

STANDARD AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT made between the City of Aurora, whose address is 44 E. Downer Place, Aurora, Illinois 60507 hereinafter called the **CLIENT** and Crawford, Murphy & Tilly, Inc., Consulting Engineers, 2750 West Washington Street, Springfield, Illinois 62702, hereinafter called the **ENGINEER**.

WITNESSETH, that whereas the **CLIENT** desires the following described professional engineering, land surveying or architectural services:

Professional design and construction engineering services for the New Well 105 Improvements as described in the attached Exhibit A – Scope of Services.

NOW THEREFORE, the **ENGINEER** agrees to provide the above described services and the **CLIENT** agrees to compensate the **ENGINEER** for these services in the manner checked below:

☒ On a time and expense basis in accordance with the attached Exhibit C - Schedule of Hourly Charges which is subject to change at the beginning of each calendar year. Reimbursable direct expenses will be invoiced at cost. Professional or Subconsultant services performed by another firm will be invoiced at cost plus ten percent. Note that no Professional or Subconsultant services are anticipated to be furnished to the **ENGINEER** by another firm on this project.

☐ At the lump sum amount of \$_____.

IT IS MUTUALLY AGREED THAT, payment for services rendered shall be made monthly in accordance with invoices rendered by the **ENGINEER**.

IT IS FURTHER MUTUALLY AGREED:

That the compensation for design phase and construction phase engineering services for the New Well 105 Improvements shall not exceed \$283,000, per the attached Exhibit B without further authorization from the **CLIENT**.

The **CLIENT** and the **ENGINEER** each binds himself, his partners, successors, executors, administrators and assignees to each other party hereto in respect to all the covenants and agreements herein and, except as above, neither the **CLIENT** nor the **ENGINEER** shall assign, sublet or transfer any part of his interest in this **AGREEMENT** without the written consent of the other party hereto. This **AGREEMENT**, and its construction, validity and performance, shall be governed and construed in accordance with the laws of the State of Illinois. This **AGREEMENT** is subject to the General Conditions attached hereto.

IN WITNESS WHEREOF, the parties hereto have affixed their hands and seals this ____ day of ____, 2023.

CLIENT:

CITY OF AURORA

(Client Name)

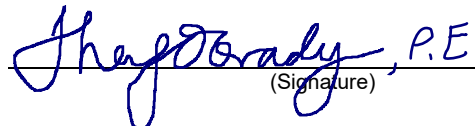
(Signature)

(Name and Title)

CMT Job No. _____

ENGINEER:

CRAWFORD, MURPHY & TILLY, INC.



(Signature)

Theresa O'Grady, Vice President

(Name and Title)

STANDARD GENERAL CONDITIONS
Crawford, Murphy & Tilly, Inc.

1. Standard of Care

In performing its professional services hereunder, the **ENGINEER** will use that degree of care and skill ordinarily exercised, under similar circumstances, by members of its profession practicing in the same or similar locality. No other warranty, express or implied, is made or intended by the **ENGINEER'S** undertaking herein or its performance of services hereunder.

2. Reuse of Document

All Reports, Drawings, Specifications, other documents, and electronic media prepared or furnished by **ENGINEER** pursuant to this Agreement are instruments of service in respect to the Project and shall be the property of the **CLIENT**. **ENGINEER** shall retain the right of reuse of said documents and electronic media by and at the discretion of the **ENGINEER** whether or not the Project is completed. Reproducible copies of **ENGINEER'S** documents and electronic media of the Project and **ENGINEER's** documents shall be delivered to the **CLIENT**; however, Project and **ENGINEER's** documents and electronic media are not intended or represented to be suitable for reuse by the **CLIENT** or others on additions or extensions of the Project, or on any other project.

3. Termination

This Agreement may be terminated by either party upon seven days prior written notice. In the event of termination, the **ENGINEER** shall be compensated by the client for all services performed up to and including the termination date, including reimbursable expenses.

4. Parties to the Agreement

The services to be performed by the **ENGINEER** under this Agreement are intended solely for the benefit of the **CLIENT**. Nothing contained herein shall confer any rights upon or create any duties on the part of the **ENGINEER** toward any person or persons not a party to this Agreement including, but not limited to any contractor, subcontractor, supplier, or the agents, officers, employees, insurers, or sureties of any of them.

5. Construction and Safety

This project will be completed with **CLIENT** staff working alongside **ENGINEER** staff. The **ENGINEER** shall be responsible for the safety of their own personnel working on the job site. The **CLIENT** shall be responsible for the safety of their own personnel working on the job site.

6. Payment

CLIENT shall be invoiced once each month for work performed during the preceding period. **CLIENT** agrees to approve and pay such invoices in the manner provided by the Local Government Prompt Payment Act, 50 ILCS 505/1 et. seq. **CLIENT** further agrees to pay interest on all amounts approved and not paid at the interest rate permitted under the Local Government Prompt Payment Act.

7. Insurance

ENGINEER shall indemnify and save harmless **CITY**, its officers and employees, from suits, actions or claims of any character brought because of any injuries or damages received or sustained by any person, persons, or property resulting from any negligent act, error or omission on the part of **ENGINEER**.

