

**CITY OF JOLIET
WILL COUNTY, ILLINOIS
SPECIFICATIONS, PLANS, CONTRACT PROPOSAL,
CONTRACT AND CONTRACT BOND**


FOR THE

**2024 SANITARY SEWER REHABILITATION PROGRAM -
BRIDALWREATH ACRES, STONEGATE, BLACK ROAD ACRES,
AND BEVAN ACRES**

CONTRACT NO. 2749-1223

(PRE-QUALIFICATION REQUIRED THROUGH THE ILLINOIS DEPARTMENT OF TRANSPORTATION OR
CAPITAL DEVELOPMENT BOARD OR CITY OF JOLIET)

**APPROVED
DEPARTMENT OF PUBLIC UTILITIES**



DIRECTOR OF PUBLIC UTILITIES

DATE: October 19, 2023

**APPROVED
DEPARTMENT OF PUBLIC UTILITIES**



DEPUTY DIRECTOR OF PUBLIC UTILITIES

DATE: October, 19, 2023

SUBMITTED BY

CONTRACTORS NAME

ADDRESS

CITY AND STATE

PHONE

DATE: _____, 2023

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DEPARTMENT OF FINANCE
PURCHASING DIVISION
MELISSA L. LOPEZ
PURCHASING/CONTRACTS ADMINISTRATOR
mlopez@joliet.gov



Prospective Bidders:

Enclosed are bid documents which may be of interest to your company.

Please note the date as to when these bids will be opened.

THIS BID DOCUMENT MUST BE RETURNED INTACT (THE SAME ORDER AS RECEIVED). FAILURE TO DO SO MAY INVALIDATE YOUR PROPOSAL.

ALL BIDS SHALL BE SUBMITTED IN AN OPAQUE, SEALED ENVELOPE TO THE CITY CLERK, 150 WEST JEFFERSON STREET, JOLIET, ILLINOIS 60432, PRIOR TO THE TIME AND DATE SET FORTH FOR BID OPENING IN THE NOTICE TO BIDDERS. EACH BID SHALL BE ADDRESSED TO THE CITY CLERK AND SHALL BEAR ON THE FACE OF THE ENVELOPE THE NAME OF THE BIDDER, AND A STATEMENT THAT IT IS A SEALED BID, TO BE OPENED FOR THE CONTRACT CONSIDERED, AT THE DATE AND HOUR SET FORTH IN THE INVITATION TO BID.

THE BIDDER SHALL ALSO STATE ON THE OUTSIDE OF THE ENVELOPE THAT HE/SHE IS IN RECEIPT OF ALL ADDENDUMS TO THE CONTRACT.

ANY QUESTIONS OR CLARIFICATIONS CONCERNING THESE SPECIFICATIONS SHOULD BE IN WRITING AND DIRECTED TO MELISSA L. LOPEZ, PURCHASING/CONTRACTS ADMINISTRATOR AT PHONE NO. (815) 724-3925 OR (815) 724-3929 FAX.

ANY ORAL OR WRITTEN COMMENTS RECEIVED FROM ANY OTHER PERSON OTHER THAN THE CONTRACT ADMINISTRATOR, WILL NOT BE CONSIDERED AND ALSO, MAY INVALIDATE YOUR PROPOSAL.

THANK YOU FOR BIDDING.

MAYOR
Terry D'Arcy

INTERIM CITY MANAGER
Rodney Tonelli

COUNCILPERSONS
Cesar Cardenas
Joe Clement
Cesar Guerrero
Larry E. Hug
Suzanna Ibarra
Pat Mudron
Jan Hallums Quillman
Sherry Reardon

**PURCHASING/CONTRACTS
ADMINISTRATOR**
MELISSA L. LOPEZ

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CONTRACT DOCUMENTS

**PROJECT: 2024 SANITARY SEWER REHABILITATION PROGRAM -
BRIDALWREATH ACRES, STONEGATE, BLACK ROAD
ACRES, AND BEVAN ACRES**

**DEPARTMENT: PUBLIC UTILITIES
CITY OF JOLIET, ILLINOIS**

CONTRACT NO. 2749-1223

**RODNEY TONELLI
INTERIM CITY MANAGER**

**MELISSA L. LOPEZ
PURCHASING/CONTRACTS
ADMINSTRATOR**

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**LEGAL NOTICE
CITY OF JOLIET
ADVERTISEMENT FOR BIDS**

CONTRACT NO. 2749-1223

**PROJECT NAME: 2024 SANITARY SEWER REHABILITATION PROGRAM -
BRIDALWREATH ACRES, STONEGATE, BLACK ROAD ACRES, AND BEVAN
ACRES**

The City of Joliet, Illinois, does hereby invite sealed bids for the rehabilitation of the sewer system including pipe lining and manhole rehabilitation. The contract will include all work necessary to complete the sewer and manhole rehabilitation and to provide all project deliverables as specified in the bidding documents. This includes, but is not limited to, approximately 27,850 LF of pre-construction cleaning and televising, 27,680 LF of CIPP lining, 452 service grouts and the rehabilitation of 211 manholes, as well as all associated site grading, paving, roadway, and parkway restoration.

Bids will be received at the Office of the City Clerk, City of Joliet Municipal Building, 150 West Jefferson Street, Joliet, Illinois 60432-4156 until **9:30 A.M.** local time on **Thursday, November 16, 2023**. Bids will be opened and publicly read aloud in **Conference Room 1**, Joliet Municipal Building.

It is highly recommended that all bids be tabbed to mark the Bid Bond and Schedule of Prices. An electronic copy of the entire submission on a USB flash drive is also requested to be included in the bid packet. Bid results will be posted on the City's website and emails sent out to email addresses subscribed to the related RSS feed. It is preferred that you mail your bid. They should be addressed as follows:

**CITY OF JOLIET - SEALED BID ENCLOSED
OFFICE OF THE CITY CLERK
150 W. JEFFERSON ST.
JOLIET, IL 60432**

If you do choose to hand deliver your bid, it must be delivered to the Office of the City Clerk between the hours of 8:00 A.M. and 4:30 P.M., located at the above address. It must be marked clearly on the outside of the SEALED package with the CONTRACT NUMBER AND NAME OF THE PROJECT, DATE AND TIME OF THE SUBMISSION DEADLINE, NAME AND ADDRESS AND PHONE NUMBER OF YOUR COMPANY and RECEIPT OF ALL ADDENDA (if applicable). Please make sure to mention you are delivering a sealed bid, so the receiver knows to time stamp the envelope upon receipt.

Receipt of your submittal in any location other than the City Clerk's office at City Hall, 150 W. Jefferson St., Joliet, IL 60432, does not constitute receipt. If you are using a delivery service, the fact that it was signed for by someone at City of Joliet does not constitute receipt. To ensure that your package was received prior to the opening, you can email cityclerk@joliet.gov or call 815-724-3780 to verify receipt of document.

Electronic copies can be downloaded free of charge at www.joliet.gov/bids. No hard copies will be available for purchase.

All bidders will be required to submit Bid Security in the form of a Certified Check, Cashier's Check or a Bid Bond in the amount of **Ten percent (10%)** of the Base Bid, payable to the City of Joliet.

All Bidding Document holders should sign up for RSS feeds at: <https://www.joliet.gov/government/departments/finance/purchasing/bids-proposals/construction-public-utilities> and provide your first and last name and email address to automatically receive addendums. Addendums will also be posted on the City of Joliet's website at: www.joliet.gov/bids. The potential vendor/contractor remains responsible for obtaining all addenda to the original specification, so they should check the specific bid page before submitting a bid to make sure they have received all addendums to a specific contract.

The CCTV videos used during the design process are available on Clarity (<https://www.rjn.com/clarity>). All questions shall be directed to Patrick Hulsebosch, from RJN Group, at 224-425-1014 or by email at patrick.hulsebosch@rjnmail.com.

The City of Joliet has a local qualified bidder ordinance that would apply to this contract. To apply to be a local qualified bidder please go to: <http://joliet.gov/government/departments/finance/purchasing/prequalification-process>.

The successful bidder will be required to post performance Security and to provide a Certificate of Insurance as set forth in the Invitation to Bid and the General Terms & Conditions.

Bidders are required to be pre-qualified through the Illinois Department of Transportation, the Capital Development Board or the City of Joliet. It is the responsibility of the bidder to ensure that their pre-qualification information is provided to the City of Joliet Purchasing Division prior to the bid opening. If bidders are not prequalified through IDOT or Capital Development Board, then they must be prequalified with the City of Joliet. Financial prequalification forms can be obtained from the City of Joliet website at: <http://joliet.gov/government/departments/finance/purchasing/prequalification-process> .

This prequalification MUST be renewed yearly. To check on your current prequalification status, you can contact purchasing@joliet.gov. The current price for City of Joliet prequalification is \$175, which offsets the costs for independent auditor review of the documents. Those documents are to be submitted to the Purchasing Division, City of Joliet, 150 W. Jefferson Street, Joliet, IL 60432 at least 6 days prior to the bid opening.

The City of Joliet reserves the right to reject any and all bids, parts of any and all bids, or to waive technical errors or omissions in bids. The Contract shall be subject to the provisions of the Prevailing Wage Act (820 ILCS 130/1 et seq.) to the extent required by law.

ALL PROPOSALS ARE SUBJECT TO THE REQUIREMENTS OF THE CITY OF JOLIET PROCUREMENT CODE (Section 2-430 - 2-453 of the Code of Ordinances)

Electric download Free
Published in the Labor Record
Thursday – October 26, 2023

Rodney Tonell
Interim City Manager

Melissa L. Lopez
Purchasing/Contracts Administrator

CITY OF JOLIET
150 WEST JEFFERSON STREET
JOLIET, ILLINOIS 60432-4158

**CONTRACT DOCUMENTS FOR:
2024 SANITARY SEWER REHABILITATION PROGRAM - BRIDALWREATH ACRES,
STONEGATE, BLACK ROAD ACRES, AND BEVAN ACRES**

User Department: **PUBLIC UTILITIES**

Date and Time of Bid Opening: **THURSDAY, NOVEMBER 16, 2023 @ 9:30 A.M.**

Bid Security: **10%**

Performance Security: **100%**

Prequalification Necessary: **YES – IDOT OR IL. CAPITAL DEVELOPMENT BOARD OR CITY OF JOLIET PREQUALIFICATION REQUIRED**

Insurance: **YES – The City of Joliet and its officers and employees are to be named as additional insured on a primary and non-contributory basis. Additionally, please provide an endorsement from your insurance carrier confirming the City of Joliet is additional insured, including the provision of legal representation in the defense of claims asserted against the City of Joliet.**

**Terry D’Arcy
Mayor**

**Rodney Tonelli
Interim City Manager**

**Melissa L. Lopez
Purchasing/Contracts Administrator**

**Council Members:
Cesar Cardenas
Joe Clement
Cesar Guerrero
Larry E. Hug
Suzanna Ibarra
Pat Mudron
Jan Hallums Quillman
Sherry Reardon**

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INSTRUCTION TO BIDDERS

PROJECT: 2024 SANITARY SEWER REHABILITATION PROGRAM - BRIDALWREATH ACRES, STONEGATE, BLACK ROAD ACRES, AND BEVAN ACRES

NOTE: BY SUBMITTING A BID, THE BIDDER WARRANTS THAT HE HAS FAMILIARIZED HIMSELF WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS AS WELL AS THE CITY OF JOLIET PURCHASING ORDINANCE.

DEFINITIONS:

The following definitions shall apply wherever they appear in the contract documents.

CITY:	CITY OF JOLIET
OWNER:	THE CITY OF JOLIET
BID:	THE OFFER OF THE BIDDER
BIDDER:	ANY INDIVIDUAL, CORPORATION OR PARTNERSHIP WHO SUBMITS A BID.

CONTRACT DOCUMENTS - Invitation to Bid Instructions, General Conditions, Special Provisions, Specifications, Drawings, Addendums, Proposal (in so far as it is not inconsistent with other contract documents), and Contract Form.

Other definitions shall be as defined in City of Joliet Ordinance 7345 or in other Contract Documents.

1. BIDS - GENERAL

Bids shall be made in accordance with the instructions. Failure to execute proposals as required may, in the discretion of the City, be cause for rejection of the bid.

2. FORMS

Bids shall be submitted on the forms provided by the City of Joliet. Each bid must be submitted bound with all other contract documents.

3. BLANKS & CORRECTIONS

All blank spaces on any contract document shall be filled in with typewritten figures or ink. Any erasures or corrections shall be dated and initialed by the bidder.

4. SUBMISSION

Bids shall be submitted in opaque sealed envelopes to the City Clerk, 150 West Jefferson Street, Joliet, Illinois 60432-4156, prior to the time and date set forth for bid opening in the Notice to Bidders. Each bid shall be addressed to the City Clerk and shall bear on the face of the envelope the name of the bidder, and a statement that it is a sealed bid to be opened for the contract at the date and hour as set forth in the invitation to bid.

5. EXECUTION

Proposals shall be signed by the bidder. If the bidder is a corporation, the proposal shall bear the name of the corporation, signed by an officer authorized to bind the corporation, and sealed with the corporate seal.

6. WITHDRAWAL

Bids may be withdrawn previous to the time of the bid opening by written request. However, no bid shall be withdrawn within the thirty (30) day period after the time set for bid opening. Bidders withdrawing their bids prior to the time and date set for bid opening may still submit another bid if done in accordance with these instructions.

7. WORDS AND FIGURES

Where amounts are given in both words and figures, the words will govern.

8. UNIT PRICE

When unit prices are called for, bids shall include all unit cost items and alternatives shown on the proposal. When an error is made in extending total prices, the unit price will govern.

9. TAXES

All bids shall include all applicable taxes. The State of Illinois Sales Tax and Federal Excise Taxes are not applicable to sales made in the City.

10. NET PRICE

Bid prices shall be net, including therein transportation and handling charges F.O.B. City of Joliet, and shall further include all charges of whatsoever sort for labor and materials contained in the work or materials designated in the specifications and proposals.

11. BID SECURITY

Each bidder shall provide bid security in the amount of at least **Ten percent (10%)** of its base bid. Bid security shall be in the form of a certified check, cashier's check or bid bond issued by a surety licensed to do business in the State of Illinois. Bid security shall be made payable to the order of the City of Joliet. Bid security shall be held to ensure good faith on the part of the bidder and to be applied as liquidated damages should the successful bidder fail to execute all required contract documents or attempt to withdraw the bid prior to execution of the contract.

Personal checks and Company checks are not acceptable bid security and may result in the rejection of the bid as non-conforming.

12. BID SECURITY RETURN

All bid security, other than submitted by the successful bidder, will be returned to the respective bidders upon the successful execution of the contract.

13. INTERPRETATIONS

Interpretations of the meaning of any item in the Contract Documents shall be valid only if issued in writing by the Owner or the Owner's representative designated in the Contract Documents.

14. FAMILIARITY WITH CONTRACT DOCUMENTS AND SITE

Bidders shall examine all contract documents including General Conditions and Specifications, inspect and acquaint himself fully with site conditions (surface and subsurface), working conditions and restraints, if applicable, prior to the submission of his bid.

Existing sewer televising data is available to bidders. The inspections of the Bridal Wreath Acres rehabilitation areas are available to view at:

RJN Group Inc
950 Essington NW
Joliet, IL 60435
Contact: Patrick Hulsebosch 224.425.1014 to schedule

15. ALTERNATE EQUIPMENT OR MATERIALS

- a. Bids shall be evaluated and considered on equipment and/or materials complying substantially with the contract specifications. If any bidder deviates from the contract specifications or provides a substitute for any required equipment and/or material listed in the contract specifications, that bidder shall list such deviations and/or substitutions, including technical data when applicable, in a letter attached to the bid or on a form that may be provided by the City with the bid documents.
- b. Brand names, which may be mentioned in the contract specifications, are used only as a reference to the type and quality of equipment and/or materials desired. However, any deviation from or substitution in a brand name stated in the contract specifications shall be listed as required under paragraph (a) of this section.
- c. The City reserves the right to determine whether any deviations and substitutions listed by the bidder are within the intent of the contract specifications and will reasonably meet the service requirements of the using department.
- d. A bidder's failure to list any deviations from or substitutions in the contract specifications as required under paragraph (a) of this section may result in the rejection of the bid.

16. RESPONSIBILITY OF BIDDERS

No contract will be awarded to any person, firm, or corporation that is in arrears to the City of Joliet, Illinois upon any debt or contract, or who has failed to execute in whole or in part, in a satisfactory manner, any contract with the City of Joliet, or who is a defaulter as to surety or otherwise upon any obligation to the City of Joliet, Illinois.

17. CITY'S RIGHT TO ACCEPT OR REJECT

The City of Joliet reserves the right to accept any bid which may be deemed to be in the best interest of the City of Joliet. The City of Joliet further reserves the right to reject any or all bids.

18. AWARDING OF CONTRACT

The Contract shall be awarded to the lowest responsible bidder based on criteria as set forth in the City of Joliet Purchasing Ordinance.

19. ALTERNATE AND MULTIPLE BIDS

Unless otherwise indicated in these bid documents, the Contractor may not submit alternate or multiple bids as part of this bid package. The submission of more than one bid within a single bid package may be cause for rejection of any or all of the bids of that contractor.

20. AFFIDAVITS

The Affidavits included in these Contract Documents must be executed and submitted with the bid.

21. PREQUALIFICATIONS

All Bidders shall become prequalified in one of the following ways:

1. If a company is currently prequalified by the State of Illinois (via IDOT or the Capital Development Board), such person shall submit a copy of said prequalification to Office of the City Clerk prior to the date and time set for the bid opening.
2. If a company is not State of Illinois prequalified as described above, they shall submit a City of Joliet Prequalification Form and a financial statement. The prequalification forms can be obtained from the City of Joliet website at <https://www.joliet.gov/government/departments/finance/purchasing/prequalification-process>. This prequalification MUST be renewed yearly. The current price for City of Joliet prequalification is \$175, which offsets the costs for independent auditor review of the documents. Those documents are to be submitted to the City Clerk's Office, City of Joliet, 150 W. Jefferson Street, Joliet, IL 60432 at least 6 days prior to the bid opening and must be accompanied by \$175 and need to be updated annually. In addition to the form being submitted, a financial statement prepared or certified by a duly certified public accountant shall also be submitted. The certified public accountant shall also certify that he/she is presently a duly certified public accountant in the state in which he/she is certified. The financial statement must include the company's latest balance sheet and income statement showing the following items: Current Assets (e.g., cash joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory, and prepaid expenses). The evaluation of the independent auditor shall determine the amount of prequalification. Prequalification shall be valid for a period of twelve (12) calendar months following the date of certification by the independent auditors.

Bids from bidders who have not submitted required prequalification documents as required in subsections (1) or (2) above shall not be opened.

GENERAL CONDITIONS

**Please also see the City of Joliet Special Provision and General Conditions
Booklet
Revised November 25, 2020.**

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1.0 GENERALLY

1.1 DEFINITIONS:

The following terms as used in these contract documents are defined as follows:

- (a) "City" – City of Joliet
- (b) "City Representative" – That person authorized or entity authorized by the City to act, give or receive information and direct the project in the City's behalf within the scope of the contract terms; in this contract:

OWEN DEAN, P.E., DEPARTMENT OF PUBLIC UTILITIES

- (c) "Contract Documents" – Includes Notice to Bidders, Instruction to Bidders, General Conditions, Proposal (only to the extent they do not limit or modify other contract documents), Special Conditions, Specifications, Addenda, Drawings and Contract.
- (d) "Contractor" – The person, firm or corporation to whom the contract is awarded by the Owner and who is subject to the terms thereof.
- (e) "Engineer" – RJN Group, Inc. (Joliet, Illinois)
- (f) "Subcontractor" – A person, firm or corporation, other than a contractor supplying labor and materials or labor for work at the site of the project.
- (g) "Project" – The entire public improvements proposed by the Owner to be constructed in part or in whole pursuant to the contract.
- (h) "Owner" – City of Joliet, Illinois
- (i) "Surety" – Any person, firm or corporation that has executed as Surety, the contractor's performance bond securing the performance of the contract.
- (j) "Work" – The construction or installation required or reasonably inferred by the contract documents, including all labor, materials, and equipment.

In interpreting the contract documents, words describing materials or words which have well-known technical or trading meaning, unless specifically defined in the contract documents, shall be construed in accordance with such well-known meaning recognized by architects, engineers or the trade.

1.2 INTENT OF THE CONTRACT DOCUMENTS:

The contract documents are complimentary, and what is called for by any one shall be as binding as if called for by all. The intention of the contract documents is to include in the contract price the cost of all labor and materials, equipment, transportation and all other expenses as may be necessary for the proper execution of the work. If certain contract documents appear to be in conflict, the Contractor must promptly bring these provisions to the attention of the City and the City shall determine the applicable provision.

1.3 PATENTS:

- (a) The contractor shall hold and save the Owner and its officers, agents, servants and employees harmless from liability of any nature or kind, including cost and expenses, for, or on account of, any patented or unpatented invention, process, article or appliance manufactured or used in the performance of the contract, including its use by the Owner, unless otherwise specifically stipulated in the Contract Documents.
- (b) License or Royalty Fees: License and/or Royalty Fees for the use of a process which is authorized by the Owner in writing must be reasonable, and paid to the holder of the patent, or his authorized licensee, directly by the Owner and not by or through the Contractor. Such fee shall be included in the contract price.

1.4 PERMITS AND REGULATIONS:

- (a) Permits and licenses necessary for the prosecution of the work shall be secured and paid for by the Contractor. Permits, license and easements for permanent structures or permanent changes in existing facilities shall be secured and paid by the Owner, unless otherwise specified.
- (b) The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified.
- (c) The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified.
- (d) The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified.

1.5 SUBCONTRACTS – NOTIFICATION:

Prior to the beginning of work, the Contractor shall notify the City in writing of the names of the sub-contractors proposed for the principal parts of the work and shall not employ any sub-contractor that the City objects to as incompetent or unfit.

1.6 ASSIGNMENT:

The Contractor shall not-assign this Contract or any part hereof without prior written consent of the City. No assignment of this Contract shall be effective unless it shall contain a provision that the funds to be paid to the assignee under the assignment are subject to a prior lien for services rendered or materials supplied for the performance of the work called for in said Contract in favor of all persons, firms or corporations rendering such services or supplying such materials.

1.7 NOTICE:

Where in any of the Contract Documents there is any provision with respect to the giving of any notice, such notices shall be deemed to have been given, as to the City, when written notice shall have been delivered personally to the City Clerk, or shall have been placed in the United States mails, postage fully prepaid, addressed to the City Manager of the City of Joliet, 150 West Jefferson Street, Joliet, Illinois; as to the Contractor when written notice shall have been delivered to any officer of the Contractor or when a written notice shall have been placed in the United States mails, postage prepaid, addressed to the Contractor, at the place stated in the papers prepared by him to accompany his proposal as the address of his permanent place of business; as to the Surety on the Performance Bond, when a written notice is placed in the United States mails addressed to the Surety at the home office of such Surety or to its agent who executed such Performance Bond in behalf of such Surety.

2.0 TIME

2.1 PROGRESS SCHEDULE:

Within two (2) days after the notice to proceed has been issued, the Contractor shall supply to the City a written progress schedule specifying when the various phases of the work are to be completed. Such schedule shall be posted at all times at the site of the work and strictly adhered to. A schedule of work for the following week must be sent out to the city and engineer by the end of day Friday throughout the duration of the contract. Shall there be no work in any given week for any number of reasons, it must still be noted and sent to the city and engineer.

2.2 BEGINNING WORK:

The Contractor shall begin the work within ten (10) calendar days after the contract has been executed by the City and notice has been given to him. The Contractor shall notify the City at 815-724-4254 and the Engineer at 630-682-4700, 48 hours in advance of any work so that the City/Engineer may have the time necessary to arrange for inspection of materials and construction. Failure on the part of the Contractor to properly notify the City/Engineer will cause the Contractor to have deducted from his contract any costs for inspection and testing of any materials incorporated in the work but not inspected and approved prior to or during construction.

2.3 COMPLETION OF WORK:

The Contractor shall fully complete the work to the satisfaction of the City within the time period specified in the proposal. Time is the essence of this agreement. All work shall be completed in an orderly and diligent manner. The Contractor shall cooperate with and conform to the requests of the City to expedite particular portions of the work where such alteration of the Contractor's operation is deemed advisable by the City.

In the event no notice has been given but the work has nevertheless commenced, then such time shall begin to run from the actual commencement of work.

The Bridal Wreath Acres and Bevan Acres subdivisions have scheduled water main replacement projects that the Contractor will have to build into their timeline.

For the Bevan Acres subdivision, all work, as shown in the Plans, must be substantially complete by Friday June 28, 2024.

For the Bridal Wreath Acres subdivision, the water main project will begin on 4/1/204. The Contractor must coordinate their schedule with the water main contractor. An approximate Sequence of Construction can be found in the Supplemental Special Provisions under BRIDAL WREATH SEQUENCING OF CONSTRUCTION. Please refer to Sheet 4 in the Plans for Work Areas.

2.4 DELAYS:

If the Contractor is delayed in the completion of the work by any act of neglect of the City or by any other Contractor employed by the City, or by strikes, fire, lockouts, unavoidable casualties or any cause beyond the Contractor's control, then the time of completion will be extended for a reasonable time, such reasonable time as the City shall decide. The Contractor shall, within five (5) days from the beginning of any such delay notify the City in writing of the cause of delay and therein specify the number of days of extension requested. If such request is not made as herein provided, it shall be deemed waived. Weather conditions shall not be a justifiable cause for delay.

2.5 PRE-CONSTRUCTION MEETING:

The City will hold a pre-construction meeting, which shall be attended by the Contractor, Engineer and all other appropriate agencies, utilities, etc. The meeting will be held at a time agreed upon by both the City and the Contractor.

The Contractor shall present executed contracts with bonds and insurance prior to or at this meeting. Also, the Contractor shall provide the names and phone numbers of responsible employees to be contacted off-hours for emergencies and an estimated construction schedule covering all work for the entire project.

2.6 PROGRESS REPORTS:

No less than bi-weekly, the Contractor shall meet with the City's representative on the City's premises to detail performance on the work and to report on compliance or noncompliance with the progress schedule. If in the opinion of the City, the Contractor has fallen behind the progress schedule, the Contractor shall take such steps as may be necessary to improve the progress. The City may require the Contractor to increase the number of shifts or overtime operations without addition to the Contract price.

2.7 LIQUIDATED DAMAGES FOR DELAY:

CONTRACTOR and OWNER recognize that time is of the essence as stated in Paragraph 2.3 above and that OWNER will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as penalty):

Substantial Completion: CONTRACTOR shall pay OWNER \$2,500 for each day that expires after the time (as duly adjusted pursuant to the Contract) for Substantial Completion until the Work is substantially complete. This amount is comprised of \$2,300 per day for engineering, construction administration services, construction observation services, and inspections and \$200 per day for administration, labor, expenses, and other costs that will be incurred by OWNER.

Substantial Completion for the Bevan Road subdivision will be Friday June 28, 2024 to adhere to the water main project schedule. Please see the Plans for the Water Main Project Area.

Completion of Remaining Work: After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, CONTRACTOR shall pay OWNER \$2,500 for each day that expires after such time until the Work is completed and ready for final payment. This amount is comprised of \$2,300 per day for engineering, construction administration services, construction observation services, and inspections and \$200 per day for administration, labor, expenses, and other costs that will be incurred by OWNER.

Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

The CITY may terminate the contract at any time if the contractor is not meeting the expected schedule or quality of work. Additional time may be granted by the CITY if a request is submitted in writing and approved. Significant additions to the quantities estimated by the CITY will be considered a valid reason for time extension if requested in writing.

3.0 PLANS, SPECIFICATIONS AND DRAWINGS

3.1 CONFORMITY:

The work shall be executed in strict conformity with the plans, drawings and specifications, and the Contractor shall do no work without drawings and specifications.

3.2 AVAILABILITY AT SITE:

The Contractor shall keep a copy of all plans, drawings and specifications at the work site in good order.

The several parts of the plans, drawings and specifications shall be taken and construed together to explain each other and make the whole consistent.

3.3 FIGURED DIMENSIONS TO GOVERN:

Dimensions and elevations shown on the plans shall be accurately followed even though they differ from scaled measurements. No work shown on the plans, the dimensions of which are not indicated, shall be executed until necessary dimensions have been obtained from the City's representative.

3.4 FAMILIARITY WITH SITE, PLANS, SPECIFICATIONS AND DRAWINGS:

The Contractor represents that he has thoroughly acquainted himself as to the conditions of the site, both surface and subsurface, and with the meaning and accuracy of the plans, specifications and drawings. The owner shall not be responsible for any claims made by the Contractor due to claimed unfamiliarity or inaccuracies.

3.5 ERRORS/AND OMISSIONS:

If the Contractor discovers any error of omission in the plans, drawings or specifications or in the work undertaken and performed by him, he must immediately notify the City and the City shall promptly verify or correct the plans, drawings and specifications. The Contractor's notifications must be in writing and copy of his transmittal must be forwarded to the Owner.

3.6 STANDARD SPECIFICATIONS:

Reference to standard specifications of any technical society, organization or association, or to codes of local, state or federal, authorities, shall mean the latest standard; code specification or tentative specification adopted and published at the date of taking bids, unless specifically stated otherwise.

3.7 PRESERVATION OF MONUMENTS AND STAKES:

The Contractor shall carefully preserve all monuments, benchmarks, reference points and stakes. In case of his destruction thereof, the Contractor will be charged with the expense of replacement and shall be responsible for any mistake or loss of time that may be caused. Permanent monuments or benchmarks which must be removed or disturbed shall be protected until they can be properly referenced for relocations. The Contractor shall furnish materials and assistance for proper replacement of such monuments or benchmarks.

3.8 CERTIFICATION OF MATERIALS:

The Engineer shall be furnished with a list of sources of materials before they are shipped so materials can be inspected before shipping, if desired. All materials shall be subject to inspection

at the source and at the job site. Engineer may reject any materials at either location. All materials incorporated in this project shall be new materials from the City's approved material list. Use of existing material or recycled materials shall not be permitted without the written consent of the Engineer. The Contractor shall furnish the Engineer with the manufacturer's certificates for all materials supplied to the project except those specifications exempted by the Engineer.

All required materials for this project shall be selected from the City's approved material list, unless specifically called-out otherwise in the Contract Documents Special Provisions for this project and approved by the Engineer in charge of this project.

