and related documentation.

"Site" means the physical location at which any **Utility Adjustment Construction Work** is being done, has been done, or will be done.

"Supplemental Plan" means a plan submitted for approval pursuant to Article VII, in the event that **Undisclosed Prior Property Interests** are identified after one or more plans have already been approved pursuant to Article VII.

"SWDCAI" means the Storm Water Diversion Channel and Associated Infrastructure, portion of the **Comprehensive Project**, which is being procured by the **Metro Flood Diversion Authority** and includes, but is not limited to, the thirty (30) mile channel, outlet, river and drain inlets, road bridges, railroad bridges, aqueducts, utility relocations, and recreational features.

"Undisclosed Prior Property Interests" means **Prior Property Interests** not identified in Section 3.02.

"USACE" means the United States Army Corps of Engineers.

"Utility Adjustment" means each **Relocation** (temporary or permanent), abandonment, protection in place, removal (of previously abandoned utilities as well as of newly abandoned utilities), replacement, reinstallation, or modification of existing utilities necessary to accommodate construction, operation, maintenance or use of the **Project**. The **Utility Adjustment Work** for each crossing of the **Project** right-of-way by a utility that crosses the **Project** right-of-way more than once will be considered a separate **Utility Adjustment**. For any utility installed longitudinally within the **Project** right-of-way, the **Utility Adjustment Work** for each continuous segment of that utility located within the **Project** right-of-way will be considered a separate **Utility Adjustment**.

"Utility Adjustment Completion" means that the **Utility Adjustment Construction Work** for a **Utility Adjustment** is sufficiently complete in the opinion of the **Metro Flood Diversion Authority** and the **Utility**.

"Utility Adjustment Construction Work" means all **Utility Adjustment Work** related to construction.

"Utility Adjustment Design Work" means all **Utility Adjustment Work** related to design.

"Utility Adjustment Work" means all efforts and costs necessary to accomplish the required **Utility Adjustments**, including all coordination, **Utility Adjustment Design Work**, design review, permitting, **Utility Adjustment Construction Work**, inspection and maintenance of records, whether provided by **Metro Flood Diversion Authority** or by the **Utility**.

"Utility Completion Acceptance" means agreement by the **Metro Flood Diversion Authority** and the **Utility** that the **Metro Flood Diversion Authority** has completed the **Metro Flood Diversion Authority's** portion of the **Utility Adjustment Construction Work** in accordance with the approved final design and approved changes during construction for a **Utility Adjustment**.

"Utility Relocation Project" means the process of acquiring **Project Property**, **Relocating** any **Prior Property Interests** and/or additional **Prior Property Interests**, acquisitions of additional rights-of-way, and all other steps necessary, as determined by the **Metro Flood Diversion Authority**, to prepare the **Project Property** for construction of the **Project**.

"Water Resource District Infrastructure" means any infrastructure or property right of any kind owned by or attributable to the Maple River Water Resource District, Southeast Cass Water Resource District, Rush River Water Resource District, North Cass Water Resource District, or the Cass County Joint Water Resource District.

Section 1.02 TERMS GENERALLY. The definition of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine, and neuter forms. The words "include," "includes," and "including" shall be deemed to be followed by the phrase "without limitation." The word "will" shall be construed to have the same meaning and effect as the word "shall." Unless the context requires otherwise (a) any definition of or reference to any agreement, instrument, or other document herein shall be construed as referring to such agreement, instrument, or other

document as from time to time amended, supplemented, or otherwise modified (subject to any restrictions on such amendments, supplements, or modifications set forth herein), (b) any reference herein to any person shall be construed to include any person's permitted successors and assigns, (c) the words "herein," "hereof," and "hereunder," and words of similar import, shall be construed to refer to this **Memorandum of Understanding** in its entirety and not to any particular provision hereof, and (d) all references herein to articles, sections, exhibits, and schedules shall be construed to refer to articles and sections of, and exhibits and schedules to, this **Memorandum of Understanding**.

Section 1.03 SURVIVAL OF TERMS. The terms of this **Memorandum of Understanding** shall survive through **Project Substantial Completion**. The provisions of Article X shall continue to bind the **Parties** for as long as **Utility** has infrastructure or property rights located within, over, or under **Project Property**.

Section 1.04 INTENT TO ASSIGN. **Utility** acknowledges the **Metro Flood Diversion Authority**'s intent to assign certain rights and obligations under this **Memorandum of Understanding** to the **P3 Developer**, and hereby irrevocably waives any right to object to any such assignment.

ARTICLE II.
PURPOSE OF MEMORANDUM OF UNDERSTANDING

Section 2.01 PURPOSE. The purpose of this **Memorandum of Understanding** is to ensure a coordinated, time-efficient, and cost-effective process for completing the **Utility Relocation Project**.

Section 2.02 COORDINATION BETWEEN ENGINEERS. The **Parties** are likely to employ the use of professional engineers in the completion of their **Utility Adjustment Work**. Engineers employed by the **Parties** shall maintain open lines of communication, coordinate, and collaborate with engineers employed by one another.

Section 2.03 COORDINATION WITH USACE. **Utility** shall not communicate directly with the **USACE** regarding any aspect of the **Comprehensive Project** or any other subject-matter referenced in, related to, or arising from this **Memorandum of Understanding**, without the prior written authorization of the **Metro Flood Diversion Authority**.

ARTICLE III.
REAL PROPERTY INTERESTS

Section 3.01 INTENT. It is the intent of the **Parties** hereto that all **Prior Property Interests** shall be identified herein. Specifically, **Prior Property Interests** shall be detailed in the table contained in Section 3.02 and further documented in the Exhibits to this **Memorandum of Understanding**.

Section 3.02 ACQUISITION OF PRIOR PROPERTY INTERESTS. The **Prior Property Interests** to be **Relocated** pursuant to the terms and conditions of this **Memorandum of Understanding** include, but are not limited to, the **Prior Property Interests** documented in Exhibit 1 and described in the table below:

Exhibit No.	Location (S-T-R)	Type	Preliminary Diversion Channel Station	Right-of-Way Easement Document Number
1	03-139N-50W	Underground Fiber Line	870+75	741855

Section 3.03 UNDISCLOSED PRIOR PROPERTY INTERESTS. If the **Metro Flood Diversion Authority**, for any reason, reasonably determines **Undisclosed Prior Property Interests** should be **Relocated**, such **Relocation** shall, following 120 days' prior notice to the Utility, occur pursuant to the terms of this **Memorandum of Understanding**.

Section 3.04 DISCOVERY OF UNDISCLOSED PRIOR PROPERTY INTERESTS. **Undisclosed Prior Property Interests** identified for **Relocation** prior to request for submission of the first submittal required by Article VII shall be **Relocated** through the same process as if the **Undisclosed Prior Property Interests** were disclosed herein, at **Metro Flood Diversion Authority's** cost. A separate accounting and recording of costs shall be maintained for **Undisclosed Prior Property Interests** and **Prior Property Interests** disclosed herein. Should **Undisclosed Prior Property Interests** be identified after the submission of one or more submittals pursuant to Article VII, the **Utility** shall, within sixty (60) days of written notification of identifying **Undisclosed Prior Property Interests** to be **Relocated**, submit a **Supplemental Plan** meeting the requirements of Article VII, for the **Relocation** of **Undisclosed Prior Property Interests**. Each party shall have the same rights and responsibilities as they would have if the **Supplemental Plan** were included in previously approved plans, as detailed in Article VII, unless explicitly provided otherwise herein. If the **Utility** fails to submit a **Supplemental Plan** for approval within sixty (60) days of receipt of written notice that a **Supplemental Plan** is required and of the potential applicability of the per diem assessment after sixty (60) days, the **Utility** shall be assessed a fee of five hundred dollars ($500) for each calendar day following the 60th day.

Section 3.05 COOPERATION IN PLATTING. **Metro Flood Diversion Authority** intends to plat right-of-way acquired for **Project** purposes. **Utility** shall reasonably cooperate with said platting efforts if requested to do so by **Metro Flood Diversion Authority**

ARTICLE IV.
RESPONSIBILITY FOR UNDISCLOSED PRIOR PROPERTY INTERESTS

Section 4.01 UTILITY RESPONSIBILITY. Except as set forth in Section 4.02 below, the **Utility** shall bear the costs of **Relocating** all **Undisclosed Prior Property Interests** not discovered or disclosed prior to request for the first submittal pursuant to Article VII.

Section 4.02 REQUESTS FOR RELIEF. Within thirty (30) calendar days of **Utility Adjustment Completion**, the **Utility** may file a written request for relief with the **Metro Flood Diversion Authority** requesting payment or partial payment for the costs of **Relocating Undisclosed Prior Property Interests** that were not discovered and disclosed prior to request for the first submittal pursuant to Article VII. This request for relief shall be a separate document from

the cost report required by Article VII, but shall be submitted to the **Metro Flood Diversion Authority** in conjunction with the cost report required by Article VII. All requests for relief shall include an itemized list of costs, the total amount requested, and justification for **Utility's** failure to identify and disclose the **Undisclosed Prior Property Interest**. Requests for relief may be approved, approved in part and denied in part, or denied; provided, however, if: the **Undisclosed Prior Property Interest** resulted from a change in **Metro Flood Diversion Authority's** indicative design, the costs to relocate the **Undisclosed Prior Property Interest** will be borne by **Metro Flood Diversion Authority**.

ARTICLE V.
RIGHT OF SITE ACCESS

Section 5.01 RIGHT OF SITE ACCESS. To ensure the **Metro Flood Diversion Authority** is able to proceed with construction of the **Project** in a timely and efficient manner, as well as to properly monitor and ensure proper completion of the **Utility Relocation Project**, the **Metro Flood Diversion Authority** shall have the right to access, enter, and inspect any **Site**.

Section 5.02 NON-REVOCABLE RIGHT OF THE METRO FLOOD DIVERSION AUTHORITY. Nothing herein shall be construed as limiting or providing for the termination of the rights described in this Article as it pertains to the **Metro Flood Diversion Authority**.

Section 5.03 NO NOTICE REQUIRED. No notice shall be required for the **Metro Flood Diversion Authority** to exercise the rights described in this Article.

Section 5.04 DELAY FOR SAFETY PURPOSES. If the **Metro Flood Diversion Authority** attempts to exercise the rights described in this Article, but doing so would pose a safety hazard, the party shall be kept from accessing, entering, or inspecting the **Site** in question only for as long as is reasonably required to make the **Site** safe for access, entry, and inspection, as determined by the party desiring to access, enter, and inspect the **Site**.

Section 5.05 FAILURE TO ALLOW ACCESS, ENTRY, AND INSPECTION. Should any party having authority to access, enter, and inspect a **Site** be denied access by the **Utility** for more than twenty-four (24) hours, other than when the same party deems such a delay appropriate under Section 5.04, the **Utility** shall be assessed the same fees on the same schedule as described in Section 6.03.

ARTICLE VI.
REQUIRED REPORTS

Section 6.01 REQUIRED REPORTS. The **Utility** shall prepare any reports, analysis, or other information and materials within the scope of utility infrastructure, the **Utility Relocation Project,** or the **Comprehensive Project**, as is requested in writing by the **Metro Flood Diversion Authority**, and the costs therefor will be paid by the **Metro Flood Diversion Authority** pursuant to Article VIII below, unless the **Utility** is already in possession of said reports, analysis, information, or materials, in which case the **Metro Flood Diversion Authority** shall not be responsible for said costs.

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Section 6.02 DEADLINES. All reports, engineering analysis, and other information and materials requested by the **Metro Flood Diversion Authority** shall be provided before the expiration of a reasonable deadline determined by the **Metro Flood Diversion Authority** and provided in writing to **Utility**.

Section 6.03 FAILURE TO TIMELY PRODUCE. Should the Utility fail to produce any reports, analysis, or other information and materials requested of them within the time period requested by the **Metro Flood Diversion Authority**, the **Metro Flood Diversion Authority** shall provide written notice of the failure to respond timely. If the **Utility** does not cure such failure within five (5) **Business Days** of receiving written notification, the **Utility** shall be assessed a fee of five hundred dollars ($500) for each day thereafter that the requested information remains past due.

Section 6.04 APPEAL OF FEES ASSESSED. Within thirty (30) days of submitting requested information after the due date, The **Utility** may appeal the assessment of fees provided for in Section 6.03, by submitting a written appeal to the **Metro Flood Diversion Authority**. Within thirty (30) days of submission of a written appeal of assessed fees explaining the reasons for failure and other mitigating factors which the board should consider when deciding whether to waive the fee, the **Metro Flood Diversion Authority** shall approve or deny the appeal of assessed fees by written notice to the **Utility**, and failure to provide written notice within such thirty (30) day period shall be deemed approval of the appeal, and agreement to waive the assessed fees.

ARTICLE VII.
PERFORMANCE AND CONSTRUCTION

Section 7.01 WORK. The **Metro Flood Diversion Authority** shall be responsible and pay for all **Utility Adjustment Design Work,** subject to the approval of said design by the **Utility**. The **Metro Flood Diversion Authority** shall also perform and pay for all **Utility Adjustment Construction Work**. Should the **Metro Flood Diversion Authority** elect to subcontract any of the **Utility Adjustment Construction Work**, it may only subcontract **Utility Adjustment Construction Work** on the **Utility Relocation Project** to **Approved Subcontractors**.

Section 7.02 UTILITY OVERSIGHT. The **Utility** shall have the right to have a representative on **Site** at all times for oversight and quality assurance purposes, the costs of which will be paid by the **Metro Flood Diversion Authority,** but neither **Utility** nor its representative shall be directly responsible for management of the **Utility Relocation Project**.

Section 7.03 RIGHT OF WAY. The **Metro Flood Diversion Authority** shall acquire the necessary property rights within the **Project Property** to provide the **Utility** an easement as described further in Article X of this **Memorandum of Understanding**.

Section 7.04 ADDITIONAL RIGHT OF WAY. Should the **Utility** require additional right-of-way outside of the Project Property to complete the **Utility Relocation Project**, the **Utility** shall notify the **Metro Flood Diversion Authority** of said need as soon as reasonably possible after discovering the need. The **Metro Flood Diversion Authority** shall use its **Best Efforts** to acquire at the **Metro Flood Diversion Authority's** expense the necessary right-of-way, but shall not be responsible for any damages related to time delays associated with the acquisition of additional

right-of-way. The **Utility** shall be responsible for the acquisition of any additional right-of-way needed to accommodate betterments. In the event the **Utility Relocation Project** directly or indirectly causes the **Utility** to acquire additional property interests, the **Utility** shall consult with **Metro Flood Diversion Authority** prior to determining the price at which they will offer to purchase said property interests. The **Utility** will only offer to purchase additional property interests at a price consented to by the **Metro Flood Diversion Authority**. In no event will **Utility** be responsible for any delays in the **Relocation** associated with acquisition of new or additional right-of-way.

Section 7.05 TECHNICAL SPECIFICATIONS. The **Utility Relocation Project** shall be constructed as follows:

a. General. **Relocations** of the **Utility** and AT&T fiber lines within the BNSF right-of-way may be located in the same casing. The **Utility** and AT&T fiber lines shall be in separate conduits and isolated per industry standards. If the **Metro Flood Diversion Authority** elects for this **Relocation** to occur, AT&T will be responsible for all aspects of the **Relocation** except for splicing of the **Utility** fiber line, which will be performed by the **Utility**.

b. Diversion Channel and Levee Crossings.

1. Depth – Determine the depth of the diversion channel, including **LFC**, and the elevation of the bottom of the **IDF Line of Protection** (i.e., original ground minus stripping layer). Include an allowance for five (5) feet of erosion when determining the elevation of the utilities below the diversion channel or the **LFC**. Locate the top of the utility ten (10) feet below the eroded bottom of the diversion channel and the **LFC** and a minimum of fifteen (15) feet below the bottom of the lowest compacted fill layer for levees and the bottom of flood wall foundations (i.e., for **LFC**: design the **LFC** invert elevation with 5-foot erosion allowance, 10-foot cover). Place open cut utilities that are above the levee above the **IDF Line of Protection** elevation, including freeboard and overbuild.

2. Method of construction – Utilities may be directionally drilled or open cut unless otherwise indicated. Direct trenching of utilities using a plow type installation process and jack and bore installation are not permitted. When installed using an open cut, provide bedding and pipe zone using controlled low strength material (CLSM), except beneath the levee. Design and construct CLSM for fifty (50) to one hundred fifty (150) psi, 28-day compressive strength. Use material excavated for utility placement as backfill above the pipe zone, except as noted for the area under the levee. Compact backfill to a minimum of ninety-five percent (95%) of maximum dry density. For areas under the **IDF Line of Protection** (defined by the area between the extension of the levee side slopes to the depth of the utility, plus fifteen (15) feet in each direction), match the levee material in properties and installation requirements for backfill above the pipe zone.

3. Horizontal directional drilling – If horizontal directional drilling is used, follow the **USACE** *Guidelines for Installation of Utilities Beneath Corps of Engineers Levees Using Horizontal Directional Drilling.* For the diversion channel, conduct direction drilling in accordance with ASTM F1962. If the conditions of these drilling requirements conflict for work under the channel, the requirements of this Agreement apply. Do not locate pipe entry/exit locations (pits) within fifty (50) feet of the **IDF Line of Protection**. Fill the annulus between the borehole and casing or pipe with drilling fluid or other material.

4. Design requirement – Design and construct utilities crossing the **IDF Line of Protection** in accordance with the following **USACE** publication. In the case of a conflict with stated requirements, design and construct in accordance with this Agreement.

   i. *Engineer Manual, EM 1110-2-1913, "Design and Construction of Levees*".

c. Excavated Material Berms, local Drainage Ditch Crossings, and Other Areas.

1. Method of construction – Install utilities by directionally drilling or open cutting, unless otherwise indicated. Do not direct trench utilities using a plow type installation process. Do not install utilities by jack and bore process. When installed using an open cut, the bedding and pipe zone of utility lines can be backfilled with CLSM or the standard bedding and pipe zone material the **Utility** uses. Design and construct CLSM for fifty (50) to one hundred fifty (150) psi, 28-day compressive strength. Use material excavated for utility placement as backfill above the pipe zone. Compact backfill to a minimum ninety-five percent (95%) of maximum dry density. For directional drilling, conform to the requirements for crossing the **Diversion Channel**.

2. Depth – Design and construct utilities to the desired depth and accommodate the following:

   i. Stripping work areas of topsoil.

   ii. Heavy equipment loads.

   iii. Removal of **EMBs** ground in the future.

   iv. Except as indicted otherwise, construct the top of utilities a minimum of three and one-half (3.5) feet below the stripped surface and drainage ditch inverts.

d. Water Resource District Crossings. To the extent the **Utility Adjustment Design Work** calls for **Utility** infrastructure or property of any kind to cross above, below, or through **Water Resource District Infrastructure**, the **Utility** shall obtain a utility permit from the relevant water resource district prior to the initiation of **Utility Adjustment Construction Work.**

e. Other Requirements.

1. Grouting – Where horizontal directional drilling is used, grout the annular space between the borehole and the casing with cementitious grout for fifty (50) linear feet from the end of the casing or pipe at the entrance and exit pits. Inject grout into the annular space at multiple points around the circumference of the pipeline throughout this 50-foot length. Install baskets or other devices on the pipeline just beyond the 50-foot length to prevent the grout from flowing more deeply into the hole, but completely fill the annular space between the basket and the ground surface. Limit grout pressure to the mud pressure used for the directional drill.

2. Limit non-pressurized dry utilities buried under the **IDF Line of Protection** to those that can be installed inside a conduit or casing that is joined together continuously (welded, glued, or fused joints) and maintain sufficient strength to resist the tensile stresses imposed during pullback operations.

3. Casings are not required where the utility crosses above the **IDF Line of Protection**.

4. Unless installed using horizontal directional drilling, fill the annular space around dry utility cables on the inside of non-pressurized utility casings/conduits with grout or foamed concrete at least fifteen (15) feet beyond the area under the **IDF Line of Protection** (both sides).

5. Where horizontal directional drilling is used, seal the annular space between the casing and conduits on each end with a non-porous expanding foam. Rubber boots and expanding plugs are not acceptable.

6. Seal each end of the annular space between the conduit and cable. For spare conduits, seal each end of the conduit. Rubber boots and expanding plugs are not acceptable.

7. Crossing identification – Install four (4) color-coded fiberglass service line marker posts for underground utilities at each crossing point. Install the marker posts at the perimeter of the **Project** right-of-way and on the offset bench area (if any) between the diversion channel and the **EMB**. Use markers (length seventy-two (72) inches; width four (4) inches) to identify service lines and underground facilities. In addition, install one (1) color-coded fiberglass service-line marker post immediately adjacent to each buried appurtenance within the right-of-way.

8. Abandonment and removal – Completely remove the retired fiber cable and remove retired conduit as required for the construction of the **SWDCAI**. The **Utility** shall have staff onsite for the removal of utility to confirm that a line is decommissioned and can be removed.

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Section 7.06 PERFORMANCE SPECIFICATIONS. Anytime following execution of this **Memorandum of Understanding**, the **Metro Flood Diversion Authority** may provide the **Utility** with a written request for **Utility Adjustment Work** performance specifications. Within thirty (30) days of receiving said request, the **Utility** shall produce the performance specification for review, comment and approval by the **Metro Flood Diversion Authority**.

Section 7.07 FAILURE TO SUBMIT SPECIFICATIONS IN A TIMELY MANNER. Should the **Utility** fail to submit within the time requested any submittal required by this **Memorandum of Understanding**, including performance specifications required by Section 7.05, the **Metro Flood Diversion Authority** shall provide written notice of the failure to submit timely. If the **Utility** does not cure such failure within five (5) **Business Days** of receiving written notification, the **Utility** shall be assessed a fee of five hundred dollars ($500) for each full calendar day thereafter that the required plans are not submitted. **Utility** shall have the right to appeal any such fees, and the parties shall process and decide such appeal pursuant to the same process set forth in Section 6.04.

Section 7.08 PROPOSALS AND PLANS. The **Metro Flood Diversion Authority** may submit to the **Utility**, for each **Utility Adjustment**, a **Preliminary Design Submittal**, a **Final Design Submittal**, and a **Construction Document Submittal** for review, comment and approval by the **Utility**.

a. Preliminary Design Submittal. The **Metro Flood Diversion Authority** shall complete a **Preliminary Design Submittal** to a minimum of approximately thirty percent (30%) level of design completion and define the basis of design for all aspects of each **Utility Adjustment** of the **Utility Relocation Project**. The **Preliminary Design Submittal** shall include calculations demonstrating that the proposed configuration meets and satisfies the technical requirements contained herein. The **Preliminary Design Submittal** shall also provide sufficient detail to demonstrate compliance with all design and construction requirements as described herein. All of the following should also be included in the **Preliminary Design Submittal**:

1. A plan for completion of work on the **Utility Relocation Project**, including, but not limited to the intended sequence of work.

2. A schedule outlining construction, testing, outages, and start dates.

b. Final Design Submittal. The **Metro Flood Diversion Authority** shall complete a **Final Design Submittal** including, but not limited to, a completed design, an updated specifications content sheet, calculations verifying the design performance, geotechnical information, **Project** test and survey data, and all other related design and engineering reports, studies, and analyses. The **Final Design Submittal** shall also contain complete applicable technical specifications. In addition to the aforementioned information, the **Final Design Submittal** shall include:

1. **Utility** plan and profile alignments demonstrating conformance with the terms of this Section.

2. **Site** plans for the location of appurtenances and structures and **Utility** line markers.

3. When horizontal directional drilling is used, submittals and testing referenced in the design guidelines described or referenced in this **Memorandum of Understanding**.

4. A schedule with work breakdown structure that identifies utility outages, testing, and other critical dates.

5. Geotechnical calculations, as noted above.

c. Construction Documents Submittal. The **Metro Flood Diversion Authority** shall complete and provide a **Construction Documents Submittal**. The **Construction Documents Submittal** shall include the final plans for construction, the **Final Design Submittal**, the final specifications content sheet, calculations detailing design performance, geotechnical information, **Project** test and survey data, and other related design and engineering reports, studies, and analyses. The **Construction Documents Submittal** shall incorporate and address review comments from the **Final Design Submittal** and describe each change made since submission of the **Final Design Submittal**. Upon completion of the **Construction Documents Submittal**, the **Metro Flood Diversion Authority** shall sign and seal the contents of the **Construction Documents Submittal** as required by applicable laws.

d. Review. The **Utility** shall complete a full review of each submittal and provide comments and/or approval.

1. The **Utility's** review of submittals shall be restricted to a determination of whether the submittal complies with the specifications and requirements set forth in this **Memorandum of Understanding** and the performance specifications provided by the **Utility**.

2. The **Utility** shall complete a full review and provide comments on submittals within twenty (20) **Business Days** of the date on which the **Utility** receives a full and complete submittal. Should the **Utility** determine that a submittal is not in compliance with the terms and specifications provided in this **Memorandum of Understanding**, and the **Metro Flood Diversion Authority** resubmits a previously submitted submittal, the **Utility** shall review the submittal and respond within ten (10) **Business Days**. The **Utility's** review of the re-submittal shall be limited to the portions of the initial submittal deemed insufficient as well as any other portions of the submittal which have been amended or added since the initial submission. In the event that the **Utility** does not provide comments within the period prescribed by this **Memorandum of Understanding**, the **Metro Flood Diversion Authority** shall provide written notice of the failure to respond. If the **Utility** does not respond within five (5) **Business Days** of receiving written notification, the submittal shall be deemed approved.

Section 7.09 REQUIREMENT OF APPROVAL. No **Utility Adjustment Construction Work** may begin on the **Utility Relocation Project** until the **Utility** approves the **Construction Documents Submittal**.

Section 7.10 OTHER APPROVALS. The **Metro Flood Diversion Authority** shall promptly apply for and obtain all **Other Approvals** necessary for the **Utility Relocation Project**, not including permits and approvals which must be in **Utility's** name. **Utility** shall be responsible for obtaining permits and approvals specific to **Utility** infrastructure.

Section 7.11 SHOP DRAWING AND SAMPLE SUBMITTALS. The **Metro Flood Diversion Authority** shall submit **Shop Drawings and Samples** that detail the **Utility Adjustment Construction Work** to be performed by the **Metro Flood Diversion Authority** on the **Utility Relocation Project** within the **Project Property**. The **Utility** shall review the **Shop Drawings and Samples** in accordance with procedure and timelines in Section 7.07 for the review of design submittals.

Section 7.12 ADJUSTMENTS TO THE PROJECT. Should the planned route of the **SWDCAI** change in a material manner, the **Utility** and **Metro Flood Diversion Authority** shall immediately interface to adjust plans for the **Utility Relocation Project** as necessary.

Section 7.13 ADJUSTMENT TO THE UTILITY ADJUSTMENT WORK. Any changes or modifications to the **Construction Documents Submittal** during construction that materially affect the performance or construction of the **Utility Adjustment Work** will be subject to written approval by the **Utility**. The **Metro Flood Diversion Authority** will submit the proposed changes or modifications to the **Utility**. The **Utility** shall review the proposed changes or modifications in accordance with procedure and timelines in Section 7.07 for the review of design submittals. **Utility** lines not required to be moved prior to the adjustment of **Construction Documents Submittal**, which need to be **Relocated** after changes are made to **Construction Document Submittal** shall not be treated as **Undisclosed Prior Property Interests** for purposes of assigning responsibility for costs.

Section 7.14 INSPECTION. The **Utility** shall be responsible for final inspection of all **Utility Adjustment Construction Work**; however, the **Metro Flood Diversion Authority** shall have concurrent rights of inspection.

Section 7.15 UTILITY COMPLETION. The **Metro Flood Diversion Authority** will provide the **Utility** with written notice of any anticipated **Utility Adjustment Completion** at least sixty (60) calendar days and fifteen (15) **Business Days** prior to the anticipated date for **Utility Adjustment Completion**. Within ten (10) **Business Days** of the anticipated date for **Utility Adjustment Completion**, the **Utility** and the **Metro Flood Diversion Authority** will conduct a final inspection of the **Metro Flood Diversion Authority's** portion of **Utility Adjustment Construction Work** to determine whether the **Utility Adjustment** meets the final design and any material changes or modifications made pursuant to Section 7.11 or 7.12. If the **Utility** finds the construction is not in conformance with the **Construction Documents Submittal** or any approved material changes or modifications, the **Utility** will notify the **Metro Flood Diversion Authority** of such fact and the **Metro Flood Diversion Authority** will correct such nonconformance in the construction work and re-notify for inspection. Once the **Utility** finds a **Utility Adjustment** has

reached **Utility Adjustment Completion**, the **Utility** will provide a certificate of **Utility Completion Acceptance**.

Section 7.16 RECORD DRAWINGS. The **Metro Flood Diversion Authority** shall provide location and depth of each new conduit at fifty (50) yard intervals using the North American Datum of 1983 (NAD83) (NSRS2007), North Dakota State Plane Coordinate System, South Zone and the North American Vertical Datum of 1988 (NAVD88) (GEOID09). The **Metro Flood Diversion Authority** shall submit **Record Drawings** to the **Utility**.

Section 7.17 WARRANTY. The **Metro Flood Diversion Authority** warrants that: (1) material used to complete the **Utility Adjustment Construction Work** will be new materials of good quality; (2) the **Utility Adjustment Construction Work** will conform to the submittals approved pursuant to this Article, except to the extent the **Utility** consents in writing to deviations from said submittals; (3) the material used and workmanship of the **Utility Adjustment Construction Work** will be free from material defects causing a measurable change in the functionality of the **Utility's** facilities; and (4) the quality of the **Utility Adjustment Construction Work** shall be completed in a diligent and reasonably skillful workmanlike manner. These warranties continue for a period of twelve (12) months from the certificate of **Utility Completion Acceptance** of each **Utility Adjustment**. The **Metro Flood Diversion Authority** shall promptly remedy at their expense any violation of the warranties described above and any damages or injuries caused in satisfying the warranties, compensate the **Utility** for any damages or injuries the **Utility** incurs due to a warranty violation, and indemnify and hold harmless the **Utility** for any such damages or injuries.

ARTICLE VIII.
PAYMENT OF COSTS

Section 8.01 NECESSITY TO KEEP COSTS LOW. The **Utility** and the **Metro Flood Diversion Authority** each recognize the need to minimize the cost of the **Utility Relocation Project**, while seeking to maintain the same quality of service to **Utility's** customers. The **Utility** and the **Metro Flood Diversion Authority** shall be diligent in keeping costs as low as reasonably possible.

Section 8.02 GENERALLY. The **Metro Flood Diversion Authority** shall pay all reasonable costs of the **Utility Relocation Project** approved under Article VII, whether those costs are incurred by the **Utility** or the **Metro Flood Diversion Authority**.

Section 8.03 WHEN REPORTED COSTS EXCEED ESTIMATES. If the costs reported pursuant to this Article exceed the aggregate cost approved pursuant to Article VII and appear to be unreasonable, the **Metro Flood Diversion Authority** may, within thirty (30) days of receipt of the itemized report, provide the **Utility** with written notice rejecting specific line items as excessive or unreasonable in relation to the costs approved pursuant to Article VII.

Section 8.04 APPEAL OF A DECISION TO REJECT COSTS. The **Utility** may appeal a decision rejecting any cost by providing the **Metro Flood Diversion Authority** written notice of the appeal and justification for its expenses within twenty (20) days of its receipt of the rejection notice. Within thirty (30) days of **Utility's** submission of a written appeal of such rejection, the

Metro Flood Diversion Authority shall approve or deny the appeal of rejected costs by written notice to the **Utility**, and failure to provide written notice within such thirty (30) day period shall be deemed approval of the appeal, and agreement to pay the originally rejected costs.

Section 8.05 PAYMENT OF ACCEPTED COSTS. Within thirty (30) days of the determination (or deemed approval) of the **Metro Flood Diversion Authority's** full liability to the **Utility**, the **Metro Flood Diversion Authority** shall issue a single, full payment of the amount owed to the **Utility**, and a single, full payment of the amount owed to **Utility's** chosen on-**Site** representative/inspector.

Section 8.06 BETTERMENTS. The **Utility** shall be responsible for the costs and expenses of any **Utility** requested betterments installed during the **Utility Relocation Project**. It shall be a betterment where a **Utility** facility is upgraded for a purpose other than to meet design requirements imposed by the **Metro Flood Diversion Authority**. In the event that current manufacturing methods or technology do not provide for equivalent facilities to those currently installed, the installation of the most cost-effective and compatible facilities shall not be considered a betterment. Where the **Utility** is currently utilizing twenty-eight (28) strand fiber cable, it shall not be considered a betterment if the twenty-eight (28) strand fiber cable is replaced with thirty (30) strand fiber cable.

ARTICLE IX.
THIRD-PARTY BENEFICIARIES

Section 9.01 P3 DEVELOPER. The **Metro Flood Diversion Authority** and the **Utility** specifically agree and acknowledge the **P3 Developer** selected to build the **SWDCAI** under the **Project Agreement** is an intended third-party beneficiary of this **Memorandum of Understanding** and, upon **P3 Developer's** execution of a **Project Agreement** in connection with the **Comprehensive Project** for which this **Memorandum of Understanding** is executed **P3 Developer** will become a **Party** to this **Memorandum of Understanding** and: (i) **P3 Developer** may enforce the terms and conditions of this **Memorandum of Understanding**, including, but not limited to, securing a court judgment against the **Utility** to perform its obligations under this **Memorandum of Understanding**; (ii) **Utility** may enforce the terms and conditions of this **Memorandum of Understanding** against **P3 Developer**, including, but not limited to, securing a court judgment against **P3 Developer** to perform its obligations under this **Memorandum of Understanding**; (iii) the **P3 Developer** shall have all other rights available to it at law or in equity as if it had been an original party hereto, and all of the rights and remedies provided hereunder are deemed cumulative and not exclusive of any right or remedies; and (iv) **Utility** shall have all other rights available to it at law or in equity as if P3 Developer had been an original party hereto, and all of the rights and remedies provided hereunder are deemed cumulative and not exclusive of any right or remedies. Subject to the foregoing, the **Metro Flood Diversion Authority** may assign any right, responsibility, or obligation assigned to it herein to the **P3 Developer**, but no such assignment shall constitute a release by the **Metro Flood Diversion Authority**.

