



## AGENDA ITEM EXECUTIVE SUMMARY

Agenda Item:	Sanitary & Storm Sewer Lining		
Presenter & Title:	Bob Van Gyseghem, Superintendent of Water & Wastewater		
Date:	October 4, 2021		
<b>Please Check Appropriate Box:</b>			
<input checked="" type="checkbox"/>	Committee of the Whole Meeting	<input type="checkbox"/>	Special Committee of the Whole Meeting
<input checked="" type="checkbox"/>	City Council Meeting	<input type="checkbox"/>	Special City Council Meeting
<input type="checkbox"/>	Public Hearing	<input type="checkbox"/>	Other -
Associated Strategic Plan Goal/Objective: EMSII, ESII			
Estimated Cost: \$542,824.70	Budgeted?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Other Funding? <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Executive Summary:</b>			
<p>The budget contains funds allocated for the rehabilitation of sanitary &amp; storm sewers. The lining will correct structural deficiencies, prevent root intrusion, and seal out ground water infiltration. The project was advertised in the Daily Herald and on the City web site. Three (3) bids were received on September 20, 2021 with the low bid submitted by Insituform Technologies USA. Staff is recommending that a 10% contingency be included in the overall not-to-exceed amount to account for any unforeseen field changes that may occur. Any field changes (Change Orders) must be approved by the City Administrator to be applied to the contingency.</p>			
<b>Attachments:</b> <i>(please list)</i>			
<ul style="list-style-type: none"> <li>• Resolution</li> <li>• Bid Summary</li> <li>• Lining Locations</li> </ul>			
<b>Voting Requirements:</b>			
<p><i>This motion requires a simple majority of affirmative votes for passage.</i></p> <p><i>The Mayor may vote on three occasions: (a) when the vote of the aldermen or trustees has resulted in a tie; (b) when one half of the aldermen or trustees elected have voted in favor of an ordinance, resolution, or motion even though there is no tie vote; or (c) when a vote greater than a majority of the corporate authorities is required by state statute or local ordinance to adopt an ordinance, resolution, or motion.</i></p>			
<b>Recommendation / Suggested Action:</b> <i>(how the item should be listed on agenda)</i>			
<p>Recommend approval of a Resolution authorizing the City Administrator to execute a contract with Insituform Technologies at a cost of \$493,477 and allow the City Administrator to approve up to \$49,347.70 in change orders for a total not-to-exceed amount of \$542,824.70.</p>			

**RESOLUTION NO. 2021-81**

**RESOLUTION AUTHORIZING EXECUTION OF  
Contract for Sanitary and Storm Sewer Lining**

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GENEVA, KANE COUNTY, ILLINOIS**, as follows:

**SECTION 1:** That the City Administrator is hereby authorized to execute, on behalf of the City of Geneva, a contract with Insituform Technologies USA, LLC, for sanitary and storm sewer lining.

**SECTION 2:** This Resolution shall become effective from and after its passage as in accordance with law.

**PASSED** by the City Council of the City of Geneva, Kane County, Illinois, this \_\_\_\_ day of \_\_\_\_\_, 2021

**AYES: \_\_ NAYS: \_\_ ABSENT: \_\_ ABSTAINING: \_\_ HOLDING OFFICE: \_\_**

Approved by me this \_\_\_\_ day of \_\_\_\_\_, 2021.

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

## TABULATION SHEET

2021 SANITARY AND STORM CIPP City of Geneva, IL Bid Date: September 20, 2021				Insituform Technologies USA, LLC Chesterfield MO		Benchmark Construction Bartlett IL		Hoerr Construction, Goodfield IL	
Item No.	Description of Work	Units	Quantity	Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
1	Storm Pre - Construction Cleaning and Televising	LF	4,000	\$4.60	\$ 18,400.00	\$8.00	\$ 32,000.00	\$5.60	\$ 22,400.00
2	Storm Cured-in-Place Pipelining (10")	LF	1,800	\$34.80	\$ 62,640.00	\$35.00	\$ 63,000.00	\$46.00	\$ 82,800.00
3	Storm Cured-in-Place Pipelining (12")	LF	860	\$38.00	\$ 32,680.00	\$45.00	\$ 38,700.00	\$55.00	\$ 47,300.00
4	Storm Cured-in-Place Pipelining (15")	LF	500	\$61.50	\$ 30,750.00	\$65.00	\$ 32,500.00	\$67.00	\$ 33,500.00
5	Storm Cured-in-Place Pipelining (18")	LF	400	\$75.50	\$ 30,200.00	\$75.00	\$ 30,000.00	\$87.00	\$ 34,800.00
6	Storm Cured-in-Place Pipelining (21")	LF	250	\$131.70	\$ 32,925.00	\$101.00	\$ 25,250.00	\$154.00	\$ 38,500.00
7	Storm Cured-in-Place Pipelining (24")	LF	180	\$196.40	\$ 35,352.00	\$150.00	\$ 27,000.00	\$198.00	\$ 35,640.00
8	Storm Lateral Reinstatements	EACH	9	\$240.00	\$ 2,160.00	\$200.00	\$ 1,800.00	\$100.00	\$ 900.00
9	Sanitary Pre - Construction Cleaning and Televising	LF	4,250	\$6.50	\$ 27,625.00	\$11.00	\$ 46,750.00	\$7.50	\$ 31,875.00
10	Sanitary Cured-in-Place Pipelining (10")	LF	3,450	\$37.60	\$ 129,720.00	\$55.00	\$ 189,750.00	\$48.00	\$ 165,600.00
11	Sanitary Cured-in-Place Pipelining (15")	LF	800	\$76.00	\$ 60,800.00	\$75.00	\$ 60,000.00	\$98.00	\$ 78,400.00
12	Sanitary Lateral Reinstatements	EACH	15	\$170.00	\$ 2,550.00	\$200.00	\$ 3,000.00	\$150.00	\$ 2,250.00
13	Sanitary Air Test Service Connection (5-foot)	EACH	15	\$1,580.00	\$ 23,700.00	\$1,500.00	\$ 22,500.00	\$1,200.00	\$ 18,000.00
14	Sanitary Grout Service Connection (5-foot)	EACH	15	\$265.00	\$ 3,975.00	\$250.00	\$ 3,750.00	\$100.00	\$ 1,500.00
<b>TOTAL AMOUNT OF BID -</b>					\$ 493,477.00		\$ 576,000.00		\$ 593,465.00

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ILLINOIS DESIGN FIRM  
# 184.001830  
230 WOODLAWN AVENUE  
AURORA, IL 60506  
PH: 630-897-4651  
FAX: 630-897-5696  
www.deuchler.com

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4.

VERIFY SCALE:  
BAR IS ONE INCH ON  
OFFICIAL DRAWINGS

DATE:	8-27-2021	DESIGNED:	BP
SCALE:	AS SHOWN	DRAWN:	AS
JOB NO.	190-19012-01	CHECKED:	BP
FIELD BOOK NO.:	N/A	APPROVED:	JWF

**CITY OF GENEVA, ILLINOIS  
2021 SANITARY AND STORM CIPP  
CIPP LINING - SANITARY**

SHT	<b>1</b>
OF	<b>9</b>

BID SET

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**CITY OF GENEVA, ILLINOIS  
2021 SANITARY AND STORM CIPP  
CIPP LINING - SANITARY**

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OF	<b>9</b>

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**Legend**

→ Sanitary Lining



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FIELD BOOK NO.:	N/A	APPROVED:	JWF

**CITY OF GENEVA, ILLINOIS  
2021 SANITARY AND STORM CIPP  
CIPP LINING - SANITARY**

SHT	<b>3</b>
OF	<b>9</b>

BID SET

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EX:CA19012-001.1571\_Excav Flow Evaluation 2021\_CIPP Lining Final Drawings\_V3\_CIPP Lining.dwg

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FIELD BOOK NO.:	N/A	APPROVED:	JWF

**CITY OF GENEVA, ILLINOIS  
2021 SANITARY AND STORM CIPP  
CIPP LINING - STORM**

SHT	<b>5</b>
OF	<b>9</b>

BID SET

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FIELD BOOK NO.:	N/A	APPROVED:	JWF

**CITY OF GENEVA, ILLINOIS  
2021 SANITARY AND STORM CIPP  
CIPP LINING - STORM**

SHT	<b>6</b>
OF	<b>9</b>

BID SET

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→ Storm Lining



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FIELD BOOK NO.:	N/A	APPROVED:	JWF

**CITY OF GENEVA, ILLINOIS  
2021 SANITARY AND STORM CIPP  
CIPP LINING - STORM**

SHT	<b>7</b>
OF	<b>9</b>

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BID SET



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→ Storm Lining

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FIELD BOOK NO.:	N/A	APPROVED:	JWF

**CITY OF GENEVA, ILLINOIS  
2021 SANITARY AND STORM CIPP  
CIPP LINING - STORM**

SHT	<b>9</b>
OF	<b>9</b>

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Contractor's Name: Insituform Technologies USA, LLC

PROJECT NO. 190-19012-00-1571

Address/ City, State: 17988 Edison Ave., Chesterfield, MO 63005

Telephone: 636-530-8000

Fax: 636-530-8701

# Contract Documents

For

## 2021 SANITARY AND STORM CIPP



2021

  DATE: 9-1-2021 EXP: 11-31-2021	  DATE: 9-1-2021 EXP: 4-30-2023
<p>ROBERT J PETERS, P.E. DEUCHLER ENGINEERING CORP. PROFESSIONAL ENGINEER 062-071743</p> <p>RESPONSIBLE FOR ALL DRAWINGS AND SPECIFICATIONS</p>	<p>DEUCHLER ENGINEERING CORP. PROFESSIONAL DESIGN FIRM CORPORATION</p>

**Deuchler Engineering Corp.**  
230 Woodlawn Avenue  
Aurora, IL 60506



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**II. PLAN/PROFILE AND EXHIBITS**

**CITY OF GENEVA**  
2021 SANITARY AND STORM CIPP

# **BIDDING DOCUMENTS**



**SECTION 00020**

**ADVERTISEMENT FOR BIDS**

**2021 SANITARY AND STORM CIPP  
CITY OF GENEVA  
2021**

Sealed **Bids** submitted in duplicate in a sealed envelope with the words "2021 Sanitary and Storm CIPP" clearly marked on it, will be received by the City of Geneva, Illinois until **10:00 A.M. Monday September 20<sup>th</sup>, 2021** at the office of the City Administrator, 22 South First Street, Geneva, IL, 60134 and will be publicly opened and read aloud at that time. The proposed project consists of Sanitary Sewer Lining, Grouting, and all appurtenant construction in accordance with the Plans and Specifications for said work, and traffic control.

The Contractor and sub-Contractors shall pay not less than the current prevailing wages at the time of the signing of the contract as found by the Department of Labor or as determined by the Court of Appeal, to all his/her employees performing work under the Contract. A signed certification stating the above as well as the fact that the bidder is not barred from bidding as a result of a violation of either Section 33E-3 or 33E-4 of Chapter 38, Illinois Revised Statues, 1987 (as amended) must be submitted by the successful bidder as part of this contract.

A digital copy of Instructions for Bidders, Bid Form, Plans, and Specifications is available of the City of Geneva website: <https://www.geneva.il.us/>

All **Bids** shall be submitted in accordance with the Instructions for Bidders and shall be accompanied by a **10% Bid** guarantee consisting of a bid bond, as provided for under terms of said Instructions for Bidders and Specifications. Complete instructions for filing Bids are included in the Instructions for Bidders.

The City reserves the right to reject any or all **Bids** and waive technicalities.

**City of Geneva, Illinois**  
**Stephanie Dawkins**  
**City Administrator**  
Dated this 27<sup>th</sup> day of August, 2021

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**SECTION 00100**  
**INSTRUCTIONS FOR BIDDERS**  
**2021 SANITARY AND STORM CIPP**  
**CITY OF GENEVA**  
**2021**

Certain additional terms used in these Instructions for Bidders have the meanings indicated below which are applicable to both the singular and plural thereof.

**Bidder** - one who submits a Bid directly to Owner as distinct from a sub-bidder, who submits a bid to a Bidder.

**Issuing Office** - the office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.

**Successful Bidder** - the lowest, responsible and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

**Article 1. Qualifications of Bidders**

- 1.1 To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit within five days after Bid opening, upon Owner's request, detailed written evidence such as financial data, previous experience, present commitments, and other such data as may be called for. **Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract.**

The investigation of a Bidder will seek to determine whether the organization is adequate in size, has had previous experience and whether available equipment and financial resources are adequate to assure Owner that the Work will be completed in accordance with the terms of the Agreement. The amount of other work to which the Bidder is committed may also be considered.

- 1.2 In evaluating Bids, Owner will consider the qualifications of only those Bidders whose Bids are in compliance with the prescribed requirements.
- 1.3 Owner reserves the right to reject any Bid if the evidence submitted by, or the investigation of, such Bidder fails to satisfy Owner that such Bidder is properly qualified to carry out the obligations of the Contract Documents and to complete the Work contemplated therein.
- 1.4 Owner may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the Work as to which the identity of

Subcontractors and other persons and organizations must be submitted as described herein.

**Article 2. Copies of Contract Documents**

- 2.1 Complete sets of Contract Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents.
- 2.2 **Each Bidder shall submit two (2) copies of the Bid Documents.**
- 2.3 The Owner and Engineer, in making copies of Contract Documents available, do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

**Article 3. Examination of Contract Documents and Site**

- 3.1 Before submitting a Bid, each Bidder must (a) examine the Contract Documents, including Addenda, thoroughly, (b) visit the project sites to become familiar with local conditions that may in any manner affect cost, progress or performance of the work, (c) become familiar with Federal, State and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work, (d) study and carefully correlate Bidder's observations with the requirements of the Contract Documents, and (e) satisfy themselves of the accuracy of the estimated quantities in the Bid Schedule.
- 3.2 Before submitting a Bid, Bidders may, at their own expense, make such investigations and tests as they may deem necessary to determine their Bid for performance of the Work in accordance with the time, price and other terms and conditions of the Contract Documents.
- 3.3 On request, Owner will provide each Bidder access to the site to conduct such investigations and tests as each Bidder deems necessary for the submission of a Bid.
- 3.4 The lands upon which the work is to be performed, rights-of-way for access thereto and other lands designated for use by Contractor in performing the work are identified in the Specifications, Special Provisions or on the Drawings.
- 3.5 The submission of a Bid will constitute an incontrovertible representation that the Bidder has complied with every requirement of this Article 3 and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

**Article 4. Interpretations**

- 4.1 All questions about the meaning or intent of the Contract Documents shall be received in writing by Deuchler Engineering Corporation, 230 Woodlawn Avenue, Aurora, Illinois, 60506 (Fax: 630/897-5696), at least five (5) days before the date set herein for the opening of bids. Questions received by the Engineer less than five (5) business days prior to the date

for opening of Bids will not be answered.

- 4.2 Written clarifications or interpretations will be issued by Addenda not later than two days before the bid opening date. Only questions answered by formal written Addenda will be binding. Oral and other clarifications or interpretations will be without legal effect. Addenda will be sent by delivery service with return receipt requested or by FAX, to all parties recorded as having received the Contract Documents.
- 4.3 Bidders are responsible for determining that they have received all Addenda issued.

**Article 5. Bid Security**

- 5.1 Each Bidder shall deposit with his Bid a Bid guarantee consisting of a **bid bond** executed by the Bidder in an amount not less than **10%** of the total amount of the Bid submitted. Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the PROJECT is located. The bid security shall act as a guarantee that in case the Bidder's proposal is accepted, the Bidder shall within ten (10) days after the date of such acceptance and notification thereof, deliver to the Owner a contract signed and executed by the Contractor and a responsible bonding company acceptable to and written upon forms prepared or approved by the Owner.

**Article 6. Bid Form**

- 6.1 Each Bid shall be submitted on the Bid Form on the pages included in the Contract Documents. The Bid Form shall be removed and submitted separately. All blank spaces for Bid prices must be filled in with the unit price of the item or the lump sum for which the Bid is made.
- 6.2 Bid Forms shall be completed in ink or by typewriter. The Bid price of each item on the form shall be stated in figures.
- 6.3 Bids by corporations shall be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.
- 6.4 Bids by partnership shall be executed in the partnership name and signed by a partner, whose title shall appear under the signature. The official address of the partnership shall be shown below the signature.
- 6.5 All names shall be typed or printed below the signature.
- 6.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

- 6.7 The address to which communications regarding the Bid are to be directed shall be shown.
- 6.8 A Bid which includes for any item a Bid Price that is abnormally low or high may be rejected as unbalanced.
- 6.9 A conditional or qualified Bid will not be accepted.

**Article 7. Receipt of Bids**

- 7.1 Sealed Bids will be received by the City of Geneva, Illinois, on the 20<sup>th</sup> day of September, 2021, up to the hour of 10:00 o'clock A.M., Prevailing Time, and then at said office PUBLICLY OPENED AND READ ALOUD.
- 7.2 Each Bid must be submitted in a sealed envelope addressed to Ms. Stephanie Dawkins, City Administrator, City of Geneva. Each sealed envelope containing a Bid must be plainly marked on the outside as "2021 SANITARY AND STORM CIPP", and the envelope should bear on the outside the name of the Bidder and their address. If forwarded by mail, the sealed envelope containing the Bid must be enclosed in another envelope, addressed to the City Administrator at 22 South First Street, Geneva, Illinois 60134.
- 7.3 Owner may consider informal any Bid not prepared and submitted in accordance with the provisions hereof.
- 7.4 Bidders are cautioned that it is the responsibility of each individual bidder to assure that their bid is in the possession of the responsible official, or the designated alternate, prior to the stated time and at the place of the Bid Opening. Owner is not responsible for bids delayed by mail and/or delivery services, of any nature.

**Article 8. Modification and Withdrawal of Bids**

- 8.1 Bids may be modified only by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.
- 8.2 Bids may be withdrawn prior to the scheduled time (or authorized postponement thereof) for the opening of Bids.
- 8.3 Any Bid received after the time and date specified shall not be considered. No Bid may be withdrawn for a period of 90 days after the actual date of the opening of the Bids. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Owner and the Bidder.
- 8.4 If the Bidder modifies, limits, restricts or subjects his Bid to conditions that would change the requirements of the Plans and Specifications, this would be considered a conditional or qualified bid and the Bid will not be accepted.

**Article 9. Performance, Payment and Other Bonds**

- 9.1 A Performance Bond and a Payment Bond, each in the amount of 100 percent of the Contract Price, with a corporate surety approved by the Owner will be required for the faithful performance of the contract.
- 9.2 All Bonds required as Contract Security shall be furnished with the executed Agreement.
- 9.3 Attorneys-in-fact who sign Payment Bonds and Performance Bonds must file with each Bond a certified and effective dated copy of their power of attorney.

**Article 10. Award of Contract**

- 10.1 The Contract will be awarded to the lowest responsive, responsible and eligible Bidder (Successful Bidder) for the project determined by the Owner to be in the Owner's best interest.

Responsive Bidders will provide bids for the unit or lump sum price for each item set forth on the Bid Form, and for each alternate project feature addition. Responsive Bidders may also provide bids for each alternate equipment manufacturer listed as described in the Bid Form and selected by the Bidder.

The term "lowest responsive, responsible and eligible Bidder" as used herein shall mean the Bidder whose Bid is the lowest of those Bidders possessing the skill, ability and integrity necessary to the faithful performance of the Work, and submits a Bid meeting all requirements.

- 10.2 The Contract will be awarded on the basis of material and equipment described in the Contract Documents without consideration of possible substitute or "or equal" items. Whenever it is indicated in the Contract Documents that a substitute or "or equal" item of material or equipment may be furnished or used by the Bidder, if acceptable to the Engineer, application for such acceptance will not be considered by the Engineer until after the "effective date of the Agreement."
- 10.3 Owner reserves the right to reject any and all Bids, to waive any and all informalities if it is in Owner's best interest to do so, and the right to disregard all nonconforming, nonresponsive or conditional Bids.
- 10.4 Owner also reserves the right to reject the Bid of any Bidder that Owner considers to be unqualified relative to Article 1 above.
- 10.5 If the Contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within 5 days, after the actual date of the opening of the Bids.
- 10.6 The party to whom the contract is awarded will be required to execute the Agreement and obtain the Performance Bond, Payment Bond, and required insurance within ten (10)

calendar days from the date of when the Notice of Award is delivered to the Bidder. The Notice of Award shall be accompanied by the necessary Agreement and Bond forms.

**Article 11. Execution of Agreement**

- 11.1 When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by at least five unsigned copies of the Agreement and all other applicable Contract Documents. Within 5 days, excluding Saturdays, Sundays and legal holidays, after the date of receipt of such notification Contractor shall execute and return all copies of the Agreement and all other applicable Contract Documents to Owner.
- 11.2 The Owner within ten (10) days after receipt of acceptable Performance Bond, Payment Bond, required insurance, and Agreement signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the Owner not execute the Agreement within such period, the Bidder may send Written Notice to withdraw their signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the Owner.
- 11.3 The Notice to Proceed shall be issued within ten (10) days of the execution of the Agreement by the Owner. Should there be reasons why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the Owner and Contractor. If the Notice to Proceed has not been issued within the ten (10) day period or within the period mutually agreed upon, the Contractor may terminate the Agreement without further liability on the part of either party.
- 11.4 In case of failure of the Bidder to execute and provide all agreements, bonds and insurance as required by the Contract Documents, the Owner may at their option consider the Bidder in default, and the amount of the security submitted with the Bid shall be forfeited as liquidated damages. However, nothing shall be construed herein to prevent the Owner from electing to claim and prove damages in excess of the bid security.
- 11.5 Because time is of the essence regarding the work under this contract, the Contractor shall initiate work within 10 days of the receipt of the Notice to Proceed by the Contractor.

**Article 12. Safety and Health Regulations**

- 12.1 This project is subject to the Safety and Health Regulations (CFR 29, Part 1926 and all subsequent amendments) as promulgated by the U.S. Department of Labor on June 24, 1974 and CFR 29, Part 1910, General Industry Safety and Health Regulations Identified as Applicable to Construction.
- 12.2 The Successful Bidder shall comply with the Department of Labor Safety and Health Regulations for Construction promulgated under the Occupational Safety and Health Act of 1970 (PL-91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL-91-54).

- 12.3 The Successful Bidder shall have a competent person or persons, as required under the Occupational Safety and Health Act on the Site to inspect the work and to supervise the conformance of the Work with the regulations of the Act.

**Article 13. Prevailing Wages for Kane County**

- 13.1 The prevailing wage rates from Kane County, Illinois shall apply.