During the term of this AGREEMENT, **ENGINEER** shall provide the following types of insurance with no less than the following specified amounts.

- a. Comprehensive general liability – combined single limit amount of \$1,000,000 per incident, \$2,000,000 general aggregate limit.
- b. Auto Liability – combined single limit amount of \$1,000,000 per incident on any vehicle driven by an R.I. while engaged in any activity within the scope of this AGREEMENT.
- c. Professional Liability - \$5,000,000;
- d. Worker's Compensation – Statutory Limit; the policy shall include a "Waiver of Subrogation" clause;
- e. "Umbrella Coverage" - \$5,000,000.

ENGINEER shall furnish to **CITY** satisfactory proof of coverage of the above insurance requirements by a reliable company or companies, before commencing any work. Such proof shall consist of a current certificate executed by the insurance company(s) and shall be filed with **CITY**. Said certificate shall name the city of Aurora as additional, non-contributory insured and contain a clause which requires that no change shall be made to the coverage and there shall be no cancellation or lapse of such coverage unless **CITY** receives written notification from the insurance company providing coverage at least thirty (30)-days in advance of said cancellation or change in coverage.

City of Aurora
New Well No. 105 Improvements

June 9, 2023

Exhibit A - Scope of Services

The Well #105 Improvements Programs will consist of three separate projects that will be designed and bid out separately and constructed by separate Contractors. The three projects are Well #105 Shallow Well Drilling; Well #105 Pump & Motor; and Well #105 Site Piping, Vaults & Electrical.

The proposed Well #105 site is located along Orchard Road at the southeast corner of the intersection of Illinois Avenue at 2390 W. Illinois Avenue. This site also has existing City of Aurora Fire Station No. 10. New well facilities include shallow limestone well, discharge piping/valves in vaults, electrical equipment to power the well pump/motor, as well as SCADA.

The following assumptions have been included in the development of the scope of services and estimated effort:

- SCADA will be designed by the City's SCADA integrator as an allowance to the construction of the Site Piping, Vaults & Electrical project.
- The well discharge piping will connect to the existing well collector line along Orchard Road.
- The connection to the existing well collector will be either a cut-in connection (if the well collector can be taken out of service) or a pressure connection (if the well collector cannot be taken out of service) and will be open cut.
- Electrical equipment will be housed in weatherproof enclosures mounted on concrete pedestals.
- Multiple precast manholes will be utilized for the required piping/valves (not a single cast-in-place vault).
- No HVAC, or lighting is anticipated for the vaults.
- No chemical feed or water quality monitoring at the site.
- It has been assumed that the Contractor will obtain a City building permit for the construction of the improvements. CMT will coordinate with the City Building Department during design to determine the permit requirements to include in the specifications. Applying for or obtaining a City Building permit has not been included in the project tasks.
- Environmental soils testing has not been included. CMT will coordinate with the City of Aurora Water Production Division for soils testing and reporting and will include Clean Construction Demolition Debris disposal requirements in the specifications.
- It has been assumed that the ISWS will be able to provide geological information at no cost. If geological information is not readily available and requires contracting of ISWS for this project, an allowance of \$2,500 has been included in the design effort to contract with ISWS.

Project Tasks

The following tasks are anticipated to provide design phase and bidding phase engineering services for each of three projects (as appropriate).

1. Conduct project kick off meeting with the City.
2. Obtain JULIE (and any other utility) information.
3. Obtain records search from Environmental Data Resources (EDR) to determine shallow well feasibility. Review EDR report. Make recommendation to the City.
 - o CMT will also contact ISWS for information on geological conditions that might impact the location of Well #105.
4. Survey the well site including connection to existing well collector. Download survey and create base sheets.
5. Develop preliminary well site plan, including vault locations and well collector alignment & connection. Submit to the City for review.
6. Prepare pre-final drawings and specifications. Submit pre-final drawings and specifications to the City for review.
7. Submit pre-final drawings and specifications for permitting by the following agencies:
 - o IEPA
 - o Kane County Department of Transportation
 - o Kane-DuPage Soil and Water Conservation District (if required based on area of disturbance)
8. Meeting with the City to discuss comments on pre-final drawings and specifications.
9. Prepare Opinion of Probable Construction Costs.
10. Verify construction schedule based on lead times of major equipment.
11. Prepare final drawings and specifications for bidding. Submit pdf and electronic copies to the City.
12. Provide final drawings and specifications to the City for publication through the City of Aurora Purchasing Division.
13. Conduct pre-bid meeting, prepare and distribute meeting minutes.
14. Respond to bidder's questions. Prepare and issue addenda (as necessary).
15. Attend bid opening and prepare bid tabulation.
16. Perform review of bids, prepare recommendation for award.

The following tasks are anticipated to provide construction phase engineering services for each of the three projects.

