

FLOOD SALES TAX COMMITTEE
AGENDA FOR MAY 5, 2014

Cass County Commission Room

1:00 PM

1. Call to Order
2. Approve minutes from previous meeting
3. Flood sales tax fund update
4. Status of previously approved projects
5. Review of projects and selection of projects to be funded in 2014
6. Other business
7. Adjournment

cc: Local Media

**FLOOD SALES TAX COMMITTEE
AGENDA FOR MAY 5, 2014**

Cass County Commission Room

1:00 PM

1. Call to Order
2. Approve minutes from previous meeting
3. Flood sales tax fund update
4. Status of previously approved projects
5. Review of projects and selection of projects to be funded in 2014
6. Other business
7. Adjournment

cc: Local Media

ACTIVE SALES TAX MITIGATION PROJECT REQUESTS

4/30/2014

NO.	PROJECT DESCRIPTION	POINT OF CONTACT	TOTAL EST. COST	COUNTY \$ REQUESTED	OTHER FUNDING	OWNERSHIP	COUNTY FUNDS APPROVED TO DATE	COUNTY NOTES
1	Argusville Levee Recertification	Brandon Oye, Moore Eng.	\$600,000	50%	None	City of Argusville	\$ 169,925.00	
18	Mapleton Levee Recertification	Brandon Oye, Moore Eng.	\$2,045,000	\$650,825	State Water Commission \$743,350	City of Mapleton		
38	Mapleton storm sewer lift station	Brandon Oye, Moore Eng.	\$355,000	\$77,508 or 23.5%	CDBG \$197,492	City of Mapleton	52,500.00	
44	Pontiac Township Improvement District No. 73	Maple River WRD/Carol Harbeke Lewis	\$1,560,000	\$500,000	MR WRD and Special Assessment District	Maple River Water Resource District	\$ 448,000.00	FEB 14 - Request to increase County funding to \$500,000
61	Upper Maple River Dam	Carol Lewis	\$2,824,000	\$706,000 (50% of local)	MS WRD and Special Assessment District	Maple-Steel Water Resource District		
63	Lake Bertha Flood Water Detention	Carol Lewis	\$677,500	\$242,500	\$193,000 SWC, \$242,250 MRWRD	Maple River Water Resource District		
64	Detention Project Development	Carol Lewis	\$1,000,000	\$87,500	\$500,000 SWC, \$325,000 RRJWRB, \$87,500 CCJWRD	Cass County Joint Water Resource District		



Project No. 64

RECEIVED

FEB 14 2014

CASS COUNTY COMMISSION

February 13, 2014

Cass County
Joint Water
Resource
District

Keith Berndt
Cass County Administrator
P.O. Box 2806
Fargo, ND 58108-2806

Mark Brodshaug
Chairman
Fargo, North Dakota

Dear Keith:

Rodger Olson
Manager
Leonard, North Dakota

RE: Cass County Flood Sales Tax Flood Risk Reduction Projects

Dan Jacobson
Manager
West Fargo, North Dakota

The Cass County Joint Water Resource District (CCJWRD) has reviewed your letter dated January 23, 2014, regarding flood risk reduction projects seeking Cass County sales tax funding. The following projects can be removed from the list of previously submitted projects:

Michael Buringrud
Manager
Gardner, North Dakota

- Project No. 30 - Rush River WRD Study of Retention Projects. The study has been completed.
- Project No. 31 - Maple River WRD Water Retention Plan. The plan has been completed.
- Project No. 35 - Upper Red River Watershed Retention Plan. This project was recently completed by the Red River Basin Commission with Diversion Authority funding.

Raymond Wolfer
Manager
Argusville, North Dakota

At this time, we would appreciate it if *Detention Project Development* could be added to the list of projects. While we are not requesting immediate approval of this project, we do anticipate a request for formal approval within the next 6 to 18 months. The point of contact is Mark Brodshaug, CCJWRD Chairman. The proposed funding for the \$1,000,000 project is as follows:

- \$500,000 North Dakota State Water Commission;
- \$325,000 Red River Joint Water Resource District;
- \$87,000 CCJWRD; and
- \$87,500 Cass County flood sales tax.

Carol Harbeke Lewis
Secretary-Treasurer

1201 Main Avenue West
West Fargo, ND 58078-1301

701-298-2381
FAX 701-298-2397
wrld@co.cass.nd.us
casscountygov.com

The purpose of this effort is to develop specific detention projects that benefit Cass County. The detention project sites were identified in the recently completed comprehensive watershed studies. The product will result in preliminary design reports for multiple sites that will detail the impoundment design and estimated cost. This will allow the CCJWRD to move the projects toward permitting and construction.

Keith Berndt
Page 2
February 13, 2014

If you have any questions, please feel free to contact our project engineer,
Chad Engels, Moore Engineering, Inc., at 701-499-5810.

Sincerely,

CASS COUNTY JOINT WATER RESOURCE DISTRICT



Carol Harbeke Lewis
Secretary-Treasurer



RECEIVED

FEB 18 2014

CASS COUNTY COMMISSION

February 14, 2014

Maple River
Water Resource
District

Rodger Olson
Chairman
Leonard, North Dakota

Jurgen Suhr
Manager
Page, North Dakota

Gerald Melvin
Manager
Buffalo, North Dakota

Keith Berndt
Cass County Administrator
P.O. Box 2806
Fargo, ND 58108-2806

Dear Keith:

RE: Cass County Flood Sales Tax Flood Risk Reduction Projects

The Maple Water Resource District (the District) has reviewed your letter dated January 23, 2014, regarding flood risk reduction projects seeking Cass County sales tax funding. At this time we have the following comments regarding the list of previously submitted projects:

- Project No. 36 - Upper Maple River Dam Environmental Assessment. The environmental assessment process has been completed and the Maple-Steele Joint Water Resource District is now moving forward with the design and construction phases of the project.
- Project No. 44 - Pontiac Township Improvement District No. 73. The original request was made at the time the assessment vote passed and the requested amount was \$778,000, which was 50% of the estimated local share at that time. The sales tax committee awarded \$448,000 in funding. This amount was 25% of the estimated local share which had been adjusted higher due to design changes following the vote. After this funding was allocated, the final design was completed and the project was let for bids. The bids came in significantly higher than anticipated and the Maple River Water Resource District made changes to the plan to reduce overall cost of the project; however, the local share of the project has increased to approximately \$2 million. The Maple River Water Resource District respectfully requests the committee's consideration for additional funding for this project. Maintaining funding in the amount of 25% of the local share would result in an additional \$52,000 and a total amount of \$500,000. Attached is the most recent Engineer's Opinion of Probable Cost detailing the requested amount.

Carol Harbeke Lewis
Secretary-Treasurer

1201 Main Avenue West
West Fargo, ND 58078-1301

701-298-2381
FAX 701-298-2397
wrд@casscountynд.gov
www.casscountynд.gov

- Project No. 61 - Upper Maple River Dam. The District's most recent request for this project, dated August 5, 2013, included a cost-share amount from the sales tax in the amount of \$950,000, which was 50% of the estimated local cost. The voting process for the project was anticipated to be completed in March of 2014, with construction anticipated to commence in July. In order to assist the District in meeting those timeframes, the committee granted the District \$17,500 to fund some of the up-front design efforts. The District is still on track at this point to complete the voting process by the end of April and proceed with construction upon a successful vote. At this point in time, the District would like to renew its request for funding of the construction phase of the project. While overall cost of the project has not changed significantly, funding has been secured from both the North Dakota State Water Commission and the Red River Joint Water Resource District and the resulting local share has decreased. The District respectfully requests funding in the amount of \$706,000, which is 50% of the estimated eligible local cost at this time. Attached is the most recent Engineer's Opinion of Probable Cost detailing the requested amount.

At this time, we would appreciate it if *Lake Bertha Flood Water Detention* could be added to the list of projects. While we are not requesting immediate approval of this project, we do anticipate a request for formal approval within the next 6 to 18 months. The point of contact is Rodger Olson, Maple River Water Resource District Chairman. The proposed funding for the \$677,500 project is as follows:

- \$193,000 North Dakota State Water Commission;
- \$242,250 The Maple River Water Resource District; and
- \$242,250 Cass County flood sales tax.

This project would entail installing an outlet on Lake Bertha near Alice, North Dakota, that would allow the existing excess water to be removed from the lake and allow for the lake to be managed for floodwater retention storage in the future. Water has been so high in recent years that the lake is discharging in an uncontrolled fashion into a tributary leading to the Embden Dam. Many roadways and properties in and around the lake are currently inundated and the proposed project would return most of the roadways to service. Future operation of the project would allow the lake to be drawn down in the fall of the year to allow for spring runoff to be stored before being allowed to discharge in a controlled manner downstream to Embden Dam and eventually the Maple River.

Keith Berndt
Page 3
February 14, 2014

If you have any questions, please feel free to contact our project engineer,
Mike Opat, Moore Engineering, Inc., at 701-499-5867.