**Article 14. Nondiscrimination in Employment**

- 14.1 Contracts for work under this Project will obligate the Contractor and Subcontractors not to discriminate in employment practices.
- 14.2 The Contractor assures the Owner that they are an "Equal Opportunity Employer" as defined by Federal and State laws and regulations and agrees to comply with the Illinois Employment Practice Commission Equal Opportunity Clause as required by Article II of the Illinois FEPC Rules and Regulations, which is considered to be part of any contract or purchase agreement.
- 14.3 The Contractor certifies that the firm has a written sexual harassment policy defining sexual harassment as required in Section 2-105 of the IL. Human Rights Act 775 ILCA 5/1-105 et.seq.

**Article 15. State Sales Tax**

- 15.1 Sales tax will not have to be paid on equipment and material purchased for this project.

**Article 16. Liquidated Damages**

- 16.1 Provisions for Liquidated Damages are set forth in the Agreement

**Article 17. General**

- 17.1 The Contract Documents contain the provisions required for the construction of the Project. Information obtained from an officer, agent, employee of the Owner, or any other person shall not affect the risks or obligations assumed by the Contractor, or relieve them from fulfilling any of the conditions of the Contract.
- 17.2 The low Bidder shall submit the names of the major subcontractors (contracts in excess of \$5,000). Failure to comply with this requirement may make the Bidder non-responsive as determined by the Owner. The Owner shall receive the list of the subcontractors by 2:00 P.M., prevailing time, on the day after Bids are received by the Owner, at the offices of the Engineer, Deuchler Engineering Corporation, 230 Woodlawn Avenue, Aurora, IL 60506; FAX (630) 897-5696.
- 17.3 Certification that Contractor is not barred from public contracting due to bid-rigging or bid

rotation convictions must accompany the Bid.

- 17.4 The lands upon which the work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by the Contractor.
- 17.5 **Attached is a checklist of items that must be submitted with the Bid.**

**2021 SANITARY AND STORM CIPP**  
**CITY OF GENEVA**  
**2021**

**Bidder's Checklist of Items to Assist with Bid Submittal**

- 1. Bid Security: 10% of the Bid, attach to last page of Bid Form Section 00300**
- 2. Completed Bid Form**
  1. All names filled in appropriate blanks.
  2. Acknowledge receipt of Addenda.
  3. Price Schedule filled out.
  4. Bid Signed by Officers.
- 3. Completed Sections 00310, 00315, 00320**
  - a. Drug Free Workplace Certification – Section 00310
  - b. Certification of Compliance with Safety Regulations – Section 00310
  - c. Certification of No Tax Delinquency and No Tax Default – Section 00310
  - d. Certification of Compliance with Sexual Harassment Policies – Section 00310
  - e. Certification of Non-Segregated Facilities – Section 00310
  - f. Anti-Bid Rigging Certification – Section 00315
  - g. Certification of Debarment, Suspension and Other Responsibility Matters – Section 00320
- 4. Completed Affidavit of Experience Section 00330**
- 5. List of Subcontractors by 2:00 p.m. the day after receipt of bids, Section 00300 - Page 6**
- 6. Completed Affidavit of Litigation History Section 00335**

**END OF SECTION**

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SECTION 00300

BID FORM

2021 SANITARY AND STORM CIPP  
CITY OF GENEVA  
2021

Proposal of Insituform Technologies USA, LLC Delaware  
(hereinafter called "BIDDER"), organized and existing under the laws of the State of ~~Illinois~~, doing  
business as a Limited Liability Company (insert "A Corporation," "A Partnership," or "An  
Individual," as applicable) to the City of Geneva (hereinafter called "Owner").

- I. The undersigned BIDDER proposes and agrees, if this bid is accepted, to enter into an agreement with the Owner in the form in the Bidding Documents to perform and furnish all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.
- II. BIDDER accepts all of the terms and conditions of the Advertisement for Bids and Instructions for Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that BIDDER may agree to in writing upon request of Owner.
- III. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:
  - A. BIDDER has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged.

Addendum No.	Addendum Date
<u>2</u>	<u>9/14/21</u>
<u> </u>	<u>9/16/21</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

- B. BIDDER has visited the site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, performance, and furnishing of the Work.
- C. BIDDER is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.



- D. BIDDER has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site. BIDDER acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information or data shown or indicated in the Bidding Documents with respect to Underground Facilities at or contiguous to the Site.
  - E. BIDDER is aware of the general nature of Work to be performed by Owner and others at the site that relates to Work for which this Bid is submitted as indicated in the Bidding Documents.
  - F. BIDDER has correlated the information known to BIDDER, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
  - G. BIDDER has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that BIDDER has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to BIDDER.
  - H. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- IV. By submission of the bid, each BIDDER further certifies, and in the case of a joint bid each party thereto certifies as to his own organization, that in connection with the bid:
- A. The prices in the bid have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
  - B. Unless otherwise required by law, the prices which have been quoted in the bid have not knowingly been disclosed by the bidder, prior to opening, directly or indirectly to any other bidder or competitor; and
  - C. No attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition.
- V. Each person signing the Bid certifies that:
- A. They are the person in the BIDDER's organization responsible within that organization for the decision as to the prices being bid and that he has not participated, and will not participate, in any action contrary to (4) above; or
  - B. They are not the person in the BIDDER's organization responsible within that



organization for the decision as to the prices being bid, but that they have been authorized to act as an agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to (4) above, and as their agent shall so certify; and shall also certify that he has not participated, and will not participate, in any action contrary to (4) above.

VI. BIDDER will complete the Work in accordance with the Bidding Documents for the following price(s):

ITEM NO.	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	AMOUNT
1	Storm Pre - Construction Cleaning and Televising	4,000	LF	4.60	18,400.00
2	Storm Cured-in-Place Pipelining (10")	1,800	LF	34.80	62,640.00
3	Storm Cured-in-Place Pipelining (12")	860	LF	38.00	32,680.00
4	Storm Cured-in-Place Pipelining (15")	500	LF	61.50	30,750.00
5	Storm Cured-in-Place Pipelining (18")	400	LF	75.50	30,200.00
6	Storm Cured-in-Place Pipelining (21")	250	LF	131.70	32,925.00
7	Storm Cured-in-Place Pipelining (24")	180	LF	196.40	35,352.00
8	Storm Lateral Reinstatements	9	EACH	240.00	2,160.00
9	Sanitary Pre - Construction Cleaning and Televising	4,250	LF	6.50	27,625.00
10	Sanitary Cured-in-Place Pipelining (10")	3,450	LF	37.60	129,720.00
11	Sanitary Cured-in-Place Pipelining (15")	800	LF	76.00	60,800.00
12	Sanitary Lateral Reinstatements	15	EACH	170.00	2,550.00
13	Sanitary Air Test Service Connection (5-foot)	15	EACH	1,580.00	23,700.00
14	Sanitary Grout Service Connection (5-foot)	15	EACH	265.00	3,975.00
Total Amount of Bid					\$493,477.00
*Quantities are estimated and may be reduced to zero if not needed.					

**NOTES:**

1. OWNER RESERVES THE RIGHT TO DELETE ANY BID ITEMS WHICH ARE NOT IN THE BEST INTEREST OF THE OWNER. THE OWNER ALSO HAS THE RIGHT TO REDUCE ANY QUANTITIES IN ORDER TO KEEP THE PROJECT UNDER THE BUDGETED VALUE FOR THE FISCAL YEAR.
2. BIDDER agrees that the Work will be Substantially Complete on February 25, 2022 and will meet Final Completion March 25, 2022.
3. BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work on time.



4. The Owner reserves the right to reject all Bids.
5. Accompanying this Bid is a Bid Security in the amount of \$ 5% of amt bid, which is hereby tendered in accordance with the requirements of the Instructions to Bidders and the Specifications.
6. In the event that this Bid is accepted and an award of contract is made to the undersigned BIDDER, the undersigned does hereby covenant and agree to deliver to the Owner the signed and executed Contract and Bonds as specified in the Instructions for Bidders and the Specifications.
7. The undersigned further agrees to begin work within ten (10) days after the execution and acceptance of the Contract, and thereafter to carry on the work diligently and continuously in such manner as to insure final completion and delivery to the Owner of the entire work or equipment under contract in accordance with the provisions of the Contract.



Witness my Hand(s) and Seal \_\_\_\_\_ this 20 day of September, 2021.

If an individual, sign  
and give address

\_\_\_\_\_  
Address \_\_\_\_\_

If a partnership, sign all  
individual names and give  
address of each partner

\_\_\_\_\_  
\_\_\_\_\_  
Partnership Name  
Address \_\_\_\_\_

Name and Addresses  
of Individual Partners

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If a corporation, officers  
duly authorized should sign,  
attach corporate seal

Insituform Technologies USA, LLC  
Corporate Name  
Address 17988 Edison Avenue  
Chesterfield, MO 63005

Attest:

By: Jana Lause  
Jana Lause, Contracting & Attesting Officer

Janet Hass  
Secretary  
Janet Hass, Contracting & Attesting Officer

Corporate Seal

Contact Phone Number of Bidder: 636-530-8000



## Subcontracted Work

To be submitted the day after Bids are received by 2:00 p.m., prevailing time, to the Engineer, Deuchler Engineering Corp., 230 S. Woodlawn Avenue, Aurora, IL.

The following subcontractors will be utilized for portions of the project work. Changes shall not be made subsequent to the Bid unless change(s) is approved by the Owner.

**Subcontractor                      Work to be Performed                      Estimated Dollar Amount**

Subcontractor	Work to be Performed	Estimated Dollar Amount
NPR	GROUT SERVICES	\$26,150.00





# AIA Document A310™ – 2010

## Bid Bond

**CONTRACTOR:**

*(Name, legal status and address)*

**INSITUFORM TECHNOLOGIES USA, LLC**  
17988 Edison Avenue  
Chesterfield, MO 63005

**OWNER:**

*(Name, legal status and address)*

**City of Geneva**  
22 South First Street  
Geneva, IL 60134

**SURETY:**

*(Name, legal status and principal place of business)*

**Travelers Casualty And Surety Company Of America**  
One Tower Square  
Hartford, CT 06183

**Mail Notices To:**

**Travelers**  
Attn: Surety Claim Dept.  
One Tower Square 2S1A  
Hartford, CT 06183

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

**BOND AMOUNT:** Ten Percent of the Amount Bid ----- dollars (\$ 10% of Amount Bid)

**PROJECT: 2021 Sanitary and Storm CIPP**

*(Name, location or address, and Project number, if any)*

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 20<sup>th</sup> day of September, 2021.

*(Witness) Diane Partridge, Contracting & Attesting Officer*

**INSITUFORM TECHNOLOGIES USA, LLC**

*(Principal)*

*(Seal)*

*(Title) Jens Lause, Contracting & Attesting Officer*

*(Witness) Ashley Miller, Witness*

**Travelers Casualty And Surety Company Of America**

*(Surety)*

*(Seal)*

*(Title) Andrew P. Thome, Attorney-In-Fact*



**TRAVELERS**

**Travelers Casualty and Surety Company of America  
Travelers Casualty and Surety Company  
St. Paul Fire and Marine Insurance Company**

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint Andrew P. Thome, of Chesterfield, Missouri, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this 3rd day of February, 2017.



State of Connecticut

City of Hartford ss.

By: Robert L. Raney  
Robert L. Raney, Senior Vice President

On this the 3rd day of February, 2017, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2021



Marie C. Tetresault  
Marie C. Tetresault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 20 day of September, 2021



Kevin E. Hughes  
Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.  
Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.



State of Missouri  
County of St. Louis

On 9/20/2021, before me, a Notary Public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared Andrew P. Thome known to me to be Attorney-in-Fact of

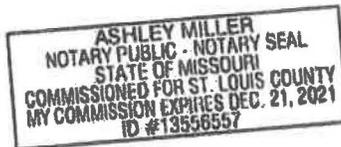
## TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

the corporation described in and that executed the within and foregoing instrument, and known to me to be the person who executed the said instrument in behalf of said corporation, and he duly acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year stated in this certificate above.



\_\_\_\_\_  
Ashley Miller, Notary Public



My Commission Expires: \_\_\_\_\_



## **SECTION 00310**

### **GENERAL CERTIFICATIONS**

The undersigned, as duly-authorized representative of the Contractor, hereby certifies to the City of Geneva, that regarding this project known as **2021 SANITARY AND STORM CIPP**.

**The Following General Certifications are required:**

- **Drug Free Workplace Certification**
  - **Certification of Compliance with Safety Regulations**
  - **Certification of No Tax Delinquency and No Tax Default**
  - **Certification of Compliance with Sexual Harassment Policies**
  - **Certification of Non-Segregated Facilities**
- 

#### **1. DRUG FREE WORKPLACE CERTIFICATION**

The Contractor ensures that they operate a drug free environment and that drugs are not allowed in the workplace or satellite locations as well as City of Geneva project locations in accordance with the Drug Free Workplace Act of January, 1992.

#### **2. CERTIFICATION OF COMPLIANCE WITH SAFETY REGULATIONS**

The Contractor is fully aware of and able to comply with all Local, State, and Federal Safety and other Laws, Codes, and Regulations applicable for the construction of the Project.

#### **3. CERTIFICATION OF NO TAX DELIQUENCY AND NO TAX DEFAULT**

The Contractor is not currently delinquent in the payment of any tax administered by or owed to the Illinois Department of Revenue, or otherwise in default upon any such tax as defined under 65 ILCS 5/11-42.1-1, or if it is:

- a. It is contesting its liability for the tax or the amount of tax in accordance with procedures established by the appropriate Revenue Act; or
- b. It has entered into an agreement with the Department of Revenue for payment of all taxes due and is currently in compliance with that agreement.

#### **4. CERTIFICATION OF COMPLIANCE WITH SEXUAL HARASSMENT POLICIES**

The Contractor has a written sexual harassment policy in place in full compliance with all applicable state and local laws and policies.

#### **5. CERTIFICATION OF NON-SEGREGATED FACILITIES**



The federally assisted construction contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term 'segregated facilities' means any waiting rooms, work areas, restrooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom or otherwise. The federally assisted construction contractor agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certification in his files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

Subscribed and sworn to:

  
\_\_\_\_\_  
Notary Public

DIANE PARTRIDGE  
Notary Public - Notary Seal  
STATE OF MISSOURI  
St. Louis County  
My Commission Expires: July 8, 2026  
Commission # 12595471

before me this 20th day of September, 2021.

  
\_\_\_\_\_  
Authorized Agent of Contractor

Jana Lause, Contracting & Attesting Officer  
Title

Insituform Technologies USA, LLC  
Company

September 20, 2021  
Date

END OF SECTION



**SECTION 00315**

**CERTIFICATION OF COMPLIANCE WITH CRIMINAL CODE OF 1961**

WHEREAS, a conviction for the offense of bid-rigging or bid rotating bars a person or entity from bidding on public contracts (720 ILCS 5/33D-11), and

WHEREAS, Section 33E-11 of the Criminal Code (720 ILCS 5/33E-11) requires bidders and contractors to certify on a form provided by the unit of local government or school district that they are not barred from public contracting due to bid-rigging or bid rotating convictions.

I, Jana Lause, do hereby certify that:  
Name

1. I am Contracting & Attesting Officer of the Insituform Technologies USA, LLC  
Position Firm

and have authority to execute this certification on behalf of the firm;

2. This firm is not barred from bidding on or entering into public contracts due to having been convicted of bid-rigging or bid rotating under paragraphs 720 ILCS 5/33E-11 of the Illinois Criminal Code. The undersigned also certifies that no officers or employees of the bidder or contractor have been so convicted and that the bidder or contractor is not the successor company or a new company created by the offices or owners of one so convicted. It is further certified that any such conviction occurring after the date of this certification will be reported to the above named public body, in writing, with seven (7) days of such conviction, if it occurs during any bidding process, contract term or otherwise prior to entering into any contract therewith.

Name of Firm Insituform Technologies USA, LLC

Signature Jana Lause

Title Jana Lause, Contracting & Attesting Officer

Date September 20, 20201



Corporate Seal (where appropriate)

On this 20th day of September, 2021, before me appeared  
(Name) Jana Lause Contracting & Attesting Officer to me personally known, who, being duly  
sworn, did execute the foregoing affidavit, and did state that he or she was properly authorized  
by

(Name of Firm)

to execute the affidavit and did so as his or her free act and deed.

Notary Public *Diane Partridge*

Commission Expires 07/08/2024

DIANE PARTRIDGE  
Notary Public - Notary Seal  
STATE OF MISSOURI  
St. Louis County  
My Commission Expires: July 8, 2024  
Commission #: 12595471

END OF SECTION



**SECTION 00320**

**CERTIFICATION OF DEBARMENT**

EPA Project Control #: \_\_\_\_\_  
\_\_\_\_\_

United States Environmental Protection Agency  
Washington, DC 20460

**Certification Regarding  
Debarment, Suspension and Other Responsibility Matters**

The prospective participant to the best of its knowledge and belief that it and its principles:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Jana Lause, Contracting & Attesting Officer  
(Typed Name & Title of Authorized Representative)

                      September 20, 2021  
(Signature of Authorized Representative)                      (Date)

I am unable to certify the above statements. My explanation is attached.  
EPA FORM 5700-49 (11-88)



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SECTION 00330  
AFFIDAVIT OF EXPERIENCE

2021 SANITARY AND STORM CIPP  
CITY OF GENEVA  
2021

STATE OF MISSOURI )  
COUNTY OF ST. LOUIS )SS

Insituform Technologies USA, LLC, hereinafter called  
Principal, Corporation, Partnership or Individual and which has done work for the following  
parties of the general kind and approximate magnitude under this contract:

<u>Name of Owner</u>	<u>Phone #</u>	<u>Job Description</u>	<u>\$ Amount</u>
See attached			

and that Insituform Technologies USA, LLC (Name of said Principal, Corporation, Partnership or  
Individuals) available for immediate use on the proposed work the following plant and equipment:



**CERTIFICATION:**

**CONTRACTOR**

**BY:**

*Jana Lause*

**NAME:**

Jana Lause

**(PRINCIPAL)**

**TITLE:**

Contracting & Attesting Officer

**ADDRESS:**

17988 Edison Avenue, Chesterfield, MO 63005

**CONTRACTORS CORPORATE SEAL**

**ATTEST**

**BY:**

*Diane Partridge*

**NAME:**

Diane Partridge

DIANE PARTRIDGE  
Notary Public - Notary Seal  
STATE OF MISSOURI  
St. Louis County  
My Commission Expires: July 8, 2024  
Commission # 12595471

**(NOTARY PUBLIC)**

**ADDRESS:**

17988 Edison Avenue, Chesterfield, MO 63005

**END OF SECTION**



**CITY OF GENEVA**  
2021 SANITARY AND STORM CIPP

# **AGREEMENT AND BONDS**



**SECTION 00400**

**AGREEMENT**

**2021 SANITARY AND STORM CIPP  
CITY OF GENEVA  
2021**

This Agreement, made this \_\_\_\_\_ day of \_\_\_\_\_, 2021 by and between the City of Geneva, hereinafter called "Owner", and Insituform Technologies USA, LLC, doing business as a Corporation, hereinafter called "Contractor."

Witnesseth: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor will commence and complete the construction of the **2021 Sanitary and Storm CIPP**.
2. The Contractor will furnish all of the material, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the Project described herein.
3. The Contractor will commence the work required by the Contract Documents within ten (10) calendar days after the date of the Notice to Proceed. The Contractor will Substantially Complete the Work by **February 25, 2022** and will meet Final Completion by **March 25, 2022**, unless the period for completion is extended otherwise by the Contract Documents.
4. The Contractor agrees to perform all of the Work described in the Contract Documents and comply with the terms therein for the sum of \$493,477.00, as shown in the Bid Form - Section 00300.
5. The term "Contract Documents" means and includes the following:
  - A. Advertisement for Bids
  - B. Instructions for Bidders
  - C. Bid Form
  - D. This Agreement
  - E. Notice of Award
  - F. Notice to Proceed
  - G. Change Order Form
  - H. Performance Bond
  - I. Payment Bond
  - J. Certificates of Insurance
  - K. Certifications (various)
  - L. Specifications prepared or issued by Deuchler Engineering Corp.
  - M. Drawings prepared by Deuchler Engineering Corp.



N. Addenda:

- No. 1, dated September 14, 2021
- No. 2, dated September 16, 2021
- No. \_\_\_\_\_, dated \_\_\_\_\_, 202\_\_
- No. \_\_\_\_\_, dated \_\_\_\_\_, 202\_\_
- No. \_\_\_\_\_, dated \_\_\_\_\_, 202\_\_

O. Any modification, including Change Orders, duly delivered after execution of Agreement.

- 6. The Owner will pay to the Contractor in the manner and at such times as set forth in the Special Provisions, such amounts as required by the Contract Documents.
- 7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.
- 8. Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in paragraph 3 above, plus any extensions thereof allowed in accordance with the Contract Documents. The Contractor also recognizes the difficulties involved in proving the actual loss suffered by the Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Contractor shall pay the cost of engineering time, construction observation time, construction management time and any other costs associated with such delay for each day that expires after the time specified in paragraph 3 for Substantial Completion until the work is substantially complete. After Substantial Completion, if contractor shall neglect, refuse or fail to complete the remaining Work within the time specified in paragraph 3 for completion and readiness for final payment, contractor shall pay the cost of engineering time, construction observation time, construction management time and any other costs associated with such delay for each day that expires after the time specified in paragraph 3 for completion and readiness for final payment.



In witness whereof, the parties hereto have executed or caused to be executed by their duly authorized officials this Agreement in **quadruplicate** each of which shall be deemed an original on the date first above written.



**Owner:**

City of Geneva

By: Stephanie K. Dawkins

Name: Stephanie K. Dawkins

Title: City Administrator

**Attest:**

Name: Jeanne Torman

Title: Deputy Clerk

**Contractor:**

Insituform Technologies USA, LLC

By: Jana Lause

Name: Jana Lause

Title: Contracting & Attesting Officer

(Seal)

**Attest:**

Name: Diane Partridge

Title: Diane Partridge, Contracting & Attesting Officer

**END OF SECTION**



**SECTION 00410**

**NOTICE OF AWARD**

**2021 SANITARY AND STORM CIPP  
CITY OF GENEVA  
2021**

**To:** Insituform Technologies USA, LLC  
17988 Edison Ave.  
Chesterfield, MO 63005

**Date:** Oct. 8, 2021

The Owner has considered the Bid submitted by you for the above described **WORK** in response to its Advertisement for Bids and Instructions for Bidders.

You are hereby notified that your Bid has been accepted in the amount of \$ 493,477.00.

You are required by the Instructions for Bidders to execute the Agreement and furnish the required Contractor's Performance Bond, Payment Bond, and certificates of insurance within ten (10) calendar days from the date of this Notice of Award to you.