3.9 SUBMITTALS

Provide complete electronic copies of required submittals and deliver to the Engineer as follows:

1. **Construction progress schedule:** (1) electronic copy
 - Initial work schedule.
 - Revisions to work schedule.
2. **Traffic Control Plan:** (1) electronic copy
3. **Bypass Pumping Plan:** (1) electronic copy
4. **Material Data Sheet Submittals:** (1) electronic copy. All materials data sheets are to be submitted to the ENGINEER and approved before rehabilitation can proceed.
 - a) **Liner Design Work Sheets and Data Sheets**
 - b) **Liner End Seals Data Sheet**
 - c) **Manhole Rehabilitation Material Data Sheets**
 - 1) **Manhole Castings Data Sheets:** All closed lids shall have the words "City of Joliet" and "SANITARY" cast into them as applicable. Casting shall be East Jordan 1020 AGS lid with seal and 1050Z1 frame. Bolted frame and cover shall be Neenah R1916-C or approved equal, and the word "Sanitary Sewer" cast into the lid.
 - 2) **External Chimney Seals:**
 - Shall conform to ASTM C923 and shall be Infi-Shield Uni-bands, or approved equal.
 - WrapidSeal Canusa-CPS or approved equal.
 - 3) **Internal Chimney Seal:** Flex-Seal Utility Sealant by Sealing Systems, Inc. or approved equal.
 - 4) **Manhole Grouting Data Sheets:**
 - **Grout.** Grouting installation shall conform to ASTM F2414-04. Grout shall be Avanti AV-100 or approved equal.
 - **Severe Active Infiltration.** Approved Materials to stop severe active infiltration are the following: Hydrostop-Flex 40/500; Avanti AV-100; Deneef Deneprox 40; or approved equal.
 - 5) **Manhole Internal Coatings Material Data Sheets:**
 - **Patching Material.** The following are approved for patching material: Strong Seal QSR ; Quadex Hyperform; or approved equal.
 - **Cementitious Coat.** The following are approved for cementitious coat: Strong Seal High Performance Mix.
 - **Visible Infiltration.** Approved materials to stop visible infiltration are the following: Strong-Plug; Quadex Quad-Plug; or approved equal.
 - 6) **Rubber Composite Adjustment Rings:** EJ Infra-Riser or pre-approved equal.

- 7) **Precast concrete Adjustment Rings:** Shall conform to ASTM C478. Adjustment rings of uniform thickness shall be at least two inches thick. The replacement precast grade adjustment shall provide a structural capacity equal to or greater than the existing specified manhole frame, and shall not affect the opening size or surface appearance.
 - 8) **Barrel Section:** Shall be precast concrete conforming to ASTM C478.
 - 9) **Bitumastic Gasket Material:** Shall meet or exceed Federal Specification SS-S-210A. Material shall be EZ-STIK or approved equal.
- d) **Service Lateral Grouting Data Sheets.**
 - e) **Sanitary Sewer Grouting Data Sheets.**
4. **Pre & Post construction internal television inspection:** four (4) digital copies
 5. **CIPP Liner Test Results:** See CURED-IN-PLACE PIPELINING for more details.
 - 1) First batch of samples to be submitted to the City/Engineer once 25% of CIPP lining is completed.
 - 2) The samples shall be restrained samples for diameters of CIPP less than 18"; and flat plate samples for diameters of CIPP 18" and larger.
 6. **Four (4) External USB powered hard drives containing:**
 - a.) Digital video files (MPEG format)
 - b.) PDFs of digital reports
 - c.) Digital Microsoft Access database with all observation data
 - d.) Master spreadsheet with hyperlinks to video and PDF reports
 - e.) Submittals shall be provided and updated monthly with each invoice submission.
 7. **One set of "red-line" field changes on construction plans.**
 8. **Other required submittals:** (3) copies or (1) electronic copy if required for review or record
 9. **Notices to Residents for all work phases; pre-cleaning and televising, lining, manhole rehabilitation, grouting and T-lining.**

4.0 ACTUAL PERFORMANCE

4.1 SUPERINTENDENCE:

The Contractor shall give his personal superintendence to the work and have at the site of the work at all times a competent foreman, superintendent or other representative having authority to act for the Contractor.

4.2 EMPLOYEES:

The Contractor shall not hire or keep in employment any incompetent employees.

4.3 CONTRACTOR COOPERATION:

In the event that more than one Contractor is selected to implement the work, the Contractor agrees that he will cooperate fully with other Contractors. Each hereby agrees to make available to other Contractors all necessary documentation and information to enable the individual installations to be made efficiently and effectively.

4.4 MATERIALS AND WORKMANSHIP – QUALITY:

- (a) **Materials:** Unless otherwise specifically called for in the specifications, all equipment, materials and articles incorporated in the work covered by this contract shall be new and of the best grade. When called for by the City, the Contractor shall at no cost furnish to the City for approval full information concerning the materials, equipment or articles to be incorporated in the work, including reasonable samples or test results when customary.
- (b) **Workmanship:** All work performed shall be performed and accomplished in a first class and workmanlike manner to the satisfaction of the City and in accordance with the best practice and standards recognized in the field.

4.5 MATERIALS AND WORKMANSHIP – GUARANTEE:

The Contractor guarantees the equipment, materials, articles and workmanship used in the work or performed to be free from defects, suitable for the purpose intended and merchantable. He shall correct defective works and replace defective materials at his own cost which becomes apparent within one (1) year from the date of final payment.

4.6 COMPLIANCE WITH LAW, NOTICES, PERMITS:

The Contractor shall give all notices required by, and comply with, all applicable laws and ordinances of the City or State of Illinois. Should the Contractor fail to observe the aforementioned laws or ordinances and do work at variance with any applicable law or ordinances, the Contractor shall correct the methods of doing such work without cost to the City, even if such deficiency is discovered after the date of final inspection or payment. Upon execution of the contract by the City, the City shall simultaneously issue permits under the jurisdiction of the City necessary for the work to be performed.

4.7 WORKING HOURS:

Normal working hours are Weekdays, Monday through Friday, 7:00 a.m. to 5:00 p.m. No work shall be done on Weekends, Saturdays and Sundays, or the following holidays: Christmas, New Year's Day, Thanksgiving, Memorial Day, July 4th and Labor Day unless special order or permit shall be given by the City. No excavation or general construction will be permitted outside normal working hours. Time regulations shall not apply to placement of traffic control devices such as barricades, signs and lighting. The Contractor shall ensure that the sewer main system shall be back in operation at the end of each workday. No overnight disruption in service will be allowed.

4.8 CONSTRUCTION NOISE RESTRICTION:

All engines and engine driven equipment used for construction or for hauling shall be equipped with an adequate muffler in constant operation and properly maintained to prevent excessive or unusual noise. Any machine, or device, or part thereof which is regulated by or becomes regulated by Federal or State noise standards shall conform to those standards.

4.9 UTILITY COORDINATION:

The Contractor is responsible to contact all utilities for locations prior to the start of work (J.U.L.I.E. at 1-800-892-0123). Note: Any utility locations shown on the Plans are **APPROXIMATE ONLY**; the Contractor is to use care when working around utilities so as not to damage them. The Contractor is responsible for any utilities damaged. The Contractor must work with the agencies to organize and complete the work as expeditiously as possible.

4.10 SANITARY FACILITIES:

The Contractor shall furnish, install, and maintain ample sanitary facilities for the workmen, as the needs arise. It shall be the Contractor's responsibility to coordinate storage during the winter months.

4.11 USE OF SITE

- (1) Eastside Wastewater Treatment Plant
1099 McKinley St.
Joliet, IL 60436
- (2) The Contractor shall confine his equipment, storage of materials, and operations to the limits prescribed by ordinances or permits, or as may be directed by the City, and shall not unreasonably encumber the site.
- (3) The Contractor shall comply with all reasonable instructions of the City, and the ordinances and codes of the City regarding signs, advertising, traffic, fires, explosives, danger signals, barricades, and fire prevention.
- (4) The Contractor shall adhere to good housekeeping practices failing which the permit to store equipment or vehicles at the City's premises will be revoked and the Contractor will need to obtain a new storage location.
- (5) If the Contractor fails to dispose of material and provide housekeeping to the storage area, the City has the right to clean it for the Contractor at the expense of the Contractor. (deduct cost via Change Order)
- (6) The Contractor shall be responsible for restoring the storage site location to its original condition.

4.12 CUTTING AND PATCHING:

- (a) The Contractor shall do all cutting, fitting, or patching of his work that may be required to make his several parts fit together or to receive the work of other Contractors shown upon, or reasonably implied by, the Plans and Specifications for the completed project and he shall make good after them as may be directed by the City.
- (b) Any cost caused by defective or ill-timed work shall be borne by the party responsible therefore.
- (c) The Contractor shall not cut, dig, burn, weld to or otherwise alter or modify the work of any other Contractor without the consent of the City.
- (d) All cutting, fitting or patching shall be accomplished by only skilled tradesmen in their respective craft area.

4.13 EXISTING MATERIALS:

All existing materials and equipment removed under this contract shall remain the property of the City and shall be stored, removed and protected by the Contractor as directed by the City.

4.14 CLEANING UP:

The Contractor shall at all times keep the site free from accumulations of waste materials or rubbish caused by his employees or the work; and at the completion of the work he shall remove all his rubbish from the site and all his tools, equipment, scaffolding and surplus materials, and

shall leave his work clean and ready for use. In case of dispute the Owner may remove the rubbish and surplus materials and charge the cost to the Contractor.

4.15 START UP OPERATIONS:

Where required, the Contractor shall furnish a skilled operator to adjust and start all of the equipment installed and to put it in successful operation. After the equipment installed has been satisfactorily adjusted, the operator shall instruct the Owner's operators as to the proper method of starting, adjusting and caring for the equipment furnished and installed under these specifications.

5.0 SAFETY AND PROTECTION

5.1 PROTECTION OF WORK:

The Contractor shall continuously maintain adequate protection of all the work from damage and shall protect the City's and adjacent property from injury arising in connection with his contract.

5.2 CARE OF EXISTING PROPERTY:

All sewers, water, gas or other pipes, wires, conduits, trees, shrubbery, fences, and structures and other property shall be supported and protected from injury by the Contractor during the work performed under this contract. The Contractor shall be liable for all damages to such structures and property and shall save and keep the said Owner harmless from any liability or expense for injuries, damages or repairs to same.

5.3 ACCIDENT PREVENTION:

The Contractor shall exercise all reasonable precaution at all times for the protection of all persons and property and shall be responsible for all damages to persons or property, either on or off the site, which occur as a result of his fault or negligence in connection with the prosecution of the work. Final payment or inspection shall not be deemed a waiver of contractor's responsibility. The safety provisions of applicable law and building and construction codes shall be observed and the Contractor shall take or cause to be taken such additional safety and health measures as the City may determine to be reasonably necessary. Machinery, equipment and all hazards shall be guarded in accordance with the safety provisions of the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, Inc., to the extent that such provisions are not in conflict with applicable local laws or such other generally recognized accident prevention manual as is applicable in the trade.

5.4 OSHA:

The Contractor shall observe and enforce upon subcontractors all applicable sections of the Occupational Safety and Health Act of 1970 as amended, and shall be subject to inspection by authorized officials for compliance.

5.5 OBSTRUCTION AND RESUMING TRAVEL:

Travel upon the highway, streets or upon any intersecting street or alley shall not be hindered or inconvenienced needlessly nor shall any portion of a roadway or street be opened up nor shall the same be wholly obstructed without the direction of the City, in which latter case the Contractor shall cause plain and properly worded signs announcing the fact to be placed with proper barricades at the nearest cross streets where travel can pass around the same in the shortest and easiest way. Travel may be resumed at the direction of the City upon any part of the street, or portion thereof, where the work has been completed, whenever public necessity or inconvenience may require, and the condition of improvement warrants it.

5.6 SPECIAL REQUIREMENTS:

- (a) **Fire Protection:** Temporary heating devices which are of the open flame type, with the exposed fuel below the flames and using such fuels as coke, oil or wood, are strictly forbidden. Temporary heating devices shall not be left unattended while being operated at night or non-work days or shifts.

All tarpaulins used for enclosures around structures or work areas shall be flame proofed.

- (c) **Grounding of Electrical Equipment:** All electrical construction equipment, including portable hand tools and all other apparatus, shall be grounded by a separate ground conductor (other than the service cords) or by multiple cord containing separate grounding conductor, all in accordance with requirements of the latest edition of the National Electrical Code.

6.0 SUB-CONTRACTORS

6.1 NO CONTRACTUAL RELATIONSHIP:

Nothing contained in the contract documents shall create any contractual relationship between any sub-contractor and the City.

6.2 APPLICABILITY OF CONTRACT DOCUMENTS:

The Contractor agrees to bind every sub-contractor (and every sub-contractor of a sub-contractor) and every sub-contractor agrees to be bound by the terms of the contract documents as far as applicable to his work, unless specifically noted to the contrary in a sub-contract approved in writing as adequate by the City.

6.3 RESPONSIBILITY OF CONTRACTOR:

The Contractor agrees to be fully responsible to the City for the acts or omissions of his sub-contractors and of anyone employed directly or indirectly by him or them and this contract obligation shall be in addition to the liability imposed by law upon the contractor.

7.0 INSPECTION; CORRECTION

7.1 ACCESS; NOTICE:

The City shall at all times have access to the work wherever it is in preparation or progress and the Contractor shall provide proper facilities for such access and for inspection. The Contractor shall not cover or proceed with the work until such work has been inspected. The Contractor shall give the City adequate notice of readiness for inspection of any work ordinarily requiring inspection.

7.2 REJECTION:

The City shall have the right to reject materials and workmanship which are defective or required their correction. Rejected workmanship shall be satisfactorily corrected, and rejected materials shall be removed from the premises both without charge to the City. If the Contractor does not correct such defective work and remove rejected materials within a reasonable time, fixed by written notice, the City may remove them and charge the expense to the Contractor.

7.3 INSPECTION AFTER COMPLETION:

Should it be considered necessary or advisable by the Owner at any time before acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall, on request, promptly furnish all necessary facilities, labor and materials for that purpose and the costs thereof shall be charged to the Contractor if the work was covered prior to inspection by the City.

7.4 NO WAIVER BY INSPECTION:

Neither the inspection of or payment for any provision in the contract documents shall relieve the contractor of the responsibility for negligence or faulty materials or workmanship within the extent and period provided by law and upon written notice and he shall remove any defects due therefrom.

7.5 DECISION OF CITY:

The signing of the contract for the work shall be considered the Contractor's agreement to accept the City's decision as final in all matters of workmanship and performance hereunder.

8.0 INSURANCE AND BONDS

8.1 CONTRACTOR'S INSURANCE:

The Contractor shall procure and maintain for the duration of the Contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees, or subcontractors.

A. Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability Occurrence form with the City of Joliet and RJN Group, Inc. named as additional insured.
2. Owners and Contractors Protective Liability (OCP) policy with the City of Joliet and RJN Group, Inc. named as additional insured.
3. Insurance Service Office Business Auto Liability Coverage.
4. Worker's Compensation as required by the Worker's Compensation Act of the State of Illinois and Employer's Liability insurance.
5. Builder Risk Property Coverage with City of Joliet as loss payee.
6. Environmental Impairment/Pollution Liability Coverage for pollution incidents as a result of a claim for bodily injury, property damage or remediation costs from an incident at, on or migrating beyond the contracted work site. Coverage shall be extended to Non-Owned Disposal sites resulting from a pollution incident at, on or mitigating beyond the site; and also provide coverage for incidents occurring during transportation of pollutants. (Contract Specific).

B. Minimum Limits of Insurance are:

1. **Worker's Compensation** – Workers' Compensation in accordance with the laws of the State, but not less than:
 - E.L. \$1,000,000 each accident
 - E.L. \$1,000,000 each employee
 - E.L. \$1,000,000 each policy limit

2. **General Liability**
 - a. Bodily Injury Liability and Property Damage limit: \$1,000,000
 - b. Medical Expense Limit: \$10,000
 - c. Personal and Advertising Injury Limit: \$1,000,000
 - d. General Aggregate Limit (other than P-CO): \$2,000,000
 - e. Products-Completed Operations Aggregate Limit: \$1,250,000

3. **Automobile Liability**
 - a. \$1,000,000 – Bodily Injury and Property Damage (Combined Single Limit)
 - b. Coverage shall include hired and non-owned automobiles

4. **Umbrella Liability** – Umbrella Liability coverage in an amount not less than \$5,000,000. Such coverage shall include, but not be limited to, excess coverage for the Workers' Compensation, General Liability policies.

In addition, the stated limits of Paragraphs SC-6.03.A1, 6.03.A.2 and 6.03.A.3 can be obtained through individual policies or in conjunction with an umbrella policy (pay on behalf form) to arrive at the total limits requested.

The coverage afforded the additional insureds shall be primary and non-contributory insurance for the additional insureds with respect to claims or suits arising out of operations performed by or on behalf of the Contractor.

If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. The amount of the company's liability under the insurance policy shall not be reduced by the existence of such other insurance.

The insurer shall agree to waive all rights of subrogation against the City of Joliet, its officials, agents, employees, and volunteers for losses arising from work performed by Contractor for the City of Joliet (negotiable – may not be needed on smaller contracts with limited exposure).

8.2 PERFORMANCE BOND; LABOR AND MATERIAL PAYMENT BOND:

The Contractor shall not commence work under this contract until he has obtained and submitted both a Performance Bond and a Labor and Material Payment bond to the City and such bonds have been approved by the City. Such bonds shall cover such performance, labor or materials used in the work whether by the Contractor or by any subcontractor. Said bonds shall remain in full force and effect for the duration of the contract and during the term of any guaranty or warranty period required by the Contract Documents. The performance bond shall be conditioned on the full and faithful performance of the contract according to its terms and shall be in an amount of ONE HUNDRED PERCENT (100%) of the contract price.

The City reserves the right to require the successful bidder to supply a Performance Bond and a Labor and Materials Payment Bond issued by a surety authorized to do business in Illinois and having a current A.M. Best financial strength rating of not less than "A-". The bonds shall be filed within ten (10) calendar days of acceptance of the bidder's proposal by the City. The bonds unless otherwise specified by the Purchasing Manager, shall be 100% of the total contract price. The form of all bonds shall be subject to the approval of the Corporation Counsel of the City.

9.0 ADDITIONAL PERFORMANCE SECURITY

9.1 RISK OF LOSS:

The City assumes no responsibility for the existence or condition of surface or subsurface structures, property or conditions in the project area nor for their continuance in the condition existing at the time of issuance of the Invitation for Bids or thereafter. No adjustment or contract price or allowance for any change in conditions or unknown conditions shall be made.

9.2 HOLD HARMLESS:

Contractor shall indemnify and save harmless the City and owners of the properties where the work is performed (hereinafter "Owners:") against any and all damages to property or injuries to or death of any person or persons, including property and employees or agents of the City, and shall defend, indemnify and save harmless the City and Owners from any and all claims, demands, suits, actions or proceedings of any kind or nature, including Workmen's Compensation claims, of or by anyone whomsoever, in any way resulting from or arising out of the operations in connection of the performance of this contract, including operations of sub-contractors and acts of omissions of employees or agents of Contractor or his sub-contractors. The City shall have the right to estimate the amount of such claims, demands, suits, actions, or proceedings for damage or injuries and pay the same, and any amounts so paid shall be deducted from the money due the Contractor under this contract; or the whole or so much of the money due or to become due the Contractor under this contract, as may be considered necessary by the City, shall be retained by the City until such claims, demands, suits, actions or proceedings shall have been settled or otherwise disposed of, and satisfactory evidence to that effect furnished to the City. Insurance coverage specified in these general specifications constitutes the minimum requirements and said requirements shall not lessen or limit liability of Contractor under the terms of the contract. Contractor shall procure and maintain at his own cost and expense, any additional kinds and amounts of insurance that, in his own judgement, may be necessary for his proper protection in the prosecution of the work.

9.3 TERMINATION:

- (a) In the event the Contractor voluntarily petitions for bankruptcy, or is adjudged bankrupt or makes a general assignment for the benefit of his creditors or if a receiver is appointed on account of his insolvency, or in the event that any of the provisions of this contract are violated by the Contractor or by any of his sub-contractors or the City reasonably believes such violation is likely, the City may serve written notice upon the Contractor and the Surety of the intention to terminate such contract. Such notice shall contain the reasons for such intent to terminate the contract. Unless within five (5) days after the serving of such notice upon the Contractor such violation shall cease and arrangements satisfactory to the City for correction be made, the contract shall upon expiration of said five (5) days cease and terminate with no further notice. In the event of any such termination, the City shall immediately serve notice thereof upon the Surety, and the Surety shall have the right to take over and perform the contract, provided, however, that if the Surety does not commence performance thereof within seven (7) days from the date of the mailing to such Surety notice of termination, the City may take over the work and prosecute the same completion at the expense of the Contractor, and the Contractor and his Surety shall be liable to the City for any excess cost occasioned to the City thereby, and in such event the City may take possession of and utilize in completing the work, such materials and equipment including those of the Contractor as may be on the site of the work and necessary therefore.
- (b) In the event of termination, the Contractor shall pay to the City, all costs over and above the contract price expended by the City in the completion of the work and this obligation shall survive the termination of the contract. Such payment shall not preclude or waive the City's entitlement to additional damages or be construed as an election of remedies.

9.4 CITY'S RIGHT TO WITHHOLD CERTAIN AMOUNTS /MAKE APPLICATION THEREOF

In addition to the payments to be retained by the City under the other provisions of these General Conditions, the City may withhold a sufficient amount of any payment otherwise due to the Contractor to cover the following:

- (1) For claims arising in and from the performance of the work on the project under this contract.
- (2) For defective work not remedied.
- (3) For failure of the Contractor or sub-contractors to make proper payments to his sub-contractors and suppliers. The City shall have the right to act as agent for the Contractor in disbursing such funds as have been withheld pursuant to this paragraph to the party or parties who are entitled to payment therefrom. The City will render to the Contractor a proper accounting of all such funds disbursed in behalf of the Contractor; and such payments shall be considered as payment made under the contract. The City shall not be liable to the Contractor for any such payment made in good faith.

10.0 CHANGE ORDERS

10.1 CHANGE ORDER/DEFINED:

A Change Order is defined as a written order by the City to the Contractor, issued after a contract has been executed, authorizing a change in the work to be performed thereunder, the amount of money to be paid under the contract, or the time within which the contract must be performed.

10.2 AUTHORITY TO BIND CITY:

The City will be bound by and liable for only those change orders executed in the following manner:

- (a) The City Manager or his designee is hereby empowered to execute the following Change Orders:
 - (1) Change Orders which do not alter the scope or cost of the project.
 - (2) Change Orders which result in a reduction in cost, but do not alter the scope or quality of the project.
- (b) The City Manager or his designee is empowered to execute the following Change Orders without prior approval by the City Council, provided, however, he shall report such Change Orders to the City Council within two (2) weeks of such execution:
 - (1) Change Orders which result from emergency situations, defined as:
 - (a) Any clear and present danger or hazard to health, safety or welfare, or;
 - (b) A condition which would require the cessation of work on the project, if not immediately executed.
 - (2) Change Orders which result in an additional project cost, if the accrued costs of all Change Orders to date does not exceed the lessor of \$5,000.00 or ten percent (10%) of the original cost.

- (a) All Change Orders not included in (a) or (b) above shall be effective only after prior approval by a majority of the Council holding offices. If such approval is given, the City Manager is hereby authorized to execute the Change Orders.

10.3 METHOD:

The City, without invalidating the contract, may order extra work or make changes by altering, adding to, or deducting from, the work. The contract sum shall be adjusted by the unit prices contained in the contract or if unit prices are not contained therein, by written agreement of the Contractor and the City. All such work shall be executed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted as the time of ordering such change. No changes in the work shall be effective except with the prior written consent of the City, except that verbal Change Orders may be authorized in emergency situations as defined herein.

10.4 WAIVER:

The Contractor hereby waives any compensation for any change performed in the work which is not authorized as provided for herein.

11.0 PAYMENTS

11.1 APPLICATION FOR PARTIAL PAYMENTS; WAIVERS:

The Contractor shall submit to the City applications for payment for work performed and materials incorporated in the work during the month, prior to the last day of the month following the month in which such work was performed. Such applications shall be accompanied by waivers or the equivalent from suppliers of work or materials stating that such work or materials have been paid for by the Contractor. By submitting an application for payment, the Contractor warrants that all employees, sub-contractors, and materialmen have been paid to date for the labor and materials contained in the application.

11.2 PAYMENT OF EMPLOYEES; PREVAILING WAGE RATES:

The Contractor, and its subcontractors, shall comply with the Prevailing Wage Act (820 ILCS 130/1 et seq.), as amended. The Contractor, and each subcontractor, shall keep, or cause to be kept, an accurate record showing the names and occupation of all laborers, workers and mechanics employed by the Contractor or its subcontractors, in connection with the Work and showing the actual hourly wages paid to each such person. The submittal of an invoice or payment request to the City shall constitute the Contractor's certification to the City that all the wages paid for the work covered by the invoice or payment request have been paid in compliance with the Prevailing Wage Act. Upon the written request of the City, the Contractor, and its subcontractors, shall provide a complete and accurate copy of the records establishing compliance with the Prevailing Wage Act and this paragraph.

This contract calls for the construction of a "public work," within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 et. seq. ("the Act"). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the "prevailing rate of wages" (hourly cash wages plus fringe benefits) in the county where the work is performed. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor's website at: <https://labor.illinois.gov/laws-rules/conmed/rates.html>. All contractors and subcontractors rendering services under this contract must comply with all requirements of the Act, including but not limited to, all wage, notice and record keeping duties.

It is the responsibility of the contractor to check the above-mentioned website for the most up to date wages for that month in which the work has taken place and to pay accordingly. Further, it is the responsibility of the contractor to supply the City of Joliet with certified payrolls for all work related to this contract. If you are unsure as to what a certified payroll sheet is that must be supplied, you may find one at the above-mentioned website.

There is a new Illinois Department of Labor Policy requiring that Certified Payroll Records be submitted to a Prevailing Wage Portal (linked below) rather than directly to Local Agencies. All Certified Payroll Records are to be submitted at the provided link in lieu of the Local Agencies.

<https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/prevailing-wage-portal.aspx>

11.3 PARTIAL PAYMENTS BY THE CITY:

No later than forty-five (45) days following the submission of the application for payment, the City shall pay to the Contractor for the amount of the work contained in the application which has been found by the City to have been actually performed less ten percent (10%) of such amount which shall be retained until final payment less other deductions authorized to be retained by other sections of these General Conditions.

11.4 FINAL PAYMENT:

After final inspection by the City, the Contractor shall prepare his application for Final Payment and submit it to the City for approval. The application for Final Payment shall contain the total cost of the work as set forth in the proposal less all previous payments to the Contractor and be adjusted by the cost of all authorized Change Orders. Such application shall have attached thereto final lien waivers or the equivalent for all labor and materials incorporated into the work from all persons having supplied labor and materials under this contract. The City shall pay to the Contractor, not later than forty-five (45) days after such application is made, the amount which the City finds to be due and owing less deductions authorized by these General Conditions.

11.5 NO WAIVERS:

Neither by partial or final payment will the City be deemed to have waived any remedy for defective work or negligence on the part of the Contractor or any other portion of the contract which by its nature survives the time of Final Payment.

12.0 ADDITIONAL REQUIREMENTS:

The City of Joliet has adopted a Responsible Bidder Ordinance (2-440). In addition to any other requirement, unless otherwise expressly stated in a bid solicitation or an award of contract, or applicable state or federal law or regulation states otherwise, all bidders must comply with the following requirements in order to submit a bid or be awarded a contract.

1. The bidder must be a duly organized legal entity in good standing with the Illinois Secretary of State and in compliance with all laws prerequisite to doing business in the state and submit a copy of the Illinois Secretary of State Department of Business Services online records evidencing that the bidder has a current corporate annual report on file, if required. If the bidder is an individual, sole proprietorship, or partnership, this subsection shall not apply.
2. The bidder must have a valid Federal Tax Identification Number or Social Security Number (for individuals), documents evidencing current registration with the Illinois Department of Revenue and the Illinois Department of Employment Security (if bidder has employees).

3. The bidder must be an equal opportunity employer and comply with Section 2000(e) of Chapter 21, Title 42 of the United States Code and Executive Order 11246.
4. The bidder shall provide certificates of insurance indicating the following coverages if called for in the bid solicitation: general liability, workers compensation, completed operations, automobile, hazardous occupation, and product liability.
5. A statement that all employees are (i) covered under a current workers' compensation insurance policy, and (ii) properly classified under such policy. If the bidder is insured with a carrier, the evidence of workers' compensation insurance shall be a copy of the "Information Page" which includes the name and address of the insured, as well as class codes upon which the compensation premium is based and the total estimated remuneration per class code.
6. A statement of compliance with all provisions of the Illinois Prevailing Wage Act (820 ILCS 130), as amended, and all the rules and regulations therein, for the past five (5) years. Such statement shall also provide that the contractor has reviewed the Prevailing Wage Act or the federal Davis-Bacon and Related Acts, has reviewed and agrees to pay the applicable prevailing wage rates attached to the bid specifications, and will strictly comply with the Prevailing Wage Act or federal Davis-Bacon and Related Acts and related requirements, including wages, medical and hospitalization insurance and retirement for those trades covered in the Act. A contractor who has been found, by the Illinois Department of Labor, to be in violation of the Prevailing Wage Act twice within a three (3) year period shall be deemed to not be Responsible Bidder for two (2) years from the date of the latest finding.
7. Certification of compliance with the Substance Abuse Prevention on Public Works Projects Act (820 ILCS 265/1, et seq.).
8. A certification that individuals who perform work on the public works project on behalf of the contractor are properly classified as either (i) an employee, or (ii) an independent contractor under all applicable state and federal laws and local ordinances.
9. Documents evidencing any professional or trade licenses required by law or local ordinance for any trade or specialty in which the contractor is seeking a contract award. Additionally, the contractor must disclose any suspension or revocation of such license held by the company, or of any director, officer, or manager of the company.
10. For construction contracts (construction of new facilities, renovation of existing facilities, or road construction projects), or demolition contracts, over \$25,000 (twenty five thousand dollars), evidence of participation in apprenticeship and training programs applicable to the work to be performed on the project, which are approved by and registered with the United States Department of Labor's Office of Apprenticeship, or its successor organization. The required evidence includes but is not limited to a copy of all applicable apprenticeship standards or Apprenticeship Agreement(s) for any apprentice(s) who will perform work on the public works project.

11. Disclosure of the name and address of each subcontractor from whom the contractor has accepted a bid and/or intends to hire on any part of the project. Further, each such subcontractor shall be required to adhere to the requirements set forth herein as though it were bidding directly to the city. Each contractor shall submit all subcontractor information and supporting documentation to the city prior to the subcontractor commencing work on the project.
12. Unless otherwise agreed to in a collective bargaining agreement, the bidder shall certify that it provides, or contributes to, a health care plan for those employees working on the project and shall provide a copy of the health care plan upon request. The contributions toward a health care plan must be part of the employee's regular compensation, and not merely part of the employee's compensation during the period of time for which the employee is performing work on the project.
13. Unless otherwise agreed to in a collective bargaining agreement, the bidder shall certify that it contributes to an employee pension or retirement program, including but not limited to a 401k, a defined benefit plan or a similar plan for its field employees working on the project and shall provide a copy of the plan upon request. The contributions toward a pension or retirement program must be a part of the employee's regular compensation and not merely part of the employee's compensation during the period of time for which the employee is performing work on the project.
14. Certification that the bidder has not been subject to any determinations by a court or governmental agency for violations of federal, state, or local laws, including but not limited to serious, willful, or repeated violations of the Occupational Safety and Health Act (OSHA), violations of contracting or antitrust laws, tax or licensing laws, environmental laws, or the federal Davis-Bacon and Related Acts.
15. Whenever practical, the bidder should prequalify as a local bidder.
16. Any material changes to the contractor's status, at any time during the performance of the project, must be reported in writing to the city within fourteen (14) days of its occurrence. Failure to comply with this requirement is grounds for the contractor to be deemed a non-responsible bidder.
17. The submission requirements of this Ordinance also apply to subcontractors, except that the contractor shall submit all subcontractor submissions to the city prior to the subcontractor commencing work on the project. Failure of a subcontractor to submit the required information shall not disqualify the successful bidder from performing work on the project and shall not constitute a contractual default and/or breach by the successful bidder. However, the city may withhold all payments otherwise due for work performed by a subcontractor until the subcontractor submits the required information and the city approves such information. Further, where the city deems necessary, the city may also require that the successful bidder remove the subcontractor from the project and replace it with a responsive and responsible subcontractor.