Sincerely,

MAPLE RIVER WATER RESOURCE DISTRICT



Carol Harbeke Lewis
Secretary-Treasurer

Enclosures

**Upper Maple River Dam
 Maple-Steele Joint Water Resource District**

Engineer's Opinion of Probable Cost

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES				
					NDSWC (60%)	RRJWRD (65%)	CASS COUNTY (60%)	LOCAL	
<u>PART 1 (Dam - Section 35)</u>									
1. Mobilization	L.Sum	1	\$100,000.00	\$100,000.00	\$60,000.00	\$26,000.00	\$7,000.00	\$7,000.00	
2. Clearing & Grubbing	L.Sum	1	\$20,000.00	\$20,000.00	\$12,000.00	\$5,200.00	\$1,400.00	\$1,400.00	
3. Dewatering	L.Sum	1	\$100,000.00	\$100,000.00	\$60,000.00	\$26,000.00	\$7,000.00	\$7,000.00	
4. Topsoil - Stripping & Spreading	S.Y.	60,000	\$1.50	\$90,000.00	\$54,000.00	\$23,400.00	\$6,300.00	\$6,300.00	
5. Excavation - Core	C.Y.	25,000	\$3.00	\$75,000.00	\$45,000.00	\$19,500.00	\$5,250.00	\$5,250.00	
6. Embankment - Core	C.Y.	60,000	\$5.00	\$300,000.00	\$180,000.00	\$78,000.00	\$21,000.00	\$21,000.00	
7. Aggregate - Chimney Drain	C.Y.	25,000	\$30.00	\$750,000.00	\$450,000.00	\$195,000.00	\$52,500.00	\$52,500.00	
8. Embankment - Shell	C.Y.	55,000	\$3.00	\$165,000.00	\$99,000.00	\$42,900.00	\$11,550.00	\$11,550.00	
9. RCP - 36"	L.F.	250	\$200.00	\$50,000.00	\$30,000.00	\$13,000.00	\$3,500.00	\$3,500.00	
10. Reinforced Concrete - Primary Spillway	C.Y.	325	\$850.00	\$276,250.00	\$165,750.00	\$71,825.00	\$19,337.50	\$19,337.50	
11. Trash Rack and Anti-Vortex	L.Sum	1	\$10,000.00	\$10,000.00	\$6,000.00	\$2,600.00	\$700.00	\$700.00	
12. Reinforced Concrete - Straight-drop spillway	C.Y.	1,150	\$850.00	\$977,500.00	\$586,500.00	\$254,150.00	\$68,425.00	\$68,425.00	
13. Sheet Pile - PZ 22	S.F.	976	\$50.00	\$48,800.00	\$29,280.00	\$12,688.00	\$3,416.00	\$3,416.00	
14. Riprap - All Sizes	C.Y.	5,300	\$80.00	\$424,000.00	\$254,400.00	\$110,240.00	\$29,680.00	\$29,680.00	
15. Seeding	Acre	35	\$1,500.00	\$52,500.00	\$31,500.00	\$13,650.00	\$3,675.00	\$3,675.00	
16. Material Testing	L.Sum	1	\$50,000.00	\$50,000.00	\$0.00	\$32,500.00	\$8,750.00	\$8,750.00	
17. Storm Water Management	L.Sum	1	\$25,000.00	\$25,000.00	\$15,000.00	\$6,500.00	\$1,750.00	\$1,750.00	
<u>PART 2 (Tie-Back Levee - Section 26)</u>									
1. Embankment	C.Y.	2,400	\$4.00	\$9,600.00	\$5,760.00	\$2,496.00	\$672.00	\$672.00	
2. CMP - 36"	L.F.	150	\$50.00	\$7,500.00	\$4,500.00	\$1,950.00	\$525.00	\$525.00	
3. Flap Gate - 36" Cast Iron	Each	3	\$3,000.00	\$9,000.00	\$5,400.00	\$2,340.00	\$630.00	\$630.00	
4. Flared End Section - 36" CMP	Each	3	\$600.00	\$1,800.00	\$1,080.00	\$468.00	\$126.00	\$126.00	
5. Riprap - All Sizes	C.Y.	60	\$80.00	\$4,800.00	\$2,880.00	\$1,248.00	\$336.00	\$336.00	
6. Seeding	Acre	11	\$1,500.00	\$16,500.00	\$9,900.00	\$4,290.00	\$1,155.00	\$1,155.00	
7. Storm Water Management	L.Sum	1	\$1,500.00	\$1,500.00	\$900.00	\$390.00	\$105.00	\$105.00	
<u>PART 3 (Road Raise - Section 22/27)</u>									
1. Bridge - Remove Existing	L.Sum	1	\$10,000.00	\$10,000.00	\$6,000.00	\$2,600.00	\$700.00	\$700.00	
2. Embankment	C.Y.	15,500	\$4.00	\$62,000.00	\$37,200.00	\$16,120.00	\$4,340.00	\$4,340.00	
3. Aggregate Surface Course	C.Y.	850	\$25.00	\$21,250.00	\$12,750.00	\$5,525.00	\$1,487.50	\$1,487.50	
4. RCB - 12' X 9'	L.F.	232	\$1,250.00	\$290,000.00	\$174,000.00	\$75,400.00	\$20,300.00	\$20,300.00	
5. End Section - 12' X 9' RCB	Each	4	\$17,500.00	\$70,000.00	\$42,000.00	\$18,200.00	\$4,900.00	\$4,900.00	
6. Riprap - All Sizes	C.Y.	225	\$80.00	\$18,000.00	\$10,800.00	\$4,680.00	\$1,260.00	\$1,260.00	
7. Select Backfill	C.Y.	2,800	\$25.00	\$70,000.00	\$42,000.00	\$18,200.00	\$4,900.00	\$4,900.00	
8. Seeding	Acre	4	\$1,500.00	\$6,000.00	\$3,600.00	\$1,560.00	\$420.00	\$420.00	
9. Storm Water Management	L.Sum	1	\$1,500.00	\$1,500.00	\$900.00	\$390.00	\$105.00	\$105.00	
<u>PART 4 (Sussex Dam)</u>									
1. Excavation - Dam Breach	C.Y.	1,000	\$8.00	\$8,000.00	\$4,800.00	\$2,080.00	\$560.00	\$560.00	
2. Dewatering	L.Sum	1	\$10,000.00	\$10,000.00	\$6,000.00	\$2,600.00	\$700.00	\$700.00	
3. Embankment	C.Y.	1,000	\$4.00	\$4,000.00	\$2,400.00	\$1,040.00	\$280.00	\$280.00	
4. Riprap - All Sizes	C.Y.	400	\$80.00	\$32,000.00	\$19,200.00	\$8,320.00	\$2,240.00	\$2,240.00	
5. Seeding	Acre	10	\$1,500.00	\$15,000.00	\$9,000.00	\$3,900.00	\$1,050.00	\$1,050.00	
6. Storm Water Management	L.Sum	1	\$1,500.00	\$1,500.00	\$900.00	\$390.00	\$105.00	\$105.00	
<u>PART 5 (Wetlands)</u>									
1. Excavation	C.Y.	15,000	\$3.00	\$45,000.00	\$27,000.00	\$11,700.00	\$3,150.00	\$3,150.00	
2. Seeding-Wetland	Acre	5	\$3,000.00	\$15,000.00	\$9,000.00	\$3,900.00	\$1,050.00	\$1,050.00	
3. Seeding-Buffer	Acre	3	\$1,500.00	\$4,500.00	\$2,700.00	\$1,170.00	\$315.00	\$315.00	
4. Storm Water Management	L.Sum	1	\$1,500.00	\$1,500.00	\$900.00	\$390.00	\$105.00	\$105.00	
Total Construction					\$4,250,000.00	\$2,520,000.00	\$1,124,500.00	\$302,750.00	\$302,750.00
Previous Watershed/Site Studies					\$21,700.00	\$0.00	\$0.00	\$0.00	\$21,700.00
Preliminary Site Development					\$71,350.00	\$0.00	\$0.00	\$0.00	\$71,350.00
Permitting Phase I					\$25,000.00	\$0.00	\$0.00	\$0.00	\$25,000.00
Permitting Phase II					\$26,700.00	\$0.00	\$0.00	\$0.00	\$26,700.00
Project Development					\$40,000.00	\$0.00	\$26,000.00	\$7,000.00	\$7,000.00
Design & Construction Engineering					\$650,000.00	\$0.00	\$422,500.00	\$113,750.00	\$113,750.00
Contingencies					\$865,250.00	\$252,000.00	\$398,612.50	\$107,318.75	\$107,318.75
Legal & Administration					\$50,000.00	\$0.00	\$32,500.00	\$8,750.00	\$8,750.00
Right of Way					\$1,750,000.00	\$1,050,000.00	\$455,000.00	\$122,500.00	\$122,500.00
Right-of-Way Administration					\$50,000.00	\$0.00	\$32,500.00	\$8,750.00	\$8,750.00
Legal Descriptions & R/W ROW Monumenting					\$50,000.00	\$0.00	\$32,500.00	\$8,750.00	\$8,750.00
Material Testing					\$100,000.00	\$0.00	\$65,000.00	\$17,500.00	\$17,500.00
Operation/Maintenance Plan & Misc.					\$40,000.00	\$0.00	\$26,000.00	\$7,000.00	\$7,000.00
Fiscal					\$10,000.00	\$0.00	\$6,500.00	\$1,750.00	\$1,750.00
TOTAL PROJECT					\$8,000,000.00	\$3,822,000.00	\$2,621,612.50	\$705,818.75	\$650,568.75

Pontiac Township Drainage Improvement District No. 73

Maple River Water Resource District
Cass County, ND

Engineer's Statement of Probable Cost

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES		
					NDSWC	LOCAL	
Base Bid							
Part I - Reach Construction							
1.	HDPE Dual-Wall Pipe - 10"	LF	140	\$35.46	\$4,964.40	\$2,233.98	\$2,730.42
2.	Bored Steel Casing Pipe (SCP) - 30"	LF	239	\$380.62	\$90,968.18	\$40,935.68	\$50,032.50
3.	Inlet Structure - Concrete	EA	7	\$42,233.29	\$295,633.03	\$133,034.86	\$162,598.17
4.	Bollards	EA	32	\$629.97	\$20,159.04	\$9,071.57	\$11,087.47
5.	Concrete Pad	EA	8	\$1,575.00	\$12,600.00	\$5,670.00	\$6,930.00
6.	Temporary Cofferdam	EA	10	\$10,499.93	\$104,999.30	\$47,249.69	\$57,749.62
7.	Riprap - Class III	CY	515	\$78.75	\$40,556.25	\$18,250.31	\$22,305.94
8.	Riprap - Class IV	CY	130	\$78.75	\$10,237.50	\$4,606.88	\$5,630.63
9.	Riprap Filter Blanket	SY	1,215	\$1.52	\$1,846.80	\$831.06	\$1,015.74
10.	Agri-Drain Inline Water Control Structure - 10'x12"	EA	1	\$2,186.55	\$2,186.55	\$983.95	\$1,202.60
11.	Intake Assembly	EA	1	\$461.32	\$461.32	\$207.59	\$253.73
12.	Excavation - Channel	CY	31,000	\$4.93	\$152,830.00	\$68,773.50	\$84,056.50
13.	Spoil Bank Leveling	MILE	1	\$2,625.19	\$2,625.19	\$1,181.34	\$1,443.85
14.	Intercept Culvert - 18" CSP	LF	60	\$55.62	\$3,337.20	\$1,501.74	\$1,835.46
15.	Flared End Section - 18" CSP	EA	1	\$348.97	\$348.97	\$157.04	\$191.93
Part II - Remaining Construction							
16.	Mobilization	LS	1	\$168,462.00	\$168,462.00	\$75,807.90	\$92,654.10
17.	Dewatering	LS	1	\$6,300.00	\$6,300.00	\$2,835.00	\$3,465.00
18.	IBS Stop Logs (2 sets) & Mounting Hardware for 7 Structures	LS	1	\$20,112.60	\$20,112.60	\$9,050.67	\$11,061.93
19.	30" CSP Culvert Crossing (48th ST SE)	LS	1	\$2,190.30	\$2,190.30	\$985.64	\$1,204.67
20.	Rock Checks - Temporary	EA	4	\$1,050.00	\$4,200.00	\$1,890.00	\$2,310.00
21.	Rock Checks - Permanent	EA	2	\$1,260.00	\$2,520.00	\$1,134.00	\$1,386.00
22.	Storm Water Management	LS	1	\$2,625.00	\$2,625.00	\$1,181.25	\$1,443.75
23.	Material Testing	INVOICE	ALLOWANCE	\$15,000.00	\$15,000.00	\$0.00	\$15,000.00
24.	Final Grading - Open Channel	LS	1	\$5,250.37	\$5,250.37	\$2,362.67	\$2,887.70
25.	Seeding	ACRE	15	\$1,359.75	\$20,396.25	\$9,178.31	\$11,217.94
26.	Mulch	ACRE	60	\$288.75	\$17,325.00	\$7,796.25	\$9,528.75
27.	Topsoil - Stripping and Spreading	ACRE	50	\$1,575.05	\$78,752.50	\$35,438.63	\$43,313.88
28.	Utilities - Services	INVOICE	ALLOWANCE	\$1,000.00	\$1,000.00	\$450.00	\$550.00
Alternate No. 1 - HDPE Pipe Option							
1.	HDPE Dual-Wall Pipe - 36"	LF	3,877	\$80.39	\$311,672.03	\$140,252.41	\$171,419.62
2.	HDPE Dual-Wall Pipe - 30"	LF	12,482	\$70.99	\$886,097.18	\$398,743.73	\$487,353.45
3.	HDPE Dual-Wall Pipe - 12"	LF	189	\$44.58	\$8,425.62	\$3,791.53	\$4,634.09
4.	Control Structure - 4'x4' Precast Concrete Box	EA	7	\$12,833.74	\$89,836.18	\$40,426.28	\$49,409.90
5.	Manhole - 48" Precast Concrete	EA	8	\$3,851.21	\$30,809.68	\$13,864.36	\$16,945.32
6.	Riser - SDR 26 PVC	EA	15	\$2,187.57	\$32,813.55	\$14,766.10	\$18,047.45
7.	Anti-Seep Collar - HDPE	EA	5	\$1,575.00	\$7,875.00	\$3,543.75	\$4,331.25
8.	Flared End Section - 30" CSP	EA	8	\$614.60	\$4,916.80	\$2,212.56	\$2,704.24
9.	Flared End Section - 36" CSP	EA	1	\$797.44	\$797.44	\$358.85	\$438.59
				Total Construction	\$2,461,131.23	\$1,100,759.05	\$1,360,372.18
				Preliminary Engineering	\$39,486.60	\$0.00	\$39,486.60
				Engineering - Design & Construction	\$393,781.00	\$0.00	\$393,781.00
				Contingencies (10%)	\$246,113.12	\$110,750.91	\$135,362.22
				Legal Fees	\$30,000.00	\$0.00	\$30,000.00
				Administrative Fees	\$0.00	\$0.00	\$0.00
				Right-of-Way - Land Acquisition	\$60,195.00	\$0.00	\$60,195.00
				Engineering - Right-of-Way	\$12,500.00	\$0.00	\$12,500.00
				Easements & Monuments	\$40,000.00	\$0.00	\$40,000.00
				Utilities - Construction	\$40,000.00	\$18,000.00	\$22,000.00
				Engineering - Utilities	\$1,000.00	\$0.00	\$1,000.00
				Fiscal	\$5,000.00	\$0.00	\$5,000.00
				TOTAL PROJECT COST	\$3,329,206.95	\$1,229,509.96	\$2,099,696.99

Pontiac Township Drainage Improvement District No. 73
Maple River Water Resource District
Cass County, ND