If you fail to execute said Agreement and to furnish said Bonds and certificates of insurance within ten (10) days from the date of this Notice of Award, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and as a forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the Owner.

**City of Geneva**

**NAME:** Bob Van Gysegem



**TITLE:** Superintendent of Water & Wastewater

October 8, 2021

**DATE:** \_\_\_\_\_



**ACCEPTANCE OF NOTICE**

Receipt of the above **NOTICE TO AWARD** is hereby acknowledged:

**CONTRACTOR:** Insituform Technologies USA, LLC

**NAME:**

Jana Lause

**TITLE:**

Jana Lause, Contracting & Attesting Officer

**DATE:**

November 10, 2021

**END OF SECTION**



SECTION 00420

NOTICE TO PROCEED

2021 SANITARY AND STORM CIPP  
CITY OF GENEVA  
2021

To:  
Insituform Technologies USA, LLC  
17988 Edison Avenue  
Chesterfield, MO 63005

Date: December 2, 2021

You are hereby notified to commence WORK in accordance with the Agreement dated October 8<sup>th</sup>, 2021 and you are to have the WORK Substantially Complete by **February 25, 2022** and meet Final Completion by **March 25, 2022**.

City of Geneva

NAME: Bob VanLoyseghem R. Van Looyen  
TITLE: Superintendent Water & Wastewater  
DATE: 12/2/2021

**ACCEPTANCE OF NOTICE**

Receipt of the above **NOTICE TO PROCEED** is hereby acknowledged:

**CONTRACTOR:** Insituform Technologies USA, LLC

**NAME:** 

**TITLE:** Jana Lause, Contracting & Attesting Officer

**DATE:** December 2, 2021

**END OF SECTION**

**SECTION 00530**  
**CHANGE ORDER**

Change Order No. \_\_\_\_\_

Date: \_\_\_\_\_

Agreement Date: \_\_\_\_\_

**Name of Project:** 2021 SANITARY AND STORM CIPP

**OWNER:** CITY OF GENEVA

**CONTRACTOR:** \_\_\_\_\_

The following changes are hereby made to the CONTRACT DOCUMENTS:

**Justification:**

Change to the CONTRACT PRICE: \$ \_\_\_\_\_

Original CONTRACT PRICE: \$ \_\_\_\_\_

Current CONTRACT PRICE adjusted by previous CHANGE ORDER: \$ \_\_\_\_\_

The CONTRACT PRICE due to this CHANGE ORDER will be

(Increased) (Decreased) By : \$ \_\_\_\_\_

The new CONTRACT PRICE including this CHANGE ORDER will be \$ \_\_\_\_\_

Change to CONTRACT TIME:

The CONTRACT TIME will be (Increased) (Decreased) by \_\_\_\_\_ Calendar Days.

The Date for Completion of all work will be (Date) \_\_\_\_\_

Approvals Required: To be effective this Order must be approved by the Federal Agency if it changes the scope or objective of the PROJECT.

Requested by: \_\_\_\_\_

Recommended by: \_\_\_\_\_

Ordered by: \_\_\_\_\_

Accepted by: \_\_\_\_\_

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Bond No. 107533819

**SECTION 00605**

**PAYMENT BOND**

**KNOW ALL MEN BY THESE PRESENTS that:**

NAME OF CONTRACTOR                      Insituform Technologies USA, LLC

ADDRESS OF CONTRACTOR              17988 Edison Avenue  
Chesterfield, MO 63005

a Corporation, hereinafter called Principal, and

NAME OF SURETY                              Travelers Casualty and Surety Company of America

ADDRESS OF SURETY                        One Tower Square, Hartford, CT 06183

hereinafter called Surety, are held and firmly bound unto the **CITY OF GENEVA**, hereinafter called **OWNER**, in the penal sum of \$493,477.00\* in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents. \* Four Hundred Ninety Three Thousand Four Hundred Seventy Seven & 00/100's

**THE CONDITION OF THIS OBLIGATION** is such that whereas, the Principal entered into a certain contract with the **OWNER**, dated the 10 day of November, 2021, a copy of which is hereto attached and made a part hereof for the construction of the **2021 Sanitary and Storm CIPP**.

**NOW, THEREFORE**, if the Principal shall promptly make payment in all persons, firms, **SUBCONTRACTORS**, and corporations furnishing materials for or performing labor in the prosecution of the **WORK** provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such **WORK**, and all insurance premiums on said **WORK**, and for all labor, performed in such **WORK** whether by **SUBCONTRACTOR** or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

**PROVIDED, FURTHER**, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the **WORK** to be performed thereunder or the **SPECIFICATIONS** accompanying the same shall in any wise affect its obligation on this **BOND**, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the **WORK** or to the **SPECIFICATIONS**.

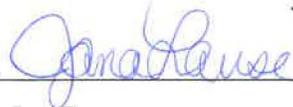


**PROVIDED, FURTHER**, that no final settlement between the **OWNER** and the **CONTRACTOR** shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

In witness whereof, this instrument is executed in four (4) counterparts, each of which shall be deemed an original, this the 10 day of November, 2021.

**CONTRACTOR**

**BY:**



**Insituform Technologies USA, LLC**

**NAME:**

Jana Lause

**TITLE:**

Contracting & Attesting Officer

**ADDRESS:**

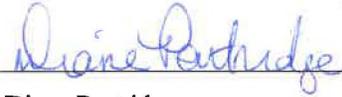
17988 Edison Avenue, Chesterfield, MO 63005

**CONTRACTORS CORPORATE SEAL**



**ATTEST**

**BY:**



**NAME:**

Diane Partridge

**TITLE:**

Contracting & Attesting Officer

**ADDRESS:**

17988 Edison Avenue, Chesterfield, MO 63005

**WITNESS AS TO PRINCIPAL**

**BY:**



**NAME:**

Janet Hass

**TITLE:**

Contracting & Attesting Officer

**ADDRESS:**

17988 Edison Avenue, Chesterfield, MO 63005



**SURETY**

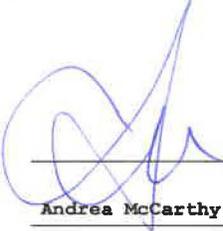
Travelers Casualty and Surety Company of America

**BY:**   
**NAME:** \_\_\_\_\_ (ATTORNEY IN FACT)  
Andrew P. Thome, Attorney-in-Fact  
\_\_\_\_\_  
(ATTACH VERIFICATION OF POWER OF ATTORNEY)  
\_\_\_\_\_

**ADDRESS:** One Tower Square, Hartford, CT 06183



**WITNESS AS TO SURETY**

**BY:**   
**NAME:** Andrea McCarthy, Witness  
\_\_\_\_\_  
**ADDRESS:** One Tower Square, Hartford, CT 06183

**NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all Partners should execute BOND.**

**IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the PROJECT is located.**

**END OF SECTION**



Bond No. 107533819

**SECTION 00610**

**PERFORMANCE BOND**

**KNOW ALL MEN BY THESE PRESENTS that:**

NAME OF  
CONTRACTOR      Insituform Technologies USA, LLC

ADDRESS OF  
CONTRACTOR      17988 Edison Avenue  
                         Chesterfield, MO 63005

a Corporation, hereinafter called Principal, and

NAME OF SURETY                      Travelers Casualty and Surety Company of America

ADDRESS OF SURETY                One Tower Square, Hartford, CT 06183

hereinafter called Surety, are held and firmly bound unto the **CITY OF GENEVA** hereinafter called **OWNER**, in the penal sum of \$493,477.00,\* in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

\* Four Hundred Ninety Three Thousand Four Hundred Seventy Seven & 00/100's

**THE CONDITION OF THIS OBLIGATION** is such that whereas, the Principal entered into a certain contract with the **OWNER**, dated the 10 day of November, 2021, a copy of which is hereto attached and made a part thereof for the construction of the **2021 SANITARY AND STORM CIPP**.

**NOW, THEREFORE**, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the **OWNER**, with or without notice of the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the **OWNER** from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the **OWNER** all outlay and expense which the **OWNER** may incur in making good any default, then his obligation shall be void; otherwise to remain in full force and effect.



**PROVIDED, FURTHER**, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the **WORK** to be performed thereunder or the **SPECIFICATIONS** accompanying the same shall in any wise affect its obligation on this **BOND**, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the **WORK** or to the **SPECIFICATIONS**.

**PROVIDED, FURTHER**, that no final settlement between the **OWNER** and the **CONTRACTOR** shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

**IN WITNESS WHEREOF**, this instrument is executed in 4 counterparts, each of which shall be deemed an original, this the 10 day of November, 2021.

**Any suit under this bond must be instituted before the expiration of the Statute of Limitations applicable to any claim against the contractor named herein.**

**CONTRACTOR**

**BY:**



**Insituform Technologies USA, LLC**

**NAME:**

Jana Lause

**TITLE:**

Contracting & Attesting Officer

**ADDRESS:**

17988 Edison Avenue, Chesterfield, MO 63005

**CONTRACTORS CORPORATE SEAL**



**ATTEST**

**BY:** *Diane Partridge*  
**NAME:** Diane Partridge **(PRINCIPAL SECRETARY)**  
**TITLE:** Contracting & Attesting Officer  
**ADDRESS:** 17988 Edison Avenue, Chesterfield, MO 63005

**WITNESS AS TO PRINCIPAL**

**BY:** *Janet Hass*  
**NAME:** Janet Hass  
**TITLE:** Contracting & Attesting Officer  
**ADDRESS:** 17988 Edison Avenue, Chesterfield, MO 63005



**SURETY**

Travelers Casualty and Surety Company of America

BY:

NAME:



(ATTORNEY IN FACT)

Andrew P. Thome, Attorney-in-Fact

(ATTACH VERIFICATION OF POWER OF ATTORNEY)

ADDRESS:

One Tower Square, Hartford, CT 06183

**SURETY CORPORATE SEAL**

**WITNESS AS TO SURETY**

BY:

NAME:



Andrea McCarthy, Witness

ADDRESS:

One Tower Square, Hartford, CT 06183

**NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all Partners should execute BOND.**

**IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the PROJECT is located.**

**END OF SECTION**



State of Missouri  
County of St. Louis

On 11/10/2021 before me, a Notary Public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared Andrew P. Thome known to me to be Attorney-in-Fact of

## TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

the corporation described in and that executed the within and foregoing instrument, and known to me to be the person who executed the said instrument in behalf of said corporation, and he duly acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year stated in this certificate above.

\_\_\_\_\_  
Andrea McCarthy, Notary Public

ANDREA MCCARTHY  
NOTARY PUBLIC - NOTARY SEAL  
STATE OF MISSOURI  
COMMISSION EXPIRES JUL. 30, 2023  
ID #15636518

My Commission Expires: \_\_\_\_\_





**Travelers Casualty and Surety Company of America  
Travelers Casualty and Surety Company  
St. Paul Fire and Marine Insurance Company**

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **ANDREW P THOME** of **CHESTERFIELD**, Missouri, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **21st** day of **April**, 2021.



State of Connecticut

City of Hartford ss.

By:   
Robert L. Raney, Senior Vice President

On this the **21st** day of **April**, 2021, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, 2026



  
Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

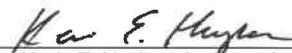
**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **10** day of **November**, 2021 .



  
Kevin E. Hughes, Assistant Secretary

**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.  
Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.**





**2021 Sanitary and Storm CIPP - Addendum 9/14/2021**

1. Is there a proposed access plan to clean and line the 10" sanitary sewer's located along the Fox River? It looks as though access could potentially be an issue depending on what type of equipment we are allowed to bring on the property. **The plan is up to each contractor. Coordination with the City and Engineer will be required, however.**
2. There seems to be a bit of a discrepancy between the bid item footage and the actual footage from the map pages. Is it your intent to line other areas on this project not stated on the maps? If not, it would be better for bidders if the footage was adjusted to match the actual quantities stated in the schedule page located before the maps in the spec book. **The intent is to CIPP all segments shown on the plans/schedule. The bid quantities leave some buffer for additional footage that may become part of the project to avoid a change order down the road.**



SECTION 00 91 13.01

CITY OF GENEVA  
2021 SANITARY AND STORM CIPP  
BID DATE: September 20<sup>th</sup> , 2021

ADDENDUM NO. 2

DATE: September 16<sup>th</sup> , 2021  
FROM: Deuchler Engineering Corp.  
TO: All Plan Holders  
# PAGES: 2 Pages

Please acknowledge receipt of this addendum by filling out the following and email a scanned copy to [mrhoden@deuchler.com](mailto:mrhoden@deuchler.com) immediately upon receipt of this addendum.  
Also acknowledge receipt on Section 00 41 00 - Bid Form, page 00 41 00-1.

COMPANY NAME: Insituform Technologies USA, LLC

SIGNATURE OF COMPANY  
REPRESENTATIVE:

  
Jana Lause, Contracting & Attesting Officer

DATE: September 17, 2021



**CITY OF GENEVA**  
**2021 SANITARY AND STORM CIPP**  
**BID DATE: September 20<sup>th</sup>, 2021**

**ADDENDUM NO. 2**

**DATE:** September 16<sup>th</sup>, 2021  
**FROM:** Deuchler Engineering Corp.  
**TO:** All Plan Holders

**THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND MODIFIES  
THE ORIGINAL BIDDING DOCUMENTS AS NOTED BELOW.**

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**I. ADDENDA ITEMS RELATING TO CONTRACT SPECIFICATIONS**

None

**II. PLAN/PROFILE AND EXHIBITS**

- 1. **4R-M39 to 4R-M43:** The upstream manhole, 4R-M39, is located 10 feet in the culvert that travels under the railroad tracks. Due to the difficult access, payment to CIPP from 4R-M38 all the way through 4R-M43 will be granted if needed. This section of CIPP shall be paid at the contract unit price per foot.

**III. QUESTIONS FROM BIDDERS NOT COVERED ELSEWHERE**

- 1. The following link provides televising videos for the 10'' sanitary sewer along the Fox River: [Link to Sewer Televising](#)

**END OF SECTION**



# **SPECIAL PROVISIONS**



**2021 Sanitary and Storm CIPP  
City of Geneva**

**SPECIAL PROVISIONS**

The following Special Provisions supplement the General Conditions, Supplementary Conditions, "Standard Specifications for Water and Sewer Construction in Illinois, 7<sup>th</sup> Edition" (hereinafter referred to as the "Standard Specifications"), the "Standard Specifications for Road and Bridge Construction", adopted April 1, 2016, and "Supplemental Specifications and Recurring Special Provisions", adopted January 1, 2021 by the Illinois Department of Transportation (hereinafter referred to as the "I.D.O.T. Specifications"), the "Manual on Uniform Traffic Control Devices", and the "Illinois Urban Manual", included herein by reference which apply to and govern the proposed improvement.

In case of conflict with any part or parts of said General Conditions, Supplementary Conditions, Standard Specifications and I.D.O.T. Specifications, these Special Provisions shall take precedence and shall govern. In case of conflict between the Standard Specifications and the I.D.O.T. Specifications, the Standard Specifications shall take precedence and shall govern.

**SP-1 EXECUTION OF CONTRACT**

1. Contractor warrants that it has reviewed the Contract Documents, including any plans, specifications and reports, has inspected the project site, and has satisfied itself as to the conditions under which the Work is to be performed, including any subsurface or otherwise latent conditions. Contractor understands that the conditions it encounters may differ from those anticipated and agrees to bear the risk of such difference in conditions. Neither the time in which the Work is to be performed, nor the cost of performing such Work, shall be increased because of unforeseen or unanticipated site or project conditions.
2. The procedures, methods, and materials agreed to in the Contract Documents shall not be deviated from without the written consent of the Owner.
3. The Owner reserves the right of approval over all procedures, methods, and materials to be employed by the Contractor or its subcontractors for this Work.
4. In performing the Work hereunder, it is understood that the Contractor is acting as an independent Contractor and that its employees, agents, and representatives and those of any and all subcontractors which it retains in the Work hereunder shall not be deemed, for any purpose, to be agents, servants, and/or employees of the Engineer or Owner.

Contractor shall perform the Work as an independent Contractor and all of its employees engaged in the performance of the Work shall be supervised and controlled exclusively by the Contractor.

Contractor shall not delegate or assign the obligation of this Contract without prior written approval of the Owner.

5. Contractor warrants that its Work shall be free from defects and shall be suitable for the use intended. In the event that any deficiencies in the Contractor's Work are discovered within one year after completion of the project, Contractor shall, at its sole cost, repair or replace any defective work, including repair of any portion of the project or property damaged by repair, replacement or repetition of defective work. This warranty is in addition to any other remedy which Engineer may have for any defective work of Contractor.
6. The individual or individuals signing this Contract on behalf of the Contractor warrants that they are authorized to bind Contractor to this Contract and guarantee Contractor's performance of the Work set forth under this Contract.
7. The Owner, without prejudice to any other remedy, may correct any defects or deficiencies in the Work of Contractor at the expense of Contractor. Should any tests not otherwise required by this Contract be necessary to inspect or test the Work of Contractor, Contractor shall pay for the cost of the tests if the Work is found not to be in accordance with the requirements of this Contractor, or is otherwise defective.
8. Time is of the essence. Contractor shall schedule its work and that of its Subcontractors to meet requirements of Owner.
9. Contractor shall not divulge information concerning any portion of the Work or the results of any tests, nor shall it provide copies of any reports made pursuant to this Contract, without prior written approval of the Owner, or as required by law.
10. This Contract may be terminated by Owner on fourteen days written notice to Contractor. Contractor shall be paid for all Work performed prior to termination, less the cost of remedying any defective work performed by Contractor. The indemnification, insurance liens, and job site safety obligations survive termination of this Contract.
11. Contractor agrees to defend, indemnify and hold harmless Owner, its officials, trustees, employees, Engineer, and agents from and against any and all claims, damages, liability, suits, actions and expenses, including reasonable attorney's fees, relating to any and all losses or damages sustained by or alleged to have been sustained by any person, including employees of parties hereto, and arising or allegedly arising from Contractor's performance or failure to perform the services set forth in this Agreement and/or the Work regardless of whether or not concurrently caused by the negligence of Owner, except that Contractor shall not be required to defend, indemnify and hold harmless and indemnified Party from claims, damages or liability caused by the sole negligence or willful misconduct of the indemnified Party. In the event that any such claim, action, cause of action or lawsuit is brought or filed, the indemnified Party and its officials, trustees, employees, Engineer and agents sued thereunder, shall have the right to

determine the attorney of its, his, hers or their choice to present and defend their interests in any legal or administrative action, all at the Contractor's expense pursuant to this Contract. The duration of the indemnification hereunder shall be indefinite.

12. Contractor shall be solely responsible for the safety of persons or property on, or adjacent to, the job site. Contractor shall be responsible for his/her activity and that of any of its Subcontractors, employees or agents on the job site with respect to job site safety. Neither the professional activities nor the presence of Engineer or its employees and Subcontractors shall be understood to control the operations of others.

The Contractor shall arrange for all of its employees who will be working on the site to take any appropriate safety and health training courses applicable for the site conditions. The costs and expenses of the employees taking such course shall be paid by Contractor.

Contractor is responsible for providing, at its own expense, all personal protective clothing and equipment required for its employees to perform their Work in a safe manner and in compliance with all applicable local, state, and federal laws and regulations including, but not limited to Occupational Safety and Health Administration (OSHA) standards. Contractor is responsible for ensuring that such equipment is in good condition and is properly inspected and maintained. In cases where a Job Safety Plan or equivalent document (e.g., Health and Safety Plan) has been prepared and adopted by the Owner, Contractor must, at a minimum, use the equipment and follow the procedures described in that plan. This does not relieve the Contractor of the responsibility to provide equipment and institute procedures affording a greater degree of protection than those specified in the Job Safety Plan, if such equipment and procedures are necessary for the Contractor to perform its tasks in a safe manner and in compliance with applicable local, state, and federal regulations.

13. Contractor shall discharge at once or bond otherwise secure against all liens and attachments which are filed in connection with the services, and Contractor shall indemnify and save Engineer, and the Owner of the premises on which the services are performed, or to which the services relate, harmless from and against any and all loss, damage, liability and claims thereof resulting from such liens and attachments.
14. This is the final and complete Contract Documents between Contractor and Owner and supersedes any prior Contract Documents, whether written or oral. Should any portion of these Contract Documents be held invalid, the remaining portions shall continue as if the invalid portions had not been part of these Contract Documents.
15. The Instructions to Bidders, the Specifications and amendments thereto, the Addenda, the Proposal as accepted by the Owner, the Special Provisions, the Project Plans or Drawings, Contract, Contractor's Bonds, Notice to Proceed, Notice of Award, Advertisement for Bids, Certificates of Insurance and all certifications of Contractor regarding eligibility to enter into public contracts, certifications regarding maintenance of sexual harassment policy and certifications regarding absences of tax delinquencies shall form part of this Contract and the provision thereof shall be as binding upon the

parties as if they were fully set forth herein. The Index, titles, headings, running headlines and marginal notes contained herein and in said Contract Documents are solely to facilitate various provisions of the Contract Documents and in no way affect, limit or cast light upon the interpretations of the provisions to which they refer. Whenever the term "Contract Documents" is used, it shall mean and include this Contract, the Instructions to Bidders, the enumerated plans, specifications and amendments thereto, the Addenda, the Proposal, the Special Provisions, Insurance certificates, written Change Orders, and the Contractor's proposal incorporating all post-bid discussions and all other documents set forth herein and in the Specifications.

16. The Contract Documents are complementary, and any Work called for by any part thereof shall be executed as part of the Contract in the same manner as if called for in all parts. Therefore, all Work that may be called for in the Specifications and not shown on the Plans, shall be executed and furnished by the Contractor as if described in both of these documents. Should any work or material be required which are not denoted in the Plans, Specifications, or other Contract Documents either directly or indirectly, but which are necessary for the proper carrying out of the intent thereof, the Contractor shall perform all Work and furnish all materials as fully as if they were particularly described. Likewise, any contradictory clauses between any of the Contract Documents shall be resolved by the Engineer or Owner. The Engineer or Owner's interpretation of these contradictory clauses shall be final.
17. All work covered by the Contract is to be performed under the general direction, supervision, and responsibility of the Contractor but shall be subject to inspection and final acceptance by the Owner.

The Contractor agrees that it shall carry on said Work at its own risk until the same is fully completed and accepted, and shall, in case of any accident, destruction, or injury to the Work and/or materials before its final completion and acceptance, repair, or replace forthwith the Work and/or materials so injured, damaged, or destroyed, at its own expense and to the satisfaction of the Owner.