13.0 MINORITY EMPLOYMENT REQUIREMENTS:

For contracts valued greater than \$100,000.00:

The Bidder's attention is called to the following Equal Employment Opportunity Construction Contract Specification:

The contractors' aggregate workforce on all construction work covered by this contract shall include any combination of minority or female participation equaling or exceeding ten percent (10%) of the contractor's aggregate workforce. Compliance with this specification will be measured against the total hours performed, including all subcontracts.

The contractor shall submit to the Project Engineer monthly, certified payroll records in order to monitor the total work hours and those hours worked by minorities and/or females, before receiving a monthly payment. Upon completion of the contract, the contractor shall submit to the Project Engineer a summary of the total work hours and those hours worked by minorities and/or females prior to receiving any retainage reduction or final payment.

Non-compliance with this specification will result in the retainage of 2% of the total contract amount for a probationary period of one year from the completion of the contract. If within the one year probation period the Contractor exceeds the minority employment requirements by the number of man-hours previously deficient, on another City of Joliet contract, the retainage from the prior contract will be released to the Contractor. If the Contractor fails to make up the minority hours on another contract within the probation period, the Contractor will be penalized 2% of the original contract amount.

DEFINITION:

Minority shall include:

1. Black (all persons having origins in any of the Black African racial groups not of Hispanic Origin).
2. Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race).
3. Asian and Pacific Island (all persons having origin in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands).
4. American Indian or Alaskan Native (all persons having origins in any of the original peoples of North American and maintaining identifiable tribal affiliations through membership and participation or community identification).

For contracts valued less than or equal to \$100,000.00:

The contract does not contain a specific minority employment requirement; however, the City of Joliet encourages the contractor to maximize the amount of minority participation.

14.0 SUPPLEMENTAL GENERAL CONDITIONS, EJCDC

Unless specifically called out under the General Conditions, the Contractor shall follow the standard general constructions of the contract as laid out by EJCDC. The full, free version of the EJCDC® C-700, Standard General Conditions of the Construction Contract (2013) can be found with the following link.

https://www.ejcdc.org/?attachment_id=1592

If Contractor is unable to download the free version please email Patrick Hulsebosch, RJN Group, at patrick.hulsebosch@rjnmail.com for a copy.

CITY OF JOLIET

SUPPLEMENTAL SPECIAL PROVISIONS

INDEX OF SUPPLEMENTAL SPECIAL PROVISIONS:

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The following Supplemental Special Provisions supplement the City of Joliet Special Provisions and General Conditions adopted October 15, 2020 and the “Standard Specifications for Road and Bridge Construction,” adopted January 1, 2022 and the latest edition of the “Manual on Uniform Traffic Control Device for Streets and Highways,” and the “Standard Specifications for Water and Sewer Main Construction in Illinois,” in effect on the date of invitation for bids. In case of conflict with any parts of said specifications, the said Supplemental Special Provisions shall take precedence and shall govern. The above-named publications shall hereinafter be referred to as the “Standard Specifications” which apply to and govern the work for the **2024 SANITARY SEWER REHABILITATION PROGRAM - BRIDALWREATH ACRES, STONEGATE, BLACK ROAD ACRES, AND BEVAN ACRES.**

1. SCOPE OF WORK

The CONTRACTOR shall provide all supervision, labor, equipment, and materials to complete the project. This includes, but is not limited to, approximately 27,850 LF of pre-construction cleaning and televising, 27,680 LF of CIPP lining, 452 service grouts and the rehabilitation of 211 manholes, as well as all associated site grading, paving, roadway and parkway restoration.

2. SITE EXHIBITS

The CITY will provide one hard copy and a pdf digital copy of the CITY’s GIS map for each project area. Note that such maps may not be to scale and do not represent the accurate location of all sewers. Unmapped sewer mains within the designated inspection area shall be inspected and paid for at the contract unit price. The CONTRACTOR shall track completion progress on the map and note the location of any manholes or pipes not shown on the original map. All field maps shall be turned in to the CITY with notes. The field maps shall also indicate major defects.

3. CCTV VIDEOS

The CCTV videos used during the design process are available for use on Clarity (<https://clarity.rjn.com/>). Please contact the ENGINEER for login information.

4. GENERAL

All damage to lawns shall be restored with topsoil, seed and blanket. All lawn restoration shall be considered incidental to the cost of the work. To minimize damage to lawns, Contractor shall utilize Duramats or other means to buffer equipment traveling across private property.

All traffic control shall be coordinated by the contractor and shall be considered incidental to the contract.

All work required to protect overhead wires and utility poles shall be coordinated by the contractor and shall be considered incidental to the contract.

Any claims for additional work must be presented to the City immediately. Failure of the contractor to notify the City Inspector will be reason to deny any claims for extra work.

All work covered under this contract is subject to inspection by the City of Joliet Department of Public Works and Utilities and RJN Group, Inc.

5. QUALIFICATIONS

All bidders shall be experienced in the field of municipal sewer lining, grouting and lateral grouting. Bidders must have successfully completed at least (2) projects of equal or greater size in the past (5) years. The CITY will require the bidder to submit a list of all available cleaning and inspection equipment, along with a list of current contracts and previous contracts of equal or greater value, to determine if the CONTRACTOR can meet the requirements of the project and schedule. These lists shall be provided on the form included in the bid documents at the time of the bid opening.

6. MOBILIZATION

No separate payment will be made for mobilization and demobilization. The work specified under this section shall consist of the preparatory work and operations necessary to mobilize and begin work on the project. This shall include but is not limited to those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site(s). **All mobilization costs are incidental to the contract.**

7. PROJECT TIMELINES

The project timeline is estimated as follows:

PROJECT ADVERTISING/BID AD	Thursday, October 26, 2023
BID OPENING	Thursday, November 16, 2023 9:30 A.M.
CONTRACT AWARD	Monday, December 04, 2023
NOTICE OF AWARD/PROJECT AWARD	Tuesday, December 19, 2023
PRE-CONSTRUCTION MEETING	Tuesday, January 16, 2023
NOTICE TO PROCEED	Thursday, January 25, 2023

Work shall be scheduled such that, if final paving is not completed for any open trenches dug up in the winter of 2023, the Contractor shall provide concrete with a plastic bond breaker at his own expense.

Any questions pertaining to the contract shall be submitted in writing to the contact person for this contract. Any major issues or clarifications will be summarized and issued in an addendum form on the city’s website. Bidders subscribed to the Utilities Bid Feed will receive email notification when an addendum has been posted. No questions will be accepted after 12:00 PM on Thursday, November 9, 2023 with no addenda to be issued after 5:00 PM on Monday, November 13, 2023.

Bridal Wreath Acres Subdivision Timelines

- Sanitary Sewer Rehabilitation and Water Main Replacement to work concurrently.
 - Estimated NTP: 4/01/2024.
 - Sequencing of Construction in General Conditions
 - Water Main Project Areas in Sheet 4 of Plans.

Bevan Acres Subdivision Timelines

- Sanitary Sewer and Manhole Rehabilitation Substantial Completion: 6/28/2024
- Water Main Project Estimated NTP: 7/01/2024

The contact person for this contract shall be Patrick Hulsebosch, Project Engineer. Written questions should be emailed to patrick.hulsebosch@rinmail.com.

8. BRIDAL WREATH ACRES SEQUENCING OF CONSTRUCTION

Description. For the Bridal Wreath Acres subdivision, the water main project will begin on 4/1/204. The Contractor must coordinate their schedule with the water main contractor. An approximate Sequence of Construction can be found below. Please refer to Sheet 4 in the Plans for Work Areas.

- March 1 – April 1:

Sewer Rehab Contractor

Cleaning and Televising- Work Area A
Cleaning and Televising- Work Area B
Cleaning and Televising- Work Area C

- April 1 – June 15:

Watermain Replacement Program Contractor

Watermain Replacement- Work Area B

Sewer Rehab Contractor

CIPP- Work Area C
Manhole Rehab Topside- Work Area A
Manhole Rehab Topside- Work Area C
Service Grouting- Work Area C

- June 15 – August 15:

Watermain Replacement Program Contractor

Watermain Replacement- Work Area A

Sewer Rehab Contractor

CIPP- Work Area B
Manhole Rehab Topside- Work Area B
Manhole Rehab Internal- Work Area C
Service Grouting- Work Area B

- August 15 – November 15:

Watermain Replacement Program Contractor

Watermain Replacement- Work Area C

Sewer Rehab Contractor

CIPP- Work Area A
Manhole Rehab Topside- Work Area A
Manhole Rehab Internal- Work Area B
Service Grouting- Work Area A

- November 15 – December 1:

Sewer Rehab Contractor

Manhole Rehab Internal- Work Area A

9. CONTRACT COMPLETION

It shall be understood and agreed that completion within the time limit is an essential part of the contract. The undersigned agrees to complete the work according to the schedules below unless additional time is granted in accordance with the specifications.

Black Road Acres, Stonegate, and Various Areas

- **Substantial Completion: 335 Calendar Days from the NTP.**
- **Final Completion: 365 Calendar Days from the NTP.**

Bridal Wreath Acres

- **Substantial Completion: Monday December 2, 2024**
- **Final Completion: 365 Calendar Days from the NTP.**

Bevan Acres

- **Substantial Completion: Friday June 28, 2024**
- **Final Completion: 365 Calendar Days from the NTP.**

10. QUANTITIES & PAYMENTS

The total quantities of work included in the bid tab portion of these bidding documents are approximate. Payment shall be based on actual wheeled distances from center of upstream manhole to center of downstream manhole. If located in backyards or areas with other obstructions, distances shall be based on GIS maps from the CITY and verified by documented camera footage.

The Contractor shall submit daily work tickets to the Engineer every day that work has been performed.

All work which will be inspected and accepted by the ENGINEER, will be approved for payment, less 10% retainage which shall be released at the end of the project in the form of a final payout, once all punch list items have been completed satisfactorily. The CONTRACTOR shall provide monthly bills for work completed, which must be verified by submitted video and electronic reports. A detailed breakdown of segments cleaned and televised and lined or grouted for each invoice shall be required including MH to MH segment, pipe size, length and date work was performed.

The CITY will base payment on unit bid prices and **will not pay for downtime, overtime, or travel time.** The cost for any specialty items, which are outside the scope of the specifications, shall be negotiated prior to performing the work.

11. TRAFFIC CONTROL

Description. The traffic control and protection for this project shall be performed in accordance with the included traffic control plans and Sections 701 Traffic Control and 702 Traffic Control Devices of the Illinois Department of Transportation "Standard Specifications for Road and Bridge Construction," latest edition and the requirements stated herein. The number, type, color, size and placement of all traffic control devices shall be according to the Illinois Department of Transportation's "Manual on the Uniform Traffic Control Devices for Streets and Highways" and the Illinois Department of Transportation's "Quality Standard for Work Zone Traffic Control Devices." The Contractor shall provide all coordination with the City for this item.

Special attention is called to Articles 107.09 and 107.14 of the Standard Specifications, Section 701 of the Standard Specifications, and the following Highway Standards:

- Urbane Lane Closure, 2L, 2W, Undivided
- Urban Lane Closure, Multilane, 1W or 2W
- Urban Lane Closure, Multilane Intersection
- Sidewalk, Corner or Crosswalk Closure
- Traffic Control Devices
- Temporary Concrete Barrier
- Guardrail and Barrier Wall Reflector Mounting
- Typical Application of Traffic Control Devices on Rural Local Highways

Forty-eight (48) hours prior to closing of a traffic lane, the Contractor shall notify responsible municipal and county authorities and obtain all permits (if required) and then comply with all regulations for erecting barricades and warning signs and maintain them during the execution of the work.

Traffic control and safety shall be as specified under Section 648 of the Illinois Department of Transportation "Standard Specifications for Road and Bridge Construction in Illinois," latest edition. Contractor shall provide a Traffic Control Plan for approval by the City as part of the submittals.

Construction Requirements. The Contractor shall provide names and phone numbers of the individuals who can be contacted on a twenty-four (24) hour basis to handle barricading or other problems relating to the construction activity. These emergency response persons shall be capable of responding within 1 hour after notification by the Owner. If there has been no response within 1 hour after notification, the City will respond at a cost of \$100.00 per hour (minimum charge of two hours plus materials). This charge will be deducted from payments to the Contractor.

At all times during which men/women are working where two-way traffic is to be maintained over one lane of pavement, the Contractor shall furnish certified flagmen to protect his workmen and to warn and direct traffic. Two flagmen will be required for each separate operation. Barricades used for channelization or delineation and warning signs shall be sequentially placed in the direction of the traffic flow and removed in reverse order. Lane closure signs and flagmen signs shall be erected prior to barricades and/or cones. The signs shall remain erected until such time as all traffic control devices have been removed from the pavement.

Vehicular access to all private driveways and all local streets shall be maintained throughout the Contract. All homeowners shall have access to their driveways each evening, except during concrete driveway paving and concrete sidewalk construction across a driveway. Contractor is to be aware of residents with special needs and provide accommodation accordingly.

If Contractor's work is anticipated to obstruct access to a facility, Contractor is responsible for notifying the affected property 48 hours in advance.

The City will not pay for any delays related to the Contractor planning ahead or not planning ahead for this type of work.

Basis of Payment: This work shall be considered incidental to the Contract and shall not be compensated for separately.

12. WATER USAGE

The contractor shall rent a water meter with a wireless read to record all water taken from the City's water distribution system. The City will issue monthly water bills based on the meters current read with City's current utility rates. Upon completion of the work, the Contractor shall return the water meter and submit payment to the City for the total volume of water supplied. A deposit is required at time of pickup

The Contractor shall not connect to any portion of the City's water distribution system without prior approval by the City. Connection may only be made at hydrants designated by the City for their use. The Contractor shall provide a list of hydrants they anticipate using for the City's review and approval.

The Contractor will be charged the following for water usage. Rates correspond to non-resident commercial rates.

Deposit	\$2,500.00	
Monthly Rates Through		
	11/1/2023	11/1/2024
Service Fee	\$30.00	\$30.00
Per HCF*	\$7.84	\$9.19
Monthly Charge	\$30.00	\$30.00

The Contractor shall be responsible for any damage to the City's water distribution system that are caused by the securing of water by the Contractor.

13. 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 or lined or 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 Joliet logo and contact information. The notice shall be printed double-sided and 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.

The City will provide access to their asset management software (VUEWorks) if requested by the Contractor to easily obtain names and phone numbers of property owners. The Contractor will be required to sign a privacy and data sharing agreement before access is granted.

14. CONSTRUCTION OPERATIONS

In order to minimize the effect of construction noise on the area surrounding the improvement, the Contractor and his subcontractors shall comply with the following requirements. Any changes to this schedule will not be accepted unless approved by the Engineer.

All engines and engine driven equipment used for hauling or construction shall be equipped with an adequate muffler in constant operation and properly maintained to prevent excessive or unusual noises. Any machine or device or part there of which is regulated by or becomes regulated by Federal or State of Illinois noise standard shall conform to those standards.

The Contractor shall take all precautions necessary to protect the general public and his employees from hazardous locations that might occur within the limits of the improvements. The City is not responsible for site safety. The Bidder is solely and exclusively responsible for construction means, methods, technologies, and site safety.

Beginning on the date that the Contractor begins work on this project, he shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer. Traffic control and protection for this work will be provided by the Contractor as required by the Engineer. The work involved in maintaining the existing pavement and

shoulders will not be paid for separately at the contract unit prices for the various items of work involved, unless otherwise specified elsewhere in these Special Provision.

If items of work have not been provided for in the Contract, or are not otherwise specified for payment, such items will be paid for in accordance with Article 109.04 of the Standard Specifications.

15. PUBLIC SAFETY AND CONVENIENCE

The Contractor shall maintain entrances along the proposed improvement. Interference with traffic movements and inconvenience to City and abutting property and the public shall be kept to a minimum. Delays and inconveniences to the Contractor caused by complying with these requirements shall be considered included in the cost of the contract and no additional compensation will be allowed. Any road closures, lane closures, or blockages of entrances must be submitted and approved by the City prior to performing the work.

The Contractor is to plan his work so at the end of each workday, there will be no open holes. It will be the Contractor's responsibility to notify any residents or businesses, at least 24 hours in advance, who will have no or limited driveway/backyard access due to work performed by the Contractor.

16. PROTECTION OF EXISTING DRAINAGE FACILITIES

All existing drainage structures are to be kept free of all debris resulting from construction operations. All work and material necessary to prevent accumulation of debris in the drainage structures will be considered included in the cost of the contract. Any debris in the drainage structures resulting from construction operations shall be removed at the Contractor's own expense, and no extra compensation will be allowed.

During construction if the Contractor encounters or otherwise becomes aware of any sewers, under drains or field drains within the right-of-way other than those shown on the plans, he shall so inform the Engineer who shall direct the work necessary to maintain or replace the facilities in service and to protect them from damage during construction. Existing facilities to be maintained that are damaged because of noncompliance with this provision shall be replaced at the Contractor's own expense.

17. SITE PREPARATION

Clear areas necessary for performance of the work and confine operations to that area provided through easements, licenses, agreements, and rights-of-way. Entrance to any lands outside of that area provided by easements, licenses, agreements, or public rights-of-way, shall be at the Contractor's sole liability. Do not occupy any portion of the project site prior to the date established in the Notice to Proceed without prior approval of the City.

Remove, relocate, reconstruct, or work around natural obstructions, existing facilities and improvements encountered during site preparation as herein specified. Take care while performing site preparation work adjacent to facilities intended to remain in place. Promptly repair damage to existing facilities. Dispose of waste materials in a satisfactory manner off the work site. No contract prices are established for Site Preparation.

18. EROSION CONTROL

This item shall include all labor, materials, and equipment necessary to install and maintain storm sewer sediment control devices in accordance with the manufacturer's specifications and as directed by the engineer.

Flexstorm inlet filters manufactured by Inlet & Pipe Protection, Inc. (or approved equal) with woven monofilament geotextile filter fabric sediment bags shall be installed on the storm sewer inlet structures at all drainage

discharge points during the installation of the storm sewer and prior to the excavation of the roadway. Also, metal plates of adequate size, shape and thickness shall be installed directly on all drainage structures providing a clean seal hindering debris from entering the drainage system.

Once the curb and gutter has been installed, Flexstorm inlet filters shall be installed on all storm sewer inlet structure castings with open lids or grates, within or adjacent to the project limits, and shall remain in place until the asphalt and sod have been placed and the sod watering by the contractor has been completed. The entire frame and sediment bag shall be removed, and the structure cleared of all debris, prior to the City accepting this project.

It is the Contactor's responsibility to review the plans and/or worksite to determine the quantity of each drainage structure casting type. The foundry casting number or the exact grate size and clear opening size will provide the information necessary to identify the required FLEXSTORM Inlet Filter part number.

The contractor shall be responsible for inspecting the sediment bags once per week and after every major rain event (1/2" or more) and removing and cleaning the sediment bag if it is more than half full or damaged. This shall be done until the Flexstorm inlet filters are permanently removed.

Excess /waste construction material shall be properly disposed off-site. No cleaning of equipment or tools, including concrete trucks, will be allowed within the project limits or into the City's storm sewer drainage system. The contractor shall provide a concrete truck washout plan at the time of the project pre-construction meeting, which is in compliance with NPDES permit requirements.

This item shall also include all labor, materials, and equipment necessary to mechanically clean all existing paved surfaces used as egress points from the construction zone at the end of each working day.

Basis of Payment:

The cost of erosion control will not be paid for separately but shall be considered as included in the unit bid prices of the contract, and additional compensation will not be allowed.

19. RESTORATION

The Contractor shall avoid damaging property and shall restore all work locations whether on public or private property to the satisfaction of the Owner. All restoration work shall be considered incidental to the Contract and will not be compensated for separately, except where specifically noted. Incidental restoration specifically includes all areas not governed by the scope of this project and all areas where in the opinion of the Engineer property damage occurred as a result of unnecessary actions taken by the Contractor or resulting from neglect or carelessness.

Within residential areas and/or roadway easement, restoration shall include the placement of four inches (4") of topsoil and seeding and/or pavement removal and replacement as described hereinafter under the provisions TOPSOIL FURNISH AND PLACE, 4", SEEDING, PCC SIDEWALK, 5", HOT-MIX ASPHALT DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT, and PCC DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT. This work shall be considered incidental to the work.

Outside of residential areas and/or roadway easement, restoration shall be performed as depicted by landowners (Park district, etc.).

20. SEWER FLOW CONTROL

This work shall include control of sanitary sewer flow during closed circuit television (CCTV) inspection, sewer cleaning operations, and all other sewer maintenance, or inspection 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.

If bypass pumping is required for any of the construction operations, the contractor shall submit a bypass pumping plan for approval.

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 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, or rehabilitation work has been completed, restore the flow to normal. All plugging, bypass pumping and sewer flow control operations shall be considered incidental to the Contract and shall not be compensated for separately.

Basis of Payment:

The cost of SEWER FLOW CONTROL will not be paid for separately but shall be considered as included in the unit bid prices of the contract, and additional compensation will not be allowed.

21. PRE-CONSTRUCTION SURFACE VIDEO RECORDING

Description: The Contractor shall provide two color copies of audio-video recording of site being disturbed (and adjacent areas) prior to start of construction. Recordings shall be scheduled so that the project area is recorded within one week of the start of construction. The Contractor shall perform this work according to the following guidelines and requirements:

1. Provide coverage of entire area where construction activities are to be undertaken in relation to this project.
2. Make audio description simultaneously with video coverage.
3. Include coverage, but not limited to, all existing roadways, curbs, driveways, sidewalks, parkways, landscaping and trees.
4. Identify houses and buildings with their related coverage items, audibly and visually by address.
5. Electronic media of the video recording should begin with the current date, project name, city and location.
6. Record at a rate of speed not exceeding 40 feet per minute. Control panning rates and zoom-in and zoom-out rates to provide clarity of the viewed object during playback.
7. Perform all video recording during times of good visibility.
8. Perform all video recording during regular business hours, unless otherwise specified by the private property owner, City or Engineer. Enter and leave private property in a professional and orderly, workmanship like manner.
9. The Engineer has the authority to reject all or any portion of the video not conforming to these specifications. Video recordings not found acceptable by the Engineer shall be done over at no cost to the City.
10. Provide the total audio-video recording system and procedures as required to produce a finished product that will fulfill the technical requirements of the project. Make recordings with a video recorder using electronic media format. Produce the video portion of the recording with bright, sharp, clear pictures with accurate colors and free from distortion, tearing, rolls or other forms of picture imperfection. Produce the audio portion of the recording with proper volume, clarity and free from distortion.
11. Construction will not be allowed to commence without approved (by Engineer) video recordings of the construction areas.
12. Upon acceptance of the video recordings by the Engineer they will become the property of the City.

This work item shall be considered incidental to the Contract and shall not be compensated for separately.

22. PRE-CONSTRUCTION CLEANING AND TELEVISIONING

Description: 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.

It shall be the contractor's responsibility to survey the project and review the televising data provided by the City.

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 Joliet 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 a minimum of two (2) complete crews will be needed for some duration of the project.

Each vacor truck must be equipped with a flexible hose in order to reach manholes located at a maximum distance of 20 feet off the edge of pavement.

If any equipment gets stuck in the sewer and needs to be dug up, the Contractor shall notify the City and the Engineer. Contractor is responsible for all labor, equipment and materials required for 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 1,300 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 or approved equal.

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.

No additional compensation will be made for the removal of concrete attachments in the sewer. It is the Contractor's responsibility to review all CCTV inspection data to determine the scope of preparation work.

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 sewers shall be hauled away by the Contractor to a dump site furnished by the City at no additional cost (East Side WWTP, 1021 McKinley Ave, Joliet, 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 7.0.4 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. The 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 his/her 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 pipeline 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 four (4).

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 and two (2) 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” report files.
- The Database in PACP 7.0.4 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 7.0.4. 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 (V7.0.4) coding methodology database. The PACP Version 7.0.4 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 7.0.4 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 paid for at the Contract Unit Price per Linear Foot for PRE-CONSTRUCTION CLEANING AND TELEVISIONING and shall include all labor and material required for cleaning 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.

23. FIELD LOCATE AND MARK (SONDE LOCATING)

Description. A camera-mounted locating sonde, capable of operation at depths up to 20 feet, shall be required to determine the location of the new manholes that shall be installed under the Contract. Sonde locating will be used to determine the locations of the buried manholes and locations for new manhole installations.

The location shall be determined above ground via two 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 at the manhole installation location. Secondly, the Contractor shall utilize a measuring wheel or tape to measure from the manhole to the located point (based on camera reel counter footage) for confirmation that the correct location is marked. Upon confirmation of location, the manhole installation point shall be thoroughly painted (oil-based white) in paved areas. A GPS coordinate (XYZ position) shall then be obtained to sub-meter accuracy. The contractor shall also submit pictures of the locate. Depths shall also be recorded. If the Contractor fails to document all information necessary to find the location, the Contractor shall re-sonde locate at no additional cost.

Basis of Payment:

This item shall be paid at the Contract Unit Price per Each for FIELD LOCATE AND MARK (SONDE LOCATING) and shall include all labor, equipment and materials required to complete the work. The Engineer must visually inspect the located points before approving the work for payment.

24. CURED-IN-PLACE PIPELINING

Description. 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.

The design parameters to determine the liner thickness shall be as follows:

1. For pipes up to and including 15" diameter:
 - Existing pipe fully deteriorated
 - Safety Factor of 2
 - Ovality: 5%
 - Ground Water Table: ground water table at surface
 - Soil Density: 120 lb./cu. ft.
 - The following parameters will depend on locations and shall be determined specifically for each sewer segment to be lined: Depth to invert, Live Loads, Soil Modulus.
 - A minimum cured wall thickness of 6 mm (+/- 10%)
2. For pipes 18" diameter and above:
 - Existing pipe fully deteriorated
 - Safety Factor of 2
 - Ovality: 5%

- Ground Water Table: ground water table at surface
- Soil Density: 120 lb./cu. ft.
- The following parameters will depend on locations and shall be determined specifically for each sewer segment to be lined: Depth to invert, Live Loads, Soil Modulus.
- A minimum cured wall thickness of 7 mm

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(only for pressure pipe)	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.

Contractor shall be allowed to use the Schwalm robots, after approval by the Engineer and the City, if removal of pipe is necessary for installation.

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 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 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 Joliet 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 shall be cut off at the top to match the elevation of the bench within the manhole. The liner shall be cut off at the top to match the elevation of the bench within the manhole. The void space between the surface of the bench and the outer surface of the liner shall be sealed with high-modulus, high-strength, structural, epoxy paste adhesive such as Sikadur-31 Hi-Mod Gel or approved equal.

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. Full lateral reinstatements must occur the same day as the liner has finished curing, unless approved by the Owner. 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 an LMK Cap-A-Connection, or approved equal, that covers the non-active sewer service lateral pipe at the main-to-lateral interface without excavation.

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 shot of installation. The liners not meeting the minimum thickness shall receive an extended 5-year warrantee as long as the liner meets minimum design requirements. If the liner does not meet the minimum design requirements, the City will provide the option of a revised credit price for the liner or to have the liner removed and reinstalled at the Contractor's expense. The Contractor shall begin to submit samples once 25% of CIPP lining is complete.

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.

Post-construction televising shall be performed after all rehabilitation work is completed and as described under the provision POST-CONSTRUCTION TELEVISIONING INSPECTION.

Basis of Payment:

Lining shall be paid for at the Contract Unit Price per Linear Foot for 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. The City reserves the right to remove and/or add segments to be lined at existing unit prices of the diameter specified. A change in price shall only be warranted if the Contractor can show a change in scope compared to segments of the same diameter (for instance larger bypass pumping operation, easement work, significant traffic control, etc.).

Measurement shall be made from center of upstream manhole to center of downstream manhole. Payment for sewer televising post joint grouting shall be included in the contract bid price for the CURED-IN-PLACE PIPELINING.

Lateral reinstatements shall be paid for at the Contract Unit Price per Each for LATERAL REINSTATEMENTS 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.

25. CUT PROTRUDING TAPS

Description. For break-in service connections that protrude more than one inch into the sewer, the Contractor shall remove the protruding portion of the tap in preparation for cured-in-place pipelining, grouting or other rehabilitation work. Root Cutter Blades with Carbide Tips Only shall be used to remove protruding taps. Root Cutters with Carbide Tip Blades shall be capable of cutting clay tile and concrete protruding into sewer lines.

The Contractor shall cut protruding taps so that protrusions are no greater than 1/2 inch. While using a Root Saw with Carbide Tip Blades at a slow RPM will cut more effectively than rapid RPM. The Contractor shall

maintain a steady flow and RPM while cutting and shall hydro-flush cut and broken pieces out of the sewer before proceeding to the next protruding tap. The TV operator shall pan up the service before the tap is cut to show the existing conditions of the service. All tap cutting shall be performed during televising operations. After the tap is cut, the TV operator shall pan up the service to show the extents of the cutting. If a protruding tap cannot be removed by the cutting device, then the Engineer shall be notified to determine if a point repair will be necessary. Obtain authorization from the Engineer before proceeding.

Contractor shall be allowed to use the Schwalm robots for cuttings the taps after approval by the Engineer and the City. This item is only intended for cutting protruding taps, where there is concern for collapsing the pipe.

Basis of Payment:

This work item shall be paid at the Contract Unit Price per Each for CUT PROTRUDING TAPS and shall include all material, and labor required to cut using the root saw. All work completed using the Schwalm robots shall be paid per Each for CUT PROTRUDING TAPS USING SCHWALM ROBOT. Any damages caused to the sewer main or sewer service lateral during tap cutting shall be the responsibility of the Contractor and shall be repaired at no additional expense to the City.

26. AIR TEST AND GROUT MAINLINE JOINTS

Description. The Contractor shall provide all labor, materials, tools, equipment, and incidentals as shown, specified, and required to grout pipeline joints identified by the Engineer using a packer injection method. If pipe joint lengths are different than specified in the rehabilitation schedules, the Contractor shall notify the Engineer immediately.

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 Joliet 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.

Products.

Testing and Grouting Equipment:

The basic equipment shall consist of the following:

1. Remotely operated color television (CCTV) camera capable of pan and tilt;
2. Joint testing device referred to hereafter as a packer; and
3. Test monitoring equipment.