Engineer's Statement of Probable Cost

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES		
					NDSWC	LOCAL	
Part I - Reach Construction							
1. HDPE Dual-Wall Pipe - 10"	LF	140	\$35.46	\$4,964.40	\$2,233.98	\$2,730.42	
2. Bored Steel Casing Pipe (SCP) - 30"	LF	239	\$380.62	\$90,968.18	\$40,935.68	\$50,032.50	
3. Inlet Structure - Concrete	EA	7	\$42,233.29	\$295,633.03	\$133,034.86	\$162,598.17	
4. Bollards	EA	32	\$629.97	\$20,159.04	\$9,071.57	\$11,087.47	
5. Concrete Pad	EA	8	\$1,575.00	\$12,600.00	\$5,670.00	\$6,930.00	
6. Temporary Cofferdam	EA	10	\$10,499.93	\$104,999.30	\$47,249.69	\$57,749.62	
7. Riprap - Class III	CY	515	\$78.75	\$40,556.25	\$18,250.31	\$22,305.94	
8. Riprap - Class IV	CY	130	\$78.75	\$10,237.50	\$4,606.88	\$5,630.63	
9. Riprap Filter Blanket	SY	1,215	\$1,846.80	\$2,243,850.00	\$831.06	\$1,015.74	
10. Agri-Drain In-line Water Control Structure - 10x12"	EA	1	\$2,186.55	\$2,186.55	\$983.95	\$1,202.60	
11. Intake Assembly	EA	1	\$461.32	\$461.32	\$207.59	\$253.73	
12. Excavation - Channel	CY	31,000	\$4.93	\$152,830.00	\$68,773.50	\$84,056.50	
13. Spoil Bank Leveling	MILE	1	\$2,625.19	\$2,625.19	\$1,181.34	\$1,443.85	
14. Intercept Culvert - 18" CSP	LF	60	\$55.62	\$3,337.20	\$1,501.74	\$1,835.46	
15. Flared End Section - 18" CSP	EA	1	\$348.97	\$348.97	\$157.04	\$191.93	
Part II - Remaining Construction							
16. Mobilization	LS	1	\$168,462.00	\$168,462.00	\$75,807.90	\$92,654.10	
17. Dewatering	LS	1	\$6,300.00	\$6,300.00	\$2,835.00	\$3,465.00	
18. IBS Stop Logs (2 sets) & Mounting Hardware for 7 Structures	LS	1	\$20,112.60	\$20,112.60	\$9,050.67	\$11,061.93	
19. 30" CSP Culvert Crossing (48th ST SE)	LS	1	\$2,190.30	\$2,190.30	\$985.64	\$1,204.67	
20. Rock Checks - Temporary	EA	4	\$1,050.00	\$4,200.00	\$1,890.00	\$2,310.00	
21. Rock Checks - Permanent	EA	2	\$1,260.00	\$2,520.00	\$1,134.00	\$1,386.00	
22. Storm Water Management	LS	1	\$2,625.00	\$2,625.00	\$1,181.25	\$1,443.75	
23. Material Testing	INVOICE	ALLOWANCE	\$15,000.00	\$15,000.00	\$0.00	\$15,000.00	
24. Final Grading - Open Channel	LS	1	\$5,250.37	\$5,250.37	\$2,362.67	\$2,887.70	
25. Seeding	ACRE	15	\$1,359.75	\$20,396.25	\$9,176.31	\$11,219.94	
26. Mulch	ACRE	60	\$288.75	\$17,325.00	\$7,796.25	\$9,528.75	
27. Topsoil - Stripping and Spreading	ACRE	50	\$1,575.05	\$78,752.50	\$35,438.63	\$43,313.88	
28. Utilities - Services	INVOICE	ALLOWANCE	\$1,000.00	\$1,000.00	\$450.00	\$550.00	
Alternate No. 2 - Spiral Rib Steel Pipe Option							
1. Spiral Rib Steel Pipe - 36"	LF	3,821	\$60.10	\$229,642.10	\$137,727.95	\$168,334.16	
2. Spiral Rib Steel Pipe - 30"	LF	12,360	\$72.84	\$899,302.40	\$405,136.08	\$495,166.32	
3. Spiral Rib Steel Pipe - 12"	LF	189	\$52.59	\$9,939.51	\$4,472.78	\$5,466.73	
4. Control Structure - CSP	EA	7	\$8,658.10	\$60,606.70	\$27,273.02	\$33,333.69	
5. Manhole - 48" CSP	EA	8	\$4,365.40	\$34,923.20	\$15,715.44	\$19,207.76	
6. Riser - CSP	EA	15	\$2,387.62	\$35,814.30	\$16,116.44	\$19,697.87	
7. Anti-Sleep Collar - CSP	EA	5	\$1,575.00	\$7,875.00	\$3,543.75	\$4,331.25	
8. Flared End Section - 30" CSP	EA	8	\$614.60	\$4,916.80	\$2,212.56	\$2,704.24	
9. Flared End Section - 36" CSP	EA	1	\$797.44	\$797.44	\$358.85	\$438.59	
Total Construction					\$2,449,125.20	\$1,095,356.34	\$1,353,768.86
Preliminary Engineering					\$39,486.60	\$0.00	\$39,486.60
Engineering - Design & Construction					\$391,860.03	\$0.00	\$391,860.03
Contingencies (10%)					\$244,912.52	\$110,210.63	\$134,701.89
Legal Fees					\$30,000.00	\$0.00	\$30,000.00
Administrative Fees					\$0.00	\$0.00	\$0.00
Right-of-Way - Land Acquisition					\$60,195.00	\$0.00	\$60,195.00
Engineering - Right-of-Way					\$12,500.00	\$0.00	\$12,500.00
Easements & Monuments					\$40,000.00	\$0.00	\$40,000.00
Utilities - Construction					\$40,000.00	\$18,000.00	\$22,000.00
Engineering - Utilities					\$1,000.00	\$0.00	\$1,000.00
Fiscal					\$5,000.00	\$0.00	\$5,000.00
TOTAL PROJECT COST					\$3,314,078.35	\$1,223,566.97	\$2,090,511.38



Pontiac Township Drainage Improvement District No. 73
Maple River Water Resource District
Cass County, ND

Engineer's Statement of Probable Cost

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES	
					MDSIWC	LOCAL
Base Bid						
Part I - Reach Construction						
1. HDPE Dual-Wall Pipe - 10"	LF	140	\$35.46	\$4,964.40	\$2,233.98	\$2,730.42
2. Bored Steel Casing Pipe (SCP) - 30"	LF	239	\$360.62	\$86,188.18	\$40,935.68	\$45,252.50
3. Inlet Structure - Concrete	EA	7	\$42,233.29	\$295,633.03	\$133,034.86	\$162,598.17
4. Bollards	EA	32	\$629.57	\$20,158.04	\$9,071.57	\$11,086.47
5. Concrete Pad	EA	8	\$1,575.00	\$12,600.00	\$5,670.00	\$6,930.00
6. Temporary Cofferdam	EA	10	\$10,499.93	\$104,999.30	\$47,249.69	\$57,749.62
7. Riprap - Class III	CY	515	\$78.75	\$40,562.25	\$18,250.31	\$22,311.94
8. Riprap - Class IV	CY	130	\$78.75	\$10,237.50	\$4,606.88	\$5,630.63
9. Riprap Filler Blanket	SY	1,215	\$1.52	\$1,846.80	\$831.06	\$1,015.74
10. Agr-Drain Inline Water Control Structure - 10"x12"	EA	1	\$2,186.55	\$2,186.55	\$983.95	\$1,202.60
11. Intake Assembly	EA	1	\$461.32	\$461.32	\$207.59	\$253.73
12. Excavation - Channel	CY	31,000	\$4.93	\$152,830.00	\$68,773.50	\$84,056.50
13. Spoil Bank Leveling	MILE	1	\$2,625.19	\$2,625.19	\$1,181.34	\$1,443.85
14. Intercept Culvert - 18" CSP	LF	60	\$55.62	\$3,337.20	\$1,501.74	\$1,835.46
15. Flared End Section - 18" CSP	EA	1	\$348.97	\$348.97	\$157.04	\$191.93
Part II - Remaining Construction						
16. Mobilization	LS	1	\$168,462.00	\$168,462.00	\$75,807.90	\$92,654.10
17. Dewatering	LS	1	\$6,300.00	\$6,300.00	\$2,835.00	\$3,465.00
18. IBS Stop Logs (2 sets) & Mounting Hardware for 7 Structures	LS	1	\$20,112.60	\$20,112.60	\$9,050.67	\$11,061.93
19. 30" CSP Culvert Crossing (48th ST SE)	LS	1	\$2,190.30	\$2,190.30	\$985.64	\$1,204.67
20. Rock Checks - Temporary	EA	4	\$1,050.00	\$4,200.00	\$1,890.00	\$2,310.00
21. Rock Checks - Permanent	EA	2	\$1,260.00	\$2,520.00	\$1,134.00	\$1,386.00
22. Storm Water Management	LS	1	\$2,625.00	\$2,625.00	\$1,181.25	\$1,443.75
23. Material Testing	INVOICE	ALLOWANCE	\$15,000.00	\$15,000.00	\$0.00	\$15,000.00
24. Final Grading - Open Channel	LS	1	\$5,250.37	\$5,250.37	\$2,362.67	\$2,887.70
25. Seeding	ACRE	15	\$1,359.75	\$20,396.25	\$9,178.31	\$11,217.94
26. Mulch	ACRE	60	\$288.75	\$17,325.00	\$7,795.25	\$9,529.75
27. Topsoil - Stripping and Spreading	ACRE	50	\$1,575.05	\$78,752.50	\$35,438.63	\$43,313.88
28. Utilities - Services	INVOICE	ALLOWANCE	\$1,000.00	\$1,000.00	\$450.00	\$550.00
Alternate No. 3 - RCP Option						
1. Reinforced Concrete Pipe - 36" Class II	LF	330	\$100.00	\$33,000.00	\$14,850.00	\$18,150.00
2. Reinforced Concrete Pipe - 36" Class III	LF	2,533	\$100.00	\$253,300.00	\$113,985.00	\$139,315.00
3. Reinforced Concrete Pipe - 36" Class IV	LF	986	\$150.00	\$147,900.00	\$66,555.00	\$81,345.00
4. Reinforced Concrete Pipe - 30" Class II	LF	5,543	\$90.00	\$498,870.00	\$224,491.50	\$274,378.50
5. Reinforced Concrete Pipe - 30" Class III	LF	4,016	\$90.00	\$361,440.00	\$162,648.00	\$198,792.00
6. Reinforced Concrete Pipe - 30" Class IV	LF	3,857	\$90.00	\$347,130.00	\$156,208.50	\$190,921.50
7. Reinforced Concrete Pipe - 12" Class II	LF	189	\$60.00	\$11,340.00	\$6,804.00	\$8,536.00
8. Control Structure - 4'x4' Precast Concrete Box	EA	7	\$13,400.00	\$93,800.00	\$42,210.00	\$51,590.00
9. Manhole - 48" Precast Concrete	EA	23	\$5,000.00	\$115,000.00	\$51,750.00	\$63,250.00
10. Anti-Sleep Collar - CSP	EA	5	\$1,900.00	\$9,500.00	\$4,275.00	\$5,225.00
11. Flared End Section - 30" RCP	EA	8	\$2,500.00	\$20,000.00	\$9,000.00	\$11,000.00
12. Flared End Section - 36" RCP	EA	1	\$3,000.00	\$3,000.00	\$1,350.00	\$1,650.00
Total Construction				\$2,985,947.75	\$1,338,926.49	\$1,647,021.26
Preliminary Engineering				\$39,486.60	\$0.00	\$39,486.60
Engineering - Design & Construction				\$477,751.64	\$0.00	\$477,751.64
Contingencies (10%)				\$298,594.78	\$134,367.65	\$164,227.13
Legal Fees				\$30,000.00	\$0.00	\$30,000.00
Administrative Fees				\$0.00	\$0.00	\$0.00
Right-of-Way - Land Acquisition				\$60,195.00	\$0.00	\$60,195.00
Engineering - Right-of-Way				\$12,500.00	\$0.00	\$12,500.00
Easements & Monuments				\$40,000.00	\$0.00	\$40,000.00
Utilities - Construction				\$40,000.00	\$18,000.00	\$22,000.00
Engineering - Utilities				\$1,000.00	\$0.00	\$1,000.00
Fiscal				\$5,000.00	\$0.00	\$5,000.00
TOTAL PROJECT COST				\$3,990,475.77	\$1,489,294.14	\$2,501,181.63



Worden, Heather

From: Brandon Oye <BOye@mooreengineeringinc.com>
Sent: Tuesday, April 08, 2014 3:44 PM
To: Berndt, Keith
Cc: Eric Hillman (eric.hillman@midco.net); City Of Mapleton; Jeremy Dewald; Worden, Heather
Subject: RE: Mapleton Levee - Cass County Flood Risk Reduction Cost Share Request
Attachments: OP OF PROB COST DIST 2012-1 - REVISED 2014-3-21.pdf

Keith:

Here is the revised cost estimate for the Mapleton Levee Recertification project. This shows the updated amounts of cost share that was approved by the SWC on March 17, 2014.

The cost share request can be broken down into three parts:

BASE BID = \$445,825
ALTERNATE 1 = \$97,500
ALTERNATE 2 = \$107,500
TOTAL = \$650,825

The total project is estimated to cost \$2,045,000 (Base Bid, Alternates 1 and 2). The city has been approved to receive \$743,350 from the SWC to date. This request is for 50% of the remaining local share of \$1,301,650.

Please let me know if you have any questions. Also, please keep me informed as to when the committee will be meeting to review the request.

Thanks!