18. Contractor shall not subcontract the whole or any part of said Work without the written consent of the Owner having been first obtained, which consent shall not be unreasonably withheld by the Owner.
19. Contractor shall cooperate with others performing services for the Owner in connection with any Work in the same location.
20. The Contractor shall be responsible for obtaining all permits necessary for moving equipment over the city or county streets and state highways. The Contractor shall pay all charges and fees, the cost of which will be included in the Contract price for the Work.
21. The Contractor shall comply with all laws, ordinances, rules, and regulations of governmental authorities affecting the conduct of the proposed Work. Before the completion of the Contract, the Contractor shall furnish to the Owner any and all

- certificates of approval resulting from required inspections.
22. Contractor shall warrant that all services under this Contract will be performed in accordance with the Contract Documents and in a professional manner with the skill and care which would be exercised by qualified contractors. Contractor will perform again, at its own cost and expense, any portion of the services provided herein that do not meet the standards set forth in this paragraph. Contractor warrants that all equipment it provides will be in good condition when consigned to the job and that its personnel will be capable of performing the tasks to which they are assigned. Contractor further warrants that it understands the risks of exposure to waste, which are presented to persons, property, and the environment by the tasks encompassed by the Contract and that it will fully comply with all applicable federal, state, and local laws.
  23. The adequacy of all safeguards is the responsibility of the Contractor. All material and services furnished by the Contractor shall be in compliance with the provisions of the Federal Occupational Safety and Health Act (OSHA) and the regulations and standards promulgated by the Secretary of Labor thereunder.
  24. The Contractor agrees that due care shall be used throughout the Work; and that whenever plans, drawings, or specifications, or any of them for any part of the Work, are in its opinion faulty or at variance with each other or with any applicable rules, regulations, or ordinances, or are such as will, if followed, result in construction which is or will be unsafe, imperfect, insecure, or violative of any applicable rules, regulations, or ordinances, the Contractor shall promptly stop Work on the part of the Work affected thereby and notify the Engineer in writing of such opinion and in what respect said plans, drawings, or specifications are insufficient or improper, and shall not proceed with the part of the Work so criticized until a written order has been received from the Engineer directing what is to be done and when to proceed. Additionally, the Contractor shall:
    - A. Be responsible for repairing any damage to any man-made structure, walkway, etc. arising in connection with the Work performed.
    - B. Bear the responsibility for repairing and/or replacing any equipment or materials damaged by the Contractor or any of its Subcontractors.
    - C. Post warning signs adjacent to all Work areas indicating any hazards as the construction progresses.
    - D. Provide necessary temporary lighting, wiring, globes, guard lights, barricades, or any other items required by regulations, standards, or laws established for public protection and safety or to facilitate the Work.
  25. The Contractor shall be responsible for providing a level of security that will ensure control, accountability, and protection to the Work area, tools, materials, and equipment involved in the execution of this Contract.

26. The Contractor, its employees, agents, representatives, and Subcontractors shall not discuss, offer comment, or opinions concerning the Work, or disclose results without the consent of the Owner. This requirement shall apply to the Contractor with regard to disclosures to members of the general public and public and private media.
27. The Contractor shall not display any signs, posters, or other advertising matter in or on the Work or on or around the Site thereof without the specified approval in writing by the Owner.
28. In addition, no advertising copy mentioning the Owner or Engineer or quoting the opinions of any of its employees may be released unless such copy is approved by the Owner or Engineer before release.
29. Contractor in performing Work shall comply and shall require compliance by its Subcontractors with all applicable laws and regulations. Contractor shall not take and is not authorized to take any action in the name of or otherwise on behalf of the Owner which would violate applicable laws or regulations. If Contractor or its Subcontractors perform any part of the Work contrary to applicable laws or regulations, any additional costs resulting therefrom shall be for Contractor's account.
30. Contractor shall make reasonable efforts to discover any conflicts between applicable laws or regulations and job specification and shall promptly notify the Engineer of any conflicts it discovers. Contractor shall not proceed with the part of the Work in conflict without prior written notice from the Engineer that (1) the job specification has been revised to comply with the applicable laws and regulations, or (2) the Contractor has negotiated an approval or variance in the law or regulation with the appropriate governmental authority or agency. Additional costs resulting from Contractor's proceedings without such notice shall be for the Contractor's account.
31. Contractor shall not enter into negotiations with any governmental authority or agency to develop variances or revisions to laws or regulations without the Owner's prior written approval.
32. Contractor shall defend the Engineer and Owner from all claims, suits, or proceedings brought against the Engineer or Owner and which arise or occur by reason of any alleged violation or violations of applicable law or regulation by Contractor or its Subcontractors in the performance of Work. Contractor shall indemnify and hold the Engineer and Owner harmless from liability or penalty imposed by reason of such alleged violation or violations of applicable law or regulation.
33. If there is a conflict between any provision of the Contract and applicable law, the latter shall prevail; but, in such event, the provisions of the Contract affected shall be curtailed and limited only to the extent necessary to conform with applicable law.

**SP-2 GENERAL**

All work shall conform to the Ordinances and Regulations of the City of Geneva, the Illinois Environmental Protection Agency, and other regulatory agencies having jurisdiction over this project, the Standard Specifications, and these Special Provisions. Copies of the plans and specifications must be kept on the job site. Failure to comply with this provision shall be considered cause to stop the job.

All materials used in construction shall be certified as to type and quantity by ticket, invoice, or other written means from the source of supply, except as otherwise provided for by these Special Provisions.

All work shall be constructed in accordance with the limits as shown on the drawings or as given by the Engineer. Responsibility for keeping alignment shall belong to the Contractor. Limits shall be set by the Engineer as construction progresses. The Contractor shall use limit references, as established by the Engineer, to establish his own working or construction limits as required at his own expense and shall be solely responsible for the accuracy thereof. The Contractor's work shall be subject to check and review of the Engineer. The Contractor shall safeguard all property corners, monuments, and bench marks adjacent to but not related to the work, and if required shall bear the cost of restoring these if damaged or moved during construction.

Specified coating products shall meet the minimum volatile organic compound (VOC) content limits for Architectural Coatings as specified by the Architectural Coatings Rule found at 40 CFR Part 59 (Table 1) published September 11, 1998 by the United States Environmental Protection Agency.

**SP-3 PRECONSTRUCTION CONFERENCE**

Following the award of the Contract, the Contractor will be required to attend a Preconstruction Conference prior to beginning work. At this time, the Contractor will be required to furnish and discuss the following:

- Written progress schedule and beginning of work
- Names of Project Manager and Field Superintendent including the name and phone number of a responsible individual who can be reached 24 hours a day
- Names of subcontractors and material suppliers
- Traffic Control
- Temporary By-Pass Pumping
- Protection of pavement and property

- Phasing of the Work; Access to Residents; Completion Time; Restoration
- Use of City water
- Location of construction trailer and materials.

#### **SP-4 INCIDENTAL WORK**

All work shown or called for on the Plans and in the Specifications shall be incidental to the various bid items in the Proposal even though a specific item is not shown, and no additional compensation shall be made to the Contractor, unless it is indicated in the Special Provisions that additional payment will be allowed, or a unit price is provided for said work in the Bid Proposal.

#### **SP-5 SAFETY**

Add the following paragraphs to Section 7.19 of the Standard Specifications:

*“The general contractor, and all subcontractors employed on this project by the general contractor, shall at all times observe safe working conditions as outlined in the Safety and Health Regulations for Construction, Department of Labor, Bureau of Labor Standards, as published in Volume 36 Number 75 of the Federal Register dated Saturday, April 17, 1971; the Occupational Safety and Health Act of 1970 (PL 91-596) and the Rules and Regulations promulgated thereunder.”*

*“All subcontractors employed by the general contractor, shall also observe the provisions of the Illinois Occupational Safety and Health Laws.”*

*“The Contractor shall be responsible for the cost of any fines levied against the Owner or the Engineer due to the Contractor’s failure to comply with any safety regulations.”*

#### **SP-6 FINAL COMPLETION**

The completion date is specified on page 3 of the Bid Form (00300-03). The Contractor shall complete all Work on or before the stipulated completion date, otherwise the Owner may proceed to collect liquidated damages described herein, and as per Section 8.11 of the Standard Specifications.

When a delay occurs causing stoppage of the Work due to unforeseen causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to acts of the public enemy, governmental acts, fires, floods, epidemics, strike, extraordinary delays in delivery of materials caused by strikes, lockouts, wrecks, freight embargoes, governmental acts, or acts of God, the completion date may be extended by the Owner.

An "Act of God" means an earthquake, flood, cyclone, or other cataclysmic phenomena of nature beyond the power of the Contractor to foresee or make preparation in defense against. Storms or other natural phenomenon of normal intensity, based on U.S. Weather Bureau reports, for the particular locality and for the particular season of the year in which the Work is being prosecuted, shall not be construed as an "Act of God" and no extension of Contract time will be granted for the delays resulting therefrom.

Rain shall be granted as a delay if more than 2.0 inches of rain per 24 hours is collected by Deuchler Engineering Corp.'s rain gage.

It shall be the responsibility of the Contractor to request in writing an extension of time for each delay event. Contractor shall make no claim against Owner, and no claim shall be allowed, for any damages which may arise out of any delay caused by Owner, its agents, employees or other contractors or Subcontractors. Contractor's sole remedy for delay from Owner shall be an extension in the Contract Time.

#### **SP-7 HOURS OF WORK**

The regular 8-hour day shall be considered to begin at 7:00 A.M. and end at 3:30 P.M. with a one-half (½) hour lunch period, or such other 8-hour period as may be mutually agreed upon by the Owner and the Contractor. It is further agreed that the regular 8-hour day, as established, shall apply to all subcontractors employed on the project.

No work will be permitted to start prior to 7:00 A.M. or after 8:00 P.M. on any day including the start up of heavy equipment, without prior approval from the Owner. The normal working day shall be Monday through Friday. Work on Saturday will be allowed only after formal permission from the Owner is obtained.

No work will be permitted on Sundays and/or Holidays.

#### **SP-8 RESIDENT NOTIFICATION & SEWER ACCESS**

The Contractor shall provide and hang notices on doors of all residences / businesses with service lines connected to sewer mains to be cleaned. Notices shall be distributed 48 hours in advance of the work. The Contractor shall include the contact information for the onsite foreman as the primary contact for affected residents. The Contractor shall customize the notice to include the City of Geneva logo and contact information. The City shall review and approve the notice format and text at the beginning of the project prior to distribution. All work required for notification to residents shall be incidental to the contract.

With a portion of the project running under a Union Pacific Railroad track, coordination and permits may be needed to complete this work. This is the sole responsibility of the contractor and shall not be paid for separately.

For any work conducted on Kane County Forest Preserve property, coordination with the City's

Public Works Department will be required. Easement machines and portable televising vehicles may be required to access these sewers.

### **SP-9 DAMAGE TO PROPERTY & RESTORATION**

The Contractor shall be responsible to take all necessary precautions to prevent surcharging or any other damage to private residences / businesses. Any damage to public or private property caused by the cleaning or televising operation shall be the sole responsibility of the Contractor. The Contractor shall be responsible for cleaning needed as the result of sewer backups caused by the jetting operation. Any repairs, restoration, or cleaning that is necessitated by project shall be the sole responsibility of the Contractor and shall not be paid for separately.

The Contractor is also responsible for any damaged caused by their vehicles, including ruts in unpaved areas.

All grass areas that are disturbed due to installation of the new sanitary sewers shall be restored in accordance with Articles 21-2.05 of the Standard Specifications and with the details shown on the Plans. The work shall include the grading of trench backfill material, the spreading of pulverized top soil, the grading to obtain positive drainage, fertilizing, seeding, installing loose straw blanket, stabilizing with hydraulic mulch.

Seed mix with 25% increased rate:

- 24.93% ASAP Perennial Ryegrass
- 24.46% Caddieshack Perennial Ryegrass
- 24.33% Goalkeeper Perennial Ryegrass
- 12.37% Geronimo Kentucky Bluegrass
- 12.29% Kentucky Bluegrass
- 1.34% Inert Matter
- 0.28% Crop
- 0.00% Weed

The Contractor shall replace all topsoil to the depth as it now exists. If the topsoil is less than 6" thick, the Contractor shall provide additional top soil so that a minimum of 6" is replaced. The Contractor shall seed all disturbed grass areas.

Each resident/business shall be responsible for watering after the application.

All restoration shall not be paid for separately, and is incidental to the contract.

### **SP-10 NOISE RESTRICTIONS**

All engines and engine driven equipment used for construction shall be equipped with a sound restrictor device to prevent excessive or unusual noise during normal work hours (7 a.m. to 5 p.m.). Construction operation performed between the period of 7:00 A.M. to 5:00 P.M. on weekdays and

all weekends shall be limited to the maximum of 55 dBA noise levels at a distance of 23 feet from the equipment.

### **SP-11 ACCESS TO RESIDENTS AND BUSINESSES**

Contractor shall provide access to residents and businesses at all times, except in an unavoidable circumstance where Contractor may limit the length of closure to four (4) hours during normal working hours, and shall notify the residents, business owners, Owner and Engineer a minimum of 24 hours in advance.

The Contractor shall not close any street or driveway without prior notification and consent of the controlling agency and shall provide at least twenty-four (24) hours notice to the affected residents and businesses. In-the-event of an emergency, the Contractor shall provide immediate access to closed driveways or streets.

The Contractor shall provide to residents, businesses and motorists twenty-four (24) hours advance notice of parking restrictions with appropriate signs and/or barricades placed meeting the approval of the Engineer and controlling agency.

If the Contractor does not provide access to residents and businesses within 3 hours of notification by the Owner, the Owner shall make the necessary arrangements to construct an access to said residence and/or businesses. The cost of such access work will be deducted from any monies due to or to become due to the Contractor.

### **SP-12 USE OF CITY WATER**

The first sentence of Section 7.12, "Use of Fire Hydrants", of the Standard Specifications shall be deleted and revised as follows:

The City will provide all water necessary for the project at no cost to the Contractor. The City will provide one hydrant meter for this project. The Contractor shall coordinate with the City for the hydrant locations and meter setup.

The Contractor must ensure that the meter / backflow prevention device is installed between the hydrant and the jet truck supply hose. Additionally, the Contractor's vehicle must have a fixed air gap, or one fabricated, in order to pass inspection. The Contractor will be held responsible for damages done to hydrants, water mains and other water appurtenances while securing water. Weekly meter readings are required to be provided to the Engineer.

### **SP-13 DISPOSAL OF DEBRIS**

The Contractor shall remove all sludge, dirt, sand, rocks, grease and other solid or semisolid

material resulting from the cleaning operation from the downstream manhole of the sewer segment. Passing material from sewer segment to sewer segment shall not be permitted. In the event that sludge, dirt, sand, rocks, grease and other solid or semisolid material resulting from the cleaning operation are observed and/or detected, as passing to downstream sewer segment(s), the Contractor shall clean such sewer segment(s) at no additional cost. Extra precautions must be made to prevent debris from entering lift station wet wells. The Contractor is responsible for any damage to the pumps from debris entering a wet well due to nearby cleaning operations.

A "Vactor" or similar vacuum truck must be onsite during all cleaning operations and will be required to be setup on the downstream manhole to pull debris out of the sewer during all cleaning operations. As the sewer jet or other cleaning equipment is in use, the vacuum equipment shall be running in order to prevent debris from moving further downstream. The use of the vacuum truck does not constitute heavy cleaning.

Disposal of all sewer debris shall be the responsibility of the Contractor and shall be done in accordance with the Illinois Environmental Protection Agency (IEPA) and all other regulating agencies. Under no circumstances shall the removed sewage or solids be dumped onto streets or into ditches, catch basins, storm drains, sanitary, combined sewer manholes or otherwise improperly disposed. Improper disposal of sewage or solids removed from the sewers may subject the Contractor to fines imposed by the City. In addition, the CONTRACTOR may be subject to civil and/or criminal penalties for improper disposal under the law. **Removal and disposal of all sewer debris shall be incidental to the contract and will not be paid for separately.**

All dirt, debris, roots and other material removed from the **storm and sanitary sewers** shall be hauled away by the Contractor to a dump site **furnished by the City at no additional cost (located at 584 Kautz Road, Geneva IL).**

#### **SP-14 WORKSITE PROTECTION AND TRAFFIC CONTROL**

The Contractor shall provide all temporary enclosures, coverings, etc. for protection of the work and workmen until completion of the work; and shall provide all barricades, guards, and overhead protection in connection with the work and maintain them in satisfactory condition so long as they shall be required.

The Contractor shall provide and install any other protection required to properly safeguard the Owner's property, equipment, employees and the public, including obstruction lights, as required by conditions, on equipment or structures in connection with this Contract.

Barricades, lights, signs, arrow boards and flagmen shall be provided by the Contractor in accordance with the Manual on Uniform Traffic Control Devices as printed by the Illinois Department of Transportation. Particular attention shall be given to Part VI, "Traffic Controls for Street and Highway Construction and Maintenance Operations". A copy of this document shall be in the possession of the Contractor on the job site at all times. It shall be the responsibility of the Contractor to follow the procedures on traffic control contained therein at all times. All costs

to meet the requirements stated herein shall be considered incidental and included in the various unit bid prices.

At the preconstruction meeting the Contractor shall furnish the name of the individual in his direct employment who is to be responsible for the installation and maintenance of the traffic control for this project. If the actual installation and maintenance are to be accomplished by a subcontractor, approval of said subcontractor shall be obtained from the owner at the time of the preconstruction meeting. This shall not relieve the Contractor of the foregoing requirement for a responsible individual in his direct employ to supervise this work. The Contractor shall provide a manned telephone on a continuous 24-hour-a-day basis to receive notification of any deficiencies regarding traffic control and protection and shall dispatch men, materials and equipment to correct any such deficiencies. The Contractor shall respond to any call from the Owner concerning any request for improving or correcting traffic control devices and begin making the requested repairs within two hours from time of notification.

The Contractor shall be responsible for the proper location, installation, and arrangement of all traffic control devices. Special attention shall be given to advance warning signs during construction operations in order to keep lane assignment consistent with barricade placement at all times. The Contractor shall ensure that all traffic control devices are operational 24 hours a day, including Sundays and Holidays.

Traffic control and protection shall not be limited to the Public right-of-way, but may also be used on private properties, if necessary, upon written authorization from property owner.

It is anticipated that permits from IDOT for work on state roads will be required. A Letter of Authority will be required for any work on state roads. A Letter of Authority will require the Contractor to provide proof of insurance, naming IDOT an additional insured.

#### **SP-15 WORK IN EASEMENTS AND R.O.W.**

Construction work in easements and right-of-way shall be in accordance, but not limited to Section 7.13 of the Standard Specifications. Contractor shall notify the property owner at least 48 hours in advance prior to starting the work on their property.

The Contractor shall obtain the necessary permit from the Illinois Department of Transportation for work to be done in the right-of-way. The cost of obtaining this permit, including a bond shall be paid for by the Contractor. The Contractor shall comply with all the current requirements of the State of Illinois Department of Transportation Permit Sections Governing Permit Work on State Right-of-Way, including providing traffic control and detour as set forth in the construction Plans.

The cost of complying with the requirements of the State of Illinois Department of Transportation, including necessary bond, traffic control and detour, shall not be paid separately, but shall be incidental to the Contract.

**SP-16 VIDEO INSPECTION WITH LIGHT CLEANING (SANITARY AND STORM)**

This item shall include the cleaning and televising of existing sewers for the purposes of visually inspecting them for acceptance.

Light Sewer Cleaning Prior to Televising: All sewer cleaning prior to televising shall be included as part of the televising cost. The purpose of cleaning is to remove such accumulations of sediment, debris, blockage, mineral deposits, grease, roots, etc. to permit a thorough and complete examination of the condition of the sewer through internal closed-circuit color television inspection. Any additional "Heavy" cleaning required must be approved by Engineer or Owner.

Three full passes with the jetter hose may be required to fulfill the "Light Cleaning" requirement. The intent is to provide the industry standard 95% clean pipe in order to properly assess the pipe with PACP V 7.0.2 coding. The use of a vactor truck or debris catcher is required in each downstream manhole in order to remove the debris and prevent it from passing further downstream. Should dirt or debris be observed and/or detected, in a manhole or sewer after cleaning, the CONTRACTOR shall re-clean said manhole and the adjacent downstream sewer segment(s) at no additional cost.

The cleaning operation shall occur concurrently with the televising of the sewer.

Video Equipment: The television camera used for the inspection shall be one specifically designed and constructed for the purpose of televising sewers and shall provide a color picture. Lighting for the camera shall be suitable to allow for a clear picture of the entire periphery of the pipe with a field depth of a minimum of (6) six feet. The color camera shall have a high-resolution lens, capable of spanning 360 degrees circumference and 270 degrees on horizontal axis to televise sewer lines (6) six inches in diameter and larger. It is the intention to view all laterals and defects. Further, the camera is to provide a close view of all service line connections. The color camera shall be operative in 100 percent humidity conditions. The camera, television monitor and other components of the video system shall be capable of producing a minimum 500-line resolution video picture. Picture quality and definition shall be to the satisfaction of the Owner, and if unsatisfactory, the sewer line shall be re-televised at no additional cost to the Owner. The Contractor is required to provide atmospheric testing prior to televising to determine if combustible levels exist. The Contractor is required to lower combustible levels as necessary for safe televising by means of ventilation of U.L. approved explosion proof televising and lighting equipment. This work or equipment change is considered incidental to the work and shall not be considered for payment.

Method of Televising Lines: The inspection will be done one manhole section at a time, and the flow in the section being inspected will be suitably controlled. The camera shall be moved through the line in either direction at a uniform rate, stopping when necessary to ensure proper documentation of the sewer's condition, but in no case will the television camera be moved at a speed greater than 30 feet per minute. Manual winches, power winches, TV cable and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line. If, during the inspection operation the television camera will not pass through the entire manhole

section, the Contractor shall reset his equipment in a manner so that the inspection can be performed from the opposite manhole. If the Owner determines that the camera cannot pass through the entire manhole section, the inspection shall be considered complete and no additional inspection work will be required. During televising operations, only 5% of the internal diameter flow is acceptable.

Television Inspection Logs. The television inspection reports shall be provided both electronically in Adobe Acrobat Reader “.pdf” format as well as two bound hardcopies of the printed paper report. The file naming format shall follow a similar format to the video naming format. Each inspection report shall be named according to the “upstream manhole number – downstream manhole number.pdf” format. For example, a pipe segment with an upstream manhole of 12345 and downstream manhole 67890 would be named “12345 - 67890.pdf”.