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ARTICLE X.
FUTURE RIGHTS AND RESPONSIBILITIES

Section 10.01 ADDITIONAL RIGHT OF WAY. Should **Metro Flood Diversion Authority** deem it necessary for purposes of the **Utility Relocation Project**, the **Metro Flood Diversion Authority** shall grant the **Utility** a perpetual right of way below, above, and across its property right, right of way or easement so the **Utility** can properly maintain its facilities in the right-of-way. The **Metro Flood Diversion Authority** shall, at its own expense, record any easement it grants to **Utility** in the official records.

Section 10.02 RIGHT OF WAY CONDITIONS. The right-of-way shall be subject to the following restrictions:

a. Maintenance of Utility Property. Following completion of the **Utility Relocation Project**, the **Utility** shall be responsible for all maintenance of **Utility** property and associated infrastructure. The **Metro Flood Diversion Authority** shall maintain the vegetative or other cover within the **Project Property**.

b. Post-Construction Access. Following completion of the **Utility Relocation Project**, the **Utility** shall provide the **Metro Flood Diversion Authority** with seven (7) days' written notice of any maintenance it intends to do within the **Project Property**. In the case of an **Emergency**, the **Utility** may undertake necessary efforts to mitigate said **Emergency** within the **Project Property**. The **Utility** shall provide the **Metro Flood Diversion Authority** notice of the **Emergency** and the **Utility's** planned actions as soon as reasonably possible after the **Utility** becomes aware of the **Emergency**.

c. Approval for Ground Disturbing Maintenance or Repairs. The **Utility** must submit and obtain approval for any and all plans for maintenance or repair that requires the ground within the **Project Property** to be disturbed, from the **Metro Flood Diversion Authority**. In the case of an **Emergency**, the **Utility** may undertake ground disturbing efforts to mitigate said **Emergency** and shall provide the **Metro Flood Diversion Authority** notice of the **Emergency** and the **Utility's** planned actions as soon as reasonably possible after the **Utility** becomes aware of the **Emergency**.

d. Clean Up. The **Utility** shall ensure that after any maintenance or repairs to **Utility** property, the ground within the **Project Property** is returned to the state in which it existed prior to the maintenance or repair that caused the ground within the **Project Property** to be disturbed.

e. Metro Flood Diversion Authority Access. In the event that **Utility** property malfunctions, destructs, or otherwise begins to cause on-going damage to the **SWDCAI**, the **Metro Flood Diversion Authority** shall have the authority to access the damage-causing **Utility** property and take any action necessary to stop on-going damage to the **SWDCAI**.

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f. Access. The **Metro Flood Diversion Authority** shall have unrestricted access in, over, and across the easement.

g. Damage to the SWDCAI. Should **Utility** property malfunction, deconstruct, or otherwise cause damage to the **SWDCAI**, the **Utility** shall take immediate action to stop on-going damage to the **SWDCAI** and repair all damage that occurs.

h. Abandonment. Should the **Utility** abandon or remove a utility line within the easement and fail to replace the line within three (3) years of removal, the **Utility** shall forfeit and extinguish said easement.

Section 10.03 USE OF EXISTING EASEMENT. In the event **Utility** property is **Relocated** within **Utility's** currently existing easement, the **Utility** shall be bound by the requirements and obligations contained in Section 10.02. The requirements of this Section shall survive so long as the **Utility** has property located within the **Project Property**.

Section 10.04 RECORD KEEPING. The **Utility** shall maintain or cause to be maintained (by way of contract and enforcement of such contract) a complete set of records detailing all costs it incurs in the **Utility Relocation Project**, in accordance with the recordkeeping and audit requirements of this **Memorandum of Understanding** and the laws of North Dakota.

Section 10.05 FUTURE PERMITS. Should the **Utility** file a formal permit application pertaining to the **Utility** line **Relocated** pursuant to this **Memorandum of Understanding**, with the **Metro Flood Diversion Authority** after the **Effective Date**, the **Metro Flood Diversion Authority** shall grant, at no cost to the **Utility**, the permit application so long as the permit application meets all reasonable requirements listed in the instructions to said permit application and the proposed crossing would not unreasonably risk harm to the **SWDCAI** or interfere with other facilities already contained within the **Project Property**, as determined by the **Metro Flood Diversion Authority**. Should an existing **Utility** line be modified in the future, the **Metro Flood Diversion Authority**, in its sole discretion shall determine whether the modification is allowable under a previously existing permit or whether the modification is significant enough in its nature or effect to require the **Utility** to apply for a new permit.

ARTICLE XI.
DISPUTES WITH CONTRACTORS AND OTHER THIRD PARTIES

Section 11.01 COORDINATION. Except when and where their interests diverge, the **Parties** shall reasonably cooperate and coordinate with respect to any dispute with third parties. Such coordination shall include any potential or ongoing litigation.

ARTICLE XII.
DISPUTES AMONG THE UTILITY, P3 DEVELOPER, AND METRO FLOOD DIVERSION AUTHORITY

Section 12.01 INTENT AND PROCEDURE. The **Parties** shall cooperate and coordinate in their **Best Efforts** to ensure that the provisions of this **Memorandum of Understanding** are

fulfilled. The aforementioned **Parties** agree to act in **Good Faith** to undertake resolution of disputes in an equitable and timely manner and in accordance with the provisions of this **Memorandum of Understanding**. If disputes cannot be resolved informally by the **Parties** or under other, situation-specific dispute resolution mechanisms contained herein, the following procedure shall be used.

Section 12.02 MEDIATION. If there is a failure between the **Parties** to resolve a dispute on their own, the **Parties** shall first attempt to mediate the dispute. The **Parties** shall agree upon a single mediator or, if they cannot agree, shall obtain a list of court-appointed mediators from the Cass County District Court Administrator and select a mediator by alternately striking names until one remains. The **Metro Flood Diversion Authority** shall strike the first name, followed by the **Utility** until one name remains.

Section 12.03 LITIGATION IF DISPUTE NOT RESOLVED. If the dispute is not resolved within thirty (30) days after the end of mediation proceedings, the **Parties** may litigate the matter.

Section 12.04 LEGAL FEES. Each party will be responsible for their own attorney's fees in connection with a dispute under this Article.

Section 12.05 WAIVER OF JURY TRIAL. THE **PARTIES** HEREBY KNOWINGLY, IRREVOCABLY, VOLUNTARILY, AND INTENTIONALLY WAIVE ANY RIGHTS THAT ANY MAY HAVE TO A TRIAL BY JURY WITH RESPECT TO ANY ACTION, PROCEEDING, COUNTERCLAIM, OR DEFENSE BASED ON THIS **MEMORANDUM OF UNDERSTANDING**, OR ARISING OUT OF, UNDER, OR IN ANY CONNECTION WITH THIS **MEMORANDUM OF UNDERSTANDING**, OR WITH RESPECT TO ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN), OR ACTIONS OF ANY **PARTY** HERETO RELATING TO THIS **MEMORANDUM OF UNDERSTANDING**. THIS PROVISION IS A MATERIAL INDUCEMENT FOR ALL MEMBER ENTITIES ENTERING INTO THIS **MEMORANDUM OF UNDERSTANDING**. THIS PROVISION APPLIES ONLY TO SUITS BETWEEN THE **UTILITY**, AND **METRO FLOOD DIVERSION AUTHORITY** ARISING OUT OF OR RELATED TO THIS **MEMORANDUM OF UNDERSTANDING** AND DOES NOT APPLY TO THIRD-PARTY CLAIMS OR SUITS BY OR ON BEHALF OF THE **PARTIES** FOR **PROJECT PROPERTY** ACQUISITION AND/OR CONSTRUCTION CONTRACT CLAIMS AND DEFENSES.

ARTICLE XIII.
USE OF EMINENT DOMAIN

Section 13.01 EMINENT DOMAIN. Nothing in this **Memorandum of Understanding** shall be construed as limiting the **Metro Flood Diversion Authority's**, or one of its member entities', ability to exercise its powers of eminent domain to the extent it is not inconsistent with this **Memorandum of Understanding**.

ARTICLE XIV.
MISCELLANEOUS

Section 14.01 NOTICE. All notices under the **Memorandum of Understanding** will be in writing and: (a) delivered personally; (b) sent by certified mail, return receipt requested; (c) sent by a recognized overnight mail or courier service, with delivery receipt requested, to the following addresses:

a. All notices to the **Metro Flood Diversion Authority**, including **Project** correspondence, submittals, and samples, will be marked as regarding the **Project** and will be delivered to the following address or as otherwise directed by the **Metro Flood Diversion Authority's** authorized representative:

Jacobs Engineering Group, Inc.
64 4th Street North, Suite 300
Fargo, North Dakota 58102

b. All legal notices to the **Metro Flood Diversion Authority**, in addition to being provided to the **Metro Flood Diversion Authority's** representative as provided above, will also be provided to the Executive Director at the following address or as otherwise directed by the **Metro Flood Diversion Authority's** representative:

Metro Flood Diversion Authority
Attention: Executive Director
207 4th Street N. Suite A
Fargo, North Dakota 58102
And

APInvoicesFMDiv@jacobs.com

PaulsenJ@FMDiversion.gov

c. All notices to the **Utility** will be marked as regarding the **Project** and will be delivered to the following address or as otherwise directed by the **Utility's** authorized representative:

Sprint Communications Company L.P.
Fargo ND Red River Diversion/Relocation Project
6391 Sprint Parkway
Mailstop: KSOPHT0101-Z2040
Overland Park, KS 66251

With a mandatory copy to:

Sprint Communications Company L.P.
12920 SE 38th Street
Bellevue, WA 98006
Attn: Managing Attorney, Real Estate

d. Notices will be deemed received when actually received in the office of the addressee (or by the addressee if personally delivered) or when delivery is refused, as shown on

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the receipt of the U.S. Postal Service, private courier, or other person making the delivery. Notwithstanding the foregoing, notices received after 5:00 p.m. Central Time will be deemed received on the first **Business Day** following delivery.

Section 14.02 INSURANCE ACQUIRED BY THE UTILITY. The **Utility** shall list The **Metro Flood Diversion Authority**, **CCJWRD**, and **P3 Developer** as additional insureds on any insurance policy obtained in connection with the **Utility Relocation Project**. No **Utility Adjustment Work** may be done until a certificate of insurance listing the aforementioned entities as additional insureds is produced. An additional insured shall be given notice at least thirty (30) days before an insurance policy on which it is an additional insured is canceled or allowed to expire. In the event that the policy is terminated for any reason and notice has not been previously given to the additional insureds, the formerly insured shall give notice to the additional insureds as soon as is reasonably possible. The **Utility** shall obtain a general liability insurance policy providing no less than two million dollars ($2,000,000) of coverage in connection with the **Utility Relocation Project**.

Section 14.03 INSURANCE OBTAINED AND MAINTAINED BY THE P3 DEVELOPER AS REQUIRED BY METRO FLOOD DIVERSION AUTHORITY. **Metro Flood Diversion Authority** shall obtain and maintain, or cause the **P3 Developer** to obtain and maintain, the following minimum insurance coverage against liability arising in any way under this **Memorandum of Understanding**:

a. Commercial general liability insurance, including bodily injury, property damage, personal and advertising injury liability and contractual liability insurance covering operations, independent contractors and products/completed operations hazards, with limits of not less than one million dollars ($1,000,000) for any one (1) occurrence and two million dollars ($2,000,000) annual aggregate, endorsed to name **Utility**, its officers, directors and employees as additional insureds;

b. Workers' compensation insurance as required by any workers' compensation or similar law in the jurisdiction where any work is performed, with an employer's liability limit of not less than five hundred thousand dollars ($500,000) for bodily injury by accident or disease;

c. Business auto liability covering ownership, maintenance or use of all owned, hired and non-owned autos with limits of not less than one million dollars ($1,000,000) combined single limit per accident for bodily injury and property damage liability, endorsed to name **Utility**, its officers, directors and employees as additional insureds;

d. Contractors' pollution liability with limits not less than five million dollars ($5,000,000), endorsed to name **Utility**, its officers, directors and employees as additional insureds.

Section 14.04 CERTIFICATES OF INSURANCE. The **Metro Flood Diversion Authority** will obtain and maintain, or cause the **P3 Developer** to obtain and maintain, the required coverage with insurers with A.M. Best ratings of not less than A-, VII. Insurers must be authorized to do business in all jurisdictions where work is performed under this **Memorandum of Understanding**. Each policy will contain a waiver of subrogation in favor of **Utility**. The **Metro**

Flood Diversion Authority will provide a certificate of insurance to **Utility's** notice address listed above and to: CertificateofInsurance@sprint.com at least sixty (60) days before any **Utility Adjustment Construction Work** begins, and again annually and within fifteen (15) days of policy renewal if requested by **Utility**, demonstrating that all required coverage is in force. All policies will be primary to any insurance or self-insurance that the **Utility** may maintain for acts or omissions of the **Metro Flood Diversion Authority** or anyone for whom the **Metro Flood Diversion Authority** is responsible. Upon request, the **Metro Flood Diversion Authority** will include copies of relevant endorsements or policy provisions with the required certificate of insurance. At the request of the **Utility**, the **Metro Flood Diversion Authority** will provide a certified copy of each insurance policy required under this **Memorandum of Understanding** provided there has been an occurrence which the **Utility** reasonably believes may be covered under a policy. The required insurance coverage provided by the **Metro Flood Diversion Authority** pursuant to this **Memorandum of Understanding** may not be construed as a limitation on the **Metro Flood Diversion Authority's** responsibility or liability or as a cap on damages.

Section 14.05 SUBCONTRACTOR INSURANCE REQUIREMENTS. If the **Metro Flood Diversion Authority** utilizes subcontractors in performance of **Utility Adjustment Construction Work** under this **Memorandum of Understanding**, the subcontractor must meet the same insurance requirements as the **Metro Flood Diversion Authority**. If a subcontractor does not meet the coverage requirements of this Section, the **Metro Flood Diversion Authority** must certify that it has acquired sufficient coverage to supplement any subcontractor deficiency.

Section 14.06 CONFLICT. In the event of a conflict between this **Memorandum of Understanding** and any other agreement, this **Memorandum of Understanding** shall control and govern the relocation of **Utility** infrastructure, lines, and property for purposes of the **SWDCAI.**

Section 14.07 FEES**.** The fees provided for herein shall not be interpreted or deemed to be the **Metro Flood Diversion Authority**'s sole source of recovery for damages in any way arising from or related to **Utility**'s delay, actions, or failure to act. The **Metro Flood Diversion Authority** shall have all remedies available to it at law in addition to any fees paid to the **Metro Flood Diversion Authority** by **Utility** pursuant to this **Memorandum of Understanding.** Nothing in this **Memorandum of Understanding** shall be deemed a waiver by the **Metro Flood Diversion Authority** of the limits on liability set forth in Section 32-12.1-03 of the North Dakota Century Code or Section 466.04 of the Minnesota Statutes, nor a waiver of any available immunities or defenses.

Section 14.08 ELECTRONIC SIGNATURES**.** The parties acknowledge and agree that this **Memorandum of Understanding** may be executed by electronic signature, which shall be considered an original signature for all purposes and shall have the same force and effect as an original signature.

Section 14.09 FEDERAL LOBBYING RESTRICTIONS. Recipients of federal financial assistance may not pay any person for influencing or attempting to influence any officer or employee of a federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress with respect to the award, continuation, renewal, amendment, or modification of a federal grant, loan, or contract. These requirements are implemented for US EPA in 40 CFR Part 34, which also describes types of activities, such as legislative liaison

activities and professional and technical services, which are not subject to this prohibition. Upon award of this contract, **Utility** shall complete and submit to the **Metro Flood Diversion Authority** the certification and disclosure forms in Appendix A and Appendix B to 40 CFR Part 34, which are attached as Exhibits to this **Memorandum of Understanding**. **Utility** shall also require all subcontractors and suppliers of any tier awarded a subcontract over $100,000 to similarly complete and submit the certification and disclosure forms pursuant to the process set forth in 40 CFR 34.110.

Section 14.10 DEBARMENT AND SUSPENSION. **Utility** certifies that it will not knowingly enter into a contract with anyone who is ineligible under the 40 CFR Part 32 to participate in the **Project**. Suspension and debarment information can be accessed at http://www.sam.gov. **Utility** represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its subcontracts under this **Memorandum of Understanding**. Upon award of this contract, **Utility** shall complete and submit to the **Metro Flood Diversion Authority** the federal certification form regarding debarment and suspension, which is attached as an Exhibit to this **Memorandum of Understanding.**

Section 14.11 CIVIL RIGHTS OBLIGATIONS. **Utility** shall comply with the following federal non-discrimination requirements:

a. Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, and national origin, including limited English proficiency (LEP).

b. Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination against persons with disabilities.

c. The Age Discrimination Act of 1975, which prohibits age discrimination.

d. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex.

e. 40 CFR Part 7, as it relates to the foregoing.

f. Executive Order No. 11246.

Section 14.12 AMERICAN IRON AND STEEL. The **Utility** acknowledges to and for the benefit of the **Metro Flood Diversion Authority** and the United States Environmental Protection Agency ("EPA") that it understands the goods and services under this **Memorandum of Understanding** are being funded with monies made available by the Water Infrastructure Finance and Innovation Act program of the EPA that has statutory requirements commonly known as "American Iron and Steel" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the **Utility** pursuant to this **Memorandum of Understanding**. Utility hereby represents, warrants and covenants to and for the benefit of the **Metro Flood Diversion Authority** and the EPA that (a) the **Utility** has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the **Utility** will provide any

further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the **Metro Flood Diversion Authority** or the EPA. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the **Utility** shall permit the **Metro Flood Diversion Authority** or the EPA to recover as damages against the **Utility** any loss, expense, or cost (including without limitation attorney's fees) incurred by the **Metro Flood Diversion Authority** or the EPA resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the EPA or any damages owed to the EPA by the **Metro Flood Diversion Authority**). While the **Utility** has no direct contractual privity with the EPA, as a lender to the **Metro Flood Diversion Authority** for the funding of its project, the **Metro Flood Diversion Authority** and the **Utility** agree that the EPA is a third-party beneficiary and neither this paragraph (nor any other provision of this **Memorandum of Understanding** necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the EPA.

Section 14.13 CERTIFICATION. Upon execution of this contract, **Utility** shall complete and submit to the **Metro Flood Diversion Authority** the federal certification forms attached as an Exhibit to this **Memorandum of Understanding**.

Section 14.14 RELATIONSHIPS CREATED. The **Parties** agree this **Memorandum of Understanding** does not create any agency, partnership, joint venture, or any other relationship between the **Parties** and that each **Party** is solely responsible for its own actions or omissions.

Section 14.15 GOVERNING LAW. This **Memorandum of Understanding** shall be controlled by the laws of the State of North Dakota. Any action brought as a result of any claim, demand, or cause of action arising under the terms of this **Memorandum of Understanding** shall be venued in Cass County in the State of North Dakota, and the **Parties** waive any objection to personal jurisdiction.

Section 14.16 SEVERABILITY. Each provision, section, sentence, clause, phrase, and word of this **Memorandum of Understanding** is intended to be severable. If any provision, section, sentence, clause, phrase, and word hereof is held by a court with jurisdiction to be illegal or invalid for any reason whatsoever, such illegality or invalidity shall not affect the validity of the remainder of this **Memorandum of Understanding**.

Section 14.17 MODIFICATIONS. Any modifications or amendments to this **Memorandum of Understanding** must be in writing and signed by all **Parties** to this **Memorandum of Understanding**.

Section 14.18 BINDING EFFECT. This **Memorandum of Understanding** shall be binding upon and inure to the benefit of the **Parties** hereto and their respective personal representatives, successors, and assigns.

Section 14.19 REPRESENTATION. The **Parties**, having been represented by counsel or having waived the right to counsel, have carefully read and understand the contents of this **Memorandum of Understanding**, and agree they have not been influenced by any representations or statements made by any other parties.

Section 14.20 HEADINGS. Headings in this **Memorandum of Understanding** are for convenience only and will not be used to interpret or construe its provisions.

Section 14.21 COUNTERPARTS. This **Memorandum of Understanding** may be executed in counterparts, each of which shall be deemed to be an original, but all of which taken together shall constitute one and the same agreement, and shall become effective when one or more counterparts have been signed by each of the **Parties** and delivered to the other party.

Section 14.22 REPRESENTATION OF AUTHORITY. Each party signing this **Memorandum of Understanding** represents and warrants that he or she is duly authorized and has legal capacity to execute and deliver this **Memorandum of Understanding** and that the **Memorandum of Understanding** is a valid and legal agreement binding on such party and enforceable in accordance with its terms.

Section 14.23 SURVIVAL. The obligations of the **Parties** under this **Memorandum of Understanding** shall survive the termination or expiration of this **Memorandum of Understanding**.

(Signatures appear on the following pages)

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IN WITNESS WHEREOF, the Parties executed this Memorandum of Understanding on the date first written above.

METRO FLOOD DIVERSION AUTHORITY

BY: _____
Michelle A. Carlson, Chair

BY: _____
Joel Paulsen, Executive Director

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SPRINT COMMUNICATIONS COMPANY L.P.

By: _____
Name: David Walker
Title: Vice President, National Engineering Operations

Date:_____

Approved as to form:

By: _____
Todd Goodwin
Senior Corporate Counsel
Sprint Communications Company L.P.

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EXHIBIT 1 (7 pages)

RIGHT-OF-WAY DOCUMENTS

3-139-50
Sprint

NDA 4289

741855

EASEMENT AGREEMENT

THIS EASEMENT AGREEMENT is made as of the 19TH day of JULY, 1991, by and between BURLINGTON NORTHERN RAILROAD COMPANY, a Delaware corporation, Grantor, and US SPRINT COMMUNICATIONS COMPANY LIMITED PARTNERSHIP, a Delaware limited partnership, Grantee.

WITNESSETH, that Grantor and US Sprint Communications Company, a New York general partnership ("Sprint General") entered into a Right-of-Way Agreement dated as of February 18, 1988 (hereinafter, the "Agreement"), whereby Grantor granted to Sprint General certain rights to construct, operate, maintain, and replace a fiber optic telecommunications transmission system on the property of Grantor under the terms and conditions contained in said Agreement; and

THAT, Grantee has succeeded to the rights and obligations of Sprint General under the Agreement.

NOW, THEREFORE, for and in consideration of Ten Dollars ($10.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration, Grantor by these presents does hereby grant to Grantee a non-exclusive EASEMENT for a term expiring on February 17, 2028, subject to renewal by Grantee as further set forth in the Agreement, in the locations situated in the County of Cass, State of North Dakota, as more particularly described in Exhibit A, attached hereto and by this reference made a part hereof. In consideration for such grant, Grantee by the presents does hereby agree to conduct its activities on Grantor's property in a manner consistent at all times with the terms and conditions of the Agreement, which terms and conditions are, by this reference, incorporated herein and made a part hereof.

IN WITNESS WHEREOF, each of Grantor and Grantee has caused these presents to be signed by its duly authorized officer, and has caused its seal to be hereunto affixed, all as of the day and year first hereinabove written.

BURLINGTON NORTHERN
RAILROAD COMPANY

BY [illegible]
TITLE: Director,
Corporate Services

US SPRINT COMMUNICATIONS
COMPANY LIMITED PARTNERSHIP

BY James B. Farris

TITLE: Director, Contract
Real Property Administration

STATE OF KANSAS)
) ss.
COUNTY OF JOHNSON)

On this 25th day of July, 1991, before me, a Notary Public, personally appeared James B. Farris known to me to be the Director - Contract Real Property Administration of US Sprint Communications Company, a Delaware limited partnership, the limited partnership that executed the within instrument and acknowledged to me that such limited partnership executed the same.

Mary M. Roe
Notary Public

MARY M. ROE
My Appt. Exp. 3-8-92

My Commission Expires: 3-8-92
Residing at: Overland Park, Ks

Page 2 of 7

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

On this 19th day of July, 1991, before me, a Notary Public, personally appeared J. H. Ilkka known to me to be the Director - Title Services of Burlington Northern Railroad Company, a Delaware corporation, the corporation that executed the within instrument and acknowledged to me that such corporation executed the same.

ALLEN A. UYEDA
COMMISSION EXPIRES
NOTARY
PUBLIC
1-9-93
STATE OF WASHINGTON

Allen A. Uyeda
Notary Public

My commission expires: Jan. 9, 1993
Residing at: Seattle, WA.

Page 3 of 7

EXHIBIT A

A strip of land 43.32 miles long constituting a Fiber Optic Cable Route lying along the main line track and within the right of way of the BURLINGTON NORTHERN RAILROAD COMPANY, as said right of way extends from near the east line of Cass County, US Sprint ("Sprint") station no. 63.50, BURLINGTON NORTHERN RAILROAD COMPANY ("BN") mile post ("MP") 7.7 and station no. 353+76, and continues in a general westwardly direction to the west county line of said county, Sprint station no. 1144+63, BN mile post 51.02 and station no. 2641+30, more particularly described as traversing Cass County, State of North Dakota in the following described Townships, Ranges, and Sections to wit:

County, CASS:

Township 139 North, Range 48 West:

Beginning the vicinity of Fargo, ND:

Section 7: NE 1/4 and NW 1/4 of NW 1/4
Sprint cable leaves BN communications building; Sprint station 63.50 at BN MP 7.7.
Between stations 63+28 and 60+51, cable angles from 34' to 10' south of west bound ("WB") main line track ("MLT").
Between stations 60+51 and 56+51 cables lies approx. 24' south of WB MLT.
Between stations 56+51 and 46+26 cables lies approx. 34' south of WB MLT near MP 8.

Township 139 North, Range 49 West:

Section 12: NE 1/4 and NW 1/4 of NE 1/4
Between stations 46+26 and 33+37 cable lies approx. 34' south of WB MLT.
Between stations 32+00 and 24+41 cable lies approx. 54' south of WB MLT.
Section 1: SE 1/4 and SW 1/4 of SW 1/4
Between stations 23+64 and 22+27 cable angles from 10' to 24' south of WB MLT.
Between stations 22+27 and 12+00 cable angles from 24' to 72' south of WB MLT.
Between 12+00 and 5+70 cables lies approx. 72' south of WB MLT.

Between 5+07 and 926+80 cable lies approx. 45' south of WB MLT.
Sprint station 927+91 cable junction; cable runs south to Fargo POP.
Between stations 927+91 (equation point) and 918+41 cable lies approx. 35' south of WB MLT.

Section 2: SE 1/4 and SW 1/4 of SE 1/4
Station no. 914+72 cable runs north and crosses track to approx. 26' north of WB MLT.
Between stations 914+72 and 911+09 cable lies approx. 26' north of WB MLT.
Between stations 911+09 and 909+30 cable angles to approx. 15' north of WB MLT.
Between stations 909+30 and 901+81 cable angles to approx. 58' north WB MLT.
Between stations 901+39 (68'north of WB MLT) and 892+25 cable angles to approx. 75' north of WB MLT.
Between stations 892+45 and 889+78 cable angles to approx. 95' north of WB MLT.
Between stations 889+78 and 863+07 cable lies approx. 96' north of WB MLT near MP 10.

Section 3: SE 1/4 and SW 1/4 of SE 1/4
Between stations 863+07 and 860+28 cable lies approx. 98' north of WB MLT.
Between stations 858+95 and 809+78 cable lies approx. 58' north of WB MLT near MP 11.

Ending the vicinty of Fargo, ND.

Section 4: SE 1/4 and SW 1/4 near MP 12
Section 5: SE 1/4 and SW 1/4 near MP 13
Section 6: SE 1/4 and SW 1/4 near MP 14

Township 139 North, Range 50 West:

Section 1: SE 1/4 and SW 1/4 and NW 1/4 near MP 15
Section 2: NE 1/4 and NW 1/4 near MP 16
Section 3: NE 1/4 and NW 1/4 near MP 17
Section 4: NE 1/4 and NW 1/4 near MP 18
Section 5: NE 1/4 and NW 1/4 near MP 19
Section 6: NE 1/4 and NW 1/4 near MP 20

9/18

Township 139 North, Range 51 West:

Section 1: NE 1/4

Township 140 North, Range 51 West:

Section 36: SE 1/4 and SW 1/4 near MP 21
Section 35: SE 1/4 and SW 1/4 near MP 22
Section 34: SE 1/4 and SW 1/4 near MP 23
Section 33: SE 1/4 and SW 1/4 near MP 24
Section 32: SE 1/4 and SW 1/4 near MP 25
Section 31: SE 1/4 and SW 1/4 and NW 1/4 near MP 26

Township 140 North, Range 52 West:

Section 36: SE 1/4 and NE 1/4 and NW 1/4 near MP 27
Section 35: NE 1/4 and NW 1/4 near MP 28
Section 34: NE 1/4 and NW 1/4 near MP 29
Section 33: NE 1/4 and NW 1/4 near MP 30
Section 32: NE 1/4 and NW 1/4 near MP 31
Section 31: ALL near MP 32

Township 140 North, Range 53 West:

Section 25: SE 1/4 and SW 1/4 near MP 33
Section 26: SE 1/4 and SW 1/4 near MP 34
Section 27: SE 1/4 and SW 1/4 near MP 35
Section 28: SE 1/4 and SW 1/4 near MP 36
Section 29: SE 1/4 and SW 1/4 near MP 37
Section 30: SE 1/4 and SW 1/4 and NW 1/4 near MP 38

Township 140 North, Range 54 West:

Section 25: NE 1/4 and NW 1/4 near MP 39
Section 26: NE 1/4 and NW 1/4 near MP 40
Section 27: NE 1/4 and NW 1/4 near MP 41
Section 28: NE 1/4 and NW 1/4 near MP 42
Section 29: NE 1/4 and NW 1/4 near MP 43
Section 30: NE 1/4 and NW 1/4 near MP 44
Section 19: SW 1/4

Township 140 North, Range 55 West:

Section 25: NE 1/4
Section 24: SE 1/4 and SW 1/4 near MP 45
Section 23: SE 1/4 and SW 1/4 near MP 46
Section 22: SE 1/4 and SW 1/4 near MP 47

JHB

Section 21: SE 1/4 and SW 1/4 near MP 48
Section 20: SE 1/4 and NW 1/4 near MP 49
Section 19: SE 1/4 and SW 1/4 near MP 50

Cass County line Sprint station no. 1144+63 and BN MP 51.02, station 2641+30.

Regen Sites:

Fargo POP, station no. 1109+49, approximate BN MP 7.7
Township 139 North, Range 49 West
Section: 26

Casselton, station no. 1229+55, approximate BN MP 26.2
Township 140 North, Range 52 West
Section 36: SE 1/4

Tower City, station no. 1200+10, approximate BN MP 49.1
Township 140 North, Range 55 West
Section 20: SW 1/4

DOCUMENT NO. 741855

RECORDING FEE 17.00

Filmed ___
Grantor ___
Grantee ___
Indexed ___
Checked ___

STATE OF NORTH DAKOTA } ss.
COUNTY OF CASS }
REGISTER'S OFFICE
I hereby certify that the within instrument was filed in this office for record on AUG 8 - 1991 at 4:00 o'clock P.M. and was duly recorded as Doc. No. 741855

REGISTER OF DEEDS
By Deputy

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US Sprint
9350 Metcalf
Overland Park, KS 66212-1480

Contract and Real Property Administration

EXHIBIT 2

PROJECT MAP

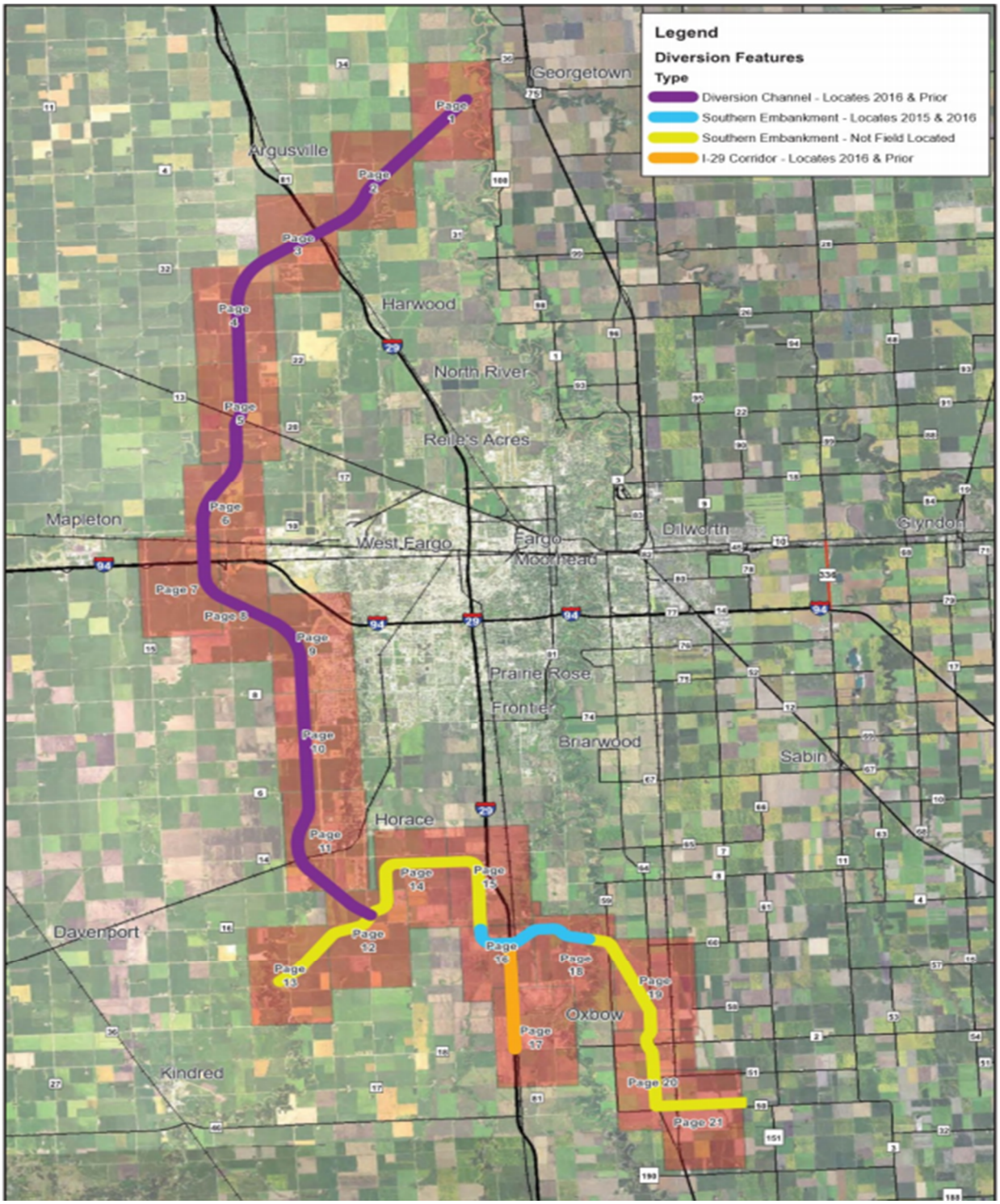

EXHIBIT 3

AUTHORITY INVOICING REQUIREMENTS

[Company] will submit copies of the invoice to:

PaulsenJ@FMDiversion.gov and APInvoicesFMDiv@jacobs.com

[Company]'s invoices must be detailed and precise. [Company]'s invoices must clearly indicate fees and expenses for the current billing period month and include at least the following information:

i. [Company]'s name and address;

ii. [Company]'s federal employer identification number;

iii. Unique invoice number;

iv. Billing period;

v. Description of each activity performed for each day in which services were performed;

vi. Work order number associated with each activity;

vii. Name, billing rate, and hours worked by each person involved in each activity;

viii. Total amount of fees and costs "billed to date," include the preceding months;

ix. Preferred remittance address, if different from the address on the invoice's coversheet; and

x. All of the work performed during that billing period.

