

HUBBELL, ROTH & CLARK, INC

Consulting Engineers

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HRC Job No. 20050147.86

March 10, 2008

City of Rochester Hills 1000 Rochester Hills Drive Rochester Hills, Michigan 48309

Attention: Mr. Paul Davis, P.E., City Engineer

Re: East Ferry Drain and John R Road Improvements

Construction Engineering Services

Dear Mr. Davis:

Thank you for considering Hubbell, Roth and Clark, Inc. (HRC) to provide construction engineering services for the subject project. Our scope of work services is based on the design contract documents, the preliminary estimated \$4.4 million construction cost and our previous conversations. The following details our proposed engineering services:

- 1. **Bidding Process** HRC will provide engineering services throughout the bidding process. Services will include attendance at the mandatory pre-bid meeting, clarifications of contract requirements, preparation of any addendums, reproduction of contract documents, bid analysis and recommendation of award.
- 2. **Field Layout** HRC will provide construction surveying layout services for the various phases of the project including the Michelson Pump Station, the E. Ferry Drain, the VanMaele Drain, John R. Road and Spencer Park. Services will include staking and re-staking to establish such lines, points, grades and benchmarks as necessary to locate and control construction in accordance with the Plans.
- 3. Contract Administration HRC will provide the City technical assistance and clarification of the design documents during construction. Under this task we have included time to attend a weekly progress meeting and complete review of shop drawings. HRC will also review certificates of inspections and tests completed in accordance with the Contract Documents to evaluate their content for compliance with the Contract Documents. As part of the Contract Close-out process, HRC will evaluate the construction for completeness including various permit conditions. Reproduction of up to twenty (20) sets of Plans is included.
- 4. Observation HRC will provide up to 2,200 hours of Senior Observer staff time and an additional 1,700 hours of Observer staff time. These HRC personnel will provide oversight and documentation of the construction process including daily logs, quantities, test results and communication with City staff to maintain project status awareness. HRC observation staff will also distribute "Construction Flyers" and take photo documentation as warranted to keep the public informed and document various site conditions.

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5. **Record Drawings** – HRC will complete Record Drawings (As-Builts) including supplemental survey work as necessary and provide a digital and reproducible copy to the City.

Listed on Table 1 are the estimated hours and associated fees to complete these tasks. As shown, the total engineering cost is \$547,608.00, which equates to 12.45% of the estimated construction cost and does not include material testing and construction management services. It is proposed that these engineering services be authorized through an amendment to the existing John R Road and East Ferry Drain Improvement Project. This cost is to be invoiced on a time basis with a multiplier of 2.9 times direct payroll and will not be exceeded without prior authorization. It is our understanding that the City will manage the project including processing payment requests, progress schedules and other submittals as required in the Contract Documents. Material testing services will be completed by the City's geotechnical consultant.

Should you have any questions regarding this proposal, please contact me.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Daniel W. Mitchell, P.E.

Associate

DWM/dwm Attachment

pc: HRC; W. Alix, File

TABLE 1 ESTIMATED HOURS AND FEES

CITY OF ROCHESTER HILLS JOHN R ROAD WIDENING & E. FERRY DRAIN IMPROVEMENTS

March 5, 2008

Market 5, 2000									H	HRC Job No.	20050147
	Associate/		_	또 -	Rate Classification & Estimated Hours	on & Estimated	Hours				
	Project									Clouded &	
Task Description	Manager	Sr. Engineer	Engineer	Sr. Tech.	Technician	Survey Crew	Survey Office	Sr. Observer	Observer	Repro.	Total Hours
BIDDING PROCESS											
1 Contract Clarifications	40	09		4	4						
2 Pre-Bid Meeting	20	30		20	00			-	7000		108
3 Reproduction				2	2					4	94
4 Bid Analysis & Recommendation of Award	10	00			4				777774		4
SUBTOTALS	0.7 7.0			i,	9					4	34
FIELD LAYOUT	Ž.			***	97		1		,	90	240
1 Michelson PS Layout		ľ									
2 E Exerc. 8. VicaMod. Paris 1	-	2				20					23
- 1		. 2				140					143
- 1	-	2				140					143
	-					40					142
	1	7				100			7700		4-1
6 Office Coordination	5	8		40		00	90			c	103
SUBTOTALS	10		,	40		097	40			0	171
CONTRACT ADMINISTRATION						201		•	_	8	574
1 Design Clarification & Technical Assistance	100	100		40							
2 Progress Meetings	120	07	40	2 5	9					20	260
3 Shop Drawings	000	001	OF C	7	740			40	40	40	400
4 Review Construction Documentation (as necessary)	07		0+							20	200
1	04									10	170
	O#		-							20	100
	† [?									40	44
ORSERVATION	324	470	2	2	40	,	,	40	40	150	1,174
1 11 11 11 11 11 11 11 11 11 11 11 11 1											
7 Observation	40	40	2								08
- 1								2,000	1,500		3.500
rubiic Coordination	40							200	200		440
SUBTOTALS RECORD DRAWINGS	S	04	•	•		,		2,200	1,700	,	4,020
						40	10				Ç.
- 1	10	40			120		2				00.
3 Reproduction										oc.	170
SUBTOTALS		gp		Ī	110		4			07	20
					071	0#	10	•	,	20	240
PROJECT TOTALS	494	979	80	144	188	200	90	2,240	1,740	186	6,248

ESTIMATED FEE SUMMARY

	HC SS		RATE	TOTAI
Associate/ Project Manager	494	S	46,00	\$ 22 724 00
Sr. Engineer	626	· ·	30.00	S 24 14 00
Taois as		•	00.00	00.414.47
Engineer	980	54)	31.00	\$ 2,480.00
Sr. Tech.	144	S	29.00	\$ 4,176.00
Technician	188	S.	23.00	\$ 4,324.00
Survey Crew	200	5 9	63.00	\$ 31 500 00
Survey Office	50	S	29.00	\$ 1.450.00
Sr. Observer	2,240	S	28.00	\$ 62,720.00
Observer	1,740	S	18.00	\$ 31320.00
Clerical & Repro.	186	S	20.00	S 3.720.00
TOTAL DIRECT PAYROLL			S	188 878 00
TOTAL INDIRECT PAYROLL (1.9)			· 60	358.780.00
TOTAL ESTIMATED COST			S	547,608.00