

2026 STANDARD AGREEMENT FOR PROFESSIONAL SERVICES

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

WITNESSETH, that whereas the **CLIENT** desires the following described professional services:

Continuation of a planned and organized system-wide watermain flushing program through the implementation of watermain flushing operations for a portion of the City of Aurora - four sub areas of Area 4 (Zone 4C through 4F), and five sub areas of Area 5 (Zone 5A through 5E) based on flushing sequences developed previously. The engineering services for the implementation of watermain flushing operations for Zones 4C, 4D, 4E and 4F of Area 4, and Zones 5A, 5B, 5C, 5D, and 5E of Area 5 is described in the attached Exhibit A – Scope of Services. The limits of the above-mentioned flushing areas are shown in the attached Exhibit B. The four sub areas of Area 4 and four sub areas of Area 5 are shown in the attached Exhibit B-1.

Annual update of hydraulic model based on watermain changes, update of flushing sequences based on field changes and hydraulic modeling evaluations as directed by the City.

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

- On a time and expense basis in accordance with the attached 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.
- At the lump sum amount of \$_____.

IT IS MUTUALLY AGREED THAT, payment for services rendered shall be made monthly in accordance with the Local Government Prompt Payment Act, 50 ILCS 505 and invoices rendered by the **CONSULTANT**.

IT IS FURTHER MUTUALLY AGREED:

That the compensation for engineering services for the implementation of watermain flushing operations for Zones 4C, 4D, 4E, 4F of Area 4, and Zones 5A, 5B, 5C, 5D, and 5E of Area 5 shall not exceed **\$218,100**, per the attached Exhibit D, D-1 and D-2 without further authorization from the **CLIENT**.

That the compensation for engineering services for the annual update of the watermain changes, additions and replacements, update of flushing maps based on field changes in the hydraulic model and performing hydraulic modeling evaluations as directed shall not exceed **\$20,000** per the attached Exhibit D without further authorization from the **CLIENT**.

The **CLIENT** and the **CONSULTANT** 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 **CONSULTANT** 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, 2026.

CLIENT:

CONSULTANT:

(Client Name)

CRAWFORD, MURPHY & TILLY, INC.

(Signature)

Chris P. Dagiantis

(Signature)

(Name and Title)

Chris P. Dagiantis, Water Resources Group Manager

(Name and Title)

Date

March 9, 2026

Date

CMT Job No. _____

STANDARD GENERAL CONDITIONS
Crawford, Murphy & Tilly, Inc.

1. Standard of Care

In performing its professional services hereunder, the **CONSULTANT** 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.

2. Reuse of Document

All documents including Drawings and Specifications prepared by **CONSULTANT** pursuant to this Agreement are instruments of service. They are not intended or represented to be suitable for reuse by **CLIENT** or others on 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 **CONSULTANT** shall be compensated by the client for all services performed up to and including the termination date, including reimbursable expenses, and for the completion of such services and records as are necessary to place the **CONSULTANT'S** files in order.

4. Parties to the Agreement

The services to be performed by the **CONSULTANT** 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 **CONSULTANT** 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

The **CONSULTANT** shall not be responsible for the means, methods, procedures, techniques, or sequences of construction, nor for safety on the job site, nor shall the **CONSULTANT** be responsible for the contractor's failure to carry out the work in accordance with the contract documents or for the failure to carry out the work in a safe manner.

6. Payment

Payment for services rendered shall be made in accordance with the Local Government Prompt Payment Act, 50 ILCS 505, and invoices rendered by the **CONSULTANT**.

7. Risk Allocation

To the fullest extent permitted by law, the total liability, in the aggregate, of the **CONSULTANT** and **CONSULTANT'S** officers, directors, employees, agents and consultants, and any of them, to **CLIENT** and anyone claiming by, through or under **CLIENT**, for any and all injuries, claims, losses, expenses or damages arising out of, or relating to, the **CONSULTANT'S** services, the project or this agreement, including but not limited to the negligence, errors, omissions, strict liability or breach of contract of **CONSULTANT** or **CONSULTANT'S** officers, directors, employees, agents or consultants, or any of them.

8. Project Schedule and Scope

Based on the schedule objectives provided by **CLIENT**, **CONSULTANT** will develop a schedule of important milestones as necessary for the project for **CLIENT'S** review and approval. **CONSULTANT** will monitor performance of services for conformance with the schedule and will notify **CLIENT** of any necessary changes to or deviations from the schedule. Where required by approved project schedule, **CONSULTANT** will present the required deliverables and complete the required tasks at the appropriate intervals for **CLIENT'S** review and approval prior to payment.