The final report files, in paper and electronic “.pdf” formats, shall include a still shot image of **every observation**. These detailed reports shall include the following information at a minimum:

- Project Name
- System Owner Name
- Survey Customer Name
- Contractor Name, Phone Number & Address
- Surveyor’s Name & PACP Certification Number
- Date and Time of Televising
- Location (Street Name and Number)
- Address (nearest to each manhole)
- Rim to Invert Measurements (for both Upstream & Downstream Manholes)
- Pipe Segment ID Number
- Upstream Manhole Number & Downstream Manhole Number
- Drainage Area
- Weather
- Segment Length
- Joint Length
- Pipe Material
- Pipe Height (and Width if not Circular)
- Total Pipe Length
- Total Length Surveyed
- Flow Control
- Tape/Media Number
- Pre-Cleaning / Cleaning method
- Pipe condition observations (i.e. grease, roots, deposits, cracks, fractures, sags voids etc.)
- Location of all service connections (description of active vs. inactive)
- Location of all manholes
- Still shot photos of each observation
- NASSCO – Structural, O&M and Overall Ratings

Digital Video Deliverables:

The Contractor shall provide a color digital video of all pipeline segments in “.mpeg” format on two external hard drives with USB 2.0 connections. **Each video shall be named according to the “upstream manhole number – downstream number.mpg” format. For example, a pipe segment video with an upstream manhole of 12345 and downstream manhole 67890 would be named “12345 - 67890.mpg”.** Separate MPEG-3 files and PDF reports with still images shall be created for each manhole to manhole pipe segment inspected.

Video recordings shall be one file per sewer line section and shall be included on the external hard drives submitted. Total drives submitted for final acceptance at the end of the project shall be two.

The pipeline inspection shall consist of identifying a location both within the pipe segment (physical location) and within the digital recording (video frame location) for each defect or observation. The use of time codes for defect location shall NOT be deemed equivalent or acceptable. The digital recording and inspection data is to be cross-referenced for instant access to any point of interest within the digital recording. The inspection information shall include the digital recording of video and audio, segment identification information (starting manhole, date, time, etc.) including a pointer from each observation to the digital recording (video frame number), and any accompanying digital still images (JPEG or BMP).

Any out-of-focus video recordings, or portions thereof, shall be cause for rejection of the video recording and will necessitate re-televising at the Contractor’s expense. Televising shall be done one section at a time. Inspections shall be performed using NAASCO’s PACP version 7.0.2. The sewer pipe video inspection reports must be saved with the PACP overview report

Audio and video observation documentation is to be provided in the most up-to-date form of a NASSCO PACP 7.0.2 coding methodology database. The PACP Version 7.0.2 data base shall include all header information as well as any observations recorded. Links to the videos and the “.pdf” format of the reports shall be included within the data base. This data base shall be updated monthly and shall contain every observation from the beginning of the project through current delivery date.

The deliverable video files shall be full-color, high-resolution, and shall include all pipe surfaces above the water line. At each lateral and connected service line, the camera shall stop, rotate, and record a clear image of the lateral or service line to determine condition and if it is active or inactive. The inspection and database shall be fully compatible with PACP 7.0.2 format.

All video files shall be viewable on both VLC Media Player and Windows Media Player. Videos must play in a continuous manner without freezing/glitching on both platforms.

Invoice Data Delivery:

The CONTRACTOR shall provide the City with (2) hard drives prior to the submittal or processing of each invoice. The hard drives shall include the following information:

- Database: A Microsoft Access V07 database file (detailing all header information, defect observations, links to videos and “.pdf” format of the reports from the beginning of the project through current delivery date).

- The associated video files and “.pdf” reports for each line segment televised to date. One digital copy of all files shall be provided on portable USB hard drives.
- A detailed breakdown of segments cleaned and televised for each invoice shall be required including MH to MH segment, pipe size, length and date work was performed. This shall be provided in excel format.

Final Data Delivery:

At the end of the project, the CONTRACTOR shall provide two (2) complete sets of all digital video files on individual portable USB powered hard drives. The hard drives shall include the following information:

- Database in PACP 7.0.2 format to detail location, type, and severity of all defects.
- Microsoft Access V07 Database files with all tables linked by appropriate I.D. numbers, and links to video and “.pdf” report files. **All data shall be linked to the pipe segment ID number.**
- Individual reports (in pdf format) of the PACP & Pipe Segment View Reports for each pipe section, to include a graphical representation of the pipe, service locations / directions, defect locations, **AND STILL-SHOT PHOTOS OF EACH OBSERVATION.**
- The Contractor shall hand-write notes on the maps provided by the CITY. This shall include confirmation of sections that were completed, any variations discovered such as differing pipe diameter, missing pipe sections, missing manholes, etc. and labeled by the Contractor as necessary to correlate to video / photo / database labels. Any buried or unmapped manholes located shall be marked with dimensions to upstream and downstream manholes.
- All videos shall be in **MPEG-3** format and delivered on the portable USB hard drives. Any compromised video files, or un-playable videos will be rejected and the Contractor will need to re-submit at no additional cost.
- All USB flash drives and portable USB hard drives shall become the property of the City upon delivery.

**All required work for project deliverables shall be considered incidental to the Contract and will not be compensated for separately.**

Basis of Payment:

This work item shall be paid at the Contract Unit Price **per linear foot** for “Storm Pre – Construction Cleaning and Televising” and “Sanitary Pre – Construction Cleaning and Televising” of the diameter specified and shall include all labor and material required for television inspection, light cleaning, electronic media, digital database and all appurtenances required to complete the

work. The total quantity for each section shall be the measured straight-line distance in Linear Feet from the center of manhole to center of manhole, regardless of the number of set-ups required.

#### **SP-17 STORM AND SANITARY SEWER INLET/CATCH BASIN CLEANING**

Each Inlet and Catch basin that is connected to lines called out for Video Inspection and Lt Cleaning are to be cleaned as well.

##### Digital Video Deliverables:

The Contractor shall provide a color digital video of each Inlet/Catch Basin cleaned in “.mpeg” format on two external hard drives with USB 2.0 connections. **Each video shall be named according to the Inlet/Catch Basin Structure ID.**

Video recordings shall be one file per structure cleaned and shall be included on the external hard drives submitted. Total drives submitted for final acceptance at the end of the project shall be two.

The surrounding area shall be included in the video recording to verify structure identification. Verbal identification of the structure ID shall also be included with the video as well. Each structure shall be visibly free of any solid debris. Failure to meet this criteria will result in a rejection of payment.

All video files shall be viewable on both VLC Media Player and Windows Media Player. Videos must play in a continuous manner without freezing/glitching on both platforms.

##### Basis of Payment:

All storm and sanitary sewer inlets and catch basin cleaning shall be incidental to “Storm Pre – Construction Cleaning and Televising” and “Sanitary Pre – Construction Cleaning and Televising” and shall include all material, and labor required. Digital Video Deliverable must be included in order to receive payment for “Storm Pre – Construction Cleaning and Televising” and “Sanitary Pre – Construction Cleaning and Televising”.

#### **SP-18 HEAVY CLEANING & ROOT CUTTING (SANITARY AND STORM)**

Heavy cleaning shall be required where it has been determined that large deposits of debris remain in the sewer lines and complete cleaning of the segment would require more than the industry standard three (3) passes through the line with high pressure water jetting equipment. Wherever four (4) or more passes are required to completely clean the pipe segment, it shall be brought to the attention of the Engineer so that this item can be approved by the Engineer before proceeding to “Heavy Cleaning” of the sewer. Without prior knowledge or approval by the Engineer or City, the City reserves the right to deny payment for “Heavy Cleaning”.

The heavy cleaning equipment to be used shall facilitate the removal of such accumulation of sediment, debris, blockages, mineral deposits, bricks, grease, etc. The pipe must be free flowing with no obstructions to allow for a complete and thorough inspection.

Bucket machines, rodding machines, lumberjacks, augers and 120 gpm or higher hydro jetting

equipment can be utilized in this heavy-duty cleaning. Where bucket machines and buckets are to be used, caution should be taken that a proper sized flexible cable be used so that breakage will not occur hanging the cleaning equipment up within the sewer lines.

The video inspection must begin before the heavy cleaning takes place, in order to get visual confirmation of the initial pipe condition.

Root cutting shall be required where root growth is excessive and cutting would be required to facilitate a thorough and complete examination of the condition of the sewer through CCTV inspection.

Wherever root cutting is required it shall be brought to the attention of the Engineer so that this item can be approved by the Engineer before proceeding to "Root Cutting" of the sewer. Without prior knowledge or approval by the Engineer or City, the City reserves the right to deny payment for "Root Cutting."

The root cutting tools shall be the industry standard concave saws, flat saws, water blasters or chain knockers and shall be carefully selected to ensure no damage is caused to the sewer main or any portion of the lateral including protruding laterals. Extreme caution should be taken when operating root cutters in the sewer and a video inspection shall be on the root cutter at all times to ensure damage is not caused from root cutting. The Contractor is responsible for any damage caused by the root cutter and shall be repaired at no expense to the Owner.

The entire segment shall be free of root intrusion for this item to be approved for payment.

Basis of Payment:

All heavy cleaning, root cutting, and protruding tap cutting shall be considered incidental to "Storm Pre – Construction Cleaning and Televising" and "Sanitary Pre – Construction Cleaning and Televising" and shall include all material, and labor required. This item must be approved by the Engineer prior to proceeding. All Heavy Cleaning, Root Cutting, and Protruding Tap Cutting will require accompanying CCTV video and data to be submitted.

**SP-19 LOCATE BURIED MANHOLE**

This item shall include field locating, field marking, and a GPS point survey of buried manholes. The location shall be determined above ground via three methods. First, a camera-mounted sonde and compatible detection wand shall be utilized to locate and paint / flag the location while the camera is halted within the buried manhole. Second, the Contractor shall utilize a measuring wheel or tape to measure from the entry manhole to the buried manhole (based on camera reel counter footage) for confirmation that the correct location is marked. Third, a metal detector shall be utilized to confirm location if possible. Upon confirmation of location, the buried manhole shall be thoroughly painted (oil-based white) in paved areas and staked in vegetated areas. A GPS coordinate shall then be obtained to sub-meter accuracy. The Contractor shall also send an area photograph of the location to the Engineer showing the marked location and its surroundings.

Basis of Payment:

Locating of buried manholes shall be incidental to “Storm Pre – Construction Cleaning and Televising” and “Sanitary Pre – Construction Cleaning and Televising” and shall include all labor, equipment and materials required to complete the work. The Engineer must be notified when the manhole has been found via CCTV. The manhole must be drawn onto the field map, as well as clearly marked on the ground.

**SP-20 PRE-CONSTRUCTION CLEANING AND TELEVISIONING**

General

This section governs all work required for sewer cleaning and sewer inspection by closed circuit televising done in preparation for cured-in-place pipelining, and grouting. Cleaning and televising shall be performed on the entire section of sewer between upstream and downstream manhole structures and shall be completed to the industry standard of 95% clean.

Notice to Residents

The Contractor shall provide and hang notices on doors of all residences / businesses with service lines connected to sewer mains to be cleaned. Notices shall be distributed 48 hours in advance of the work. The Contractor shall include the contact information for the onsite field supervisor as the primary contact for affected residents. The Contractor shall customize the notice to include City of Geneva logo and contact information. The notice shall be written in both English and Spanish. The City shall review and approve the notice format and text at the beginning of the project prior to distribution. All work required for notification to residents shall be incidental to the contract.

Damage to Property

The Contractor shall be responsible to take all necessary precautions to prevent surcharging or other damage to private residences / businesses. Any damage to public or private property caused by the cleaning or televising operation shall be the sole responsibility of the Contractor. The Contractor shall be responsible for cleaning needed as the result of sewer backups caused by the jetting operation. Any repairs, restoration, or cleaning that is necessitated by project shall be the sole responsibility of the Contractor.

Equipment

The Contractor is responsible to provide and maintain all industry-standard equipment required to complete the project. Each crew shall have a vacuum / jetter combination truck equipped with a high velocity gun for washing and scouring manholes and a TV truck capable of seating a minimum of 4 people including the City and Engineer. For easement work, the Contractor shall be required to have off-road equipment as necessary to access off-street sewer areas.

A camera-mounted locating sonde, capable of operation at depths up to 20 feet, shall be required to be available each day to locate buried manholes and other defects as required by the Contract and / or as directed by the City. To accomplish the work in a timely manner, it is anticipated that two (2) complete crews will be needed for some duration of the project.

Each vector truck must be equipped with a flexible hose in order to reach manholes located at a maximum distance of 8 feet off the edge of pavement.

If any equipment gets stuck in the sewer and needs to be dug up, the Contractor is solely responsible for the cost of the dig, complete restoration and repair of sewer and any other costs associated with the retrieval of the equipment.

1. Hydraulic Sewer Cleaning Equipment Requirements:

- a. Hydraulic sewer cleaning equipment shall be the movable dam type constructed such that a portion of the dam may be collapsed during cleaning to prevent flooding of the sewer.
- b. The movable dam shall be the same diameter as the pipe being cleaned and shall provide a flexible scraper around the outer periphery to ensure total removal of grease.
- c. The Contractor shall take special precautions against flooding prior to using sewer cleaning balls or other equipment that cannot be collapsed instantly.

2. High Velocity Hydro-Cleaning Equipment Requirements:

- a. A minimum of 700 feet of high pressure hose.
- b. Two or more high velocity nozzles capable of producing a scouring action from 10 degrees to 45 degrees in all size lines to be cleaned.
- c. A high velocity gun for washing and scouring manhole walls and floor with the capability of producing flows from a fine spray to a long distance solid stream.
- d. A 1,500-gallon minimum water tank, auxiliary engines and pumps, and a hydraulically driven hose reel.
- e. Equipment operating controls located above ground.
- f. Minimum working pressure of 1,000 pounds per square inch at a 50 gpm rate.

3. Mechanical Cleaning Equipment Requirements:

a. Bucket Machines:

- 1) Furnish with buckets in pairs and with sufficient dragging power to perform the work efficiently.
- 2) Use V-belts for power transmission or have an overload device. No direct drive machines will be permitted.
- 3) Be equipped with a take up drum and a minimum of 500 feet of cable.

b. Rodding Machines:

- 1) Either sectional or continuous.
- 2) Hold a minimum of 750 feet of rod.
- 3) The rod shall be specifically heat-treated steel.
- 4) The machine shall be fully enclosed and have an automatic safety throw out clutch or relief valve.

c. Lumberjack & Impact Cutters

- 1) Lumberjack high speed low torque multi-purpose cutters
- 2) Speeds up to 50,000 rpm
- 3) Paikert low-speed, high-torque auger cutter

4. Closed Circuit Television Equipment

- a. Television equipment shall include television camera, television monitor, cables, power source, lights and other equipment necessary to the televising operation. The television camera shall be specifically designed and constructed for operation in connection with sewer inspection and pipe joint sealing and testing. A camera-mounted locating sonde, capable of operation at depths up to 20 feet, shall be required to be available each day to locate buried manholes and other defects as required by the Contract and / or as directed by the City.
- b. Camera and lighting quality shall be suitable to provide a clear, continuously in-focus picture of the entire inside periphery of the sewer pipe for all conditions encountered during the work. The camera shall be able to operate efficiently in 100% humidity conditions.
- c. The TV camera shall have a rotating head with a high-resolution lens, capable of spanning 360-degrees circumference and 270-degrees on horizontal axis to televise sewer lines 6-inch diameter and larger. Focal distance shall be adjustable through a range of 1 inch to infinity. The purpose of the rotating head camera is to view all service connections, and to locate all defects, as well as any questionable problem areas. The camera shall be zoom capable.
- d. The TV camera shall be equipped with remote control devices to adjust the light intensity and at a minimum one thousand (1,000) feet of continuous cable shall be provided. The camera shall be able to transmit a continuous image to the television monitor as it is being pulled through the sewer segments. Lighting system shall be adequate for quality pictures. A reflection in front of the camera may be required to enhance lighting.
- e. For manholes that may be difficult to access or where lamp holes are present in the place of manholes, the Contractor shall have available a self-propelled crawler transporter on which to mount the color television camera so as to be able to inspect the sewer as required.
- f. The TV camera shall be able to provide a continuous image of not less than ninety percent (95%) of the internal pipe surface at all times for sewers 8" through 18" in diameter and not less than eighty percent (90%) of the internal pipe surface for sewers over 18" through 48" in diameter. Maximum acceptable speed of camera through sewer shall be thirty (30) feet per minute.
- g. The camera, television monitor and other components of the video system shall be capable of producing a minimum 500 line resolution color video picture.
- h. Electronic media shall visually display and include a narrative noting:
  - 1) Date, time of day, and depth of flow;
  - 2) Sewer segment number "from manhole to manhole";
  - 3) Distance from upstream manhole'

- 4) Locations of service connections into sewer;
  - 5) Location of obstructions, structural defects, joint deterioration, leakage or evidence thereof, and other abnormalities with respect to the sewer condition and distance in feet from the upstream manhole centerline.
- i. The remote reading footage counter shall be accurate to two-tenths of a foot over the length of the particular section being inspected and shall be mounted over the television monitor. At the ENGINEER'S discretion, the CONTRACTOR shall provide an above-ground verification of the counter's accuracy if requested.
  - j. Digital images should be provided in the common format accessible by Windows Media Player and VLC Media Player viewable in a continuous format. Videos must play in a continuous manner without freezing/glitching on both platforms.

#### Sewer Cleaning

The sewer manhole sections designated for Sewer Cleaning shall be cleaned using hydraulically propelled, high-velocity jet, or mechanically powered equipment. Selection of the equipment used shall be based on the conditions of the sewer lines at the time the work commences. The equipment and methods selected shall be satisfactory to the Engineer. This item shall include the cleaning of sewer and adjacent manholes, and shall consist of root cutting, removal of dirt, grease, rocks, sand and other materials and obstructions from sewer lines and manhole troughs. If cleaning of an entire section cannot be successfully performed from one manhole, the equipment shall be set on the other manhole and cleaning again attempted. Should dirt or debris be observed and/or detected, in a manhole or sewer after cleaning, the Contractor shall re-clean said manhole and the adjacent downstream sewer segment(s) at no additional cost.

The Contractor shall perform all work in accordance with the latest OSHA confined space entry regulations.

Satisfactory precautions shall be taken to protect the sewer segments and sewer manholes from damage that might be inflicted by the improper use of cleaning equipment. Whenever hydraulically propelled cleaning tools, which depend upon water pressure to provide their cleaning force, or any tools which retard the flow of water in the sewer segment are used, precautions shall be taken to ensure that the water pressure created does not cause any damage or flooding to public or private property being served by the sewer segment involved.

The use of a vactor truck or debris catcher is required in each downstream manhole to remove the debris and prevent it from passing further downstream.

If conditions such as broken pipe and major blockages are encountered that prevent cleaning from being accomplished or where damage would result if cleaning were attempted or continued, the Contractor shall immediately notify the Engineer. The Engineer shall be notified of any conditions which warrant termination of cleaning activities.

#### Heavy Cleaning

Heavy cleaning shall be required where it has been determined that large deposits of debris remain in the sewer lines and complete cleaning of the segment would require more than the industry

standard three (3) passes through the line with high pressure water jetting equipment. The heavy cleaning equipment to be used shall facilitate the removal of such accumulation of sediment, debris, blockages, mineral deposits, bricks, grease, etc. The pipe must be free flowing with no obstructions, in order to permit a thorough and complete examination of the condition of the sewer through internal closed-circuit color television inspection.

Bucket machines, rodding machines, lumberjacks, augers and 120 gpm or higher hydro jetting equipment can be utilized in this heavy-duty cleaning. Where bucket machines and buckets are to be used, caution should be taken that a proper sized flexible cable be used so that breakage will not occur hanging the cleaning equipment up within the sewer lines. No debris shall be allowed to pass into downstream segments during the cleaning operation.

The video inspection must begin before the heavy cleaning takes place, in order to get visual confirmation of the initial pipe condition.

Heavy cleaning will be considered incidental to this Contract item and will not be paid for separately.

#### Root Cutting

Root cutting shall be required where it has been determined that root growth is substantial and cutting would be required to facilitate a thorough and complete examination of the condition of the sewer through internal closed-circuit color television inspection.

The root cutting tools shall be the industry standard concave saws, flat saws, water blasters or chain knockers and shall be carefully selected to ensure no damage is caused to the sewer main or any portion of the lateral including protruding laterals. Extreme caution should be taken when operating root cutters in the sewer and a video inspection shall be on the root cutter at all times to ensure damage is not caused from root cutting.

Root cutting will be considered incidental to this Contract item and will not be paid for separately.

#### Debris Removal and Disposal

The Contractor shall remove all sludge, dirt, sand, rocks, grease and other solid or semisolid material resulting from the cleaning operation from the downstream manhole of the sewer segment being cleaned prior to beginning television inspection. Passing material from sewer segment to sewer segment shall not be permitted. In the event that sludge, dirt, sand, rocks, grease and other solid or semisolid material resulting from the cleaning operation are observed and/or detected, as passing to downstream sewer segment(s), the Contractor shall clean such sewer segment(s) at no additional cost.

Debris catchers or baskets will be required to be set in the channel of the downstream manhole during all cleaning operations. Additionally, a "Vactor" or similar vacuum truck must be onsite during all cleaning operations and will be required to be setup on the downstream manhole to pull debris out of the sewer during all cleaning operations. As the sewer jet or other cleaning equipment is in use, the vacuum equipment shall be running in order to prevent debris from moving further downstream. The use of the vacuum truck does not constitute heavy cleaning.

When bucket machines are being used, a suitable container shall be provided to receive the materials dumped from the buckets. The Contractor at his discretion may use an approved container (roll off) for the storage of debris removed from the line segments. All material resulting from the cleaning operations shall be removed from the site when the container has reached 3/4 of its volume, or at least once each working day and disposed of at the permitted disposal site.

Disposal of all sewer debris shall be the responsibility of the Contractor and shall be done in accordance with the Illinois Environmental Protection Agency (IEPA) and all other regulating agencies. Under no circumstances shall the removed sewage or solids be dumped onto streets or into ditches, catch basins, storm drains, sanitary, combined sewer manholes or otherwise improperly disposed. Improper disposal of sewage or solids removed from the sewers may subject the Contractor to fines imposed by the City. In addition, the Contractor may be subject to civil and/or criminal penalties for improper disposal under the law.

Removal and disposal of all sewer debris shall be incidental to this Contract item and will not be paid for separately.

All dirt, debris, roots and other material removed from the **storm and sanitary sewers** shall be hauled away by the Contractor to a dump site **furnished by the City at no additional cost (located at 584 Kautz Road, Geneva IL)**.

#### Internal Closed-Circuit TV Inspection

The Inspection of sewer lines by CCTV shall be performed on all lines prior to and after all rehabilitation work by trained experienced PACP certified personnel. The Contractor shall take all necessary measures to televise the internal surface of each sewer segment in its entirety.