Brandon Oye, PE
moore engineering, inc.
925 10th Ave E
West Fargo, ND 58078
Office: (701) 282-4692
Cell: (701) 306-3951
Email: boye@mooreengineeringinc.com
Web: www.mooreengineeringinc.com

From: Berndt, Keith [mailto:BerndtK@casscountynd.gov]
Sent: Friday, March 21, 2014 9:25 AM
To: Brandon Oye
Subject: RE: Mapleton Levee - Cass County Flood Risk Reduction Cost Share Request

OK

From: Brandon Oye [mailto:BOye@mooreengineeringinc.com]
Sent: Friday, March 21, 2014 9:09 AM
To: Berndt, Keith

LEVEE IMPROVEMENT DISTRICT NO. 2012-1
Mapleton, North Dakota

Engineer's Opinion of Probable Cost
REVISED March 21, 2014

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES			
					NDSWC	COUNTY	LOCAL	
BASE BID								
1.	Topsoil Stripping - 6"	SY	4,900	\$1.50	\$7,350.00	\$4,410.00	\$1,470.00	\$1,470.00
2.	Clearing and Grubbing - Site 14	LS	1	\$5,000.00	\$5,000.00	\$3,000.00	\$1,000.00	\$1,000.00
3.	Clearing and Grubbing - Site 64	LS	1	\$2,500.00	\$2,500.00	\$1,500.00	\$500.00	\$500.00
4.	Excavation	LF	2,315	\$5.00	\$11,575.00	\$6,945.00	\$2,315.00	\$2,315.00
5.	Tree Removal - 12"	EA	29	\$200.00	\$5,800.00	\$3,480.00	\$1,160.00	\$1,160.00
6.	Tree Removal - 18"	EA	2	\$300.00	\$600.00	\$360.00	\$120.00	\$120.00
7.	Tree Stump Removal	EA	2	\$100.00	\$200.00	\$120.00	\$40.00	\$40.00
8.	Asphalt Pavement - Remove	SY	115	\$8.00	\$920.00	\$552.00	\$184.00	\$184.00
9.	Gravel - Remove	SY	1,500	\$5.00	\$7,500.00	\$4,500.00	\$1,500.00	\$1,500.00
10.	Riprap - Remove and Salvage	CY	65	\$40.00	\$2,600.00	\$1,560.00	\$520.00	\$520.00
11.	Televise - Culverts	LF	2,210	\$1.25	\$2,762.50	\$1,657.50	\$552.50	\$552.50
12.	Excavation and Embankment	CY	1,900	\$25.00	\$47,500.00	\$28,500.00	\$9,500.00	\$9,500.00
13.	Subgrade Preparation - 12"	SY	115	\$2.00	\$230.00	\$138.00	\$46.00	\$46.00
14.	Storm Sewer Manhole - 48" x 48"	EA	1	\$3,500.00	\$3,500.00	\$2,100.00	\$700.00	\$700.00
15.	Storm Sewer Manhole - 72"	EA	1	\$4,500.00	\$4,500.00	\$2,700.00	\$900.00	\$900.00
16.	Storm Sewer - 36" RCP	LF	50	\$90.00	\$4,500.00	\$2,700.00	\$900.00	\$900.00
17.	Flared End Section - 36" RCP	LS	1	\$1,750.00	\$1,750.00	\$1,050.00	\$350.00	\$350.00
18.	Flared End Section - 24" CMP	EA	1	\$500.00	\$500.00	\$300.00	\$100.00	\$100.00
19.	Catch Basin - Adjust Existing	EA	2	\$500.00	\$1,000.00	\$600.00	\$200.00	\$200.00
20.	Reinforcement Fabric	SY	160	\$5.00	\$800.00	\$480.00	\$160.00	\$160.00
21.	Aggregate Base Course - 4"	SY	160	\$15.00	\$2,400.00	\$1,440.00	\$480.00	\$480.00
22.	Asphalt Base Course - 2"	SY	115	\$35.00	\$4,025.00	\$2,415.00	\$805.00	\$805.00
23.	Asphalt Wearing Course - 2"	SY	115	\$35.00	\$4,025.00	\$2,415.00	\$805.00	\$805.00
24.	Sheet Pile	SF	18,225	\$45.00	\$820,125.00	\$492,075.00	\$164,025.00	\$164,025.00
25.	Fence	LF	550	\$40.00	\$22,000.00	\$13,200.00	\$4,400.00	\$4,400.00
26.	Signs - Right-of-Way	EA	24	\$100.00	\$2,400.00	\$1,440.00	\$480.00	\$480.00
27.	Shrub	EA	250	\$40.00	\$10,000.00	\$6,000.00	\$2,000.00	\$2,000.00
28.	Topsoil Spread - 6"	SY	12,500	\$1.00	\$12,500.00	\$7,500.00	\$2,500.00	\$2,500.00
29.	Topsoil - Import	CY	1,905	\$12.00	\$22,860.00	\$13,716.00	\$4,572.00	\$4,572.00
30.	Seed - Type I	SY	4,100	\$1.00	\$4,100.00	\$2,460.00	\$820.00	\$820.00
31.	Seed - Type I	AC	3.0	\$1,000.00	\$3,000.00	\$1,800.00	\$600.00	\$600.00
32.	Mulch - Type B	AC	3.0	\$2,000.00	\$6,000.00	\$3,600.00	\$1,200.00	\$1,200.00
33.	Mulch - Type B	SY	4,100	\$1.00	\$4,100.00	\$2,460.00	\$820.00	\$820.00
34.	Traffic Control	LS	1	\$2,500.00	\$2,500.00	\$1,500.00	\$500.00	\$500.00
35.	Stormwater Management	LS	1	\$5,000.00	\$5,000.00	\$3,000.00	\$1,000.00	\$1,000.00
36.	Material Testing	Allowance	1	\$15,000.00	\$15,000.00	\$0.00	\$7,500.00	\$7,500.00
Total Base Bid Construction					\$1,051,122.50	\$621,673.50	\$214,724.50	\$214,724.50
Studies and Reports					\$35,000.00	\$0.00	\$17,500.00	\$17,500.00
Engineering					\$218,500.00	\$0.00	\$109,250.00	\$109,250.00
Right-of-Way Survey					\$20,000.00	\$0.00	\$10,000.00	\$10,000.00
FEMA Levee Certification Report					\$38,500.00	\$23,100.00	\$7,700.00	\$7,700.00
Geotechnical Admin and Survey					\$10,500.00	\$0.00	\$5,250.00	\$5,250.00
Geotechnical Evaluation Report					\$45,000.00	\$24,410.00	\$10,295.00	\$10,295.00
Utility Company Relocations					\$20,000.00	\$12,000.00	\$4,000.00	\$4,000.00
Funding Administration					\$10,000.00	\$0.00	\$5,000.00	\$5,000.00
Assessments					\$10,000.00	\$0.00	\$5,000.00	\$5,000.00
Publishing and Admin					\$3,000.00	\$0.00	\$1,500.00	\$1,500.00
Legal					\$10,000.00	\$0.00	\$5,000.00	\$5,000.00
Bond Counsel					\$6,500.00	\$0.00	\$3,250.00	\$3,250.00
Bond Discount & Fees					\$24,500.00	\$0.00	\$12,250.00	\$12,250.00
Capitalized Interest					\$27,700.00	\$0.00	\$13,850.00	\$13,850.00
Contingencies					\$104,677.50	\$62,167.35	\$21,255.08	\$21,255.08
Total Base Bid Project Cost					\$1,635,000.00	\$743,350.85	\$445,824.58	\$445,824.58

**LEVEE IMPROVEMENT DISTRICT NO. 2012-1
Mapleton, North Dakota**

Engineer's Opinion of Probable Cost
REVISED March 21, 2014

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES		
					NDSWC	COUNTY	LOCAL
ALTERNATE 1 - CLOSURE STRUCTURES							
1. Closure Structure - 18"	EA	8	\$20,000.00	\$160,000.00	\$0.00	\$80,000.00	\$80,000.00
Total Base Bid Construction				\$160,000.00	\$0.00	\$80,000.00	\$80,000.00
Construction Engineering				\$14,400.00	\$0.00	\$7,200.00	\$7,200.00
Bond Discount & Fees				\$2,950.00	\$0.00	\$1,475.00	\$1,475.00
Capitalized Interest				\$3,400.00	\$0.00	\$1,700.00	\$1,700.00
Contingencies				\$14,250.00	\$0.00	\$7,125.00	\$7,125.00
Total Alternate 1 Project Cost				\$195,000.00	\$0.00	\$97,500.00	\$97,500.00

ALTERNATE 2 - STORM SEWER REPLACEMENT							
1. Catch Basin - Remove	EA	2	\$500.00	\$1,000.00	\$0.00	\$500.00	\$500.00
2. Structure - Remove	EA	1	\$5,000.00	\$5,000.00	\$0.00	\$2,500.00	\$2,500.00
3. Manhole - Remove	EA	2	\$500.00	\$1,000.00	\$0.00	\$500.00	\$500.00
4. Pipe - Remove (All Types & Sizes)	LF	700	\$10.00	\$7,000.00	\$0.00	\$3,500.00	\$3,500.00
5. Boring & Casing - 24"	LF	70	\$300.00	\$21,000.00	\$0.00	\$10,500.00	\$10,500.00
6. Boring & Casing - 30"	LF	100	\$400.00	\$40,000.00	\$0.00	\$20,000.00	\$20,000.00
7. Catch Basin	EA	3	\$2,000.00	\$6,000.00	\$0.00	\$3,000.00	\$3,000.00
8. Storm Sewer Manhole	EA	2	\$3,500.00	\$7,000.00	\$0.00	\$3,500.00	\$3,500.00
9. Storm Sewer - 18"	LF	135	\$35.00	\$4,725.00	\$0.00	\$2,362.50	\$2,362.50
10. Storm Sewer - 24"	LF	350	\$40.00	\$14,000.00	\$0.00	\$7,000.00	\$7,000.00
11. Storm Sewer - 30"	LF	545	\$55.00	\$29,975.00	\$0.00	\$14,987.50	\$14,987.50
12. Flared End Section - 24"	EA	1	\$350.00	\$350.00	\$0.00	\$175.00	\$175.00
13. Aggregate Surface Course	CY	40	\$50.00	\$2,000.00	\$0.00	\$1,000.00	\$1,000.00
14. Ditch Grading	LF	1,740	\$7.50	\$13,050.00	\$0.00	\$6,525.00	\$6,525.00
15. Seed - Type I	AC	4.0	\$1,000.00	\$4,000.00	\$0.00	\$2,000.00	\$2,000.00
16. Mulch - Type B	AC	4.0	\$2,000.00	\$8,000.00	\$0.00	\$4,000.00	\$4,000.00
17. Material Testing	ALLOWANCE	1	\$2,500.00	\$2,500.00	\$0.00	\$1,250.00	\$1,250.00
Total Base Bid Construction				\$166,600.00	\$0.00	\$83,300.00	\$83,300.00
Construction Engineering				\$15,000.00	\$0.00	\$7,500.00	\$7,500.00
Bond Discount & Fees				\$2,500.00	\$0.00	\$1,250.00	\$1,250.00
Capitalized Interest				\$3,750.00	\$0.00	\$1,875.00	\$1,875.00
Railroad Permit				\$10,000.00	\$0.00	\$5,000.00	\$5,000.00
Contingencies				\$17,150.00	\$0.00	\$8,575.00	\$8,575.00
Total Alternate 2 Project Cost				\$215,000.00	\$0.00	\$107,500.00	\$107,500.00

Preliminary Special Assessment Scenario

	Actual Acres	Factor	Assessed Acres
Ag Land	316.14	5%	15.8
Developed Land	206.93	100%	206.93
Total Assessed Acres			222.7

Preliminary Project Financing

Loan Period	15
Loan Rate	5.0%

Preliminary Assessment Calculations

Base Bid Cost	\$445,824.58
Cost/Acre	\$2,001.57
Cost/Acre/Year	\$192.84
Cost/Acre/Month	\$16.07
Alternate 1 Cost	\$97,500.00
Cost/Acre	\$437.74
Cost/Acre/Year	\$42.17
Cost/Acre/Month	\$3.51
Alternate 2 Cost	\$107,500.00
Cost/Acre	\$482.63
Cost/Acre/Year	\$46.50
Cost/Acre/Month	\$3.87

Note:

The preliminary assessment calculations are dependent upon many variables which include, but are not limited to, final bids from contractors, actual funding cost share amounts received from the ND State Water Commission and the Cass County Flood Reduction Sales Tax, interest rate of bond, and assessment breakdowns decided upon by the Special Assessment Commission.

RECEIVED

FEB 21 2014

moore
engineering, inc.