2. Issue Notice of Award.
3. Prepare five contracts for execution. Send to the Contractor for execution. Review returned contracts prior to signature by the City.
4. Issue Notice to Proceed.
5. Conduct Pre-construction meeting and prepare meeting minutes.
6. Review shop drawings.
 - o For well drilling: Assume 10.
 - o For well pump & motor: Assume 4.
 - o For site piping, vaults & electrical: Assume 20.
7. Perform construction observation as follows:
 - o For well drilling: Perform part-time construction observation duties for the well drilling and well pump test (assume 6 weeks – 20 hours each week – 120 hours).
 - o For well pump & motor: Perform part-time construction observation duties for the well installation of the pump & motor (assume 2 weeks – 20 hours each week – 40 hours).

- For site piping, vaults & electrical: Perform full-time construction observation during installation of the site piping, vaults, and underground electrical activities (assume 4 weeks – 160 hours). Perform part-time construction observation during non-buried construction such as installation of mechanical/electrical inside vaults, turf restoration (assume 12 weeks – 20 hours per week - 240 hours).
- 8. Respond to Questions (RFIs) during Construction.
- 9. Conduct monthly progress meetings with Contractors and Aurora Water Production Department staff.
- 10. Review and recommend submitted pay requests (in addition to final pay request noted in #13).
 - For well drilling: Assume 3.
 - For well pump & motor: Assume 1.
 - For site piping, vaults & electrical: Assume 4
- 11. Review submitted change order requests and requests for interpretation.
- 12. Attend start-up and testing. It has been assumed that the Aurora Water Production Department staff will perform bacteriological sampling and testing to obtain IEPA Operating Permit.
- 13. Conduct punchlist inspection and prepare punchlist.
- 14. Review and recommend final payment.
- 15. Prepare project close out documents including record drawings and O&M manuals. Submit pdf and electronic copies of record drawings to the City.

**CITY OF AURORA
NEW WELL NO. 105 IMPROVEMENTS**

**2023 PROFESSIONAL SERVICES COST ESTIMATE
EXHIBIT B**

**CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS**

9-Jun-23

		Estimated Effort	Estimated Amount
DESIGN PHASE SERVICES			
B-1	Well No. 105 Shallow Well Drilling Design	164	\$30,000
B-2	Well No. 105 Shallow Well Pump & Motor Design	96	\$16,000
B-3	Well No. 105 Site Piping, Vaults & Electrical Design	390	\$62,000
CONSTRUCTION PHASE SERVICES			
B-4	Well No. 105 Shallow Well Drilling Construction	296	\$48,000
B-5	Well No. 105 Shallow Well Pump & Motor Construction	143	\$24,000
B-6	Well No. 105 Site Piping, Vaults & Electrical Construction	653	\$103,000
TOTAL ENGINEERING SERVICES		1,742	\$283,000