9. Reliance

CLIENT acknowledges that **CONSULTANT** will rely on the accuracy and completeness of information provided by **CLIENT**, **CLIENT'S** consultants, contractors, manufacturers, and suppliers. **CLIENT** further acknowledges that **CONSULTANT** has the right to rely on the accuracy and completeness of information provided by others without the need for independent verification and **CLIENT** releases **CONSULTANT** for all liability arising out of the same.

10. Governing Law, Jurisdiction & Venue

This Agreement shall be governed by, and construed in accordance with, the laws of the State of Illinois. **CLIENT** and **CONSULTANT** further agree that any action arising out of this Agreement shall be brought exclusively in the state or federal courts of the State of Illinois.

CITY OF AURORA 2026 FLUSHING PROGRAM – ZONES 4C THROUGH 4F OF AREA 4, AND ZONES 5A THROUGH 5E OF AREA 5 FLUSHING

EXHIBIT A - SCOPE OF SERVICES

March 6, 2026

Background

In 2012, the city of Aurora embarked upon the development of a planned and organized system-wide multi-year watermain flushing program as part of routine water distribution system maintenance. Flushing distribution system watermains is considered a standard and recommended practice by the American Water Works Association (AWWA).

Watermain flushing can be performed either by means of conventional flushing or unidirectional flushing. In order to effectively flush the watermain, a target velocity of 5 feet per second is desired. Conventional flushing which consists of sequentially opening fire hydrants can sometimes achieve the target velocities. In locations where the target velocity cannot be achieved, unidirectional flushing is required. Unidirectional flushing is a systematic method of closing watermain valves and opening hydrants to direct water one-way at high velocities through targeted segments of pipe. Unidirectional flushing induces high water velocities which effectively removes deposits and cleans the pipe. The benefits of flushing include removal of rust and sediment, improved chlorine residual, and reduction in taste and odor; all of which can help provide high quality water to city of Aurora residents.

The city's water distribution system consists of over 740 miles of pipe. The extents of the flushing areas for the entire water distribution system have been determined as shown in Exhibit B. Flushing areas have been determined based on: dividing the city into 6 areas with similar total lengths of watermain; the location of water transmission main endpoints (locations that potable water from the Water Treatment Plant enters the distribution system) and a summary of water quality issue locations for ten years previous to 2012.

The watermain flushing program began in 2012 with the design of Area 1 flushing sequences. In 2013, Area 1 was flushed and the design of the flushing sequences for Area 2 was completed. In 2014, Area 2 was flushed and the design of flushing sequences for Areas 3 and 4 were completed. In 2015, remainder of Area 3 and Area 4 were flushed and the design of flushing sequences for Areas 5 and 6 was completed. In 2016, Areas 5 & 6 were flushed. In addition, the hydraulic analysis and design of flushing sequences were updated for Areas 1 through 6 to incorporate field changes, modifications to the flushing program parameters learned through the previous 4 years of field work, and new watermains constructed or replaced since the program began. With the completion of flushing in Areas 5 & 6, flushing of the entire water distribution system was completed.

In the summer of 2017, the City embarked upon its second round of watermain flushing, beginning with Area 1. In the summer of 2018, the City embarked upon the second round of watermain flushing for Area 2 and three subareas of Area 3 namely, Zones 3C, 3D and 3F. In the summer of 2019, the City embarked upon the second round of watermain flushing for Area 3 and three subareas of Area 4 namely, Zones 4A, 4B and 4C. No watermain flushing was performed in 2020. In the summer of 2021, the City embarked upon the second round of watermain flushing for the remaining three subareas of Area 4 (namely Zones 4C, 4D and

4F), and three subareas of Area 5 (namely Zone 5A, 5B and 5C). In the summer of 2022, the City embarked on its second round of flushing for the remaining four subareas of Area 5 (namely Zones 5D, 5E, 5F and 5G) and three subareas of Area 6 (namely Zones 6A, 6B and 6C). In the summer of 2023, the City embarked on its second round of flushing for the remaining four subareas of Area 6 (namely Zones 6D, 6E, 6F and 6G) and third round of flushing for the six subareas of Area 1 (namely Zones 1A, 1B, 1C, 1D, 1E and 1F). In 2024, the City embarked on its third round of flushing for the remaining four subareas of Area 1 (namely Zones 1G, 1H, 1I and 1J) and eleven subareas of Area 2 (namely Zones 2A through 2K). In the spring of 2025, the City embarked on its third round of flushing for Area 3 (namely Zone 3A through 3F) and two subareas of Area 4 (namely Zones 4A and 4B).