The equipment shall be constructed in such a way as to provide a means for introducing air under pressure into the void area created by the expanded ends of the packer pushing against the host pipe. The equipment shall also provide a means for continuously measuring, viewing and recording the actual static pressure of the test medium and grout within the void area only. The packer shall be of a diameter size nominally less than the internal diameter of the pipe, with cables at either end used to pull it through the line. The packer should be constructed in such a manner as to allow a restricted amount of sewage to flow at all times. The packer shall be expandable by air pressure. Packers shall be of low void space construction with void volume given by the packer manufacturer.

Void pressure data shall be transmitted from the void area directly to the monitoring equipment in the grouting truck or to the grouting truck via a video picture of a pressure gauge mounted on the packer and connected to the void area. All test monitoring shall be above ground and, in a location, to allow for simultaneous and continuous observation of the televising monitor and test monitoring equipment.

Grouting equipment shall consist of the packer and appropriate pumping and hosing systems capable of supplying an uninterrupted flow of sealing materials to completely fill the voids. Grout pumping systems shall be sized to deliver a mixed volume of grout at a minimum of three gallons per minute (3 GPM) and thirty (30) gallons of uninterrupted flow within ten (10) minutes.

The volume of mixed grout pumped must be measured and recorded for each grouted joint or connection.

The equipment shall be capable of performing the specified operations in sewers where flows do not exceed twenty-five percent (25%) of internal pipe diameter.

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:

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 Contractors 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 (except Barrier 50) 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).

Dye:

A Manufacturer approved water soluble dye without trace metals shall be added to the grout tank(s) for visual confirmation. Sufficient dye must be used so that it is at all times visible during grouting operations.

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.

Execution.

Control tests:

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

1. To insure 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:

1. At the beginning of each day. The material in the hoses shall be recycled to the tanks and a sample shall be taken;
2. Whenever new batches of grout are mixed; and
3. 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:

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

Testing and grouting defects:

All sewer joints indicated on the schedule for a particular 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 indicated in the schedule 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.

Joint sealing for mainlines:

The Contractor shall position the mainline packer over the joint to be sealed with the aid of a CCTV camera in the line.

The Contractor shall pneumatically expand the packer sleeves such that they seal against the inside periphery of the pipe. This shall form a void area at the joint that shall be completely isolated from the remainder of the pipe line.

The Contractor shall then pump grout materials into this isolated area. The pump shall be operated until "refusal". The goal of this procedure is the applying of one quarter to one half (0.25 to 0.5) gallons of grout

per inch of pipe diameter per pipe joint. Refusal shall mean the joint will not accept any more grout (because it has flowed throughout the void, through any joint failure and into the surrounding soil; or gelled or filled the available void space; and formed a cohesive seal stopping further grout flow). The Contractor shall record the amount of grout pumped on the sealing log.

Upon completion of the injection, the Contractor shall deflate the packer to break away from the ring of gel formed by the packer void. The packer should then be re-inflated and the joint retested at a pressure equal to the initial test pressure. If the joint fails this air test, the Contractor shall repeat the grouting procedure at no additional cost to the Owner. This sequence of air testing, grouting and subsequent air testing should be repeated until either the joint is sealed, or it is determined that the grout consumption is too high.

If a mainline joint requires more than one (1) gallon of grout per pipe diameter inch per pipe joint, the Contractor shall modify grouting procedures. This modification shall stage grouting by pumping additional grout in up to four (4) gallon increments, waiting one (1) gel set cycle time or one (1) full minute, whichever is greater between stages. The maximum number of stages shall not exceed two (2) stages of four (4) gallons each unless approved by the Owner. The final determination to stop subsequent attempts to seal a joint shall be made jointly between the Engineer and the Contractor.

Contractor must get approval to leave the site with joint still failing an air test or else the Contractor will need to retest and install grout at no additional cost.

Joint sealing verification:

The Contractor shall record grouting of joints in conjunction with the testing of joints. This shall include recording the void pressure drop continuously on video and in writing immediately before sealing, and immediately after grouting. After the packer is deflated and moved, the Contractor shall record on video the visual inspection of the joint.

Post-grouting Cleaning:

The Contractor shall hydro-flush all mainline sewers after grouting operations.

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.

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 (PACP). Post-construction televising shall be performed after all rehabilitation work is completed and as described under the provision POST-CONSTRUCTION TELEVISIONING INSPECTION.

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.

Basis of Payment:

AIR TEST AND GROUT MAINLINE JOINTS shall be paid for at the Contract Unit Price per each joint tested and per each joint chemically sealed, of the diameter specified, 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.

27. AIR TEST AND GROUT SERVICE CONNECTIONS

Description. 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.

Laterals designated as Do Not Grout will be lined in a following City rehabilitation project. The Contractor shall not be compensated for mistakenly grouting a lateral designated as Do Not Grout. In addition, the Contractor shall assume that of the laterals being dye tested, only one service per property shall be reinstated and be grouted. If other laterals are mistakenly grouted, the contractor shall not be compensated for these laterals.

Notice to Residents / References / Contractor Requirements / Submittals / Products / Control tests / Grout preparation / Disposal / Post-grouting Cleaning / Quality Control:
All these items must be in accordance with the specifications as described hereinabove in AIR TEST AND GROUT MAINLINE JOINTS.

Construction Requirements: Lateral connections selected for GROUT SERVICE CONNECTIONS 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.

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: All pipe sections shall be final inspected by means of a color CCTV system. Post-construction televising shall be performed after all rehabilitation work is completed and as described under the provision POST-CONSTRUCTION TELEVISIONING INSPECTION.

Measurement:

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

Basis of Payment:

AIR TEST AND GROUT SERVICE CONNECTIONS shall be paid for at the Contract Unit Price per each service connection tested and per each service connection chemically sealed, of the length specified. No additional payment will be made for air testing, catalyst, activator, inhibitor, buffer, root control, or additive materials required to obtain the final product in place.

28. DYE TESTING OF SERVICES

Description. Only one active lateral reinstatement per property shall be allowed during cured-in-place pipelining unless otherwise approved in advance by the City. Any properties with more than one lateral shall be identified during PRE-CONSTRUCTION CLEANING AND TELEVISIONING and shall be dye tested by the Contractor to verify active or abandoned connections to the sewer, prior to cured-in-place pipelining. The plans are only a guide to the Contractor to indicate what parcels may have more than one service. The Contractor is responsible to determine the buildings in question based on the pre-televising inspection. This work includes contacting the homeowners, coordinating and performing the dye test, as well as video recording the test and presenting the findings to the Engineer and the City. If the property cannot be dye tested, the Contractor shall laterally launch and locate the service from the mainline to determine if it is active or not. If a required dye test was unable to be completed and the Contractor must laterally launch from the mainline, the "Lateral Launch Services" will be paid for separately. Additional lateral connections with visible caps shall not warrant dye testing and shall be left closed without reinstatement.

In addition to dye testing properties with more than one lateral, the Contractor shall layout the locations of all services for any sewer segments that have more active lateral connections than number of houses on the same stretch. The Contractor shall utilize a measuring wheel or tape to measure from the manhole and locate each service lateral point based on camera reel counter footage. This layout shall aid in confirmation that the correct service location is marked and being re-instated. The Contractor shall paint the location of services in an oil-based white paint for paved or non-paved areas. Layout of services shall be considered incidental.

All video, layout, dye test and other pertinent information shall be presented to the Engineer and the City prior to cured-in-place pipelining. All dye testing and layout results shall be presented to the Engineer and the City in a PDF document showing pipe segment layouts including notes and addresses for each service to verify results.

With the purpose of dye testing services being to determine the active lateral for each household, this pay item will be charged on a per household basis and not per lateral.

Basis of Payment:

All videos and PDF document layout information shall be provided to the Engineer and City prior to payment.

This item of work shall be paid for at the Contract Unit Price per Each for DYE TESTING OF SERVICES and shall include all labor, materials, and equipment necessary to complete the work.

29. LATERAL LAUNCH SERVICES

Lateral Launch Services

Description: In an instance where the Contractor is not able to contact the homeowner for dye testing after a minimum of 3 attempts, Contractor shall televise the lateral from the sewer main to the outside wall of the home, with prior approval of the Engineer. The work shall include attaching a sonde to the camera and tracking the location of the lateral connection on the ground surface using paint marking/flagging and providing detailed location sketches. The contractor shall provide a LACP coded report and video.

With the purpose of lateral launch services being to determine the active lateral for each household, this pay item will be charged on a per household basis and not per lateral.

Basis of Payment:

Lateral Launch Services shall be paid for at the Contract Unit Price per Each for LATERAL LAUNCH SERVICES and shall include all labor and material including submission of digital database prior to determining the active service.

30. REPLACE COVER

Description. Where indicated on the plans, the existing manhole cover shall be replaced with a new cover by the Contractor.

The new cover shall be the standard City of Joliet cover: which is East Jordan 1020 AGS cover, watertight lid with seal and the words "City of Joliet" and "Sanitary" cast onto the lid.

The Contractor is required to measure each cover that needs replacing to ensure proper fit. Where required, the existing manhole cover shall be removed and returned to the Owner and a new manhole cover shall be installed by the Contractor as directed by the Engineer.

The Contractor shall return all old covers to the City. The old covers can be returned to the City of Joliet Public Utilities Facility located at 921 E. Washington Street. Larry Ryan is the contact for the City of Joliet in regard to returning used frames and covers, and he can be contacted at (331) 431-7357.

Basis of Payment:

This item shall be paid for at the Contract Unit Price per Each for REPLACE COVER and shall include all work necessary for the installation of a new cover including measurement, procurement, installation, replacement, and returning the original cover to the Owner.

31. SEAL AND ADJUST MANHOLE FRAME (Paved and Unpaved) or UNCOVER AND RAISE BURIED MANHOLE

Description. For all frame adjustment work including replacements, adjustments, realignments and raises, the manhole adjustment rings shall be removed, replaced and sealed per the following specification. The Contractor may not reuse existing concrete rings during frame adjustment work. Frames that are indicated for adjustment and not replacement shall be removed, cleaned and sealed in accordance with the following specification. External chimney seals shall be included in this work. When the manhole is in the pavement, the Contractor shall be required to saw cut existing pavement to a minimum of a 5 foot by 5 foot square. This square cut shall allow for proper removal and replacement of the frame and adjustment rings and for the installation of external chimney seals.

The Contractor shall remove existing frame and cover, remove all gasket material between the cone, adjustment rings and frame, and shall wire brush clean all exposed surfaces. In addition, the Contractor shall dry all surfaces with a torch or other approved method. Existing manhole frames and covers in good condition will be cleaned and reinstalled unless specified elsewhere for replacement.

The Contractor shall remove all loose materials located at the top of the corbel and fill the voids.

Materials and Installation.

Adjustment rings. The Contractor shall replace all adjustment rings with new precast concrete rings and rubber composite adjustment rings depending on the height of adjustment as follows:

For height adjustment between 2" and 30", the contractor shall use precast concrete adjustment rings and a rubber composite ring on top when in pavement. Precast concrete rings shall be 2", 3", 4", 6", or 12" and shall be installed concentrically above the manhole cone. In paved areas, the rubber composite ring shall be installed at the top of the adjustment and shall be at least 2" thick. The rubber composite ring shall be EJ Infra-riser or approved equal.

The Contractor shall use the minimum number of rings possible for the adjustment. No shims or other leveling devices, other than leveling rings provided by the manufacturer, will be permitted.

Where manholes are to be raised more than 30", the Engineer shall be notified so the existing cone section can be removed, and a precast barrel section and a new precast cone shall be installed as described under the provision INSTALL BARREL SECTION, which will be paid for separately.

External chimney seal.

External chimney seals are to be installed for all frame adjustment work requiring excavation including adjustments, replacements, realignments and raises unless indicated otherwise by the Engineer. This external sealing system shall prevent leakage of water into the manhole through the frame joint adjustment area.

Two types of external chimney seals will be used as directed by the Engineer. The acceptable external chimney seals are:

- Infi-Shield Uni-bands, or approved equal.
- WrapidSeal Canusa-CPS or approved equal.

The Contractor shall have both types of approved seals onsite, so that where needed, a WrapidSeal can be used in lieu of Infi-Shield seal. On all precast concrete manholes, Infi-Shield shall be used. The Contractor shall obtain approval from the Engineer prior to switching from Infi-Shield to WrapidSeal.

Frame seals shall remain flexible throughout a 50-year design life, allowing repeated vertical movement of the frame of not less than 2 inches and/or repeated horizontal movement of not less than one half 1/2 inch.

The seal shall be a continuous seamless band made of high-quality EPDM (Ethylene Propylene Diene Monomer) rubber with a minimum thickness of 65 mils. There shall be a preformed "L" shaped corner molded into the top of the seal. The top section and the side section will extend from the "L" shaped corner at a generally 90-degree angle to each other, wherein the seal is pre-formed in substantially the same shape as when attached to the manhole structure. The thickness of the "L" shaped corner extending 1" into the top section and 1" down the side section is increased and may be at least twice the thickness of the top section reinforcing the seal at this particular area. There shall be a 2" to 3" wide strip of butyl mastic attached to the underside of top section of the seal. There shall be a 2" wide strip of butyl mastic attached to the inside of the side section at the bottom of the seal. The mastic shall be non-hardening butyl rubber sealant, with a minimum thickness of 1/8", and shall seal to the cone/top of the manhole section and over the flange of the casting frame. An aerosol primer shall be used to enhance the bond strength of the seal to the structure. The seal shall also be coated in tar to a minimum of 3" above and below the wrap , to prevent any sun damage.

The Contractor shall excavate around the frame to a depth of at least 12 inches below the top of the cone section to allow for proper installation. The Infi-Shield Uni-Band seal sealing system shall be installed according to the manufacturer's recommendations. The top section of the seal shall extend 3" attaching to the casting base/flange with the side section covering over the entire grade adjustment ring area and onto the cone section a minimum of 2". Install external manhole chimney seal as shown on the detail, with extensions where needed to cover the entire chimney area, in accordance with the manufacturer's instructions. External chimney seals installed shall not be buried until inspected by the Engineer and inspection tags shall be left on the frame.

Gasket Materials.

EZ-STIK or an approved equal butyl mastic sealant shall be used when rejoining the manhole frame to the precast adjustments to provide a watertight structure. The sealing compound shall be produced from blends of refined hydrocarbon resins and plasticizing compounds reinforced with inert mineral filler, and shall contain no solvents, irritating fumes, or obnoxious odors. Avoid use of overly thick gasket material such as will likely produce after-settlement of manhole frame due to long-term cold flow of gasket materials. The compound shall not depend on oxidizing, evaporation, or chemical action for its adhesive or cohesive strength. It shall be supplied in extruded rope form of suitable cross section and in such sizes to seal the joint space. The Contractor shall use two (2) complete ropes at each joint.

Interior Finish Coat. After all other adjustment work has been completed, the interior surfaces of the adjustment, from the bottom of the frame to the top of the cone section, shall have a calcium aluminate high performance mortar finish applied which is then troweled and brushed to a smooth finish. Calcium Aluminate Cement shall be Strong Seal MS-2C or approved equal.

Basis of Payment:

This item shall be paid at the Contract Unit Price per Each for SEAL AND ADJUST MANHOLE FRAME or RAISE BURIED MANHOLE of restoration type specified (paved or non-paved) and shall include all work necessary for the complete adjustment and sealing of each manhole frame as specified in these provisions including measurement, procurement, installation, replacement, external chimney seals, adjustment rings and restoration including but not limited to full Depth Patching, PCC Sidewalk, and Curb and Gutter removal and replacement.

32. INSTALL BARREL SECTION, Diameter specified

Description. This work consists of the installation of a barrel section and cone for an existing manhole where the manhole is to be raised more than 30".

Manhole sections (wall and cone) shall be precast sections conforming to ASTM C478. Sections and component parts to be marked by manufacturer with trade name and/or trademark and ASTM designation. Wall thickness shall be 5" minimum. Holes shall be smooth, radial to centerline of manhole, and perpendicular to manhole wall. All pre-cast manhole sections (wall and cone) are to be supplied with pre-applied coating of ConSeal CS-55 Water Based product or approved equal. Interior joints shall be sealed with non-shrink grout. All external joint sealing bands shall conform to ASTM C-877. External seals shall be MacWrap or approved equal.

This item shall be provided at the locations shown on the plans or where directed by the Engineer.

Basis of Payment.

This work will be paid for at the Contract unit price per each for INSTALL BARREL SECTION, Diameter Specified and shall include all labor, materials, and equipment necessary to complete the work as specified herein.

33. REPLACE FRAME AND COVER /BOLTED COVER (Paved and Unpaved)

Description. Where indicated on the plans, the existing manhole frame and cover shall be replaced with a new frame and cover by the Contractor. Also included in the REPLACE FRAME AND COVER/BOLTED COVER

bid item is the replacement of the adjustment and the installation of adjustment rings and an external chimney seal as described in the provision SEAL AND ADJUST MANHOLE FRAME.

The new frame and cover shall be the standard City of Joliet frame and cover, which is East Jordan 1022-3 cover and East Jordan #1050 frame, watertight lid with seal and the words "City of Joliet" and "Sanitary" cast onto the lid. Bolted frame and cover shall be Neenah R1916-C or approved equal, and the word "Sanitary Sewer" cast into the lid. The sanitary manhole lid shall be self-sealing solid lid with watertight gasket and concealed pick hole. Frames and adjusting rings shall be joined with preformed flexible joint sealant. The Contractor is required to measure each cover and frame that needs replacing to ensure proper fit. Where required, the existing manhole frame and cover shall be removed and returned to the Owner and a new manhole frame and cover installed and adjusted by the Contractor as directed by the Engineer.

The Contractor shall salvage all covers that are scheduled for replacement and return to Bill at the Washington Street shop.

Basis of Payment.

This item shall be paid for at the Contract Unit Price per Each for REPLACE FRAME AND COVER/BOLTED COVER of restoration type specified (paved or non-paved) and shall include all work necessary for the complete installation of a new frame and cover including measurement, procurement, installation, replacement of adjustment, installation of external chimney seal, disposal of the original frame and cover, and restoration including but not limited to full Depth Patching, PCC Sidewalk, Seeding, Driveway Pavement and Curb and Gutter removal and replacement.

34. INTERNAL CHIMNEY SEAL

Description. Prior to installation of the internal chimney seal the adjustment shall be rehabilitated if it has not been replaced. The Contractor shall wire brush all loose material and remove any broken portions of the adjustment and then fill the voids with a quick setting fiber reinforced calcium aluminate corrosion resistant cement mortar grout. At each point of active leakage, injection grout such as Avanti AV-100 (for severe active infiltration) or Strong-Plug (for active infiltration) shall be used as appropriate. The adjustment is then to be patched prior to installation of wall coating or internal chimney seal. The Internal Chimney Seal shall be Flex Seal Utility Sealant from Flex seal Systems or approved equal.

If the manhole is getting cementitious coating, the internal seal will be installed after the coating.

For surface preparation, surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 7 days and no frost or wet conditions can be present during installation. Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. After allowing for proper drying of primer to occur, sealant may be applied by brush as evenly as possible over the entire chimney area that includes 2" above the frame joint area, 2" below the top of the manhole cone, and the area above the manhole cone including all extensions to the chimney area.

Surface preparation, primer and internal chimney seal application (including recommended thickness) should be made in accordance with the manufacturer's recommendations and will take precedence over the specifications hereinabove.

Training/Manufacture's Certification. The manufacture must in writing certify that each of the contractor's representatives are approved to install FlexSeal Utility Sealant or approved equal for this item. The training shall be included in the bid items for internal manhole seals. Contact the manufacturer for pricing 800-478-2054.

The final internal chimney seal shall pass visual inspection and be completely free of pinholes or voids.

Basis of Payment:

This item shall be paid at the Contract Unit Price per Each for INTERNAL CHIMNEY SEAL and shall include all labor and materials necessary to rehabilitate the adjustment and install the internal chimney seal.

35. CURTAIN GROUT MANHOLE, GROUT WALL JOINTS, & GROUT BOTTOM 18"

Description. This work shall govern all work, materials and testing required for chemical pressure grouting of manhole defects. Manholes or sections of manholes with leaks are shown on the Manhole Rehabilitation Schedule. Manhole structure grouting includes the sealing or plugging of the manhole base, walls, corbel/cone and chimney using chemical grout sealants to eliminate leakage. Chemical grout shall be injected into the soil surrounding the manhole as needed for complete sealing resulting in a grout curtain.

Curtain Grout Manhole: The Contractor shall furnish all labor, supervision, materials, equipment and testing if required for the completion of chemical grout sealing of manhole defects in accordance with the Contract Documents. Manhole grouting shall not be performed until sealing of manhole frame and grade adjustments is complete.

- I. Equipment: The basic equipment shall consist of chemical pumps, chemical containers, injection packers, hoses, valves, and all necessary equipment and tools required to seal manholes by chemical pressure grouting. The chemical injection pumps shall be equipped with pressure meters that will provide for monitoring pressure during the injection of the chemical sealants. When necessary, liquid bypass lines equipped with pressure-regulating bypass valves will be incorporated into the pumping station.
- II. Chemical Sealing Materials: The chemical grout shall be Avanti AV-100 or approved equal which has a documented record of satisfactory performance in sewer usage. All grouting materials shall be delivered to the job site in the original, labeled, and unopened containers. The Contractor shall submit with his bid, the brand name manufacturer of the chemical grout(s) he intends to use. The chemical grout(s) selected by the Contractor is subject to approval of the Engineer.
- III. For protection of the manhole structure through freeze thaw cycles, the top four feet (4') of the structure shall be a urethane base grout AV-248 Low Viscosity or approved equal.
- IV. Mixing and handling of chemical grout, which may be toxic under certain conditions, shall be in accordance with the recommendations of the manufacturer and in such manner to minimize hazard to personnel. It is the responsibility of the Contractor to provide appropriate protective measures to ensure that chemicals or gels are handled by authorized personnel in the proper manner. All equipment shall be subjected to the approval of the Engineer. Only personnel thoroughly familiar with the handling of the grout material and additives shall perform the grouting operations.
- V. Preliminary repairs: All cracked or deteriorated material shall be removed from the manhole and the Contractor shall cut and trim all roots within the manhole. The Contractor shall seal all unsealed lifting holes, unsealed step holes, pre-cast manhole section joints, and voids larger than approximately 1/2" in thickness with a waterproof quick-setting mortar, Strong Seal QSR; Quadex Hyperform or an approved equal in accordance with the manufacturer's specifications.
- VI. Drilling and Injection: Injection holes shall be drilled through the manhole at 120 degree angles from each other at the same plane of elevation. Rows shall be separated no more than three vertical feet, and the holes shall be staggered with the holes in the rows above and below. Provide additional injection holes

near observed defects, bench and trough and at pipe seals. At all visible leaks and areas with evidence of leaks within the manhole structure, a hole shall be carefully drilled from within the manhole and shall extend through the entire manhole wall. A minimum of 6 injection holes shall be provided in the walls/cone and three injection holes at each pipe seal and at the bench/trough.

- VII. Manholes shall be grouted completely from the pipe invert to the top of the corbel or bottom of flattop. Grout shall be injected through the holes under pressure with a suitable probe. Grout ports or sealant injection devices shall be placed in these previously drilled holes in such a way as to provide a watertight seal between the holes and the injection device. A hose, or hoses, shall be attached to the injection device from an injection pump. Grouting from the ground surface shall not be allowed. Grout travel shall be verified by observation of grout to defects or adjacent injection holes. Provide additional injection holes, if necessary to ensure grout travel. Care shall be taken during the pumping operation to ensure that excessive pressures do not develop and cause damage to the manhole structure or surrounding surface features. Grout shall be injected through the lowest holes first. The procedure shall be completed until the manhole is externally sealed with grout, resulting in a chemical grout curtain.
- VIII. Sealing after grouting: Upon completion of the injection, all chemical grout material shall be removed from interior surfaces of the manhole. After grouting is completed, the grout ports shall be removed, and the remaining holes shall be cleaned with a drill and filled with quick-setting hydraulic mortar and troweled flush with the surface of the manhole walls or other surfaces. The mortar used shall be a non-shrink patching mortar such as Strong Seal QSR; Quadex Hyperform or an approved equal. In addition to filling the holes the interior surface of the manhole shall be patched with a ½-inch thick quick setting mortar such as Strong Seal QSR; Quadex Hyperform or an approved equal. This coating shall cover at least 6" either side of the joint sealed or where injection holes were drilled.

Grout Wall Joints: The procedures for Grout Wall Joint shall be the same as listed above for a complete curtain grout manhole, but shall be limited to wall joints and/or areas with evidence of infiltration for each manhole indicated on the plans. Holes shall be carefully drilled from within the manhole and shall extend through the entire manhole wall. In cases where there are multiple leaks around the circumference of the manhole, fewer holes may be drilled, providing all leakage is stopped from these holes. Grout ports or sealant injection devices shall be placed in these previously drilled holes in such a way as to provide a watertight seal between the holes and the injection device. A hose, or hoses, shall be attached to the injection device from an injection pump. Grout travel shall be verified by observation of grout to defects or adjacent injection holes. Provide additional injection holes, if necessary to ensure grout travel.

Sealing after grouting wall joints shall be the same as above and shall include patching with a ½" thick quick setting mortar such as Strong Seal QSR; Quadex Hyperform or an approved equal and shall cover at least 6" either side of the joint sealed and where injection holes were drilled.

The number of joints shall be grouted as per the manhole rehabilitation schedule and the Plans and any change in joint grout quantity should be approved by Engineer. **If additional joints are leaking beyond the original specified joints, the Contractor shall contact Engineer/Owner before approval.**

Grout Bottom 18": The procedures for Grout Bottom, 18" shall be the same as indicated above, but shall be limited to the bottom portion of the manhole. Pipe seal grouting shall include all pipe seals in the specified manhole and grouting of the bench/trough, wall/bench joint and walls to the maximum height of 18" from the crown of the pipe. Provide additional injection holes near observed defects, bench and trough and at pipe seals. At all visible leaks, a hole shall be carefully drilled from within the manhole and shall extend through the entire manhole wall. A minimum of three injection holes at each pipe seal and at the bench/trough shall be required.

Sealing after grouting manhole bottoms shall be the same as above and shall include patching with a ½” thick quick setting mortar such as Strong Seal QSR; Quadex Hyperform or an approved equal and shall cover at least 6” either side of each location sealed or where injection holes were drilled.

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:

1. At the beginning of each day. The material in the hoses shall be recycled to the tanks and a sample shall be taken;
2. Whenever new batches of grout are mixed; and
3. 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.

Final Acceptance: After the specified sealing work has been completed, the manholes shall be visually inspected by the Contractor (as required) in the presence of the Owner/Engineer and found to be acceptable. All rehabilitated manholes shall also be re-inspected for leaks one year after project completion and resealed, if necessary, at no additional cost to the Owner.

Basis of Payment

The Contractor shall provide the necessary tools and equipment to complete all work as described above. Payment shall be based on the Contract Unit Price per Each for CURTAIN GROUT MANHOLE or GROUT BOTTOM 18”. Payment shall be based on the Contract Unit Price per Each joint for GROUT WALL JOINTS. If more than two grout wall joints and/or grout bottom 18” are necessary to seal the manhole, then the Engineer shall have the right to change the pay item and scope to Curtain Grout Manhole.

36. CEMENTITIOUS MANHOLE SEALING (For diameter specified)

Description. Manhole sealing shall consist of all necessary measures to internally seal the manhole including cementitious wall coating, coating over plugged pipes, external or internal grouting, and reconstruction of bench/trough and shall establish structural integrity for the manhole and shall eliminate inflow and infiltration.

This work shall provide for a monolithic fiber-reinforced calcium aluminate structural cementitious spray liner applied in two ½ inch lifts intended to seal the entire manhole structure. The spray liner shall be a complete manhole reconstruction that stops inflow and infiltration, providing a leak free structure, restoring structural integrity and providing protection against corrosion.

This specification shall govern all work, materials, and equipment required for manhole rehabilitation for the purpose of eliminating infiltration, exfiltration, providing corrosion protection, repair of voids, and restoration of the structural integrity of the manhole as a result of applying a monolithic fiber-reinforced structural cementitious liner to the adjustment, cone, wall and bench surfaces of brick, block, pre-cast or poured concrete, or other masonry construction material.

Described are procedures for cleaning, preparation, application and testing. The applicator, approved and trained by the manufacturer, shall furnish all labor, equipment and materials for applying a cementitious mix to form two coats of a structural monolithic liner, with machinery specially designed for the application. All aspects of the installations shall be in accordance with the manufacturer’s recommendation and per the following specifications which includes:

- A. Remove loose and unsound material

- B. Clean area to be sprayed
- C. Eliminate infiltration
- D. Repair and fill voids
- E. Repair and seal bench trough/inverts
- F. Spraying the cementitious monolithic liner

A. Remove loose and unsound material:

Loose and protruding brick, mortar and concrete shall be removed using a mason's hammer and chisel and/or a scraper. Any loose debris on the benches, invert or walls of the manhole shall be removed by means of a scraper and vacuum machine or other approved method as long as it is taken from the manhole and not caused to go into the sewer. Any damaged manhole steps shall be removed prior to cleaning the interior of the manhole. Place covers over invert to prevent extraneous material from entering the sewer lines before cleaning.

B. Clean area to be sprayed:

The Contractor shall clean the interior surfaces of manhole removing all debris, dirt, oil, grease, remains of old coating materials, and any other extraneous materials. The Contractor shall then pressure wash (minimum 3,000 psi) the manhole walls to remove loose mortar, concrete, roots, and debris. Heavy grease build-up or unusual conditions may require hydro-blasting or chemical cleaning. Loose and protruding brick, mortar and concrete shall be removed using a mason's hammer and chisel and or scraper.

C. Eliminate infiltration:

The following are approved for patching material: Strong Seal QSR; Quadex Hyperform; or approved equal. This quick setting fiber reinforced calcium aluminate corrosion resistant cementitious material, shall be used as a patching material and is to be mixed and applied according to manufacturer's recommendations and shall have the following minimum requirements:

Compressive Strength	ASTM C109	>1800 psi, 1 hr >2600 psi, 24 hrs
Bond	ASTM C882	>1600 psi, 28 days
Calcium Aluminate Cement		Sulfate resistant
Applied Density		105 lbs/ft ³ ± 5
Shrinkage	ASTM C490	0% at 90% R. H.
Placement Time		5 to 10 minutes
Set Time		15 to 30 minutes

Approved materials to stop visible infiltration are the following: Strong-Plug; Quadex Quad-Plug; or approved equal. This rapid setting cementitious product specifically formulated for leak control, shall be used to stop minor water infiltration and shall be mixed and applied according to manufacturer's recommendations and shall have the following minimum requirements:

Compressive Strength	ASTM C109	>1000 psi, 1hr >2500 psi, 24 hrs
Sulfate Resistance	ASTM C267	No wt loss, 15 cycles @2000 ppm
Freeze/Thaw	ASTM C666, Method A	100 cycles
Pull Out Strength	ASTM C234	14,000 lbs.
Set Time		<1. 0 minute

Approved materials to stop severe active infiltration are the following: Hydrostop-Flex 40/500; Avanti AV-100; Deneef Denepox 40; or approved equal. Grouting installation shall conform to ASTM F2414-04. Grouting shall be performed anywhere where active infiltration cannot be stopped with the cementitious grout. All grouting work shall be considered incidental to the unit price bid payment item for CEMENTITIOUS MANHOLE SEALING.