CRAWFORD, MURPHY & TILLY, INC.
 CONTRACT ATTACHMENT - EXHIBIT B1 - 2023 PROFESSIONAL SERVICES COST ESTIMATE

CLIENT CITY OF AURORA
 PROJECT NAME WELL NO. 105 SHALLOW WELL DRILLING DESIGN
 CMT JOB NO. 23005539.00

Prep By	AJW
DATE	05/01/23
Apprvd	TLO
DATE	05/01/23

TASK NO.	TASKS \ CLASSIFICATIONS	MAN HOURS & LABOR SUMMARY												
		Principal	Project Engineer II	Project Engineer I	Project Structural Engineer I	Senior Engineer I	GIS Specialist	Engineer I	Land Surveyor	Sr. Technician II	Sr. Technician I	Technician I	Administrative Assistant	
	CURRENT YEAR 2023 HOURLY RATES	\$233.22	\$233.26	\$206.07	\$186.97	\$137.89	\$122.57	\$107.62	\$133.92	\$166.49	\$136.29	\$88.59	\$83.98	TOTAL
1-3	Kick-off Meeting with City and Data Gathering			2		2								4
4	Survey and Develop Site Plan (included in B-3)													
5	Prepare Preliminary Plans, Review with City Staff			6		12				8				26
6	Prepare Pre-Final Plans & Specifications, Review with City Staff			8		24				12				44
7	Permitting - IEPA			2		8								10
8	Meet with City to Review Pre-Final Plans & Specifications			2		4								6
9-10	Prepare OPCC & Verify Schedule			2		8								10
11	Prepare Final Plans & Specifications			6		12				4				22
12	Advertise for Bidding			2										2
13	Conduct Pre-Bid Meeting			2		4								6
14	Respond to Bidder's Questions, Issue Addenda			4		4								8
15	Attend Bid Opening, Prepare Bid Tabulation					4								4
16	Review Bids and Recommend Award			2		4								6
	Project Management / QA-QC			16										16
	TOTAL MAN HOURS			54		86				24				164
	SUBTOTAL - BASE LABOR EFFORT			\$11,128		\$11,859				\$3,996				\$26,983
	TASKS (CONTINUED)	TOTAL LABOR EFFORT	DIRECT EXPENSE & REIMBURSABLES											TOTAL FEE
1-3	Kick-off Meeting with City and Data Gathering	\$688	TRAVEL MILEAGE	MEALS & LODGING	PRINTING	EQUIP- MENT	MISC	SURVEY MTL	SUBS	SUBS ADMIN	OTHER EXP	OTHER EXP	TOTAL EXPENSE	
4	Survey and Develop Site Plan (included in B-3)						\$150		\$2,500				\$2,650	\$3,338
5	Prepare Preliminary Plans, Review with City Staff	\$4,223												\$4,223
6	Prepare Pre-Final Plans & Specifications, Review with City Staff	\$6,956												\$6,956
7	Permitting - IEPA	\$1,515			\$50								\$50	\$1,565
8	Meet with City to Review Pre-Final Plans & Specifications	\$964												\$964
9-10	Prepare OPCC & Verify Schedule	\$1,515												\$1,515
11	Prepare Final Plans & Specifications	\$3,557												\$3,557
12	Advertise for Bidding	\$412												\$412
13	Conduct Pre-Bid Meeting	\$964												\$964
14	Respond to Bidder's Questions, Issue Addenda	\$1,376												\$1,376
15	Attend Bid Opening, Prepare Bid Tabulation	\$552												\$552
16	Review Bids and Recommend Award	\$964												\$964
	Project Management / QA-QC	\$3,297												\$3,297
	TOTALS	\$26,983			\$50		\$150		\$2,500				\$2,700	\$29,683
	TIME PERIOD OF PROJECT	2023	2024	2025	2026	TOTAL	EST % OF OT HRS INCLUDED ABOVE						MULTI-YEAR + OT	
	PERCENTAGE OF WORK TO BE PERFORMED BY YEAR	100%				100%	AVERAGE OVERTIME RATE PREMIUM						MLTPLR & AMT	
	WEIGHTING FACTOR FOR 5% ANNUAL ADJUSTMENT	1.0000				1.0000	OT ADJUSTMENT FACTOR						1.0000	
	ESTIMATED CONTINGENCY													
	ROUNDING													
	TOTAL FEE	MATH CROSS CHECK IS OK												\$30,000

CRAWFORD, MURPHY & TILLY, INC.
 CONTRACT ATTACHMENT - EXHIBIT B2 - 2023 PROFESSIONAL SERVICES COST ESTIMATE
 CLIENT CITY OF AURORA
 PROJECT NAME WELL NO. 105 SHALLOW WELL PUMP & MOTOR DESIGN
 CMT JOB NO. 23005539.00

Prep By	AJW
DATE	05/01/23
Apprvd	TLO
DATE	05/01/23

TASK NO.	TASKS \ CLASSIFICATIONS	Principal	Project Engineer II	Project Engineer I	Project Structural Engineer I	Senior Engineer I	GIS Specialist	Engineer I	Land Surveyor	Sr. Technician II	Sr. Technician I	Technician I	Administrative Assistant	MAN HOURS & LABOR SUMMARY
	CURRENT YEAR 2023 HOURLY RATES	\$233.22	\$233.26	\$206.07	\$186.97	\$137.89	\$122.57	\$107.62	\$133.92	\$166.49	\$136.29	\$88.59	\$83.98	TOTAL
1-3	Kick-off Meeting with City and Data Gathering			2		2								4
4	Survey and Develop Site Plan													
5	Prepare Preliminary Plans, Review with City Staff			2		8				4				14
6	Prepare Pre-Final Plans & Specifications, Review with City Staff			4		12				4				20
7	Permitting - IEPA			2		4								6
8	Meet with City to Review Pre-Final Plans & Specifications			2		4								6
9-10	Prepare OPCC & Verify Schedule			1		2								3
11	Prepare Final Plans & Specifications			4		8				2				14
12	Advertise for Bidding			2										2
13	Conduct Pre-Bid Meeting			2		4								6
14	Respond to Bidder's Questions, Issue Addenda			2		2								4
15	Attend Bid Opening, Prepare Bid Tabulation					4								4
16	Review Bids and Recommend Award			1		2								3
	Project Management / QA-QC			10										10
	TOTAL MAN HOURS			34		52				10				96
	SUBTOTAL - BASE LABOR EFFORT			\$7,006		\$7,170				\$1,665				\$15,841
	TASKS (CONTINUED)	TOTAL LABOR EFFORT	DIRECT EXPENSE & REIMBURSABLES										TOTAL EXPENSE	TOTAL FEE
1-3	Kick-off Meeting with City and Data Gathering	\$688	TRAVEL MILEAGE	MEALS & LODGING	PRINTING	EQUIP- MENT	MISC	SURVEY MTL	SUBS	SUBS ADMIN	OTHER EXP	OTHER EXP		\$688
4	Survey and Develop Site Plan													
5	Prepare Preliminary Plans, Review with City Staff	\$2,181												\$2,181
6	Prepare Pre-Final Plans & Specifications, Review with City Staff	\$3,145												\$3,145
7	Permitting - IEPA	\$964			\$50								\$50	\$1,014
8	Meet with City to Review Pre-Final Plans & Specifications	\$964												\$964
9-10	Prepare OPCC & Verify Schedule	\$482												\$482
11	Prepare Final Plans & Specifications	\$2,260												\$2,260
12	Advertise for Bidding	\$412												\$412
13	Conduct Pre-Bid Meeting	\$964												\$964
14	Respond to Bidder's Questions, Issue Addenda	\$688												\$688
15	Attend Bid Opening, Prepare Bid Tabulation	\$552												\$552
16	Review Bids and Recommend Award	\$482												\$482
	Project Management / QA-QC	\$2,061												\$2,061
	TOTALS	\$15,843			\$50								\$50	\$15,893
	TIME PERIOD OF PROJECT	2023	2024	2025	2026	TOTAL	EST % OF OT HRS INCLUDED ABOVE						MULTI-YEAR + OT	
	PERCENTAGE OF WORK TO BE PERFORMED BY YEAR	100%				100%	AVERAGE OVERTIME RATE PREMIUM						MLTPLR & AMT	
	WEIGHTING FACTOR FOR 5% ANNUAL ADJUSTMENT	1.0000				1.0000	OT ADJUSTMENT FACTOR						1.0000	
	ESTIMATED CONTINGENCY													
	ROUNDING													
	TOTAL FEE	MATH CROSS CHECK IS OK												\$16,000