February 21, 2014

CASS COUNTY COMMISSION

Keith Berndt
Cass County Flood Risk Reduction Committee
211 Ninth Street South
PO Box 2806
Fargo, ND 58108

Consulting Engineering
Land Surveying

RE: Cass County Flood Risk Reduction Cost-Share Request
Recertification of Flood Control Levee System
City of Mapleton, North Dakota

Dear Keith:

As you know, FEMA has been updating its Flood Insurance Rate Maps (FIRM) as part of the Map Modernization Process. As part of its effort for the new Cass County Flood Insurance Study (FIS), FEMA determined that the levee protecting Mapleton was accredited in the previous FIS based on the information available and on the mapping standards at that time. For FEMA to accredit the levee on the new FIRM, documentation must be provided that shows the levee meets federal requirements for levees as per 44 CFR 65.10. It is the City of Mapleton's responsibility to provide this data. If the levee is not certified, all residences shown as protected from the base flood will be required to purchase flood insurance. This would be detrimental, as most of the City's homes and businesses are in the protected area (see enclosed map provided by FEMA).

Currently, the levee is listed as a Provisionally Accredited Levee (PAL). If the city does not get the levee certified, FEMA will de-accredit the levee and mandate flood insurance for the area mapped into the base flood floodplain. It is vitally important that FEMA accredit the levee. The recertification requirements for this flood control facility are very expensive for the City to fund on its own. The first phase of the project included a geotechnical analysis to determine if any reconstruction is necessary to meet Federal criteria for the base flood. The Geotechnical Evaluation Report was completed by Braun Intertec on April 17, 2013.

The City is now moving forward with the remainder of the project as required by FEMA to accredit the levee. The city is respectfully requesting cost share of eligible items to recertify the levee. The project scope includes levee stability improvements, flood closure structure improvements (Alternate 1), grubbing of trees where required by Federal agencies, utility company relocations where required by Federal agencies, preparation of a FEMA approved levee certification report and other miscellaneous costs required for recertification estimated to be \$1,830,000 as shown on the enclosed Engineer's Opinion of Probable Cost. A General Layout map has also been enclosed that identifies the improvements stated above. The City respectfully requests **\$490,524.58** for 50% cost-share of the local share.

925 10th Avenue East
West Fargo, ND 58078

T: 701.282.4692
F: 701.282.4530

www.mooreengineeringinc.com

The City is also considering an Alternate scope of work to upgrade an undersized storm sewer main that serves a large section of the city. A portion of that storm sewer main is also located under a building, therefore at risk of failing without the ability for timely repair. This scope of work will relocate the storm sewer main around the building and upsize a smaller 15" diameter storm sewer pipe to a 30" diameter. We feel this is necessary to protect this development from internal flooding if that section of storm sewer pipe were to fail since it is the only outlet through the levee for that section of the city. The total cost for Alternate 2 is estimated to be \$215,000 as shown on the enclosed Engineer's Opinion of Probable Cost. The General Layout map identifies the improvements as Alternate 2. The city respectfully requests and additional \$53,347.00 for 50% cost-share of the local share to complete this Alternate.

The city has submitted a request to the State Water Commission to consider their eligibility for cost share in the amounts shown on the enclosed Engineer's Opinion of Probable Cost, which is to be considered at their next meeting on April 17, 2014.

The city owns the levee and will continue to own the levee after the project is completed, and will be responsible for its maintenance.

As time is of the essence, please consider this request at your next committee meeting so that the project can move forward to complete the levee recertification. The city plans to design/bid the project this spring and complete construction this summer. Thank you for your consideration in helping the City address this important matter. Please do not hesitate to contact me if you have any questions.

Sincerely,



Brandon Oye, P.E.
City Engineer

Enclosures

Cc: Eric Hillman – Mayor, City of Mapleton

Brandon Oye

From: Brandon Oye
Sent: Friday, February 21, 2014 1:59 PM
To: Keith Berndt (BerndtK@casscountynd.gov)
Cc: Eric Hillman (eric.hillman@midco.net); City Of Mapleton; Jeremy Dewald
Subject: Mapleton Levee - Cass County Flood Risk Reduction Cost Share Request
Attachments: 2014-2-21 County Sales Tax Cost Share Request - Project.pdf

Keith:

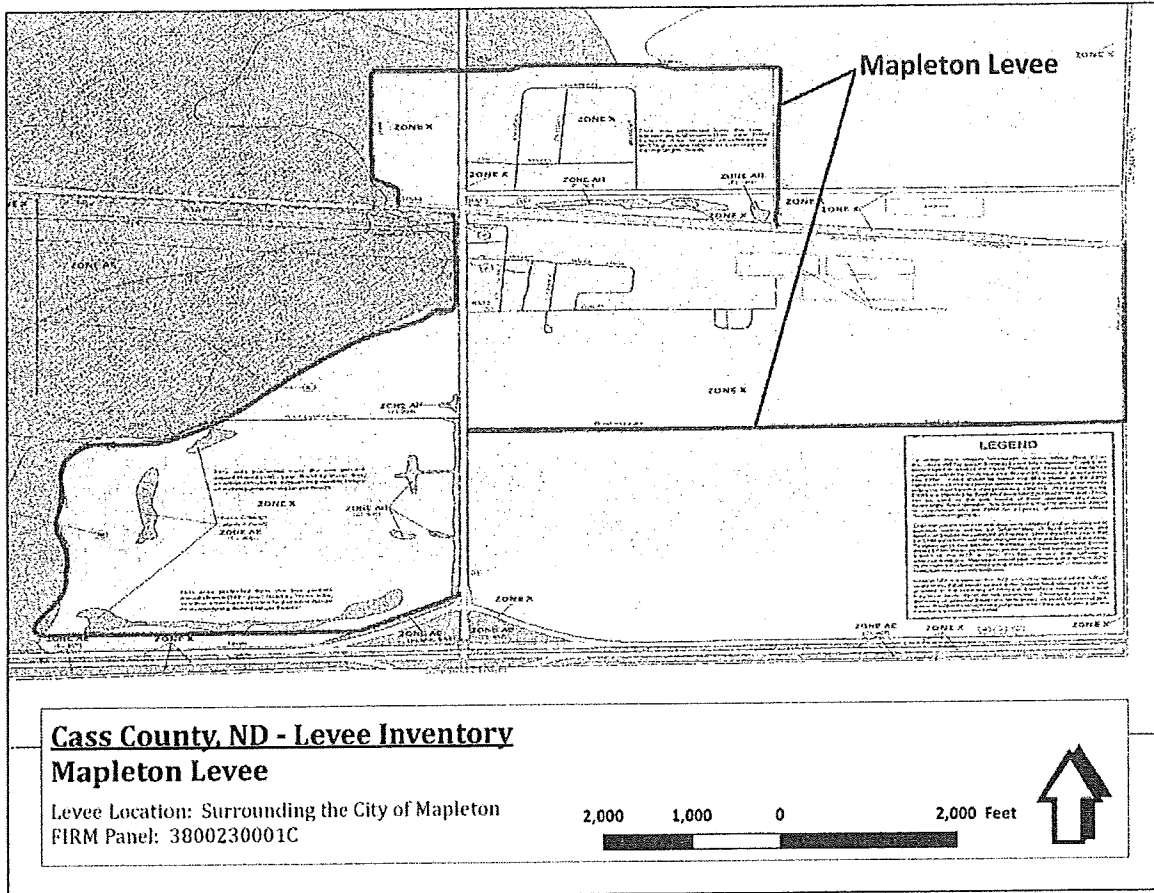
Please find attached the city of Mapleton's request for flood risk reduction project funding assistance from the Cass County sales tax. A hard copy of this request will be in the mail today.

Please let me know if you have any questions or need additional information.

Thanks and have a great weekend!

Brandon Oye, PE
moore engineering, inc.
925 10th Ave E
West Fargo, ND 58078
Direct: (701) 499-5835
Cell: (701) 306-3951
Office: (701) 282-4692
Fax: (701) 282-4530
Email: boye@mooreengineeringinc.com
Web: www.mooreengineeringinc.com

Figure 1: Mapleton Levee



LEVEE IMPROVEMENT DISTRICT NO. 2012-1
Mapleton, North Dakota

Engineer's Opinion of Probable Cost
 REVISED February 14, 2014

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES			
					NDSWC	COUNTY	LOCAL	
BASE BID								
1.	Topsoil Stripping - 6"	SY	4,900	\$1.50	\$7,350.00	\$4,410.00	\$1,470.00	\$1,470.00
2.	Clearing and Grubbing - Site 14	LS	1	\$5,000.00	\$5,000.00	\$3,000.00	\$1,000.00	\$1,000.00
3.	Clearing and Grubbing - Site 64	LS	1	\$2,500.00	\$2,500.00	\$1,500.00	\$500.00	\$500.00
4.	Excavation	LF	2,315	\$5.00	\$11,575.00	\$6,945.00	\$2,315.00	\$2,315.00
5.	Tree Removal - 12"	EA	29	\$200.00	\$5,800.00	\$3,480.00	\$1,160.00	\$1,160.00
6.	Tree Removal - 18"	EA	2	\$300.00	\$600.00	\$360.00	\$120.00	\$120.00
7.	Tree Stump Removal	EA	2	\$100.00	\$200.00	\$120.00	\$40.00	\$40.00
8.	Asphalt Pavement - Remove	SY	115	\$8.00	\$920.00	\$552.00	\$184.00	\$184.00
9.	Gravel - Remove	SY	1,500	\$5.00	\$7,500.00	\$4,500.00	\$1,500.00	\$1,500.00
10.	Riprap - Remove and Salvage	CY	65	\$40.00	\$2,600.00	\$1,560.00	\$520.00	\$520.00
11.	Televises - Culverts	LF	2,210	\$1.25	\$2,762.50	\$1,657.50	\$552.50	\$552.50
12.	Excavation and Embankment	CY	1,900	\$25.00	\$47,500.00	\$28,500.00	\$9,500.00	\$9,500.00
13.	Subgrade Preparation - 12"	SY	115	\$2.00	\$230.00	\$138.00	\$46.00	\$46.00
14.	Storm Sewer Manhole - 48" x 48"	EA	1	\$3,500.00	\$3,500.00	\$2,100.00	\$700.00	\$700.00
15.	Storm Sewer Manhole - 72"	EA	1	\$4,500.00	\$4,500.00	\$2,700.00	\$900.00	\$900.00
16.	Storm Sewer - 36" RCP	LF	50	\$90.00	\$4,500.00	\$2,700.00	\$900.00	\$900.00
17.	Flared End Section - 36" RCP	LS	1	\$1,750.00	\$1,750.00	\$1,050.00	\$350.00	\$350.00
18.	Flared End Section - 24" CMP	EA	1	\$500.00	\$500.00	\$300.00	\$100.00	\$100.00
19.	Catch Basin - Adjust Existing	EA	2	\$500.00	\$1,000.00	\$600.00	\$200.00	\$200.00
20.	Reinforcement Fabric	SY	160	\$5.00	\$800.00	\$480.00	\$160.00	\$160.00
21.	Aggregate Base Course - 4"	SY	160	\$15.00	\$2,400.00	\$1,440.00	\$480.00	\$480.00
22.	Asphalt Base Course - 2"	SY	115	\$35.00	\$4,025.00	\$2,415.00	\$805.00	\$805.00
23.	Asphalt Wearing Course - 2"	SY	115	\$35.00	\$4,025.00	\$2,415.00	\$805.00	\$805.00
24.	Sheet Pile	SF	18,225	\$45.00	\$820,125.00	\$492,075.00	\$164,025.00	\$164,025.00
25.	Fence	LF	550	\$40.00	\$22,000.00	\$13,200.00	\$4,400.00	\$4,400.00
26.	Signs - Right-of-Way	EA	24	\$100.00	\$2,400.00	\$1,440.00	\$480.00	\$480.00
27.	Shrub	EA	250	\$40.00	\$10,000.00	\$6,000.00	\$2,000.00	\$2,000.00
28.	Topsoil Spread - 6"	SY	12,500	\$1.00	\$12,500.00	\$7,500.00	\$2,500.00	\$2,500.00
29.	Topsoil - Import	CY	1,905	\$12.00	\$22,860.00	\$13,716.00	\$4,572.00	\$4,572.00
30.	Seed - Type I	SY	4,100	\$1.00	\$4,100.00	\$2,460.00	\$820.00	\$820.00
31.	Seed - Type I	AC	3.0	\$1,000.00	\$3,000.00	\$1,800.00	\$600.00	\$600.00
32.	Mulch - Type B	AC	3.0	\$2,000.00	\$6,000.00	\$3,600.00	\$1,200.00	\$1,200.00
33.	Mulch - Type B	SY	4,100	\$1.00	\$4,100.00	\$2,460.00	\$820.00	\$820.00
34.	Traffic Control	LS	1	\$2,500.00	\$2,500.00	\$1,500.00	\$500.00	\$500.00
35.	Stormwater Management	LS	1	\$5,000.00	\$5,000.00	\$3,000.00	\$1,000.00	\$1,000.00
36.	Material Testing	Allowance	1	\$15,000.00	\$15,000.00	\$0.00	\$7,500.00	\$7,500.00
Total Base Bid Construction					\$1,051,122.50	\$621,673.50	\$214,724.50	\$214,724.50
Studies and Reports					\$35,000.00	\$0.00	\$17,500.00	\$17,500.00
Engineering					\$218,500.00	\$0.00	\$109,250.00	\$109,250.00
Right-of-Way Survey					\$20,000.00	\$0.00	\$10,000.00	\$10,000.00
FEMA Levee Certification Report					\$38,500.00	\$23,100.00	\$7,700.00	\$7,700.00
Geotechnical Admin and Survey					\$10,500.00	\$0.00	\$5,250.00	\$5,250.00
Geotechnical Evaluation Report					\$45,000.00	\$24,410.00	\$10,295.00	\$10,295.00
Utility Company Relocations					\$20,000.00	\$12,000.00	\$4,000.00	\$4,000.00
Funding Administration					\$10,000.00	\$0.00	\$5,000.00	\$5,000.00
Assessments					\$10,000.00	\$0.00	\$5,000.00	\$5,000.00
Publishing and Admin					\$3,000.00	\$0.00	\$1,500.00	\$1,500.00
Legal					\$10,000.00	\$0.00	\$5,000.00	\$5,000.00
Bond Counsel					\$6,500.00	\$0.00	\$3,250.00	\$3,250.00
Bond Discount & Fees					\$24,500.00	\$0.00	\$12,250.00	\$12,250.00
Capitalized Interest					\$27,700.00	\$0.00	\$13,850.00	\$13,850.00
Contingencies					\$104,677.50	\$62,167.35	\$21,255.08	\$21,255.08
Total Base Bid Project Cost					\$1,635,000.00	\$743,350.85	\$445,824.58	\$445,824.58