D. Repair and fill voids:

The Contractor shall fill any large voids using one of the approved patching materials. Active Leaks shall be stopped using quick-setting, specially formulated mixes, according to manufacturer's recommendations. Some leaks may require weep holes to localize infiltration during the application. After application the weep holes shall be plugged with quick setting material. After repairing and filling voids and preparations are complete, remove all loose material and wash again. Any bench or invert repairs shall be made at this time using the quick-setting patching mix.

E. Repair and seal bench trough/inverts:

Invert repair shall be performed on all inverts with visible damage or where infiltration is present or when vacuum testing is specified. After blocking the flow through the manhole and thoroughly cleaning the invert, a quick-setting patch material shall be applied in an expeditious manner. The material shall be troweled uniformly onto the damaged invert at a minimum thickness of ½ inch at the invert extending out onto the bench of the manhole sufficiently to tie into the structural monolithic liner to be spray applied. The finished invert shall be smooth and free of ridges. The flow may be re-established in the manhole within 30 minutes after placement of the material.

F. Spraying the cementitious monolithic liner:

Liner Material shall be Strong-Seal High Performance Mix or an approved equal and shall be made with calcium aluminate cement and shall be used according to manufacturer's recommendations in applications where there is evidence of mild sulfide conditions (substrate surface of pH 1. 0 or higher). The cementitious liner shall be used to form a structural monolithic liner covering all interior manhole surfaces and shall have the following minimum requirements:

Compressive Strength	ASTM C109 28 days	>9000 psi
Tensile Strength	ASTM C496 28 days	>800 psi
Flexural Strength	ASTM C293 28 days	>1500 psi
Shrinkage @90% R. H.	ASTM C596 28 days	0%
Bond	ASTM C882 28 days	>3000 psi
Density, When Applied		145 ± 5lbs/ft3
Freeze/Thaw	ASTM C666	300 cycles no vis. damage

During application the surface shall be clean and free of all foreign material and shall be damp without noticeable free water droplets or running water, but totally saturated just prior to application of material. Materials shall be spray applied in two lifts, at least 24 hours apart. Minimum total thickness for each pass shall not be less than ½ inch and shall be from the bottom of the frame to the invert of the manhole. The surface shall then be troweled to a relatively smooth finish being careful not to over trowel. A brush finish shall be applied to the trowel-finished surface.

After the walls are coated, the invert covers shall be removed, and the bench sprayed with excess materials applied in such a manner that a gradual slope is produced from the walls to the invert with the thickness at the invert to be no less than ½ inch. The wall/bench intersection shall be rounded to a uniform radius the full circumference of the intersection. Trough area shall be coated as required to seal all cracks and to provide a smooth surface.

The material shall have minimum of four (4) hours cure time before being subjected to active flow. Ambient conditions in the manhole are adequate for curing as long as the manhole is covered. Traffic shall not be allowed over manholes for 12 hours after reconstruction is complete. Caution shall be taken to minimize exposure of applied product to sunlight, quick surface drying and air movement. At no time should the finished product be exposed to sunlight or air movement for longer than 15 minutes before replacing the cover. In extremely hot and arid climates, the manhole should be shaded while reconstruction is in process.

No application shall be made if ambient temperature is below 40 degrees Fahrenheit. No application shall be made to frozen surfaces or if freezing is expected to occur within the substrate within 24 hours after application. If the ambient temperatures are in excess of 95 degrees Fahrenheit, precautions shall be taken to keep the mix temperatures at time of application below 90 degrees Fahrenheit. Water temperature shall not exceed 80 degrees Fahrenheit. Chill with ice if necessary.

Quality control:

Final acceptance shall be made upon successfully passing:

- Vacuum test as described under the provision VACUUM TESTING.
- Compressive Strength test: Sample and make five test cylinders per ASTM C 31 and analyze with ASTM C 39, or as specified by contract document, for testing compressive strength from each week's work (for Vertical Infrastructure) or every 32,000 lbs. of material (for Horizontal Infrastructure). Label the cylinders with the date, location, project, and product batch numbers. The product batch numbers are located on each geopolymer material bag. Send the cylinders to a third-party laboratory or the manufacturer for verification. Test in accordance with ASTM C 39, or as specified in contract documents. Test the material for compressive strength at 7 days (1 cylinder) and 28 days (3 cylinders) and leave 1 cylinder for retainage. Performance and Material Testing for manholes:
 - i. Performance testing as directed in ASTM F 2551.
 - ii. Submit the following information to the engineer: Product data, including manufacturer and brand name along with laboratory test results to verify 28- day compressive strength in accordance with ASTM C 39 or ASTM C 109. The samples must be undisturbed for a period of at least 24 hours before they can be transported. The project superintendent will require that samples of applied material be taken representative of each day's work of material used. Samples shall be obtained from the pump, hose or nozzle, identified, and sent to an independent test laboratory to verify 28-day compression strength testing as described in ASTM C 39 or ASTM C 109 and shall have a minimum average of the strength set forth hereinabove in Section F.

Basis of Payment:

This item shall be paid at the Contract Unit Price per Vertical Foot for CEMENTITIOUS MANHOLE SEALING for the manhole diameter specified and shall include all labor and materials to rehabilitate the manhole as described in the above provisions. Measurement for payment shall be made from the invert to the bottom of the manhole frame and shall be measured to the nearest tenth of a foot.

VACUUM TESTING shall be measured and paid for separately. The compressive strength tests shall be considered incidental.

37. VACUUM TESTING

Description. This specification shall govern the vacuum testing of sanitary sewer manholes and structures and shall be used as a method of determining acceptability by the Owner, in accepting maintenance or installation of a sanitary sewer manhole or structure. Vacuum testing shall be according to ASTM C1244, except as specified otherwise herein. Other forms of testing of some manholes may be required, as deemed necessary by the Owner.

At least ten percent (10%) of the total number of sanitary sewer manholes installed or receiving cementitious coating shall be vacuum tested as specified herein. Manholes to be tested shall be selected by the Engineer at the time of testing. No advance notice will be provided to the Contractor as to which manholes will be tested. If more than ten percent (10%) of the manholes tested fail the initial test, an additional ten percent (10%) of the total manholes shall be tested at no additional charge. This process shall continue until a series of manholes (10% of the total) successfully test with no more than 10% initial failure or until all manholes have been tested. Additional vacuum testing required after failing the initial testing will be considered incidental to the contract and will not be paid for separately.

Manholes shall be tested after installation or rehabilitation and when all connections are in place. Lift holes, if any, shall be plugged with an approved, non-shrinkable grout prior to testing. Drop connections shall be installed prior to testing. The vacuum test shall include testing of the seal between the cast iron frame and the concrete cone, slab or grade rings. Manhole vacuum testing shall be performed after all adjacent underground utilities have been installed and all manholes have been backfilled and finished to final grade.

All manholes found to have been damaged or disturbed prior to the final (one-year) inspection shall be corrected and vacuum tested at that time, regardless of whether or not they were originally vacuum tested. If a coating or lining is to be applied to the interior of the manhole the vacuum test must not be performed until the coating or lining has been cured according to the manufacturer's recommendations.

Procedure for testing shall be as follows:

1. Temporarily plug all pipes entering the manhole. Each plug must be installed at a location beyond the manhole/pipe gasket (i. e. outside the manhole wall), and shall be braced to prevent the plug or pipe from being drawn into the manhole.
2. The test head shall be placed inside the rim of the cast iron frame at the top of the manhole and inflated, in accordance with the manufacturer's recommendations.
3. A vacuum of at least ten inches of mercury (10" Hg) shall be drawn on the manhole. Shut the valve on the vacuum line to the manhole and shut off the pump or disconnect the vacuum line from the pump.
4. The pressure gauge shall be liquid filled, having a 3. 5-inch diameter face with a reading from zero to thirty inches of mercury.

The manhole shall be considered to pass the vacuum test if the vacuum reading does not drop more than 1" Hg (i. e. from 10" Hg to 9" Hg) during the following minimum test times for various manhole diameters.

Depth (ft.)	Manhole Diameter (inches)								
	30	33	36	42	48	54	60	66	72
	Test Time (Seconds)								
8	11	12	14	17	20	23	26	29	33
10	14	15	18	21	25	29	33	36	41
12	17	18	21	25	30	35	39	43	49
14	20	21	25	30	35	41	46	51	57
16	22	24	29	34	40	46	52	58	67
18	25	27	32	38	45	52	59	65	73
20	28	30	35	42	50	53	65	72	81
22	31	33	39	46	55	64	72	79	89
24	33	36	42	51	59	64	78	87	97
26	36	39	46	55	64	75	85	94	105
28	39	42	49	59	69	81	91	101	113
30	42	45	53	65	74	87	89	108	121

Basis of Payment:

This item shall be paid at the Contract Unit Price per Each for VACUUM TESTING and shall include furnishing all labor, supervision, materials, equipment, and testing necessary to complete the work.

38. REPAIR BENCH AND TROUGH

Description. Invert repair shall be performed on all inverts with visible damage or where infiltration is present or when vacuum testing is specified. After blocking the flow through the manhole and thoroughly cleaning the invert, a quick-setting patch material shall be applied in an expeditious manner. The material shall be troweled uniformly onto the damaged invert at a minimum thickness of ½ inch at the invert extending out onto the bench of the manhole sufficiently to tie into the structural monolithic liner to be spray applied. The finished invert shall be smooth and free of ridges. The flow may be re-established in the manhole within 30 minutes after placement of the material.

All inverts shall be formed to the diameter of the incoming and outgoing pipe diameter up to the pipe centerline and vertical beyond that point. The invert shall be formed to a depth of one-half to two-thirds the pipe diameter. Inverts shall be formed with a PCC mortar material and steel-trowel to produce a dense, smooth finish and shape to form a "U"- shaped channel connecting the pipelines. The new invert shall provide smooth transitions for pipes of different sizes, different elevations, and/or at different angles. The Contractor shall form benches to provide self-cleaning by sloping normally two (2) inches from manhole wall to edge of "U" channel with a smooth finish. The trough shall be troweled so that the wetted surface is smooth.

The trough and bench shall then be coated with a cementitious product such as Strong Seal High Performance Mix or equal in the manner specified in Cementitious Manhole Sealing.

Basis of Payment:

This item shall only be paid where cementitious coating is not being applied to the walls and shall be paid for at the Contract Unit Price per Each for REPAIR BENCH AND TROUGH. This price shall be payment in full for performing the work and for furnishing all labor, supervision, materials, equipment, and testing necessary to complete the work.

39. REPLACE BENCH AND TROUGH

Description. This work item shall consist of the complete removal and reconstruction of the entire manhole bench and trough. The existing deteriorated bench and trough area shall be completely removed to a minimum depth of 12 inches below the existing invert. Care must be taken to avoid damaging other areas of the manhole structure. Loose and broken concrete shall be routinely removed from the manhole to eliminate the possibility of pieces entering the sewer lines. After removal of loose and broken concrete, CA-7, (¾-inch - 1-inch) washed limestone with no fines shall be installed to a depth of (8) eight inches as a base for the new bench and trough to be formed using Portland Cement Concrete, (PCC). Sanitary sewer service shall be maintained during bench and trough replacement. The minimum bench and trough thickness shall be 4 inches in depth.

All inverts shall be formed to the diameter of the incoming and outgoing pipe diameter up to the pipe centerline and vertical beyond that point. The invert shall be formed to a depth of one-half to two-thirds the pipe diameter. Inverts shall be formed with a PCC mortar material and steel-trowel to produce a dense, smooth finish and shape to form a "U"- shaped channel connecting the pipelines. The new invert shall provide smooth transitions for pipes of different sizes, different elevations, and/or at different angles. The Contractor shall form benches to provide self-cleaning by sloping normally two (2) inches from manhole wall to edge of "U" channel with a smooth finish. The trough shall be troweled so that the wetted surface is smooth. The invert of the trough shall form a continuous conduit with the sewer pipe entering and leaving the manhole provided that the pipe was originally constructed or intended to be constructed in this manner. Care shall be taken to prevent the degradation of freshly poured benches and troughs.

The bench and trough shall be furnished in such a manner so that a watertight seal exists between the manhole walls, pipe, and bench/trough area. The finished bench and trough shall be cleaned of silt, debris or foreign matter of any kind.

Basis of Payment:

This item shall be paid at the Contract Unit Price per Each for REPLACE BENCH AND TROUGH and shall include furnishing all labor, supervision, materials, equipment, and testing necessary to complete the work including removal of the existing defective bench and trough, and installation and sealing of the replacement bench and trough.

40. POUR BENCH

Description. The scope of work includes filling the bench and restoring the natural pitch of the bench to the channel following CIPP lining. If the manhole bench no longer self-drains properly following CIPP lining, the bench must be repaired to restore the proper slope and pitch necessary for a functional manhole. The contractor shall provide all the necessary materials and equipment.

Surface Preparation. All surface preparation shall be done according to the CEMENTITIOUS MANHOLE SEALING item's procedures.

Following field verification, the City and/or the Engineer shall approve all manholes needing their pitch restored.

Invert Repair. All inverts shall be formed to the diameter of the incoming and outgoing pipe diameter up to the pipe centerline and vertical beyond that point. The invert shall be formed to a depth of one-half to two-thirds the pipe diameter. Inverts shall be formed with a PCC mortar material and steel-trowel to produce a dense, smooth finish and shape to form a "U"- shaped channel connecting the pipelines. The new invert shall provide smooth

transitions for pipes of different sizes, different elevations, and/or at different angles. The Contractor shall form benches to provide self-cleaning by sloping normally two (2) inches from manhole wall to edge of "U" channel with a smooth finish. The trough shall be troweled so that the wetted surface is smooth. The invert of the trough shall form a continuous conduit with the sewer pipe entering and leaving the manhole provided that the pipe was originally constructed or intended to be constructed in this manner. Care shall be taken to prevent the degradation of freshly poured benches and troughs.

The bench and trough shall be furnished in such a manner so that a watertight seal exists between the manhole walls, pipe, and bench/trough area. The finished bench and trough shall be cleaned of silt, debris or foreign matter of any kind.

Basis of Payment:

This item shall be paid at the Contract Unit Price per Each for POUR BENCH and shall include all labor, materials, and equipment necessary to complete the work.

41. PCC SIDEWALK, 5"

Description. This work includes furnishing all materials, equipment and labor necessary to remove and install Portland Cement Concrete Sidewalk at locations indicated by the Engineer and in accordance with Section 424 and Section 440 of the "Standard Specifications."

All sidewalks except driveway sidewalks shall be five inches (5") thick. All residential driveway sidewalks shall be six inches (6") thick and reinforced with 6" X 6" #10/ #10 welded wire fabric. All sidewalks through alley and commercial aprons shall be eight inches (8") thick with 6" X 6" #10/ #10 welded wire fabric. The additional concrete and fabric shall be considered incidental to the cost of this item. All sidewalks shall be placed on a three inch (3") thick sub-base aggregate material meeting Gradation CA-6, which shall be considered incidental to this item.

All sidewalks shall be installed with a 1/4 inch per foot slope toward the street. Sidewalk elevations shall be set so as to maintain a slope of 1/2 inch per foot between the sidewalk and to top of the curb whenever possible. Ramps for the handicapped shall be installed at all intersections as per State Standards No. 424001-07, 424006-01, 424011-01, 424016-01, 424021-02 & 424026-01. A 24" wide strip of re-usable cast iron plate detectable warnings- truncated domes with contrasting color (natural patina unfinished)- shall be installed across the entire depression of the ramp (longitudinally). The cast iron plates shall be free from warps, and have vent holes or anchors.

It shall be the Contractor's responsibility to construct ramps in compliance with the Accessibility Guidelines as detailed in the Americans with Disabilities Act (ADA). Particularly, should a sidewalk ramp located at an intersection be altered, then the entire corner of the intersection shall be reconstructed in compliance with ADA requirements.

Under no circumstance shall the Contractor stamp their name, phone number, or any other information in newly constructed concrete work.

Winter protection shall be considered incidental to this item.

Basis of Payment:

This work will be considered incidental to the SEAL AND ADJUST MANHOLE FRAME (PAVED) or UNCOVER AND RAISE BURIED MANHOLE (PAVED) and REPLACE FRAME AND COVER (PAVED) and shall include all labor, materials, and equipment necessary to complete the work as specified herein.

42. HOT-MIX ASPHALT DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT

Description. This work includes the removal of existing hot-mix asphalt (HMA) driveway pavement. This work also includes furnishing all materials, equipment, and labor necessary to install asphalt driveway pavement. All driveways shall be 1.5" asphalt base course and 1.5" blacktop hot patch. All driveways shall be placed on a six inch (6") thick sub-base of coarse aggregate material gradation CA-6, which shall be considered incidental to this item.

Restoration shall be completed within 5 days of completion of rehabilitation work on the manhole within the driveway. The Contractor shall use a roller for compaction, plate compactors will not be allowed.

Resident notification of work that will impact driveway aprons must be provided in writing a minimum of 24 hours prior to the start of work. Contractor is responsible for coordinating homeowner access during the work and until restoration is completed.

The Contractor shall replace the entire driveway apron.

Winter protection shall be considered incidental to this item.

Basis of Payment:

This work will be paid for at the Contract unit price per Square Yard for HOT-MIX ASPHALT DRIVEWAY PAVEMENT and shall include the removal and disposal of excavated material, placing and compacting the aggregate subbase, and constructing new HMA driveway pavement of the type specified.

43. PCC DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT

Description. This work includes the removal of existing concrete driveway pavement in accordance with Section 440 of the "Standard Specifications. This work also includes furnishing all materials, equipment, and labor necessary to install Portland Concrete Cement (PCC) Driveway Pavement in accordance with Section 423 of the "Standard Specifications".

All driveways shall be six inches (6") in thickness (with the exception of those that bear loads greater than passenger vehicles, which shall be 8" thickness) and reinforced by 6" x 6" #10/#10 welded wire fabric. All driveways shall be placed on a six inch (6") thick sub-base of coarse aggregate material gradation CA-6, which shall be considered incidental to this item.

Restoration shall be completed within 5 days of completion of rehabilitation work on the manhole within the driveway.

Resident notification of work that will impact driveway aprons must be provided in writing a minimum of 24 hours prior to the start of work. Contractor is responsible for coordinating homeowner access during the work and until restoration is completed.

The Contractor shall replace the entire driveway apron.

Winter protection shall be considered incidental to this item.

Basis of Payment:

This work will be paid for at the Contract unit price per Square Yard for PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT and shall include the removal and disposal of excavated material, placing and compacting the aggregate subbase, and constructing new PCC driveway pavement of the type specified.

44. COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT

Description. This item shall include all labor, equipment, and material necessary for the removal and replacement of combination concrete curb and gutter in accordance with the applicable portions of Sections 606 and 440 of the "Standard Specifications" at the locations as designated by the plans or as directed by the Engineer. This item shall include the removal of the existing concrete curb and gutter and roadway necessary to install new combination concrete curb and gutter, of the same type as removed, or Type B-6.12, as directed by the Engineer. All new curbs shall be placed on a three inch (3") sub-base of coarse aggregate material gradation CA-6, which shall be considered incidental to this item. The aggregate sub-base shall extend to a point six inches (6") beyond the back of curb. Hot Mix Asphalt replacement will be required as a result of this work and shall be considered incidental to this item, 3" or as specified.

Restoration shall be completed within 5 days of completion of rehabilitation work on the manhole located near curb and gutter.

It shall be the Contractor's responsibility to provide curb depressions at locations where public sidewalks require ramping for pedestrian crossing. The depressions shall be constructed in compliance with the Accessibility Guidelines as detailed in the Americans with Disabilities Act (ADA).

Winter protection shall be considered incidental to this item.

Basis of Payment:

This work will be considered incidental to the SEAL AND ADJUST MANHOLE FRAME (PAVED) or REPLACE FRAME AND COVER (PAVED) and shall include the removal and disposal of excavated material, placing and compacting the aggregate subbase, and constructing new combination concrete curb and gutter of the type specified.

45. TOPSOIL FURNISH AND PLACE, 4"

Description. This work shall be according to Article 211 of the Standard Specifications and the following: The Contractor shall take precautions so as not to unnecessarily damage lawns. In areas that are designated to be sodded, the existing sod shall be cut and removed; the area shall then be shaped, graded and rototilled. The area to be sodded shall then have a layer of good quality, pulverized topsoil which has been approved by the Engineer prior to placement, spread and fine raked in such a manner as to result in a top dressing of the parkway having an average thickness of four inches (4") of topsoil.

Any excavation and grading of the parkway which is required to give a uniform slope from the limit of sod restoration to the top of the curb shall be included in this item. The Contractor shall be responsible for removing any weeds prior to the placement of the sod. The method of weed removal must be approved by the Engineer.

The topsoil and subgrade shall be thoroughly compacted along newly installed concrete by a compaction method approved by the Engineer. If proper compaction is not achieved, the Engineer may direct the Contractor to

remove any soil backfill that the Contractor has placed and replace it with a granular stone backfill. This will be included in the cost of this item.

Basis of Payment:

This work will be considered incidental to SEAL AND ADJUST MANHOLE FRAME (UNPAVED) or REPLACE FRAME AND COVER (UNPAVED) and shall include all labor, materials and equipment necessary to complete the work as specified herein as well as any rutting caused by other work types.

46. SEEDING

Description. This work shall be according to Article 250 of the Standard Specifications, IDOT standards and the following:

The work shall consist of restoring with seed and blanket on all landscaped areas disturbed by construction as shown on the Plans or as directed by the Engineer. Any excessive or unnecessary damage to the parkway will be restored by the Contractor at his own expense. All areas designated to be seeded shall be prepared with application of 4" of topsoil.

The rate of application of the seed will be judged by the density of growth of the grass after germination has taken place. Areas in which the seed does not take root shall be re-seeded at no additional cost to the City. It shall be the Contractor's responsibility to ensure the applied topsoil has proper nutrients to sustain growth of the grass. Any necessary applications of fertilizer to the topsoil shall be considered incidental. Installation of blanket or straw mat shall be considered incidental.

Basis of Payment:

This work will be considered incidental to SEAL AND ADJUST MANHOLE FRAME (UNPAVED) or REPLACE FRAME AND COVER (UNPAVED) and shall include all labor, materials, and equipment necessary to complete the work as specified herein as well as any rutting caused by other work types.

47. FULL DEPTH PATCHING

Description. This item will primarily consist of the removal of the existing hot-mix asphalt and a portion of the aggregate or concrete base and replacement with hot-mix asphalt at locations shown on the Plans or as directed by the Engineer.

The material will be removed to a minimum depth of twelve inches (12") sufficient to result in a minimum of ten inches (10") PCC Base Course and two inches (2") of hot-mix asphalt placement. The material shall be PCC Base Course, CL SI and Hot-Mix Asphalt Surface Course, Mix "C", N50. Refer to Standard Details on the Plans.

Bituminous Materials. This work shall be according to Article 403 and 406 of the Standard Specifications and includes the application of a bituminous tack coat (SS-1) on the existing or proposed base course on all streets and as directed by the Engineer. The prime coat shall be placed at least one hour before and no more than 2 days before the start of paving operations. The Contractor shall be responsible for placing warning signs at all points of access to the primed surface except for residential driveways.

The Contractor shall use a roller for compaction, plate compactors will not be allowed. Following the 12" removal, the base must be compacted prior to PCC base course and HMA placement.

Winter protection shall be considered incidental to this item.

The limits of removal shall be marked by the Engineer. The patches shall be saw cut full-depth and any areas damaged outside the limits of removal shall be replaced by the Contractor at his own expense. Restoration for the seal and adjust shall be completed before the end of the day Friday each week, unless approved by the City

Basis of Payment:

This work will be considered incidental to SEAL AND ADJUST MANHOLE FRAME (PAVED) or REPLACE FRAME AND COVER (PAVED), and shall include all labor, materials and equipment necessary to complete the work as specified herein as well as any rutting caused by other work types.

48. REMOVAL AND DISPOSAL OF CLEAN CONSTRUCTION & DEMOLITION DEBRIS

Description. All removal or excavation items being disposed of at an uncontaminated soil fill operation or clean construction and demolition debris (CCDD) fill site shall meet the requirements of Public Act 96-1416.

The cost of this item will be incidental to SEAL AND ADJUST MANHOLE FRAME and REPLACE FRAME AND COVER.

49. POST-CONSTRUCTION TELEVISION INSPECTION

Description. 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 identify all defects with observations and 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. The Contractor shall provide the City with four (4) 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 before and after all rehabilitation work is completed.

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 and two (2) 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.
- Contractor shall upload all TV reports and videos to the City’s VUEWORKS website and include the corresponding URL in the Master Spreadsheet. The [filepath] and [filename] is the only thing that will change between videos and any spaces must be replaced with %20.

CCTV

CCTV Video2

PDF

CCTV PDF3

- Each number following “CCTV ___” designates both the flow direction and either pre or post rehabilitation. A list of the options are listed below:
 - CCTV Video/PDF1 – Pre-rehab flow direction
 - CCTV Video/PDF2 – Pre-rehab reverse flow direction
 - CCTV Video/PDF3 – Post-rehab flow direction
 - CCTV Video/PDF4 – Post-rehab reverse flow direction
- The Database in PACP 7.0.4 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.
- Contractor shall provide two databases. One that has all data and one that only have final TV data (one for each segment).
- **Post construction TV Final Database should be a standalone usable database with (1) complete TV for each segment and no duplicates.**

Basis of Payment:

POST-CONSTRUCTION TELEVISION INSPECTION and all deliverables shall be considered incidental to the Contract and shall not be compensated for separately.

50. CONTINGENT CASH ALLOWANCE

From time to time, it will be necessary to add unforeseen additional work to the Project. The intent of the Contingent Cash Allowance is to provide a means to fund reasonable changes and additions to the Project. The Contingent Cash Allowance is for the sole use of Owner to cover unanticipated costs.

Basis of Payment:

Included with the bid is a CONTINGENT CASH ALLOWANCE in the amount of seventy-five thousand and 00/100 dollars (\$75,000.00) for any additional work required by the City of Joliet. The value of any work covered by the Contingent Cash Allowance will be determined in accordance with the General Conditions and Supplementary Conditions.

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PREVAILING WAGES

This Contract shall be subject to the provisions of the *Prevailing Wage Act* (820 ILCS 130/1 et seq.) to the extent required by law.

For Prevailing Wage information please go to the City of Joliet Website
<https://www.joliet.gov/government/departments/finance/purchasing/prevailing-wage-information>.

For current Prevailing Wage Rates, go to State of Illinois Website:
<https://labor.illinois.gov/laws-rules/conmed/current-prevailing-rates.html>

If you cannot access or have difficulty retrieving the prevailing wage information, email purchasing@joliet.gov or call 815-724-3925 for assistance.

NOTICE

The City of Joliet has adopted a Responsible Bidder Ordinance (2-440). In addition to any other requirement, unless otherwise expressly stated in a bid solicitation or an award of contract, or applicable state or federal law or regulation states otherwise, all bidders must comply with the following requirements in order to submit a bid or be awarded a contract.

1. The bidder must be a duly organized legal entity in good standing with the Illinois Secretary of State and in compliance with all laws prerequisite to doing business in the state and submit a copy of the Illinois Secretary of State Department of Business Services online records evidencing that the bidder has a current corporate annual report on file, if required. If the bidder is an individual, sole proprietorship, or partnership, this subsection shall not apply.
2. The bidder must have a valid Federal Tax Identification Number or Social Security Number (for individuals), documents evidencing current registration with the Illinois Department of Revenue and the Illinois Department of Employment Security (if bidder has employees).
3. The bidder must be an equal opportunity employer and comply with Section 2000(e) of Chapter 21, Title 42 of the United States Code and Executive Order 11246.
4. The bidder shall provide certificates of insurance indicating the following coverages if called for in the bid solicitation: general liability, workers compensation, completed operations, automobile, hazardous occupation, and product liability.
5. A statement that all employees are (i) covered under a current workers' compensation insurance policy, and (ii) properly classified under such policy. If the bidder is insured with a carrier, the evidence of workers' compensation insurance shall be a copy of the "Information Page" which includes the name and address of the insured, as well as class codes upon which the compensation premium is based and the total estimated remuneration per class code.
6. A statement of compliance with all provisions of the Illinois Prevailing Wage Act (820 ILCS 130), as amended, and all the rules and regulations therein, for the past five (5) years. Such statement shall also provide that the contractor has reviewed the Prevailing Wage Act or the federal Davis-Bacon and Related Acts, has reviewed and agrees to pay the applicable prevailing wage rates attached to the bid specifications, and will strictly comply with the Prevailing Wage Act or federal Davis-Bacon and Related Acts and related requirements, including wages, medical and hospitalization insurance and

retirement for those trades covered in the Act. A contractor who has been found, by the Illinois Department of Labor, to be in violation of the Prevailing Wage Act twice within a three (3) year period shall be deemed to not be Responsible Bidder for two (2) years from the date of the latest finding.

7. Certification of compliance with the Substance Abuse Prevention on Public Works Projects Act (820 ILCS 265/1, et seq.).
8. A certification that individuals who perform work on the public works project on behalf of the contractor are properly classified as either (i) an employee, or (ii) an independent contractor under all applicable state and federal laws and local ordinances.
9. Documents evidencing any professional or trade licenses required by law or local ordinance for any trade or specialty in which the contractor is seeking a contract award. Additionally, the contractor must disclose any suspension or revocation of such license held by the company, or of any director, officer, or manager of the company.
10. For construction contracts (construction of new facilities, renovation of existing facilities, or road construction projects), or demolition contracts, over \$25,000 (twenty five thousand dollars), evidence of participation in apprenticeship and training programs applicable to the work to be performed on the project, which are approved by and registered with the United States Department of Labor's Office of Apprenticeship, or its successor organization. The required evidence includes but is not limited to a copy of all applicable apprenticeship standards or Apprenticeship Agreement(s) for any apprentice(s) who will perform work on the public works project.
11. Disclosure of the name and address of each subcontractor from whom the contractor has accepted a bid and/or intends to hire on any part of the project. Further, each such subcontractor shall be required to adhere to the requirements set forth herein as though it were bidding directly to the city. Each contractor shall submit all subcontractor information and supporting documentation to the city prior to the subcontractor commencing work on the project.
12. Unless otherwise agreed to in a collective bargaining agreement, the bidder shall certify that it provides, or contributes to, a health care plan for those employees working on the project and shall provide a copy of the health care plan upon request. The contributions toward a health care plan must be part of the employee's regular compensation, and not merely part of the employee's compensation during the period of time for which the employee is performing work on the project.
13. Unless otherwise agreed to in a collective bargaining agreement, the bidder shall certify that it contributes to an employee pension or retirement program,

including but not limited to a 401k, a defined benefit plan or a similar plan for its field employees working on the project and shall provide a copy of the plan upon request. The contributions toward a pension or retirement program must be a part of the employee's regular compensation and not merely part of the employee's compensation during the period of time for which the employee is performing work on the project.