After Agency receives [Company]'s invoice, Agency will either process the invoice for payment or give [Company] specific reasons, in writing within fifteen (15) business days, why part of all of Agency's payment is being withheld and what actions [Company] must take to receive the withheld amount. In the event of disputed billing, only the disputed portion will be withheld from payment and Agency shall pay the undisputed portion. Payment does not imply acceptance of services or that the invoice is accurate. In the event an error is identified following the receipt of payment, [Company] must credit any payment in error from any payment that is due or that may become due to [Company] under this Agreement or return the overpayment to Agency within thirty (30) calendar days of the identification of the error.

American Iron and Steel Certification

And any other information referenced within this Memorandum of Understanding

DRAFT

EXHIBIT 4

FEDERAL CERTIFICATION FORMS

CERTIFICATION REGARDING FEDERAL LOBBYING

The undersigned certifies to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in any award documents for any of its subcontractors at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subcontractors shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into a contract with the Authority. By executing this certificate the undersigned agrees and acknowledges that he/she has been duly authorized to execute this certificate.

Company/
Entity Name: _____

Signed: _____

_____

Date: _____

PLEASE RETURN TO:

Metro Flood Diversion Authority
P.O. Box 2806
Fargo, ND 58108-2806

DRAFT

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 13 CFR Part 145. The regulations were published as Part VII of the May 26, 1988 *Federal Register* (pages 19160-19211).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON PAGE 2)

(1) The official representative of the party contracting with the Metro Flood Diversion Authority certifies to the best of its knowledge and belief that it and its principals:

(a) Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application had one or more public transactions, including contracts (Federal, State, or local) terminated for cause or default.

(e) Are not presently debarred, suspended, declared ineligible or voluntarily excluded from performing work for the State of North Dakota, the State of Minnesota, the Metro Flood Diversion Authority or any of its Member Entities.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective primary participant shall attach an explanation to this proposal.

(3) The Official signing this certificate has been and is duly authorized to sign this certificate on behalf of the entity or entities which intend to enter into a contract with the Metro Flood Diversion Authority.

Official Business Name _____

Date: _____

By: _____
Name and Title of Authorized Representative

PLEASE RETURN TO:

Metro Flood Diversion Authority
P.O. Box 2806
Fargo, ND 58108-2806

_____
Signature of Authorized Representative

DRAFT

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this certification, the prospective contracting party is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contracting party shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the Metro Flood Diversion Authority's (the "Authority") determination whether to enter into this transaction. However, failure of the prospective contracting party to furnish a certification or an explanation shall disqualify such person from entering into contracts with the Authority.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the Authority determined to enter into a contract with the prospective contracting party. In order to qualify for participation in the U.S. EPA WIFIA program the Authority is required to obtain this certification. If it is later determined that the prospective contracting party knowingly rendered an erroneous certification, in addition to other remedies available to both the Authority and the Federal Government, the Authority may terminate this transaction for cause or default.
4. The prospective contracting party shall provide immediate written notice to the Authority to which this Certificate is submitted if at any time the prospective contracting party learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the Authority for assistance in obtaining a copy of those regulations (13 CFR Part 145).
6. The prospective contracting party agrees by submitting this certification that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the Authority.
7. The prospective contracting party further agrees by submitting this certification that it will require a "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions," from all sub-contractors without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A contracting party in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contracting party may decide the method and frequency by which it determines the ineligibility of its principals.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contracting party is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a contracting party in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the Authority may terminate this transaction for cause or default.

DRAFT

ASSURANCE OF COMPLIANCE – CIVIL RIGHTS CERTIFICATE

TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, SECTION 504 OF THE REHABILITATION ACT OF 1973, THE AGE DISCRIMINATION ACT OF 1975, SECTION 13 OF THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, 40 CFR PART 7, AND EXECUTIVE ORDER NO. 11246

The undersigned provides this assurance for the purpose of entering into a contract with the Metro Flood Diversion Authority (Authority) related to the Fargo-Moorhead Metropolitan Area Flood Risk Management Project (Project), which is receiving federal financial assistance. Specifically, the US EPA WIFIA Program requires this assurance of all contractors and subcontractors providing services for the Project.

The undersigned assures that it will comply with:

1. Title VI of the Civil Rights Act of 1964, as amended, which prohibits discrimination on the basis of race, color, or national origin including limited English proficiency (LEP);
2. Section 504 of the Rehabilitation Act of 1973, as amended, which prohibits discrimination against persons with disabilities;
3. The Age Discrimination Act of 1975, as amended, which prohibits age discrimination;
4. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex;
5. 40 CFR Part 7, as it relates to the foregoing; and
6. Executive Order No. 11246.

The undersigned understands that this Assurance is binding on the undersigned, its successors, transferees, and assignees at any time during which federal financial assistance is provided to the Project. The undersigned will ensure that all contractors, subcontractors, or others with whom it arranges to provide services or benefits are not discriminating in violation of items 1-6. Otherwise, the contracts for services can be terminated for cause and the undersigned can be declared ineligible to contract for the Project.

By signing this form, the undersigned is agreeing to the above provisions and that he/she is duly authorized to execute this form.

Signature of Authorized Official	Title
Print Name	Name of Institution or Agency
Date	Street
	City, State, Zip Code
PLEASE RETURN TO: Metro Flood Diversion Authority P.O. Box 2806 Fargo, ND 58108-2806	Office Email Address

DRAFT

ASSURANCE OF COMPLIANCE – CIVIL RIGHTS CERTIFICATE

TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, SECTION 504 OF THE REHABILITATION ACT OF 1973, THE AGE DISCRIMINATION ACT OF 1975, SECTION 13 OF THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, 40 CFR PART 7, AND EXECUTIVE ORDER NO. 11246

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Signature of Authorized Official	Title
Print Name	Name of Institution or Agency
Date	Street
	City, State, Zip Code
	Office Email Address

PLEASE RETURN TO:
Metro Flood Diversion Authority
P.O. Box 2806
Fargo, ND 58108-2806

DRAFT

American Iron and Steel (AIS) Certification

[The following information is provided as a sample letter of certification for AIS compliance. Documentation must be provided on company letterhead.]

Date

[Diversion Authority]

Subject: American Iron and Steel Certification for Project No. _____

Authority Work Package No. _____

To: [Authority Representative]

I, [company representative], certify and warrant that the following products and/or materials shipped/provided to Project No. _____ are in full compliance with the American Iron and Steel requirement as mandated in EPA's Water Infrastructure Finance and Innovation Act (WIFIA) Program.

Item, Products and/or Materials:

1. _____

2. _____

3. _____

Such process took place at the following location:

I understand and agree that EPA is a third party beneficiary to this certification and that I am duly authorized to give this certification on behalf of [Company Name]. If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

_____

Signed [company representative]

PLEASE RETURN TO:
Metro Flood Diversion Authority
207 4th St. N, Suite A
Fargo, ND 58102

DRAFT

FINAL

MASTER UTILITY RELOCATION AGREEMENT

By and Between

METRO FLOOD DIVERSION AUTHORITY

and

MINNKOTA POWER COOPERATIVE, INC.

Dated as of September __, 2021

Relating to:

Utility Relocation in the Southern Embankment and Associated Infrastructure and the Upstream Mitigation Area for the Fargo-Moorhead Metropolitan Area Flood Risk Management Project

This instrument was drafted by:
Ohnstad Twichell, P.C.
John T. Shockley
P.O. Box 458
West Fargo, North Dakota 58078

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EXHIBIT C - MFR-023
EXHIBIT D - FEDERAL CERTIFICATIONS
EXHIBIT E - AUTHORITY INVOICING REQUIREMENTS

MASTER UTILITY RELOCATION AGREEMENT

THIS MASTER UTILITY RELOCATION AGREEMENT (the "Agreement") is made and entered into this __ day of September, 2021 (hereinafter referred to as the "Effective Date"), by and between the Metro Flood Diversion Authority, a North Dakota political subdivision, whose post office address is 207 4th St. N., Suite A, Fargo, ND 58102 (the "Authority"), and Minnkota Power Cooperative, Inc., whose principal address is 5301 32nd Avenue South, Grand Forks, ND 58201 (the "Utility") (collectively, the Authority and the Utility are referred to as the "Parties").

RECITALS

WHEREAS, construction of the locally preferred plan for the Fargo-Moorhead Metropolitan Area Flood Risk Management Project (the "Comprehensive Project") in the Fargo, North Dakota, and Moorhead, Minnesota, Metropolitan Area was authorized by Section 7002(2) of the Water Resources Reform and Development Act of 2014, Public Law 113-121; and

WHEREAS, the Authority, the City of Fargo, North Dakota, and the City of Moorhead, Minnesota, are the Non-Federal Sponsors ("NFS") for the Comprehensive Project and have entered into a Project Partnership Agreement ("PPA") on July 11, 2016, and amended as of March 19, 2019, with the United States Army Corps of Engineers ("USACE") for the construction, operation, and maintenance of the Comprehensive Project; and

WHEREAS, the PPA sets forth a split delivery method for the Comprehensive Project, establishing the respective responsibilities of both the NFS and the USACE; and

WHEREAS, the Authority was created to undertake and fulfill the Non-Federal Sponsors' obligations under the PPA; and

WHEREAS, pursuant to the PPA, the NFS will be responsible for completing the Upstream Mitigation Area ("UMA"), the area where the Authority is required to obtain property rights as mitigation for the temporary storage of floodwaters during Comprehensive Project operations; and all mitigation features that are not the responsibility of the NFS; and

WHEREAS, pursuant to Article II of the PPA, the NFS shall be responsible for all real property interests and relocations required for construction, operation, and maintenance of the Comprehensive Project; and

WHEREAS, the Utility has real property interests (hereinafter referred to as "Prior Property Interests") within the area generally described in Article III of this Agreement and further described in **Exhibit A**; and

WHEREAS, it will be necessary for the Prior Property Interests to be relocated, protected, removed, or adjusted (hereinafter referred to as the "Utility Relocation Project") by either the Authority or Utility in coordination with construction of the Comprehensive Project; and

WHEREAS, the Authority and the Utility desire to set forth in writing their mutual understandings and to define the terms and conditions and each Party's rights and obligations in connection with the Utility Relocation Project; and

WHEREAS, this Agreement is only intended to bind the parties in regard to the portion of the Comprehensive Project south of the Storm Water Diversion Channel and Associated Infrastructure ("SWDCAI") and shall have no implications for or binding power in regard to the Parties work, efforts, or relations in the SWDCAI. The Parties interactions with one another in the SWDCAI shall be governed by a separate agreement between the Parties.

NOW, THEREFORE, in consideration of the mutual promises contained herein and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby state as follows:

ARTICLE I.
DEFINITIONS AND INTERPRETATION

Section 1.01 DEFINITIONS. All capitalized and bolded terms used and not otherwise defined herein shall have the meanings given to them in this Agreement and as defined in this Section unless a different meaning clearly applies from the context.

"Age Discrimination Act of 1975" means the Age Discrimination Act of 1975 (42 U.S.C. Sections 6101-6107).

"Authority" means the Metro Flood Diversion Authority, a North Dakota political subdivision created by the Joint Powers Agreement dated June 1, 2016.

"Best Efforts" means acting in **Good Faith** and in accordance with generally accepted commercial practices and using reasonable due diligence to undertake all action contemplated by this Agreement, in accordance with applicable federal and state laws, regulations, and rules; however, the obligation to use **Best Efforts** does not mean a duty to take action that would be in violation of applicable federal or state law.

"Business Day(s)" means any day that is not a Saturday, a Sunday, or a public holiday under the laws of North Dakota.

"Cass County" means Cass County, North Dakota.

"CFR" means the Code of Federal Regulations.

"Civil Rights Act of 1964" means the Civil Rights Act of 1964 (Pub.L. 88-352, 78 Stat. 241, enacted July 2, 1964).

"Clay County" means Clay County, Minnesota.

"Comprehensive Project" means the Fargo-Moorhead Metropolitan Area Flood Risk Management Project authorized by Section 7002(2) of the Water Resources Reform and Development Act of 2014, as generally described in the Final Feasibility Report and Environmental Impact Statement, Fargo Moorhead Metropolitan Area Flood Risk Management, dated July 2011 and approved in accordance with the Chief's Report, as amended by the Supplemental Environmental Assessment, Fargo-Moorhead Metropolitan Area Flood Risk Management Project, dated September 2013 and approved by the U.S. Army Engineer, St. Paul, on September 19, 2013, and as amended by the Second Supplemental Environmental Assessment dated August 27, 2018 (2018 SEA), and the Engineering Documentation Report, Fargo-Moorhead Metropolitan Area Flood Risk Management Project, ND and MN, Modifications Through February 2019.

"Comprehensive Project Substantial Completion Date" means the date upon which the Authority's Engineer issues a certificate that Substantial Completion of the Comprehensive Project has occurred.

"Congress" means the Congress of the United States of America.

"Contract Work Hours and Safety Standards Act" means the Contract Work Hours and Safety Standards Act (40 U.S.C. 3701 et seq.).

"Copeland (Anti-Kickback) Act" means the Copeland Act (18 U.S.C. 874 and 40 U.S.C. 3145).

"**Costs**" means all costs, expenses, and fees of whatever nature and kind, excluding internal costs that would have been incurred by the Utility regardless of the existence of the Comprehensive Project.

"Davis-Bacon Act" means the Davis-Bacon Act of 1931 (40 U.S.C. 3141 et seq.).

"Effective Date" means the date on which both Parties have executed this Agreement.

"Executive Director" means the Chief Administrative Officer of the Metro Flood Diversion Authority.

"Executive Order No. 11246" means Executive Order No. 11246, dated September 24, 1965.

"Fargo-Moorhead Metropolitan Area" means Fargo, ND, Moorhead, MN, and surrounding communities; it is further defined by the United States Census Bureau as comprising all of Cass County, North Dakota, and Clay County, Minnesota, which includes the cities of Dilworth, MN, West Fargo, ND, and numerous other towns and developments from which commuters travel daily for work, education, and regular activities.

"Fargo-Moorhead Metropolitan Area Southern Embankment – MFR-023, Utility Guidelines and References" or **"MFR-023"** means the Fargo-Moorhead Metropolitan Area

Southern Embankment – MFR-023, Utility Guidelines and References drafted by the USACE for the relocation of components in the **SEAI**.

"Federal Water Pollution Control Act Amendments of 1972" means the Federal Water Pollution Control Act Amendments of 1972 (Pub.L. 92-500, 86 Stat. 816, enacted October 18, 1972).

"Final Design Submittal" means the design submittal described in Article VII of this Agreement.

"Good Faith" means observance of reasonable commercial standards of fair dealing in a given trade of business.

"JPA" and/or **"Joint Powers Agreement"** means the **Joint Powers Agreement** dated as of June 1, 2016, by and between the **Member Entities**, as amended from time to time, which created and continued the **Authority**.

"Master Utility Relocation Agreement" means this Master Utility Relocation Agreement by and between the **Authority** and **Utility**.

"Member Entities" shall mean the City of Moorhead, the City of Fargo, Clay County, Cass County, and CCJWRD.

"Metro Flood Diversion Authority" has the same definition as "Authority."

"Minnesota" means the State of Minnesota.

"Non-Federal Project Costs" means the local cost share of the total cost of the Comprehensive Project not provided by the US Government.

"Non-Federal Sponsors" or **"NFS"** means the entities providing the **Non-Federal Project Costs** for the **Comprehensive Project**, which include the City of Fargo, the City of Moorhead, and the Authority created pursuant to the **JPA.**

"North Dakota" means the State of North Dakota.

"Parties" means the entities to this Agreement, specifically the **Authority** and the **Utility**.

"Post Construction Submittal" means the design submittal described in Article VII of this Agreement.

"PPA" means the Project Partnership Agreement executed by and between the Department of the Army and the City of Fargo, North Dakota, the City of Moorhead, Minnesota and the Metro Flood Diversion Authority for construction of the Fargo-Moorhead Metropolitan Area Flood Risk Management Project, dated July 11, 2016.

"Preliminary Design Submittal" means the design submittal described in Section 7.05(a) of this Agreement.

"Prior Property Interest(s)" means any property interest(s) owned by the Utility that the **Authority** deems necessary to **Relocate**.

"Project" means the design, construction, finance, operations, and maintenance of the **SEAI** and the **UMA**.

"Project Footprint" means the physical area within which the **SEAI** and the **UMA** will be contained.

"Project Property" means real property acquired for the **Project**, including, but not limited to, land, rights-of-way, easements, licenses, and leases.

"Rehabilitation Act of 1973" means the Rehabilitation Act of 1973 (Pub.L. 93-112, 87 Stat. 355, enacted September 26, 1973).

"Relocate" means providing a functionally equivalent facility to the owner of a utility, cemetery, highway, railroad (excluding railroad bridges and approaches thereto required for construction of the **Comprehensive Project**), or public facility when such action is authorized in accordance with applicable legal principles of just compensation; or providing a functionally equivalent facility when such action is specifically provided for, and is identified as a **Relocation** in the authorizing legislation for the **Project** or any report referenced therein. Providing a functionally equivalent facility may take the form of alteration, lowering, rising, or replacement and attendant demolition of the affected facility or part thereof.

"Richland County" means Richland County, North Dakota.

"Shop Drawings and Samples" means shop drawings, laying drawings, erection drawings, fabrication drawings, product information, catalog information, samples, mock-ups, plans, test procedures and results, descriptions of services, descriptions of specific means and methods and related documentation.

"Site" means the physical location at which any **Utility Adjustment Construction Work** is being done, has been done, or will be done as part of the **Utility Relocation Project**.

"**Southern Embankment and Associated Infrastructure"** or **"SEAI"** consisting of the **Diversion Inlet**, **Wild Rice** and **Red River Control Structure**, associated road raises, and earthen dam embankment reaches.

"Supplemental Plan" means a plan submitted for approval pursuant to Article III, in the event that **Undisclosed Prior Property Interests** are identified after one or more plans have already been approved pursuant to Article III.

"SWDCAI" means the approximately thirty (30) mile, 20,000 cubic feet per second (cfs) channel and associated features, including the outlet, river and drain inlets, road bridges, railroad bridges, aqueducts, and recreational features, to be constructed as part of the Comprehensive Project.

"Task Order" means a document executed by the **Authority** and **Utility**, including any amendments, stating the scope of services, times for performance of services, compensation, and any other relevant information for a specific project.

"Undisclosed Prior Property Interests" mean **Prior Property Interests** not disclosed in Section 3.02 of this Agreement.

"United States Army Corps of Engineers" or **"USACE"** means the United States Army Corps of Engineers.

"Upstream Mitigation Area" or **"UMA"** means the area where the Metro Flood Diversion Authority is required to obtain property rights as mitigation for the temporary storage of floodwaters during Comprehensive Project operations, as shown in **Exhibit B**.

"U.S. EPA" means the United States Environmental Protection Agency.

"Utility" means Minnkota Power Cooperative, Inc.

"Utility Adjustment" means each **Relocation** (temporary or permanent), abandonment, protection in place, removal (of previously abandoned utilities as well as of newly abandoned utilities), replacement, reinstallation, or modification of existing utilities necessary to accommodate construction, operation, maintenance or use of the **Project**. The **Utility Adjustment Work** for each crossing of the **Project** right-of-way by a utility that crosses the **Project** right-of-way more than once will be considered a separate **Utility Adjustment**. For any utility installed longitudinally within the **Project** right-of-way, the **Utility Adjustment Work** for each continuous segment of that utility located within the **Project** right-of-way will be considered a separate **Utility Adjustment**.

"Utility Adjustment Completion" means that the **Utility Adjustment Construction Work** for a **Utility Adjustment** is sufficiently complete in the opinion of the **Authority** and the **Utility**.

"Utility Adjustment Construction Work" means all **Utility Adjustment Work** related to construction.

"Utility Adjustment Work" means all efforts and **Costs** necessary to accomplish the required **Utility Adjustments**, including all coordination, **Utility Adjustment Design Work**, design review, permitting, **Utility Adjustment Construction Work**, inspection and maintenance of records, whether provided by **Metro Flood Diversion Authority** or by the **Utility**.

"Utility Relocation Project" means the process of acquiring **Project Property**, **Relocating** any **Prior Property Interests**, and all other steps necessary, as determined by the **Authority**, to prepare the **Project Property** for construction of the **Project**.

"Wilkin County" means Wilkin County, North Dakota.

Section 1.02 TERMS GENERALLY. The definition of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine, and neuter forms. The words "include," "includes," and "including" shall be deemed to be followed by the phrase "without limitation." The word "will" shall be construed to have the same meaning and effect as the word "shall." Unless the context requires otherwise (a) any definition of or reference to any agreement, instrument, or other document herein shall be construed as referring to such agreement, instrument, or other document as from time to time amended, supplemented, or otherwise modified (subject to any restrictions on such amendments, supplements, or modifications set forth herein), (b) any reference herein to any person shall be construed to include any person's permitted successors and assigns, (c) the words "herein," "hereof," and "hereunder," and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, and (d) all references herein to articles, sections, exhibits, and schedules shall be construed to refer to articles and sections of, and exhibits and schedules to, this Agreement.

Section 1.03 SURVIVAL OF TERMS. The terms of this Agreement shall survive through **Comprehensive Project Substantial Completion** and for successive ten-year terms until one of the **Parties** hereto terminates this Agreement as provided for herein.

ARTICLE II.
PURPOSE OF MASTER UTILITY RELOCATION AGREEMENT

Section 2.01 PURPOSE. The purpose of this Agreement is to ensure a coordinated, time-efficient, and cost-effective process for completing the **Utility Relocation Project**, for coordinating operations and maintenance activities after completion of the **Utility Relocation Project**, and for the development of individual **Task Orders** issued in conjunction with, and subject to, the terms and conditions of this Agreement.

Section 2.02 COORDINATION BETWEEN ENGINEERS. The **Authority** and **Utility** are likely to employ the use of professional engineers in the analysis, design, and completion of designs, plans, and completion of work. Engineers employed by the **Parties** shall maintain open lines of communication, coordinate, and collaborate with engineers employed by other parties described herein.

Section 2.03 COORDINATION WITH USACE. **Utility** shall not communicate directly with the **USACE** regarding any aspect of the **Comprehensive Project** or any other subject-matter referenced in, related to, or arising from this Agreement, without the prior written authorization of the **Authority**, except as required by Section 9.01 (a) of this Agreement.

ARTICLE III.
REAL PROPERTY INTERESTS

Section 3.01 INTENT. It is the intent of the **Parties** hereto that all **Prior Property Interests** shall be identified herein. Specifically, **Prior Property Interests** shall be detailed in the table contained in Section 3.02 and further documented in **Exhibit A** to this Agreement.

Section 3.02 ACQUISITION OF PRIOR PROPERTY INTERESTS. The **Prior Property Interests** to be **Relocated** pursuant to the terms and conditions of this Agreement include, but are not limited to, the **Prior Property Interests** documented in **Exhibit A** and described in the table below:

Location (Section – Township – Range)	Location	Exiting Crossing Type/ Info	Other Attributes	Right-of-Way Document	State
8-137-48	SE-4	E/W OH Transmission Line	69 KV Line	313693, 313694, 313695	MN
28-138-49	SE-2B	OH Power Transmission – 230KV	NE ¼	Q-4, pg 205	ND
3-137-49	SE-2B	Transmission – 69KV-OH	N/S – East Side	Q-4, pg 398	ND
3-137-49	SE-2B	Transmission 69KV-OH	N/S West Side	Q-4, pg 398	ND
12-137-49	UMA	Substation And Two-way Transmission Line Switch	SE ¼	Book 414, pg 377	ND
11-137-49	I-29	Transmission 69KV-OH			ND
Various	UMA	OH Power Transmission Lines And Wild Rice Three-way Transmission Line Switch			ND

Section 3.03 UNDISCLOSED PRIOR PROPERTY INTERESTS. If the **Authority**, for any reason, determines **Undisclosed Prior Property Interests** should be **Relocated**, such **Relocation** shall occur pursuant to the terms of this Agreement.

Section 3.04 DISCOVERY OF UNDISCLOSED PRIOR PROPERTY INTERESTS. **Undisclosed Prior Property Interests** identified for **Relocation** prior to request for submission of the first submittal required by Article VII shall be **Relocated** through the same process as if the **Undisclosed Prior Property Interests** were disclosed herein. A separate accounting and recording of costs shall be maintained for **Undisclosed Prior Property Interests** and **Prior Property Interests** disclosed herein. Should **Undisclosed Prior Property Interests** be identified after the submission of one or more submittals pursuant to Article VII the **Utility** shall, within sixty (60) days of written notification of identifying **Undisclosed Prior Property Interests** to be **Relocated**, submit a **Supplemental Plan** meeting the requirements of Article VII, for the **Relocation** of **Undisclosed Prior Property Interests**. Each Party shall have the same rights and

responsibilities as they would have if the **Supplemental Plan** were included in previously approved plans, as detailed in Article VII, unless explicitly provided otherwise herein. The **Utility** shall endeavor to submit a **Supplemental Plan** for approval within sixty (60) days. Should **Utility** fail to submit a **Supplemental Plan** by the applicable deadline, and such failure results in the unreasonable delay of **Utility Adjustment Construction Work**, the **Parties** shall follow the dispute resolution process pursuant to Section XI of this Agreement.

Section 3.05 COOPERATION IN PLATTING. The **Authority** intends to plat right-of-way acquired for **Project** purposes. **Utility** shall reasonably cooperate with said platting efforts if requested to do so by the **Authority**.

ARTICLE IV.
RESPONSIBILITY FOR UNDISCLOSED PRIOR PROPERTY INTERESTS

Section 4.01 UTILITY RESPONSIBILITY. The **Utility** shall bear the costs of **Relocating** all **Undisclosed Prior Property Interests**.

Section 4.02 REQUESTS FOR RELIEF. Within thirty (30) calendar days of **Utility Adjustment Completion**, the **Utility** may file a written request for relief with the **Authority** to request payment or partial payment for costs of the **Relocating Undisclosed Property Interests**. This request for relief shall be a separate document from the reports required by Article VII but shall be submitted to the **Authority** in conjunction with the reports required by Article VII. All requests for relief shall include an itemized list of costs, the total amount requested, and justification for **Utility's** failure to identify the **Undisclosed Prior Property Interest**. Requests for relief may be approved, approved in part and denied in part, or denied.

ARTICLE V.
RIGHT OF SITE ACCESS

Section 5.01 RIGHT OF SITE ACCESS. To ensure the **Authority** is able to proceed with construction of the **Project** in a timely and efficient manner, as well as to properly monitor and ensure completion of the **Utility Relocation Project**, the **Authority** shall have a right-of-way in, on, over, and across any and all **Sites** as well as the right to access, enter, and inspect any **Site**.

Section 5.02 NON-REVOCABLE RIGHT OF THE METRO FLOOD DIVERSION AUTHORITY. Nothing herein shall be construed as limiting or providing for the termination of the rights described herein as it pertains to the **Authority**.

Section 5.03 NO NOTICE REQUIRED. Reasonable notice shall be required for the **Authority** to exercise the rights described in this Article.

Section 5.04 DELAY FOR SAFETY PURPOSES. If the **Authority** attempts to exercise the rights described in this Article, but doing so would pose a safety hazard, the **Party** shall be kept from accessing, entering, or inspecting the **Site** in question only for as long as is reasonably required to make the **Site** safety for access, entry, and inspection, as determined by the **Party** desiring to access, enter, and inspect the **Site**.

Section 5.05 FAILURE TO ALLOW ACCESS, ENTRY, AND INSPECTION. Should any **Party** having authority to access, enter, and inspect a **Site** be denied access for more than twenty-four (24) hours, other than when the same **Party** deems such a delay appropriate under Section 5.04, and such failure results in the unreasonable delay of **Utility Adjustment Construction Work**, the **Parties** shall follow the dispute resolution process pursuant to Section XI of this Agreement.

ARTICLE VI.
REQUIRED REPORTS

Section 6.01 REQUIRED REPORTS. The **Utility** shall prepare any reports, analysis, plans, cost estimates, or other information and materials within the scope identified in a task order pertaining to the utility infrastructure, the **Utility Relocation Project**, or the **Project**, as requested by the **Authority**.

Section 6.02 DEADLINES. All reports, analysis, plans, cost estimates, and other information and materials requested by the **Authority** shall be provided before the expiration of a reasonable deadline mutually determined by and between the Utility and the **Authority** and/or identified in a task order pertaining to the utility infrastructure, the **Utility Relocation Project**, or the **Project**.

Section 6.03 FAILURE TO TIMELY PRODUCE. Should the **Utility** fail to produce any reports, analysis, plans, cost estimates, or other information and materials requested of them by the **Authority**, and such failure results in the unreasonable delay of **Utility Adjustment Construction Work**, the **Parties** shall follow the dispute resolution process pursuant to Section XI of this Agreement.

ARTICLE VII.
PERFORMANCE AND CONSTRUCTION

Section 7.01 UTILITY ADJUSTMENT DESIGN WORK. The **Utility** shall be responsible for the completion of all **Utility Adjustment Design Work**. The **Utility** shall complete all **Utility Adjustment Design Work** prior to reasonable deadline identified in a task order pertaining to the utility infrastructure, the **Utility Relocation Project**, or the **Project**, provided to **Utility** by the **Authority**.

Section 7.02 UTILITY ADJUSTMENT CONSTRUCTION WORK. The **Utility Adjustment Construction Work** shall be as follows:

a. The **Utility** shall be responsible for the completion of all **Utility Adjustment Construction Work**. The **Utility** shall complete all **Utility Adjustment Construction Work** prior to a reasonable deadline mutually agreed to by and between the Utility and the Authority.

b. If a portion of the **Utility Adjustment Construction Work** is outside of the **Project Property**, the **Utility** shall be responsible for that portion of the **Utility Adjustment Construction Work**, but such work incident to Utility Adjustment Construction Work will follow the same reimbursement mechanisms as Utility

Adjustment Construction Work completed inside the Project Property. **Utility** shall meet the requirements of federal law in regard to any **Work** contracted out to third parties, for which the **Authority** will reimburse the **Utility**.

Section 7.03 ADDITIONAL RIGHT-OF-WAY OUTSIDE THE PROJECT FOOTPRINT. Should the **Utility** require additional right-of-way to complete the **Utility Relocation Project**, the **Utility** shall notify the **Authority** of said needs as soon as reasonably possible after discovering the need. The **Authority** shall use its **Best Efforts** to acquire the necessary right-of-way but shall not be responsible for any damages related to time delays associated with the acquisition of additional right-of-way needed to accommodate betterments. In the event the **Utility Relocation Project** directly or indirectly causes the **Utility** to acquire additional property interests, the **Utility** shall consult with the **Authority** prior to determining the price at which they will offer to purchase said property interests. The **Utility** will only offer to purchase additional property interests at a price consented to by the **Authority**. The **Utility** is not responsible for any damages related to time delays associated with the acquisition of additional right-of-way needed which was directly or indirectly caused by the Utility Relocation Project, so long as the **Utility** is reasonably diligent in pursuing acquisition of said necessary rights-of-way.