Project Tasks

Description

In the spring of 2026, the City will embark on its third round of flushing for the remaining areas of Area 4 (namely Zones 4C, 4D, 4E and 4F) and five subareas of Area 5 (namely 5A, 5B, 5C, 5D and 5E).

Project tasks for the flushing of Area 4, (namely 4C through 4F), and five subareas of Area 5 (namely 5A through 5E) will include the following:

1. *Project Start-up and Update Water Model and Flushing Sequences for New and Replaced Watermains*

At the start of the flushing portion of the project, a kick-off meeting will be held with City staff to coordinate the field effort. The kick-off meeting will be attended by CMT team members so that flushing protocol/procedures can be reviewed by everyone at the same time. Project start-up activities will include update of the hydraulic model and development of flushing sequences for new and/or replaced watermain in the areas proposed to be flushed, development of a flushing schedule, and the generation of checklists for field use.

It is anticipated that the City will provide equipment required for the flushing including diffusers, hydrant wrenches, valve keys, hydrant flow meter, pressure gauges, hoses, signs, lab kits and traffic control. The equipment to be used will be coordinated at the kick-off meeting.

It is anticipated that the City will prepare public notification information through social media and customer service. The content for the public notification information will be provided by CMT for publishing by the City.

Prior to unidirectional flushing in each area, it is anticipated the City will locate each valve to be operated as part of the unidirectional flushing sequence using a GPS locator. The valve locations and numbers will be provided by the City as GIS data for use on CMT's mobile devices.

Update Flushing Sequences:

The City shall provide CMT with the engineering plans for the new watermain replacements Zones 4C, 4D, 4E and 4F of Area 4; and Zones 5A, 5B, 5C, 5D and 5E of Area 5. CMT will update the Unidirectional flushing and Conventional flushing sequences accordingly and check the design criteria for planned flushing sequences.

2. *Training*

CMT will provide training for the field staff on the first day of flushing. The training will provide an overview of the City's Annual Watermain Flushing Program and flushing procedures for Unidirectional Flushing and Conventional Flushing. The training location can either be at CMT or at the City.

3. *Unidirectional Flushing*

Within each subarea, there are sections of watermain noted for conventional flushing and sections noted for unidirectional flushing. The unidirectional flushing will be performed first in each subarea.

The unidirectional flushing will be performed with a crew of 6 people (2 valve operating crews each with 2 people, 1 person on the flushing hydrant, and 1 covering the residual pressure monitoring hydrant). Of the 6 unidirectional flushing crew members, it has been assumed that the flushing operations will be headed by one (1) CMT engineer. The remaining 5 positions, including 3 summer help and 2 full time staff would be provided by the City's Water & Sewer maintenance division.

Based on production rates achieved with unidirectional flushing completed in previous seven years, it has been assumed that 7,500 ft. of watermain can be unidirectionally flushed each day. The production rates for the unidirectional flushing will be evaluated periodically throughout the project.

4. *Conventional Flushing*

After the unidirectional flushing is completed in each subarea, conventional flushing will be performed with a reduced crew size of 4 members. Conventional flushing will be performed with crew members from the unidirectional flushing crew broken down into three crews – one with 1 CMT entry level engineer and one summer help and two other crews each with 1 W&S summer help.

It is anticipated that the two 1-person crews will be flushing in a separate area from the 2-person crew (1 CMT + 1 City member), so all three crews can be operating hydrants without adversely impacting the system.

It has been assumed that a 2-person crew will be able to conventionally flush 21 hydrants per day and a 1-person crew will be able to conventionally flush 15 hydrants per day resulting in 30 hydrants per day for the two 1-person crews. The production rates for the conventional flushing will be evaluated periodically throughout the project.

5. *ISO Fire Flow Testing*

As flushing proceeds in the field, CMT will provide support as needed in the field to perform flow testing as part of the ISO requirements. CMT will plan on performing 1-2 flow tests in each sub area identified to be flushed this summer.