**LEVEE IMPROVEMENT DISTRICT NO. 2012-1
Mapleton, North Dakota**

Engineer's Opinion of Probable Cost
REVISED February 14, 2014

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES			
					NDSWC	COUNTY	LOCAL	
ALTERNATE 1 - CLOSURE STRUCTURES								
1.	Closure Structure - 18"	EA	8	\$20,000.00	\$160,000.00	\$96,000.00	\$32,000.00	\$32,000.00
Total Base Bid Construction					\$160,000.00	\$96,000.00	\$32,000.00	\$32,000.00
Construction Engineering					\$14,400.00	\$0.00	\$7,200.00	\$7,200.00
Bond Discount & Fees					\$2,950.00	\$0.00	\$1,475.00	\$1,475.00
Capitalized Interest					\$3,400.00	\$0.00	\$1,700.00	\$1,700.00
Contingencies					\$14,250.00	\$9,600.00	\$2,325.00	\$2,325.00
Total Alternate 1 Project Cost					\$195,000.00	\$105,600.00	\$44,700.00	\$44,700.00

ALTERNATE 2 - STORM SEWER REPLACEMENT								
1.	Catch Basin - Remove	EA	2	\$500.00	\$1,000.00	\$600.00	\$200.00	\$200.00
2.	Structure - Remove	EA	1	\$5,000.00	\$5,000.00	\$3,000.00	\$1,000.00	\$1,000.00
3.	Manhole - Remove	EA	2	\$500.00	\$1,000.00	\$600.00	\$200.00	\$200.00
4.	Pipe - Remove (All Types & Sizes)	LF	700	\$10.00	\$7,000.00	\$4,200.00	\$1,400.00	\$1,400.00
5.	Boring & Casing - 24"	LF	70	\$300.00	\$21,000.00	\$12,600.00	\$4,200.00	\$4,200.00
6.	Boring & Casing - 30"	LF	100	\$400.00	\$40,000.00	\$24,000.00	\$8,000.00	\$8,000.00
7.	Catch Basin	EA	3	\$2,000.00	\$6,000.00	\$3,600.00	\$1,200.00	\$1,200.00
8.	Storm Sewer Manhole	EA	2	\$3,500.00	\$7,000.00	\$4,200.00	\$1,400.00	\$1,400.00
9.	Storm Sewer - 18"	LF	135	\$35.00	\$4,725.00	\$2,835.00	\$945.00	\$945.00
10.	Storm Sewer - 24"	LF	350	\$40.00	\$14,000.00	\$8,400.00	\$2,800.00	\$2,800.00
11.	Storm Sewer - 30"	LF	545	\$55.00	\$29,975.00	\$17,985.00	\$5,995.00	\$5,995.00
12.	Flared End Section - 24"	EA	1	\$350.00	\$350.00	\$210.00	\$70.00	\$70.00
13.	Aggregate Surface Course	CY	40	\$50.00	\$2,000.00	\$1,200.00	\$400.00	\$400.00
14.	Ditch Grading	LF	1,740	\$7.50	\$13,050.00	\$7,830.00	\$2,610.00	\$2,610.00
15.	Seed - Type I	AC	4.0	\$1,000.00	\$4,000.00	\$2,400.00	\$800.00	\$800.00
16.	Mulch - Type B	AC	4.0	\$2,000.00	\$8,000.00	\$4,800.00	\$1,600.00	\$1,600.00
17.	Material Testing	ALLOWANCE	1	\$2,500.00	\$2,500.00	\$0.00	\$1,250.00	\$1,250.00
Total Base Bid Construction					\$166,600.00	\$98,460.00	\$34,070.00	\$34,070.00
Construction Engineering					\$15,000.00	\$0.00	\$7,500.00	\$7,500.00
Bond Discount & Fees					\$2,500.00	\$0.00	\$1,250.00	\$1,250.00
Capitalized Interest					\$3,750.00	\$0.00	\$1,875.00	\$1,875.00
Railroad Permit					\$10,000.00	\$0.00	\$5,000.00	\$5,000.00
Contingencies					\$17,150.00	\$9,846.00	\$3,652.00	\$3,652.00
Total Alternate 2 Project Cost					\$215,000.00	\$108,306.00	\$53,347.00	\$53,347.00

Preliminary Special Assessment Scenario

	Actual Acres	Factor	Assessed Acres
Ag Land	316.14	5%	15.8
Developed Land	206.93	100%	206.93
Total Assessed Acres			222.7

Preliminary Project Financing

Loan Period	15
Loan Rate	5.0%

Preliminary Assessment Calculations

Base Bid Cost	\$445,824.58
Cost/Acre	\$2,001.57
Cost/Acre/Year	\$192.84
Cost/Acre/Month	\$16.07
Alternate 1 Cost	\$44,700.00
Cost/Acre	\$200.69
Cost/Acre/Year	\$19.33
Cost/Acre/Month	\$1.61
Alternate 2 Cost	\$53,347.00
Cost/Acre	\$239.51
Cost/Acre/Year	\$23.07
Cost/Acre/Month	\$1.92

Note:

The preliminary assessment calculations are dependent upon many variables which include, but are not limited to, final bids from contractors, actual funding cost share amounts received from the ND State Water Commission and the Cass County Flood Reduction Sales Tax, interest rate of bond, and assessment breakdowns decided upon by the Special Assessment Commission.

**LEEVE IMPROVEMENT DISTRICT No. 2012-1
MAPLETON, NORTH DAKOTA**

UNACCEPTABLE AND MINIMALLY ACCEPTABLE ITEMS						
USACE/MOORE 2013 ID	Remarks	Recommended Action	Rating	Rated Item	Implementation	Actions Taken by City to Resolve Deficiency
MPLT_2013_a_0001	Flap gate is propped open with a two-by-four	Remove obstruction from flap gate	Minimally Acceptable	Flap Gates/ Flap Valves/ Pinch Valves	2014 City Maintenance	City shall remove obstruction from flap gate
MPLT_2013_a_0002	Culvert is blocked by sediment and vegetation	Remove vegetation and sedimentation from the culvert	Minimally Acceptable	Vegetation and Obstructions	2014 City Maintenance	City shall remove vegetation and sedimentation from culvert
MPLT_2013_a_0003	Heavy vegetation growth in drainage ditch in front of culvert	Remove vegetation and sedimentation from the culvert. Restore ditch to the design grade and cross section	Minimally Acceptable	Vegetation and Obstructions	2014 City Maintenance	City shall clear vegetation
MPLT_2013_a_0004	Tall vegetation of levee slopes and toes	Mow all grasses within the vegetation-free zone, up to the levee easement	Minimally Acceptable	Unwanted Vegetation Growth	2014 City Maintenance	City shall clear vegetation
MPLT_2013_a_0005	Sporadic cracks on levee crown typical throughout system	Monitor cracking depth. When depth exceeds 12 inches consider remedial actions. Remedial actions must be approved by the Corps	Minimally Acceptable	Cracking	2014 City Maintenance	City shall monitor
MPLT_2013_a_0006	Animal burrows on levee crown	Excavate, inspect, backfill, compact in lifts, and resod animal burrow locations	Minimally Acceptable	Animal Control	2014 City Maintenance	City shall monitor and implement animal abatement program
MPLT_2013_a_0007	Poor drainage resulting in ponding of water at the riverside levee toe	Restore ditch to the design grade and cross section	Minimally Acceptable	Vegetation and Obstructions	2014 City Maintenance	City shall regrade to design grade and cross section and reseed
MPLT_2013_a_0008	Rutting from tires on levee crown	Backfill ruts to the design grade, compact in lifts, and resod	Minimally Acceptable	Depressions/ Rutting	2014 City Maintenance	City shall backfill ruts to design grade, compact in lifts, and reseed
MPLT_2013_a_0011	Cattails growing in front of flap gate	Remove unwanted vegetation from vegetation-free zone, up to the levee easement	Unacceptable	Vegetation and Obstructions	2014 City Maintenance	City shall remove cattails in front of flap gate
MPLT_2013_a_0012	Rutting at riverside levee toe	Backfill ruts to the design grade, compact in lifts, and re-sod	Minimally Acceptable	Depressions/ Rutting	2014 City Maintenance	City shall backfill ruts to design grade, compact in lifts, and reseed
MPLT_2013_a_0013	Farming within vegetation-free zone on landside levee toe	Verify levee easement. Discourage farming within levee easement	Minimally Acceptable	Encroachments	2014 City Maintenance	City shall restore 15' vegetation-free zone and install R/W markers/signs
MPLT_2013_a_0014	Large bushes and trees along landside levee toe	Remove unwanted vegetation from vegetation-free zone, up to the levee easement. Remove root ball, backfill, compact in lifts, and resod. Ensure environmental compliance with all appropriate agencies prior to removal	Unacceptable	Unwanted Vegetation Growth	2014 Project	Remove trees and bushes to restore 15' vegetation-free zone, reseed and install R/W markers/signs
MPLT_2013_a_0015	Fence posts within 15 feet of the landside levee toe	Verify levee easement. Relocate encroachments outside of levee easement, unless approved by Corps	Minimally Acceptable	Encroachments	2014 City Maintenance	City shall remove temporary snow fence and posts
MPLT_2013_a_0016	Large depression in levee crown and slope at culvert location	Complete an evaluation to determine cause of depression and complete remedial action as necessary. Backfill depression to the design grade, compact in lifts, and resod	Unacceptable	Depressions/ Rutting	2014 City Maintenance	City shall backfill to design grade and seed
MPLT_2013_a_0017	Debris placed at landside levee toe	Verify levee easement. Relocate debris outside of levee easement, unless approved by Corps	Minimally Acceptable	Encroachments	2014 City Maintenance	City shall notify owners to remove debris