Section 7.04 TECHNICAL SPECIFICATIONS. The **Utility Relocation Project** must be designed in accordance with the **Fargo-Moorhead Metropolitan ("FMM") Area Southern Embankment – MFR-023, Utility Guidelines for the Southern Embankment and References ("MFR-023")** which is hereby incorporated by reference and attached as **Exhibit C** to this Agreement. The requirements set forth in **MFR-023** shall only apply to **Utility Adjustment Work** within the **SEAI**. All **Utility Adjustment Work** in the **UMA** shall be conducted in accordance with Section 7.05 of this Agreement.

Section 7.05 COORDINATION FOR UTILITY ADJUSTMENT IN THE UMA. All **Utility Adjustment Work** in the **UMA** shall be designed, constructed, and completed in accordance with federal, state, and local regulations and guidelines. In the event **Utility Adjustment Work** shall be completed in the **UMA**, the **Utility** will work in conjunction with the **Authority**, in **Good Faith**, to design and submit a **Utility Adjustment** plan for the **Authority** to review, comment and approve.

Section 7.06 PROPOSALS AND PLANS. Anytime following execution of this Agreement, the **Utility** may submit to the **Authority**, for each **Utility Adjustment**, a **Preliminary Design Submittal**, a **Final Design Submittal**, and a **Post Construction Submittal** for review, comment, and approval by the **Authority** as defined and at the specific timelines specified in **MFR-023**.

(a) Preliminary Design Submittal. The **Utility** shall complete a **Preliminary Design Submittal** to a minimum of approximately thirty-five percent (35%) level of design completion and define the basis of design for all aspects of each **Utility Adjustment** of the **Utility Relocation Project**. The **Preliminary Design Submittal** shall include calculations demonstrating that the proposed configuration meets and satisfies the technical requirements contained herein. The **Preliminary Design Submittal** shall also provide sufficient detail to demonstrate compliance with all design and construction requirements as described in **MFR-023**. The **Preliminary Design Submittal** shall include, at a minimum, sketches and/or

relocation plans, text defining the general proposed plan, and a scoping estimate of construction costs.

(b) Final Design Submittal. The **Utility** shall complete a **Final Design Submittal** including, but not limited to, fully developed design and relocation plan, drawings, specifications, and all other supporting information, design documentation, etc. The **Final Design Submittal** shall also contain complete applicable technical specifications. In addition to the aforementioned information, the **Final Design Submittal** shall include fully developed design and relocation plans, drawings, specifications, design documentation including calculations for the expected volume of grout needed to fill the annular spaces and all other supporting information, design documentation, and a final estimate of construction costs. The Final Design Submittal shall be utilized to develop individual **Task Orders** for consideration and approval by the **Authority** prior to completion of the **Utility Adjustment Work**.

(c) Post Construction Submittal. The **Utility**, in coordination with the **NFS** shall complete and provide a **Post Construction Submittal**. The **Utility** acknowledges and agrees that **Post Construction Submittals** shall be conducted in accordance with the **MFR-023**. The **Post Construction Submittal** shall include the following requirements, if applicable to the **Utility Relocation Project**:

1. Acceptance testing documentation and inspection records, including standard proctor and field moisture density results.

2. Pipe inspection schedule and maintenance plan for future recurring inspections.

3. Design documentation that includes calculations for the expected volume of grout needed to fill the annular space.

4. Post-Construction Report that includes the amount that the expected amount of grout was used for filling the annular space.

5. As-Built Drawings: Submit As-Built drawings for the complete utility line relocation showing complete detail, including trench dimensions, pipe profile, pipe alignment, valve locations, connection box locations, manholes and all other pertinent as-built information.

6. As-Built Surveys

(d) Review. The **Authority** shall complete a full review of each submittal and provide comments and/or approval.

1. The **Authority's** review of submittals shall be restricted to a determination of whether the submittal complies with the specifications and requirements set forth in this Agreement.

2. The **Authority** shall complete a full review and provide comments on submittals within twenty (20) **Business Days** of the date on which the **Authority** receives a full and complete submittal. Should the **Authority** determine that a submittal is not in compliance with the terms and specifications provided in this Agreement, and the **Utility** resubmits a previously submitted submittal, the **Authority** shall review the submittal and respond within ten (10) **Business Days**. The **Authority's** review of the re-submittal shall be limited to the portions of the initial submittal deemed insufficient as well as any other portions of the submittal which have been amended or added since the initial submission. In the event that the **Authority** does not provide comments within the period prescribed by this Agreement, the **Utility** shall provide written notice of the failure to respond. If the **Authority** does not respond within five (5) **Business Days** of receiving written notification, the submittal shall be deemed approved.

Section 7.07 REQUIREMENT OF APPROVAL. No **Utility Adjustment Construction Work** may begin until the **Authority** approves the **Final Design Submittal**.

Section 7.08 SHOP DRAWING AND SAMPLE SUBMITTALS. The **Utility** shall submit **Shop Drawings and Samples** that detail the **Utility Adjustment Construction Work** to be performed by the **Utility** on the **Utility Relocation Project** within the **Project Footprint**. The **Authority** shall review the **Shop Drawings and Samples** in accordance with the procedure and timelines in Section 7.05 for the review of Submittals.

Section 7.09 ADJUSTMENTS TO THE PROJECT. Should the planned route of the **SEAI** change in a material manner, the **Utility** and the **Authority** shall immediately interface to adjust plans for the **Utility Relocation Project** as necessary.

Section 7.10 ADJUSTMENTS TO THE UTILITY ADJUSTMENT WORK. Any changes or modifications to the **Post Construction Submittal** during construction that materially affect the performance or construction of the **Utility Adjustment Work** will be subject to written approval by the **Authority**. The **Utility** will submit the proposed changes or modifications to the **Authority** for review and approval. The **Authority** shall review the submittals in accordance with procedure and timelines in Section 7.05. **Authority** lines not required to be moved prior to the adjustment of **Post Construction Submittal**, which need to be **Relocated** after changes are made to **Post Construction Submittal** shall not be treated as **Undisclosed Prior Property Interests** for purposes of assigning responsibility for costs.

Section 7.11 INSPECTION. The **Utility** shall be responsible for inspection of all **Utility Adjustment Construction Work**.

Section 7.12 UTILITY COMPLETION. Within ten (10) **Business Days** of the anticipated date for **Utility Adjustment Completion**, the **Utility** and the **Authority** will schedule a final

inspection, whereby the **Utility** shall be responsible for holding an inspection of the **Utility's** portion of **Utility Adjustment Construction Work** to determine whether the **Utility Adjustment** meets the **Post Construction Submittal** and any material changes or modifications made per Section 7.08 and 7.09. If the **Authority** finds the construction is not in conformance with the **Post Construction Submittal** or any approved material changes or modifications, the **Authority** will notify the **Utility** of such fact and the **Utility** will correct such nonconformance in the construction work and re-notify for inspection. Once the **Authority** finds a **Utility Adjustment** has reached **Utility Adjustment Completion**, the **Authority** will provide a certificate of **Utility Completion Acceptance**.

Section 7.13 THIRD PARTY CONTRACTORS. Should the **Utility** engage any third-party contractor to fulfill, contribute to, or otherwise act in regard to an obligation assigned to **Utility** in this Agreement, the **Utility** shall abide by all restrictions and requirements provided for in Section 13 and as provided in the federal lobbying restrictions which is attached as **Exhibit D** to this Agreement.

Section 7.14 INVOICING REQUIREMENTS. All invoices provided to the **Authority** pursuant to or arising from this Agreement shall comply with invoicing requirements provided in the Authority invoicing requirements which is as attached as **Exhibit E** to this Agreement.

ARTICLE VIII.
PAYMENT OF COSTS

Section 8.01 NECESSITY TO KEEP COSTS LOW. The **Utility** and the **Authority** each recognize the need to minimize the cost of the **Utility Relocation Project**, while seeking to maintain the same quality of service to the **Utility's** customer. The **Utility** and the **Authority** shall be diligent in keeping costs as low as reasonably possible.

Section 8.02 GENERALLY. The **Authority** shall pay all reasonable costs of the **Utility Relocation Project** approved under Section VII and actually incurred, whether those costs are incurred by the **Utility** or the **Authority**, excluding the **Utility's** internal costs.

Section 8.03 DOWN PAYMENT. The **Authority** shall pay fifty percent (50%) of the total estimated cost of the **Utility Relocation Project** approved under Article VII, prior to commencement of the **Utility Adjustment Construction Work**.

Section 8.04 REPORTING OF COSTS. The **Utility** shall submit a detailed, itemized report of the costs and expenses of the **Utility Relocation Project** to the **Authority** for review with each invoice submitted. Upon completion of the **Utility Relocation Project**, the **Utility** shall submit a comprehensive itemized report of costs and expenses of the **Utility Relocation Project** with the final invoice submittal.

Section 8.05 REJECTION OF COSTS. The **Authority** may reject reported costs and expenses to the extent that it deems any specific costs or expenses are unreasonable. Notice of rejection of any costs or expenses must be provided to the **Utility** in writing.

Section 8.06 APPEAL OF A DECISION TO REJECT COSTS. The **Utility** may appeal a decision rejecting any cost by providing the **Authority** written notice of the appeal and justification for its expenses within twenty (20) days of its receipt of the rejection notice.

Section 8.07 PAYMENT OF ACCEPTED COSTS. Within thirty (30) days of the determination of the **Authority's** full liability to the **Utility**, the **Authority** shall issue a single, full payment of the amount owed to the **Utility**.

Section 8.08 BETTERMENTS. In no situation shall any **Party** other than the **Utility** be responsible for costs and expenses of betterments installed during the **Utility Relocation Project**.

ARTICLE IX.
FUTURE RIGHTS AND RESPONSIBILITIES

Section 9.01 RIGHT OF WAY. Should the **Authority** deem it necessary for the purpose of the **Utility Relocation Project**, the **Authority** shall grant the **Utility** a right-of-way below, above, and across the **Project Footprint** so the **Utility** can properly maintain its facilities in the right-of-way, subject to the following restrictions and obligations:

a. Coordination with USACE. In the event the **Utility** deems it necessary to perform **Utility Adjustment Work**, within the right-of-way, beyond operation and maintenance for the **Utility Relocation Project**, **Utility** shall be responsible for coordination with the **USACE** to obtain appropriate review and approval.

b. Maintenance of Utility Property. Following completion of the **Utility Relocation Project**, the **Utility** shall be responsible for all maintenance of **Utility** property and associated infrastructure. The **Utility** shall be responsible for preparing a maintenance and abandonment plan for all utilities located within the work limits of the SEAI and/or UMA. The Utility acknowledges and agrees that all maintenance of the Utility property and associated infrastructure shall be conducted in accordance with **MFR-023**.

c. Post Construction Access. Following completion of the **Utility Relocation Project**, the **Utility** shall provide the **Authority** with seven (7) days' written notice of any maintenance it intends to do within the **Project Footprint**. If the Utility deems access to the Project Footprint to be an emergency, it will provide notice as soon as reasonably practicable.

d. Approval for Ground Disturbing Maintenance or Repairs. The **Utility** must submit and obtain approval, except in cases of Utility deemed emergency, for any and all plans for maintenance or repair that requires the ground within the **Project Footprint** to be disturbed, from the **Authority**.

e. Clean Up. The **Utility** shall ensure that after any maintenance or repairs to **Utility** Property, the ground within the **Project Footprint** is returned to the state in which

it existed prior to the maintenance or repair that caused the ground within the **Project Footprint** to be disturbed.

f. Access. The **Authority** shall have unrestricted access, aside from the existence of Utility infrastructure, in, over, and across the right-of-way.

g. Damage to the SEAI or UMA. Should **Utility** property malfunction, deconstruct, or otherwise cause damage to the **SEAI** and/or the **UMA**, the Utility shall take immediate action to stop on-going damage to the **SEAI** and/or the **UMA** and will consult with the Authority on how to repair all damage that occurs.

h. Abandonment. Should the **Utility** abandon or remove a utility line within the easement and fail to replace the line within three (3) years of removal, the **Utility** shall forfeit and extinguish said easement.

Section 9.02 USE OF EXISTING EASEMENT. In the event **Utility** property is **Relocated** within the **Utility's** currently existing easement or right-of-way, the **Utility** shall be bound to exercise its rights under said easement, subject to the requirements and obligations contained in this Article, excepting any abandonment requirements set forth in Section 9.01. The requirements of this Article shall survive so long as the **Utility** has property located within the **Project Footprint**.

Section 9.03 RECORD KEEPING. The **Utility** shall maintain or cause to be maintained (by way of contract and enforcement of such contract) a complete set of records detailing all costs it incurs in the **Utility Relocation Project**, in accordance with the recordkeeping and audit requirements of this Agreement and the laws of North Dakota.

Section 9.04 FUTURE PERMITS. Should the **Utility** file a formal permit application with the Authority, pertaining to the **Utility** line **Relocated** pursuant to this Agreement, with the **Authority** after the **Effective Date**, the **Authority** shall grant, at no cost to the **Utility**, the permit application so long as the permit application meets all reasonable requirements listed in the instructions to said permit application and the proposed crossing would not unreasonably risk harm to the **SEAI** or the **UMA** or interfere with other facilities already contained within the **Project Footprint**, as determined by the **Authority**. In addition to the permit application granted by the **Authority**, **Utility** shall be responsible for obtaining all other permits necessary and required by the **USACE**. Should an existing **Utility** line be modified in the future, the **Authority**, in its sole discretion, shall determine whether the modification is allowable under a previously existing permit or whether the modification is significant enough in its nature or effect to require the **Utility** to apply for a new permit.

ARTICLE X.
DISPUTES WITH CONTRACTORS AND OTHER THIRD PARTIES

Section 10.01 COORDINATION. The **Parties** shall coordinate with respect to any dispute with third parties. Such coordination shall include any potential or ongoing litigation.

ARTICLE XI.
DISPUTES AMONG THE UTILITY AND THE METRO FLOOD DIVERSION AUTHORITY

Section 11.01 INTENT AND PROCEDURE. The **Utility** and the **Authority** shall use their **Best Efforts** to ensure that the provisions of this Agreement are fulfilled. The **Parties** agree to act in **Good Faith** to undertake resolution of disputes in an equitable and timely manner and in accordance with the provisions of this Agreement. If disputes cannot be resolved informally by the **Parties** or under other, situation-specific dispute resolution mechanisms contained herein, the following procedure shall be used.

Section 11.02 PROCEDURE TO COMMENCE DISPUTE RESOLUTION PROCESS. The **Parties** agree that in the event of an alleged breach of any of the terms of this Agreement, the **Parties** making such allegation shall, except as provided in Section 13.01 (Notices) of this Agreement, provide thirty (30) days written notice to the other **Party** of the alleged breach. The written notice shall contain reasonable description of the underlying facts and an explanation of why the **Party** providing notice believe those facts constitute a breach. Following transmittal of the notice, the **Party** alleged to have caused the breach shall be given a reasonable time (as provided in Section 12.03 of this Agreement), not less than ten (10) days to correct or remedy the alleged breach, to meet and confer with the other **Party**, and/or to participate in mediation with the other **Party** prior to initiating any litigation, arbitration, or any administrative proceeding, unless the alleged breach has the potential to cause immediate and irreparable harm, in which case the **Party** alleging the harm may initiate litigation prior to complying with the provisions of this Section 11.02 while, at the same time, following the procedures set forth in Sections 11.01, 11.02, and 13.01 of this Agreement as applicable.

Section 11.03 TIME TO CORRECT. The reasonableness of the time afforded to the **Party** alleged to have breached this Agreement pursuant to Section 11.02 of this Agreement to cure the alleged breach and engage in dispute resolution processes shall be determined by considering the circumstances, including the potential harm, injury, or damages that are or may result from the alleged breach and the extent to which the harm, injury, or damages may worsen with the passage of time.

Section 11.04 MEDIATION. If there is a failure between the **Parties** to resolve a dispute on their own, the **Parties** shall first attempt to mediate the dispute. The **Parties** shall agree upon a single mediator or, if they cannot agree, shall obtain a list of court-appointed mediators from the Cass County District Court Administrator, and select a mediator by alternately striking names until one remains. The **Authority** shall strike the first name, followed by the **Utility**, in that recurring order until one name remains.

Section 11.05 ARBITRATION. If there is a failure between the **Parties** to resolve a dispute on their own, the **Parties** shall first attempt to arbitrate the dispute. The **Parties** shall agree upon a single arbitrator, that is mutually agreeable to the **Parties**. Judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof.

Section 11.06 RIGHT OF SETOFF. If there is a failure between the **Parties** to resolve a dispute on their own, and the **Parties** have attempted to utilize the dispute resolution process

pursuant to Section 11 of this Agreement, and such dispute, including but not limited to those identified in Sections 3.04, 5.05, and 6.03, results in the unreasonable delay of the **Utility Relocation Project**, the **Authority** is hereby authorized, to the fullest extent permitted by law to setoff, and may apply any and all deposits at any time held and owing to or for the credit of any **Party** to this Agreement against any and all obligations existing under this Agreement.

Section 11.07 LITIGATION IF DISPUTE NOT RESOLVED. If the dispute is not resolved within thirty (30) days after the end of mediation proceedings, the **Parties** may litigate the matter.

Section 11.08 LEGAL FEES. Each **Party** will be responsible for their own attorney's fees in connection with a dispute under this Article.

Section 11.09 WAIVER OF JURY TRIAL. THE **PARTIES** HEREBY KNOWINGLY, IRREVOCABLY, VOLUNTARILY, AND INTENTIONALLY WAIVE ANY RIGHTS THAT ANY MAY HAVE TO A TRIAL BY JURY WITH RESPECT TO ANY ACTION, PROCEEDING, COUNTERCLAIM, OR DEFENSE BASED ON THIS AGREEMENT , OR ARISING OUT OF, UNDER, OR IN ANY CONNECTION WITH THIS AGREEMENT, OR WITH RESPECT TO ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN), OR ACTIONS OF ANY PARTY HERETO RELATING TO THIS AGREEMENT. THIS PROVISION IS A MATERIAL INDUCEMENT FOR ALL MEMBER ENTITIES ENTERING INTO THIS AGREEMENT. THIS PROVISION APPLIES ONLY TO SUITS BETWEEN THE **UTILITY** AND THE **AUTHORITY** ARISING OUT OF OR RELATED TO THIS AGREEMENT AND DOES NOT APPLY TO THIRD-PARTY CLAIMS OR SUITS BY OR ON BEHALF OF THE **PARTIES** FOR **PROJECT PROPERTY** ACQUISITION AND/OR CONSTRUCTION CONTRACT CLAIMS AND DEFENSES.

ARTICLE XII.
USE OF EMINENT DOMAIN

Section 12.01 EMINENT DOMAIN. Nothing in this Agreement shall be construed as limiting the **Authority's**, or its **Member Entities'**, ability to exercise its powers of eminent domain.

Section 12.02 NULLIFICATION BY EMINENT DOMAIN. Should the **Authority** initiate eminent domain proceedings to accomplish the goals of the **Utility Relocation Project**, the terms of the Agreement shall be null and void at the option of the **Authority**.

Section 12.03 NULLIFICATION AFTER COSTS INCURRED. Should the terms of this Agreement be nullified under Section 12.02, after plans and proposals described in Section VII have been approved as required by Article VII, the **Utility** shall, within thirty (30) days of being served with notice of the eminent domain proceeding, submit a report of its costs to the **Authority** in the same manner it would have submitted a report of costs pursuant to Article VII had the **Utility Relocation Project** been completed.

ARTICLE XIII.
MISCELLANEOUS

Section 13.01 NOTICE. All notices under the Agreement will be in writing and: (a) delivered personally; (b) sent by certified mail, return receipt requested; (c) sent by a recognized overnight mail or courier service, with deliver receipt requested; or (d) sent by facsimile or email communication followed by a hard copy and with receipt confirmed by telephone or return receipt (in the case of email communication), to the following addresses:

a. All notices to the **Authority**, including **Project** correspondence, submittals, and samples, will be marked as regarding the **Project** and will be delivered to the following address or as otherwise directed by the **Authority's** authorized representative:

Jacobs Engineering Group, Inc.
64 4th Street North, Suite 300
Fargo, North Dakota 58102
and

Metro Flood Diversion Authority
Attention: Executive Director
207 4th Street North, Suite A
Fargo, North Dakota 58102

b. All legal notices to the **Authority**, in addition to being provided to the **Authority's** representative as provided above, will also be provided to the **Executive Director** at the following address or as otherwise directed by the **Authority's** representative:

Metro Flood Diversion Authority
Attention: Executive Director
207 4th Street North, Suite A
Fargo, North Dakota 58102

c. All notices to the **Utility** will be marked as regarding the **Project** and will be delivered to the following address or as otherwise directed by the **Utility's** authorized representative:

Minnkota Power Cooperative, Inc.
Attention: Wayne Lembke, Transmission Engineering & GIS Manager
5301 32nd Avenue S.
Grand Forks, ND 58201
701-795-4342

d. Notices will be deemed received when actually received in the office of the addressee (or by the addressee if personally delivered) or when delivery is refused,

as shown on the receipt of the U.S. Postal Service, private courier, or other person making the delivery. Notwithstanding the foregoing, notices sent by facsimile after 4:00 p.m. Central Time and all other notices received after 5:00 p.m. Central Time will be deemed received on the first **Business Day** following delivery.

Section 13.02 ASSIGNMENT. Neither **Party** may transfer or assign this Agreement, nor any rights or obligations under this Agreement, without the express written consent of the other **Party**. Each **Party** shall only be permitted to transfer or assign rights or obligations under this Agreement by giving thirty (30) days' written notice pursuant to Section 13.01 to the other **Party** of its intent to transfer or assign.

Section 13.03 WORKERS' COMPENSATION. Each **Party** shall be responsible for injuries or deaths of its own personnel. Each **Party** will maintain workers' compensation insurance or self-insurance coverage, covering its own personnel while they are providing assistance pursuant to this Agreement. Notwithstanding any other provision of this Agreement, each **Party** waives the right to pursue a legal action against one of the other **Parties** for any workers' compensation benefits paid to its own employee or volunteer or their dependents, even if the injuries are caused wholly or partially by the negligence of any other **Party** or its officers, employees, or volunteers.

Section 13.04 INSURANCE. The **Utility** shall list the **Authority** as additional insureds on any insurance policy obtained in connection with the **Utility Relocation Project**. No **Utility Adjustment Work** may be done until a certificate of insurance listing the aforementioned entities as additional insureds is produced. An additional insured shall be given notice at least thirty (30) days before an insurance policy on which it is an additional insured is canceled or allowed to expire. In the event that the policy is terminated for any reason and notice has not been previously given to the additional insureds, the formerly insured shall give notice to the additional insureds as soon as is reasonably possible.

Section 13.05 INDEMNIFICATION. The **Utility** shall indemnify and hold harmless the **Authority**, its **Member Entities**, and directors, officers, employees, and agents harmless against any and all allegations, claims, actions, suits, demands, damages, liabilities, obligations, losses, settlements, judgments, costs and expenses (including attorney's fees), which arise out of, relate to or result from any act or omission of the **Utility** or failure of **Utility's** facilities or property.

Section 13.06 RELATIONSHIPS CREATED. The **Parties** agree this Agreement does not create any agency, partnership, joint venture, or any other relationship between the **Parties** and that the **Utility** is solely responsible for its own actions or omissions.

Section 13.07 GOVERNING LAW. This Agreement shall be controlled by the laws of the **State of North Dakota**. Any action brought as a result of any claim, demand, or cause of action arising under the terms of this Agreement shall be venued in **Cass County** in the **State of North Dakota**, and the **Parties** waive any objection to personal jurisdiction.

Section 13.08 CONFLICT. In the event of a conflict between the **Parties** pertaining to the terms and conditions of this Agreement, this Agreement shall control and govern the relocation of **Utility** infrastructure, lines, and property for purposes of the **SEAI** and the **UMA**, but not the relocation of **Utility** infrastructure, lines, and property for purposes of the **SWDCAI**.

Section 13.09 SEVERABILITY. Each provision, section, sentence, clause, phrase, and word of this Agreement is intended to be severable. If any provision, section, sentence, clause, phrase, and word hereof is held by a court with jurisdiction to be illegal or invalid for any reason whatsoever, such illegality or invalidity shall not affect the validity of the remainder of this Agreement.

Section 13.10 MODIFICATIONS. Any modifications or amendments to this Agreement must be in writing and signed by both **Parties** to this Agreement.

Section 13.11 BINDING EFFECT. This Agreement shall be binding upon and inure to the benefit of the **Parties** hereto and their respective personal representatives, successors, and assigns.

Section 13.12 REPRESENTATION. The **Parties**, having been represented by counsel or having waived the right to counsel, have carefully read and understand the contents of this Agreement, and agree they have not been influenced by any representations or statements made by any other parties.

Section 13.13 HEADINGS. Headings in this Agreement are for convenience only and will not be used to interpret or construe its provisions.

Section 13.14 COUNTERPARTS. This Agreement may be executed in counterparts, each of which shall be deemed to be an original but all of which taken together shall constitute one and the same agreement and shall become effective when one or more counterparts have been signed by each of the **Parties** and delivered to the other **Party**.

Section 13.15 REPRESENTATION OF AUTHORITY. Each **Party** signing this Agreement represents and warrants that he or she is duly authorized and has legal capacity to execute and deliver this Agreement and that the Agreement is a valid and legal agreement binding on such **Party** and enforceable in accordance with its terms.

Section 13.16 ELECTRONIC SIGNATURES. The **Parties** acknowledge and agree that this Agreement may be executed by electronic signature, which shall be considered an original signature for all purposes and shall have the same force and effect as an original signature.

Section 13.17 FEDERAL LOBBYING RESTRICTIONS. Recipients of federal financial assistance may not pay any person for influencing or attempting to influence any officer or employee of a federal agency, member of **Congress**, an officer or employee of **Congress**, or any employee of a member of **Congress** with respect to the award, continuation, renewal, amendment, or modification of a federal grant, loan, or contract. These requirements are implemented for **U.S. EPA** in 40 CFR Part 34, which also describes types of activities, such as legislative liaison activities and professional and technical services, which are not subject to this prohibition. Upon award of this contract, **Utility** shall complete and submit to the **Authority** the certification and disclosure forms in Appendix A and Appendix B to 40 CFR Part 34, which are attached as **Exhibit D** to this Agreement. **Utility** shall also require all subcontractors and suppliers of any tier awarded a subcontract over $100,000 to similarly complete and submit the certification and disclosure forms pursuant to the process set forth in 40 CFR 34.110.

Section 13.18 DEBARMENT AND SUSPENSION. **Utility** certifies that it will not knowingly enter into a contract with anyone who is ineligible under the 40 CFR Part 32 to participate in the **Project**. Suspension and debarment information can be accessed at http://www.sam.gov. **Utility** represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its subcontracts under this Agreement. Upon award of this contract, **Utility** shall complete and submit to the **Authority**, the federal certification form regarding debarment and suspension, which is attached as **Exhibit D** to this Agreement.

Section 13.19 DAVIS-BACON ACT AND OTHER LABOR LAWS. **Utility** shall comply with the following federal labor requirements:

a. **Davis-Bacon Act**, which requires the payment of prevailing wage rates to all laborers and mechanics on construction projects in excess of $2,000. **Utility** and the **Authority** acknowledge and agree that the **Davis-Bacon Act** shall apply if **the Authority** is performing **Utility Adjustment Construction Work**. **Utility** and the **Authority** acknowledge and agree that the **Davis-Bacon Act** shall not apply if any party other than the **Authority** is performing **Utility Adjustment Construction Work**.

b. The **Contract Work Hours and Safety Standards Act**, which requires time and one-half pay for overtime hours worked in excess of forty hours in any workweek.

c. The **Copeland Act** (Anti-Kickback Act), which prohibits employers from inducing an employee to give up any part of compensation to which he or she is entitled.

Section 13.20 CIVIL RIGHTS OBLIGATIONS. Utility shall comply with the following, federal non-discrimination requirements:

a. Title VI of the **Civil Rights Act of 1964**, which prohibits discrimination based on race, color, and national origin, including Limited English Proficiency ("LEP").

b. Section 504 of the **Rehabilitation Act of 1973**, which prohibits discrimination against persons with disabilities.

c. The **Age Discrimination Act of 1975**, which prohibits age discrimination.

d. Section 13 of the **Federal Water Pollution Control Act Amendments of 1972**, which prohibits discrimination on the basis of sex.

e. 40 CFR Part 7, as it relates to the foregoing.

f. **Executive Order No. 11246**.

Section 13.21 CERTIFICATION. **Utility** shall complete and submit to the **Authority**, the federal certification form regarding civil rights, which is attached as **Exhibit D** to this Agreement.

Section 13.22 TERMINATION. This Agreement may be terminated by the **Authority**, at any time and for any reason with three (3) calendar days written notice to the **Utility**.

(Signatures appear on the following pages.)

IN WITNESS WHEREOF, the Parties executed this Agreement on the date first written above.