6. *Engineering Support*

As unidirectional and conventional flushing proceeds in the field, CMT will provide support as needed in the field to address field issues including closed valves, drainage problems, low pressure or inadequate flow. In addition, CMT will provide daily updates to the city for updating the flushing hotline as well as customer service. CMT will also provide updates to the City on a timely basis for updating the flushing schedule on the website. CMT will plan operations 1 - 3 days in advance to allow for time to contact critical facilities and to move signs for each zone (or subarea) and plan personnel/equipment for traffic control.

7. *Program Management*

It has been assumed that coordination meetings (5 hours per week) will be required throughout the project.

8. *Schedule*

Flushing is planned to begin on May 4, 2026, and will continue through the end of June. Flushing will not occur during July and August so as to not impact the demands during the peak months and will resume August 24, 2026 and will continue through the end of October, resulting in approximately 90 working days taking into account training day, holidays and a couple of rain/heat days.

9. *Project Management*

CMT will keep the City informed of project schedule and progress once a month or as and when flushing in a subarea has been completed. The time to the project will be charged based on the tasks listed in Exhibit D.

10. *Project Close Out*

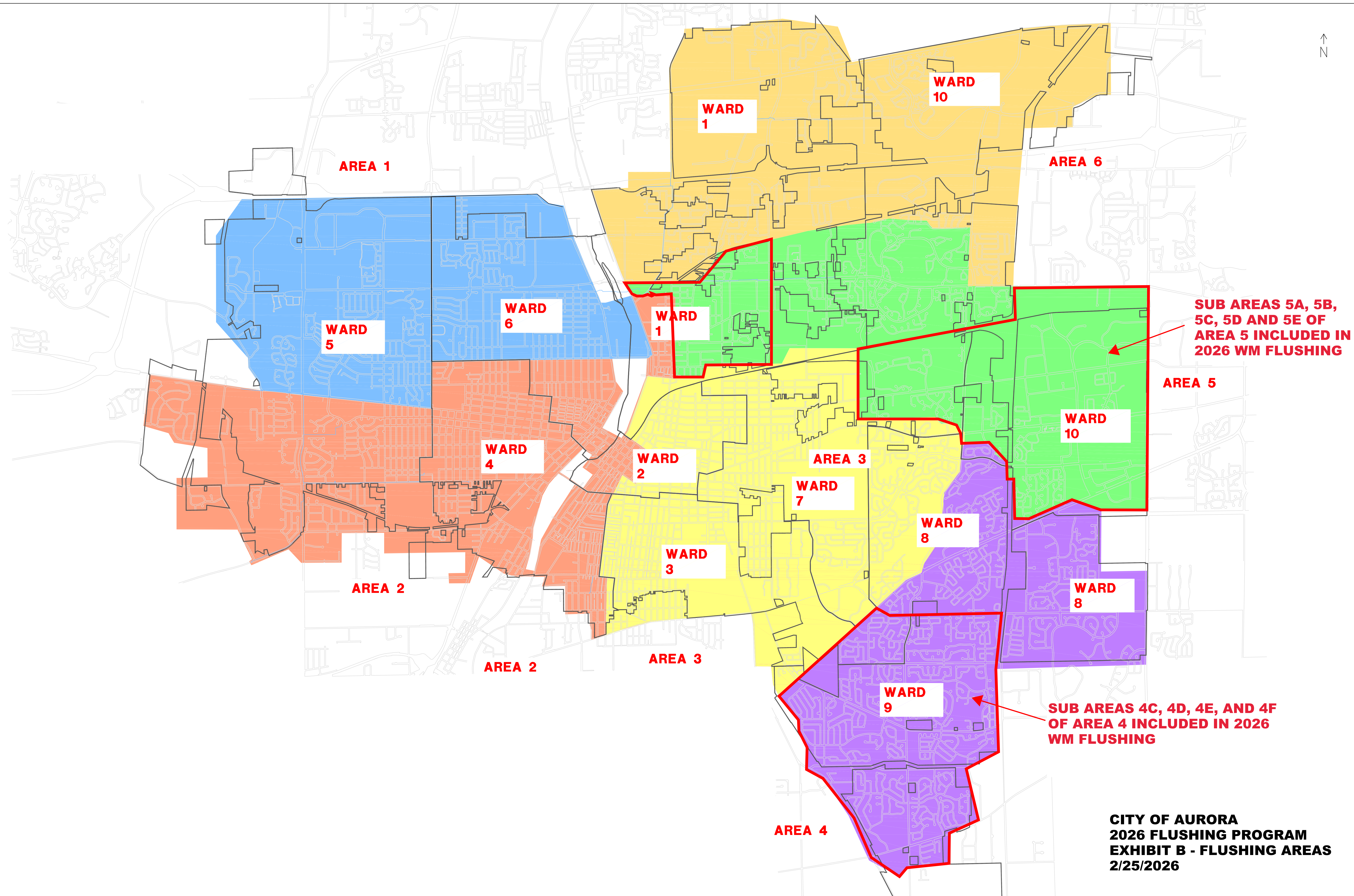
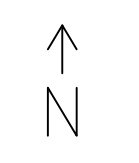
CMT will complete and provide documentation of all the field paperwork one month after completion of field work.