CRAWFORD, MURPHY & TILLY, INC.
 CONTRACT ATTACHMENT - EXHIBIT B3 - 2023 PROFESSIONAL SERVICES COST ESTIMATE
 CLIENT CITY OF AURORA
 PROJECT NAME WELL NO. 105 SITE PIPING, VAULTS & ELECTRICAL DESIGN
 CMT JOB NO. 23005539.00

Prep By	AJW
DATE	05/01/23
Apprvd	TLO
DATE	05/01/23

TASK NO.	TASKS \ CLASSIFICATIONS	Principal	Project Engineer II	Project Engineer I	Project Structural Engineer I	Senior Engineer I	GIS Specialist	Engineer I	Land Surveyor	Sr. Technician II	Sr. Technician I	Technician I	Administrative Assistant	MAN HOURS & LABOR SUMMARY
	CURRENT YEAR 2023 HOURLY RATES	\$233.22	\$233.26	\$206.07	\$186.97	\$137.89	\$122.57	\$107.62	\$133.92	\$166.49	\$136.29	\$88.59	\$83.98	TOTAL
1-3	Kick-off Meeting with City and Data Gathering			2		4			2					8
4	Survey and Develop Site Plan			2		16			16	8				42
5	Prepare Preliminary Well Site Plans, Review with City Staff			8		12		12		24				56
6	Prepare Pre-Final Plans & Specifications, Review with City Staff			24		24		24		48				120
7	Permitting - IEPA, KCDOT, KDSWCD			8		40								48
8	Meet with City to Review Pre-Final Plans & Specifications			2		4								6
9-10	Prepare OPCC & Verify Schedule			4		8								12
11	Prepare Final Plans & Specifications			8		8		8		16				40
12	Advertise for Bidding			2										2
13	Conduct Pre-Bid Meeting			2		4								6
14	Respond to Bidder's Questions, Issue Addenda			8		8								16
15	Attend Bid Opening, Prepare Bid Tabulation					4								4
16	Review Bids and Recommend Award			2		4								6
	Project Management / QA-QC			24										24
	TOTAL MAN HOURS			96		136		44	18	96				390
	SUBTOTAL - BASE LABOR EFFORT			\$19,783		\$18,753		\$4,735	\$2,411	\$15,983				\$61,665
	TASKS (CONTINUED)	TOTAL LABOR EFFORT	DIRECT EXPENSE & REIMBURSABLES										TOTAL EXPENSE	TOTAL FEE
			TRAVEL MILEAGE	MEALS & LODGING	PRINTING	EQUIP- MENT	MISC	SURVEY MTL	SUBS	SUBS ADMIN	OTHER EXP	OTHER EXP		
1-3	Kick-off Meeting with City and Data Gathering	\$1,232												\$1,232
4	Survey and Develop Site Plan	\$6,093												\$6,093
5	Prepare Preliminary Well Site Plans, Review with City Staff	\$8,590												\$8,590
6	Prepare Pre-Final Plans & Specifications, Review with City Staff	\$18,829												\$18,829
7	Permitting - IEPA, KCDOT, KDSWCD	\$7,164			\$50								\$50	\$7,214
8	Meet with City to Review Pre-Final Plans & Specifications	\$964												\$964
9-10	Prepare OPCC & Verify Schedule	\$1,927												\$1,927
11	Prepare Final Plans & Specifications	\$6,276												\$6,276
12	Advertise for Bidding	\$412												\$412
13	Conduct Pre-Bid Meeting	\$964												\$964
14	Respond to Bidder's Questions, Issue Addenda	\$2,752												\$2,752
15	Attend Bid Opening, Prepare Bid Tabulation	\$552												\$552
16	Review Bids and Recommend Award	\$964												\$964
	Project Management / QA-QC	\$4,946												\$4,946
	TOTALS	\$61,665			\$50								\$50	\$61,715
	TIME PERIOD OF PROJECT	2023	2024	2025	2026	TOTAL	EST % OF OT HRS INCLUDED ABOVE						MULTI-YEAR + OT	
	PERCENTAGE OF WORK TO BE PERFORMED BY YEAR	100%				100%	AVERAGE OVERTIME RATE PREMIUM						MLTPLR & AMT	
	WEIGHTING FACTOR FOR 5% ANNUAL ADJUSTMENT	1.0000				1.0000	OT ADJUSTMENT FACTOR						1.0000	
	ESTIMATED CONTINGENCY													
	ROUNDING													
	TOTAL FEE	MATH CROSS CHECK IS OK												\$62,000