The Contractor shall furnish all labor, electronic equipment and technicians schooled and licensed in PACP 7.0.3 format, to perform the closed-circuit television inspection of the sewers. Operation of the equipment is to be controlled from above ground with a skilled technician at the control panel in the television studio, controlling the movement of the television camera through the sewer in either direction one segment at a time.

The video operator(s) shall be Pipeline Assessment Certification Program (PACP) certified by the National Association of Sewer Service Companies (NASSCO) and will be required to show proof of PACP ID or certification before performing work on this project. Certification dates must be current including renewal every three years. Operators with expired PACP ID numbers will not be allowed to work on the project until they have undergone the renewal process. The Contractor shall provide copies of each equipment operator's Certification Number at the preconstruction conference.

The Contractor shall begin each inspection with an onscreen written and verbal explanation of the project name, a detailed description of the location, the manhole to manhole segment, the direction of flow, the direction of camera setup and date. The depth (rim-invert) measurement of each manhole shall be recorded on the PDF report as well. A continuous footage counter shall be provided during the entire inspection, and shall be used to accurately record the locations of

defects, connections, or objects in the pipe. The counter shall be accurate to two tenths of a foot. Maintain verbal commentary to identify any item that is called out on the report.

All inspections shall begin and end in the center of the manhole. The start of the video shall NOT begin already in the pipe segment. At the end of each inspection, the Contractor shall pan the camera around the ending manhole to get a view of what it looks like for identification purposes as well as documenting all incoming pipes.

The camera shall be moved through the line in either direction at a uniform rate of 30 feet per minute, stopping when necessary to ensure proper documentation of the sewer's condition. The Contractor shall take all necessary measures to televise 95% of the internal surface of each sewer segment in its entirety. If dewatering with the jet truck is required to see 95% of the pipe, this shall be done at no additional charge to the City. Lighting system shall be adequate for quality pictures. A reflection in front of the camera may be required to enhance lighting.

If any obstruction in the sewer segment such as a protruding building lateral prohibits the passage of the television camera, the Contractor shall remove the protruding portion of the tap, and shall complete the inspection of the sewer. In case the Contractor must abandon the survey due to any obstructions in the sewer segment that cannot be removed, the Contractor shall attempt to inspect the remainder of the sewer segments by making a reverse set up at the next downstream manhole. No additional payment shall be made for reverse setups. Reverse set ups shall be easily distinguishable from ordinary setups, and must be labeled as such in the header of the PDF report.

All obstructions in the sewer segment that prohibit passage of the television camera shall be immediately reported to the Engineer by the Contractor referencing the location and nature of the obstruction.

The jetter nozzle shall accompany the camera at all times. This will ensure that the maximum area of pipe is visible.

The Contractor shall be responsible for any damage to public or private property resulting from televising activities and shall repair or otherwise make whole such damage at no cost to the City.

#### Digital Video & Report Deliverables

Electronic media of all sections shall be provided to City together with the respective television inspection reports. TV reports shall legibly show the location of each point of significance in relation to an identified manhole. Points of significance are, but not limited to the following: private service connections, unusual conditions, roots, storm sewer connections, sags, grease, broken pipe, presence of scale and corrosion, structural failures and other discernable features.

The Contractor shall provide a color digital video of all pipe line segments in “.mpeg” format on four (4) external hard drives with USB 2.0 connections. **Each video shall be named according to the “upstream manhole number – downstream number.mpg” format. For example, a pipe segment video with an upstream manhole of 12345 and downstream manhole 67890 would be named “12345 - 67890.mpg”.** Separate MPEG files and PDF reports shall be created for each manhole to manhole pipe segment inspected.

Video recordings shall be one file per sewer line section and shall be included on the external hard drives submitted. Total drives submitted for final acceptance at the end of the project shall be three (3).

All video files shall be viewable on both VLC Media Player and Windows Media Player in a continuous manner. Videos must play in a continuous manner without freezing/glitching on both platforms.

The hard drives shall include a master Excel spreadsheet with hyperlinks to each video file and associated PDF report as well as a master digital database of all observation data. Two (2) copies of the digital video data and logs shall become the property of the City.

- The Master Spreadsheet shall have a record for each line segment televised to date. The spreadsheet shall be in MS Excel format and shall have hyperlinks to both the video files and the associated “.pdf” of the PACP & Pipe Segment View report for each section of sewer televised. The spreadsheet shall include the following information for each record - Upstream and Downstream Structure Numbers, Date Televised, Televised Length, Pipe Size, work performed, and links to both the Video and the “.pdf” report files.
- The Database in PACP 7.0.3 format shall detail location, type, and severity of all defects and shall be Microsoft Access V07 Database files with all tables linked by appropriate I.D. numbers, and links to video and “.pdf” report files. **All data shall be linked to the pipe segment ID number.**

The pipeline inspection shall consist of identifying a location both within the pipe segment (physical location) and within the digital recording (video frame location) for each defect or observation. The use of time codes for defect location shall NOT be deemed equivalent or acceptable. The digital recording and inspection data is to be cross-referenced for instant access to any point of interest within the digital recording. The inspection information shall include the digital recording of video and audio, segment identification information (starting manhole, date, time, etc.) including a pointer from each observation to the digital recording (video frame number), and any accompanying digital still images (JPEG or BMP).

Any out-of-focus video recordings, or portions thereof, shall be cause for rejection of the video recording and will necessitate re-televising at the Contractor’s expense. Televising shall be done one section at a time. Inspections shall be performed using NAASCO’s PACP version 7.0.3. The sewer pipe video inspection reports must be saved with the PACP overview report.

Audio and video observation documentation is to be provided in NASSCO PACP (V7.0.3) coding methodology database. The PACP Version 7.0.3 data base shall include all header information as well as any observations recorded. Links to the videos and the “.pdf” format of the reports shall be included within the data base. This data base shall be updated monthly and shall contain every observation from the beginning of the project through current delivery date.

The deliverable video files shall be full-color, high-resolution, and shall include all pipe surfaces

above the water line. At each lateral and connected **service line**, the camera shall stop, rotate, and record a clear image of the lateral or service line to determine condition and if it is active or inactive. The inspection and database shall be fully compatible with PACP V 7.0.3 format.

Contractor shall record inspection in a PACP format. Video recordings and inspection shall visually display and include a narrative noting:

1. Date, time of day, and depth of flow
2. Sewer segment number "from manhole to manhole"
3. Direction of Flow
4. Distance from upstream manhole'
5. Locations of service connections into sewer;
6. All other information encountered during the inspection i. e obstructions, structural defects, leakage, sags, collapses etc.

The television inspection reports shall be provided both electronically in Adobe Acrobat Reader ".pdf" format as well as two bound hardcopies of the printed paper report. The file naming format shall follow a similar format to the video naming format. **Each inspection report shall be named according to the "upstream manhole number – downstream manhole number.pdf" format. For example, a pipe segment with an upstream manhole of 12345 and downstream manhole 67890 would be named "12345 - 67890.pdf".**

The final report files, in paper and electronic ".pdf" formats, shall include a still shot image of every observation. These detailed reports shall include the following information at a minimum:

- Project Name
- System Owner Name
- Survey Customer Name
- Contractor Name, Phone Number & Address
- Surveyor's Name & PACP Certification Number
- Date and Time of Televising
- Location (Street Name and Number)
- Address (nearest to each manhole)
- Rim to Invert Measurements (for both Upstream & Downstream Manholes)
- Pipe Segment ID Number
- Upstream Manhole Number & Downstream Manhole Number
- Drainage Area
- Weather
- Segment Length
- Joint Length
- Pipe Material
- Pipe Height (and Width if not Circular)
- Total Pipe Length
- Total Length Surveyed
- Flow Control
- Tape/Media Number

- Pre-Cleaning / Cleaning method
- Pipe condition observations (i.e. grease, roots, deposits, cracks, fractures, sags voids etc.)
- Location of all service connections (description of active vs. inactive)
- Location of all manholes
- Still shot photos of each observation
- NASSCO – Structural, O&M and Overall Ratings

Measurement:

The Contractor shall measure from center of upstream manhole to center of downstream manhole.

Basis of Payment:

Sewer cleaning and television inspection in preparation for rehabilitation work shall be incidental to “Storm Pre – Construction Cleaning and Televising” and “Sanitary Pre – Construction Cleaning and Televising” and shall include all labor and material required for cleaning storm and sanitary sewer prior to liner installation, including all cleaning, televising, root cutting, removal and disposal of debris, removal of mineral deposits and sewerage solids, and all appurtenances required to complete the work.

**SP-21 CURED – IN – PLACE PIPELINING**

This work shall include the repair of defective sewer by the installation of a resin impregnated flexible felt tube in all segments as shown on the plans. The tube shall be saturated with a thermosetting resin and installed into the existing sewer using an inversion process. Curing shall be accomplished by circulating hot water or steam to cure the resin into a hard impermeable cured-in-place pipe. When cured, the liner shall be a continuous tight fitting watertight pipe-within-a-pipe.

This specification references American Society for Testing and Materials (ASTM) standard specifications, Insituform of North America, Inc. (INA), and Inliner USA, Inc., or the City approved equal, manufacturer’s standards which are made a part hereof by such reference and shall be the latest edition and revision thereof.

Materials

The Tube shall consist of one or more layers of a flexible needled felt or an equivalent nonwoven or woven material, or a combination of nonwoven and woven materials, capable of carrying resin and withstanding the installation pressures and curing temperatures. The tube should be compatible with the resin system to be used on this project. The material should be able to stretch to fit irregular pipe sections and negotiate bends.

The tube should be fabricated to a size that, when installed, will tightly fit the internal circumference and the length of the original conduit. Allowances should be made for the longitudinal and circumferential stretching that occurs during placement of the tube. The tube shall be uniform in thickness and when subjected to the installation pressures will meet or exceed the designed finish wall thickness. The tube shall be marked for distance at regular intervals along its entire length, not to exceed 5 feet. Such markings shall also include the lining manufacturer’s name or identifying symbol.

Any plastic film (including polyethylene, polyurethane, and polypropylene layers) applied to the tube on what will become the interior wall of the finished CIPP shall be compatible with the resin system used, translucent enough that the resin is clearly visible, firmly bonded to the felt material, and shall be capable of withstanding installation pressures and curing temperatures.

The resin system shall be a corrosion resistant polyester, vinyl ester, or epoxy and catalyst system that when properly cured meets the minimum requirements given herein or those that are to be utilized in the design of the CIPP for this project. The manufacturer shall be Insituform, Inliner USA, National Liner or an approved equal.

Sizing of the Liner

The liner shall be fabricated to a size that when installed will neatly fit the internal circumference of the sewer to be lined. Allowance for circumferential stretching of the liner during insertion shall be made as per manufacturer’s standards. The length of the liner shall be that deemed necessary by the Contractor to effectively carry out the insertion and seal the liner at the inlet and outlet points. The Contractor shall verify the lengths in the field. Individual installation runs can be made over one or more access points as determined in the field by the Contractor and approved by the Engineer.

The liner thickness shall be based on the condition of the existing pipe which shall be classified as fully deteriorated pipe and structurally unsound. The liner shall be designed to withstand all imposed loads. The liner thickness shall have sufficient wall thickness to withstand the anticipated external pressures and loads which will be imposed after installation. The design of the liner shall include considerations for ring bending, deflection, combined loading, buckling, and ovality. Liner thickness shall be based on the use of the standard flexible pipe equations, as detailed in ASTM F-1216 and shall account for the effects of ovality. A minimum cured wall thickness of 6 mm (+/- 10%) shall be used for pipes up to and including 15” and a minimum cured wall thickness of 7 mm shall be used for pipes 18” and above. The Contractor shall use wall thickness appropriate to the depth of pipe being lined. A safety factor of at least 2.0 shall be utilized.

Structural Requirements

The materials properties of the finished CIPP shall meet or exceed the following structural standards:

**MINIMUM PHYSICAL PROPERTIES**

Property	ASTM Test Method	Polyester System	Filled Polyester System	Vinyl Ester System
Flexural Strength	D790	4,500 psi	4,500 psi	5,000 psi
Flexural Modulus (Initial)	D790	250,000 psi	400,000 psi	300,000 psi
Flexural Modulus (50 Yr)	D790	125,000 psi	200,000 psi	150,000 psi
Tensile Strength	D638	3,000 psi	3,000 psi	4,000 psi

Execution

Installation shall be in accordance with standard practice for rehabilitation of existing pipelines and conduits and curing of a resin – impregnated tube ASTM F-1216. The Contractor may use either hot water or steam cure as deemed necessary for the installation, however specific installations may warrant the designation of a certain curing method and the Contractor is to allow for the installation using either technique.

The Contractor when required shall provide for the transfer of flow around the section or sections of pipe that are to be lined. The bypass shall be made by diversion of the flow at an existing upstream access point and pumping the flow into a downstream access point or adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle the flow. The proposed bypassing system shall be approved in advance by the City.

**NO LINING WILL BE PERMITTED DURING PERIODS OF HIGH FLOW.**

Prior to any lining of designated storm and sanitary sewer line segments, the Contractor shall remove internal deposits and roots as necessary to assure proper liner installation. Television inspection shall be performed to verify extent of damage, and location of service connections. Cleaning and inspection shall be in accordance with these specifications

Public Notice

A public notification program shall be implemented, and shall as a minimum, require the Contractor to be responsible for contacting each home or business connected to the storm and sanitary sewer and informing them of the work to be conducted, and when the sewer will be off-line.

The Contractor shall also provide the following:

1. Written notice to be delivered to each home or business describing the work, schedule, how it affects them, and a local telephone number of the Contractor they can call to discuss the project or any problems that could arise. The Contractor shall include the contact information for the onsite field supervisor as the primary contact for affected residents. The Contractor shall customize the notice to include City of Geneva logo and contact information. The notice shall be written in both English and Spanish. The City shall review and approve the notice format and text at the beginning of the project prior to distribution. All work required for notification to residents shall be incidental to the contract.
2. Personal contact and attempted written notice 24-48 hours prior to the beginning of work being conducted on the section of sewer relative to the residents affected.
3. Personal contact with any home or business that cannot be reconnected within the time stated in the written notice.

Flexible Liner Installation

The Contractor shall designate a location where the uncured resin in the original containers and the un-impregnated fiber felt tube will be vacuum impregnated prior to installation. The Contractor shall allow the City to inspect the materials and procedure. A resin and catalyst system compatible

with the requirement of this method shall be used. The quantities of the liquid thermosetting materials shall be per manufacturer's standards to provide the lining thickness specified and shall be sufficient to fill the volume of air voids in the tube with additional allowances being made for polymerization shrinkage and the anticipated loss of any resin through cracks and irregularities in the original pipe wall.

The wet out (inversion) fiber felt tube shall be inserted through an existing manhole or other approved access point. The manufacturer's standards shall be closely followed during the elevated curing temperatures so as not to over stress the felt fiber and cause damage or failure during the cure.

If the Contractor installs a shot through an existing manhole, it is the City's intention for the Contractor to provide a liner through the manhole channel. The Contractor shall extend the liner to cover as much of the manhole channel as possible. The liner seam, along the manhole bottom, between bench and trough, shall be sealed with an epoxy compatible with CIPP resin.

The finished cured-in-place pipe shall be continuous over the entire length of the insertion run and be as free as commercially practicable from significant defects. Any defects which will affect, in the foreseeable future, or warranty period, the integrity, maintenance, or strength of the cured-in-place pipe, including foreign inclusions, dry spots, pinholes, delaminations, wrinkles, bubbles and blisters shall be repaired at Contractor's expense, in a manner mutually agreed upon by the City and the Contractor.

#### End Seal

All pipes shall be fitted with a hydrophilic gasket, the "Insignia" as manufactured by LMK or equivalent, at both ends of each segment prior to installation of the liner. In addition, the liner shall be neatly cut at least 4-inches from the manhole wall to allow for filling of the annular space at the manhole opening with an epoxy resin compatible to CIPP. This epoxy resin filling, along with a hand brushed hydraulic cement topcoat, shall be applied at all manhole wall to CIPP joints to ensure a water tight seal at the manhole. The cost for this work shall be incidental to the cured-in-place pipelining.

#### Lateral Reinstatements

After the cured-in-place pipe has been cured, the Contractor shall reconnect the existing active branch or service lines as designated by the City. This shall be done without excavation and in the case of non-man entry pipes, from the interior of the pipelines by means of a television camera and a remote cutting device that re-establishes them to not less than 90 percent capacity and not more than 100% of the internal diameter of the lateral pipe. The surface of the opening shall be wire brushed to remove extraneous material and provide a smooth edge at each lateral connection. The intent of this project is to provide structural repairs and reduce inflow and infiltration. Only live active services shall be re-instated after lining. Dye testing as described hereinafter shall be required to determine which services shall be reinstated prior to lining. Any additional non-active laterals reinstated, shall be repaired with a minimum 3-foot length CIPP spot liner including LMK end seals at both ends on the mainline.

#### Testing

The Contractor shall prepare a sample for each installation of CIPP. The samples shall be restrained samples for diameters of CIPP less than 18"; and flat plate samples for diameters of CIPP 18" and larger. The flat plate samples shall be taken directly from the wet-out tube, clamped between flat plates, and cured in the downtube. The restrained samples shall be tested for thickness and initial physical properties; flat plate samples shall be tested for initial physical properties only. The Contractor shall be responsible for providing one data set for each week of installation (testing sample to be determined by the Engineer). If that data set does not meet the testing criteria, then all remaining samples for that week shall be tested for compliance and the liners not meeting the design criteria shall be rejected for payment and/or removed at the Contractor's expense.

The post-installation television inspection shall be used to confirm tightness of fit of the CIPP to the host pipe and to identify any imperfections; the finished liner shall be continuous over its entire length and to be free from visual defects such as foreign inclusions, dry spots, pinholes, delaminations, wrinkles, bubbles and blisters. All defects discovered during the post-installation television inspection shall be corrected by the Contractor at no additional cost, prior to completion of work. After defects are corrected, the sewer shall be televised again to show effectiveness of repairs.

Basis of Payment:

Lining shall be paid for at the Contract Unit Price per Linear Foot for "Storm Cured-in-Place Pipelining" and "Sanitary Cured-in-Place Pipelining" of diameter specified as indicated on the Bid Schedule and designated on plans and shall include all labor, materials, and equipment, installation, curing and testing of liner, end seals and all appurtenances required to complete the work. Measurement shall be made from center of upstream manhole to center of downstream manhole. Payment for sewer televising post-liner installation shall be included in the contract bid price for "Storm Cured-in-Place Pipelining" and "Sanitary Cured-in-Place Pipelining" of diameter specified as indicated on the Bid Schedule.

Lateral reinstatements shall be paid for at the Contract Unit Price per Each for "Storm Lateral Reinstatements" and "Sanitary Lateral Reinstatement" and shall include all labor, materials, and equipment including verification of the lateral location, cutting of the liner, brushing of liner and all appurtenances necessary to perform the work.

**SP-22 POST – CONSTRUCTION CLEANING AND TELEVISIONING**

Post-construction internal television inspection shall follow the same guidelines as PRE-CONSTRUCTION TELEVISIONING and shall be conducted on all sewers receiving sewer repairs, new sewer installations and sewer rehabilitation. This inspection must be done in the presence of the City or the Engineer and shall be per NASSCO standards by PACP certified operators.

Digital video inspections of the post-construction/rehabilitation television inspection for each sewer section shall be provided to the Engineer and the City as described below:

Deliverables

After the work is completed, the Contractor shall provide the City with two (2) portable USB

powered external hard drives containing each video file and associated PDF report, which shall document, to the satisfaction of the Engineer, the condition of the sewer line segment both immediately before and after lining, grouting, and T-lining and that it has been installed correctly and that all of the active connections have been restored.

The hard drives shall include a master Excel spreadsheet with hyperlinks to each video file and associated PDF report as well as a master digital database of all observation data. One (1) copies of the digital video data and logs shall become the property of the CITY and one (1) copies shall remain with the Engineer.

- The Master Spreadsheet shall have a record for each line segment televised to date. The spreadsheet shall be in MS Excel format and shall have hyperlinks to both the video files and the associated “.pdf” of the PACP & Pipe Segment View report for each section of sewer televised. The spreadsheet shall include the following information for each record - Upstream and Downstream Structure Numbers, Date Televised, Televised Length, Pipe Size, work performed, and links to both the Video and the “.pdf” files.
- The Database in PACP 7.0.3 format shall detail location, type, and severity of all defects and shall be Microsoft Access V07 Database files with all tables linked by appropriate I.D. numbers, and links to video and “.pdf” report files. **All data shall be linked to the pipe segment ID number.**

Basis of Payment:

“Post – Construction Cleaning and Television” and all deliverables shall be considered incidental to the Contract and shall not be compensated for separately.

**SP-23 SEWER FLOW AND BYPASS PUMPING**

This work shall include control of storm and sanitary sewer flow during closed circuit television (CCTV) inspection, sewer cleaning operations, manhole rehabilitation, manhole installation and all other sewer maintenance, inspection or construction activities. The Contractor shall be fully responsible for maintaining sewer service during these operations and shall not be allowed to backup or flood any sewer system user, building or property. The Contractor shall be solely liable for property damages that result from the work being performed.

During sewer cleaning operations, only 25% of the internal pipe diameter flow or “limited sewage flow” is acceptable. Flows shall be reduced by plugging, blocking, manually operating pump stations or bypass pumping. During sewer televising operations, only 5% of the internal pipe diameter flow is acceptable. During sewer lining, sewer coatings, manhole installation, manhole rehabilitation and point repairs, no flows will be allowed.

Since complete stoppage or bypassing of flow may be required during sewer lining, point repairs and manhole rehabilitation work, the Contractor may be required to submit drawings and complete design data showing methods and equipment to be utilized in bypass and dewatering operations. The bypass plan shall include the following information:

1. Location of temporary sewer plugs and bypass discharge lines indicated on plans
2. Capacities of pumps, prime movers, and standby equipment
3. Type of standby power source
4. Traffic control plan

When pumping and bypassing is required, the Contractor shall furnish all temporary pumps, conduits, and other equipment to divert the flow of sewage around the sewer section in which work is to be performed. The bypass system shall have sufficient capacity to handle existing flow plus additional flow that may occur during peak flow periods or from precipitation. The Contractor shall construct bypass system of material to prevent leakage during pumping operation.

The Contractor shall equip all engines with mufflers and/or enclose to keep noise level less than 50 decibels, or 10 decibels above ambient noise levels when measured at building closest to noise source.

The Contractor shall maintain sufficient labor, equipment and materials on site to ensure continuous and successful operation of bypass and dewatering systems including the following:

1. Keep standby pumps fueled and operational at all times
2. Maintain on site sufficient number of valves, tees, elbows, connections, tools, sewer plugs, piping, and other parts or system hardware to ensure immediate repair or modification of any part of system as necessary.
3. Provide piping, joints and accessories designed to withstand at least twice the maximum system pressure or 50 psi (345 kPa), whichever is greater.