**LEVEE IMPROVEMENT DISTRICT No. 2012-1
MAPLETON, NORTH DAKOTA**

UNACCEPTABLE AND MINIMALLY ACCEPTABLE ITEMS

USACE/MOORE 2013 ID	Remarks	Recommended Action	Rating	Rated Item	Implementation	Actions Taken by City to Resolve Deficiency
MPLT_2013_a_0018	Trees and bushes on landside levee toe	Remove unwanted vegetation from vegetation-free zone, up to the levee easement. Remove root ball, backfill, compact in lifts, and resod.	Unacceptable	Unwanted Vegetation Growth	2014 Project	Remove trees and bushes to restore 15' vegetation-free zone, reseed and install R/W markers/signs
MPLT_2013_a_0019	Farming within vegetation-free zone along riverside levee toe	Verify levee easement. Discourage farming within levee easement	Minimally Acceptable	Encroachments	2014 Project	Restore 15' vegetation-free zone, reseed and install R/W markers/signs
MPLT_2013_a_0020	Large areas of ponded water on landside levee toe near the culvert with possible settlement problems	Restore ditch to the design grade and cross section	Minimally Acceptable	Vegetation and Obstructions	2014 City Maintenance	City shall monitor
MPLT_2013_a_0021	Culverts in system have not been inspected using television camera video taping or visual inspection methods within the past 5 years	Perform video or visual inspection of all culverts and discharge pipes and submit an executive summary containing the condition of each culvert or discharge pipe	Unacceptable	Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.)	2014 Project	Perform video or visual inspection of all culverts and discharge pipes and submit an executive summary containing the condition of each culvert or discharge pipe
MPLT_2013_a_0022	Culvert apron on the south side of the highway is damaged	Monitor condition of culvert. Repair or replace the culvert apron	Minimally Acceptable	Vegetation and Obstructions	2014 Project	Replace flared end section, seed and mulch
MPLT_2013_a_0023	Transverse cracking on levee crown. Cracking is deeper than 6 inches in some areas	Monitor cracking depth. Remedial actions are required to correct cracking	Minimally Acceptable	Cracking	2014 Project	Check condition in spring for action. If action required, excavate 18" depth around cracking, recompact, seed and mulch.
MPLT_2013_a_0024	Fiber optic cable line at landside levee toe	Verify levee easement. Relocate encroachment outside of levee easement, unless approved by Corps	Minimally Acceptable	Encroachments	2014 Engineer Admin	Contact utility company to relocate marker outside of vegetation-free zone
MPLT_2013_a_0025	Large 3 inch deep depression on landside levee slope	Backfill depression to the design grade, compact in lifts, and re-sod	Minimally Acceptable	Depressions/ Rutting	2014 City Maintenance	City shall monitor
MPLT_2013_a_0026	Longitudinal cracking on levee crown. Cracking is deeper than 6 inches in some areas	Monitor cracking depth. Remedial actions are required to correct cracking. Remedial actions must be approved by the Corps	Minimally Acceptable	Cracking	2014 Project	Check condition in spring for action. If action required, excavate 18" depth around cracking, recompact, seed and mulch.
MPLT_2013_a_0028	Transverse cracking on levee crown. Cracking is deeper than 6 inches in some areas	Monitor cracking depth. Remedial actions are required to correct cracking. Remedial actions must be approved by the Corps	Minimally Acceptable	Cracking	2014 Project	Check condition in spring for action. If action required, excavate 18" depth around cracking, recompact, seed and mulch.
MPLT_2013_a_0029	Rutting on levee crown	Backfill ruts to the design grade, compact in lifts, and resod	Minimally Acceptable	Depressions/ Rutting	2014 Project	Check condition in spring for action. If action required, add topsoil, seed and mulch.
MPLT_2013_a_0030	Areas of long and isolated vegetation along levee crown and slopes. Typical throughout entire levee system	Mow all grasses within the vegetation-free zone, up to the levee easement	Minimally Acceptable	Unwanted Vegetation Growth	2014 City Maintenance	City shall clear vegetation
MPLT_2013_a_0031	Large stockpile of debris less than 15 feet from levee toe	Verify levee easement. Relocate debris outside of levee easement, unless approved by Corps	Minimally Acceptable	Encroachments	2014 City Maintenance	City shall contact land owner to have the stock pile removed off of levee right of way
MPLT_2013_a_0032	Shallow longitudinal and transverse cracking is typical throughout the entire levee system	Monitor cracking depth	Minimally Acceptable	Cracking	2014 City Maintenance	City shall monitor

**LEEVE IMPROVEMENT DISTRICT No. 2012-1
MAPLETON, NORTH DAKOTA**

UNACCEPTABLE AND MINIMALLY ACCEPTABLE ITEMS						
USACE/MOORE 2013 ID	Remarks	Recommended Action	Rating	Rated Item	Implementation	Actions Taken by City to Resolve Deficiency
MPLT_2013_a_0033	Farming within vegetation-free zone on riverside levee toe	Verify levee easement. Discourage farming within levee easement	Minimally Acceptable	Encroachments	2014 Project	Restore 15' vegetation-free zone, reseed and install R/W markers/signs
MPLT_2013_a_0034	Minor depression on levee crown	Backfill depression to the design grade, compact in lifts, and re-sod	Minimally Acceptable	Depressions/ Rutting	2014 City Maintenance	City shall backfill ruts to design grade, compact in lifts, and reseed
MPLT_2013_a_0035	Addition of lift station not shown on As-Builts has been completed. Pump station is an approved modification and will need to be inspected on future inspections	Monitor and inspect pump station on future inspections	Acceptable	Encroachments	2014 Engineer Admin	As-built drawings will be provided to the USACE
MPLT_2013_a_0036	Shallow erosion from levee to storm sewer inlet on landside slope	Backfill eroded area to the design grade, compact in lifts, and re-sod. Reevaluate drainage and erosion protection	Minimally Acceptable	Erosion/ Bank Caving	2014 Project	Area will be regraded and seeded as required
MPLT_2013_a_0037	Railroad tie-in point is below the crown elevation of the levee	Restore levee tie-in point per plan. Backfill rutted area to the design grade, compact in lifts, and re-sod	Unacceptable	Depressions/ Rutting	2014 Project	Addressed with MOORE_2013_0062 slope repair item
MPLT_2013_a_0038	Utilities and mailbox encroaching upon landside levee toe	Verify levee easement. Relocate encroachments outside of levee easement, unless approved by Corps	Unacceptable	Encroachments	N/A	Verified outside of levee easement - double check with county for permits
MPLT_2013_a_0039	House located within 15 feet of the landside levee toe	Verify levee easement. Relocate encroachment outside of levee easement, unless approved by Corps	Minimally Acceptable	Encroachments	2014 Engineer Admin	House determined to be outside levee easement. Request that the house to remain as minimally acceptable
MPLT_2013_a_0040	Top section cover of manhole is not placed on manhole structure correctly	Re-align cover on manhole	Minimally Acceptable	Concrete Surfaces (Such as gate wells, outfalls, intakes, or culverts)	N/A	Structure was replaced with a new lift station on District 2012-4 Project. As-built drawings to be submitted to USACE
MPLT_2013_a_0041	Manhole at riverside levee toe	Verify levee easement. Relocate encroachments outside of levee easement, unless approved by Corps	Minimally Acceptable	Encroachments	N/A	Request approval from USACE to remain in place
MPLT_2013_a_0043	Trees on landside levee toe	Remove unwanted vegetation from vegetation-free zone, up to the levee easement. Remove root ball, backfill, compact in lifts, and re-sod.	Unacceptable	Unwanted Vegetation Growth	2014 Project	Remove trees to restore 15' vegetation-free zone, reseed and install R/W markers/signs
MPLT_2013_a_0044	Trees growing within the vegetation-free zone on the riverside of the levee	Remove unwanted vegetation from vegetation-free zone, up to the levee easement. Remove root ball, backfill, compact in lifts, and re-sod. Ensure environmental compliance with all appropriate agencies prior to removal	Unacceptable	Unwanted Vegetation Growth	2014 Project	Remove trees to restore 15' vegetation-free zone, reseed and install R/W markers/signs
MPLT_2013_a_0045	Tall grass on levee slopes	Mow all grasses within the vegetation-free zone, up to the levee easement	Minimally Acceptable	Unwanted Vegetation Growth	2014 City Maintenance	City shall mow tall grass

**LEVEE IMPROVEMENT DISTRICT No. 2012-1
MAPLETON, NORTH DAKOTA**

UNACCEPTABLE AND MINIMALLY ACCEPTABLE ITEMS

USAGE/MOORE 2013 ID	Remarks	Recommended Action	Rating	Rated Item	Implementation	Actions Taken by City to Resolve Deficiency
MPLT_2013_a_0046	Large crack nearly 50 feet in length on levee crown. Cracking is deeper than 6 inches in some areas	Monitor cracking depth. Remedial actions are required to correct cracking. Remedial actions must be approved by the Corps	Unacceptable	Cracking	2014 Project	Check condition in spring for action. If action required, excavate 18" depth around cracking, recompact, seed and mulch.
MPLT_2013_a_0047	A 120 foot long crack of unknown depth exists along the riverside crown of the levee	Monitor cracking depth. Remedial actions are required to correct cracking. Remedial actions must be approved by the Corps	Unacceptable	Cracking	2014 Project	Check condition in spring for action. If action required, excavate 18" depth around cracking, recompact, seed and mulch.
MPLT_2013_a_0048	Long grass on levee toe for entire length of levee section	Mow all grasses within the vegetation-free zone, up to the levee easement	Minimally Acceptable	Unwanted Vegetation Growth	2014 City Maintenance	City shall mow tall grass
MPLT_2013_a_0049	Collapsed animal burrows on levee crown	Excavate, inspect, backfill, compact in lifts, and re-sod animal burrow locations. Establish an animal abatement program	Minimally Acceptable	Animal Control	2014 City Maintenance	City shall monitor
MPLT_2013_a_0050	Vegetation growing in riprap on riverside of levee	Remove all vegetation from riprap	Minimally Acceptable	Riprap Revetments of Inlet/ Discharge Areas	2014 City Maintenance	City shall remove vegetation from riprap
MPLT_2013_a_0052	Isolated depressions and long stretches of rutting due to vehicle traffic on levee crown	Backfill ruts and depression to the design grade, compact in lifts, and resod. Reevaluate levee crown surface	Unacceptable	Depressions/ Rutting	2014 Project	Removing gravel, replacing with topsoil, seed and mulch.
MPLT_2013_a_0053	Tall grass on riverside levee slope and brush on riverside levee toe	Mow all grasses within the vegetation-free zone, up to the levee easement	Minimally Acceptable	Unwanted Vegetation Growth	2014 City Maintenance	City shall mow tall grass
MPLT_2013_a_0054	Shallow cracking along the riverside levee crown for at least 50 feet	Monitor cracking depth. Remedial actions are required to correct cracking. Remedial actions must be approved by the Corps	Unacceptable	Cracking	2014 Project	Check condition in spring for action. If action required, excavate 18" depth around cracking, recompact, seed and mulch.
MPLT_2013_a_0055	Cracking on levee slopes and crown	Monitor cracking depth. Remedial actions are required to correct cracking. Remedial actions must be approved by the Corps	Minimally Acceptable	Cracking	2014 Project	Check condition in spring for action. If action required, excavate 18" depth around cracking, recompact, seed and mulch.
MPLT_2013_a_0056	Rutting on levee slopes and crown from golf cart traffic	Backfill ruts to the design grade, compact in lifts, and resod	Unacceptable	Depressions/ Rutting	2014 Project	Re-establish minimum section of levee, install asphalt cart path over levee.
MPLT_2013_a_0057	Vegetation longer than one foot from the golf cart path to 163rd Ave SE	Mow all grasses within the vegetation-free zone, up to the levee easement	Unacceptable	Unwanted Vegetation Growth	2014 City Maintenance	City shall mow all grass within the vegetation-free zone
MPLT_2013_a_0058	Fence and cable line marker on riverside levee toe	Verify levee easement. Relocate encroachments outside of levee easement, unless approved by Corps	Minimally Acceptable	Encroachments	2014 Engineer Admin	Contact utility company to relocate cable line marker outside of vegetation-free zone
MPLT_2013_a_0059	Trees on riverside levee toe. 2013 Note: Some trees have been cut down, but their stumps are still present	Remove unwanted vegetation from vegetation-free zone, up to the levee easement. Remove root ball, backfill, compact in lifts, and resod	Unacceptable	Unwanted Vegetation Growth	2014 Project	Remove trees to restore vegetation-free zone within easement and reseed
MPLT_2013_a_0060	Poor sod cover on levee crown	Reestablish sod cover	Minimally Acceptable	Sod Cover	2014 Project	Reseed and mulch levee crown and install R/W markers/signs. Communicate with Golf Course to keep carts off levee.