CRAWFORD, MURPHY & TILLY, INC.
 CONTRACT ATTACHMENT - EXHIBIT B4 - 2023 PROFESSIONAL SERVICES COST ESTIMATE

CLIENT CITY OF AURORA
 PROJECT NAME WELL NO. 105 SHALLOW WELL DRILLING CONSTRUCTION
 CMT JOB NO. 23005539.00

Prep By	AJW
DATE	05/01/23
Apprvd	TLO
DATE	05/01/23

TASK NO.	TASKS \ CLASSIFICATIONS	Principal	Project Engineer II	Project Engineer I	Project Structural Engineer I	Senior Engineer I	GIS Specialist	Engineer I	Land Surveyor	Sr. Technician II	Sr. Technician I	Technician I	Administrative Assistant	MAN HOURS & LABOR SUMMARY
	CURRENT YEAR 2023 HOURLY RATES	\$233.22	\$233.26	\$206.07	\$186.97	\$137.89	\$122.57	\$107.62	\$133.92	\$166.49	\$136.29	\$88.59	\$83.98	TOTAL
1-3	Issue Notice of Award, Contract Execution & Notice to Proceed					6							6	12
4	Conduct pre-construction meeting, prepare minutes			4		8								12
5	Review Shop Drawings (assume 10)			5		20								25
6	Perform Construction Observation (6 weeks - 20 hrs/wk)					120								120
7	Respond to Questions during Construction			8		8								16
8	Attend Progress Meetings (3)			6		12								18
9	Review Pay Requests & Schedules (3)			3		6								9
10	Review Change Order Requests			8		8								16
11	Attend Start-up & Testing					8								8
12	Conduct punchlist inspection & prepare punchlist			1		6								7
13	Review & recommend final payment			1		2								3
14	Project Close-Out includig Record Drawings			6		20								26
	Project Management			24										24
	TOTAL MAN HOURS			66		224							6	296
	SUBTOTAL - BASE LABOR EFFORT			\$13,601		\$30,887							\$504	\$44,992
	TASKS (CONTINUED)	TOTAL LABOR EFFORT	DIRECT EXPENSE & REIMBURSABLES											TOTAL FEE
			TRAVEL MILEAGE	MEALS & LODGING	PRINTING	EQUIP-MENT	MISC	SURVEY MTL	SUBS	SUBS ADMIN	OTHER EXP	OTHER EXP	TOTAL EXPENSE	
1-3	Issue Notice of Award, Contract Execution & Notice to Proceed	\$1,331			\$200								\$200	\$1,531
4	Conduct pre-construction meeting, prepare minutes	\$1,927												\$1,927
5	Review Shop Drawings (assume 10)	\$3,788												\$3,788
6	Perform Construction Observation (6 weeks - 20 hrs/wk)	\$16,547	\$400										\$400	\$16,947
7	Respond to Questions during Construction	\$2,752												\$2,752
8	Attend Progress Meetings (3)	\$2,891	\$40										\$40	\$2,931
9	Review Pay Requests & Schedules (3)	\$1,446												\$1,446
10	Review Change Order Requests	\$2,752												\$2,752
11	Attend Start-up & Testing	\$1,103												\$1,103
12	Conduct punchlist inspection & prepare punchlist	\$1,033												\$1,033
13	Review & recommend final payment	\$482												\$482
14	Project Close-Out includig Record Drawings	\$3,994			\$200								\$200	\$4,194
	Project Management	\$4,946												\$4,946
	TOTALS	\$44,992	\$440		\$400								\$840	\$45,832
	TIME PERIOD OF PROJECT	2023	2024	2025	2026	TOTAL	EST % OF OT HRS INCLUDED ABOVE							MULTI-YEAR + OT
	PERCENTAGE OF WORK TO BE PERFORMED BY YEAR		100%			100%	AVERAGE OVERTIME RATE PREMIUM							MLTPLR & AMT
	WEIGHTING FACTOR FOR 5% ANNUAL ADJUSTMENT		1.0500			1.0500	OT ADJUSTMENT FACTOR							1.0500 \$2,248
	ESTIMATED CONTINGENCY													
	ROUNDING													
	TOTAL FEE	MATH CROSS CHECK IS OK												\$48,000