AUTHORITY:

Metro Flood Diversion Authority

_____
Joel Paulsen, Executive Director

_____
Michelle (Shelly) Carlson, Chair

ATTEST:

_____
Dawn Lindblom, Executive Assistant

UTILITY:

Minnkota Power Cooperative

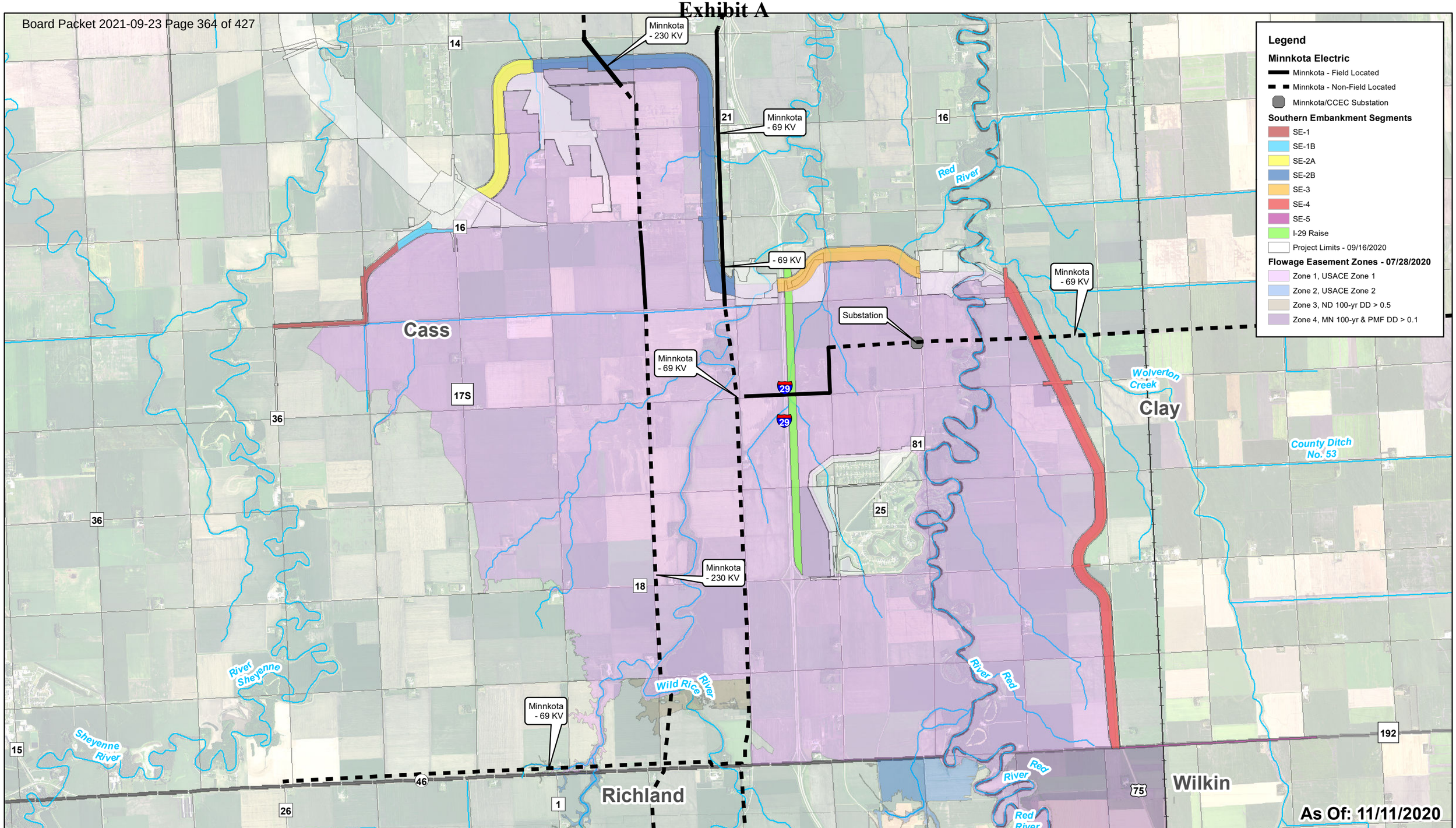
Wayne Lembke, Transmission Engineering & GIS Manager

ATTEST:

By: Kasey Barber

Its: Substation Engineering Manager

Exhibit A



As Of: 11/11/2020

MINNKOTA ELECTRIC
FLOWAGE EASEMENT AREA
FM AREA DIVERSION PROJECT

Created By: TJS Date Created: 11/06/20 Date Saved: 11/11/20 Date Plotted: 03/28/16 Date Exported: 11/11/20
Plotted By: Tanner.Schmidt Parcel Date: N/A Aerial Image: 2019 County NAIP SIDS Elevation Data: Lidar
Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Vertical Datum: NAVD1988
T:\Projects\16400\16478\16478 ALL UTILITIES SHOT PER 12-7-2015 PAT\Flowage_Easement_Map_Book\16478_Minnkota_SP.mxd

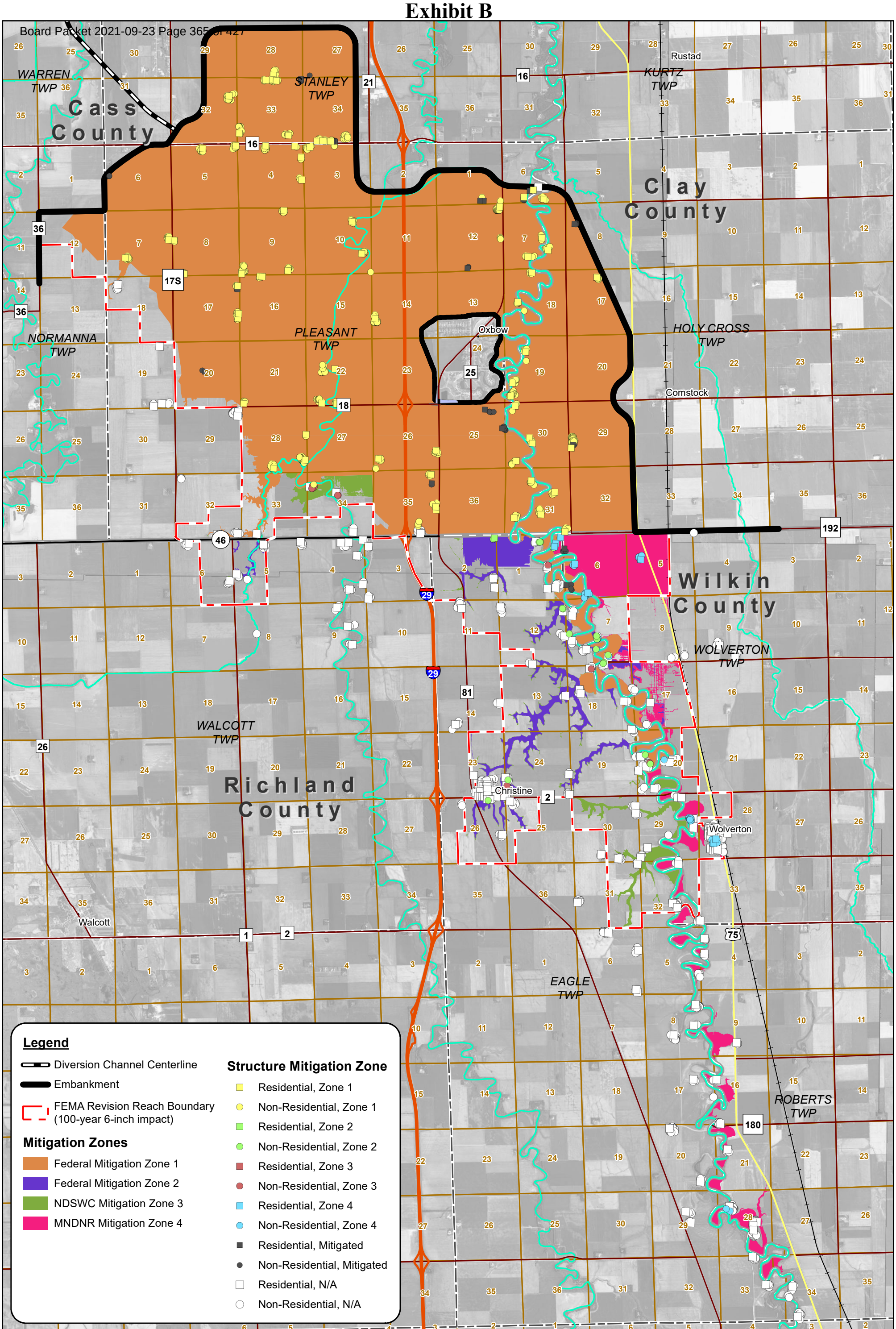
N W E S

0 0.5 1 2 Miles
1 in = 1 miles

Data Collection & Field Locates
Diversion Channel – 2016 & Prior
ND Southern Embankment – 2019
MN Southern Embankment – Not Field Located
I-29 Corridor - 2016 & Prior

FM AREA DIVERSION PROJECT

Exhibit B



FM AREA DIVERSION PROJECT UPSTREAM MITIGATION AREA & MITIGATION ZONES

Created By: KMV Date Created: 06/18/18 Date Saved: 09/15/20 Date Exported: 09/15/20
Plotted By: kyle.volk Parcel Date: Varies Aerial Image: N/A Elevation Data: 2008 Lidar
Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Vertical Datum: NAVD1988
T:\Projects\19100\19116\2020 Mitigation Plan Maps\2020_06_17\CLOMR5_UMA_Zones_Map_2020_09_15_Revision_Reach.mxd

N W E S

0 0.65 1.3 2.6 Miles

Source: CLOMR FEMA Case Number 19-08-0683R

FM AREA DIVERSION PROJECT

Exhibit D

FEDERAL CERTIFICATION FORMS
CERTIFICATION REGARDING FEDERAL LOBBYING

The undersigned certifies to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in any award documents for any of its subcontractors at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subcontractors shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into a contract with the Authority. By executing this certificate the undersigned agrees and acknowledges that he/she has been duly authorized to execute this certificate.

Company/
Entity Name: MINNKOTA POWER COOPERATIVE, INC.

Signed: _____

Its: TRANSMISSION ENGINEERING AND GIS MANAGER

Date: SEPT. 14, 2021

PLEASE RETURN TO:
Metro Flood Diversion Authority
P.O. Box 2806
Fargo, ND 58108-2806

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 13 CFR Part 145. The regulations were published as Part VII of the May 26, 1988 *Federal Register* (pages 19160-19211).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON PAGE 2)

(1) The official representative of the party contracting with the Metro Flood Diversion Authority certifies to the best of its knowledge and belief that it and its principals:

(a) Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application had one or more public transactions, including contracts (Federal, State, or local) terminated for cause or default.

(e) Are not presently debarred, suspended, declared ineligible or voluntarily excluded from performing work for the State of North Dakota, the State of Minnesota, the Metro Flood Diversion Authority or any of its Member Entities.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective primary participant shall attach an explanation to this proposal.

(3) The Official signing this certificate has been and is duly authorized to sign this certificate on behalf of the entity or entities which intend to enter into a contract with the Metro Flood Diversion Authority.

Official Business Name MINNKOTA POWER COOPERATIVE, INC.

Date: SEPT. 14, 2021

By: WAYNE LEMBKE
TRANSMISSION ENGINEERING + GIS MANAGER
Name and Title of Authorized Representative

Signature of Authorized Representative

PLEASE RETURN TO:
Metro Flood Diversion Authority
P.O. Box 2806
Fargo, ND 58108-2806

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this certification, the prospective contracting party is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contracting party shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the Metro Flood Diversion Authority's (the "Authority") determination whether to enter into this transaction. However, failure of the prospective contracting party to furnish a certification or an explanation shall disqualify such person from entering into contracts with the Authority.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the Authority determined to enter into a contract with the prospective contracting party. In order to qualify for participation in the U.S. EPA WIFIA program the Authority is required to obtain this certification. If it is later determined that the prospective contracting party knowingly rendered an erroneous certification, in addition to other remedies available to both the Authority and the Federal Government, the Authority may terminate this transaction for cause or default.

4. The prospective contracting party shall provide immediate written notice to the Authority to which this Certificate is submitted if at any time the prospective contracting party learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the Authority for assistance in obtaining a copy of those regulations (13 CFR Part 145).

6. The prospective contracting party agrees by submitting this certification that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the Authority.

7. The prospective contracting party further agrees by submitting this certification that it will require a "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions," from all sub-contractors without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. A contracting party in a covered transaction may rely upon a certification of a prospective

participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contracting party may decide the method and frequency by which it determines the ineligibility of its principals.

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contracting party is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a contracting party in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the Authority may terminate this transaction for cause or default.

ASSURANCE OF COMPLIANCE – CIVIL RIGHTS CERTIFICATE

TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, SECTION 504 OF THE REHABILITATION ACT OF 1973, THE AGE DISCRIMINATION ACT OF 1975, SECTION 13 OF THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, 40 CFR PART 7, AND EXECUTIVE ORDER NO. 11246

The undersigned provides this assurance for the purpose of entering into a contract with the Metro Flood Diversion Authority (Authority) related to the Fargo-Moorhead Metropolitan Area Flood Risk Management Project (Project), which is receiving federal financial assistance. Specifically, the US EPA WIFIA Program requires this assurance of all contractors and subcontractors providing services for the Project.

The undersigned assures that it will comply with:

1. Title VI of the Civil Rights Act of 1964, as amended, which prohibits discrimination on the basis of race, color, or national origin including limited English proficiency (LEP);
2. Section 504 of the Rehabilitation Act of 1973, as amended, which prohibits discrimination against persons with disabilities;
3. The Age Discrimination Act of 1975, as amended, which prohibits age discrimination;
4. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex;
5. 40 CFR Part 7, as it relates to the foregoing; and
6. Executive Order No. 11246.

The undersigned understands that this Assurance is binding on the undersigned, its successors, transferees, and assignees at any time during which federal financial assistance is provided to the Project. The undersigned will ensure that all contractors, subcontractors, or others with whom it arranges to provide services or benefits are not discriminating in violation of items 1-6. Otherwise, the contracts for services can be terminated for cause and the undersigned can be declared ineligible to contract for the Project.

By signing this form, the undersigned is agreeing to the above provisions and that he/she is duly authorized to execute this form.

Wayne Lembke	TRANSMISSION ENGINEERING & GIS MANAGER
Signature of Authorized Official	Title
WAYNE LEMBKE	MINNKOTA POWER COOPERATIVE, INC.
Print Name	Name of Institution or Agency
SEPT. 14, 2021	5301 32nd AVE S.
Date	Street

GRAND FORKS, ND 58201
City, State, Zip Code

wlembke@minnkota.com
Office Email Address

PLEASE RETURN TO:
Metro Flood Diversion Authority
P.O. Box 2806
Fargo, ND 58108-2806

Exhibit E

AUTHORITY INVOICING REQUIREMENTS

Utility will submit copies of the invoice to:

Bakkegardk@FMDiversion.gov and APInvoicesFMDiv@jacobs.com

Utility's invoices must be detailed and precise. Utility's invoices must clearly indicate fees and expenses for the current billing period month and include at least the following information:

i. Utility's name and address;

ii. Utility's federal employer identification number;

iii. Unique invoice number;

iv. Billing period;

v. Description of each activity performed for each day in which services were performed;

vi. Work order number associated with each activity;

vii. Name, billing rate, and hours worked by each person involved in each activity;

viii. Total amount of fees and costs "billed to date," including the preceding months;

ix. Preferred remittance address, if different from the address on the invoice's coversheet; and

x. All of the work performed during that billing period.

After the Authority receives Utility's invoice, the Authority will either process the invoice for payment or give Utility specific reasons, in writing within fifteen (15) business days, why part of all of the Authority's payment is being withheld and what actions Utility must take to receive the withheld amount. In the event of disputed billing, only the disputed portion will be withheld from payment and the Authority shall pay the undisputed portion. Payment does not imply acceptance of services or that the invoice is accurate. In the event an error is identified following the receipt of payment, Utility must credit any payment in error from any payment that is due or that may become due to Utility under this Agreement or return the overpayment to the Authority within thirty (30) calendar days of the identification of the error.

And any other information referenced within this Agreement.

METRO FLOOD DIVERSION AUTHORITY

Diversion Authority Board Meeting

September 23, 2021

Executive Director Report

Joel Paulsen

Happenings

METRO FLOOD DIVERSION AUTHORITY

P3 updates

- Financial close is scheduled for October
- Coordination with RRVA re. schedule, permitting, etc.
- Provided limited notice to proceed to allow coordination with other jurisdictional agencies (utilities, railroads, etc.) and to conduct survey work this fall

Planning

- Washington DC – Finalizing plans and updating project information for the upcoming trip to Washington DC the week of September 27
- Development of the 2022 cash budget
- Director of Lands and Compliance interviews held on September 15

On-going coordination

- Meeting with USACE leadership in St. Paul
- MDNR coordination regarding permit conditions
- Utility/Township/Municipality MOUs and Agreements
- Settlement agreement commitments

RESOLUTION AUTHORIZING EXECUTION OF THE CONTINUING DISCLOSURE UNDERTAKING, LENDERS DIRECT AGREEMENT, AND AMENDMENT TO PROJECT AGREEMENT FOR THE FARGO-MOORHEAD METROPOLITAN AREA FLOOD RISK MANAGEMENT PROJECT – DIVERSION CHANNEL AND ASSOCIATED INFRASTRUCTURE

of the

METRO FLOOD DIVERSION AUTHORITY

Approved on September, 23, 2021

This instrument was drafted by:
John T. Shockley
Ohnstad Twichell, P.C.
P.O. Box 458
West Fargo, North Dakota 58078

Member _____ introduced the following resolution and moved for its adoption:

RESOLUTION AUTHORIZING EXECUTION OF THE CONTINUING DISCLOSURE UNDERTAKING, LENDERS DIRECT AGREEMENT, AND AMENDMENT TO PROJECT AGREEMENT FOR THE FARGO-MOORHEAD METROPOLITAN AREA FLOOD RISK MANAGEMENT PROJECT – DIVERSION CHANNEL AND ASSOCIATED INFRASTRUCTURE

WHEREAS, the City of Moorhead, the City of Fargo, Clay County, Cass County, and the Cass County Joint Water Resource District (collectively, the "Member Entities"), created the Metro Flood Diversion Authority (the "Authority") through the execution of the Joint Powers Agreement, dated June 1, 2016 (the "JPA"); and

WHEREAS, pursuant to section 4.03 of the JPA, the Authority is responsible for coordinating the design, planning, and construction of the Non-Federal Work, as defined by the Project Partnership Agreement, dated July 11, 2016, and amended March 19, 2019, entered by and between the City of Moorhead, the City of Fargo, the Authority, and the U.S. Department of the Army (the "PPA"); and

WHEREAS, the Non-Federal Work includes, in part, that portion of the Fargo-Moorhead Metropolitan Area Flood Risk Management 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; associated railroad bridges; mitigation incorporated into the diversion channel and associated structures; and recreation features associated with the diversion channel (collectively, the "DCAI" or "Diversion Channel and Associated Infrastructure"); and

WHEREAS, Section 7.01(hh) of the JPA authorizes the Authority to enter into a project agreement for the DCAI and all ancillary documents connected with or arising out of a project agreement, including but not limited to, direct agreements with financiers, third parties, and subcontractors; and

WHEREAS, to facilitate the design, construction, operation, and maintenance of the DCAI, on September 2, 2015, the Authority approved a Notice of Intent to develop a public-private partnership ("P3") with a developer pursuant to North Dakota Century Code chapter 48-02.1; and

WHEREAS, on July 14, 2016, the Authority authorized release of a Request for Qualifications for the P3 procurement, and on December 15, 2016, the Authority authorized the release of a draft Request for Proposals for the P3 procurement; and

WHEREAS, the Authority issued the final Request for Proposals for the P3 procurement on January 15, 2016; and

WHEREAS, after reviewing the technical and financial proposals, on June 18, 2021, the Authority held a public hearing and selected Red River Valley Alliance, a consortium of private companies, as the developer for the DCAI; and

WHEREAS, following the selection of the Red River Valley Alliance, the Authority and the Red River Valley Alliance approved and executed the Project Agreement for the Fargo-Moorhead Metropolitan Area Flood Risk Management Project – Diversion Authority and Associated Infrastructure and the D&C Contractor Direct Agreement; and

WHEREAS, the Authority now desires to authorize the execution of the Continuing Disclosure Undertaking (MFDA), the Lenders Direct Agreement and an amendment to the Project Agreement, which includes the Developers final financial model to achieve Financial Close.

NOW, THEREFORE, BE IT RESOLVED, by the governing body of the Metro Flood Diversion Authority:

1. Continuing Disclosure Undertaking (MFDA). The Continuing Disclosure Undertaking (MFDA), substantially in the form presented at this meeting and attached as **Exhibit A**, is hereby approved. The Continuing Disclosure Undertaking (MFDA) is authorized to be executed in the name of the Authority by the Chair and the Executive Director, at such time, if any, as they deem appropriate, or executed to or attested to by other officers of the Authority, in substantially the form on file, but with all such changes therein, not inconsistent with applicable law, as may be approved by the General Counsel and Executive Director.

2. Lenders Direct Agreement. The Lenders Direct Agreement, substantially in the form presented at this meeting and attached as **Exhibit B**, is hereby approved. The Lenders Direct Agreement is authorized to be executed in the name of the Authority by the Chair and the Executive Director, at such time, if any, as they deem appropriate, or executed to or attested to by other officers of the Authority, in substantially the form on file, but with all such changes therein, not inconsistent with applicable law, as may be approved by the General Counsel and Executive Director.

3. Amendment to the Project Agreement. The Amendment to the Project Agreement, which includes the Developers final financial model is authorized to be executed in the name of the Authority by the Chair and the Executive Director, at such time, if any, as they deem appropriate, or executed to or attested to by other officers of the Authority, with all such changes therein, not inconsistent with applicable law, as may be approved by the General Counsel and Executive Director.

4. Governing Law. This resolution shall be controlled by the laws of the State of North Dakota, and as a result, any claim, demand, or cause of action arising out of the terms of this resolution shall be brought in an appropriate venue in the State of North Dakota.

5. Effective Date. This resolution will take effect immediately upon adoption.

6. Electronic Signatures. Electronic signatures to this resolution shall be valid as original signatures and shall be valid to bind the Authority. For purposes hereof: (i) “electronic signature” means a manually signed original signature that is then transmitted by electronic means, and (ii) “transmitted by electronic means” means sent in the form of a facsimile or sent via the internet as a portable document format (“pdf”) or other replicating image attached to an electronic mail or internet message.

Dated: September 23, 2021.

METRO FLOOD DIVERSION AUTHORITY

APPROVED:

_____
Michelle (Shelly) A. Carlson, Chair

ATTEST:

_____
Dawn Lindblom, Secretary

The motion for adoption of the foregoing resolution was duly seconded by Member _____ and upon roll call vote, the following Members voted in favor thereof: _____. The following were absent and not voting: _____. The following voted against the same: _____. A majority of the Members having voted aye, the resolution was declared duly passed and adopted.

EXHIBIT A

FORM OF CONTINUING DISCLOSURE UNDERTAKING (MFDA)

This Continuing Disclosure Undertaking, dated October [●], 2021 (this "*Undertaking*"), is executed and delivered by the Metro Flood Diversion Authority ("*MFDA*") for the benefit of the holders and beneficial owners of the [$296,000,000] Public Finance Authority Senior Revenue Bonds (Fargo-Moorhead Metropolitan Area Flood Risk Management Project), Series 2021 (Tax-Exempt) (AMT) (the "*Series 2021 Bonds*"). The 2021 Bonds are being issued pursuant to the Indenture (defined below). The proceeds of the 2021 Bonds will be loaned to the Developer (defined below) pursuant to the terms of the Series 2021 Loan Agreement (defined below) for the purposes of paying a portion of the costs of the Project.

This Undertaking is being executed and delivered to assist the Participating Underwriters (defined below) in complying with the Rule (defined below). The MFDA's obligations hereunder shall be limited to those required by this written undertaking pursuant to the Rule. The MFDA acknowledges that it has been informed by the Participating Underwriters that they could not purchase the 2021 Bonds unless they reasonably determine that the MFDA, among others, has agreed to provide continuing disclosure for the 2021 Bonds in accordance with the Rule as set forth in this Undertaking.

NOW, THEREFORE, in consideration of the purchase of the 2021 Bonds by the Participating Underwriters, the MFDA agrees as follows:

Definitions. In addition to the definitions set forth in the Indenture, the Series 2021 Loan Agreement, the Common Terms Agreement (as defined in the Indenture), and the Collateral Agency and Intercreditor Agreement (as defined in the Series 2021 Loan Agreement) or parenthetically defined herein, which apply to any capitalized terms used in this Undertaking unless otherwise defined in this Undertaking, the following capitalized terms shall have the following meanings:

"*Bond Counsel*" has the meaning set forth in the Indenture.

"*Business Day*" means any day other than a Saturday, a Sunday, or a day on which offices of the agencies and instrumentalities of the United States of America, the State of North Dakota, or the State of Minnesota are authorized to be closed, or on which commercial banks are authorized or required by law, regulation, or executive order to be closed in New York City, New York.

"*Developer*" means Red River Valley Alliance, LLC, a Delaware limited liability company.

"*Financial Statements*" means the audited financial statements of the MFDA prepared in accordance with generally accepted accounting principles, as in effect from time to time or as required to be modified as a matter of law.

"*Fiscal Year*" means the consecutive 12-month period starting on July 1 and ending on June 30.

"*Indenture*" means that certain Indenture of Trust, dated as of October [1], 2021 between the Issuer and U.S. Bank National Association, as trustee.

"*Issuer*" means Public Finance Authority, a commission created under Section 66.0304 of the Wisconsin Statutes, a unit of government and a body corporate and politic under the laws of the State of Wisconsin.

"*Listed Event*" means any of the events listed in Section 3(a) of this Undertaking, or collectively, "Listed Events."

"*Master Indenture of Trust*" means that certain Master Indenture of Trust, dated June 10, 2021, by and among the Cass County Joint Water Resource District, the MFDA, the City of Fargo, as fiscal agent, and the Bank of North Dakota, as trustee.

"*MSRB*" means the Municipal Securities Rulemaking Board or any other entity designated or authorized by the SEC to receive reports pursuant to the Rule. Until otherwise designated by the MSRB or the SEC, filings with the MSRB are to be made through the Electronic Municipal Market Access (EMMA) system of the MSRB available through MSRB's Internet Web Site.

"*MSRB's Internet Web Site*" means http://emma.msrb.org.

"*Official Statement*" means the final Official Statement dated October [●], 2021, together with any supplements thereto, delivered in connection with the original issuance and sale of the 2021 Bonds.

"*Participating Underwriter*" means any original underwriter of the 2021 Bonds required to comply with the Rule in connection with an offering of the 2021 Bonds.

"*Rule*" means Rule 15c2-12(b)(5) adopted by the SEC under the Securities Exchange Act of 1934, as amended.

"*SEC*" means the U.S. Securities and Exchange Commission.

"*Series 2021 Loan Agreement*" means the Loan Agreement, dated October [●], 2021, between the Issuer and the Developer, in its capacity as the Developer under the Loan Agreement.

Provision of Reports and Notices

The MFDA shall promptly (or within the time specified) provide to the MSRB in electronic format as prescribed by MSRB:

for each Fiscal Year, a copy the Fiscal Year audit report (as required under the Master Indenture of Trust) certified by an independent accountant detailing (A) all items of cost and of all expenditures relating to the Comprehensive Project (as defined in the Master Indenture of Trust) financed under the Master Indenture of Trust, (B) Pledged Revenues (as defined in the Master Indenture of Trust), (C) the Net Pledged Revenues (as defined in the Master Indenture of Trust), (iv) the Non-P3 Special Assessment Revenues (as defined in the Master Indenture of Trust), the P3 Special Assessment Revenues (as defined in the Master Indenture of Trust) and the

Authority Loan Special Assessment Revenues (as defined in the Master Indenture of Trust), (D) the Authority Loan Deficiency Tax Levy Revenues (as defined in the Master Indenture of Trust), (E) Non-P3 Deficiency Tax Levy Revenues (as defined in the Master Indenture of Trust), (vii) P3 Deficiency Tax Levy Revenues (as defined in the Master Indenture of Trust), and (viii) the O&M Revenues (as defined in the Master Indenture of Trust);

for each Fiscal Year of the MFDA, a copy of the Financial Statements;

[●]; and

copies of all financial statement, notices, reports, and other information provided to the MSRB under the Continuing Disclosure Agreement ((as defined in the Master Indenture of Trust) referred to in Section 39.22 of the Master Indenture of Trust.

If the Fiscal Year end of the MFDA changes, the MFDA shall give prompt notice of such change in the same manner as for any Listed Event listed under Section 3(a) hereof.

Reporting of Listed Events. The MFDA shall provide or cause to be provided, in a timely manner, but not later than ten (10) Business Days after the occurrence of the event, to the MSRB notice of any of the following events with respect to the 2021 Bonds (each, a "*Listed Event*", and collectively, the "*Listed Events*"):

A Bankruptcy Event, insolvency, receivership, or similar event of the MFDA; and

The consummation of a merger, consolidation, or acquisition involving the MFDA or the sale of all or substantially all of the assets of the MFDA, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material.

Identifying Information. All documents provided to the MSRB pursuant to this Undertaking shall be in the format prescribed by the MSRB and accompanied by identifying information as prescribed by the MSRB.

As of the date of this Undertaking, all documents submitted to the MSRB must be in portable document format (PDF) files configured to permit documents to be saved, viewed, printed and retransmitted by electronic means. In addition, such PDF files must be word-searchable, provided that diagrams, images, and other non-textual elements are not required to be word-searchable.

Term. This Undertaking shall be in effect from and after the issuance of the 2021 Bonds and shall extend to the earliest of: (a) the date all principal and interest on the 2021 Bonds shall have been deemed paid pursuant to the terms of the Indenture; (b) the date that the MFDA shall no longer constitute an "obligated person" with respect to the 2021 Bonds within the meaning of the Rule; and (c) the date on which those portions of the Rule which require this Undertaking are determined to be invalid by a court of competent jurisdiction in a non-appealable action, have been repealed retroactively or otherwise do not apply to the 2021 Bonds, which determination shall be evidenced by an opinion of Bond Counsel, a copy

of which opinion shall be given to the representative of the Participating Underwriter. The MFDA shall file or cause to be filed a notice of any such termination with the MSRB.

Amendment; Waiver. Notwithstanding any other provision of this Undertaking, the MFDA may amend this Undertaking, and any provision of this Undertaking may be waived, if such amendment or waiver is required or permitted by Rule 15c2-12. Written notice of any such amendment or waiver shall be provided by the MFDA to the MSRB, and the MFDA Annual Financial Information shall explain the reasons for the amendment and the impact of any change in the type of information being provided.

Additional Information. Nothing in this Undertaking shall be deemed to prevent the MFDA from disseminating any other information, using the means of dissemination set forth in this Undertaking or any other means of communication, or including any other annual information or notice of occurrence of an event which is not a Listed Event, in addition to that which is required by this Undertaking; provided that the MFDA shall not be required to do so. If the MFDA chooses to include any annual information or notice of occurrence of an event in addition to that which is specifically required by this Undertaking, the MFDA shall have no obligation under this Undertaking to update such information or include it in any future annual filing or notice of occurrence of an Event.

Default and Enforcement. If the MFDA fails to comply with any provision of this Undertaking, any Owner of the 2021 Bonds may take action to seek specific performance by court order to compel the MFDA to comply with its undertaking in this Undertaking; provided that any Owner seeking to require the MFDA to so comply shall first provide at least 30 calendar days' prior written notice to the MFDA of the MFDA's failure (giving reasonable details of such failure), following which notice the MFDA shall have 30 calendar days to comply and, provided further, that only the Owners of no less than a majority in aggregate principal amount of the 2021 Bonds may take action to seek specific performance in connection with a challenge to the adequacy of the information provided by the MFDA in accordance with this Undertaking, after notice and opportunity to comply as provided herein, and such action shall be taken only in a court of jurisdiction in the State. A DEFAULT UNDER THIS UNDERTAKING SHALL NOT BE DEEMED AN EVENT OF DEFAULT UNDER THE INDENTURE, MASTER INDENTURE OF TRUST, OR THE SERIES 2021 LOAN AGREEMENT OR THE 2021 BONDS, AND THE SOLE REMEDY UNDER THIS UNDERTAKING IN THE EVENT OF ANY FAILURE OF THE MFDA TO COMPLY WITH THIS UNDERTAKING SHALL BE AN ACTION TO COMPEL PERFORMANCE.

Beneficiaries. The Undertaking shall inure solely to the benefit of the MFDA, the Participating Underwriters, the Owners and the Beneficial Owners from time to time of the 2021 Bonds, and shall create no rights in any other person or entity

Governing Law. This Undertaking shall be governed by the laws of the State of North Dakota; provided that, to the extent that the SEC shall promulgate a rule or regulation relating to the subject matter hereof, this Undertaking shall, to the extent permitted, be interpreted and construed in a manner consistent therewith.

MFDA Not Liable for Payment of the 2021 Bonds. The MFDA's delivery of this Undertaking is, as stated hereinabove, solely to assist the Participating Underwriters in complying with the Rule and is not to be construed as indicating or implying that the MFDA or its member entities is liable in any way or to any extent for the payment of the principal of, premium, if any, and interest on the 2021 Bonds. The 2021 Bonds are special, limited obligations of the Issuer , payable solely from and secured solely by the Trust Estate (as defined in the Indenture), and are not, and shall not be deemed to constitute an obligation, moral or otherwise, of the Issuer (except to the limited extent set forth in the Indenture with respect to the Trust Estate) or the State of Wisconsin, any other agency, instrumentality or political subdivision of the State of Wisconsin,, or any official, board member, director, officer, employee, agent or representative of any of the foregoing, and neither the full faith and credit of the Issuer , nor the full faith and credit nor the taxing power of the State of Wisconsin, or any other agency, instrumentality or political subdivision of the State of Wisconsin, is pledged to the payment of the principal (or redemption price) of and interest on the 2021 Bonds. The Owners of the 2021 Bonds may not look to any revenues of the Issuer or the State of Wisconsin, for repayment of the 2021 Bonds and the only sources of repayment of the 2021 Bonds are revenues provided by the Developer to the Issuer pursuant to the Series 2021 Loan Agreement for the payment of the principal (or redemption price) of and interest on the 2021 Bonds. The 2021 Bonds do not constitute an indebtedness of the Issuer or the State of Wisconsin, or a multiple-fiscal year obligation of the Issuer or the State within the meaning of any provisions of the State Constitution or the laws of the State. The payment of the 2021 Bonds shall not be secured by any encumbrance, mortgage, or other pledge of property of the Issuer or the State of Wisconsin, other than the Trust Estate. No property of the MFDA or the State, shall be liable to be forfeited or taken in payment of the 2021 Bonds. No member, officer or agent of the Issuer or any person executing the 2021 Bonds shall be liable personally on the 2021 Bonds by reason of the issuance thereof.

[The remainder of this page intentionally left blank; signature pages immediately follow.]

IN WITNESS WHEREOF, the MFDA has caused this Continuing Disclosure Undertaking to be executed and delivered, all as of the date first above written.

METRO FLOOD DIVERSION AUTHORITY

By:_____
Name: Joel Paulsen
Title: Executive Director

EXHIBIT B

FORM OF LENDERS DIRECT AGREEMENT

Lenders Direct Agreement

Metro Flood Diversion Authority
as Authority

and

[●]
as Developer

and

[●]
as Collateral Agent

and

Bank of North Dakota
as Trustee

and

City of Fargo, North Dakota
as Fiscal Agent

THIS LENDERS DIRECT AGREEMENT (this "Lenders Direct Agreement") is made on [●], 20[●]:

BETWEEN:

(1) The METRO FLOOD DIVERSION AUTHORITY, a permanent North Dakota political subdivision and joint powers entity formed through the Joint Powers Agreement, dated June 13, 2016, by and among the City of Moorhead, the City of Fargo, Clay County, Cass County, and the Cass County Joint Water Resource District (the "Authority");

(2) [●], a [●] (the "Developer");

(3) [●], as collateral agent for the Lenders (the "Collateral Agent");

(4) The BANK OF NORTH DAKOTA, as the trustee under the Master Indenture of Trust (the "Trustee"); and

(5) The CITY OF FARGO, NORTH DAKOTA, as fiscal agent, a Home Rule City and political subdivision of North Dakota (the "Fiscal Agent").

RECITALS:

(A) The Authority and the Developer have entered into the Project Agreement for the Fargo-Moorhead Metropolitan Area Flood Risk Management Project – Diversion Channel and Associated Infrastructure, dated [●], as may be amended from time to time (the "Project Agreement"), in connection with the design, construction, financing, operation and maintenance of the Diversion Channel and Associated Infrastructure Work Package (the "Project") of the Fargo-Moorhead Metropolitan Area Flood Risk Management Project (the "Comprehensive Project"), as more fully described in the Project Agreement.

(B) The Authority has entered into the Master Indenture of Trust with CCJWRD, Bank of North Dakota as trustee, and the City of Fargo as fiscal agent in connection with the issue and payment of debt service on Debt Obligations (as defined in the Master Indenture of Trust), the payment of Milestone Payments, P3 Payments (as defined in the Master Indenture of Trust), and Availability Payments due under the Project Agreement in accordance with the terms and conditions of the Master Indenture of Trust.

(C) The Collateral Agent is the collateral agent for the various providers (the "Lenders") of senior debt (the "Senior Debt") to the Developer pursuant to the Finance Documents, the proceeds of which will be provided to the Developer and used by the Developer to perform, in part, its obligations under the Project Agreement.

(D) Pursuant to the Finance Documents, the provision by the Lenders of the Senior Debt to the Developer is conditioned upon the Authority providing the Lenders with certain assurances (as set out in this Lenders Direct Agreement).

(E) Pursuant to the Master Indenture of Trust, the Authority, the Fiscal Agent and Trustee are authorized to enter into this Lenders Direct Agreement to provide the Collateral Agent with a lien on monies deposited in the Milestone Payment Account (as defined in the Master Indenture of Trust) by the Fiscal Agent and monies deposited in the P3 Payment Account (as defined in the Master Indenture of Trust) and P3 Availability Payment Account (as defined in the Master Indenture of Trust) by the Trustee in accordance with the terms and conditions of the Master Indenture of Trust.