**LEVEE IMPROVEMENT DISTRICT No. 2012-1
MAPLETON, NORTH DAKOTA**

UNACCEPTABLE AND MINIMALLY ACCEPTABLE ITEMS						
USACE/MOORE 2013 ID	Remarks	Recommended Action	Rating	Rated Item	Implementation	Actions Taken by City to Resolve Deficiency
MPLT_2013_a_0061	Trees within the vegetation free zone on the riverside toe	Remove unwanted vegetation from vegetation-free zone, up to the levee easement. Remove root ball, backfill, compact in lifts, and re-sod. Ensure environmental compliance with all appropriate agencies prior to removal	Unacceptable	Unwanted Vegetation Growth	2014 Project	Remove trees to restore vegetation-free zone within easement and reseed
MPLT_2013_a_0062	Flap gate is propped open by a fence post	Remove obstruction from flap gate	Minimally Acceptable	Flap Gates/ Flap Valves/ Pinch Valves	2014 Project	City shall remove obstruction from flap gate for temporary measure. New closure structure to be installed on outlet pipe in 2014 project.
MPLT_2013_a_0063	Culvert outlet is blocked by debris	Remove debris from the culvert outlet	Minimally Acceptable	Vegetation and Obstructions	2014 Project	City shall remove obstruction from flap gate for temporary measure. New closure structure to be installed on outlet pipe in 2014 project.
MPLT_2013_a_0064	Unapproved garden within 15 feet of riverside levee toe	Relocate encroachment outside of levee easement, unless approved by Corps	Minimally Acceptable	Encroachments	2014 Engineer Admin	Request that the garden to remain as minimally acceptable
MPLT_2013_a_0065	Erosion at culvert outlet	Backfill eroded area to the design grade. Replace riprap with hard, durable rock of suitable size	Minimally Acceptable	Riprap Revetments of Inlet/ Discharge Areas	2014 Project	Install new riprap at outlet pipe.
MPLT_2013_a_0066	Trees and bushes on riverside levee slope and toe	Remove unwanted vegetation from vegetation-free zone, up to the levee easement. Remove root ball, backfill, compact in lifts, and re-sod. Evaluate and provide erosion protection as necessary to ensure bank and levee slope stability	Unacceptable	Unwanted Vegetation Growth	2014 Project	Addressed with slope repair with 2014 Project
MPLT_2013_a_0067	Light and utility poles on landside levee toe	Verify levee easement. Relocate encroachments outside of levee easement, unless approved by Corps	Minimally Acceptable	Encroachments	2014 Engineer Admin	Verified to be outside of levee right-of-way
MPLT_2013_a_0068	Typical condition of culverts along the roadway line of protection are overgrown with vegetation and are obstructed with sediment	Remove vegetation and sedimentation from the drainage feature. Restore ditch to the design grade and cross section	Minimally Acceptable	Vegetation and Obstructions	2014 City Maintenance	City shall remove vegetation and sedimentation from culvert outlet
MOORE_2013_0003	Small hole on top of culvert. Water can bypass flapgate	Repair small hole in culvert	Minimally Acceptable		2014 City Maintenance	City shall repair hole in pipe
MOORE_2013_0008	Vegetation in front of flapgate	Remove vegetation to allow proper operation of flapgate	Minimally Acceptable		2014 City Maintenance	City shall remove vegetation and sedimentation from culvert outlet
MOORE_2013_0011	Weeds growing on levee	City to implement weed control program	Minimally Acceptable		2014 City Maintenance	City shall spray for weeds
MOORE_2013_0017	Vegetation in front of flapgate	Remove vegetation to allow proper operation of flapgate	Minimally Acceptable		2014 City Maintenance	City shall remove vegetation and sedimentation from culvert outlet
MOORE_2013_0020	Vegetation in front of flapgate	Remove vegetation to allow proper operation of flapgate	Minimally Acceptable		2014 City Maintenance	City shall remove vegetation and sedimentation from culvert outlet
MOORE_2013_0023	Poor backyard drainage	Lower catch basin casting and regrade ditching with greater slope	Minimally Acceptable	Regrade	2014 Project	Lower catch basin casting and regrade ditching with greater slope
MOORE_2013_0025	Poor backyard drainage (south of levee) - standing water at levee toe	Lower catch basin casting and regrade ditching with greater slope	Minimally Acceptable	Regrade	2014 Project	Lower catch basin casting and regrade ditching with greater slope

**LEEVE IMPROVEMENT DISTRICT No. 2012-1
MAPLETON, NORTH DAKOTA**

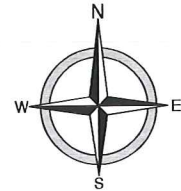
UNACCEPTABLE AND MINIMALLY ACCEPTABLE ITEMS

USACE/MOORE 2013 ID	Remarks	Recommended Action	Rating	Rated Item	Implementation	Actions Taken by City to Resolve Deficiency
MOORE_2013_0025A	Standing water (north of levee)	Regrade ditching with greater slope	Minimally Acceptable	Regrade	2014 Project	Regrade ditching with greater slope
MOORE_2013_0035	Slope Stability	Install sheet pile system with safety fence to maintain slope stability per Braun Intertec recommendation	Unacceptable	Erosion	2014 Project	Install sheet pile system with safety fence to maintain slope stability per Braun Intertec recommendation
MOORE_2013_0062	Slope Stability	Reconstruct riverbank slope to 6:1 and reseed per Braun Intertec recommendation	Unacceptable	Erosion	2014 Project	Reconstruct riverbank slope to 6:1 and reseed per Braun Intertec recommendation

EXHIBIT

USACE LEVEE ITEMS

CITY OF MAPLETON, NORTH DAKOTA

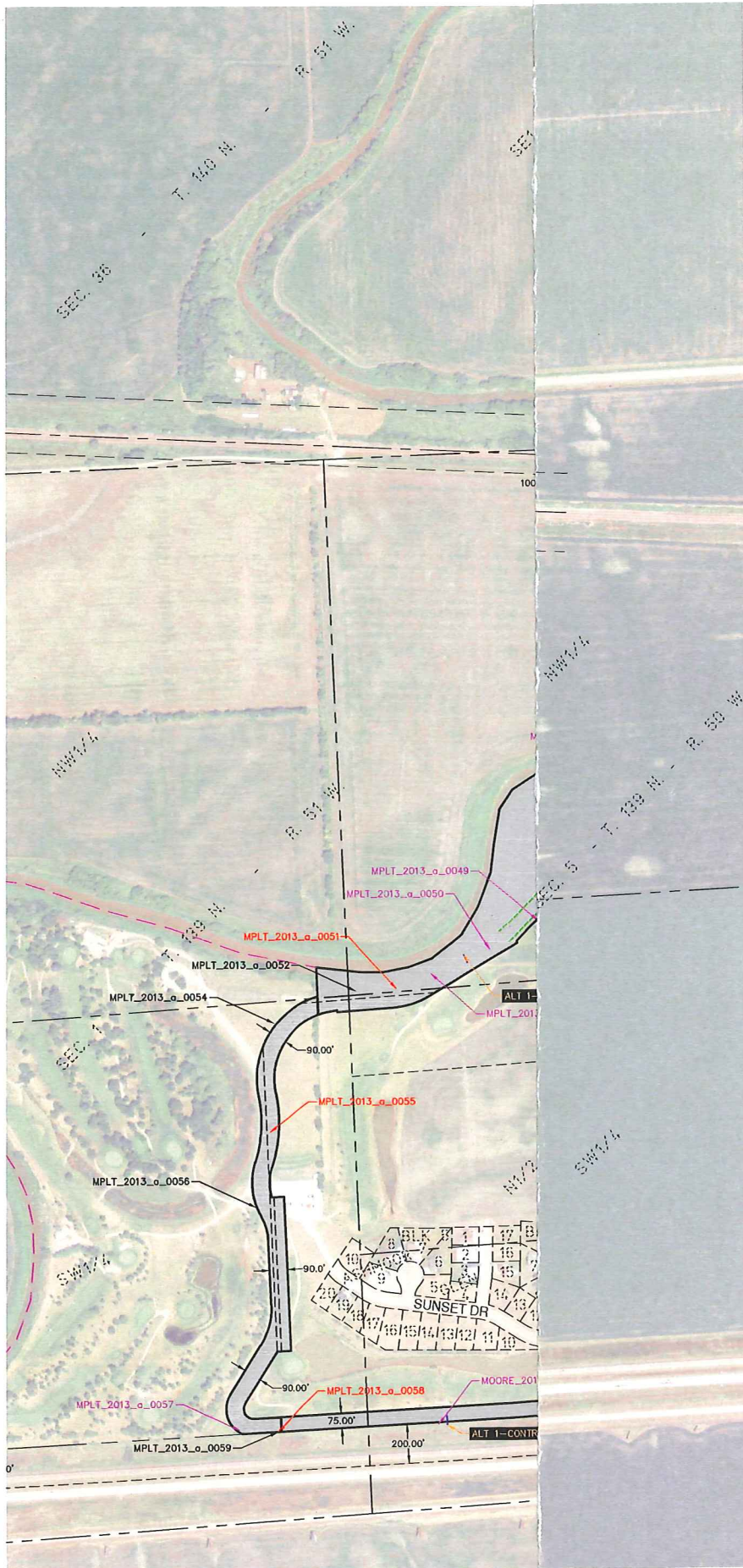


0 400
Scale in Feet

COORDINATE SYSTEM:
NORTH DAKOTA STATE PLANE SOUTH ZONE,
GROUND DISTANCES USING CASS COUNTY
SCALE FACTOR (CASS 88 CCS)

LEGEND

	EASEMENTS TO CITY
	CITY OWNED PARCELS
	TOE OF SLOPE
	MPLT_2013_o_0011 USACE UNACCEPTABLE ITEMS
	MPLT_2013_o_0012 USACE MINIMALLY ACCEPTABLE ITEMS
	MOORE_2013_o_0020 MOORE MINIMALLY ACCEPTABLE ITEMS
	MOORE_2013_o_0035 MOORE UNACCEPTABLE ITEMS
	MOORE_2013_o_0035 CITY MAINTENANCE ITEMS
	MOORE_2013_o_0035 ALTERNATE 1 - CONTROL STRUCTURE
	MOORE_2013_o_0035 ALTERNATE 2 - REPLACE STORM SEWER



LEVEE IMPROVEMENT DISTRICT 2012-1



DRAWN ON:	01-30-2014	PROJECT NO.
DRAWN BY:	SWH / JJD	15173
CHECKED BY:	BO	
PROJECT MANAGER:	KJM	
FIELD BOOK:	0000	C-101
PAGE:	0	
LAST DAY ON SITE:	09-05-2013	
REVISED:	--	SHEET 1 OF 1

Cass County Sales Tax Activity
Cash Basis - 2014
Updated 04/29/2014

Date	Description	Amount	Balance
	Balance Forward		15,730,693.21
2014	Sales Tax	5,245,908.09	20,976,601.30
2014	Interest	10,535.77	20,987,137.07
1/10/2014	Diversion Board of Authority	(546,869.21)	20,440,267.86
1/10/2014	City of Fargo - Cash Flow Other Sources	(60,763.24)	20,379,504.62
1/21/2014	County Projects	(24,750.29)	20,354,754.33
1/22/2014	County Projects	(6,711.05)	20,348,043.28
1/23/2014	Land Purchase	(959,840.00)	19,388,203.28
1/24/2014	Land Purchase	(1,636,230.00)	17,751,973.28
2/10/2014	Diversion Board of Authority	(175,107.14)	17,576,866.14
2/10/2014	City of Fargo - Cash Flow Other Sources	(19,456.35)	17,557,409.79
2/10/2014	Diversion Board of Authority	(317,644.42)	17,239,765.37
2/10/2014	City of Fargo - Cash Flow Other Sources	(35,293.83)	17,204,471.54
2/13/2014	Land Purchase	(512,970.73)	16,691,500.81
2/14/2014	County Projects	(7,933.70)	16,683,567.11
2/18/2014	Land Purchase	(49,545.36)	16,634,021.75
2/18/2014	Land Purchase	(3,458,980.70)	13,175,041.05
3/10/2014	Diversion Board of Authority	(375,166.88)	12,799,874.17
3/10/2014	Diversion Board of Authority	(449,149.54)	12,350,724.63
3/10/2014	City of Fargo - Cash Flow Other Sources	(41,685.21)	12,309,039.42
3/10/2014	City of Fargo - Cash Flow Other Sources	(49,905.51)	12,259,133.91
4/8/2014	Diversion Board of Authority	(715,991.21)	11,543,142.70
4/8/2014	City of Fargo - Cash Flow Other Sources	(79,554.58)	11,463,588.12
4/17/2014	Land Purchase	(941,582.83)	10,522,005.29
4/22/2014	County Projects	(12,494.45)	10,509,510.84
			10,509,510.84
			10,509,510.84

Reserved for County Projects - Cash	2,671,488.63	
Reserved for Diversion Project	7,838,022.21	10,509,510.84

Summary

2014 Receipts

Sales Tax Revenue	5,245,908.09
Interest Revenue	10,535.77
Total Receipts	<u>5,256,443.86</u>

2014 Expenditures

Diversion Board of Authority	(2,579,928.40)
City of Fargo - Cash Flow Other Sources	(286,658.72)
County Projects	(51,889.49)
Land Purchase	<u>(7,559,149.62)</u>
Total Expenditures	<u>(10,477,626.23)</u>

Receipts over Expenditures (5,221,182.37)

Balance from 2013 15,730,693.21

Balance Current 2014 10,509,510.84

Reserve for County Projects 2014 Activity

Balance of Cash Carried forward from 2013 2,250,298.18

2014 Reserves (9%) 473,079.95

Total 2,723,378.12

County Projects - Expenses Paid in 2014

2012 City of Argusville Diking 24,750.29

2012 Maple-Steele WRD Study -

2012 City of Mapleton - Lift Station 7,933.70

2013 Pontiac Township - Project No 73 -

2013 City of Argusville - Levee improvement 19,205.50

2013 City of Casselton - Levee Repairs -

2013 Maple-Steele - Dam Project -

Total County Project Expenditures 2014 51,889.49

Cash Balance Reserve for County Projects 2,671,488.63

Encumbrances:

2012 City of Argusville Diking - PO109161

2012 Maple-Steele WRD Study - PO109159

2012 City of Mapleton - Lift Station (18,987.02) PO114261

2013 Pontiac Township - Project No 73 - PO111883

2013 City of Argusville - Levee improvement (10,794.50) PO114263

2013 City of Casselton - Levee Repairs (23,750.00) PO114267

2013 Maple-Steele - Dam Project (17,500.00) PO114268

Total Encumbrances (71,031.52)

Available Balance for County Projects 2,600,457.11