CRAWFORD, MURPHY & TILLY, INC.
CONTRACT ATTACHMENT - EXHIBIT B5 - 2023 PROFESSIONAL SERVICES COST ESTIMATE
 CLIENT **CITY OF AURORA**
 PROJECT NAME **WELL NO. 105 SHALLOW WELL PUMP & MOTOR CONSTRUCTION**
 CMT JOB NO. **23005539.00**

Prep By	AJW
DATE	05/01/23
Apprvd	TLO
DATE	05/01/23

TASK NO.	TASKS \ CLASSIFICATIONS	Principal	Project Engineer II	Project Engineer I	Project Structural Engineer I	Senior Engineer I	GIS Specialist	Engineer I	Land Surveyor	Sr. Technician II	Sr. Technician I	Technician I	Administrative Assistant	MAN HOURS & LABOR SUMMARY	
	CURRENT YEAR 2023 HOURLY RATES	\$233.22	\$233.26	\$206.07	\$186.97	\$137.89	\$122.57	\$107.62	\$133.92	\$166.49	\$136.29	\$88.59	\$83.98	TOTAL	
1-3	Issue Notice of Award, Contract Execution & Notice to Proceed					6							6	12	
4	Conduct pre-construction meeting, prepare minutes			4		8								12	
5	Review Shop Drawings (assume 4)			2		8								10	
6	Perform Construction Observation (2 weeks - 20 hrs/wk)					40								40	
7	Respond to Questions during Construction			2		2								4	
8	Attend Progress Meetings (1)			6		12								18	
9	Review Pay Requests & Schedules (1)			1		2								3	
10	Review Change Order Requests			2		2								4	
11	Attend Start-up & Testing					8								8	
12	Conduct punchlist inspection & prepare punchlist			1		4								5	
13	Review & recommend final payment			1		2								3	
14	Project Close-Out includig Record Drawings			4		8								12	
	Project Management			12										12	
	TOTAL MAN HOURS			35		102							6	143	
	SUBTOTAL - BASE LABOR EFFORT			\$7,212		\$14,065							\$504	\$21,781	
	TASKS (CONTINUED)	TOTAL LABOR EFFORT	DIRECT EXPENSE & REIMBURSABLES											TOTAL FEE	
			TRAVEL MILEAGE	MEALS & LODGING	PRINTING	EQUIP- MENT	MISC	SURVEY MTL	SUBS	SUBS ADMIN	OTHER EXP	OTHER EXP	TOTAL EXPENSE		
1-3	Issue Notice of Award, Contract Execution & Notice to Proceed	\$1,331			\$200								\$200	\$1,531	
4	Conduct pre-construction meeting, prepare minutes	\$1,927												\$1,927	
5	Review Shop Drawings (assume 4)	\$1,515												\$1,515	
6	Perform Construction Observation (2 weeks - 20 hrs/wk)	\$5,516	\$150										\$150	\$5,666	
7	Respond to Questions during Construction	\$688												\$688	
8	Attend Progress Meetings (1)	\$2,891	\$150										\$150	\$3,041	
9	Review Pay Requests & Schedules (1)	\$482												\$482	
10	Review Change Order Requests	\$688												\$688	
11	Attend Start-up & Testing	\$1,103												\$1,103	
12	Conduct punchlist inspection & prepare punchlist	\$758												\$758	
13	Review & recommend final payment	\$482												\$482	
14	Project Close-Out includig Record Drawings	\$1,927			\$200								\$200	\$2,127	
	Project Management	\$2,473												\$2,473	
	TOTALS	\$21,781	\$300		\$400								\$700	\$22,481	
	TIME PERIOD OF PROJECT	2023	2024	2025	2026	TOTAL	EST % OF OT HRS INCLUDED ABOVE AVERAGE OVERTIME RATE PREMIUM							MULTI-YEAR + OT	
	PERCENTAGE OF WORK TO BE PERFORMED BY YEAR		100%			100%								MLTPLR & AMT	
	WEIGHTING FACTOR FOR 5% ANNUAL ADJUSTMENT		1.0500			1.0500	OT ADJUSTMENT FACTOR							1.0500 \$1,089	
	ESTIMATED CONTINGENCY														
	ROUNDING														
	TOTAL FEE	MATH CROSS CHECK IS OK												\$24,000	

CRAWFORD, MURPHY & TILLY, INC.
CONTRACT ATTACHMENT - EXHIBIT B6 - 2023 PROFESSIONAL SERVICES COST ESTIMATE
 CLIENT **CITY OF AURORA**
 PROJECT NAME **WELL NO. 105 SITE PIPING, VAULTS & ELECTRICAL CONSTRUCTION**
 CMT JOB NO. **23005539.00**