11. Annual Water Model Update and Update Maps based on Field Changes

The City shall provide CMT with the engineering plans and GIS updates for the new watermain replacements in the City on an annual basis. CMT will update the Unidirectional flushing and Conventional flushing sequences accordingly and check the design criteria for planned flushing sequences. CMT will also update the Unidirectional flushing and Conventional flushing sequences based on changes occurred during field work. CMT shall perform miscellaneous hydraulic modeling evaluations as directed by the City. The Task for Water Modeling will need to be open year round to accommodate modeling of the subdivision analysis as and when requested.

12. Truck Mileage

The City shall charge daily mileage to the 2026 Flushing Program at a rate of 72.5 cents/mile.

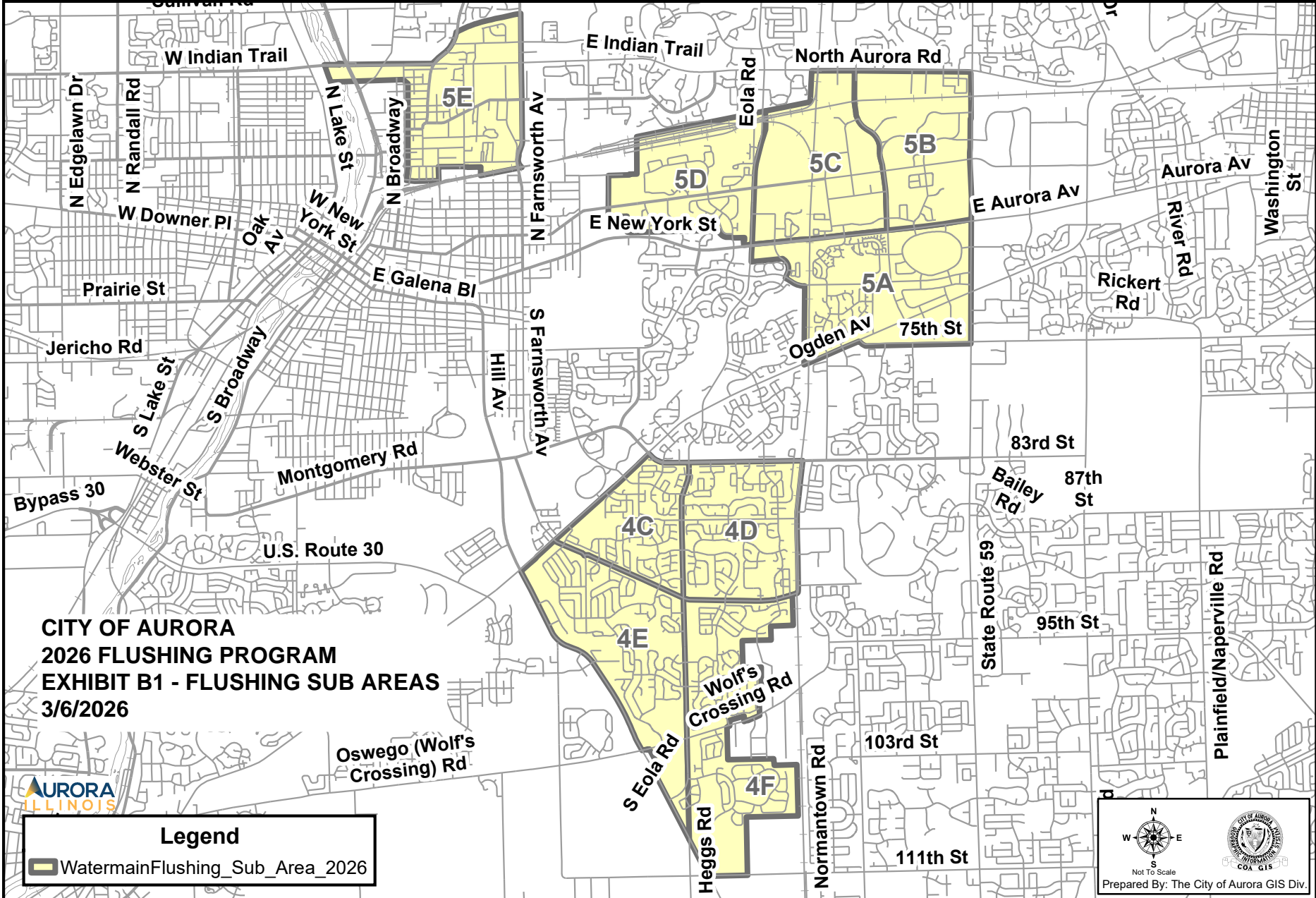


SUB AREAS 5A, 5B, 5C, 5D AND 5E OF AREA 5 INCLUDED IN 2026 WM FLUSHING

SUB AREAS 4C, 4D, 4E, AND 4F OF AREA 4 INCLUDED IN 2026 WM FLUSHING

**CITY OF AURORA
2026 FLUSHING PROGRAM
EXHIBIT B - FLUSHING AREAS
2/25/2026**


2026 WATERMAIN FLUSHING PROGRAM SUB AREA



CITY OF AURORA
2026 FLUSHING PROGRAM
EXHIBIT B1 - FLUSHING SUB AREAS
3/6/2026



Legend

 WatermainFlushing_Sub_Area_2026




 Not To Scale

 Prepared By: The City of Aurora GIS Div.

EXHIBIT C
CRAWFORD, MURPHY & TILLY, INC.
AURORA STANDARD SCHEDULE OF HOURLY CHARGES
January 1, 2026

Classification	Regular Rate
Senior Principal 2	\$295
Senior Principal	\$290
Principal Senior Manager Senior Planner 2	\$285
Senior Specialty Engineer 2 Senior Structural Engineer 2	\$265
Senior Specialty Professional 2 Senior Civil Engineer 2	\$235
Project Manager 2	\$225
Senior Environmental Scientist 2	\$220
Senior Architect 2 Senior Structural Engineer	\$215
Senior Civil Engineer Senior Specialty Engineer Senior Specialty Professional Senior Environmental Scientist	\$200
Project Manager	\$195
Senior Planner	\$190
Senior Administrative Specialist	\$185
Senior Technician	\$180