14. Certification that the bidder has not been subject to any determinations by a court or governmental agency for violations of federal, state, or local laws, including but not limited to serious, willful, or repeated violations of the Occupational Safety and Health Act (OSHA), violations of contracting or antitrust laws, tax or licensing laws, environmental laws, or the federal Davis-Bacon and Related Acts.
15. Whenever practical, the bidder should prequalify as a local bidder.
16. Any material changes to the contractor's status, at any time during the performance of the project, must be reported in writing to the city within fourteen (14) days of its occurrence. Failure to comply with this requirement is grounds for the contractor to be deemed a non-responsible bidder.
17. The submission requirements of this Ordinance also apply to subcontractors, except that the contractor shall submit all subcontractor submissions to the city prior to the subcontractor commencing work on the project. Failure of a subcontractor to submit the required information shall not disqualify the successful bidder from performing work on the project and shall not constitute a contractual default and/or breach by the successful bidder. However, the city may withhold all payments otherwise due for work performed by a subcontractor until the subcontractor submits the required information and the city approves such information. Further, where the city deems necessary, the city may also require that the successful bidder remove the subcontractor from the project and replace it with a responsive and responsible subcontractor.

CERTIFICATIONS/ATTACHMENTS

For each required certification or submission, the bidder shall comply with the appropriate subsection of the City of Joliet code of ordinances by initialing the page and/or attaching the required documentation to the page.

The certification pages should be initialed and submitted with the bid along with the required attachments.

There are 16 certification pages and a checklist that follows.

2-440(1) - The bidder must be a duly organized legal entity in good standing with the Illinois Secretary of State and in compliance with all laws prerequisite to doing business in the state and submit a copy of the Illinois Secretary of State Department of Business Services online records evidencing that the bidder has a current corporate annual report on file, if required. If the bidder is an individual, sole proprietorship, or partnership, this subsection shall not apply.

I hereby certify that the bidder is a duly organized legal entity in good standing with the Illinois Secretary of State and in compliance with all laws prerequisite to doing business in the state.

Initials of bidder

Or:

I certify that the bidder is an individual, sole proprietor, or partnership.

Initials of bidder

Attachment: Illinois Secretary of State Department of Business Services online records evidencing that the bidder has a current corporate annual report on file (if required).

2-440(2) - The bidder must have a valid Federal Tax Identification Number or Social Security Number (for individuals), documents evidencing current registration with the Illinois Department of Revenue and the Illinois Department of Employment Security (if bidder has employees).

Attachment: Documents evidencing current registration with the Illinois Department of Revenue and the Illinois Department of Employment Security (if bidder has employees).

2-440(3) - The bidder must be an equal opportunity employer and comply with Section 2000(e) of Chapter 21, Title 42 of the United States Code and Executive Order 11246.

I certify that the bidder is an equal opportunity employer and is in compliance with Section 2000(e) of Chapter 21, Title 42 of the United States Code and Executive Order 11246.

Initials of bidder

2-440(4) - The bidder shall provide certificates of insurance indicating the following coverages if called for in the bid solicitation: general liability, workers compensation, completed operations, automobile, hazardous occupation, and product liability.

Attachments: Certificates of insurance indicating the following coverages as called for in the bid solicitation.

2-440(5) - A statement that all employees are (i) covered under a current workers' compensation insurance policy, and (ii) properly classified under such policy. If the bidder is insured with a carrier, the evidence of workers' compensation insurance shall be a copy of the "Information Page" which includes the name and address of the insured, as well as class codes upon which the compensation premium is based and the total estimated remuneration per class code.

I certify that all employees are (i) covered under a current workers' compensation insurance policy, and (ii) properly classified under such policy.

Initials of bidder

Attachment: "Information Page" which includes the name and address of the insured, as well as class codes upon which the compensation premium is based and the total estimated remuneration per class code (if applicable).

2-440(6) - A statement of compliance with all provisions of the Illinois Prevailing Wage Act (820 ILCS 130), as amended, and all the rules and regulations therein, for the past five (5) years. Such statement shall also provide that the contractor has reviewed the Prevailing Wage Act or the federal Davis-Bacon and Related Acts, has reviewed and agrees to pay the applicable prevailing wage rates attached to the bid specifications, and will strictly comply with the Prevailing Wage Act or federal Davis-Bacon and Related Acts and related requirements, including wages, medical and hospitalization insurance and retirement for those trades covered in the Act. A contractor who has been found, by the Illinois Department of Labor, to be in violation of the Prevailing Wage Act twice within a three (3) year period shall be deemed to not be Responsible Bidder for two (2) years from the date of the latest finding.

I certify that the bidder is in compliance with all provisions of the Illinois Prevailing Wage Act (820 ILCS 130), as amended, and all the rules and regulations therein, and has been for the past five (5) years.

Initials of bidder

I certify that that the contractor has reviewed the Prevailing Wage Act or the federal Davis-Bacon and Related Acts, has reviewed and agrees to pay the applicable prevailing wage rates attached to the bid specifications, and will strictly comply with the Prevailing Wage Act or federal Davis-Bacon and Related Acts and related requirements, including wages, medical and hospitalization insurance and retirement for those trades covered in the Act.

Initials of bidder

2-440(7) - Certification of compliance with the Substance Abuse Prevention on Public Works Projects Act (820 ILCS 265/1, et seq.).

I certify that the bidder is in compliance with the Substance Abuse Prevention on Public Works Projects Act (820 ILCS 265/1, et seq.).

Initials of bidder

2-440(8) - A certification that individuals who perform work on the public works project on behalf of the contractor are properly classified as either (i) an employee, or (ii) an independent contractor under all applicable state and federal laws and local ordinances.

I certify that all individuals who perform work on the public works project on behalf of the contractor are properly classified as either (i) an employee, or (ii) an independent contractor under all applicable state and federal laws and local ordinances.

Initials of bidder

2-440(9) - Documents evidencing any professional or trade licenses required by law or local ordinance for any trade or specialty in which the contractor is seeking a contract award. Additionally, the contractor must disclose any suspension or revocation of such license held by the company, or of any director, officer, or manager of the company.

Attachments: Documents evidencing any professional or trade licenses required by law or local ordinance for any trade or specialty in which the contractor is seeking a contract award.

Attachments: Disclosure of any suspension or revocation of such license held by the company, or of any director, officer, or manager of the company.

Or

I certify that the contractor has not been the subject of any suspension or revocation of such license held by the company, or of any director, officer, or manager of the company.

Initials of bidder

2-440(10) - For construction contracts (construction of new facilities, renovation of existing facilities, or road construction projects), or demolition contracts, over \$25,000 (twenty five thousand dollars), evidence of participation in apprenticeship and training programs applicable to the work to be performed on the project, which are approved by and registered with the United States Department of Labor's Office of Apprenticeship, or its successor organization. The required evidence includes but is not limited to a copy of all applicable apprenticeship standards or Apprenticeship Agreement(s) for any apprentice(s) who will perform work on the public works project.

Attachments: Evidence of participation in apprenticeship and training programs applicable to the work to be performed on the project, which are approved by and registered with the United States Department of Labor's Office of Apprenticeship, or its successor organization. The required evidence includes but is not limited to a copy of all applicable apprenticeship standards or Apprenticeship Agreement(s) for any apprentice(s) who will perform work on the public works project.

2-440(11) - Disclosure of the name and address of each subcontractor from whom the contractor has accepted a bid and/or intends to hire on any part of the project. Further, each such subcontractor shall be required to adhere to the requirements set forth herein as though it were bidding directly to the city. Each contractor shall submit all subcontractor information and supporting documentation to the city prior to the subcontractor commencing work on the project.

Attachments: The name and address of each subcontractor from whom the contractor has accepted a bid and/or intends to hire on any part of the project.

I certify and acknowledge that the bidder shall submit all subcontractor information and supporting documentation to the city prior to the subcontractor commencing work on the project.

Initials of bidder

2-440(12) - Unless otherwise agreed to in a collective bargaining agreement, the bidder shall certify that it provides, or contributes to, a health care plan for those employees working on the project and shall provide a copy of the health care plan upon request. The contributions toward a health care plan must be part of the employee's regular compensation, and not merely part of the employee's compensation during the period of time for which the employee is performing work on the project.

I certify that the bidder provides, or contributes to, a health care plan for those employees working on the project and shall provide a copy of the health care plan upon request. I further certify that these contributions are part of the employee's regular compensation, and not merely part of the employee's compensation during the period of time for which the employee is performing work on the project.

Initials of bidder

Or

I certify that the bidder is subject to a collective bargaining agreement which addresses issues regarding a health care plan.

Initials of bidder

2-440(13) - Unless otherwise agreed to in a collective bargaining agreement, the bidder shall certify that it contributes to an employee pension or retirement program, including but not limited to a 401k, a defined benefit plan or a similar plan for its field employees working on the project and shall provide a copy of the plan upon request. The contributions toward a pension or retirement program must be a part of the employee's regular compensation and not merely part of the employee's compensation during the period of time for which the employee is performing work on the project.

I certify that the bidder contributes to an employee pension or retirement program, including but not limited to a 401k, a defined benefit plan or a similar plan for its field employees working on the project and shall provide a copy of the plan upon request. These contributions toward a pension or retirement program are part of the employee's regular compensation and not merely part of the employee's compensation during the period of time for which the employee is performing work on the project.

Initials of bidder

Or

I certify that the bidder is subject to a collective bargaining agreement which addresses contributions to an employee pension or retirement program, including but not limited to a 401k, a defined benefit plan or a similar plan for its field employees working on the project and shall provide a copy of the plan upon request.

Initials of bidder

2-440(14) - Certification that the bidder has not been subject to any determinations by a court or governmental agency for violations of federal, state, or local laws, including but not limited to serious, willful, or repeated violations of the Occupational Safety and Health Act (OSHA), violations of contracting or antitrust laws, tax or licensing laws, environmental laws, or the federal Davis-Bacon and Related Acts.

I certify that the bidder has not been subject to any determinations by a court or governmental agency for violations of federal, state, or local laws, including but not limited to serious, willful, or repeated violations of the Occupational Safety and Health Act (OSHA), violations of contracting or antitrust laws, tax or licensing laws, environmental laws, or the federal Davis-Bacon and Related Acts.

Initials of bidder

2-440(b) - Any material changes to the contractor's status, at any time during the performance of the project, must be reported in writing to the city within fourteen (14) days of its occurrence. Failure to comply with this requirement is grounds for the contractor to be deemed a non-responsible bidder.

I certify and acknowledge that any material changes to the contractor's status, at any time during the performance of the project, must be reported in writing to the city within fourteen (14) days of its occurrence. Failure to comply with this requirement is grounds for the contractor to be deemed a non-responsible bidder.

Initials of bidder

2-440(d) - The submission requirements of this Ordinance also apply to subcontractors, except that the contractor shall submit all subcontractor submissions to the city prior to the subcontractor commencing work on the project. Failure of a subcontractor to submit the required information shall not disqualify the successful bidder from performing work on the project and shall not constitute a contractual default and/or breach by the successful bidder. However, the city may withhold all payments otherwise due for work performed by a subcontractor until the subcontractor submits the required information and the city approves such information. Further, where the city deems necessary, the city may also require that the successful bidder remove the subcontractor from the project and replace it with a responsive and responsible subcontractor.

I certify and acknowledge that the submission requirements of this Ordinance also apply to subcontractors. I further acknowledge that the city may withhold all payments otherwise due for work performed by a subcontractor until the subcontractor submits required information and the city approves such information. I further acknowledge that where the city deems necessary, the city may also require that the successful bidder remove the subcontractor from the project and replace it with a responsive and responsible subcontractor.

Initials of bidder

CERTIFICATION CHECKLIST

Bidders/Contractor are required to certify to the following items:

- 2-440(1) – Good standing with S.O.S. _____
- 2-440(3) – Equal opportunity employer _____
- 2-440(5) – Workers’ compensation coverage _____
- 2-440(6) – Prevailing Wage Act _____
- 2-440(7) – Substance Abuse Prevention on Public Works Act _____
- 2-440(8) – Employees properly classified _____
- 2-440(9) – Contractor properly licensed _____
- 2-440(11) – Disclosure of subcontractor information _____
- 2-440(12) – Employee health care plan _____
- 2-440(13) – Employee retirement plan _____
- 2-440(14) – OSHA compliance _____
- 2-440(b) – Required reporting of change in status _____
- 2-440(d) – Required updating of subcontractor information _____

Bidders/Contractor are required to attach the following documents:

- 2-440(1) – S.O.S. annual report (if required) _____
- 2-440(2) – Registration with IDOR and IDES _____
- 2-440(4) – Certificates of insurance _____
- 2-440(5) – Information page regarding workers’ compensation _____
- 2-440(9) – Professional or trade licenses required _____
- 2-440(9) – Disclosure of suspension or revocation of license _____
- 2-440(10) – Apprenticeship standards or agreements (if required) _____
- 2-440(11) – List of subcontractors _____



LOCAL BIDDER

This contract is eligible for the local bidder preference ordinance.

If you have read all of the documentation, filled out the form found online at <https://www.joliet.gov/government/departments/finance/purchasing/prequalification-process>, have been prequalified by the City of Joliet as a Local Bidder and wish to be qualified as a local bidder for this contract, please sign this sheet. For more information about local bidder ordinance please go to this link regarding section 2-444 (b) that defines local bidder:

[Local Bidder Ordinance](#)

VENDOR NAME _____

VENDOR ADDRESS _____

CITY, STREET, ZIP _____

CONTACT PERSON _____

SIGNATURE _____

PHONE _____

EMAIL ADDRESS _____

Complete this form ONLY if you already submitted the CITY OF JOLIET LOCAL BIDDER APPLICATION FORM from the above website AND have been approved as a local bidder.

Also, please note, there may be other prequalification's that apply to this contract, like Capital Development Board or City of Joliet Financial Prequalification. Please review what is due and note this does not take the place of any of those documents.

Any questions, please contact Purchasing at (815) 724-3925.

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**DEPARTMENT OF
PUBLIC WORKS & UTILITIES**

815-724-4230 Direct
815-723-7770 Fax



**150 WEST JEFFERSON STREET
JOLIET, ILLINOIS 60432-4158**

GENERAL CONTRACTOR

RE: 2023 CONSTRUCTION PROJECTS

Dear General Contractor:

The City of Joliet currently has specifications, which require ten **(10%)** percent minority participation in contracts over \$100,000.00. In an effort to track this information better, the City of Joliet will be requiring all GENERAL CONTRACTS to submit to a complete list of sub-contractors they intend to use on the awarded project at the pre-construction meeting. The issuance of this sub-contractor list will help the City ensure that minority requirements are met as well as prevailing wages. The sub-contractor list should include the dollar amount or percentage of this contract for the work the sub-contractor is responsible. I.D.O.T. for BC 260-A is an example of such an acceptable form. In addition, the specification states that monthly certified payroll records are to be submitted to the Engineer. This will also be enforced for the upcoming construction season.

The City of Joliet appreciates your effort throughout the years and looks forward to working with you in the upcoming construction season.

A handwritten signature in black ink that reads 'Greg P. Ruddy'.

Gregory P. Ruddy, P.E.
Director of Public Works

A handwritten signature in black ink that reads 'Allison Swisher'.

Allison Swisher
Director of Public Utilities

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NOTICE TO BIDDERS – ETHICS ORDINANCE AND INSPECTOR GENERAL COMPLIANCE

The City of Joliet has an Ethics Ordinance (Section 2-333 et seq. of the Code of Ordinances of the City of Joliet) which prohibits any appointed or elected official of the City of Joliet, or any employee of the City of Joliet from receiving or soliciting anything of value to influence that City official or employee in carrying out his or her official duties. The City of Joliet appreciates your anticipated cooperation in refraining from offering any official or employee anything, item, service, or favor of value to influence that person's decision on any City business. With your cooperation, the City of Joliet will achieve its goal of maintaining a fair and competitive contract procedure that promotes the best interests of the citizens of the City of Joliet. You should report immediately any violation of the Ethics Ordinance to the Inspector General, including any solicitation of a thing of value by a City official or employee. A bidder or contractor's participation or encouragement in the violation of the Ethics Ordinance may result in the rejection of a bid, termination of contract, or declaration of ineligibility to bid on future contracts.

It is the duty of any bidder, proposer, consultant, subcontractor, applicant for pre-qualification for a City contract, applicant for local bidder certification, and all officers, directors, agents, partners and employees of any bidder, proposer, consultant, subcontractor, or such applicant to cooperate with the Inspector General in any investigation or hearing undertaken pursuant to City of Joliet Ordinance 2-180, et. seq. Any of the aforementioned parties understands and will abide by all provisions of the aforementioned Ordinance. All contractors must inform subcontractors of the provision and require understanding and compliance with it.

A copy of the City of Joliet Ethics Ordinance and all other City Ordinances are available in the City Clerk's office or on the City website for your review.

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CITY OF JOLIET
STATE OF ILLINOIS

PROPOSAL FORM

NOTE: ALL BLANKS ON EACH AND EVERY SHEET OF THIS PROPOSAL SHALL BE COMPLETED. FAILURE TO COMPLETE ALL BLANKS SHALL BE GROUNDS FOR REJECTION OF BIDS.

TO THE MAYOR AND CITY COUNCIL OF JOLIET, ILLINOIS:

1. PROPOSAL OF _____
(Name and Address of Bidder)

2. The plans for the proposed work are those prepared by the City Engineer and approved by the City Council of the City of Joliet, Illinois on _____, 2023.

The specifications herein referred to are those prepared by the City Engineer.

3. In submitting this proposal, the undersigned declares that the only persons or parties interested in the proposal as principals are those named herein; and that the proposal is made without collusion with any other person, firm, or corporation.

4. The undersigned further declares that he has carefully examined the proposal, plans, specifications, form of contract and contract bond, and special provisions, and that he has inspected in detail the site of the proposed work, and that he has familiarized himself with all of the local conditions affecting the contract and the detailed requirements of construction, and he understands that in making this proposal he waives all right to plead any misunderstanding regarding the same.

5. The undersigned further understands and agrees that if this proposal is accepted he is to furnish and provide all necessary machinery, tools, apparatus, and other means of construction, in the respective sections, and to do all of the work, and to furnish all of the materials specified in the contract.

6. The undersigned declares that he understands that the quantities mentioned are approximate only and that they are subject to increase or decrease; that he will take in full payment therefore the amount and the summation of the actual quantities, as finally determined multiplied by the unit price shown in the schedule of prices contained herein.

7. The undersigned further agrees that the unit prices submitted herewith are for the purpose of obtaining a gross sum, and for use in computing the value of extras and deduction; that if there is a discrepancy between the gross sum bid and that resulting from the summation of the quantities multiplied by their respective unit prices, the latter shall apply.
8. The undersigned further agrees that if the owner decides to extend or shorten improvement, or otherwise alter it by extras or deductions, including the elimination of any one or more of the items, by an amount not to exceed twenty-five (25) percent of the total money value of the original contract price or contract price corrected as provided in the specifications, he will perform the work as altered, increased or decreased at the contract unit price.
9. The undersigned further agrees that the Engineer may at any time during the progress of the work covered by this contract, order other materials as do not appear in the proposal or contract as a specific item accompanied by a unit price, and which are not included under the bid price for other items in this contract, shall be performed as extra work, and that he will accept as full compensation therefore the actual cost plus fifteen percent (15%), the actual cost to be determined as provided in the specification.
10. The undersigned further agrees to execute a contract for this work and present the same to the City of Joliet within fifteen (15) days after the date of the notice of the award of the contract to him.
11. The undersigned further agrees that he and his surety will execute and present within fifteen (15) days after the date of the notice of the award of the contract, a contract bond satisfactory to and in the form prescribed by the City of Joliet in the penal sum of one hundred percent (100%) of the full amount of the contract within the terms of the contract.
12. The undersigned further agrees to begin work not later than ten (10) days after the execution of the acceptance of the contract and contract bond, unless otherwise provided and to prosecute the work in such manner and with sufficient materials, equipment, and labor as will insure its completion within the time limit specified herein, it being understood and agreed that the completion within the time limit is an essential part of the contract. It shall be understood and agreed that completion within the time limit is an essential part of the contract. The undersigned agrees to complete the work according to the schedules below unless additional time is granted in accordance with the specifications.

Black Road Acres, Stonegate, and Various Areas

- **Substantial Completion: 335 Calendar Days from the NTP.**
- **Final Completion: 365 Calendar Days from the NTP.**

Bridal Wreath Acres

- **Substantial Completion: Monday December 2, 2024**
- **Final Completion: 365 Calendar Days from the NTP.**

Bevan Acres

- **Substantial Completion: Friday June 28, 2024**
- **Final Completion: 365 Calendar Days from the NTP.**

In case of failure to complete the work in or before the time named herein or within such extra time as may have been allowed by extensions, the undersigned agrees that the City of Joliet shall withhold, from each sums as may be due him under the terms of this contract, the costs, set forth in the specifications of the contract, which costs shall be considered and treated not as a penalty but as damages due to the City of Joliet from the undersigned by reason on inconvenience to the public, added cost of engineering and supervision and other items which have caused an expenditure of public funds resulting from the failure of the under signed to complete the work within the time specified in the contract.

13. Accompanying this proposal is a bank draft, bank cashier's check, bid bond or a certified check, complying with the requirements of the specifications, made payable to the City of Joliet.

THE AMOUNT OF THE CHECK OR DRAFT IS (\$_____

If this proposal is accepted and the undersigned shall fail to execute a contract and contract bond as required within, it is hereby agreed that the amount of the check or bank draft shall become the property of the City of Joliet and shall be considered as payment of damages due to delay and other causes suffered by the City of Joliet because of the failure to execute said contract and contract bond; otherwise said check or draft, shall be returned to the undersigned.

14. The undersigned submits herewith his schedule of prices covering the work to be performed under this contract; he understands that he must show in the schedule of unit prices for which he proposes each item of work, that the extensions must be made by him and that if not so done his proposal may be rejected as irregular.
15. All bidders must furnish current financial statement with the bid.
16. All bidders must furnish a list of equipment available for and to be used on this project with their bid.

17. The undersigned submits herewith his schedule of prices covering the work to be performed.

BIDDER agrees to perform all the work described in CONTRACT Documents for the following unit prices. BIDS shall include all applicable taxes and fees. OWNER reserves the right to increase or decrease quantities without changes in unit price.

SCHEDULE OF PRICES

ITEM NO.	ITEM DESCRIPTION	BID QTY	UNITS	UNIT PRICE	TOTAL PRICE
1	Pre-Construction Cleaning and Televising	27,850	LF		
2	Field Locate & Mark (Sonde Locating)	12	EACH		
3	Project Management	10	HR		
4	Cured-in-Place Pipelining (8")	22,300	LF		
5	Cured-in-Place Pipelining (10")	2,850	LF		
6	Cured-in-Place Pipelining (12")	860	LF		
7	Cured-in-Place Pipelining (15")	1,290	LF		
8	Cured-in-Place Pipelining (18")	380	LF		
9	Cured-in-Place Sectional Liner (8")	1	EACH		
10	Lateral Reinstatements	613	EACH		
11	Cut Protruding Taps	51	EACH		
12	Cut Protruding Taps using Schwalm Robot	5	EACH		
13	Air Test and Grout Mainline Joint (8")	1	EACH		
14	Air Test and Grout Mainline Joint (15")	1	EACH		
15	Air Test and Grout Mainline Joint (18")	1	EACH		
16	Air Test and Grout Mainline Joint (24")	1	EACH		
17	Air Test Service Connection (5-foot)	452	EACH		
18	Grout Service Connection (5-foot)	452	EACH		
19	Dye Testing of Services	20	EACH		
20	Lateral Launch Services	5	EACH		
21	Replace Cover	10	EACH		
22	Seal & Adjust Manhole Frame (Paved)	113	EACH		
23	Seal & Adjust Manhole Frame (Unpaved)	20	EACH		
24	Raise Buried Manhole (Paved)	2	EACH		
25	Raise Buried Manhole (Unpaved)	1	EACH		
26	Replace Frame & Cover (Paved)	30	EACH		
27	Replace Frame & Cover (Unpaved)	6	EACH		
28	Internal Chimney Seal	3	EACH		

ITEM NO.	ITEM DESCRIPTION	BID QTY	UNITS	UNIT PRICE	TOTAL PRICE
29	Install Barrel Section	1	EACH		
30	Grout Wall Joints	55	EACH		
31	Grout Bottom 18"	10	EACH		
32	Full Curtain Grout	6	EACH		
33	Cementitious Manhole Sealing, 36" Dia.	145	VF		
34	Cementitious Manhole Sealing, 48" Dia.	1,060	VF		
35	Vacuum Testing	15	EACH		
36	Repair Bench & Trough	10	EACH		
37	Replace Bench & Trough	19	EACH		
38	Pour Bench	10	EACH		
39	Plug Pipe with Mechanical Plug and Concrete Cap	3	EACH		
40	HMA Driveway Pavement Removal and Replacement	20	SY		
41	PCC Driveway Pavement Removal and Replacement	20	SY		
42	Contingent Cash Allowance	1	LS	\$75,000.00	\$75,000.00
				<u>BID TOTAL</u>	

BID TOTAL:

.....

(in writing)

Company name: _____

Address: _____

Phone number: _____

Contact person: _____

Email address: _____

Proposed Subcontractor Form (To be submitted with Bid)

This form should be submitted within 5 days of the bid opening.

To: City of Joliet
150 West Jefferson Street
Joliet, Illinois 60432

1. Pursuant to bidding requirements for the Work titled:

2024 SANITARY SEWER REHABILITATION PROGRAM –
BRIDALWREATH ACRES, STONEGATE, BLACK ROAD ACRES, AND
BEVAN ACRES
CONTRACT 2749 –
1223
CITY OF JOLIET,
ILLINOIS

For portions of the Work equaling or exceeding \$10,000, Bidder proposes to use the following Subcontractors. Except as otherwise approved by Owner, Bidder proposes to perform all other portions of the Work with his own forces:

2. Portion of the Work Subcontractor name and address

This page intentionally left blank.

CONTRACTOR EQUIPMENT & PROJECT LIST (To be submitted with Bid)

Available Equipment:

List of Current Projects:

Client: _____
Description of Work: _____
Contact: _____

Client: _____
Description of Work: _____
Contact: _____

Client: _____
Description of Work: _____
Contact: _____

List of jobs completed within the past 5 years (Equal or Greater Value):

Client: _____
Description of Work: _____
Contact: _____

Client: _____
Description of Work: _____
Contact: _____

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18. This set of contract documents shall remain intact and shall be submitted in its entirety with the proposal.

(IF AN INDIVIDUAL)

SIGNATURE OF BIDDER _____(SEAL)

BUSINESS ADDRESS _____

(IF A CO-PARTNERSHIP)

FIRM NAME _____(SEAL)

SIGNED BY _____(SEAL)

BUSINESS ADDRESS _____

Insert Names and _____
Addresses of All _____
Members of the firm _____

(IF A CORPORATION)

CORPORATE NAME _____

SIGNED BY _____

President

BUSINESS ADDRESS _____

(CORPORATE SEAL)

PRESIDENT _____

Insert Names of OFFICERS SECRETARY _____

TREASURER _____

ATTEST: _____

Secretary

CONTRACT SPECIFICATION - DEVIATIONS AND SUBSTITUTIONS

Pursuant to Section 15 of the Instructions to Bidders, please list any and all deviations and substitutions made in the Contract Specifications here:

All deviations or substitutions must meet or exceed the specifications.

SUBMITTED BY:

Print Name of Company

BY: _____
Signature of person authorized to sign bid

TITLE _____

ADDRESS _____

E-MAIL ADDRESS: _____

PHONE (_____) _____

DATE _____

(NOTE: These affidavits must be completed by an authorized representative of the bidder)

AFFIDAVITS

Business Status of Bidder

BIDDER/APPLICANT:

Name

Principal place of business

Address

City, State, Zip Code

The Bidder is a:

Corporation
Partnership
Limited Liability Company
Sole Proprietorship
Other (please explain:
_____)

Corporation

The state of incorporation is: _____

The registered agent of the corporation in Illinois is:

Name

Address

City, State, Zip

The officers of the corporation are:

President

Secretary

Vice President

Treasurer

The Corporation is authorized to do business in the State of Illinois

Limited Liability Company

The state of registration is: _____

The registered agent of the Limited Liability Company in Illinois is:

Name _____

Address _____

City State Zip _____

The registered office of the Limited Liability Company in Illinois is:

Address _____

City, State, Zip _____

The managers and members of the Limited Liability Company are:

Name

Name

Address

Address

City, State

City, State

The LLC is authorized to do business in the State of Illinois

Sole Proprietorship

The address of the sole proprietor is:

Address

City, State

The sole proprietor transacts business in Illinois under the following assumed names:

BID RIGGING AND BID ROTATING

Section 2: That in connection with this solicitation for bids/proposals:

- A. The bid is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation;
- B. The bidder has not in any manner directly or indirectly sought by consultation, communication or agreement with anyone to fix the bid price of said bidder or any other bidder or to fix any overhead profit or cost element of such bid price or that of any other bidder or to secure any advantage against the public body awarding the contract or anyone interested in the proper contract;
- C. The bid is genuine and not collusive or sham;
- D. The prices or breakdowns thereof and any and all contents which had been quoted in this bid have not been knowingly disclosed by the bidder and will not be knowingly disclosed by the bidder directly or indirectly to any other bidder or any competitor prior to opening;
- E. All statements contained in such bid are true;
- F. No attempt has been made or will be made by the bidder to induce any other person or firm to submit a false or sham bid;
- G. 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;

Section 2a

NON-COLLUSION

- A. No officer or employee of the City of Joliet has a direct or indirect pecuniary interest in this bid.
- B. No officer or employee of the City of Joliet has disclosed to the bidder any information related to the terms of a sealed bid.
- C. No officer or employee of the City of Joliet has informed the bidder that the bid will be accepted only if specified persons are included as subcontractors.
- D. Only the bidder will be entitled to the proceeds of the contract if this bid is accepted by the City of Joliet.

- E. This bid is made without the benefit of information obtained in violation of law.

Section 3. The undersigned further states that: (circle A or B)

- A. He is the person in the bidder's organization responsible within that organization for the decision as to the prices being bid herein and that he has not participated, and will not participate, in any action contrary to paragraphs A through G above; or
- B. He is not the person in the bidder's organization responsible within that organization for the decision as to the prices being bid herein but that he has been authorized to act as 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 paragraphs A through G above and as their agent does hereby so certify; and
- C. That he has not participated, and will not participate, in any action contrary to paragraphs A through G above.

Section 4. The undersigned certifies that the bidder has never been convicted for a violation of State laws prohibiting bid rigging or bid rotating.

**THE REQUIREMENTS OF THE
ILLINOIS DRUG FREE WORKPLACE ACT**

Section 5. The undersigned will publish a statement:

- A. Notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the aforementioned company's workplace;
- B. Specifying the actions that will be taken against employees for violations of this prohibition;
- C. Notifying the employees that, as a condition of their employment to do work under the contract with the City of Joliet, the employees will:
 - 1. Abide by the terms of the statement; and
 - 2. Notify the aforementioned company of any criminal drug statute conviction for a violation occurring in the workplace not later than five (5) days after such a conviction.

- D. Establishing a drug free awareness program to inform the aforementioned company's employees about:
 - 1. The dangers of drug abuse in the workplace;
 - 2. The aforementioned company's policy of maintaining a drug free workplace;
 - 3. Any available drug counseling, rehabilitation, and employee assistance programs; and
 - 4. The penalties that may be imposed upon employees for drug violations.

