

ATTACHMENT 1



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May 17, 2019

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Senior Engineer
411 1st Avenue West, Room 211
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CITY OF DULUTH PROJECT NO. 1825 TH 53 AND I-35 UTILITY RELOCATION ENGINEERING DESIGN SERVICES

The City has requested additional design services for the project as follows:

26TH AVE WEST CROSSING I-35

Provide engineering design for 8" water main relocation and 6" gas main relocations due to the lowering of I-35. This work may be done by horizontal directional drilling method or open trench method. Work limits are from a connection point in Helm Street down to a connection point along the east I-35 right of way line common to railroad property.

24TH AVE WEST CROSSING I-35

Provide design for 12" water main relocation due to poor condition of existing pipe. The limits of the new pipe will be from west I-35 row line to east I-35 row line. Exact alignment to be determined and will require easement review and study to determine the "best" horizontal alignment route. Assumed method of construction is jacking or boring under freeway to minimize traffic impact and avoid deep trench but will require MNDOT input.

19TH AVE WEST CROSSING I-35

Provide design for 4" water main extension, 2" sewer force main extension, 2" gas main extension due to foundation conflict with new retaining walls supporting I-35. The new alignment(s) will need to coordinate with MNDOT soil stabilization drill holes. Water and sewer will need to extend from Michigan Street down 19th Avenue West under freeway to east right of way line common to railroad property. Gas main will extend from gas main in Lower Michigan under freeway to east right of way line common to railroad property. It has not been determined if this would be done by horizontal directional drilling method or open trench method and will require MNDOT input.

May 17, 2019

UTILITY ITEMS

Provide engineering design analysis for sanitary sewer flows estimating for determination of construction staging and bypass pumping needs. Analysis will be based on flow monitoring and City record data. This task also involves staging and alternatives analysis for utility work including cut offs for water main and sanitary for Coffee Creek construction and accommodating phasing / staging and project sequencing related to MnDOT TH 53, road, bridge, and Lift Station 15 work. Other work under this task includes review and incorporation of MnDOT utility files into the City project design files.

COST PROPOSAL

Our cost proposal is attached. Please review and comment. We are available to review and reconsider any items within this proposal at your convenience.

We appreciate the opportunity to work on this project and look forward to delivering a successful project.

LHB



Brad Scott, Civil Group Lead

Attachments:

1. Cost Proposal (1 page)

c: File #190201

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WORK PLAN & COST PROPOSAL

Project Name **TH 53 & 135 Utility Relocations**
 Client **City of Duluth**
 Preparer **LHB**

Project Number **190201**
 Date **5/17/19**

Work Task	Description	LHB						TOTAL HOURS	TOTAL EXPENSES	TOTAL LABOR COST PER TASK	TOTAL COST PER DELIVERABLE
		Joe Litman	Brad Scott	Adam Beissel	Steve Hohenstein	Survey Tech	Heather Redetzke				
		Project Principal	Project Manager	Designer	Technician	Isthmus MnDOT QA					
1.00	Initial Site Visits & Consultations	0	0	0	0	0	0	0	\$ -	\$ -	\$ -
2.00	Plans and Specifications	6	162	412	451	0	16	1047	\$ -	\$ 110,384.00	\$ 110,384.00
2.01	26th Ave West Crossing I-35									\$ -	\$ -
	General Layout		1		3					\$ 430.00	\$ 430.00
	Quantity Charts / Tabulations		2	6	20					\$ 2,708.00	\$ 2,708.00
	Construction Details		6	8						\$ 1,744.00	\$ 1,744.00
	Removals Plans @ 1" = 40'		2	12	8					\$ 2,216.00	\$ 2,216.00
	Utility Plan and Profile (7 sheets) @ 1"= 40' scale		8	20	20					\$ 5,040.00	\$ 5,040.00
	Temporary Water Plans		4	12	20					\$ 3,616.00	\$ 3,616.00
	City and MnDOT review Corrections		1	2	2					\$ 536.00	\$ 536.00
	Quality Control / Quality Assurance Reviews (30%, 60%, 90%, 95%, 100%)	1	2				4			\$ 1,107.00	\$ 1,107.00
2.02	24th Ave West Crossing I-35									\$ -	\$ -
	General Layout		1	2	3					\$ 626.00	\$ 626.00
	Quantity Charts / Tabulations		2	6	20					\$ 2,708.00	\$ 2,708.00
	Construction Details		6	8						\$ 1,744.00	\$ 1,744.00
	Alternatives Analysis & Easement Reviews	1	12	24	16					\$ 5,887.00	\$ 5,887.00
	Removals Plans @ 1" = 40'		2	12	8					\$ 2,216.00	\$ 2,216.00
	Utility Plan and Profile (7 sheets) @ 1"= 40' scale		8	20	20					\$ 5,040.00	\$ 5,040.00
	Temporary Water Plans		4	12	20					\$ 3,616.00	\$ 3,616.00
	City and MnDOT review Corrections		1	2	2					\$ 536.00	\$ 536.00
	Quality Control / Quality Assurance Reviews (30%, 60%, 90%, 95%, 100%)	1	2				4			\$ 1,107.00	\$ 1,107.00
2.03	19th Ave West Crossing I-35									\$ -	\$ -
	General Layout		1		3					\$ 430.00	\$ 430.00
	Quantity Charts / Tabulations		8	20	40					\$ 6,840.00	\$ 6,840.00
	Typical Section		2	12	8					\$ 2,216.00	\$ 2,216.00
	Construction Details		6	8						\$ 1,744.00	\$ 1,744.00
	Alternatives Analysis & Easement Reviews	1	12	24	16					\$ 5,887.00	\$ 5,887.00
	Removals Plans @ 1" = 40'		2	12	8					\$ 2,216.00	\$ 2,216.00
	Plan and Profile (7 sheets) @ 1"= 40' scale		20	80	80					\$ 18,240.00	\$ 18,240.00
	Temporary Water Plans		4	12	20					\$ 3,616.00	\$ 3,616.00
	City and MnDOT review Corrections		1	2	2					\$ 536.00	\$ 536.00
	Quality Control / Quality Assurance Reviews (30%, 60%, 90%, 95%, 100%)	2	2				8			\$ 1,894.00	\$ 1,894.00
2.04	Utility Items									\$ -	\$ -
	Incorporate MnDOT utility mapping		8	16	40					\$ 6,448.00	\$ 6,448.00
	Sanitary Flow Assessment & Calculations		20	40	12					\$ 8,200.00	\$ 8,200.00
	Utility Staging / Phasing Analysis		12	40	60					\$ 11,240.00	\$ 11,240.00
										\$ -	\$ -
3.00	Cost Estimate	0	3	6	0	0	0	9	\$ -	\$ 1,068.00	\$ 1,068.00
3.01	Cost Estimate		3	6							
4.00	Bidding	0	0	0	0	0	0	0	\$ -	\$ -	\$ -
4.01											
	Total Hours	6	165	418	451	0	16			SUMMARY	
	Cost per Hour	\$ 175	\$ 160	\$ 98	\$ 90	\$ 90	\$ 153			TOTAL LABOR	\$ 111,452.00
										TOTAL EXPENSES	\$ -
	Total Cost	\$ 1,050	\$ 26,400	\$ 40,964	\$ 40,590	\$ -	\$ 2,448			TOTAL FEE	\$ 111,452