(F) This Lenders Direct Agreement is, for the purposes of the Project Agreement, the Lenders Direct Agreement referred to in the Project Agreement and the Master Indenture of Trust.

THE PARTIES AGREE as follows:

1. INTERPRETATION, PROJECT AGREEMENT AND ORDER OF PRECEDENCE

1.1 Definitions

Capitalized terms used but not otherwise defined in this Lenders Direct Agreement will have the respective meanings set out in Exhibit 1 (*Definitions*) to the Project Agreement. In addition, the following terms have the meanings specified below:

"Authority Notice" is defined in Section 3.1(b) (*Developer Default*);

"Bankruptcy-Related Default" means a Developer Default that arises pursuant to Section 42.1(e) (*Insolvency of Developer*) or Section 42.1(f) (*Insolvency of D&C Contractor, D&C Contractor Member or D&C Guarantor*) of the Project Agreement;

"Collateral Agent Notice" is defined in Section 3.2(a) (*Finance Document Defaults*);

"Cure Period" means the period commencing on the date that the Collateral Agent receives an Authority Notice pursuant to Section 3.1(b) (*Developer Default*) and ending on the earliest of:

(a) the relevant Cure Period Completion Date;

(b) any Step-out Date;

(c) the Substitution Effective Date; or

(d) the last day of the Term;

"Cure Period Completion Date" means, subject to Section 9.2 (*Extension of Cure Period Completion Date*):

(a) with respect to any Payment Default, the date falling thirty (30) days after the later of (i) the date that the Collateral Agent receives the relevant Authority Notice and (ii) expiration of any applicable cure period granted to the Developer pursuant to Section 42.3 (*Notice and Cure Periods*) of the Project Agreement;

(b) with respect to any Bankruptcy-Related Default, the date falling ninety (90) days after the later of (i) the date that the Collateral Agent receives the relevant Authority Notice and (ii) expiration of any applicable cure period granted to the Developer pursuant to Section 42.3 (*Notice and Cure Periods*) of the Project Agreement;

(c) with respect to any Non-Completion Default, the date falling ninety (90) days after the date that the Collateral Agent receives the relevant Authority Notice; provided, that such period will be extended by such reasonable period of time as may be required to achieve Project Substantial Completion (subject to a maximum extension of two hundred seventy-five (275) days), but only to the extent that:

    (i) there is a reasonable prospect of achieving Project Substantial Completion within three hundred sixty-five (365) days of the relevant Authority Notice; and

    (ii) within the ninety (90) day period, the Collateral Agent and the Authority (each acting reasonably) agree to a plan in relation to achieving Project Substantial Completion; and

(d) with respect to any Developer Default not referred to in clauses (a) through (c), the date falling ninety (90) days after the later of (i) the date that the Collateral Agent receives the relevant Authority Notice, and (ii) expiration of any applicable cure period granted to the Developer pursuant to Section 42.3 (*Notice and Cure Periods*) of the Project Agreement; provided that such period will, at the request of the Collateral Agent, be extended up to a maximum of sixty (60) additional days, but only to the extent that:

    (i) within the ninety (90) day period provided for in this clause (d), the Collateral Agent and the Authority (each acting reasonably) agree to a plan specifying the remedial action to be taken with respect to the relevant Developer Default; and

(ii) the extension requested by the Collateral Agent represents (in the reasonable opinion of the Authority) a reasonable period of time to remedy the relevant Developer Default;

"Designated Account" means [●];

"Discharge Date" means the date on which all of the obligations of the Developer under the Finance Documents have been irrevocably discharged in full to the satisfaction of the Collateral Agent;

"Event of Default" has the meaning given to such term in the Finance Documents;

"Initial Equity Members" means the Equity Members as of the date of this Lenders Direct Agreement;

"Initial Period" means:

(a) with respect to any Payment Default, the later of:

(i) the date falling thirty (30) days after the date that the Collateral Agent receives the relevant Authority Notice; and

(ii) expiration of any applicable cure period granted to the Developer pursuant to Section 42.3 (*Notice and Cure Periods*) of the Project Agreement; and

(b) with respect to any other Developer Default not referred to in clause (a), the later of:

(i) the date falling ninety (90) days after the date that the Collateral Agent receives the relevant Authority Notice; and

(ii) expiration of any applicable cure period granted to the Developer pursuant to Section 41.3 (*Notice and Cure Periods*) of the Project Agreement,

in each case, as may be extended pursuant to Section 9.2 (*Extension of Cure Period Completion Date*);

"Key Ratios" means [●][1];

["Lenders D&C Direct Agreements" means:

(a) the agreement entered into on or about the date of this Lenders Direct Agreement between the D&C Contractor, the Collateral Agent and the Developer in connection with the D&C Contract; and

(b) each parent company guarantee direct agreement to be entered into on or about the date of this Lenders Direct Agreement between the D&C Guarantors, the Collateral Agent and the Developer;][2]

"Master Indenture of Trust" means the indenture of trust entered into by the Authority, Cass County Joint Water Resource District, a political subdivision of the State of North Dakota ("CCJWRD"), the Fiscal Agent, and the Trustee on June 10, 2021;

"Non-Completion Default" means a Developer Default that arises pursuant to Section 42.1(b) (*Failure to Achieve Project Substantial Completion*) of the Project Agreement;

"Payment Default" means a Developer Default that arises pursuant to Section 42.1(j) (*Non-Payment*) of the Project Agreement;

[1] To be completed based on relevant ratios in the Finance Documents.
[2] To be conformed to structure of Lenders D&C Direct Agreements.

"Property" means any right or interest in or to property of any kind whatsoever, whether real, personal or mixed, and whether tangible or intangible;

"Qualified Substitute Developer" means a Person who:

(a) has the legal capacity, power, and authority to become a party to, and perform the obligations of the Developer under, the Project Agreement;

(b) has the resources available to it (including committed financial resources) to perform the obligations of the Developer under the Project Agreement;

(c) employs or subcontracts with Persons having the appropriate qualifications, experience, and technical competence available to them that are sufficient to enable them to perform the obligations of the Developer under the Project Agreement; and

(d) is not a Prohibited Person;

"Step-in Date" is defined in Section 5.1(c) (*Step-in Notice*);

"Step-in Entity" is defined in Section 5.1(b) (*Step-in Notice*);

"Step-in Entity Accession Agreement" means the agreement to be entered into by a Step-in Entity pursuant to Section 5.1(c) (*Step-in Notice*);

"Step-in Notice" is defined in Section 5.1(a) (*Step-in Notice*);

"Step-in Period" in relation to a Step-in Entity, means the period from and including the Step-in Date until the earliest of:

(a) the last day of the Cure Period;

(b) the Substitution Effective Date;

(c) the Step-out Date;

(d) the date of termination of the Project Agreement by the Authority in accordance with this Lenders Direct Agreement and the Project Agreement; and

(e) the last day of the term;

"Step-out Date" is defined in Section 5.3(a) (*Step-out*);

"Step-out Notice" is defined in Section 5.3(a) (*Step-out*);

"Substitute" is defined in Section 6.1 (*Notice of Proposed Substitute*);

"Substitute Accession Agreement" means the agreement to be entered into by a Substitute pursuant to Section 7.1 (*Substitution Effective Date*);

"Substitution Effective Date" is defined in Section 7.1 (*Substitution Effective Date*); and

"Substitution Notice" is defined in Section 6.1 (*Notice of Proposed Substitute*).

1.2 Interpretation

The rules of interpretation set out in Sections 1.2(a) through 1.2(c) (*Interpretation*) of the Project Agreement will apply to this Lenders Direct Agreement.

1.3 Order of Precedence

If there is any conflict, ambiguity, or inconsistency between the provisions of the Project Agreement and the provisions of this Lenders Direct Agreement, the provisions of this Lenders Direct Agreement will prevail.

1.4 No Effect on Project Agreement

Nothing in this Lenders Direct Agreement amends or modifies any of the Developer's obligations to the Authority under the Project Agreement.

2. CONSENT TO SECURITY, AUTHORITY PAYMENTS AND AUTHORITY ACKNOWLEDGEMENT

2.1 Consent to Security

Despite anything to the contrary in the Project Agreement:

(a) the Authority acknowledges and consents to:

(i) the security interest granted by the Developer to the Collateral Agent with respect to the Developer's Interest pursuant to the Finance Documents;

(ii) the security interest granted by each of the Initial Equity Members to the Collateral Agent in its respective equity interest(s) in the Developer, in each case pursuant to the Finance Documents; and

(iii) the grant of security interests set out in the Security Documents;

(b) none of the security interests referred to in Section 2.1(a):

(i) constitutes (or with the giving of notice or lapse of time, or both, could constitute) either a breach of the Project Agreement or a Developer Default; or

(ii) requires any consent of the Authority that is either additional or supplemental to those granted pursuant to this Section 2.1;

(c) the Collateral Agent will not, by virtue of the security interests referred to in Section 2.1(a), acquire any greater rights to the Developer's Interest than the Developer itself has at any particular time pursuant to the Project Agreement; and

(d) for so long as any amount under the Finance Documents is outstanding, the Authority shall not, without the prior written consent of the Collateral Agent (to the extent such consent is required under the Finance Documents), consent to any assignment, transfer, pledge or hypothecation of the Project Agreement or any interest in the Project Agreement by the Developer, other than as specified in this Lenders Direct Agreement.

2.2 Authority Payments Under the Project Agreement

The Authority, through its Executive Director, shall instruct the Fiscal Agent and/or Trustee, unless directed otherwise by the Collateral Agent, to transfer monies held within the Milestone Payment Account, P3 Payment Account, and/or P3 Availability Account as applicable, and due under the Project Agreement, into the Designated Account and the

Developer agrees that any payment made in accordance with this Section 2.2 will constitute a complete discharge of the Authority's relevant payment obligations under the Project Agreement.

2.3 Authority Acknowledgement Regarding Project Debt

The Authority acknowledges that the outstanding obligations of the Developer under the Finance Documents constitute Project Debt for the purposes of, and subject to the terms of, the Project Agreement.

3. NOTICES

3.1 Developer Default

(a) The Authority shall provide the Collateral Agent, Fiscal Agent and Trustee with a copy of a Developer Default Notice that it issues under Section 42.3(a) of the Project Agreement at the same time as it delivers, or within 5 Business Days of delivering, that Developer Default Notice to the Developer.

(b) Subject to Section 4.1 (*No Termination During the Cure Period*), the Authority shall not terminate the Project Agreement due to the occurrence of a Developer Default unless it has given the Collateral Agent, Fiscal Agent and Trustee written notice (an "Authority Notice") of the occurrence of such Developer Default, which must specify:

(i) the unperformed obligations of the Developer under the Project Agreement of which the Authority is aware (having made reasonable inquiry) and the grounds for termination of the Project Agreement in sufficient detail to enable the Collateral Agent to assess the nature of the Developer Default, the requirement to remedy the Developer Default and the scope and amount of any liability of the Developer resulting from such Developer Default;

(ii) all amounts due and payable by the Developer to the Authority under the Project Agreement, if any, on or before the date of the Authority Notice and which remain unpaid at such date and, by cross-reference to the applicable provision(s) of the Project Agreement, the nature of the Developer's obligation to pay such amounts; and

(iii) the amount of any payments that the Authority reasonably foresees will become due from the Developer during the applicable Cure Period.

(c) The Authority shall from time to time update any Authority Notice issued pursuant to Section 3.1(b) as and when it becomes aware of any unperformed obligations (including non-payment of amounts that are due) under the Project Agreement that were not specified in the relevant Authority Notice.

(d) Nothing in this Lenders Direct Agreement will prevent the concurrent running of multiple Authority Notices.

3.2 Finance Document Defaults

The Collateral Agent shall:

(a) promptly (and in any event within five (5) Business Days) after becoming aware of any Event of Default (whether or not an Authority Notice has been served in connection with the same event) give the Authority, Fiscal Agent and Trustee written notice (a "Collateral Agent Notice");

(b) specify in any Collateral Agent Notice the circumstances and nature of the Event of Default to which the Collateral Agent Notice relates; and

(c) notify the Authority, Fiscal Agent and Trustee of any decision to accelerate amounts outstanding under the Finance Documents or to exercise any enforcement remedies under the Finance Documents promptly (and in any event within five (5) Business Days) after the taking of such decision.

3.3 Updates to Notices

(a) The Authority shall update any Authority Notice issued pursuant to Section 3.1(b) (*Developer Default*) or Section 3.1(c) (*Developer Default*) as and when it becomes aware of any unperformed obligations of the Developer (including non-payment of amounts that have become due) under the Project Agreement that were not specified in the relevant Authority Notice.

4. RIGHTS AND OBLIGATIONS DURING THE CURE PERIOD

4.1 No Termination During the Cure Period

At any time during a Cure Period, the Authority shall not, subject to the terms of this Lenders Direct Agreement:

(a) terminate or give notice terminating the Project Agreement for Developer Default;

(b) take, join in or support, whether directly or indirectly, any action for the liquidation, bankruptcy, administration, receivership, reorganization, dissolution or winding-up of the Developer or for the composition or readjustment of the Developer's debts, or any similar insolvency procedure in relation to the Developer, or for the appointment of a receiver, trustee, custodian, sequestrator, conservator, liquidator, administrator or similar official for the Developer or for any part of the Developer's Property, provided, that if and after any of the foregoing have been commenced with respect to the Developer by a Person other than the Authority, this clause (b) will not otherwise restrict or impair the ability of the Authority to participate in any way in such liquidation, bankruptcy, administration, receivership, reorganization, dissolution or winding-up of the Developer or for the composition or readjustment of the Developer's debts, or any similar insolvency procedure in relation to the Developer, or for the appointment of a receiver, trustee, custodian, sequestrator, conservator, liquidator, administrator or similar official for the Developer or for any part of the Developer's Property;

(c) suspend its performance under the Project Agreement; or

(d) fail to pay any amount that becomes due and payable from the Authority to the Developer under the Project Agreement during such period into the Designated Account in accordance with Section 2.2 (*Authority Payments under the Project Agreement*).

4.2 Collateral Agent Rights

(a) At any time during an Event of Default (but, in the case of a Developer Default, only for so long as the Initial Period has not expired), without giving a Step-in Notice, the Collateral Agent may (but shall have no obligation), in its sole discretion, perform or arrange for the performance of any act, duty or obligation required of the Developer under the Project Agreement, or remedy any breach of the Developer under the Project Agreement at any time, which performance or remedy by or on behalf of the Collateral Agent shall be accepted by the Authority in lieu of performance by the Developer and in satisfaction of the Developer's corresponding obligations under the Project Agreement. If any breach of the Developer under the Project Agreement is remedied or any payment liabilities or obligations of the Developer are performed by the Collateral Agent under this Section 4.2(a), such action will discharge the relevant liabilities or obligations of the Developer to the Authority. No such performance by or on behalf of the Collateral Agent under this Section 4.2(a) will be construed as an assumption by the Collateral Agent, or any person acting on the Collateral Agent's behalf, of any of the covenants, agreements, or other obligations of the Developer under the Project Agreement.

(b) At any time during a Cure Period or an Event of Default, the Collateral Agent may:

(i) issue a Step-in Notice in accordance with the requirements of Section 5.1 (*Step-in Notice*); or

(ii) issue a Substitution Notice in accordance with the requirements of Section 6.1 (*Notice of Proposed Substitute*).

5. STEP-IN ARRANGEMENTS

5.1 Step-in Notice

(a) Provided that all unperformed payment obligations of the Developer identified in an Authority Notice have been remedied in full or waived by the Authority on or before the Step-in Date, the Collateral Agent may provide the Authority, the Fiscal Agent, and the Trustee with a written notice ("Step-in Notice") under this Section 5.1 at any time during any Cure Period or Event of Default.

(b) The Collateral Agent shall nominate, in any Step-in Notice, any one of:

(i) the Collateral Agent, a Lender or any of their respective Affiliates that is not a Prohibited Person; or

(ii) any Person approved by the Authority in its reasonable discretion, such approval not to be unreasonably withheld, conditioned or delayed if such Person meets all the criteria to be a Qualified Substitute Developer and the Authority has been provided with the relevant information required under Section 6.3 (*Provision of Information*) with respect to such Person (if the Authority has failed to respond to the Collateral Agent within sixty (60) days of the date on which the Authority has received the information specified in Section 6.3 (*Provision of Information*) with respect to any such nominated Person, the approval of the Authority will be deemed to have been given),

(each a "Step-in Entity"), stating that the Step-in Entity is to become a joint and several obligor with the Developer under the Project Agreement and this Lenders Direct Agreement in accordance with the terms of this Lenders Direct Agreement.

(c) The Step-in Entity named in the Step-in Notice will be deemed to become a party to the Project Agreement and this Lenders Direct Agreement on and from the date it executes a duly completed Step-in Entity Accession Agreement, substantially in the form attached to this Lenders Direct Agreement as Schedule 1 (*Form of Step-in Entity Accession Agreement*), and submits it to the Authority (the "Step-in Date").

5.2 Rights and Obligations on Step-in

(a) On and from the Step-in Date and during the Step-in Period, the Step-in Entity shall be:

(i) jointly and severally entitled to exercise and enjoy the rights and powers expressed to be assumed by or granted to the Developer under the Project Agreement and this Lenders Direct Agreement;

(ii) entitled to exercise and enjoy the rights and powers expressed to be assumed by or granted to a Step-in Entity under this Lenders Direct Agreement; and

(iii) jointly and severally liable with the Developer for the payment of all sums due from the Developer under or arising out of the Project Agreement at the Step-in Date and for the performance of all of the Developer's obligations under or arising out of the Project Agreement on or after the Step-in Date.

(b) Without prejudice to Section 8 (*Reinstatement of Remedies*), during the Step-in Period:

(i) the Authority agrees:

(A) not to terminate or give notice terminating the Project Agreement for Developer Default, unless:

(aa) the grounds for termination or giving notice of termination arose during the Step-in Period; or

(bb) the Step-in Entity fails to comply with the requirements of any plan agreed between the Authority and the Collateral Agent in connection with the extension of the relevant Cure Period Completion Date; and

(B) not to take, join in or support, whether directly or indirectly, any action for the liquidation, bankruptcy, administration, receivership, reorganization, dissolution or winding-up of the Developer or for the composition or readjustment of the Developer's debts, or any similar insolvency procedure in relation to the Developer, or for the appointment of a receiver, trustee, custodian, sequestrator, conservator, liquidator, administrator or similar official for the Developer or for any part of the Developer's Property; provided, that if and after any of the foregoing have been commenced with respect to the Developer by a Person other than the Authority, this clause (B) will not otherwise restrict or impair the ability of the Authority to participate in any way in such liquidation, bankruptcy, administration, receivership, reorganization, dissolution or winding-up of the Developer or for the composition or readjustment of the Developer's debts, or any similar insolvency procedure in relation to the Developer, or for the appointment of a receiver, trustee, custodian, sequestrator, conservator, liquidator, administrator or similar official for the Developer or for any part of the Developer's Property;

(C) not to suspend its performance (including in connection with any insolvency or bankruptcy proceeding in relation to the Developer) under the Project Agreement, unless the grounds for suspension of performance arose during the Step-in Period; and

(D) to continue to make payments required to be made to the Developer under the Project Agreement to the Designated Account or to such other account as notified by the Collateral Agent to the Authority;

(ii) the Authority will owe its obligations under the Project Agreement and this Lenders Direct Agreement to the Developer and such Step-in Entity jointly; provided, that:

(A) subject to clause (B), the performance of such obligations by the Authority in favor of either such Step-in Entity or the Developer shall be a good and effective discharge of such obligations under this Lenders Direct Agreement and the Project Agreement; and

(B) the Collateral Agent will be entitled at any time by notice in writing to the Authority to direct (such direction being binding on the Collateral Agent, the Authority and the Developer) that, at all times while such Step-in Entity is deemed to be a party to the Project Agreement and this Lenders Direct Agreement and subject to any further notice from the Collateral Agent, such Step-in Entity will be solely entitled to make any decisions, to give any directions, approvals or consents, to receive any payments or otherwise to deal with the Authority under the Project Agreement and this Lenders Direct Agreement.

(c) The Developer will not be relieved from any of its obligations under the Project Agreement, whether arising before or after the Step-in Date, by reason of the Step-in Entity becoming a party to the Project Agreement pursuant to a Step-in Entity Accession Agreement, except to the extent provided in Section 4.2(a) (*Collateral Agent Rights*) and Section 7.2(a) (*Effectiveness of Substitution*).

5.3 Step-out

(a) A Step-in Entity may, at any time, by giving not less than thirty (30) days' prior written notice to the Authority, the Fiscal Agent, and the Trustee ("Step-out Notice"), notify the Authority of the date that it wishes to terminate its obligations to the Authority under the Project Agreement and this Lenders Direct Agreement (the "Step-out Date").

(b) On the Step-out Date the Step-in Entity will no longer be deemed to be a party to the Project Agreement and this Lenders Direct Agreement and will be released from all obligations under the Project Agreement and this Lenders Direct Agreement. The obligations of the Authority to the Step-in Entity in such capacity under the Project Agreement and this Lenders Direct Agreement will also terminate on the Step-out Date.

(c) Nothing in this Section 5.3 will have the effect of releasing the Step-in Entity from any liability that relates to the performance or non-performance of the Project Agreement or this Lenders Direct Agreement by the Developer or the Step-in Entity during the Step-in Period.

6. SUBSTITUTION PROPOSALS

6.1 Notice of Proposed Substitute

If the Collateral Agent or the Lenders at any time propose to require the Developer to assign its rights and obligations under the Project Agreement or this Lenders Direct Agreement to a Person (a "Substitute") designated by the Collateral Agent or the Lenders (whether by mutual agreement or enforcement of rights under the Finance Documents), the effectiveness of such assignment will be conditional upon:

(a) the Collateral Agent issuing a notice (a "Substitution Notice") to the Authority requesting the prior approval of the proposed Substitute;

(b) the Authority approving the identity of the proposed Substitute pursuant to Section 6.2 (*Grounds for Refusing Approval*) or Section 6.4 (*Deemed Approval*); and

(c) the proposed Substitute executing a Substitute Accession Agreement in accordance with Section 7.1 (*Substitution Effective Date*).

6.2 Grounds for Refusing Approval

The Authority will only be entitled to withhold its approval to any proposed Substitute that is the subject of a Substitution Notice if:

(a) the proposed Substitute is not a Qualified Substitute Developer; or

(b) subject to Section 7.4 (*Settlement of Outstanding Obligations*), there are outstanding breaches of the Project Agreement that have been previously notified by the Authority to the Collateral Agent and have not, to the reasonable satisfaction of the Authority, been remedied or waived prior to the date of the Substitution Notice; unless the Authority has approved (such approval not to be unreasonably withheld, conditioned or delayed) a plan specifying the remedial action that the Substitute will be required to take after the Substitution Effective Date in order to remedy each such breach.

6.3 Provision of Information

The Collateral Agent shall promptly provide to the Authority such information in relation to (i) the proposed Substitute and (ii) any Person who, it is proposed, will enter into a material subcontract with the proposed Substitute in relation to the Project, as the Authority reasonably requires to enable it to reasonably determine whether the proposed Substitute is a Qualified Substitute Developer, including:

(a) the name and address of the proposed Substitute;

(b) unless such proposed Substitute is a publicly traded entity, the names of the proposed Substitute's shareholders or members, and the share capital or partnership or membership interests, as the case may be, held by each of them;

(c) the manner in which it is proposed to finance the proposed Substitute and the extent to which such financing is committed (to the extent relevant);

(d) copies of the proposed Substitute's most recent financial statements (if available, for the last three (3) financial years and audited) or, in the case of a special purpose company, its opening balance sheet;

(e) a copy of the proposed Substitute's organizational documents;

(f) details of the resources available to the proposed Substitute and the proposed Substitute's appropriate qualifications, experience, and technical competence available to the proposed Substitute which enable it to perform the obligations of the Developer under the Project Agreement; and

(g) the names of the proposed Substitute's directors and any key personnel who will have responsibility for the day-to-day management of its participation in the Project.

6.4 Deemed Approval

If the Authority has failed to respond to the Collateral Agent within sixty (60) days of the date on which the Authority has confirmed it has received the information specified in Section 6.3 (*Provision of Information*) with respect to any proposed Substitute, the approval of the Authority will be deemed to have been given.

7. SUBSTITUTION

7.1 Substitution Effective Date

If the Authority approves (or is deemed to have approved) the identity of a proposed Substitute pursuant to Section 6 (*Substitution Proposals*), the Substitute shall execute a duly completed Substitute Accession Agreement substantially in the form set out in Schedule 2 (*Form of Substitute Accession Agreement*) and submit it to the Authority (with a copy of it to the other parties to this Lenders Direct Agreement). Such assignment will become effective on and from (i) the date on which the Authority countersigns the Substitute Accession Agreement or (ii) the date that is seven (7) Business Days after the date the Authority receives the completed Substitute Accession Agreement if the Authority fails to countersign the Substitute Accession Agreement (the "Substitution Effective Date").

7.2 Effectiveness of Substitution

On and from the Substitution Effective Date:

(a) the Substitute will become a party to the Project Agreement and this Lenders Direct Agreement in place of the Developer who will be immediately released from its obligations arising under, and cease to be a party to, the Project Agreement and this Lenders Direct Agreement from that Substitution Effective Date; and

(b) the Substitute will exercise and enjoy the rights and perform the obligations of the Developer under the Project Agreement and this Lenders Direct Agreement, including any and all undischarged obligations of the Developer that were otherwise required to be performed by the Developer prior to the Substitution Effective Date; and

(c) the Authority will owe its obligations (including any undischarged liability with respect to any loss or damage suffered or incurred by the Developer prior to the Substitution Effective Date) under the Project Agreement and this Lenders Direct Agreement to the Substitute in place of the Developer and any Step-in Entity.

7.3 Facilitation of Transfer

The Authority shall use its reasonable efforts to facilitate the transfer to the Substitute of the Developer's obligations under the Project Agreement and this Lenders Direct Agreement.

7.4 Settlement of Outstanding Obligations

(a) The Substitute shall pay to the Authority within thirty (30) days after the Substitution Effective Date any amount due from the Developer to the Authority under the Project Agreement and this Lenders Direct Agreement as of the Substitution Effective Date (as notified by the Authority to the Substitute reasonably in advance of such Substitution Effective Date).

(b) If the Substitute fails to satisfy its obligations pursuant to Section 7.4(a), the Authority will be entitled to exercise its rights under the Project Agreement with respect to the amount so due and unpaid.

7.5 Consequences of Substitution

On and from the Substitution Effective Date:

(a) subject to Section 7.4 (*Settlement of Outstanding Obligations*), any right of termination or any other right suspended by virtue of Section 4.1 (*No Termination During the Cure Period*) will be of no further effect and the Authority shall not be entitled to terminate the Project Agreement and this Lenders Direct Agreement by virtue of any act, omission or circumstance that occurred prior to such Substitution Effective Date, and any Noncompliance Points arising from Noncompliance Events prior to the Substitution Effective Date will not be taken into account for the purposes of determining whether a Noncompliance Developer Default Trigger or a Noncompliance Increased Monitoring Trigger has occurred;

(b) if any Step-in Entity is a party to or has any obligations under the Project Agreement and this Lenders Direct Agreement on the Substitution Effective Date, such Step-in Entity will cease to be a party to the Project Agreement and to this Lenders Direct Agreement and will be discharged from all obligations under the Project Agreement and under this Lenders Direct Agreement; and

(c) the Authority shall enter into an equivalent direct agreement on substantially the same terms as this Lenders Direct Agreement, except that the Developer will be replaced as a party by the Substitute.

8. REINSTATEMENT OF REMEDIES

If an Authority Notice has been given, the grounds for that notice are continuing and have not been remedied or waived by the Authority and:

(a) no Step-in Entity or Substitute becomes a party to the Project Agreement and this Lenders Direct Agreement before the Cure Period Completion Date relating to the applicable Developer Default; or

(b) a Step-in Entity becomes a party to the Project Agreement and this Lenders Direct Agreement, but the Step-in Period relating to such Step-in Entity ends without a Substitute becoming a party to the Project Agreement and this Lenders Direct Agreement,

then, on and from the Cure Period Completion Date or the date such Step-in Period expires, the Authority shall be entitled to:

(i) act upon any and all grounds for termination available to it in relation to the Project Agreement with respect to Developer Defaults under the Project Agreement that have not been remedied or waived by the Authority;

(ii) pursue any and all claims and exercise any and all remedies against the Developer; and

(iii) if and to the extent that it is then entitled to do so under the Project Agreement, take or support any action of the type referred to in Section 4.1(b) (*No Termination during the Cure Period*).

9. IMPACT OF BANKRUPTCY OR INSOLVENCY PROCEEDINGS

9.1 Rejection of the Project Agreement

(a) If:

(i) the Project Agreement is rejected by a trustee or debtor-in-possession in, or terminated as a result of, any bankruptcy or insolvency proceeding involving the Developer; and

(ii) within one hundred fifty (150) days after such rejection or termination, the Collateral Agent requests or certifies in writing to the Authority, the Fiscal Agent, and the Trustee that the Collateral Agent or the Collateral Agent's permitted designee or assignee (including a Qualified Substitute Developer) intends to perform the obligations of the Developer as and to the extent required under the Project Agreement,

the Authority will execute and deliver to the Collateral Agent (or any Substitute satisfying the requirements of this Lenders Direct Agreement if directed to do so by the Collateral Agent) a new Project Agreement. The new Project Agreement must contain terms, conditions and limitations which are the same as those of the Project Agreement, except for any obligations that have been fulfilled by the Developer, any party acting on behalf of or stepping-in for the Developer or the Collateral Agent prior to such rejection or termination. References in this Lenders Direct Agreement to the Project Agreement will be deemed also to refer to any such new Project Agreement.

(b) The effectiveness of any new Project Agreement referred to in Section 9.1(a) will be conditional upon the Collateral Agent first reimbursing the Authority with respect to its costs incurred in connection with the execution and delivery of such new Project Agreement.

9.2 Extension of Cure Period Completion Date

If:

(a) the Collateral Agent is prohibited by any court order, bankruptcy, or insolvency proceedings from remedying the Developer Default that is the subject of an Authority Notice; or

(b) the Collateral Agent pursues with Good Faith, diligence and continuity lawful processes and steps to obtain the appointment of a court receiver for the Project and possession, custody, and control of the Project, but despite such efforts the Collateral Agent is unable to obtain such possession, custody, and control of the Project,

each of the relevant Cure Period Completion Date and Initial Period will be extended by a period of time equal to the shorter of (i) the period of such prohibition, and (ii) one hundred fifty (150) days.

10. TERMINATION OF THIS LENDERS DIRECT AGREEMENT

This Lenders Direct Agreement will remain in effect until the earliest to occur of:

(a) the Discharge Date;

(b) the time at which all of the parties' respective obligations and liabilities under the Project Agreement and this Lenders Direct Agreement have expired or have been satisfied in accordance with the terms of the Project Agreement and this Lenders Direct Agreement; and

(c) any assignment to a Substitute has occurred under Section 7 (*Substitution*) and the Authority has entered into an equivalent direct agreement on substantially the same terms as this Lenders Direct Agreement, except that the Developer has been replaced as a party by the Substitute.

11. PRESERVATION OF FUNDS

Notwithstanding the other provisions of this Lenders Direct Agreement and the terms and conditions of the Finance Documents, the Collateral Agent agrees for itself and on behalf of the Lenders that it will not exercise any rights under the Finance Documents or take any other steps that would prejudice the operation of Section 19.2 (*Handback Reserve Account*) of the Project Agreement.

12. COMPETING STEP-IN RIGHTS

12.1 Subordination of Authority Rights

Notwithstanding any provision in the D&C Contractor Direct Agreement to the contrary, the Authority agrees that it will not exercise (a) any rights of step-in, novation or other similar rights it may have under the D&C Contractor Direct Agreement or (b) any of its rights as a beneficiary under the Performance Security until:

(a) the Project Agreement has been terminated (other than pursuant to a transfer to a Substitute pursuant to Section 7 (*Substitution*)); or

(b) the expiration of any relevant period under any of the Lenders D&C Direct Agreements in which the Collateral Agent is required or entitled to either exercise or procure the exercise of rights of step-in, novation, transfer or any similar right under such Lenders D&C Direct Agreements; or

(c) if the Collateral Agent has exercised or procured the exercise of rights of step-in, novation, transfer or any similar right, the date of any step-out or similar event under any of the Lenders D&C Direct Agreements has occurred.

12.2 Expiration of Lender Rights

(a) The Collateral Agent shall notify the Authority:

(i) promptly (and in any event within five (5) Business Days) after the date on which the Step-in Entity, the Collateral Agent (or any trustee or administrator acting on behalf of the Lenders) or the Developer has exhausted all of its direct or indirect legal rights and remedies against the D&C Contractor under the Finance Documents or has determined not to exercise (or to cease exercising) or is not entitled to exercise the same; and

(ii) of any decision by the Lenders whether or not to exercise any or all of their direct or indirect rights against the D&C Contractor under the Finance Documents or the D&C Contract (if they have not by then given notice under Section 12.2(a)(i)) by the date six (6) months after the date that the Authority pays to the Developer the whole of the termination compensation (if any) that is payable to the Developer following termination of the Project Agreement.

(b) Following receipt by the Authority of any notice from the Collateral Agent pursuant to Section 12.2(a), all of the right, title and interest of the Collateral Agent or any other Lender against the D&C Contractor pursuant

to the Finance Documents will be subject to and subordinated in all respects to all right, title and interest of the Authority pursuant to the D&C Contractor Direct Agreement.

13. REPRESENTATIONS AND WARRANTIES

(a) The undersigned signatory for the Collateral Agent represents and warrants that he or she has full and complete authority to enter into this Lenders Direct Agreement on behalf of the Collateral Agent.