- E. Making it a requirement to give a copy of the statement required by Section 5. to each employee engaged in the performance of the contract with the City of Joliet and to post the statement in a prominent place in the workplace;

- F. Notifying the City of Joliet within ten (10) days after receiving notice under Section 5.C.2. from an employee or otherwise receiving actual notice of such a conviction;

- G. Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by, any employee who is so convicted, as required by Section 6., below;

- H. Training personnel to effectively assist employees in selecting a proper course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that an effectively trained counseling and referral team is in place;

- I. Making a good faith effort to continue to maintain a drug free workplace through implementing these requirements.

- J. Making a good faith effort to continue to maintain a drug free workplace through implementation of this policy.

Section 6. The undersigned further affirms that within thirty (30) days after receiving notice from an employee of a conviction of a violation of the criminal drug statute occurring in the aforementioned company's workplace he shall:

- A. Take appropriate personnel action against such employee up to and including termination; or
- B. Require the employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.

TAX COMPLIANCE

Section 7. The undersigned on behalf of the entity making the foregoing proposal certifies that neither the undersigned nor the entity is barred from contracting with the City of Joliet because of any delinquency in the payment of any tax administered by the State of Illinois, Department of Revenue, unless the undersigned or the entity is contesting, in accordance with the procedures established by the appropriate revenue act, liability of the tax or the amount of tax.

Section 8. The undersigned or the entity making the proposal or bid understands that making a false statement regarding delinquency in taxes is a Class A Misdemeanor and in addition, voids the contract and allows the municipality to recover all amounts paid to the individual or entity under the contract in a civil action.

NON DISCRIMINATION AND EQUAL EMPLOYMENT OPPORTUNITY

Section 9. This EQUAL EMPLOYMENT OPPORTUNITY CLAUSE is required by the Illinois Human Rights Act and the Rules and Regulations of the Illinois Department of Human Rights published at 44 Illinois Administrative Code Section 750, et seq.

Section 10. In the event of the contractor's noncompliance with any provision of this Equal Employment Opportunity Clause, the Illinois Human Right Act, or the Rules and Regulations for Public Contracts of the Department of Human Rights (hereinafter referred to as the Department) the contractor may be declared nonresponsible and therefore ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or avoided in whole or in part, and such other sanctions or penalties may be imposed or remedies involved as provided by statute or regulation.

During the performance of this contract, the contractor agrees:

- A. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry; and further that

it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

- B. That, if it hires additional employees in order to perform this contract, or any portion hereof, it will determine the availability (in accordance with the Department's Rules and Regulations for Public Contracts) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- C. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service.
- D. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations for Public Contract. If any such labor organization or representative fails or refuses to cooperate with the contractor in its efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Department and the contracting agency will recruit employees from other sources when necessary to fulfill its obligations thereunder.
- E. That it will submit reports as required by the Department's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations for Public Contracts.
- F. That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations for Public Contracts.
- G. That it will include verbatim or by reference the provisions of this Equal Employment Opportunity Clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that such provisions will be binding upon such subcontractor. In the same manner as the other provisions of this contract, the contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply therewith. In addition, the contractor will

not utilize any subcontractor declared by the Illinois Human Rights Department to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

Section 11. For the purposes of subsection G of Section 10, "Subcontract" means any agreement, arrangement or understanding, written or otherwise, between a public contractor and any person under which any portion of the public contractor's obligations under one or more public contracts is performed, undertaken or assumed; the term "subcontract," however, shall not include any agreement, arrangement or understanding in which the parties stand in the relationship of an employer and an employee, or between a bank or other financial institution and its customers.

Section 12. It is expressly understood that the foregoing statements and representations and promises are made as a condition to the right of the bidder to receive payment under any award made under the terms and provisions of this bid.

Section 13. Have written sexual harassment policies that shall include, at a minimum, the following information: (i) the illegality of sexual harassment; (ii) the definition of sexual harassment under State law; (iii) a description of sexual harassment, utilizing examples; (iv) the vendor's internal complaint process including penalties; (v) the legal recourse, investigative and complaint process available through the Department and the Commission; (vi) directions on how to contact the Department and Commission; and (vii) protection against retaliation as provided by Section 6-101 of this Act. A copy of the policies shall be provided to the Department upon request.

Section 14. In the event that this contract is subject to Executive Order 11246, Seller certifies that it (1) is in compliance with Section 202 thereof and the Rules and Regulations issued thereunder; (2) does not and will not provide or maintain at any of its establishments, or permit its employees to perform their services at any location under its control where there are maintained, segregated facilities, and (3) agrees that a breach of this Certification violates the Equal Employment clause of Executive Order 11246. "Segregated Facilities," means facilities which are in fact segregated on a basis of race, color, creed, sex, religion or national origin, because of habit, local custom, or otherwise.

THE AMERICANS WITH DISABILITIES ACT

Section 15. As a condition of receiving this contract, the undersigned vendor certifies that services, programs and activities provided under this contract are and will continue to be in compliance with the Joliet Accessibility Code.

Signed by: _____
[name]

[title]

Subscribed and Sworn to before me this _____ day of _____,
20____.

By: _____
Notary Public

-seal-

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STATE OF ILLINOIS)
)
 COUNTY OF WILL)

SS.

 *NOTE: THIS AFFIDAVIT MUST BE
 *COMPLETED BY THE CHIEF OFFICER
 *OF THE BIDDER

**AFFIDAVIT
 REGARDING BIDDER AVAILABILITY**

The undersigned, _____, being first duly sworn on oath and being duly authorized to make this Affidavit, hereby declares that the following is a true and correct statement relating to All uncompleted contracts of the undersigned for Federal, State, County, City and private work, including All subcontract work; and all pending low bids not yet awarded or rejected; and equipment available.

PART I. WORK UNDER CONTRACT

List below all work you have under contract as either a prime contractor or a subcontractor, including all pending low bids not yet awarded or rejected.

	1	2	3	4	5	Awards Pending	
County and Section No.							
Contract With							
Estimated Completion Date							
Total Contract Price							Total
Uncompleted Dollar Value							

PART II. UNCOMPLETED WORK TO BE DONE WITH YOUR OWN FORCES.

List below the uncompleted dollar value of work for each contract to be completed with your own forces. All work subcontract TO others will be listed on the reverse of this form. In a joint venture list only that portion of the work to be done by your company.

							TOTALS
Excav. Grading & Clearing							
Portland Cement Concrete Paving							
Bituminous Hot Mix Surface							
Bituminous Aggregate Mix							

Aggregate Bases & Surface							
Structures							
Drainage							
Electrical							
Curb & Gutter							
Sewer							
Water							
Sidewalks							
Demolition							
Other/Explain							
Totals							

Date Equipment Available For Work							
-----------------------------------	--	--	--	--	--	--	--

(SIGNATURE)

(PRINT NAME)

(TITLE)

Subscribed and Sworn to before me this
 _____ day of _____, AD, **20**_____.

 NOTARY PUBLIC

STOP*

CHECK THE FOLLOWING LIST TO MAKE SURE THAT YOUR BID CONTAINS ALL OF THE REQUIRED DOCUMENTS.

- _____ 1. BID SECURITY
- _____ 2. BIDDING SCHEDULE
- _____ 3. BID PROPOSAL, DULY SIGNED
- _____ 4. ALL AFFIDAVITS, SIGNED & NOTARIZED
- _____ 5. BIDDER'S ORDINANCE CERTIIFICATION CHECKLIST AND ATTACHMENTS

FAILURE TO INCLUDE ANY ONE OR ALL OF THE ABOVE MAY CONSTITUTE SUITABLE GROUNDS FOR REJECTION OF YOUR BID.

***(FOR CONSTRUCTION CONTRACTS ONLY)**

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AGREEMENT

THIS AGREEMENT is entered into on the date stated below by and between the between the City of Joliet, an Illinois Municipal Corporation (hereinafter "City") and _____ (hereinafter "Contractor").

In consideration of the mutual promises of the parties set forth in the Contract Documents, the Contractor agrees to timely perform all work, furnish all labor and materials necessary for the proper completion of the work; and the City agrees to pay for the work as set forth in the Contract Documents. The Contractor further agrees to comply with the provisions of the *Prevailing Wage Act* (820 ILCS 130/1 et seq.).

The Contract Documents shall consist of the following documents which are hereby made part of this Agreement as if recited at length herein:

- 1) **Legal Notice to Bidders**
- 2) **Instruction to Bidders**
- 3) **General and Special Conditions**
- 4) **Specifications and Drawings**
- 5) **Proposal Schedule (consistent with Contract Documents)**
- 6) **Affidavits**
- 7) **Performance Bond and Payment Bond**
- 8) **Addenda**

IN WITNESS WHEREOF, the City and the Contractor, by their duly authorized representatives have hereunto set their hands this _____ day of _____, 20____.

**CITY OF JOLIET,
an Illinois Municipal Corporation,**

By: _____ **Print name of Contractor** _____

**Rodney Tonelli
Interim City Manager**

By: _____

Print Name: _____

Attest: _____

**Christa M. Desiderio
City Clerk**

Title: _____

Approved as to form:

**Todd Greenburg
Interim Corporation Counsel**

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NOTICE OF AWARD

TO

PROJECT 2024 Sanitary Sewer Rehabilitation Program -
DESCRIPTION: Bridal Wreath Acres, Stonegate, Black Road
Acres, and Bevan Acres

The OWNER has considered the BID submitted by you for the above referenced WORK in response to its Advertisement for Bids dated December 19, 2023, and Information for Bidders.

You are hereby notified that your bid has been accepted for items in the amount of \$ _____.

You are required by the Instructions to Bidders to execute the Agreement and furnish the required CONTRACTOR'S Performance BOND, Payment BOND and Certificates of Insurance within fifteen (15) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS within fifteen (15) days from the date of this Notice, 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.

Dated this _____ day of _____, 20 _____.

City of Joliet
(Owner)

By _____

Title City Manager

ACCEPTANCE OF NOTICE

Receipt of the Above NOTICE TO AWARD is hereby acknowledged,

By _____

this the _____ day of _____, 20 _____.

By _____

Title _____

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NOTICE TO PROCEED

_____ TO:

PROJECT 2024 Sanitary Sewer Rehabilitation Program -
DESCRIPTION: Bridal Wreath Acres, Stonegate, Black Road
Acres, and Bevan Acres

You are hereby notified to proceed with the contract work on or before _____. The Contract requires that the work be completed according to the schedules below.

Black Road Acres, Stonegate, and Various Areas

- Substantial Completion: 335 Calendar Days on or before _____.
- Final Completion: 365 Calendar Days on or before _____

Bridal Wreath Acres

- Substantial Completion: Monday December 2, 2024
- Final Completion: 365 Calendar Days on or before _____

Bevan Acres

- Substantial Completion: Friday June 28, 2024
- Final Completion: 365 Calendar Days on or before _____

You are required to return an acknowledged copy of this NOTICE OF PROCEED to the OWNER.

Dated this _____.

City of Joliet
(Owner)

By _____

Title City Manager

ACCEPTANCE OF NOTICE

Receipt of the Above NOTICE TO PROCEED is hereby acknowledged,

By _____,

this the ___ day of ___, 2023

By _____

Title _____

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**CITY OF JOLIET
2024 SANITARY SEWER REHABILITATION PROGRAM**

**APPENDIX A
PRE-CONSTRUCTION CLEANING &
TELEVISION SCHEDULE**

CITY OF JOLIET
2024 SEWER REHABILITATION PROGRAM
PRE-CLEANING AND TELEVISION SCHEDULE

USMH	DSMH	Street	Material	Diameter (in)	Length (ft)	Protruding Taps	Project Work	Exhibit Grid Number(s)
2191	18306	Palladium Dr	VCP	8	264	1	CIPP Lining, Service Grouting,	15
2600	17108	Springfield Ave	VCP	8	265.1	0	CIPP Lining,	10
15720	15488	Woodland Dr	VCP	8	175.0	0	CIPP Lining, Lateral Lining, Service Grouting,	18
16921	16920	Avalon Ave	VCP	8	248.4	0	CIPP Lining, Service Grouting,	10
16922	17108	Douglas St	VCP	8	345.0	0	CIPP Lining, Service Grouting,	10
16924	17166	Douglas St	VCP	8	277.1	0	CIPP Lining, Service Grouting,	10
16927	16932	Taylor St	VCP	8	370.0	0	CIPP Lining, Service Grouting,	13, 14
16932	16933	Springfield Ave	VCP	8	333.9	0	CIPP Lining,	13
16934	16933	Mayfield Ave	VCP	8	377.0	0	CIPP Lining, Service Grouting,	13, 14
16935	16933	Mayfield Ave	VCP	8	357.0	0	CIPP Lining, Service Grouting,	13
16937	16936	Mason Ave	VCP	8	315.0	0	CIPP Lining, Service Grouting,	12
16944	17158	Mayfield Ave	VCP	8	300.7	0	CIPP Lining, Service Grouting,	15
16945	16943	Mayfield Ave	VCP	8	302.6	1	CIPP Lining, Service Grouting,	14
16946	16945	Ann Ct	VCP	8	301.1	0	CIPP Lining, Service Grouting,	14
16948	16950	Avalon Ave	VCP	8	270.0	0	CIPP Lining, Service Grouting,	11
16955	17029	Madison St	VCP	8	292.0	0	CIPP Lining, Service Grouting,	11, 14
16956	16935	Mayfield Ave	VCP	8	168.0	2	CIPP Lining, Service Grouting,	13
17009	17010	Springfield Ave	VCP	8	178.0	1	CIPP Lining, Service Grouting,	13
17010	16932	Springfield Ave	VCP	8	330.9	1	CIPP Lining, Service Grouting,	13
17011	17010	W Acres Rd	VCP	8	375.0	0	CIPP Lining, Service Grouting,	13, 14
17013	17011	W Acres Rd	VCP	8	376.0	0	CIPP Lining, Service Grouting,	14
17016	17175	Mason Ave	VCP	8	162.0	0	CIPP Lining, Service Grouting,	10
17021	16920	Westnedge Rd	VCP	8	332.0	0	CIPP Lining, Service Grouting,	10
17029	17028	Madison St	VCP	8	38.0	0	CIPP Lining,	11
17033	17032	Bevan Dr W	VCP	8	406.0	1	CIPP Lining, Service Grouting,	11
17036	17035	Mason Ave	VCP	8	273.0	2	CIPP Lining, Service Grouting,	11
17039	17131	Taylor St	VCP	8	363.0	0	CIPP Lining, Service Grouting,	13
17041	17039	Westnedge Rd	VCP	8	295.0	0	CIPP Lining, Service Grouting,	13
17043	17045	Douglas St	VCP	8	272.0	0	CIPP Lining, Service Grouting,	10
17043	17042	Westnedge Rd	VCP	8	26.9	0	CIPP Lining, Service Grouting,	13
17044	17043	Westnedge Rd	VCP	8	215.9	0	CIPP Lining, Service Grouting,	10
17045	16922	Douglas St	VCP	8	127.0	1	CIPP Lining, Service Grouting,	10
17108	16924	Douglas St	VCP	8	14.0	0	CIPP Lining,	10
17122	17123	Madison St	VCP	8	332.0	0	CIPP Lining, Service Grouting,	14
17123	16955	Madison St	VCP	8	332.0	0	CIPP Lining, Service Grouting,	14
17124	16927	Taylor St	VCP	8	372.1	0	CIPP Lining, Service Grouting,	14
17131	16932	Taylor St	VCP	8	366.0	2	CIPP Lining, Service Grouting,	13
17132	16934	Mayfield Ave	VCP	8	379.0	0	CIPP Lining, Service Grouting,	14

CITY OF JOLIET
2024 SEWER REHABILITATION PROGRAM
PRE-CLEANING AND TELEVISIONING SCHEDULE

USMH	DSMH	Street	Material	Diameter (in)	Length (ft)	Protruding Taps	Project Work	Exhibit Grid Number(s)
17155	17160	Bevan Dr W	VCP	8	422.0	0	CIPP Lining, Service Grouting,	14, 15
17156	17157	Bevan Dr E	VCP	8	380.1	0	CIPP Lining, Service Grouting,	15
17161	17024	Bevan Dr E	VCP	8	300.0	0	CIPP Lining, Service Grouting,	12
17166	17027	Douglas St	VCP	8	273.0	0	CIPP Lining, Service Grouting,	10, 11
17167	17036	Mason Ave	VCP	8	403.0	0	CIPP Lining, Service Grouting,	10, 11
17169	17170	Arden Pl	VCP	8	278.0	1	CIPP Lining, Service Grouting,	7, 8
17170	17171	Arden Pl	VCP	8	275.0	0	CIPP Lining, Service Grouting,	8
17173	17174	Springfield Ave	VCP	8	20.0	0	CIPP Lining,	7
17174	17169	Arden Pl	VCP	8	278.0	0	CIPP Lining, Service Grouting,	7
17175	17167	Mason Ave	VCP	8	155.0	0	CIPP Lining, Service Grouting,	10
17434	17644	Orchard Dr	VCP	8	252.8	1	CIPP Lining, Service Grouting,	1, 2
17435	17434	Orchard Dr	VCP	8	223.0	0	CIPP Lining, Service Grouting,	1
17436	17437	Cypress Ln	VCP	8	150.6	0	CIPP Lining,	1
17437	17438	Macfarlane Dr	VCP	8	253.2	0	CIPP Lining, Service Grouting,	1
17438	17646	Macfarlane Dr	VCP	8	252.7	0	CIPP Lining, Service Grouting,	1, 2
17441	17571	Brentwood Dr	VCP	8	269.0	1	CIPP Lining, Service Grouting,	4
17472	17173	Springfield Ave	VCP	8	336	0	CIPP Lining, Service Grouting,	7
17486	17487	George Ave	VCP	8	335.0	0	CIPP Lining, Service Grouting,	4
17494	17564	Cypress Ln	VCP	8	220.7	0	CIPP Lining, Service Grouting,	1
17496	17685	Pearson Dr	VCP	8	350.0	0	CIPP Lining, Service Grouting,	7
17497	17496	Pearson Dr	VCP	8	377.1	0	CIPP Lining, Service Grouting,	5, 7
17565	17436	Cypress Ln	VCP	8	203.3	0	CIPP Lining, Service Grouting,	1
17566	17567	Birchwood Ln	VCP	8	142.0	0	CIPP Lining, Service Grouting,	1
17567	17568	Birchwood Ln	VCP	8	242.3	0	CIPP Lining, Service Grouting,	1
17568	17569	Brentwood Dr	VCP	8	243.0	1	CIPP Lining, Service Grouting,	1, 4
17569	17485	Brentwood Dr	VCP	8	235.0	0	CIPP Lining, Service Grouting,	4
17571	17485	Brentwood Dr	VCP	8	267.1	2	CIPP Lining, Service Grouting,	4
17573	17572	Cypress Ln	VCP	8	183.0	0	CIPP Lining, Service Grouting,	7
17607	17606	Black Rd	VCP	8	254.0	0	CIPP Lining, Service Grouting,	7
17609	17610	Black Rd	VCP	8	252.0	0	CIPP Lining, Service Grouting,	8
17642	17490	Pearson Dr	VCP	8	265.7	0	CIPP Lining, Service Grouting,	5
17643	17642	Pearson Dr	VCP	8	268.0	1	CIPP Lining, Service Grouting,	2, 5
17644	17643	Pearson Dr	VCP	8	272.0	1	CIPP Lining, Service Grouting,	2
17645	17646	Pearson Dr	VCP	8	276.1	0	CIPP Lining, Service Grouting,	2
18290	18411	Lavinia Ln	VCP	8	333.0	0	CIPP Lining, Service Grouting,	12, 15
18296	18295	Palladium Dr W	VCP	8	361.0	0	CIPP Lining, Service Grouting,	12
18297	18296	Palladium Dr W	VCP	8	293.0	0	CIPP Lining, Service Grouting,	9, 12
18300	18298	Palladium Dr E	VCP	8	363.9	1	CIPP Lining, Service Grouting,	9, 12

CITY OF JOLIET
2024 SEWER REHABILITATION PROGRAM
PRE-CLEANING AND TELEVISION SCHEDULE

USMH	DSMH	Street	Material	Diameter (in)	Length (ft)	Protruding Taps	Project Work	Exhibit Grid Number(s)
18306	18410	Palladium Dr W	VCP	8	543.0	0	CIPP Lining, Service Grouting,	12, 15
20138	2191	PALLADIUM DRIVE	VCP	8	168	1	CIPP Lining	15
20523	17121	Madison St	VCP	8	406.0	0	CIPP Lining	14
20525	20523	Madison St	VCP	8	404.4	0	CIPP Lining, Service Grouting,	14
21778	17472	Black Rd	VCP	8	185.0	0	CIPP Lining, Service Grouting,	7
16673	19982	Hickory St	VCP	10	310.0	2	CIPP Lining, Service Grouting,	17
16943	17032	Bevan Dr W	CP	10	314.1	5	CIPP Lining, Service Grouting,	11, 14
17027	17030	Douglas St	VCP	10	271.6	0	CIPP Lining, Service Grouting,	11
17432	17433	Lilac Ln	VCP	10	280.8	4	CIPP Lining, Service Grouting,	2, 5
17433	17491	Lilac Ln	VCP	10	279.1	2	CIPP Lining, Service Grouting,	5
17439	17608	Brentwood Dr	VCP	10	256.3	0	CIPP Lining, Service Grouting,	7
17440	17439	Brentwood Dr	VCP	10	327.0	1	CIPP Lining, Service Grouting,	7
17610	17611	Black Rd	VCP	10	57.0	0	CIPP Lining,	8
18411	18410	Douglas St	VCP	10	394.0	0	CIPP Lining, Service Grouting,	12
19096	19095	OAKLAND AVE	VCP	10	315.0	1	CIPP Lining, Service Grouting,	16
17024	17022	Douglas St	VCP	12	375.0	0	CIPP Lining, Service Grouting,	12
17031	17028	Douglas St	CIPP	12	159.0	0	CIPP Lining,	11
17608	17685	Black Rd	VCP	12	323	3	CIPP Lining, Service Grouting,	7
17491	17500	Lilac Ln	VCP	15	281.8	3	CIPP Lining, Service Grouting,	5
17500	17501	Lilac Ln	VCP	15	281.0	4	CIPP Lining, Service Grouting,	5
17501	17502	Lilac Ln	VCP	15	369.9	0	CIPP Lining, Service Grouting,	5, 8
17502	17504	Lilac Ln	VCP	15	282.0	0	CIPP Lining, Service Grouting,	8
17504	17611	Lilac Ln	VCP	15	66.4	0	CIPP Lining, Service Grouting,	8
17684	17171	Madison St	VCP	18	376.8	0	CIPP Lining, Service Grouting,	8
8" Total:					22493	21		
10" Total:					2805	15		
12" Total:					857	3		
15" Total:					1281	7		
18" Total:					377	0		
Pipe Diameter Totals					Length (ft)	Protruding Taps		
Total:					27813	25		

**CITY OF JOLIET
2024 SANITARY SEWER REHABILITATION PROGRAM**

**APPENDIX B
CURED-IN-PLACE PIPELINING SCHEDULE**

CITY OF JOLIET
2024 SEWER REHABILITATION PROGRAM
PIPE LINING

Upstream Manhole (USMH)	Downstream Manhole (DSMH)	Address	Pipe Diameter (in.)	Pipe Material	Segment Length (ft.)	USMH Depth (ft.)	DSMH Depth (ft.)	Number of Live Services	Number of Capped Services	Number of Protruding Taps	Exhibit Grid Number(s)
2600	17108	SPRINGFIELD AVE	8	VCP	317	8.0	9.1	0	0	0	10
15720	15488	WOODLAND DR	8	VCP	175	10.5	16.0	2	0	0	18
16921	16920	AVALON AVE	8	VCP	250	8.9	10.2	6	0	0	10
16922	17108	DOUGLAS ST	8	VCP	342	8.8	9.1	10	0	0	10
16924	17166	DOUGLAS ST	8	VCP	274	14.5	17.3	6	0	0	10
16927	16932	TAYLOR ST	8	VCP	367	8.8	9.7	9	0	0	13, 14
16932	16933	SPRINGFIELD AVE	8	VCP	333	9.7	11.7	0	0	0	13
16934	16933	MAYFIELD AVE	8	VCP	373	9.7	11.7	10	0	0	13, 14
16935	16933	MAYFIELD AVE	8	VCP	356	11.0	11.7	8	0	0	13
16937	16936	MASON AVE	8	VCP	309	8.6	5.3	9	0	0	12
16944	17158	MAYFIELD AVE	8	VCP	297	5.6	7.8	4	0	0	15
16945	16943	MAYFIELD AVE	8	VCP	298	8.7	8.2	5	0	1	14
16946	16945	ANN CT	8	VCP	297	9.4	8.7	4	0	0	14
16948	16950	AVALON AVE	8	VCP	267	7.5	15.5	8	0	0	11
16955	17029	MADISON ST	8	VCP	291	9.8	9.2	3	0	0	11, 14
16956	16935	MAYFIELD AVE	8	VCP	163	8.0	11.0	6	2	2	13
17009	17010	SPRINGFIELD AVE	8	VCP	175	7.3	8.0	3	0	1	13
17010	16932	SPRINGFIELD AVE	8	VCP	330	8.0	8.0	2	0	1	13
17011	17010	WEST ACRES RD	8	VCP	371	7.8	8.0	9	0	0	13, 14
17013	17011	WEST ACRES RD	8	VCP	371	8.4	7.8	7	0	0	14
17016	17175	MASON AVE	8	VCP	162	8.4	8.7	2	0	0	10
17021	16920	WESTNEDGE RD	8	VCP	330	6.3	10.2	9	0	0	10
17029	17028	DOUGLAS ST	8	VCP	35	9.2	15.4	0	0	0	11
17033	17032	DOUGLAS ST	8	VCP	399	7.1	8.3	8	0	1	11
17036	17035	MASON AVE	8	VCP	271	9.8	16.0	8	0	2	11
17039	17131	TAYLOR ST	8	VCP	358	9.4	9.5	8	1	0	13
17041	17039	WESTNEDGE RD	8	VCP	293	6.1	9.4	8	0	0	13
17043	17042	WESTNEDGE RD	8	VCP	26.9	10.8	24.5	0	0	0	13
17043	17045	DOUGLAS ST	8	VCP	269	10.8	9.3	2	0	0	10
17044	17043	WESTNEDGE RD	8	VCP	216	10.0	10.8	5	0	0	10
17045	16922	DOUGLAS ST	8	VCP	127	9.3	8.8	3	0	1	10
17108	16924	DOUGLAS ST	8	VCP	14	8.0	10.0	0	0	0	10
17122	17123	MADISON ST	8	VCP	329	8.9	8.5	4	0	0	14
17123	16955	MADISON ST	8	VCP	330	8.5	9.8	4	0	0	14

Note: Actual quantity of lateral reinstatements and grouts may be lower than indicated in the schedule based on dye testing results.

CITY OF JOLIET
2024 SEWER REHABILITATION PROGRAM
PIPE LINING

Upstream Manhole (USMH)	Downstream Manhole (DSMH)	Address	Pipe Diameter (in.)	Pipe Material	Segment Length (ft.)	USMH Depth (ft.)	DSMH Depth (ft.)	Number of Live Services	Number of Capped Services	Number of Protruding Taps	Exhibit Grid Number(s)
17124	16927	TAYLOR ST	8	VCP	366	8.3	8.8	9	0	0	14
17131	16932	TAYLOR ST	8	VCP	361	9.5	8.0	10	0	2	13
17132	16934	MAYFIELD AVE	8	VCP	374	8.8	9.7	12	0	0	14
17155	17160	BEVAN DR E	8	VCP	415	7.5	7.4	9	0	0	14, 15
17156	17157	BEVAN DR E	8	VCP	376	6.7	7.4	8	0	0	15
17161	17024	BEVAN DR E	8	VCP	296	7.4	10.7	6	0	0	12
17166	17027	DOUGLAS ST	8	VCP	267	17.3	16.1	8	0	0	10, 11
17167	17036	MASON AVE	8	VCP	398	9.0	9.8	11	10	0	10, 11
17169	17170	ARDEN PL	8	VCP	276	9.2	9.7	7	6	1	7, 8
17170	17171	ARDEN PL	8	VCP	274	9.7	16.1	8	7	0	8
17173	17174	SPRINGFIELD AVE	8	VCP	20	11.0	10.9	0	0	0	7
17174	17169	ARDEN PL	8	VCP	278	10.9	9.2	5	5	0	7
17175	17167	MASON AVE	8	VCP	152	8.7	9.0	1	0	0	10
17434	17644	ORCHARD DR	8	VCP	250	8.6	9.1	5	3	1	1,2
17435	17434	ORCHARD LN	8	VCP	223	Buried	8.6	9	6	0	1
17436	17437	CYPRESS LN	8	VCP	148	7.5	6.7	5	0	0	1
17437	17438	MACFARLANE DR	8	VCP	254	6.7	6.9	7	2	0	1
17438	17646	MACFARLANE DR	8	VCP	254	6.9	7.1	7	4	0	1, 2
17441	17571	BRENTWOOD DR	8	VCP	264	6.8	7.4	10	7	1	4
21778	17472	BLACK RD	8	VCP	179	N/A	7.3	1	0	0	7
17472	17173	SPRINGFIELD AVE	8	VCP	333	7.3	11.0	3	0	0	7
17486	17487	GEORGE AVE	8	VCP	331	9.4	7.8	6	1	0	4
17494	17564	CYPRESS LN	8	VCP	224	8.3	7.9	6	0	0	1
17496	17685	PEARSON DR	8	VCP	347	10.2	16.5	11	0	0	7
17497	17496	PEARSON DR	8	VCP	371	7.8	10.2	13	0	0	5, 7
17565	17436	CYPRESS LN	8	VCP	203	8.7	7.5	8	0	0	1
17566	17567	BIRCHWOOD LN	8	VCP	137	8.1	9.3	5	0	0	1
17567	17568	BIRCHWOOD LN	8	VCP	242	9.3	11.7	5	0	0	1
17568	17569	BRENTWOOD DR	8	VCP	239	11.7	9.3	6	5	1	1, 4
17569	17485	BRENTWOOD DR	8	VCP	234	9.3	8.5	7	3	0	4
17571	17485	BRENTWOOD DR	8	VCP	267	7.4	8.5	8	5	2	4
17573	17572	CYPRESS LN	8	VCP	267	10.7	11.8	6	0	0	7
17607	17606	BLACK RD	8	VCP	249	9.3	10.7	4	0	0	7
17609	17610	BLACK RD	8	VCP	248	10.8	10.5	3	1	0	8

Note: Actual quantity of lateral reinstatements and grouts may be lower than indicated in the schedule based on dye testing results.