Project Environmental Scientist Project Civil Engineer Project Specialty Engineer Project Structural Engineer	\$175
Project Planner Project Specialty Professional Civil Engineer Specialty Engineer Structural Engineer	\$145
Administrative Specialist Specialty Professional Planner Project Technician	\$130
Architect	\$120
Environmental Scientist Technician	\$110
Admin Coordinator	\$105
Admin	\$100

If the completion of services on the project assignment requires work to be performed on an overtime basis, labor charges above are subject to a 15% premium. These rates are subject to change upon reasonable and proper notice. In any event this schedule will be superseded by a new schedule effective January 1, 2027.

Out of pocket direct costs will be added at actual cost for blueprints, supplies, transportation and subsistence and other miscellaneous job-related expenses directly attributable to the performance of services. A usage charge may be made when specialized equipment is used directly on the project.

Subconsultant services furnished to CMT by another company will be invoiced at actual cost, plus ten percent.

CITY OF AURORA

2026 WATERMAIN FLUSHING PROGRAM - Subareas 4C through 4F of Area 4, and Subareas 5A through 5E of Area 5 Flushing

Exhibit D - Professional Services Cost Estimate Summary
5-Mar-26

Exhibit	Description	Manhours	Amount
Task 1	Conventional Flushing	320	\$46,400
Task 2	Unidirectional Flushing	328	\$47,560
Task 3	ISO/Fire Flow Testing	36	\$7,200
Task 4	Engineering Support/Technical Assistance	243	\$48,600
Task 5	Project Start Up/Update Flushing Maps	140	\$28,000
Task 6	Project Close-Out/Field Paperwork	40	\$5,800
Task 7	Program Management	90	\$18,000
Task 8	Project Management	20	\$5,700
Task 9	Training Session	8	\$1,380
Task 10A	Water Model Updates - Update Flushing Maps Based on Field Changes	40	\$8,000
Task 10B	Annual Water Model Updates and Subdivision Analysis*	-	\$20,000
Task 11	Mileage	-	\$1,440
SUBTOTAL**		1,265	\$238,100

* Based upon an agreed amount as discussed.