In areas where flows are bypassed, all discharge flow shall be returned to the storm and sanitary sewer. No bypassing to ground surface, receiving waters, storm drains, or bypassing which results in groundwater contamination or potential health hazards shall be permitted.

In the event sewage is released into a storm drainage system or street, the Contractor shall immediately stop the release, notify IEPA, and take all necessary actions to clean up and disinfect spillage to satisfaction of the Engineer.

During plugging or bypass pumping operations the Contractor shall utilize sewer plugs specifically designed so that all or any portion of sewage can be released. During sewer flow control operations, reduce flow to comply with requirements as describe above. After cleaning, inspection, installation or rehabilitation work has been completed, restore the flow to normal.

**Basis of Payment:**

All plugging, bypass pumping and sewer flow control operations shall be considered incidental to the Contract and shall not be compensated for separately.

**SP-24 SANITARY AIR TEST AND GROUT SERVICE CONNECTIONS**

This work shall consist of testing and grouting of sanitary service connections. Locations for service connection grouting shall be identified by pressure testing all service lateral connections

and then sealing the lateral connections that fail the pressure test. Locations selected shall be approved by the Engineer in advance of performing any service lateral grouting. All grouting of service laterals shall be completed prior to the final post televising of the sewer segment.

#### References

National Association of Sewer Service Companies (NASSCO) prepared Pipeline Assessment and Certification Program (PACP), TV inspection form and sewer condition codes.  
ASTM F2304 Standard Practice for Rehabilitation of Sewers using Chemical Grouting  
ASTM F2454 Standard Practice for Sealing Lateral Connections and lines from the Mainline Sewer Systems by Lateral Packer Method, Using Chemical Grouting

#### Contractor Requirements

The Contractor shall be trained in appropriate and satisfactory safety methods regarding the grouts used under this contract. These methods shall include handling, mixing, and transporting of chemical grouts. These safety procedures and measures should be provided by the grout supplier (hereinafter referred to as the Supplier or the Manufacturer(s)).

#### Notice to Residents

The Contractor shall provide and hang notices on doors of all residences / businesses with service lines connected to sewer mains to be grouted. Notices shall be distributed 48 hours in advance of the work. The Contractor shall include the contact information for the onsite field supervisor as the primary contact for affected residents. The Contractor shall customize the notice to include City of Geneva logo and contact information. The notice shall be written in both English and Spanish. The City shall review and approve the notice format and text at the beginning of the project prior to distribution. All work required for notification to residents shall be incidental to the contract.

#### Submittals

- Equipment operating procedures and systems.
- Chemical Grout information.
  1. Description of chemical grout materials to be used (please refer hereinafter to grout characteristics);
  2. MSDS sheets for all materials to be used.
- Identification of the Manufacturers of the packers to be utilized on the project.
- Upon completion of each pipe segment, the Contractor shall submit to the Engineer a report showing the following data for each joint tested, grouted or attempted to be grouted:
  1. Identification of the sewer pipe section tested;
  2. Type of pipe material, diameter and depth of pipe to the surface at manholes;
  3. Length of pipe sections between joints;
  4. Test pressure used and duration of test;
  5. Pass/fail results for each joint/connection tested;
  6. Location stationing of each joint tested and location of any joints not tested with an explanation for not testing;
  7. Volume of grout material used on each joint;
  8. Gel set time used (cup test results from tanks);

9. Grout mix record of the batches mixed including amount of grout and catalyst, additives and temperature of the grout solution in tanks; and
10. Video recordings that include:
  - i. Testing and sealing operations for each joint (including inflation and deflation over the joint) displaying the final air test of joints or laterals; and
  - ii. An additional final recording, if specified, that includes inspection of the pipe after all grouting work is complete.

Grout(s) – General requirements

All grout materials must have the following features or capabilities:

1. During injection, the grout must react or otherwise perform in the presence of water (groundwater).
2. The ability to increase grout mix viscosity, density and gel strength by increased concentration of constituents or the use of approved additives.
3. The cured grout must withstand submergence in water without degradation.
4. The resultant grout formation must be homogeneous and prevent the passage of water (infiltration) through the pipe joint.
5. The grout must not be biodegradable.
6. The cured grout should be chemically stable and resistant to organics found in sewage.
7. Residual grout shall be easily removable from the sewer line to prevent blockage of the sewage flow.

Grouting materials should be handled, mixed, and stored by the Contractor in accordance with the Manufacturers' recommendations. The grouting materials shall be delivered to the site in unopened original Manufacturers' containers.

Grout(s) characteristics

Base grouts shall have the following characteristics:

1. Base grouts shall have the following characteristics:
2. A minimum of ten percent (10%) acrylamide base material by weight in the total grout mix. A higher concentration of acrylamide base material is recommended to increase strength or offset dilution during injection.
3. The capacity to tolerate some dilution and react in moving water during injection.
4. A viscosity of approximately two (2) centipoise shall be attainable. This viscosity shall also be increasable with approved additives.
5. A controllable reaction time from ten (10) seconds to one (1) hour.
6. A reaction (curing) process or method that produces a homogenous, chemically stable, non-biodegradable, firm and flexible gel.
7. The capacity to increase mix viscosity or density and gel strength by increased concentrations of the mix constituents or by the use of approved additives.
8. Product(s) and Manufacturer(s):
  - i. Avanti AV-100;
  - ii. Avanti AV-118; or
  - iii. Approved equal(s).

### Additives

At the Contractor's discretion according to field conditions, additives may be selected and used within the Manufacturers' recommended quantities.

### Strengthening Agents

1. For joint grouting, a latex or diatomaceous earth additive may be added to increase compressive and tensile strength. The quantity of strengthening agent additive shall be as recommended by the Manufacturer and approved by the Engineer.
2. Product Manufacturer(s):
  - i. Avanti AV-257 ICOSSET; or
  - ii. Approved equal(s).

### Root Inhibitors

1. When roots are present, for joint grouting, a root deterrent chemical shall be added to control root re-growth. The quantity of inhibitor shall be as recommended by the Manufacturer and approved by the Engineer.
2. Product Manufacturer(s) – Approved project Manufacturer(s) are:
  - i. Avanti AC-50W; or
  - ii. Approved equal(s).

### Gel Time Modifier

A gel time extending agent may be used in accordance with the Manufacturer(s)' recommendations to extend gel time as necessary.

Miscellaneous Additive Requirements - When using non-soluble additives, the grout tanks must have mechanical mixing devices to keep the additives in suspension and maintain a uniform solution of grout and additive.

### Control Tests

Packer Tests – The Contractor shall demonstrate the acceptable performance of air test(s), including:

1. To ensure the accuracy, integrity and performance capabilities of the testing equipment, a demonstration test (barrel test) shall be performed by the Contractor. The test procedures shall be as follows: After entering each pipeline segment with the test equipment, but prior to the commencement of joint testing, the Contractor shall position the test equipment on a section of sound sewer pipe between pipe joints, and perform a test as specified. The equipment shall hold a seven to ten PSI (7-10 PSI) test pressure for a period of fifteen (15) seconds with a pressure drop of less than one PSI (<1 PSI). In the event of a failed test, the Contractor shall repair any defective equipment and re-test to verify proper operation of all equipment.

Pump Tests – At the beginning of the contract, prior to application of grout, the Contractor shall perform a pump test. This test shall determine if proper ratios are being pumped from the grout component tanks at the proper rates and shall also measure pump rates. The Contractor shall use separate containers to capture the discharges from each of the grout component hoses to simulate the actual volumes of each component through the interconnect hoses, hose reel and length of

grout hose, and to confirm accuracy of the grout pump totalizer. The Contractor shall take corrective action if ratios or rates are not within the Manufacturers' recommended standards.

Grout Tests – The Contractor shall perform and record a grout gel test in the presence of the Engineer. This test shall include the recording of the grout tank solution temperature, catalyst tank solution temperature, ambient air temperature in truck, and gel time of the sample. The test shall be performed whenever the following conditions occur:

At the beginning of each day. The material in the hoses shall be recycled to the tanks and a sample shall be taken;

Whenever new batches of grout are mixed; and

Whenever the temperature in the tanks or ambient temperature have changed by more than plus or minus ten degrees Fahrenheit (+/- 10°F) from the previous gel test.

#### Pipe Preparation

Prior to the application of the chemical grouting materials, the Contractor shall thoroughly clean the sewer designated to receive the chemical grouting. Cleaning shall constitute removal of all loose debris and solids including which shall inhibit proper seating of the packer. If mineral deposits or protruding taps are present, said obstructions shall be removed and paid for as described elsewhere in these provisions.

The Owner shall have cleared the designated sewer line(s) of obstructions such as offset joints, protruding lateral connections, and broken pipe or crushed pipe which might otherwise prevent the use of the grouting equipment. If the CCTV inspection reveals such an obstruction, the Owner shall be notified immediately so that the obstruction can be removed.

#### Grout Preparation

The Contractor shall follow the Manufacturer(s)' recommendations for mixing and safety procedures.

Gel time shall be adjusted as necessary to compensate for changes in temperature in grout component tanks or hoses. The addition of dilution water to extend gel times is not acceptable unless the resulting base material exceeds ten percent (10%) by weight for solution grouts.

During the grouting process, the Contractor's grouting technician shall monitor the grout component tanks to make sure that proper ratios are being pumped. If unequal levels are noted in the tanks, the technician shall repeat the pump test as described above and correct any defective equipment.

Gel times shall be within the following formula calculations unless the Contractor's experience and/or field conditions dictate otherwise:

$$Gel\ Time = \left( \frac{Volume\ of\ Pipe\ Packer\ Void\ Space\ (gal)}{Pumping\ Rate\ (gpm)} \right) \left( \frac{60\ sec}{1\ min} \right) + 20\ sec (+/- 5\ sec)$$

Packer/Pipe void shall be defined as the volume between the inflated packer and the inside pipe

wall when the packer is inflated per manufacturer recommendations.

For example: an 8" pipe with a pack void space of .3 gallons would provide:

$$\text{Gel Time} = \left( \frac{.3(\text{gal})}{3(\text{gpm})} \right) \left( \frac{60\text{sec}}{1\text{min}} \right) + (20\text{sec}) = 26\text{sec}(+/- 5\text{sec})$$

#### Testing and Grouting Defects

All sewer joints on a segment shall be tested with the following exceptions:

1. Longitudinally fractured or broken pipe, as classified by PACP, unless specifically shown or specified or directed by the Engineer;
2. Sections of the pipe with structural defects between joints; and
3. Any sections of pipe or joints that are in such poor structural condition that in the judgment of the Engineer or the Contractor, significant structural damage of the pipe would occur as a result of the pressure test.

Any structurally undamaged joint that structurally fails or breaks during testing and grouting (said tests and grouting being documented on video to have been done under normal pressure conditions) shall be the Contractor's responsibility and cost to repair.

#### Testing Procedure for Mainlines

Joint testing pressure shall be equal to one half (0.5) PSI per vertical foot (VF) plus two PSI (0.5 PSI per/VF + 2.0 PSI). However, test pressures shall not exceed ten (10.0) PSI without the approval of the Engineer.

The Contractor shall individually test each sewer pipe joint at the above-specified pressure (and retest after sealing) in accordance with the following air test procedure:

1. The packer shall be positioned within the pipe in such a manner as to straddle the joint to be tested.
2. The packer ends shall be expanded so as to isolate the joint from the remainder of the pipe and create a void area between the packer and the pipe joint. The ends of the testing device shall be expanded against the pipe as per manufacturers' recommendations. If all attempts to isolate the joint fail, the Contractor shall pump grout in an attempt to seal the leak around the packer end. The Contractor will not be paid the unit price for joint grouting for this activity.
3. After the void pressure is observed to be equal to or greater than the required test pressure, the air flow shall be stopped. If the void pressure decays by more than one PSI (1.0 PSI) within fifteen (15) seconds, the joint shall be determined to have failed the test and shall be sealed.

Upon completing the testing of each individual joint, the packer shall be deflated with the void pressure meter continuing to display void pressure. Should the void pressure meter fail to drop to a reading of zero-point zero PSI, plus or minus zero point five PSI (0.0 PSI +/- 0.5 PSI), the Contractor shall clean the test equipment of residual grout material or make the necessary equipment repairs to provide for an accurate void pressure reading.

Grouting -- General Requirements

The Contractor shall grout all joints that failed the pressure test by the injection method. This shall be accomplished by forcing grout through a system of pumps and hoses into and through the joints of the sewer pipeline utilizing the packer then in the sewer pipe.

Disposal

The Contractor will not be allowed to flush sealing chemicals into the downstream pipe reaches and shall dispose of unplaced and waste chemical sealing material and all equipment cleaning chemicals off-site, in accordance with IEPA requirements. The Contractor will not be allowed to discharge within the Municipal limits or in the sanitary sewer.

Quality Control

The Contractor shall conduct warranty joint air testing on all of the joints and lateral connections successfully sealed in ten percent (10%) of the sewer pipe segments or a minimum of two (2) sewer line segments, whichever is greater. This work shall commence approximately eleven (11) months after substantial completion of the initial project or phase. The Engineer shall select the pipe segments to be warranty tested. The Contractor shall be provided with sixty (60) days' notice of the warranty testing. The Contractor shall conduct all warranty tests in the presence of the Engineer.

1. If more than ten percent (10%) of the warranty tested joints or lateral connections fail, the Contractor shall test an additional fifteen percent (15%) of the pipe segments or two (2) additional sewer line segments, whichever is greater. If more than ten percent (10%) of the second group of warranty tested joints or lateral connections fail, the Contractor shall test one hundred percent (100%) of the joints or lateral connections successfully sealed in the remaining untested pipe segments at no additional compensation.
2. The Contractor shall grout and/or retest all joints and lateral connections failing warranty testing at no additional compensation.
3. Joints that received more than four (4) gallons of grout per pipe-diameter inch of pipe joint are exempted from the warranty testing.

Construction Requirements

Lateral connections selected for "Sanitary Grout Service Connection (5-foot)" shall be identified by pressure testing the service lateral connection and then sealing the lateral connections that fail the pressure test. Locations selected shall be approved by the Engineer in advance to performing any service lateral grouting. All grouting of service laterals shall be completed prior to the final post televising of the sewer segment.

For each service lateral within the project, the Contractor shall pressure test the service lateral connection and seal the failed lateral connections. For factory tees and wyes, the test and seal shall include the first joint upstream of the mainline sewer, including a minimum distance of five (5) feet from the main. For break-in connections, the test and seal shall include the break-in and the first joint upstream of the mainline sewer, also including a minimum distance of five (5) feet from

the connection to the main.

The Contractor shall apply air pressure of 0.5 psig per vertical foot of sewer depth plus an additional 2.0 psig (total pressure not exceeding 10 psig). The test pressure and pipeline depth shall be recorded. If the air pressure on the lateral connection drops 1.0 psig within a 15-second time period, the connection “fails” the test and requires sealing as specified herein.

The Contractor will be required to retest failed connections after the sealing procedure is completed to verify effectiveness of the sealing. This shall be done by first deflating the packer ends until the “void” pressure meter reads zero pressure. The Contractor shall clean the equipment of residual grout. Once equipment is clean the Contractor shall re-inflate the packer ends and apply test pressure again. Grouted connections failing the pressure test shall be resealed and retested until each connection passes the air test.

Complete records shall be kept of lateral connections sealing performed in each sewer section. The records shall identify the manhole to manhole section in which the testing/sealing was done, the location and type of each lateral connection tested and/or sealed, whether there is visible evidence of infiltration and inflow at each service connection and an estimated flow rate in gallons per minute, any problems with the service connection i.e. roots, grease, etc, the test pressure before and after sealing, the quantity of chemical sealing material used at each lateral connection in gallons, the chemical set time and materials including any additives, and the lateral connection sealing verification results. PDF reports for each sewer segment tested/sealed shall be included on the final hard-drive deliverables and shall be linked into the Master excel spreadsheet.

The Contractor shall be required at a minimum, to apply one gallon of grout per foot of sealing distance for each lateral connection. During grouting operations, the Contractor shall televise the lateral connection testing and sealing and provide one digital video file for each sewer section containing service lateral testing/sealing. This digital video file is to be included on the final hard-drive deliverable and shall be linked into the Master excel spreadsheet.

Any excess grout that remains in the sewer main shall be removed by the Contractor. The Contractor shall perform an air test on the service lateral and/or flush test from the residence to confirm that the service lateral is open for sewerage flow. The Contractor shall be solely responsible and liable for any property damages resulting from the grouting work.

#### Post-Construction Inspection

After grouting is complete, all pipe sections shall be final inspected by means of a color CCTV system. The inspection shall be conducted as per the NASSCO Pipeline Assessment and Certification Program (LACP). Final videos shall be delivered as described SP-22 POST-CONSTRUCTION CLEANING AND TELEVISIONING.

#### Measurement

Testing and grouting of service lateral will be measured for payment by count of approved service laterals tested and grouted.

#### Basis of Payment:

This work item shall be paid for at the Contract Unit Price per each for “Sanitary Air Test Service Connection (5-foot)” and “Sanitary Grout Service Connection (5-foot)”, which price and payment shall include but not be limited to minor complications and/or delays, traffic maintenance & protection, testing pipe joints, chemically sealing (including grout), immediate and warranty re-testing of pipe joints and all labor, materials, tools, fees, equipment and incidentals needed to complete work specified within this Contract.

**END OF SECTION**

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**CITY OF GENEVA**  
2021 SANITARY AND STORM CIPP

# **PLAN/PROFILE AND EXHIBITS**



Storm Sewer to be Lined						
MH From	MH To	Location	Length (feet)	Size (inches)	Services	Services to be Gouted
3UCB09	3UCB08	Summit Street	180	10	0	0
3UCB08	3UCB07	Summit Street	330	10	0	0
3UCB10	3UCB09	Summit Street	280	10	0	0
1QM06	1QM11	McKinley Ave	350	10	0	0
1RM59	1RM14	Richards Street	215	10	0	0
2RM70	1RM61	Richards Street	360	12	0	0
1RM61	1RM24	Center Street	445	15	0	0
1QM33	1QM10	Lincoln Ave	206	10	1	0
2RM05	2RM08	Edison Street	205	21	0	0
3QM16	3QM09	Kaneville Rd	369	12	4	0
3SM18	3SM19	State Street	345	18	2	0
3SM31	3TM19	State Street	135	24	0	0

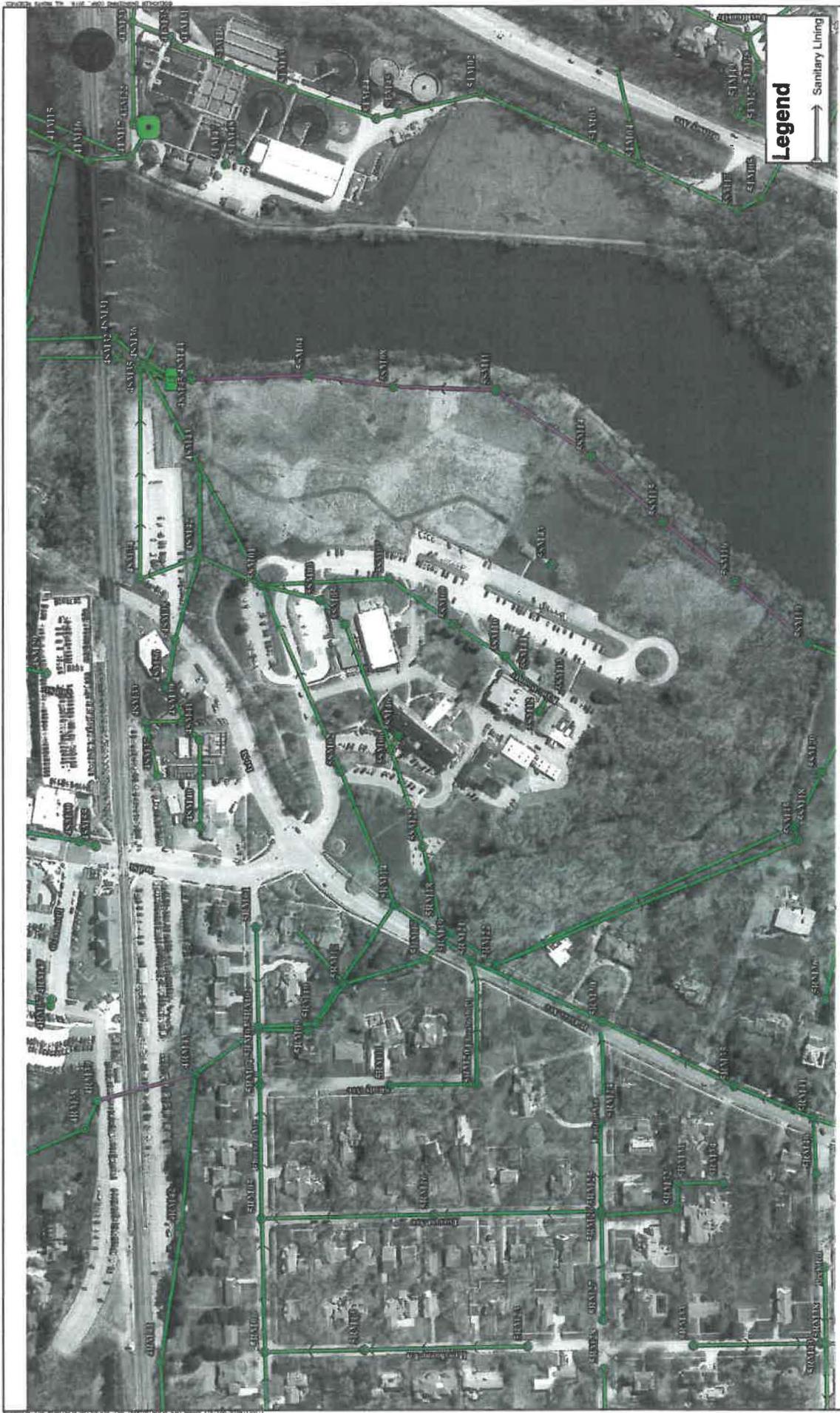
Sanitary Sewer to be Lined						
MH From	MH To	Location	Length (feet)	Size (inches)	Services	Services to be Gouted
4RM39	4RM43	RR Crossing	230	15	0	0
2TM18	3TM02	Bennett	350	15	11	11
6SM09	6SM08	River	185	10	0	0
6SM08	6SM07	River	265	10	0	0
6SM07	6SM06	River	218	10	0	1
6SM06	6SM05	River	128	10	0	0
6SM05	6SM04	River	216	10	0	0
6SM04	6SM01	River	45	10	0	0
6SM01	5SM21	River	64	10	0	0
5SM19	5SM16	River	228	10	0	0
5SM16	5SM15	River	224	10	0	0
5SM15	5SM14	River	230	10	0	0
5SM14	5SM11	River	282	10	0	0
5SM11	5SM08	River	243	10	0	0
5SM08	5SM04	River	247	10	0	0
5SM04	4SM44	River	239	10	0	0
4SM44	Wet Well	River	55	10	0	0
6RM22	6SM09	River	166	10	0	0





