

ENGINEER'S AGENDA
City of Mapleton Council Meeting
Tuesday, February 7, 2012 at 6:00 pm

1.0 City Engineer

1.1 Levee Recertification

1.1.1 Recommendation to submit Geotechnical Analysis proposal to NDSWC for cost share approval

1.2 Ashmoor Glen 2nd Addition – Street Improvement District No. 2010-1

1.2.1 No Update

1.3 Storm Sewer Lift Station – 1st Street and CR 15

1.3.1 CDBG Pre-application for FY 2012 submitted

1.3.1.1 February 17, 2012 – Project Presentation to LARC BOD

1.3.1.2 February 20, 2012 – LARC notifies applicants of recommendation

1.4 Lagoon Expansion

1.4.1 Proposal for updating Capital Improvement Plan

1.5 Plan of Operation – Flood Preparation document

1.5.1 Approve after reviewed by all parties



February 1, 2012

Consulting Engineering
Land Surveying

City of Mapleton
651 2nd Street
Mapleton, ND 58059

**RE: Capital Improvement Plan Update – City Utility and Street Projects
City of Mapleton, North Dakota**

Mayor Anderson,

With the recent discussion of the issues the city is facing on a possible need for expanding the lagoon system in the near future, it is my recommendation that City of Mapleton consider updating their 2008-2012 Capital Improvement Plan (CIP). The current CIP was created by Mort Mazaheri in October 2007 for a 5 year period from 2008-2012. Typically a CIP should be reviewed and revised/updated on a regular basis as needed; otherwise the plan becomes out of date and is of little use to the City. This document should be used by the City officials to understand the big picture of the City's infrastructure condition and deficiencies as well as future needs required by growth.

I believe Mort Mazaheri no longer provides services for creating and updating Capital Improvement Plans, so as your City Engineer we would be pleased to offer our services to update the CIP. We have previously provided CIPs for other Cities. I am currently working with the City of Casselton to update their CIP.

Enclosed is our recommendation for the scope of work to update the existing CIP, which includes a list of tasks required as well as the estimated time and costs associated with each task. This is only a recommendation of tasks, which we feel will give the City the most relevant information on which to make decisions from. A larger part of the plan is gathering existing information and compiling it into one comprehensive document so it can be referenced easily by city officials throughout the year when discussing city utilities and streets. We would be happy to meet with you to discuss and clarify the different task items shown.

The estimated cost to update the Capital Improvement Plan, as described in the enclosed task breakdown, is **\$42,100**. All items will be billed hourly per our standard labor rates for work completed, up to the estimated cost shown. We will not bill over the estimated amount without prior notice to the City with an explanation as to the scope of additional work required and City approval to proceed.

925 10th Avenue East
West Fargo, ND 58078

T: 701.282.4692
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www.mooreengineeringinc.com

A list of our standard labor rates is attached for your reference. We are willing to defer our costs several months until a project is developed in which you can include the cost for updating the CIP. At that time, a portion of our fees would be paid under the project for the section of the CIP that is relevant to the work being completed. For instance, our study on the wastewater treatment ponds could be included in a construction project for a new sanitary sewer lift station and force main.

We would recommend that any new developments within the city should be responsible for the cost to update the CIP as needed to analyze the impacts on the city's existing streets, sanitary sewer, storm sewer, drainage and water systems. Then those costs are not a burden on the existing residents of Mapleton.

If you would like us to proceed on this work as outlined above, we ask that you please sign and return this agreement as our written authorization.

Please contact me if you have any questions regarding this agreement. We appreciate this opportunity to provide our professional services.

Sincerely,
MOORE ENGINEERING, INC.