(b) The Collateral Agent represents and warrants that the Collateral Agent has full power and authority to execute and perform its obligations under this Lenders Direct Agreement.

(c) The undersigned signatory for the Developer represents and warrants that he or she is an officer of the Developer and that he or she has full and complete authority to enter into this Lenders Direct Agreement on behalf of the Developer.

(d) The Developer represents and warrants that the Developer has full power and authority to execute and perform its obligations under this Lenders Direct Agreement.

(e) The Authority represents and warrants that:

(i) the Authority has the full power and authority to execute, deliver and perform this Lenders Direct Agreement and to carry out the transactions contemplated by this Lenders Direct Agreement;

(ii) the execution, delivery and performance of this Lenders Direct Agreement, and the performance of the transactions contemplated in this Lenders Direct Agreement, have been duly and validly authorized by all necessary action of the Authority; and

(iii) this Lenders Direct Agreement has been duly and validly executed and delivered by the Authority, and constitutes a valid and binding obligation of the Authority, enforceable against the Authority in accordance with its terms, subject only to applicable bankruptcy, insolvency and similar laws affecting the enforceability of the rights of creditors generally and the general principles of equity.

(f) The Authority represents and warrants to the Collateral Agent that:

(i) there is no Authority Default or, to its knowledge, Developer Default, there exists no event or condition that would, with the giving of notice or passage of time or both, constitute such an Authority Default or, to its knowledge, a Developer Default, and no Authority Default or, to its knowledge, Developer Default has occurred prior to the date of this Lenders Direct Agreement; and

(ii) each representation and warranty made by it under Section 3.2 (*Authority Representations and Warranties*) of the Project Agreement is true and correct as of the date of this Lenders Direct Agreement.

(g) The Trustee represents and warrants that:

(i) the Trustee has the full power and authority to execute, deliver and perform this Lenders Direct Agreement and to carry out the transactions contemplated by this Lenders Direct Agreement; and

(ii) the execution, delivery and performance of this Lenders Direct Agreement, and the performance of the transactions contemplated in this Lenders Direct Agreement, have been duly and validly authorized by all necessary action of the Trustee.

(h) The Fiscal Agent represents and warrants that:

(i) the Fiscal Agent has the full power and authority to execute, deliver and perform this Lenders Direct Agreement and to carry out the transactions contemplated by this Lenders Direct Agreement; and

(ii) the execution, delivery and performance of this Lenders Direct Agreement, and the performance of the transactions contemplated in this Lenders Direct Agreement, have been duly and validly authorized by all necessary action of the Fiscal Agent.

14. GOVERNING LAW AND JURISDICTION

14.1 Governing Law

This Lenders Direct Agreement will be governed by and construed in accordance with the laws of North Dakota.

14.2 Submission to Jurisdiction

The parties consent to the jurisdiction of any court of North Dakota, waiving any claim or defense that such forum is not convenient or proper. The parties agree that any such court will have *in personam* jurisdiction over it, and consents to service of process in any manner authorized by Applicable Law.

14.3 Waiver of Jury Trial

THE PARTIES HEREBY KNOWINGLY, IRREVOCABLY, VOLUNTARILY, AND INTENTIONALLY WAIVE ANY RIGHTS THAT ANY MAY HAVE TO A TRIAL BY JURY WITH RESPECT TO ANY ACTION, PROCEEDING, COUNTERCLAIM OR DEFENSE BASED ON THIS LENDERS DIRECT AGREEMENT, OR ARISING OUT OF, UNDER OR IN ANY CONNECTION WITH THIS LENDERS DIRECT AGREEMENT, OR WITH RESPECT TO ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN) OR ACTIONS OF ANY PARTY HERETO RELATING TO THIS LENDERS DIRECT AGREEMENT. THIS PROVISION IS A MATERIAL INDUCEMENT FOR ALL PARTIES ENTERING INTO THIS LENDERS DIRECT AGREEMENT. THIS PROVISION APPLIES ONLY TO SUITS BETWEEN THE PARTIES ARISING OUT OF OR RELATED TO THIS LENDERS DIRECT AGREEMENT AND DOES NOT APPLY TO THIRD PARTY CLAIMS OR SUITS BY OR ON BEHALF OF THE PARTIES FOR PROJECT PROPERTY ACQUISITION AND/OR CONSTRUCTION CONTRACT CLAIMS AND DEFENSES. Each of the Parties (a) certifies that no representative, agent, attorney or any other Person has represented, expressly or otherwise, that such other Person would not, in the event of any suit, action or proceedings relating to this Lenders Direct Agreement, seek to enforce the foregoing waiver and (b) acknowledges that it has been induced to enter into this Lenders Direct Agreement by, among other things, the mutual waivers and certifications in this Section 14.3.

15. GENERAL PROVISIONS

15.1 Public Information and Confidentiality

(a) The Authority and the Collateral Agent will comply with the requirements of the Project Agreement with regard to the public disclosure of information as if any reference to the Developer in the Project Agreement was a reference to the Collateral Agent.

(b) The Authority approves disclosure by the Developer to the Collateral Agent, the Lenders, and other agents of the Lenders, of the information, documents, reports, data, or records provided to, or prepared by, the Developer under the Project Agreement, or prepared by any Developer's Contractor under the relevant Contract.

15.2 Amendments and Waivers

(a) No amendment of this Lenders Direct Agreement, and no waiver of any term, covenant, or condition of this Lenders Direct Agreement, will be effective unless in writing and signed by the parties to this Lenders Direct Agreement.

(b) The exercise by a party of any right or remedy provided under this Lenders Direct Agreement or Applicable Law will not waive or preclude any other or further exercise thereof or the exercise of any other right or remedy. No waiver by any party of any right or remedy under this Lenders Direct Agreement or Applicable Law will be deemed to be a waiver of any other or subsequent right or remedy under this Lenders Direct Agreement or Applicable Law. The consent by one party to any act by the other party requiring such consent will not be deemed to render unnecessary the obtaining of consent to any subsequent act for which consent is required, regardless of whether similar to the act for which consent is given.

15.3 Non-Collusion

(a) The Collateral Agent warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Collateral Agent, to solicit or secure this Lenders Direct Agreement, and that it has not paid or agreed to pay any company or person any fee, commission, percentage, brokerage fee, gifts or any other consideration contingent upon or resulting from the making of this Lenders Direct Agreement.

(b) For breach or violation of this warranty, the Authority will have the right to terminate this Lenders Direct Agreement without liability.

15.4 Disputes

(a) In the event of any dispute between the Authority and the Collateral Agent under this Lenders Direct Agreement, the parties shall resolve the dispute according to the dispute resolution procedures set out in the Project Agreement, with the Collateral Agent having the same rights and obligations as the Developer under the dispute resolution procedures set out in Article 54 (*Dispute Resolution*) of the Project Agreement.

(b) Nothing in Section 15.4(a) affects the Collateral Agent's rights and remedies against the Developer and the Developer's Interest under the Finance Documents or the procedures available to the Collateral Agent under law to exercise its security interests under the Finance Documents.

15.5 Successors and Assigns

(a) No party to this Lenders Direct Agreement may assign or transfer any part of its rights or obligations under this Lenders Direct Agreement without the prior written consent of the other parties; provided that the Collateral Agent may assign or transfer its rights and obligations under this Lenders Direct Agreement to a successor Collateral Agent in accordance with the Finance Documents. In connection with any such assignment or transfer, the Authority agrees to enter into a new direct agreement with the successor Collateral Agent on terms that are substantially the same as those of this Lenders Direct Agreement.

(b) This Lenders Direct Agreement will be binding upon and inure to the benefit of the parties to this Lenders Direct Agreement and their respective successors and permitted assigns.

15.6 Severability

In the event any one or more of the provisions contained in this Lenders Direct Agreement will, for any reason, be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability will not affect any other provision of this Lenders Direct Agreement and this Lenders Direct Agreement will be construed as if such invalid, illegal, or unenforceable provision had never been contained in this Lenders Direct Agreement.

15.7 Prior Contracts Superseded

This Lenders Direct Agreement constitutes the sole agreement of the parties with respect to the subject matter set out in this Lenders Direct Agreement and supersedes any prior understandings or written or oral contracts between the parties respecting such subject matter.

15.8 Notices and Communications

(a) Whenever under the provisions of this Lenders Direct Agreement it will be necessary or desirable for one party to serve any approval, notice, request, demand, report or other communication on another party, the same will be in writing and will not be effective for any purpose unless and until actually received by the addressee or unless served (i) personally, (ii) by independent, reputable, overnight commercial courier or (iii) by deposit in the United States mail, postage and fees fully prepaid, registered or certified mail, with return receipt requested, addressed as follows:

If to the Authority:

Metro Flood Diversion Authority
207 4th Street North, Suite A
Fargo, ND 58102

Attention: Joel Paulsen, Executive Director
Email: PaulsenJ@FMDiversion.gov
Telephone: (701) 660-0900

If to the Developer:

Red River Valley Alliance, LLC
55 E. Monroe Street
Chicago, IL 60603

Attention: Esther Madrigal Díez, Developer Representative
Email: esther.madrigal.diez@acciona.com
Telephone: [●]

If to the Collateral Agent:
[●]
Address: [●]
Attention: [●]
Email: [●]
Telephone: [●]

If to the Trustee:
Bank of North Dakota
PO Box 5509
Bismarck, ND 58506-5509

Attention: Trust Department
Email: fmdiversiontrustee@nd.gov
Telephone: Cindy Doll (701) 328-5606; April Klingfus (701) 328-5703

If to the Fiscal Agent:

City of Fargo
225 4th Street North
Fargo, ND 58102

Attention: [●]
Email: [●]
Telephone: [●]

(b) Any party may, from time to time, by notice in writing served upon the other parties, designate an additional or a different mailing address or an additional or a different person to whom all such notices, requests, demands, reports, and communications are thereafter to be addressed. Any notice, request, demand, report, or other communication served personally will be deemed delivered upon receipt, if served by mail or independent courier will be deemed delivered on the date of receipt as shown by the addressee's registry or certification receipt or on the date receipt at the appropriate address is refused, as shown on the records or manifest of the United States Postal Service or independent courier.

15.9 Effect of Breach

Without prejudice to any rights a party may otherwise have, a breach of this Lenders Direct Agreement will not of itself give rise to a right to terminate the Project Agreement.

15.10 Counterparts

This instrument may be executed in two or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

15.11 No Third-Party Beneficiaries

Nothing contained in this Lenders Direct Agreement is intended or will be construed as creating or conferring any rights, benefits, or remedies upon, or creating any obligations of the parties to this Lenders Direct Agreement toward, any person or entity not a party to this Lenders Direct Agreement.

15.12 No Partnership

Nothing contained in this Lenders Direct Agreement will be deemed to constitute a partnership between the parties to this Lenders Direct Agreement. None of the parties may hold itself out contrary to the terms of this Section 15.12.

15.13 No Interference

The Developer joins in this Lenders Direct Agreement to acknowledge and consent to the arrangements set out and agrees not to knowingly do or omit to do anything that may prevent any party from enforcing its rights under this Lenders Direct Agreement.

15.14 Collateral Agent Liability

(a) Notwithstanding anything to the contrary in this Lenders Direct Agreement, but subject to Section 5 (*Step-in Arrangements*) (solely to the extent the Collateral Agent or any of its Affiliates is the Step-in Entity), Section 13(a), Section 13(b) and Section 15.14(b), the Collateral Agent will not have any liability to the Authority under this Lenders Direct Agreement, unless the Collateral Agent expressly assumes such liability in writing.

(b) The Authority acknowledges and agrees that the Collateral Agent will not be obligated or required to perform any of the Developer's obligations under the Project Agreement, except during any Step-in Period (solely to the extent the Collateral Agent or any of its Affiliates is the Step-in Entity).

15.15 Reliance by the Authority

The Authority may rely upon any notice purported to be signed and delivered by or for the Collateral Agent without any obligation to the Collateral Agent, any Lender, the Developer or any third party to ascertain or investigate its authenticity, truth, or accuracy.

15.16 Reliance by the Trustee

The Trustee may rely upon any notice purported to be signed and delivered by or for the Collateral Agent without any obligation to the Collateral Agent, any Lender, the Developer or any third party to ascertain or investigate its authenticity, truth, or accuracy.

15.17 Reliance by the Fiscal Agent

The Fiscal Agent may rely upon any notice purported to be signed and delivered by or for the Collateral Agent without any obligation to the Collateral Agent, any Lender, the Developer or any third party to ascertain or investigate its authenticity, truth, or accuracy.

15.18 Counterparts by Facsimile or Email

This Lenders Direct Agreement may be executed in two or more counterparts, each of which together shall be deemed an original, but all of which together shall constitute one and the same instrument. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page was an original thereof.

The parties are signing this Lenders Direct Agreement on the date stated in the introductory clause.

[*Signature Pages to Follow*]

SIGNATORIES

Authority

Signed by METRO FLOOD DIVERSION AUTHORITY

Chair and Executive Director

BY: _____
NAME: SHELLY(MICHELLE) CARLSON
TITLE: Chair
Metro Flood Diversion Authority

DATE: _____

BY: _____
NAME: JOEL PAULSEN
TITLE: Executive Director
Metro Flood Diversion Authority

DATE: _____

Countersignature by Secretary

BY: _____
NAME: DAWN LINDBLOM
TITLE: Secretary
Metro Flood Diversion Authority

DATE: _____

Developer

Signed by RED RIVER VALLEY ALLIANCE, LLC

BY: _____
NAME:
TITLE:
Red River Valley Alliance, LLC

DATE: _____

BY: _____
NAME:
TITLE:
Red River Valley Alliance, LLC

DATE: _____

BY: _____
NAME:
TITLE:
Red River Valley Alliance, LLC

DATE: _____

Collateral Agent

Signed by [Company Name]

BY: _____
NAME:
TITLE:

DATE: _____

Trustee

Signed by BANK OF NORTH DAKOTA

BY: _____
NAME:
TITLE:

DATE: _____

Fiscal Agent

Signed by CITY OF FARGO, NORTH DAKOTA

BY: _____
NAME:
TITLE:

DATE: _____

SCHEDULE 1

Form of Step-in Entity Accession Agreement

To: Metro Flood Diversion Authority
[●]

Copied to: [●]
[*Lenders and other parties to Finance Documents to be listed*] [*insert address*]

For the attention of: [●]

From: [*Step-in Entity*]

THE DIVERSION CHANNEL AND ASSOCIATED INFRASTRUCTURE WORK PACKAGE OF THE FARGO-MOORHEAD METROPOLITAN AREA FLOOD RISK MANAGEMENT PROJECT
STEP-IN ENTITY ACCESSION AGREEMENT

Ladies and Gentlemen:

Reference is made to (i) the Project Agreement for the Fargo-Moorhead Metropolitan Area Flood Risk Management Project – Diversion Channel and Associated Infrastructure, dated [●] (as amended, supplemented or otherwise modified from time to time, the "Project Agreement"), between the Metro Flood Diversion Authority (the "Authority") and [●] (the "Developer") and (ii) the Lenders Direct Agreement, dated [●] (as amended, supplemented or otherwise modified from time to time, the "Lenders Direct Agreement"), between the Authority, the Developer, [●], as the Collateral Agent, Bank of North Dakota, as Trustee, and the City of Fargo, as Fiscal Agent.

Terms used but not otherwise defined in this Step-in Entity Accession Agreement will have the meaning given to them in the Lenders Direct Agreement.

We confirm that we are a Step-in Entity pursuant to Section 5 (*Step-in Arrangements*) of the Lenders Direct Agreement.

1. We acknowledge and agree that, upon and by reason of our execution of this Step-in Entity Accession Agreement, we will become a party to the Project Agreement and the Lenders Direct Agreement jointly and severally with the Developer as a Step-in Entity and, accordingly, will have the rights and powers and assume the obligations of the Developer under the Project Agreement and the Lenders Direct Agreement in accordance with the terms of the Lenders Direct Agreement.

2. Our mailing address, telephone number and address for electronic mail for the purposes of receiving notices are as follows:

   [*contact details of Step-in Entity*]

3. This Step-in Entity Accession Agreement will be governed by and construed in accordance with the law of North Dakota. Venue for any legal action arising out of this Step-in Entity Accession Agreement will lie in any North Dakota court or U.S. federal court venued in North Dakota.

The terms set out in this Step-in Entity Accession Agreement are agreed to: [*Step-in Entity*]

By
Name:
Title:

SCHEDULE 2

Form of Substitute Accession Agreement

To: Metro Flood Diversion Authority: [Date]
[●]

Copied to: [●]

From: [*Substitute*]

THE DIVERSION CHANNEL AND ASSOCIATED INFRASTRUCTURE WORK PACKAGE OF THE FARGO-MOORHEAD METROPOLITAN AREA FLOOD RISK MANAGEMENT PROJECT
SUBSTITUTE ACCESSION AGREEMENT

Ladies and Gentlemen:

Reference is made to (i) the Project Agreement for the Fargo-Moorhead Metropolitan Area Flood Risk Management Project – Diversion Channel and Associated Infrastructure, dated [●] (as amended, supplemented or otherwise modified from time to time, the "Project Agreement"), between the Metro Flood Diversion Authority (the "Authority") and [●] (the "Developer") and (ii) the Lenders Direct Agreement, dated [●] (as amended, supplemented or otherwise modified from time to time, the "Lenders Direct Agreement"), between the Authority, the Developer, [●], as the Collateral Agent, Bank of North Dakota, as Trustee, and the City of Fargo, as Fiscal Agent.

Terms used but not otherwise defined in this Substitute Accession Agreement will have the meaning given to them in the Lenders Direct Agreement.

1. We confirm that we are a Substitute pursuant to Section 7 (*Substitution*) of the Lenders Direct Agreement.

2. We acknowledge and agree that, upon and by reason of our execution of this Substitute Accession Agreement, we will become a party to the Project Agreement and the Lenders Direct Agreement as a Substitute and, accordingly, will have the rights and powers and assume the obligations of the Developer under the Project Agreement and the Lenders Direct Agreement in accordance with the terms of the Lenders Direct Agreement.

3. Our mailing address, telephone number and address for electronic mail for the purposes of receiving notices are as follows:

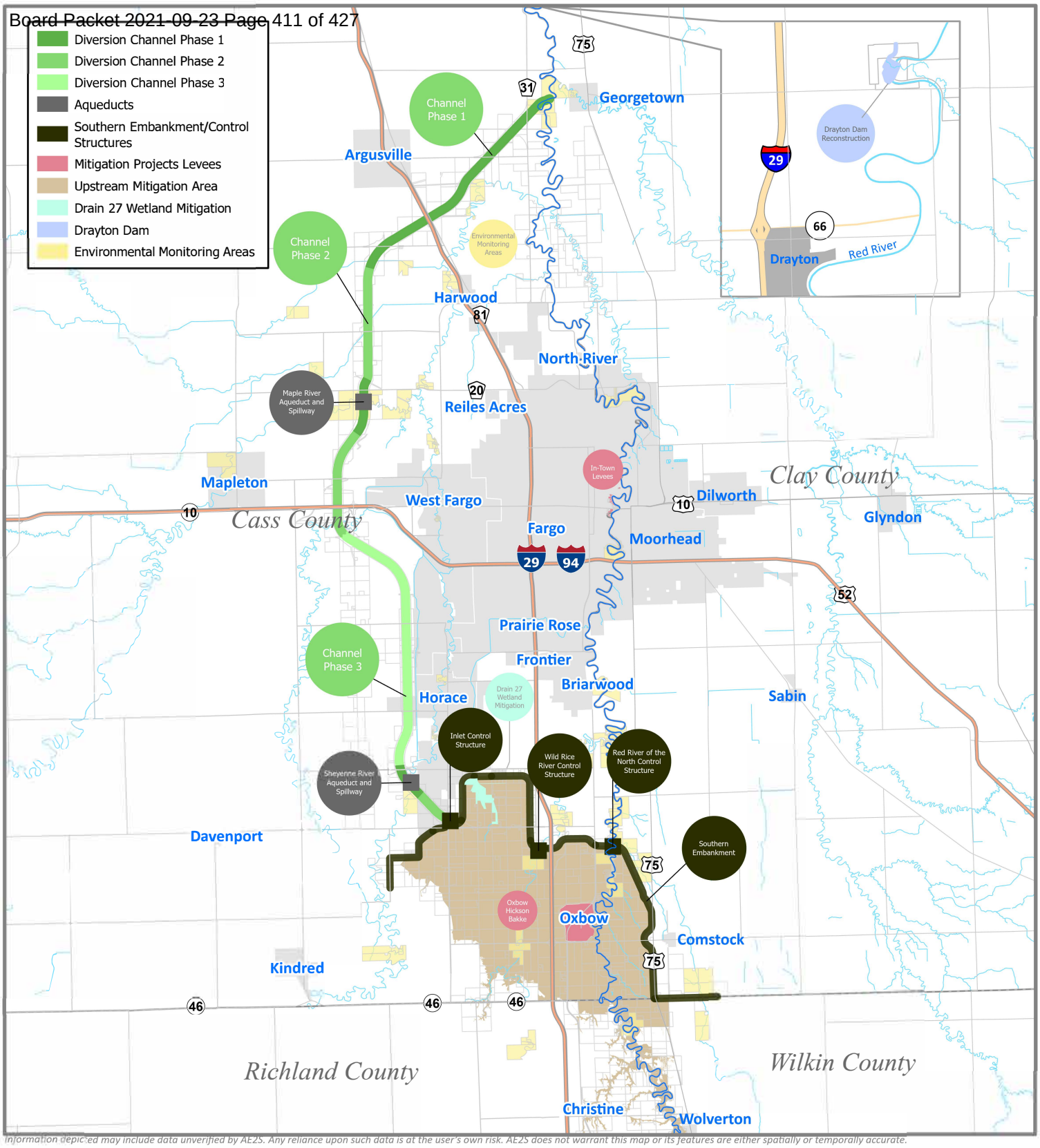
   [*contact details of Substitute*]

4. This Substitute Accession Agreement will be governed by and construed in accordance with the law of North Dakota. Venue for any legal action arising out of this Substitute Accession Agreement will lie in any North Dakota court or U.S. federal court venued in North Dakota.

The terms set out in this Substitute Accession Agreement are hereby agreed to: [*Substitute*]

By:
Name:
Title:
Agreed for and on behalf of:

Metro Flood Diversion Authority
By:
Name:
Title:



Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.

C:\Data\Projects\GIS Projects\FM Area Diversion\FMDiversionParcelStatus.aprx, Layout: Key Property Acquisition Areas 8x11

N

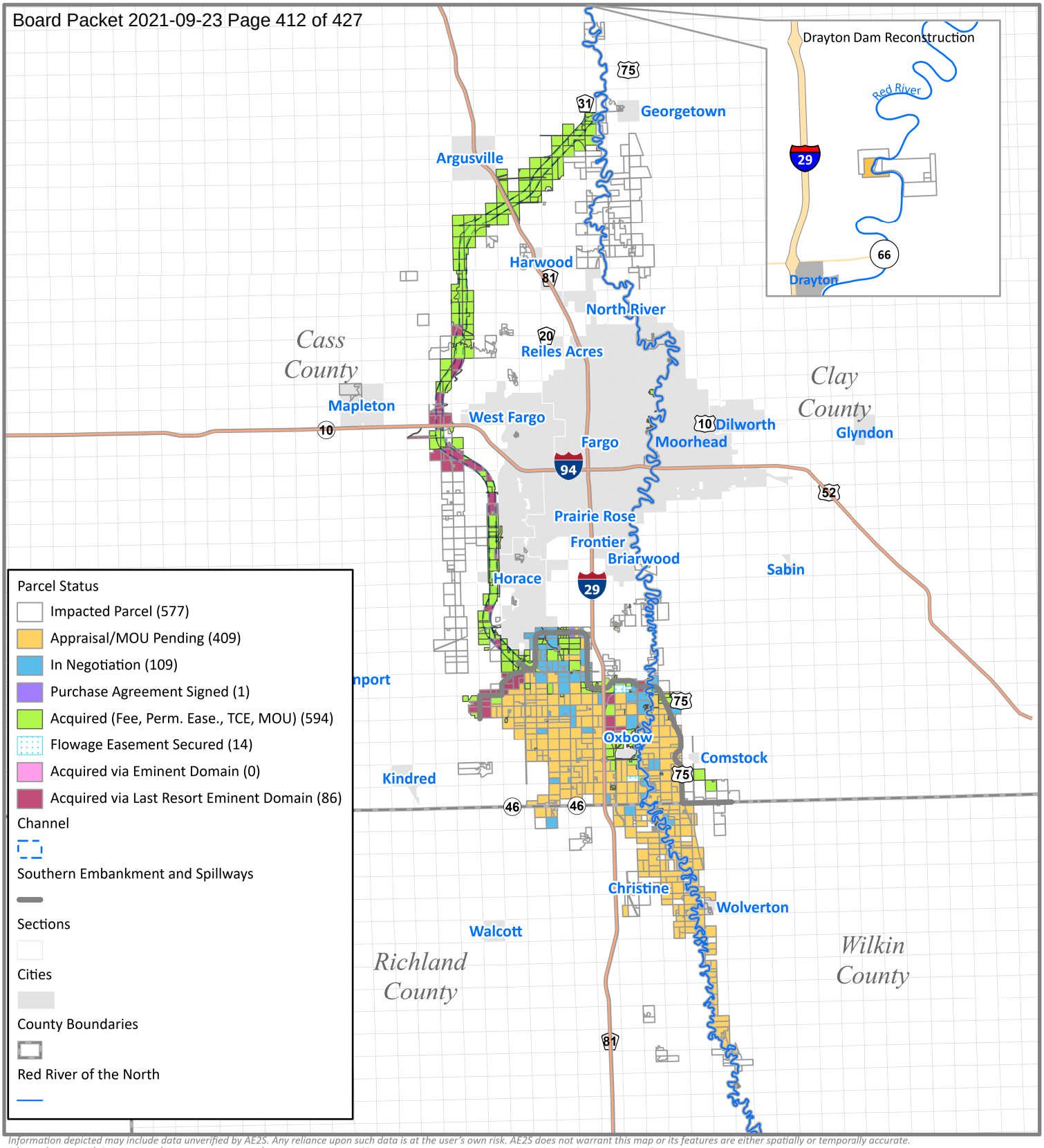
0 2.75 5.5
Miles

FM AREA DIVERSION

KEY ACQUISITION AREAS

Date: 9/14/2021

METRO FLOOD DIVERSION AUTHORITY



Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.

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N

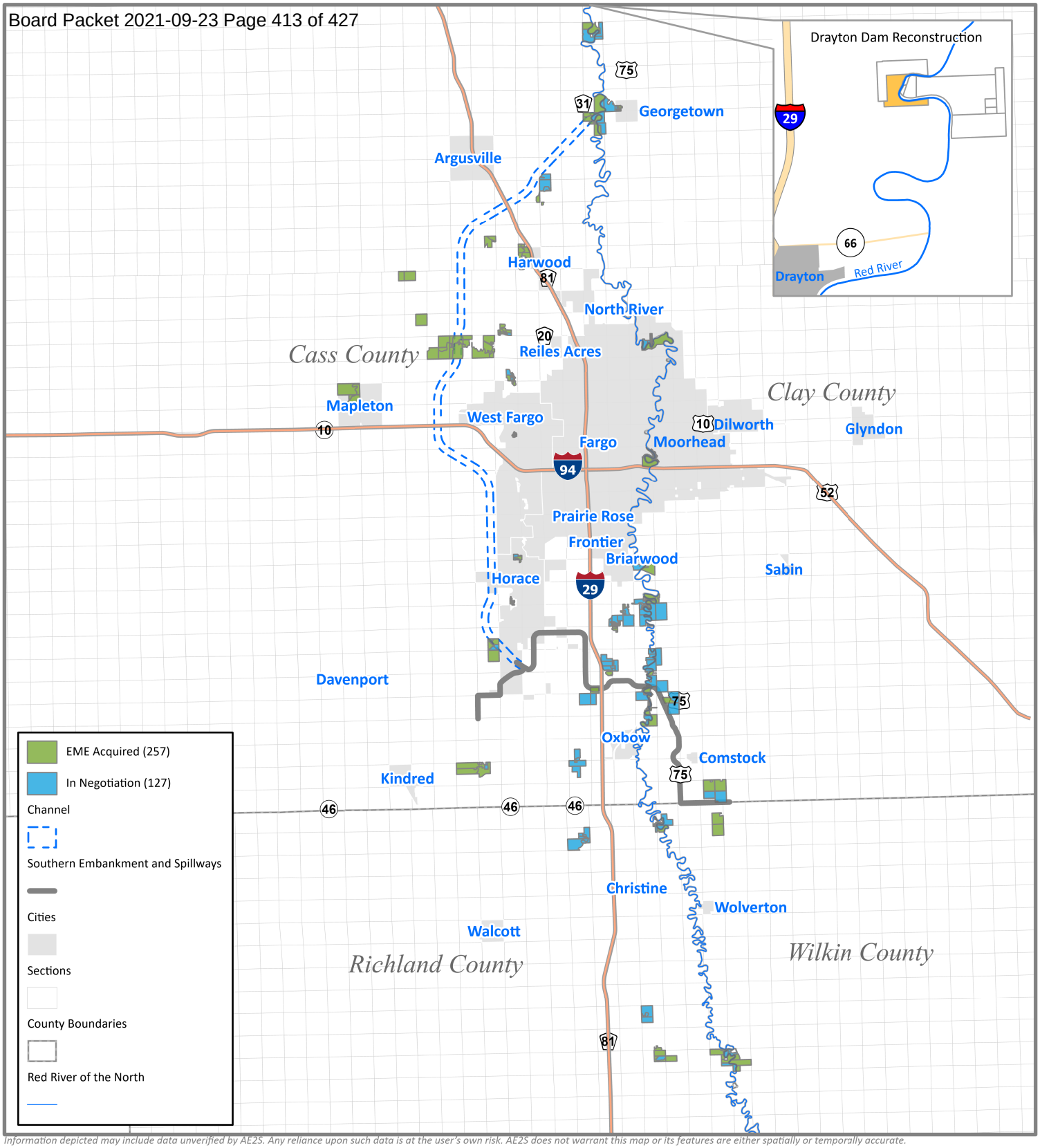
0 3.25 6.5

Miles

PROPERTY ACQUISITION STATUS REPORT

Date: 9/14/2021

METRO FLOOD DIVERSION AUTHORITY



Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.