Prep By	AJW
DATE	05/01/23
Apprvd	TLO
DATE	05/01/23

TASK NO.	TASKS \ CLASSIFICATIONS	Principal	Project Engineer II	Project Engineer I	Project Structural Engineer I	Senior Engineer I	GIS Specialist	Engineer I	Land Surveyor	Sr. Technician II	Sr. Technician I	Technician I	Administrative Assistant	MAN HOURS & LABOR SUMMARY
	CURRENT YEAR 2023 HOURLY RATES	\$233.22	\$233.26	\$206.07	\$186.97	\$137.89	\$122.57	\$107.62	\$133.92	\$166.49	\$136.29	\$88.59	\$83.98	TOTAL
1-3	Issue Notice of Award, Contract Execution & Notice to Proceed					6							6	12
4	Conduct pre-construction meeting, prepare minutes			4		8								12
5	Review Shop Drawings (assume 20)			10		40								50
6	Perform Construction Observation (16 weeks - FT & PT)					400								400
7	Respond to Questions during Construction			12		12								24
8	Attend Progress Meetings (4)			8		16								24
9	Review Pay Requests & Schedules (4)			4		8								12
10	Review Change Order Requests			12		12								24
11	Attend Start-up & Testing			8		8								16
12	Conduct punchlist inspection & prepare punchlist			4		6								10
13	Review & recommend final payment			1		2								3
14	Project Close-Out including Record Drawings			6		20								26
	Project Management			40										40
	TOTAL MAN HOURS			109		538							6	653
	SUBTOTAL - BASE LABOR EFFORT			\$22,462		\$74,185							\$504	\$97,151
	TASKS (CONTINUED)	TOTAL LABOR EFFORT	DIRECT EXPENSE & REIMBURSABLES											TOTAL FEE
			TRAVEL MILEAGE	MEALS & LODGING	PRINTING	EQUIP- MENT	MISC	SURVEY MTL	SUBS	SUBS ADMIN	OTHER EXP	OTHER EXP	TOTAL EXPENSE	
1-3	Issue Notice of Award, Contract Execution & Notice to Proceed	\$1,331			\$200								\$200	\$1,531
4	Conduct pre-construction meeting, prepare minutes	\$1,927												\$1,927
5	Review Shop Drawings (assume 20)	\$7,576												\$7,576
6	Perform Construction Observation (16 weeks - FT & PT)	\$55,156	\$600										\$600	\$55,756
7	Respond to Questions during Construction	\$4,128												\$4,128
8	Attend Progress Meetings (4)	\$3,855	\$40										\$40	\$3,895
9	Review Pay Requests & Schedules (4)	\$1,927												\$1,927
10	Review Change Order Requests	\$4,128												\$4,128
11	Attend Start-up & Testing	\$2,752												\$2,752
12	Conduct punchlist inspection & prepare punchlist	\$1,652												\$1,652
13	Review & recommend final payment	\$482												\$482
14	Project Close-Out including Record Drawings	\$3,994			\$200								\$200	\$4,194
	Project Management	\$8,243												\$8,243
	TOTALS	\$97,151	\$640		\$400								\$1,040	\$98,191
	TIME PERIOD OF PROJECT	2023	2024	2025	2026	TOTAL	EST % OF OT HRS INCLUDED ABOVE						MULTI-YEAR + OT	
	PERCENTAGE OF WORK TO BE PERFORMED BY YEAR		100%			100%	AVERAGE OVERTIME RATE PREMIUM						MLTPLR & AMT	
	WEIGHTING FACTOR FOR 5% ANNUAL ADJUSTMENT		1.0500			1.0500	OT ADJUSTMENT FACTOR						1.0500	\$4,859
	ESTIMATED CONTINGENCY													
	ROUNDING													
	TOTAL FEE	MATH CROSS CHECK IS OK											\$103,000	

**EXHIBIT C
CITY OF AURORA
NEW WELL 105 IMPROVEMENTS**

CLASS NO.	CLASSIFICATION	2022 AVG DIRECT LABOR RATE	ESTIMATE 2023 AVG DIRECT LABOR RATE (2022 Rate x 7.0%)	BILLING RATE Dir Labor x 2.99 Multiplier)
10	Principal (IDOT Cap is \$78)	78.00	78.00	233.22
20	Project Engineer II	72.91	78.01	233.26
30	Project Engineer I (Traffic Engineer)	64.41	68.92	206.07
36	Project Structural Engineer I	58.44	62.53	186.97
40	Sr. Engineer I	43.10	46.12	137.89
42	Technical Manager II	62.31	66.67	199.35
44	GIS Specialist	38.31	40.99	122.57
47	Sr. Structural Engineer I	46.85	50.13	149.89
50	Engineer I	33.64	35.99	107.62
56	Structural Engineer I	34.79	37.23	111.30
60	Planner I	33.92	36.29	108.52
65	Technical Manager I	31.33	33.52	100.23
70	Land Surveyor	41.86	44.79	133.92
80	Sr. Technician I	42.60	45.58	136.29
81	Sr. Technician II	52.04	55.68	166.49
90	Technician II	39.90	42.69	127.65
100	Technician I	27.69	29.63	88.59
110	Administrative/Accounting Assistant	26.25	28.09	83.98

Computation of Billing Rate Multiplier:

Direct labor factor	1.0000
Audited overhead rate	1.7226
Subtotal	2.7226
Profit factor	1.10
Total	2.99

Overhead and rate calculation is based on AASHTO guidelines for all US DOT's nationwide.