Brandon Oye, P.E.
Project Engineer

AUTHORIZED BY City of Mapleton

BY: _____

TITLE: _____

DATE: _____

Capital Improvement Plan

City of Mapleton, ND

Task	Principal Engineer	Project Manager	Prof Engineer	Project Engineer	Engineer Tech III	CADD Manager	CADD Tech III	GIS Manager	GIS Tech III	Admin Assistant	Mileage (miles)
1. Review Existing CIP - Determine current and accurate information to be used in updated CIP		1	8								
2. Gather existing data for city utilities and streets including:	1	6									
Document water usage & billing info for past three years			2	2						4	
Determine peak and average water use			1	3							
Compute losses or non billed			1	2							
Evaluate water and sewer rates			2								
Calibrate flow on 10 lift stations			2		20						75
Acquire 3 years pumping run times for 10 lift stations			2	2						4	
Perform model on existing sanitary sewer lift stations			6								
Document future possible flow from Cass Rural Water			1								
Document existing age and pipe types for sewer, water and storm				4							
Document breaks or maintenance issues			1								
Perform existing water system model			6								
Perform flow analysis on hydrants, calibrate water model			2		8						50
Document maintenance procedures			1								
Document water reservoir condition and operation			0.5		1						25
Document water tower condition			0.5		1						
Document wastewater treatment pond condition			0.5		2						
Document yearly operating costs			4								
Document discharges from wastewater ponds			2								
Document existing bond debt			2	4							
Document age, section and previous rehab work of streets			4	6				1	4		
Inspection of streets to determine existing condition			2		12						50
Prepare existing drainage map									4		
Identify existing drainage issues			2								
4. Document recommended maintenance	1										
Recommend maintenance on water system			2								
Recommend maintenance on sanitary sewer system			2								
Recommend maintenance on storm sewer system			1								
Document cost of recommended operation and maintenance			2								
3. Identify future city utility and street projects	1										
Projections for future, estimate growth, industry			4								
Perform future water system model			6								
Meet with Public Works Committee		3	3								25
Propose improvements for future expansion			6								
Wastewater treatment pond			6	8							
Water system transmission lines			4	6							
Prepare preliminary cost estimates			12	20							
Prepare project location maps			1	3				1	8		
Prepare preliminary project assessment areas			2	4					8		
Prepare preliminary project assessments			4	8							

Capital Improvement Plan

City of Mapleton, ND

Task	Principal Engineer	Project Manager	Prof Engineer	Project Engineer	Engineer Tech III	CADD Manager	CADD Tech III	GIS Manager	GIS Tech III	Admin Assistant	Mileage (miles)
4. Prepare updated draft Capital Improvement plan	1										
Provide water, sewer and storm maps with revised format						1	6				
Prepare project information sheets with funding options			1	6							
Prepare CIP document with body and all appendices		1	20	5						4	
5. Prioritize projects and determine schedule for improvements											
Meet with city officials to discuss and prioritize future projects		3	3								25
Document timeline for projects per priority ranking			2								
Document timeline cost for future bonding			6								
Present preliminary CIP to city officials and public for review			2								25
Revise CIP per city council requests			2	4							
Prepare and approve final CIP	1		1								25
Prepare 10 copies of final CIP and distribute to city			1							2	
TOTALS	5	14	145.5	87	44	1	6	2	24	14	300

Hourly Rates	\$165.00	\$145.00	\$135.00	\$120.00	\$95.00	\$115.00	\$110.00	\$135.00	\$110.00	\$65.00	\$0.65
Labor Sub-Totals	\$825	\$2,030	\$19,643	\$10,440	\$4,180	\$115	\$660	\$270	\$2,640	\$910	\$195
Total Estimated Labor	\$41,908										
Total Mileage	\$195										
Estimated Project Total	\$42,103										

MOORE ENGINEERING, INC.
 BILLING SCHEDULE
 Effective January 1, 2012

<u>Description</u>	<u>Billing Rate</u> <u>Per Hour</u>	
Principal Engineer	\$165.00	
Senior Project Manager	\$155.00	
Senior Project Engineer	\$150.00	
Project Manager	\$145.00	
Professional Engineer	\$135.00	
Project Engineer	\$120.00	
Construction Engineer	\$110.00	
Graduate Engineer	\$105.00	
Expert Witness	\$220.00	
Building Codes Administrator	\$105.00	
Right-of-Way Coordinator	\$110.00	
Engineering Technician III	\$95.00	
Engineering Technician II	\$85.00	
Engineering Technician I	\$75.00	
CADD Manager	\$115.00	
CADD Technician III	\$110.00	
CADD Technician II	\$100.00	
CADD Technician I	\$95.00	
GIS Manager	\$135.00	
GIS Technician III	\$110.00	
GIS Technician II	\$100.00	
GIS Technician I	\$95.00	
Senior Land Surveyor	\$130.00	
Land Surveyor	\$120.00	
Survey Manager	\$115.00	
GPS Survey Crew Chief	\$110.00	
Survey Crew Chief	\$100.00	
Survey Technician III	\$80.00	
Survey Technician II	\$70.00	
Survey Technician I	\$60.00	
Receptionist	\$55.00	
Administrative Assistant	\$65.00	
Client Service Manager	\$155.00	
Bookkeeper	\$75.00	
Business Manager	\$130.00	
Human Resource Manager	\$75.00	
Project Mileage	\$0.65	per mile
Lodging	Cost * 1.15	
Meals	Cost * 1.15	
Per Diem	\$20.00	per day
Iron Pins	\$1.25	each
Fence Posts	\$5.00	each
Motorized Offroad Vehicles	\$75.00	per day
Project Expenses	Cost * 1.15	
Sub Consultants	Cost * 1.15	