 <b>DEUCHLER</b> <small>INCORPORATED</small>	1. 2. 3. 4. SHOWN	ELUCIDATION FROM 1. HAZARDOUS 2. 300 WOODMAN AVENUE ALTON, IL 60009 FAX: 815-397-2694 WWW.DEUCHLER.COM	SHEET SCALE: 1" = 40' HORIZ. ON 1" = 10' VERT. ON DATE: 8-27-2021 SCALE: AS SHOWN PER NO. 100-19013-01 FIELD BOOK NO. 10/2	DESIGNED: SP DRAWN: AS CHECKED: BP APPROVED: MPA	SHEET <b>1</b> OF <b>9</b>
			<b>CITY OF GENEVA, ILLINOIS</b> <b>2021 SANITARY AND STORM CIPP</b> <b>CIPP LINING - SANITARY</b>		





**Legend**  
 → Sanitary Lining  
 → Storm CIPP Lining

 <b>DEUCHLER</b> <small>CONSTRUCTION CONSULTANTS</small>	1. <small>CLIENT: TOWN OF GENEVA</small> 2. <small>300 WOODLAW AVENUE</small> 3. <small>AUBURN, IL 60005</small> 4. <small>TEL: 630-297-2558</small> <small>WWW.DEUCHLER.COM</small>		DATE: 8-27-2021 SCALE: AS SHOWN JOB NO. 100-160125-01 PLOT BOOK: 011	DESIGNED: DP DRAWN: AS CHECKED: BP APPROVED: JMT	SHEET <b>2</b> OF <b>9</b>
	<b>CITY OF GENEVA, ILLINOIS</b> <b>2021 SANITARY AND STORM CIPP</b> <b>CIPP LINING - SANITARY</b>				





**Legend**

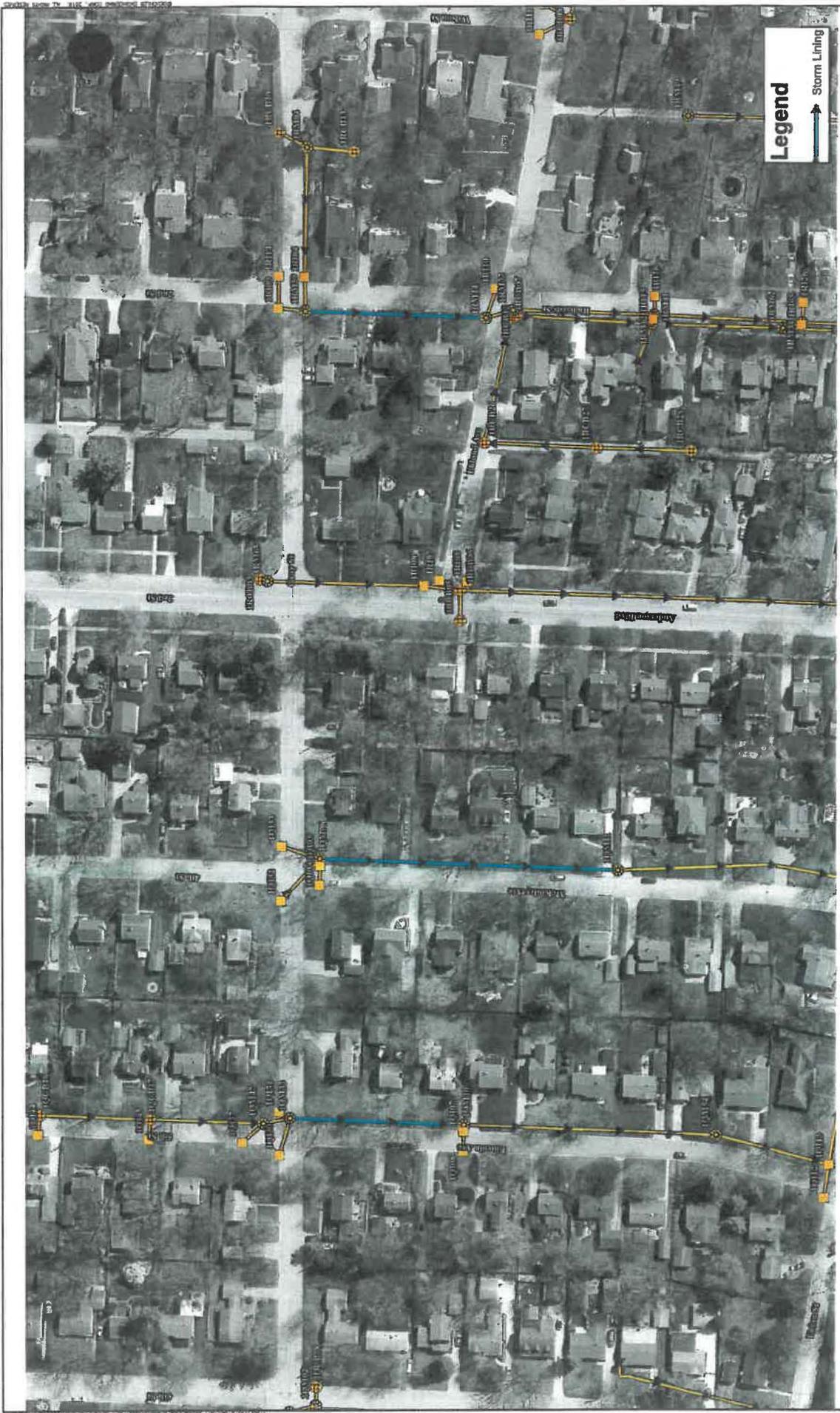
Sanitary Lining

<p><b>DEUCHLER</b> ENGINEERING &amp; CONSTRUCTION, INC.</p>	<p>1. CLIENT: CITY OF GENEVA, ILLINOIS</p> <p>2. PROJECT: 2021 SANITARY AND STORM CIPP Lining</p> <p>3. DATE: 08/27/2021</p> <p>4. SCALE: AS SHOWN</p>		<p>DATE: 08/27/2021</p> <p>SCALE: AS SHOWN</p> <p>JOB NO. 100-18012-01</p> <p>FIELD BOOK NO. N/A</p>	<p>DESIGNED BY: [Name]</p> <p>DRAWN BY: [Name]</p> <p>CHECKED BY: [Name]</p> <p>APPROVED BY: [Name]</p>	<p>DATE: 08/27/2021</p> <p>SCALE: AS SHOWN</p> <p>JOB NO. 100-18012-01</p> <p>FIELD BOOK NO. N/A</p>	<p>DATE: 08/27/2021</p> <p>SCALE: AS SHOWN</p> <p>JOB NO. 100-18012-01</p> <p>FIELD BOOK NO. N/A</p>
	<p>1. CLIENT: CITY OF GENEVA, ILLINOIS</p> <p>2. PROJECT: 2021 SANITARY AND STORM CIPP Lining</p> <p>3. DATE: 08/27/2021</p> <p>4. SCALE: AS SHOWN</p>		<p>DATE: 08/27/2021</p> <p>SCALE: AS SHOWN</p> <p>JOB NO. 100-18012-01</p> <p>FIELD BOOK NO. N/A</p>	<p>DESIGNED BY: [Name]</p> <p>DRAWN BY: [Name]</p> <p>CHECKED BY: [Name]</p> <p>APPROVED BY: [Name]</p>	<p>DATE: 08/27/2021</p> <p>SCALE: AS SHOWN</p> <p>JOB NO. 100-18012-01</p> <p>FIELD BOOK NO. N/A</p>	<p>DATE: 08/27/2021</p> <p>SCALE: AS SHOWN</p> <p>JOB NO. 100-18012-01</p> <p>FIELD BOOK NO. N/A</p>

**CITY OF GENEVA, ILLINOIS**  
**2021 SANITARY AND STORM CIPP Lining - SANITARY**

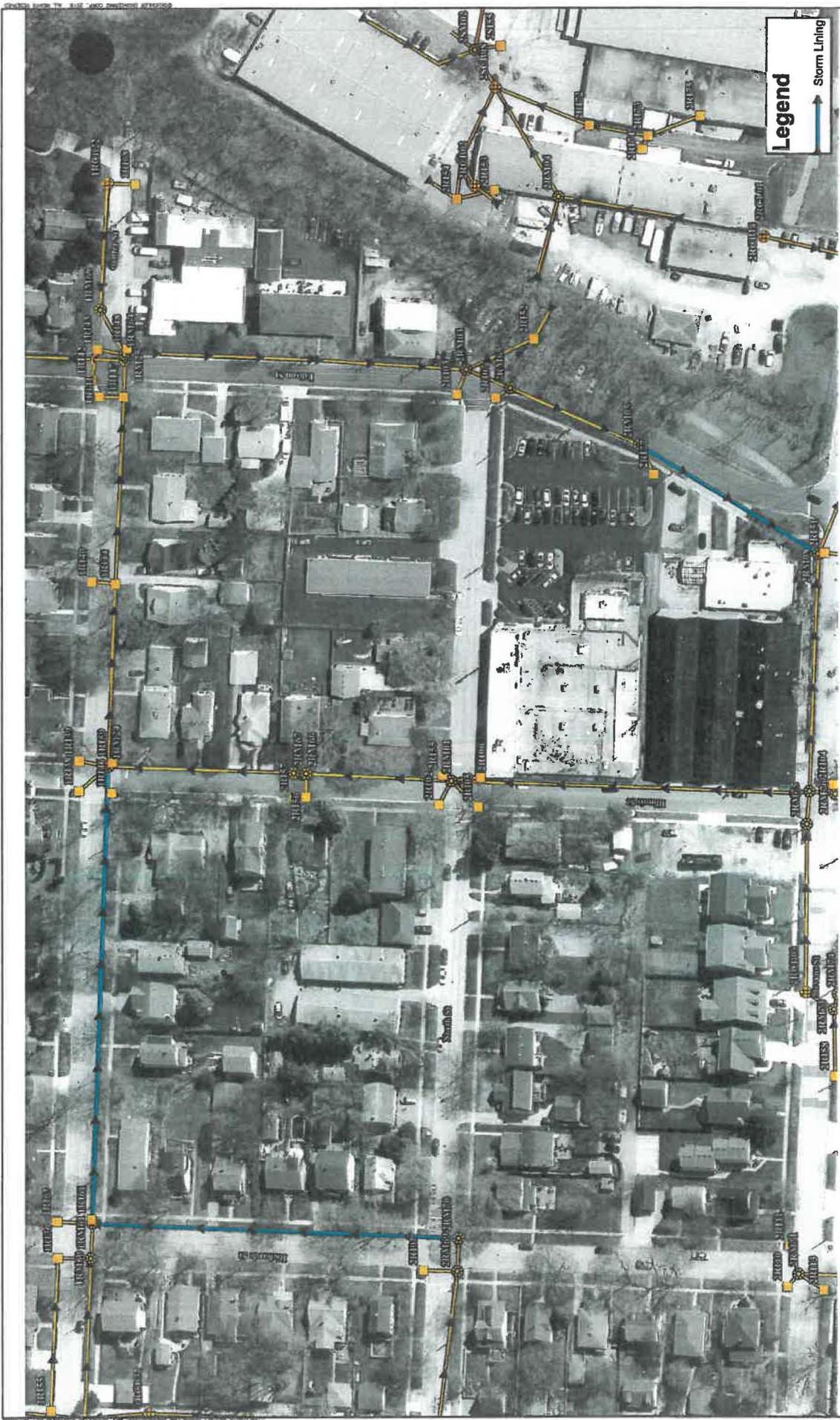
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2. PROJECT: 2021 SANITARY AND STORM CIPP Lining  
3. DATE: 08/27/2021  
4. SCALE: AS SHOWN





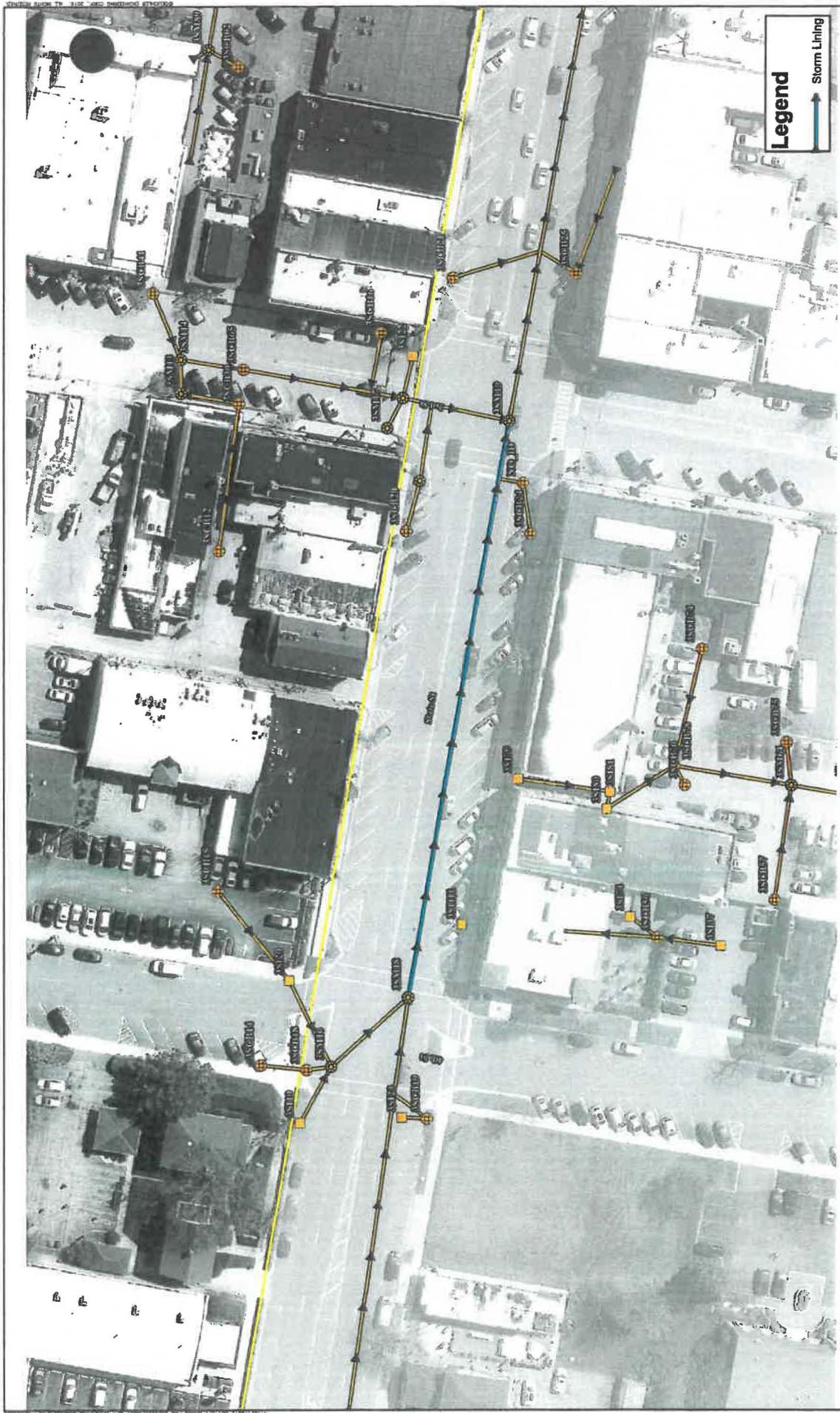
 <b>DEUCHLER</b> <small>CONSTRUCTION SERVICES</small>	LICENSE NUMBER: 00000000 JERRY DEUCHLER 330 WOODBURN AVENUE AUBURN, IL 62508 FAX: 618-297-2499 WWW.DEUCHLER.COM	DATE: 8-27-2021 SCALE: AS SHOWN JOB NO: 180-18012-01 FIELD BOOK NO.: N/A	DESIGNED: SP DRAWN: AS CHECKED: SP APPROVED: SP	SHEET: <b>4</b> OF: <b>9</b>
	<p align="center"><b>CITY OF GENEVA, ILLINOIS</b>  <b>2021 SANITARY AND STORM CIPP</b>  <b>CIPP LINING - STORM</b></p>			





 <p><b>DEUCHLER</b> Sewer   Stormwater   Construction   Environmental</p>	<p>1. ELIOTT &amp; DEUCHLER 200 WOODBURN AVENUE AURORA, IL 60009 TEL: 630-897-2691 WWW.DEUCHLER.COM</p>	<p>2. SHEET SCALE: ONE INCH ON OPTICAL DRAWING = 100 FEET</p>	<p>DATE: 6-27-2021 SCALE: AS SHOWN JOB NO. 100-18013-01 TRAIL: 1000.000</p>	<p>DESIGNED: BP DRAWN: AS CHECKED: BP APPROVED: [Signature]</p>	<p>SHEET 5 OF 9</p>
	<p><b>CITY OF GENEVA, ILLINOIS 2021 SANITARY AND STORM CIPP CIPP LINING - STORM</b></p>				





**Legend**  
 Storm Lining

SHEET **6**  
 OF **9**

**CITY OF GENEVA, ILLINOIS  
 2021 SANITARY AND STORM CIPP  
 CIPP LINING - STORM**

DATE	8-27-2021	ISSUED:	BP
SCALE	AS SHOWN	DRAWN	AS
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FULL BOOK NO.	N/A	APPROVED:	BP

SCALE: 1" = 60' (NOT TO SCALE)  
 DATE: 8/27/2021

1. CITY OF GENEVA
2. ENGINEER
3. CHECKER
4. APPROVER

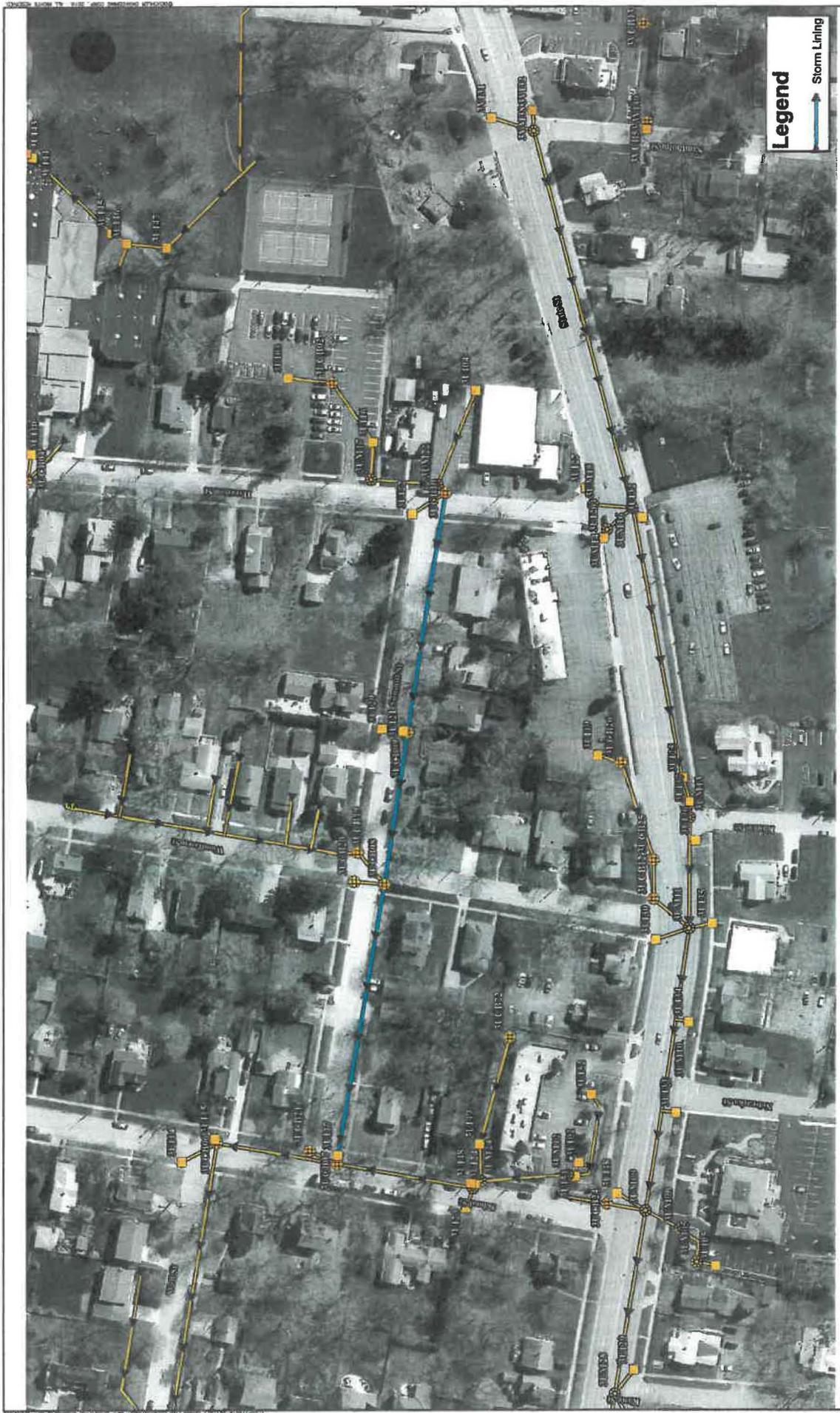
**DEUCHLER**  
 CIVIL ENGINEERING | SURVEYING | LANDSCAPE ARCHITECTURE

230 WOODLAND AVENUE  
 ALTON, IL 60010  
 PH: 815-397-2500  
 FAX: 815-397-2505









 <b>DEUCHLER</b> <small>CONSTRUCTION   ENVIRONMENTAL   UTILITIES</small>	LEGAL DESIGN TEAM J. TRACOTTE 833 WOODBURY AVENUE AUBURN, IL 62509 POC: 618-387-2608 WWW.DEUCHLER.COM	SHEET SCALE: 1" = 100' AS SHOWN ON ORIGINAL DRAWING	DATE: 8-27-2021	RECORDED: IP	SHEET: 8
			SCALE: AS SHOWN JOB NO. 190-18015-0 FIELD BOOK NO.: N/A	DRAWN: AS CHECKED: BP APPROVED: JPT	OF: 9

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**Deuchler Engineering Corp.**  
**230 Woodlawn Avenue**  
**Aurora, IL 60506**  
**Phone: 630-897-4651**  
**Fax: 630-897-5696**