C:\Data\Projects\GIS Projects\FM Area Diversion\FMDiversionParcelStatus.aprx, Layout: EME Acquisition Status Report 8x11

N

0 3.25 6.5

Miles

ENVIRONMENTAL MONITORING EASEMENT

ACQUISITION STATUS REPORT

Date: 9/14/2021

METRO FLOOD DIVERSION AUTHORITY

Property Status Report

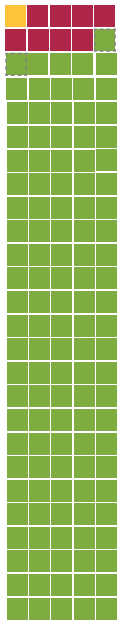
Diversion Channel

METRO FLOOD DIVERSION AUTHORITY

As of September 13, 2021

Phase 1

(WP LAP01)

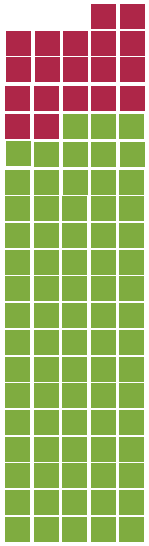


130 parcels total

- *1 MOU Pending*
- *0 In Negotiation*
- *0 Agreement Signed*
- *121 Acquired MOU/TCE/FEE*
- *8 Condemnation*
- *Change from last report*

Phase 2

(WP LAP02)

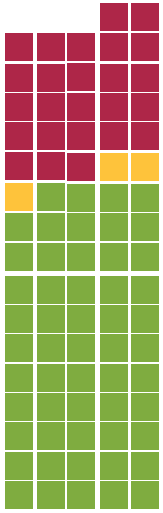


97 parcels total

- *0 MOU Pending*
- *0 In Negotiation*
- *0 Agreement Signed*
- *78 Acquired MOU/TCE/FEE*
- *19 Condemnation*
- *Change from last report*

Phase 3

(WP LAP03)



82 parcels total

- 3 MOU Pending
- 0 In Negotiation
- 0 Agreement Signed
- 54 Acquired MOU/TCE/FEE
- 25 Condemnation
- Change from last report

Hard Costs paid to Property Owners

NOTE: Based on Financial data through August

$84.3M budgeted

$87.7M spent

$18.7M asset property

$0M purchase agreement

- *Budgeted*
- *Purchase Agreement*
- *Spent*
- *Asset Property*

Property Status Report

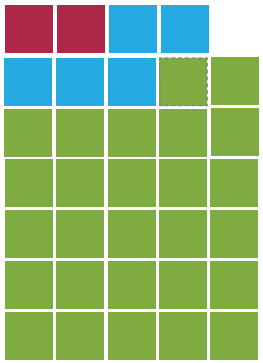
Southern Embankment Control Structures

METRO FLOOD DIVERSION AUTHORITY

As of September 13, 2021

Red River Control Structure

(WP 35)
Target Completion:
August 2021

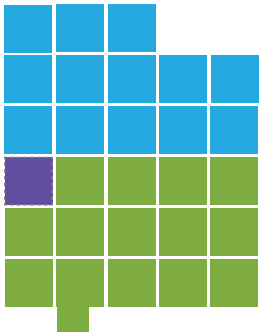


34 parcels total

- 0 Appraisal Pending
- 5 In Negotiation
- 0 Agreement Signed
- 27 Acquired/ TCE Secured
- 2 Condemnation
- Changed from last report

Drain 27 Wetland Project

Targeted Completion:
October 2021



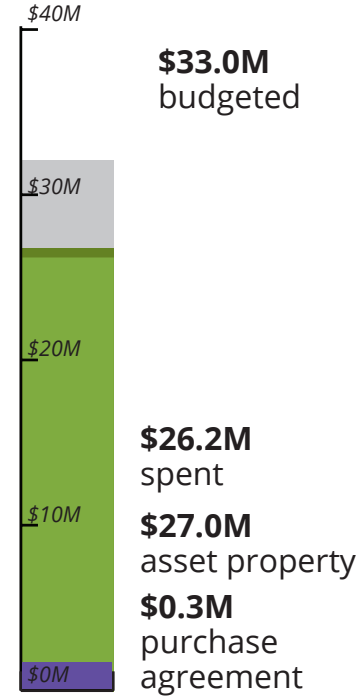
28 parcels total

- 0 Appraisal Pending/ MOU
- 13 In Negotiation
- 1 Agreement Signed
- 14 Acquired/ TCE Secured
- Condemnation
- Changed from last report

Southern Embankment & Control Structures

Hard Costs paid to Property Owners

Note: Based on financial data through August



- Budgeted
- Purchase Agreement
- Spent
- Asset Property

Property Status Report

Southern Embankment

METRO FLOOD DIVERSION AUTHORITY

As of September 13, 2021

Southern Embankment

(WP Reach SE-1 to SE-5 and I29)
Targeted Completion: September 2025

130 parcels total

SE-1 Complete
Total Parcels: 37

SE-2A Target Completion: April 2022
Total Parcels: 8

SE-2B Target Completion: December 2022
Total Parcels: 33

SE-3 Target Completion: July 2024
Total Parcels: 5

I29 Completed
Total Parcels: 12

ND

MN

SE-4 Target Completion: July 2023
Total Parcels: 26

SE-5 Target Completion: July 2024
Total Parcels: 9

- 0 Appraisal/ MOU Pending
- 13 In Negotiation
- 0 Agreement Signed
- 52 Acquired/ TCE Secured
- 29 Condemnation
- Change from last report

Property Status Report

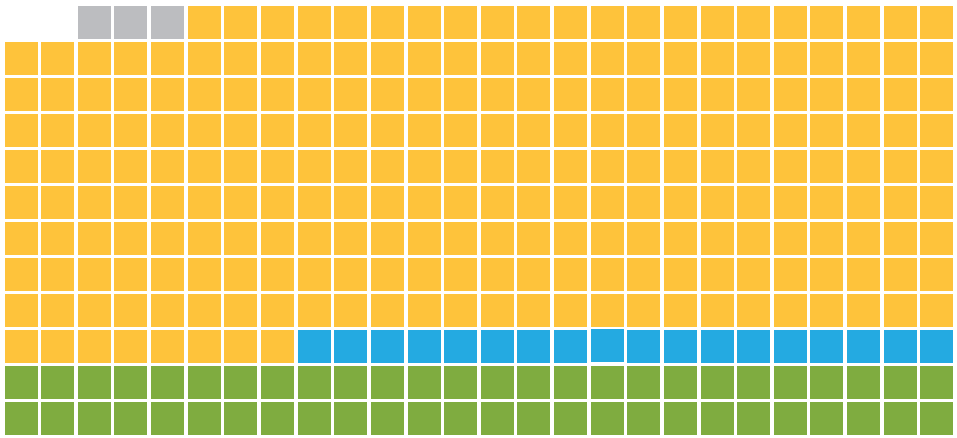
Upstream Mitigation Area-ND (UMA)

METRO FLOOD DIVERSION AUTHORITY

As of September 13, 2021

Flowage Easements without structures (ND)

Approximately 310 parcels in ND



237 Appraisal/MOU Pending
18 In Negotiation
0 Agreement Signed
10 Flowage Easement Secured
42 Acquired
0 Condemnation
Changed

Note: Excludes parcels in City of Christine

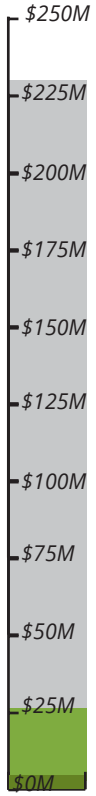
Parcels with Structures (ND)

Approximately 128 parcels in ND

26 Appraisal/MOU Pending
43 In Negotiation
0 Agreement Signed
27 Acquired
0 Flowage Easement Secured
Condemnation
Changed

ND + MN UMA Hard Costs paid to Property Owners

Note: Based on financial data through August



$229.7 M budgeted

$25.6 M spent

$6.2 M asset property

$0 M purchase agreement

Budgeted
Purchase Agreement
Spent
Asset Property

Property Status Report

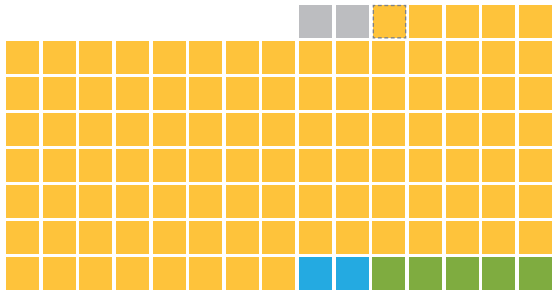
Upstream Mitigation Area-MN (UMA)

METRO FLOOD DIVERSION AUTHORITY

As of September 13, 2021

Flowage Easements without structures (MN)

Approximately 112 parcels in MN



- 103 Appraisal/MOU Pending
- 2 In Negotiation
- 0 Agreement Signed
- 4 Flowage Easement Secured
- 1 Acquired
- 0 Condemnation
- Changed

Note: Excludes parcels in the City of Wolverton

Parcels with Structures (MN)

Approximately 33 parcels in MN

- 14 Appraisal/MOU Pending
- 11 In Negotiation
- 0 Agreement Signed
- 0 Flowage Easement Secured
- 4 Acquired
- Condemnation
- Changed

Property Status Report

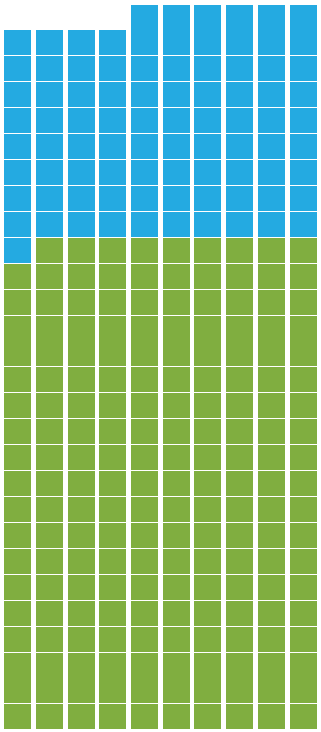
Environmental Monitoring Areas (BIOGEO)

METRO FLOOD DIVERSION AUTHORITY

As of September 13, 2021

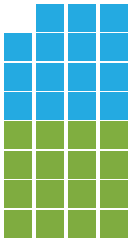
North Dakota | Minnesota

Cass County



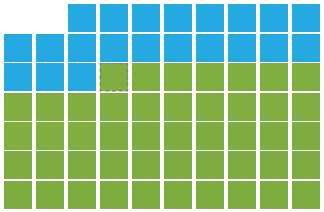
276 parcels total

Richland County



31 parcels total

Clay County



68 parcels total

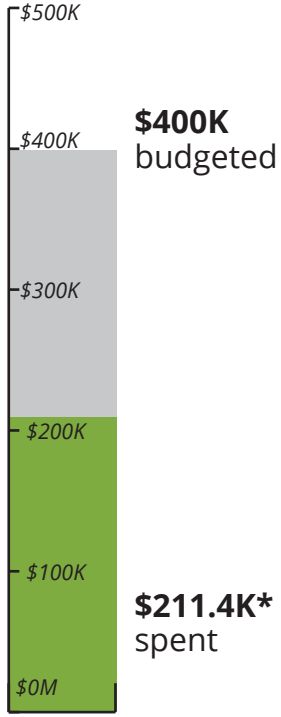
Wilkin County

9 parcels total

127 In Negotiations
257 Environmental Monitoring
Change from last report

Hard Costs paid to Property Owners

Note: Based on financial data through August



*includes payments for monuments and easements.

Budgeted
Purchase Agreement
Spent

Property Status Report

OHB Projects

METRO FLOOD DIVERSION AUTHORITY

As of September 13, 2021

OHB Ring Levee

WP 43

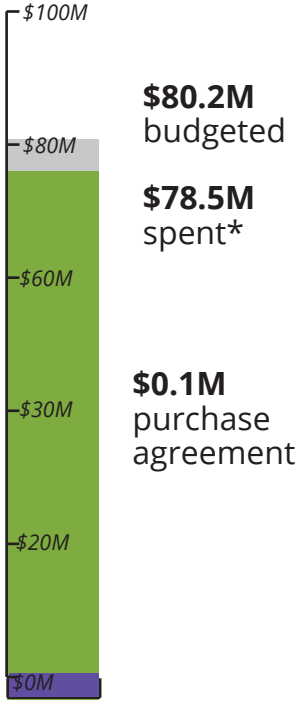
Parcels needed for remaining portion of OHB Project.

7 parcels remaining

- 0 Appraisal Pending
- 4 In Negotiation
- 0 Agreement Signed
- 0 Acquired Parcel
- 0 Condemnation
- 3 Condemnation
- Changed from last report

Hard Costs paid to Property Owners

NOTE: Based on Financial data through August



* Includes parcels purchased outside the OHB Ring Levee

- Budgeted
- Purchase Agreement
- Spent
- Asset Property

METRO FLOOD DIVERSION AUTHORITY

Diversion Authority Board Committee Meeting

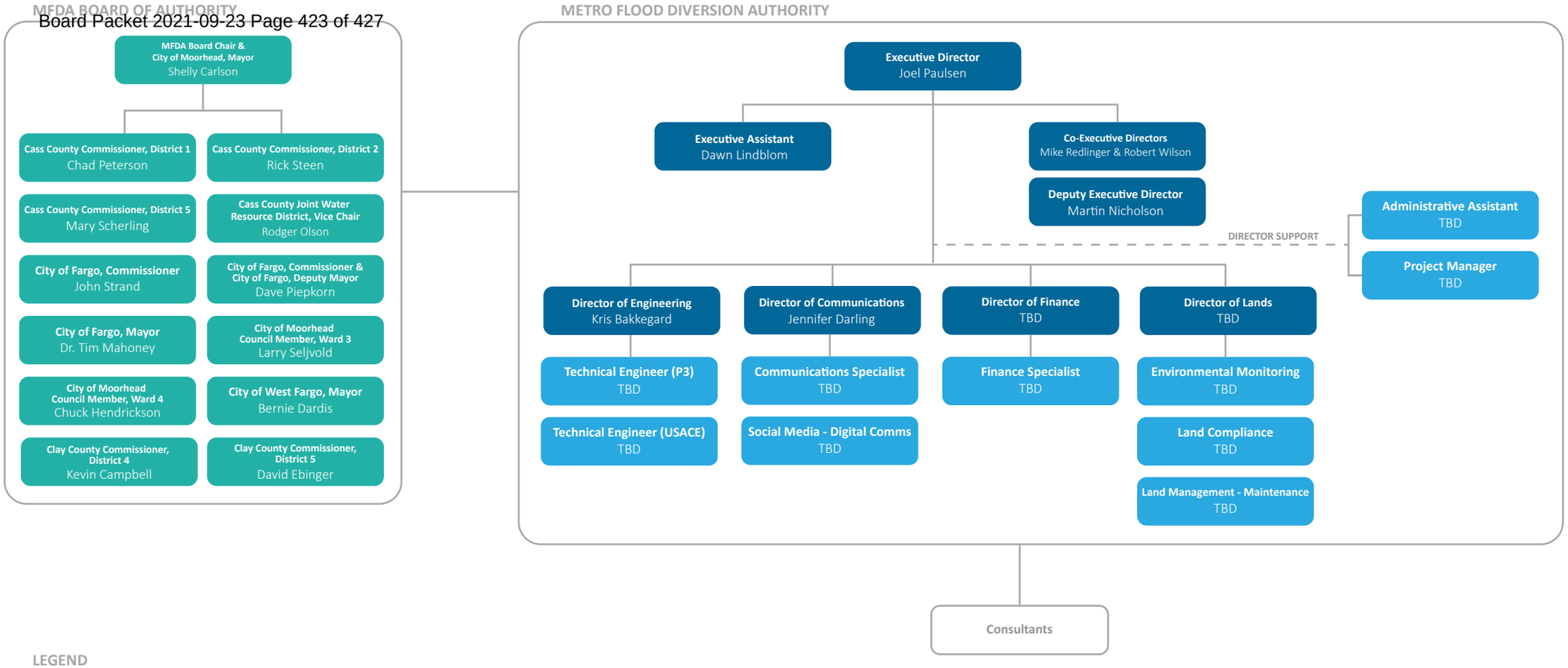
September 23, 2021

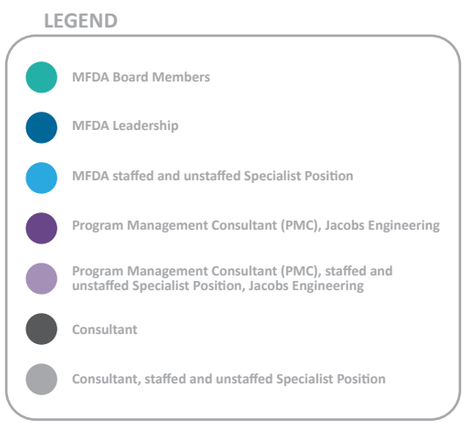
Draft 2022 Cash Budget

Joel Paulsen

METRO FLOOD DIVERSION AUTHORITY

Schedule Budget Categories	Program Estimate At Complete (EAC) (2018$)	Program Actual Cost thru July 2021	FY 2021 Budget	FY 2021 Actual Cost thru July 2021	FY 2021 Estimate at Completion (EAC)	Draft FY 2022 Budget
DIVERSION CHANNEL & ASSOC. INFRASTRUCTURE	**$ 978,568,488**	**$ 32,450,083**	**$ 48,860,000**	**$ 5,679,721**	**$ 26,114,221**	**$ 41,425,372**
Management, Legal, Financial, Procurement	$ 28,027,973	$ 31,090,220	$ 17,840,000	$ 5,125,683	$ 15,915,683	$ 7,590,000
Channel - Construction & Mitigations	$ 950,540,515	$ 1,359,863	$ 31,020,000	$ 554,038	$ 10,198,538	$ 33,835,372
SOUTHERN EMBANKMENT & ASSOC. INFRASTRUCTURE	**$ 576,451,821**	**$ 521,186**	**$ 3,205,000**	**$ 301,698**	**$ 1,870,045**	**$ 5,000,000**
WP-26 Diversion Inlet	$ 53,159,881	$ 65,026	$ -	$ -	$ -	$ -
WP-27 Red River - West Embankment	$ 88,647,997	$ -	$ -	$ -	$ -	$ -
WP-29 Red River - East Embankment	$ 36,636,311	$ -	$ -	$ -	$ -	$ -
WP-30 Wild Rice River Control Structure	$ 58,784,850	$ -	$ -	$ -	$ -	$ -
WP-31 I-29 Bridge Grade Raise	$ 44,663,381	$ -	$ 155,000	$ -	$ 129,167	$ -
WP-33 CR81 Bridge	$ -	$ -	$ -	$ -	$ -	$ -
WP-35 Red River Control Structure	$ 68,559,339	$ -	$ -	$ -	$ -	$ -
WP-46 SEAI / UMA Utility Relocations paid by DA	$ -	$ 456,160	$ 3,050,000	$ 301,698	$ 1,740,878	$ 5,000,000
WP-47 Contracted Utility Relo	$ -	$ -	$ -	$ -	$ -	$ -
WP-51 Recreation (Metro-COG)	$ -	$ -	$ -	$ -	$ -	$ -
USACE Local Share \ Management Oversight	$ 226,000,062	$ -	$ -	$ -	$ -	$ -
OTHER MITIGATION PROJECTS	**$ 51,814,529**	**$ 63,490,262**	**$ 39,699,831**	**$ 37,271,149**	**$ 37,357,005**	**$ 1,911,000**
WP-36 Wild Rice Dam Mitigation	$ -	$ -	$ -	$ -	$ -	$ -
WP-40 Drayton Dam Mitigation	$ 8,880,585	$ -	$ -	$ -	$ -	$ -
WP-41 Richland/Wilkin Cty. JPA	$ -	$ 35,250,000	$ 35,000,000	$ 35,250,000	$ 35,250,000	$ -
WP-43 Oxbow-Hickson-Bakke	$ 42,826,944	$ 26,824,206	$ 3,509,832	$ 1,310,607	$ 1,310,607	$ 1,661,000
WP-49 Cultural Remediation	$ -	$ -	$ -	$ -	$ -	$ -
WP-50 Phase II Demo	$ 107,000	$ 1,416,056	$ 1,190,000	$ 710,542	$ 796,398	$ 250,000
IN-TOWN FLOOD PROTECTION	**$ 240,257,128**	**$ 115,499,705**	**$ 35,248,600**	**$ 3,841,427**	**$ 18,520,010**	**$ 25,006,000**
WP-42 In-Town Levees	$ 92,695,428	$ 90,435,368	$ 1,120,000	$ 973,221	$ 1,431,554	$ 6,000
In-Town Flood Protection (R37')	$ 147,561,700	$ 25,064,337	$ 34,128,600	$ 2,868,206	$ 17,088,456	$ 25,000,000
ENABLING WORK / OTHER	**$ 1,148,308**	**$ 1,384,006**	**$ 62,000**	**$ 14,572**	**$ 14,572**	**$ -**
WP-28 - Cass County Road 16 and 17 Improvements	$ 1,148,308	$ 1,384,006	$ 62,000	$ 14,572	$ 14,572	$ -
LAND ACQUISITION & MITIGATION	**$ 465,227,590**	**$ 294,994,988**	**$ 69,115,810**	**$ 29,798,467**	**$ 63,183,705**	**$ 71,810,539**
Management, Legal, Financial, Procurement	$ 50,342,067	$ 28,942,679	$ 16,020,000	$ 3,927,037	$ 10,981,204	$ 12,900,000
DIVERSION CHANNEL AND ASSOCIATED	$ 72,793,127	$ 88,705,890	$ 7,931,810	$ 16,967,446	$ 20,272,367	$ 6,000,000
SOUTHERN EMBANKMENT AND ASSOCIATED	$ 36,477,634	$ 26,796,571	$ 18,924,000	$ 7,124,041	$ 12,886,857	$ 19,100,539
MITIGATION AND ASSOCIATED INFRASTRUCTURE	$ 89,296,712	$ 86,932,729	$ 500,000	$ 103,340	$ 385,423	$ 1,360,000
WP-38 Upstream Staging	$ 178,315,041	$ 25,594,461	$ 25,740,000	$ 1,676,603	$ 18,657,853	$ 32,450,000
IN-TOWN FLOOD PROTECTION	$ 38,003,010	$ 38,022,658	$ -	$ -	$ -	$ -
ENGINEERING & DESIGN FEES	**$ 58,286,711**	**$ 47,627,663**	**$ 3,180,000**	**$ 1,661,672**	**$ 3,022,922**	**$ 4,440,000**
Management, Legal, Financial, Procurement	$ 11,400,023	$ 8,276,176	$ 1,200,000	$ 673,434	$ 1,173,434	$ 4,000,000
WORK-IN-KIND PROGRAMS (WIK) STUDIES	$ 19,648,495	$ 16,284,902	$ 1,480,000	$ 713,017	$ 1,425,517	$ 440,000
INDICATIVE DESIGN	$ 6,943,014	$ 6,974,899	$ -	$ 95,822	$ 95,822	$ -
(LERRDs) - LAND, EASEMENTS, ROW, RELOCATION	$ 327,177	$ 449,026	$ 100,000	$ 23,420	$ 23,420	$ -
PERMITTING	$ 5,135,334	$ 5,067,412	$ 355,000	$ 155,980	$ 304,730	$ -
CERTIFICATION	$ 2,050,000	$ -	$ -	$ -	$ -	$ -
FMDA DETENTION FUNDING	$ 3,000,000	$ 721,568	$ -	$ -	$ -	$ -
OTHER MITIGATION PROJECTS	$ 9,782,669	$ 9,853,680	$ 45,000	$ -	$ -	$ -
ENABLING WORK	$ -	$ -	$ -	$ -	$ -	$ -
PROGRAM MANAGEMENT\LEGAL\FINANCIAL\PROCUREMENT	**$ 126,946,427**	**$ 77,258,615**	**$ 12,421,080**	**$ 7,511,561**	**$ 12,814,094**	**$ 15,250,000**
MANAGEMENT, LEGAL, FINANCIAL, PROCUREMENT	$ 126,946,427	$ 76,247,717	$ 11,125,000	$ 7,058,024	$ 11,820,524	$ 13,950,000
DIVERSIONAUTHORITYOPERATIONS	$ -	$ 1,010,899	$ 1,296,080	$ 453,537	$ 993,570	$ 1,300,000
CONTINGENCY	**$ 255,649,296**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
SYSTEM WIDE CONTINGENCY	$ 62,752,404	$ -	$ -	$ -	$ -	$ -
DIVERSION CHANNEL AND ASSOCIATED INFRASTRUCTURE	$ 10,292,354	$ -	$ -	$ -	$ -	$ -
SOUTHERN EMBANKMENT AND ASSOCIATED	$ 118,075,000	$ -	$ -	$ -	$ -	$ -
OTHER MITIGATION PROJECTS	$ 2,000,000	$ -	$ -	$ -	$ -	$ -
IN-TOWN FLOOD PROTECTION	$ 26,409,867	$ -	$ -	$ -	$ -	$ -
ENABLING WORK	$ -	$ -	$ -	$ -	$ -	$ -
LAND ACQUISITION	$ 36,119,671	$ -	$ -	$ -	$ -	$ -
DEBT SERVICE \ MAINTENANCE	**$ -**	**$ 35,605,432**	**$ 8,120,168**	**$ 5,770,398**	**$ 9,819,649**	**$ 6,884,000**
Debt Service	$ -	$ 35,420,473	$ 7,990,168	$ 5,697,202	$ 9,692,286	$ 6,800,000
Maintenance	$ -	$ 184,958	$ 130,000	$ 73,196	$ 127,363	$ 84,000
Report Totals	**$ 2,754,350,297**	**$ 668,831,939**	**$ 219,912,490**	**$ 91,850,666**	**$ 172,716,223**	**$ 171,726,911**





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METRO FLOOD DIVERSION AUTHORITY (MFDA)

DETAILS TO BE PROVIDED AT A LATER DATE

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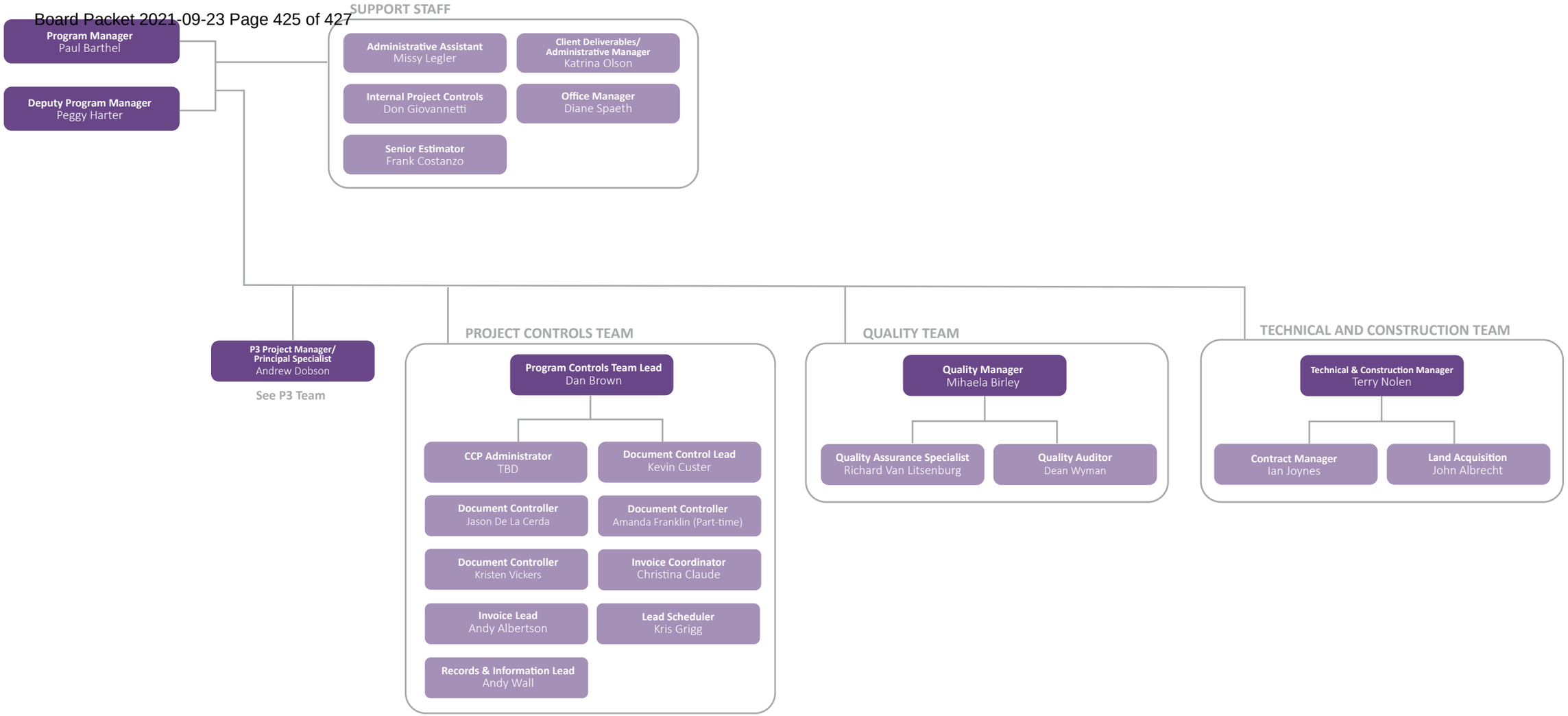

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MFDA CONSULTANT - PROJECT MANAGEMENT CONSULTANT (PMC)

P3 Project Manager/ Deputy Manager
Andrew Dobson

P3 Administrative Assistant
TBD

CONSTRUCTION MONITORING TEAM

P3 Construction Manager/H&S
Terry Nolen

- **P3 Construction Manager Assistant** — Ian Joynes*
- **P3 Field Monitor/Earthworks/ Structures/O&M** — TBD
- **P3 Field Monitor/Earthworks/ Structures/O&M** — TBD
- **P3 Field Monitor/Rail Works/O&M** — Mike Salo
- **P3 Field Monitor/SCADA & Commissioning & M&E** — TBD
- **P3 Field Monitor/Transportation** — TBD
- **P3 Independent Testing** — Braun Intertec
- **P3 Land Coordinator** — RRVA — US Bank
- **P3 Safety Lead** — Zach Crisman
- **P3 Surveyor** — TBD

ENVIRONMENTAL TEAM

P3 Environmental Manager
Katey Levihn

- **P3 Environmental Specialist/Field Monitor** — TBD
- **P3 Landscaping & Planting Specialist** — TBD
- **P3 Permit/Compliance Coordinator** — Megan Karl
- **P3 Permit/Environmental Specialist** — Megan Karl
- **P3 Resilience Coordinator** — Luuceo, Quin Mackenzie, Bronwyn Worrick

PROJECT CONTROLS TEAM

P3 Program Controls Team Lead
Dan Brown

- **P3 CCP Administrator** — TBD
- **P3 Document Control Lead** — Kevin Custer
- **P3 Document Controller** — Jason De La Cerda
- **P3 Document Controller** — Amanda Franklin
- **P3 Document Controller** — Kristen Vickers
- **P3 Invoice Coordinator** — Christina Claude
- **P3 Invoice Lead** — Andy Albertson
- **P3 Lead Scheduler** — Kris Grigg
- **P3 Records & Information Lead** — Andy Wall

QUALITY TEAM

P3 Quality Manager
Mihaela Birley

- **P3 Quality Assurance Specialist** — TBD
- **P3 Quality Auditor** — TBD

RISK/COMMERCIAL TEAM

P3 Risk/Commercial Manager
James McCann

- **P3 Claims Lead** — TBD
- **P3 Claims Specialist** — TBD
- **P3 Finance Advisor** — Ernst & Young IA
- **P3 Insurance Advisor** — AON
- **P3 Legal Rep** — TBD
- **P3 Consultant** — TBD
- **P3 Risk Coordinator** — TBD

SUBMITTALS COORDINATION TEAM

P3 Submittals Manager
Sue Brinson

- **P3 Submittals Coordinator** — TBD
- **P3 Submittal Coordinator - BNSF** — TBD
- **P3 Submittal Coordinator - Public Agency** — TBD
- **P3 Submittal Coordinator - Utilities** — TBD

TECHNICAL TEAM

P3 Deputy Manager/Technical Manager
Phil Kutz

- **P3 BNSF Coordinator** — Jason Ruth
- **P3 Technical Coordinator** — TBD
- **P3 Third Parties Coordinator** — TBD
- **P3 Traffic Specialist** — TBD
- **P3 Utilities Coordinator** — David Dillman
- **ISight Drone Services** — Joey Schmit

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MFDA CONSULTANT - P3 TEAM

DESIGN LEAD

- **Design Lead** — Houston-Moore Engineering (HMG), Houston Engineering
  - Senior Advisor & Principal: Gregg Thielman
  - Project Manager: Greg Thompson
  - Bridge & Structural Design Lead: Jeremy Mc
  - Field Surveying Lead: Jim Schlieman
  - Hydrology & Hydraulics Lead: Greg Thompson
  - Levee & Floodwall Design Lead: Randy Engelstad
  - Permit Acquisition & Compliance Lead: Mark Aanenson & Dan Korf
  - Transportation Design Lead: Adam Ruud
  - Geotechnical Lead: Braun Intertec, Inc., Nate McKinney
- **Design Lead** — Houston-Moore Engineering (HMG), Moore Engineering
  - Senior Advisor & Principal: Kevin Bucholz
  - Project Manager: Lyndon Pease
  - Demolition Lead: Chris Gross
  - Field Surveying Lead: Chris Heyer
  - Levee & Floodwall Design Lead: Chris Gross
  - P3 Support Lead: Lyndon Pease
  - SEAI Design Review Lead: Lyndon Pease
  - Utility Relocation Lead: Chris Gross
  - Recreation & Use Planning Lead: SRF Consulting, Jacob Nordick

P3 LEGAL

- **P3 Legal Advisor** — Ashurst LLP
  - Co-Chairman/Managing Partner: Andy Fraiser
  - Attorney: Emily Grunstein
  - Attorney: Ross McKinnon

FINANCIAL

- **Finacial Advisor** — Ernst & Young Infrastructure Advisors, LLC (EYIA)
  - Senior Associate: Trisha Patel
  - Senior Managing Director: Neil McMonagle
  - Senior Vice President: James Wise
  - US Transaction Infrastructure Leader: Tom Rousakis
  - Vice President: Steve Pangle

INSURANCE

- **Insurance Advisor** — AON Risk Services
  - Director of Analytics: Mike DeLio
  - Executive VP and Managing Director: Sal Perrucci
  - Managing Director: Brian DeBruin

LEGAL

- **Legal Advisor** — Ohnstad Twichell (OT)
  - General Counsel to the DA: John Shockley
  - Attorney — Utilities & MOU: Katie Bertsch
  - Attorney — Utilities & MOU: Tyler Leverington
  - Attorney — Real Estate: Lukas Andrud
  - Attorney — Utilities & MOU: Kathryn DelZoppo
  - Attorney — xxx: Christopher McShane

PROPERTY AND LANDS MANAGEMENT

- **Property and Lands Management Advisor** — Advanced Engineering and Environmental Services (AE2S)
  - Principal in Charge: Grant Meyer
  - Program Manager: Eric Dodds
  - Third Party Lands Program Consultant - Appraisal Firm: Compass
  - Digital Marketing Specialist: Taylor Corbett
  - Digital Marketing Specialist: Cody Schuler
  - Third Party Lands Program Consultant - Appraisal Firm: Crown
  - Engineer in Training: Matthew Mazourek
  - Land Surveyor: Steven Rude
  - Third Party Lands Program Consultant - Appraisal Firm: G.E. Bock
  - Land Surveyor: Clarence Zimmel
  - Lead GIS Specialist: Hope Records
  - Third Party Lands Program Consultant - Appraisal Firm: Integra
  - Marketing Coordinator: Zack Otteson
  - Project Assistant: Mindy Sorby
  - Third Party Lands Program Consultant - Appraisal Firm: Patchin Messner
  - Project Coordinator: Sabrina Tusa
  - Project Manager: Jason Kosmatka
  - Third Party Lands Program Consultant - Appraisal Firm: Tinjum
  - Project Manager Real Estate Program: Dean Vetter
  - Project Manager Real Estate Program: Jessica Warren
  - Third Party Lands Program Consultant - Land Firm: HDR
  - Project Manager Real Estate Program: Carol Wickenheiser
  - Senior Consultant: Brent Bogar
  - Third Party Lands Program Consultant - Land Firm: ProSource
  - Survey Practice Leader: Nick Stattelman
  - Water Resources PL: Amber Lefers
  - Third Party Lands Program Consultant - Land Firm: SRF
  - Web Developer: Mike Witt
  - Third Party Lands Program Consultant - Land Firm: Ulteig

VIDEOGRAPHY

- **Videography** — C Three Media
  - Co-Founder & Lead Editor: Chandler Dick
  - Co-Founder: Landon Dick

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MFDA CONSULTANTS - OTHER