** Rounded (see Exhibit D1)

CITY OF AURORA

2026 Watermain Flushing Program - Area 4C, 4D, 4E, 4F of Area 4 and Subareas 5A, 5B, 5C, 5D, 5E of Area 5 Flushing

Exhibit D-1 - Professional Services Cost Estimate
5-Mar-26

Assumptions:

Unidirectional Flushing - Assume 6 total with 1 CMT crew leader and 5 City crew members
Conventional Flushing - Assume reduced crew with 1 CMT crew leader and 3 City crew members
Technical Assistance - Assume CMT to provide daily office technical assistance

Conventional Flushing Crew:

-->assume reduced crew, one 2-person crew (1 CMT leader and 1 City member) and two 1-person crew, for conventional flushing

Crew Size (1 CMT + 1 City)	1	
Engineer (\$/hr.)	\$145.00	
2026 Crew Cost (\$/hour)	\$145.00	
Number of Hydrants per day	21	Based on a 2 person crew flushing between 20 - 25 hydrants per day in 2015 Watermain Flushing Program
City Crew Size (2 City crews with 1 person each)	2	
Number of Hydrants per day	30	Based on a 1 person crew flushing 15 hydrants per day

Unidirectional Flushing:

CMT Crew Size	1	
Engineer (\$/hr.)	\$145.00	
2026 Crew Cost (\$/hour)	\$145.00	
Approximate feet per day	7,500	Based on average of 7,500 feet/day of UDF Flushing with a 6 member crew.
Assume operating a maximum of 30 valves per day (add crew days as necessary above footage calculation)		

Flushing Technical Assistance

2026 Senior Engineer (\$/hour)	\$200.00
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Program Management/Technical Assistance - assume 3 hours per day
Field Paperwork - assume 2 hours per week
Daily Coordination Meetings - assume 5 hours per week
Project Management Time - 1.5 hours per week 2026 Hourly Rate = \$285.285.00

	4C	4D	4E	4F	5A	5B	5C	5D	5E	TOTAL
Task 1 - Conventional Flushing										
Length of watermain (feet)	67,550	90,021	86,646	54,866	93,869	37,077	65,532	51,463	69,902	616,926
Length of watermain (miles)	12.79	17.05	16.41	10.39	17.78	7.02	12.41	9.75	13.24	117
--> Conventional Flushing (2 person crew with 1 CMT Engineer and 1 City crew member)										
# of Hydrants	70	92	95	60	115	40	50	60	55	637
Estimated flushing time (crew hours)	27	36	37	23	44	16	20	23	21	247
Estimated flushing time (crew days)*	4.0	6.0	6.0	4.0	6.5	3.0	3.0	4.0	3.5	40.0
Estimated CMT Crew Labor Cost	\$4,640.00	\$6,960.00	\$6,960.00	\$4,640.00	\$7,540.00	\$3,480.00	\$3,480.00	\$4,640.00	\$4,060.00	\$46,400.00
-->Conventional Flushing (2 person City crew)										
# of Hydrants	105	139	153	91	167	62	80	86	87	970
Estimated flushing time (crew hours)	28	38	41	25	45	17	22	23	24	263
Estimated flushing time (crew days)*	4.0	6.0	6.0	4.0	6.5	3.0	3.0	4.0	3.5	40.0
Estimated CMT Crew Labor Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal - Task 1										\$46,400.00
Task 2 - Unidirectional Flushing (1 CMT person crew)										
Length of watermain (feet)	20,367	25,773	23,792	17,100	45,133	39,853	27,920	5,953	41,320	247,211
Length of watermain (miles)	3.86	4.88	4.51	3.24	8.55	7.55	5.29	1.13	7.83	47
Number of Sequences	7	9	9	9	21	18	11	2	20	106
Number of Valves to Operate	50	77	49	41	122	78	60	9	99	585
Average Length of Watermain per Sequence (feet)	2,910	2,864	2,644	1,900	2,149	2,214	2,538	2,977	2,066	2,332
Average # of Valves per Sequence	7	9	5	5	6	4	5	5	5	51
# of valves per mile of watermain	13	16	11	13	14	10	11	8	13	109
Estimated flushing time (crew hours)	22	28	26	19	49	43	30	7	45	269
Estimated flushing time (crew days)*	3.5	4.0	4.0	3.0	7.0	6.0	5.0	2.0	6.5	41.0
Estimated CMT Crew Labor Cost (Senior Engineer)	\$4,060.00	\$4,640.00	\$4,640.00	\$3,480.00	\$8,120.00	\$6,960.00	\$5,800.00	\$2,320.00	\$7,540.00	\$47,560.00
Subtotal - Task 2										\$47,560.00
Subtotal Estimated flushing time (crew days)*	7.5	10.0	10.0	7.0	13.5	9.0	8.0	6.0	10.0	81.0
Subtotal Estimated flushing time (crew hours)	60	80	80	56	108	72	64	48	80	648
Task 3 - ISO Fire Flow Testing										
Estimated flow testing time (crew days)*	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	4.5
Estimated CMT Crew Labor Cost	\$800.00	\$800.00	\$800.00	\$800.00	\$800.00	\$800.00	\$800.00	\$800.00	\$800.00	\$7,200.00
Total Estimated flushing and flow testing time (crew days)*	8.0	10.5	10.5	7.5	14.0	9.5	8.5	6.5	10.5	85.5
Subtotal - Task 3										\$7,200.00
Task 4 - Engineering Support/Technical Assistance										
Technical Assistance time (hours)	23	30	30	21	41	27	24	18	30	243
Estimated Labor Cost	\$4,500.00	\$6,000.00	\$6,000.00	\$4,200.00	\$8,100.00	\$5,400.00	\$4,800.00	\$3,600.00	\$6,000.00	\$48,600.00
Subtotal - Task 4										\$48,600.00
Total										
Length of watermain (feet)										864,137
Length of watermain (miles)										164
Program Management										
Task 5 - Project Start-up/Close-Out/Update Flushing Maps (hours)										140
Subtotal Task 5										\$28,000.00
Task 6 - Project Close Out/ Field Paperwork (hours)										40.0
Subtotal Task 6										\$5,800.00
Task 7 - Program Management Coordination (hours)										90.0
Subtotal Task 7										\$18,000.00
Task 8 - Project Management (hours)										20.0
Subtotal Task 8										\$5,700.00
Task 9 - Training Session										8.0
Subtotal Task 9										\$1,380.00
Task 10A - Update Maps based on Field Changes (hours)										40.0
Subtotal Task 10A										\$8,000.00
Task 11 - Truck Mileage (Assumed miles @72.5)										2000.0
Subtotal Task 11										\$1,440.00
Total Labor Hours for CMT	87	114	114	81	153	103	92	70	114	1,265
Total Cost	\$14,000.00	\$18,400.00	\$18,400.00	\$13,120.00	\$24,560.00	\$16,640.00	\$14,880.00	\$11,360.00	\$18,400.00	\$218,080.00
										*rounded up to \$218,100

*Rounded up to nearest half day (this accounts for time to move signs).

CITY OF AURORA

2026 Watermain Flushing Program - Subareas 4C, 4D, 4E, 4F of Area 4, and Subareas 5A, 5B, 5C, 5D, 5E of Area 5 Flushing

Exhibit D-2 - Summary of Unidirectional and Conventional Flushing Statistics

6-Mar-26

	4C	4D	4E	4F	5A	5B	5C	5D	5E	TOTAL
Conventional Flushing										
# of Hydrants	175	231	248	151	282	102	130	146	142	1,607
Length of watermain (feet)	67,550	90,021	86,646	54,866	93,869	37,077	65,532	51,463	69,902	616,926
Length of watermain (miles)	12.79	17.05	16.41	10.39	17.78	7.02	12.41	9.75	13.24	117
Unidirectional Flushing										
Length of watermain (feet)	20,367	25,773	23,792	17,100	45,133	39,853	27,920	5,953	41,320	247,211
Length of watermain (miles)	3.86	4.88	4.51	3.24	8.55	7.55	5.29	1.13	7.83	47
Number of Sequences	7	9	9	9	21	18	11	2	20	106
Number of Valves to Operate	50	77	49	41	122	78	60	9	99	585
TOTAL										
Length of watermain (feet)	87,917	115,794	110,438	71,966	139,002	76,930	93,452	57,416	111,222	864,137
Length of watermain (miles)	16.65	21.93	20.92	13.63	26.33	14.57	17.70	10.87	21.06	164