CITY OF JOLIET
2024 SEWER REHABILITATION PROGRAM
PIPE LINING

Upstream Manhole (USMH)	Downstream Manhole (DSMH)	Address	Pipe Diameter (in.)	Pipe Material	Segment Length (ft.)	USMH Depth (ft.)	DSMH Depth (ft.)	Number of Live Services	Number of Capped Services	Number of Protruding Taps	Exhibit Grid Number(s)
17642	17490	PEARSON DR	8	VCP	266	9.8	10.5	8	3	0	5
17643	17642	PEARSON DR	8	VCP	267	10.0	9.8	9	3	1	2, 5
17644	17643	PEARSON DR	8	VCP	267	9.1	10.0	8	5	1	2
17645	17646	PEARSON DR	8	VCP	278	7.7	7.1	6	5	0	2
18290	18411	LAVINIA LN	8	VCP	328	8.8	12.3	5	0	0	12, 15
18296	18295	PALLADIUM DR W	8	VCP	357	9.6	8.7	5	0	0	12
18297	18296	PALLADIUM DR W	8	VCP	292	8.6	9.6	4	0	0	9, 12
18300	18298	PALLADIUM DR E	8	VCP	358	8.0	8.4	8	0	1	9, 12
18306	18410	PALLADIUM DR W	8	VCP	537	8.4	11.0	6	0	0	12, 15
20523	17121	MADISON ST	8	VCP	401	8.9	9.0	4	2	0	14
20525	20523	GLENWOOD AVE	8	Unknown	252	Buried	8.9	5	0	0	14
20138	2191	PALLADIUM DRIVE	8	VCP	168	6.0	8.6	3	1	1	15
2191	18306	PALLADIUM DRIVE	8	VCP	264	8.6	8.4	1	1	1	15
16673	19982	HICKORY STREET	10	VCP	310	4.0	4.4	9	4	2	17
17440	17439	BRENTWOOD DR	10	VCP	327	8.1	12.6	9	0	1	7
16943	17032	BEVAN DR W	10	CP	313	8.2	8.3	7	3	5	11, 14
17027	17030	DOUGLAS ST	10	VCP	272	16.1	13.3	8	0	0	11
17432	17433	LILAC LN	10	VCP	281	13.5	Buried	8	0	4	2, 5
17433	17491	LILAC LN	10	VCP	283	Buried	13.9	8	4	2	5
17439	17608	BRENTWOOD DR	10	VCP	302	12.6	17.9	7	0	0	7
18411	18410	DOUGLAS ST	10	VCP	386	12.3	11.0	5	0	0	12
19096	19095	OAKLAND AVE	10	VCP	315	6.8	5.9	15	0	1	16
17610	17611	BLACK RD	10	VCP	57	10.5	16.5	1	0	0	8
17024	17022	DOUGLAS ST	12	VCP	375	10.6	8.9	5	0	0	12
17031	17028	DOUGLAS ST	12	CIPP	157	8.2	15.4	0	0	0	11
17608	17685	BLACK RD	12	VCP	325	17.9	16.5	5	0	3	7
17491	17500	LILAC LN	15	VCP	283	13.9	15.1	7	0	3	5
17500	17501	LILAC LN	15	VCP	282	15.1	16.0	11	0	4	5

Note: Actual quantity of lateral reinstatements and grouts may be lower than indicated in the schedule based on dye testing results.

CITY OF JOLIET
2024 SEWER REHABILITATION PROGRAM
PIPE LINING

Upstream Manhole (USMH)	Downstream Manhole (DSMH)	Address	Pipe Diameter (in.)	Pipe Material	Segment Length (ft.)	USMH Depth (ft.)	DSMH Depth (ft.)	Number of Live Services	Number of Capped Services	Number of Protruding Taps	Exhibit Grid Number(s)
17501	17502	LILAC LN	15	VCP	372	16.0	18.1	12	0	0	5, 8
17502	17504	LILAC LN	15	VCP	284	18.1	18.9	9	0	0	8
17504	17611	LILAC LN	15	VCP	67	18.9	18.1	1	0	0	8
17684	17171	MADISON ST	18	VCP	378	18.9	16.1	1	1	0	8
<u>Pipe Diameter Totals</u>					<u>Length</u> (ft)	Services Totals		<u>Live</u>	<u>Capped</u>	<u>Protruding</u>	
8" Total:					22266			473	88	22	
10" Total:					2846			77	11	15	
12" Total:					856			10	0	3	
15" Total:					1287			40	0	7	
18" Total:					378			1	1	0	
Total:					27633			601	100	47	

Note: Actual quantity of lateral reinstatements and grouts may be lower than indicated in the schedule based on dye testing results.

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CITY OF JOLIET
2024 SANITARY SEWER REHABILITATION PROGRAM

APPENDIX D
GROUTING SCHEDULE

**CITY OF JOLIET
2024 SEWER REHABILITATION PROGRAM
GROUTING SCHEDULE**

USMH	DSMH	Street	Diameter (in)	Length (ft)	TV Direction	Pipe Material	Estimated Service Testing/Grouting (5-foot)	Do Not Grout Laterals	Exhibit Grid Number(s)
15720	15488	WOODLAND DR	8	175	DS	VCP	1	60.4	17
16922	17108	DOUGLAS ST	8	342	DS	VCP	9	6.0	10
16924	17166	DOUGLAS ST	8	274	DS	VCP	3	62.1, 77.7, 246.6	10
16927	16932	TAYLOR ST	8	367	DS	VCP	9	-	13, 14
16934	16933	MAYFIELD AVE	8	373	DS	VCP	9	243.6	13, 14
16935	16933	MAYFIELD AVE	8	356	DS	VCP	4	74.8, 80.1, 289.8, 294.8	13
16937	16936	MASON AVE	8	309	DS	VCP	8	84.7	12
16944	17158	MAYFIELD AVE	8	297	DS	VCP	4	-	15
16945	16943	MAYFIELD AVE	8	298	DS	VCP	4	181.7	14
16946	16945	ANN CT	8	297	DS	VCP	4	-	14
16948	16950	AVALON AVE	8	267	DS	VCP	8	-	11
16955	17029	MADISON ST	8	291	DS	VCP	2	138.1	11, 14
16956	16935	MAYFIELD AVE	8	163	DS	VCP	5	90.0	13
17009	17010	SPRINGFIELD AVE	8	175	DS	VCP	2	52.1	13
17010	16932	SPRINGFIELD AVE	8	330	DS	VCP	2	-	13
17011	17010	WEST ACRES RD	8	371	DS	VCP	8	305.0	13, 14
17013	17011	WEST ACRES RD	8	371	DS	VCP	2	121.8, 201.2, 228.5, 302.1, 363.5	14
17016	17175	MASON AVE	8	162	DS	VCP	2	-	10
17021	16920	WESTNEDGE RD	8	330	DS	VCP	7	108.4, 252.2	10
17033	17032	DOUGLAS ST	8	399	DS	VCP	8	-	11
17036	17035	MASON AVE	8	271	DS	VCP	7	42.0	11
17039	17131	TAYLOR ST	8	358	DS	VCP	3	41.1, 68.1, 78.3, 150.3, 286.4	13
17041	17039	WESTNEDGE RD	8	293	DS	VCP	4	10.8, 138.6, 161.1, 284.6	13
17043	17045	DOUGLAS ST	8	269	DS	VCP	2	-	10
17045	16922	DOUGLAS ST	8	127	DS	VCP	2	50.4	10
17122	17123	MADISON ST	8	329	DS	VCP	4	-	14
17123	16955	MADISON ST	8	330	DS	VCP	3	158.8	14
17124	16927	TAYLOR ST	8	366	DS	VCP	7	108.7, 119.2	14
17131	16932	TAYLOR ST	8	361	DS	VCP	10	-	13
17132	16934	MAYFIELD AVE	8	374	DS	VCP	10	227.7, 358.7	14
17155	17160	BEVAN DR E	8	415	DS	VCP	8	120.0	14, 15
17156	17157	BEVAN DR E	8	376	DS	VCP	8	-	15
17161	17024	BEVAN DR E	8	296	DS	VCP	6	-	12
17166	17027	DOUGLAS ST	8	267	DS	VCP	3	43.7, 179.8, 182.9, 246.1, 249.2	10, 11
17167	17036	MASON AVE	8	398	DS	VCP	10	371.2	10, 11
17169	17170	ARDEN PL	8	276	DS	VCP	7	-	7, 8
17170	17171	ARDEN PL	8	274	DS	VCP	6	89.5, 159.3	8
17175	17167	MASON AVE	8	152	DS	VCP	1	-	10

Notes: Laterals designated as Do Not Grout are to be lined in a future rehabilitation project with the City.

**CITY OF JOLIET
2024 SEWER REHABILITATION PROGRAM
GROUTING SCHEDULE**

USMH	DSMH	Street	Diameter (in)	Length (ft)	TV Direction	Pipe Material	Estimated Service Testing/GROUTING (5-foot)	Do Not Grout Laterals	Exhibit Grid Number(s)
17434	17644	ORCHARD DR	8	250	DS	VCP	2	38, 49.3, 101.7	1, 2
17435	17434	ORCHARD LN	8	223	DS	VCP	5	44.2, 77.5, 82.8, 140.3	1
17437	17438	MACFARLANE DR	8	254	DS	VCP	4	40, 71.0, 83.0	1
17438	17646	MACFARLANE DR	8	254	DS	VCP	7	-	1, 2
17441	17571	BRENTWOOD DR	8	264	DS	VCP	8	58.4, 118.7	4
21778	17472	BLACK RD	8	179	DS	VCP	1	-	7
17472	17173	SPRINGFIELD AVE	8	333	DS	VCP	1	210.8, 322.6	7
17486	17487	GEORGE AVE	8	331	DS	VCP	3	90.5, 95.8, 168.7	4
17494	17564	CYPRESS LN	8	224	DS	VCP	3	69.4, 178.7, 215	1
17496	17685	PEARSON DR	8	347	DS	VCP	9	116.9, 235.3	7
17497	17496	PEARSON DR	8	371	DS	VCP	7	76.3, 156.2, 203.7, 261, 322.2, 332.6	5, 7
17566	17567	BIRCHWOOD LN	8	137	DS	VCP	5	-	
17567	17568	BIRCHWOOD LN	8	242	DS	VCP	4	13.6	
17568	17569	BRENTWOOD DR	8	239	DS	VCP	6	-	1, 4
17569	17485	BRENTWOOD DR	8	234	DS	VCP	6	165.3	4
17571	17485	BRENTWOOD DR	8	267	DS	VCP	7	198.5	4
17607	17606	BLACK RD	8	249	DS	VCP	2	44.8, 100.4	7
17609	17610	BLACK RD	8	248	DS	VCP	3	-	8
17642	17490	PEARSON DR	8	266	DS	VCP	8	-	5
16921	16920	AVALON AVE	8	250	DS	VCP	4	155.3, 169.7	10
17044	17043	WESTNEDGE RD	8	216	DS	VCP	3	21.1, 99.5	10
17174	17169	ARDEN PL	8	278	DS	VCP	5	-	7
17496	17685	PEARSON DR	8	347	DS	VCP	9	116.9, 235.3	
17565	17436	CYPRESS LN	8	203	DS	VCP	2	95.6, 153.5	1
17573	17572	CYPRESS LN	8	267	DS	VCP	5	13.5	7
17643	17642	PEARSON DR	8	267	DS	VCP	8	215.9	2, 5
17644	17643	PEARSON DR	8	267	DS	VCP	6	200.4, 256.2	2
17645	17646	PEARSON DR	8	278	DS	VCP	5	110.0	2
18290	18411	LAVINIA LN	8	328	DS	VCP	4	237.9	12, 15
18296	18295	PALLADIUM DR W	8	357	DS	VCP	1	97, 152.9, 276.9, 279.1	12
18297	18296	PALLADIUM DR W	8	292	DS	VCP	1	109.2, 205.7, 207.9	9, 12
18300	18298	PALLADIUM DR E	8	358	DS	VCP	8	43.4,	9, 12
18306	18410	PALLADIUM DR W	8	537	DS	VCP	6	-	12, 15
20523	17121	MADISON ST	8	401	DS	VCP	0	All Laterals	14
20525	20523	GLENWOOD AVE	8	252	DS	Unknown	3	57.7, 164.8	14
20138	2191	PALLADIUM DRIVE	8	168	DS	VCP	1	49.7, 127.3	15
2191	18306	PALLADIUM DRIVE	8	264	DS	VCP	1	-	15
16673	19982	HICKORY DRIVE	10	310	DS	VCP	3	84.3, 96.0, 114.7, 223.3, 238.5, 276.2	17

Notes: Laterals designated as Do Not Grout are to be lined in a future rehabilitation project with the City.

**CITY OF JOLIET
2024 SEWER REHABILITATION PROGRAM
GROUTING SCHEDULE**

USMH	DSMH	Street	Diameter (in)	Length (ft)	TV Direction	Pipe Material	Estimated Service Testing/Grouting (5-foot)	Do Not Grout Laterals	Exhibit Grid Number(s)
16943	17032	BEVAN DR W	10	313	DS	CP	6	78.9	11, 14
17027	17030	DOUGLAS ST	10	272	DS	VCP	2	46.7, 49.7, 107.3, 110.2, 174.2, 177.3,	11
17432	17433	LILAC LN	10	281	DS	VCP	6	172.8, 207.9	2, 5
17433	17491	LILAC LN	10	283	DS	VCP	7	220.4	5
17439	17608	BRENTWOOD DR	10	302	DS	VCP	6	163.0	7
17440	17439	BRENTWOOD DR	10	327	DS	VCP	7	115.7, 234.4	7
18411	18410	DOUGLAS ST	10	386	DS	VCP	1	93.9, 203.8, 206.8, 304.1	12
19096	19095	OAKLAND AVE	10	316	DS	VCP	0	All Laterals	16
17024	17022	DOUGLAS ST	12	375	DS	VCP	5	-	12
17608	17685	BLACK RD	12	325	DS	VCP	5	-	7
17491	17500	LILAC LN	15	283	DS	VCP	7	-	5
17500	17501	LILAC LN	15	282	DS	VCP	9	155.9, 186.4	5
17501	17502	LILAC LN	15	372	DS	VCP	9	78.4, 260.1, 318.7	5, 8
17502	17504	LILAC LN	15	284	DS	VCP	6	117.5, 173.6, 230.8	8
17504	17611	LILAC LN	15	67	DS	VCP	1	-	8
17684	17171	MADISON ST	18	378	DS	VCP	1	-	8

Notes: Laterals designated as Do Not Grout are to be lined in a future rehabilitation project with the City.

**CITY OF JOLIET
2024 SANITARY SEWER REHABILITATION PROGRAM**

**APPENDIX E
MANHOLE REHABILITATION SCHEDULE**

Joliet , IL
2024 MANHOLE REHABILITATION SCHEDULE

GENERAL INFORMATION									RECOMMENDATIONS																		
Manhole No.	Street Number	Street Name	MACP Location Code	Surface Type	Structure Depth (ft)	Structure Diameter (in)	Chimney Height (in)	Wall Material	Replace Cover	Replace Frame & Cover (Paved) ¹	Replace Frame & Cover (Non-Paved) ¹	Seal & Adjust Frame (Paved) ¹	Seal & Adjust Frame (Non-Paved) ¹	Internal Chimney Seal	Cementitious Manhole Sealing	Grout Cone	Grout Wall Joints	Number of Wall Joints	Wall Joint Location ²	Curtain Grout Bottom 18"	Full Curtain Grout	Repair Bench & Trough	Replace Bench & Trough	Uncover/ Raise Buried Manhole (Paved)	Uncover/ Raise Buried Manhole (Non-Paved)	Exhibit Grid #	
2191	405	Palladium Dr W	Yard	Grass/Dirt	8.6	48	0	Concrete Block			X				X												M15
2600	611	Springfield Ave	Sidewalk	Concrete/Pavement	8.0	48	4	Concrete (reinforced)		X												X					M10
16920	611	Westnedge Rd	Light Highway	Asphalt	10.2	48	1	Concrete (reinforced)				X					X	2	A,B								M10
16921	2318	Avalon Ave	Light Highway	Asphalt	8.9	48	2	Concrete (reinforced)				X					X	2	A,B								M10
16922	2314	Douglas St	Light Highway	Asphalt	8.8	48	12	Concrete Block				X			X												M10
16923	2300	Douglas St	Light Highway	Asphalt	18.0	48	0	Concrete (reinforced)		X											X						M10
16924	2228	Douglas St	Light Highway	Asphalt	14.5	48	8	Concrete Block				X			X								X				M10
16927	2218	Taylor St	Light Highway	Asphalt	8.8	48	21	Concrete Block							X												M14
16932	2301	Taylor St	Light Highway	Asphalt	9.7	48	8	Concrete Block							X												M13
16933	2219	Mayfield Ave	Light Highway	Asphalt	11.7	48	8	Concrete Block				X			X												M13
16934	2221	Mayfield Ave	Light Highway	Asphalt	9.7	48	5	Concrete Block							X												M14
16935	2314	Mayfield Ave	Light Highway	Asphalt	11.0	48	0	Concrete Block							X												M13
16936	2007	Mason Ave	Light Highway	Asphalt	5.3	36	3	Concrete Block							X												M12
16937	2000	Mason Ave	Light Highway	Asphalt	8.6	48	4	Concrete Block		X					X												M12
16938	2000	Arden Pl	Light Highway	Asphalt	6.5	48	4	Concrete Block				X			X												M9
16940	2006	Arden Pl	Light Highway	Asphalt	5.0	48	4	Concrete Block		X					X												M9
16941	709	Ann St	Light Highway	Asphalt	5.6	48	8	Concrete Block				X			X								X				M8
16942	2013	Arden Pl	Light Highway	Asphalt	5.9	48	14	Concrete Block				X			X												M8
16943	507	W Bevan Dr	Light Highway	Asphalt	8.2	48	9	Concrete Block				X			X												M14
16944	2011	Mayfield Ave	Light Highway	Asphalt	5.6	36	12	Concrete Block				X			X												M14
16945	2101	Mayfield Ave	Light Highway	Asphalt	8.7	36	8	Concrete Block				X			X												M14
16946	501	Ann Ct	Easement/Right of Way	Grass/Dirt	9.4	36	12	Concrete Block					X		X												M14
16947	2222	Avalon Ave	Light Highway	Asphalt	7.0	48	11	Concrete Block				X			X												M10
16948	2211	Avalon Ave	Light Highway	Asphalt	7.5	48	4	Concrete Block				X			X												M11
16949	607	Madison St	Light Highway	Asphalt	16.0	48	10	Concrete (reinforced)				X															M11
16950	607	Madison St	Light Highway	Asphalt	15.5	48	9	Concrete Block							X												M11
16951	2400	Douglas St	Light Highway	Asphalt	26.0	48	12	Concrete (reinforced)				X					X	3	A,C,D								M13
16955	506	Madison St	Light Highway	Asphalt	9.8	48	13	Concrete Block							X												M14
16956	2318	Mayfield Ave	Light Highway	Asphalt	8.0	48	25	Concrete (reinforced)				X															M13
17009	2234	Glenwood Ave	Light Highway	Asphalt	7.3	48	9	Concrete Block							X												M13
17010	411	Springfield Ave	Light Highway	Asphalt	8.0	48	0	Concrete Block				X			X								X				M13
17011	2221	West Acres Rd	Light Highway	Asphalt	7.8	48	5	Concrete Block				X			X												M14
17013	2205	West Acres Rd	Light Highway	Asphalt	8.4	48	10	Concrete Block				X			X												M14
17015	2315	Mason Ave	Light Highway	Asphalt	7.4	48	3	Concrete Block		X																	M10

1. Includes External Chimney Seal
2. Joint A is the joint that attaches the cone to the wall. Every subsequent joint below is labeled alphabetically.

Joliet , IL
2024 MANHOLE REHABILITATION SCHEDULE

GENERAL INFORMATION									RECOMMENDATIONS																		
Manhole No.	Street Number	Street Name	MACP Location Code	Surface Type	Structure Depth (ft)	Structure Diameter (in)	Chimney Height (in)	Wall Material	Replace Cover	Replace Frame & Cover (Paved) ¹	Replace Frame & Cover (Non-Paved) ¹	Seal & Adjust Frame (Paved) ¹	Seal & Adjust Frame (Non-Paved) ¹	Internal Chimney Seal	Cementitious Manhole Sealing	Grout Cone	Grout Wall Joints	Number of Wall Joints	Wall Joint Location ²	Curtain Grout Bottom 18"	Full Curtain Grout	Repair Bench & Trough	Replace Bench & Trough	Uncover/ Raise Buried Manhole (Paved)	Uncover/ Raise Buried Manhole (Non-Paved)	Exhibit Grid #	
17017	710	Mason Ct	Sidewalk	Concrete/Pavement	5.4	48	2	Concrete (reinforced)						X			X	2	A,B								M7
17019	705	Westnedge Rd	Light Highway	Asphalt	5.6	48	4	Concrete (reinforced)		X																	M10
17021	619	Westnedge Rd	Light Highway	Asphalt	6.3	48	16	Concrete (reinforced)				X											X				M10
17022	2100	Douglas St	Light Highway	Asphalt	8.9	48	4	Concrete Block				X			X												M11
17023	607	Ann St	Light Highway	Asphalt	8.1	48	13	Concrete Block				X			X												M11
17024	506	Douglas St	Light Highway	Asphalt	10.7	48	8	Concrete Block				X			X												M12
17026	2211	Douglas St	Light Highway	Asphalt	18.3	48	5	Concrete (reinforced)		X																	M11
17027	2209	Douglas St	Light Highway	Asphalt	16.1	48	11	Concrete Block				X			X												M11
17028	2201	Douglas St	Light Highway	Asphalt	15.4	48	0	Concrete (reinforced)							X								X				M11
17029	2200	Douglas St	Light Highway	Asphalt	9.2	48	6	Concrete (reinforced)				X															M11
17030	2201	Douglas St	Light Highway	Asphalt	13.3	48	12	Concrete Block							X								X				M11
17031	2155	E Bevan Dr	Light Highway	Asphalt	8.2	48	3	Concrete Block				X			X												M11
17032	2107	E Bevan Dr	Light Highway	Asphalt	8.3	48	0	Concrete Block							X												M11
17033	609	W Bevan Dr	Light Highway	Asphalt	7.1	48	20	Concrete Block				X			X												M11
17034	620	E Bevan Dr	Light Highway	Asphalt	5.4	48	18	Concrete Block				X			X								X				M11
17035	618	Mason Ave	Light Highway	Asphalt	16.0	48	13	Concrete Block	X						X												M11
17036	2211	Mason Ave	Light Highway	Asphalt	9.8	48	11	Concrete Block							X												M11
17039	2324	Taylor St	Sidewalk	Concrete/Pavement	9.4	48	17	Concrete (reinforced)				X			X												M13
17040	509	Westnedge Rd	Light Highway	Asphalt	9.0	48	10	Concrete (reinforced)		X							X	1	A								M13
17041	507	Westnedge Rd	Light Highway	Asphalt	6.1	48	5	Concrete (reinforced)				X															M13
17042	2400	Douglas St	Light Highway	Asphalt	24.5	48	11	Concrete (reinforced)				X															M13
17043	601	Westnedge Rd	Light Highway	Asphalt	10.8	48	4	Concrete (reinforced)				X										X	X				M10
17044	602	Westnedge Rd	Light Highway	Asphalt	10.0	48	0	Concrete (reinforced)							X												M10
17045	2315	Douglas St	Light Highway	Asphalt	9.3	48	4	Concrete (reinforced)				X			X												M10
17046	2315	Douglas St	Light Highway	Asphalt	21.4	48	12	Concrete (reinforced)																			M10
17107	2300	Douglas St	Light Highway	Asphalt	18.2	48	4	Concrete (reinforced)				X					X	1	A								M10
17121	401	Madison St	Light Highway	Asphalt	9.0	48	5	Concrete (reinforced)		X																	M14
17122	406	Madison St	Light Highway	Asphalt	8.9	48	13	Concrete Block							X												M14
17123	416	Taylor St	Light Highway	Asphalt	8.5	48	4	Concrete Block				X			X												M14
17124	2204	Taylor St	Light Highway	Concrete/Pavement	8.3	48	5	Concrete Block		X					X												M14
17131	2314	Taylor St	Light Highway	Asphalt	9.5	48	23	Concrete Block		X					X												M13
17132	2201	Mayfield Ave	Light Highway	Asphalt	8.8	48	0	Concrete Block				X			X												M14
17142	2315	Mason Ave	Light Highway	Asphalt	7.5	48	15	Concrete (reinforced)		X					X												M10
17153	615	Ann St	Light Highway	Asphalt	6.5	48	4	Concrete Block				X			X												M11

1. Includes External Chimney Seal
2. Joint A is the joint that attaches the cone to the wall. Every subsequent joint below is labeled alphabetically.

Joliet , IL
2024 MANHOLE REHABILITATION SCHEDULE

GENERAL INFORMATION									RECOMMENDATIONS																		
Manhole No.	Street Number	Street Name	MACP Location Code	Surface Type	Structure Depth (ft)	Structure Diameter (in)	Chimney Height (in)	Wall Material	Replace Cover	Replace Frame & Cover (Paved) ¹	Replace Frame & Cover (Non-Paved) ¹	Seal & Adjust Frame (Paved) ¹	Seal & Adjust Frame (Non-Paved) ¹	Internal Chimney Seal	Cementitious Manhole Sealing	Grout Cone	Grout Wall Joints	Number of Wall Joints	Wall Joint Location ²	Curtain Grout Bottom 18"	Full Curtain Grout	Repair Bench & Trough	Replace Bench & Trough	Uncover/ Raise Buried Manhole (Paved)	Uncover/ Raise Buried Manhole (Non-Paved)	Exhibit Grid #	
17154	619	Ann St	Light Highway	Asphalt	6.7	48	6	Concrete Block				X			X												M11
17155	400	E Bevan Dr	Light Highway	Asphalt	7.5	48	3	Concrete Block				X			X												M15
17156	405	E Bevan Dr	Light Highway	Asphalt	6.7	48	4	Concrete Block				X			X												M15
17157	418	E Bevan Dr	Light Highway	Asphalt	7.4	48	2	Concrete Block				X			X												M15
17158	500	E Bevan Dr	Light Highway	Asphalt	7.8	36	15	Concrete Block				X			X												M15
17159	501	W Bevan Dr	Light Highway	Asphalt	7.9	48	9	Concrete (reinforced)				X				X	2	A,B									M14
17160	404	W Bevan Dr	Light Highway	Asphalt	7.4	48	9	Concrete Block				X			X												M14
17161	606	E Bevan Dr	Light Highway	Asphalt	7.4	36	4	Concrete Block				X			X												M12
17162	614	E Bevan Dr	Light Highway	Concrete/Pavement	6.7	36	8	Concrete Block				X			X												M12
17165	2316	Douglas St	Light Highway	Asphalt	19.6	48	6	Concrete (reinforced)				X			X												M10
17166	2217	Douglas St	Light Highway	Asphalt	17.3	48	11	Concrete Block				X			X												M10
17167	2225	Mason Ave	Light Highway	Asphalt	9.0	48	6	Concrete Block	X						X					X							M10
17168	704	Springfield Ave	Yard	Grass/Dirt	6.2	48	0	Concrete Block	X						X												M10
17169	2220	Arden Pl	Light Highway	Asphalt	9.2	48	7	Concrete Block				X			X	1	A										M7
17170	2213	Arden Pl	Light Highway	Asphalt	9.7	48	4	Concrete Block							X												M8
17171	751	Madison St	Light Highway	Asphalt	16.1	48	9	Concrete Block				X			X												M8
17172	751	Madison St	Easement/Right of Way	Grass/Dirt	11.2	48	0	Concrete (reinforced)			X					X	2	A, B									M8
17173	713	Springfield Ave	Easement/Right of Way	Concrete/Pavement	11.0	48	13	Concrete (reinforced)		X					X												M7
17174	713	Springfield Ave	Light Highway	Asphalt	10.9	48	0	Concrete Block				X			X												M7
17175	701	Springfield Ave	Light Highway	Asphalt	8.7	48	2	Concrete (reinforced)				X				X	2	A,B									M10
17176	656	Springfield Ave	Yard	Grass/Dirt	5.8	48	0	Concrete Block			X				X												M10
17177	2226	Avalon Ave	Light Highway	Concrete/Pavement	6.2	48	7	Concrete (reinforced)				X			X												M10
17178	2223	Avalon Ave	Easement/Right of Way	Concrete/Pavement	7.0	48	0	Concrete (reinforced)							X												M10
17420	813	Edgerton Dr	Sidewalk	Concrete/Pavement	9.2	48	12	Concrete (reinforced)				X															M9
17421	901	Edgerton Dr	Parking Lot	Concrete/Pavement	8.2	48	2	Concrete (reinforced)				X															M6
17422	2001	Sutton Ct	Sidewalk	Concrete/Pavement	7.7	48	18	Concrete (reinforced)				X															M6
17423	905	Edgerton Dr	Easement/Right of Way	Grass/Dirt	8.5	48	4	Concrete (reinforced)					X			X	2	A, B									M6
17424	2010	George Ave	Easement/Right of Way	Concrete/Pavement	11.2	48	0	Concrete (reinforced)							X												M6
17425	2004	George Ave	Easement/Right of Way	Grass/Dirt	8.4	48	4	Concrete (reinforced)					X								X						M6
17426	2006	George Ave	Easement/Right of Way	Concrete/Pavement	11.8	48	4	Concrete (reinforced)				X				X	3	A, B, C									M6
17428	1002	Sudbury Dr	Easement/Right of Way	Concrete/Pavement	7.2	48	0	Concrete (reinforced)				X				X	1	A									M5
17429	1010	Sudbury Dr	Easement/Right of Way	Grass/Dirt	5.6	48	0	Concrete (reinforced)					X														M2
17430	1005	Ann St	Easement/Right of Way	Concrete/Pavement	6.8	48	0	Concrete (reinforced)				X															M5
17431	1105	Lilac Ln	Light Highway	Asphalt	11.7	48	8	Concrete Block							X								X				M2

1. Includes External Chimney Seal
2. Joint A is the joint that attaches the cone to the wall. Every subsequent joint below is labeled alphabetically.

Joliet, IL
2024 MANHOLE REHABILITATION SCHEDULE

GENERAL INFORMATION									RECOMMENDATIONS																		
Manhole No.	Street Number	Street Name	MACP Location Code	Surface Type	Structure Depth (ft)	Structure Diameter (in)	Chimney Height (in)	Wall Material	Replace Cover	Replace Frame & Cover (Paved) ¹	Replace Frame & Cover (Non-Paved) ¹	Seal & Adjust Frame (Paved) ¹	Seal & Adjust Frame (Non-Paved) ¹	Internal Chimney Seal	Cementitious Manhole Sealing	Grout Cone	Grout Wall Joints	Number of Wall Joints	Wall Joint Location ²	Curtain Grout Bottom 18"	Full Curtain Grout	Repair Bench & Trough	Replace Bench & Trough	Uncover/ Raise Buried Manhole (Paved)	Uncover/ Raise Buried Manhole (Non-Paved)	Exhibit Grid #	
17432	1019	Lilac Ln	Light Highway	Asphalt	13.5	48	6	Concrete Block							X												M2
17433	1009	Lilac Ln	Light Highway	Asphalt	13.2	48	0	Concrete Block		X					X												M5
17434	2207	Orchard Ln	Light Highway	Asphalt	8.6	48	6	Concrete Block		X					X												M1
17435	2305	Orchard Ln	Light Highway	Asphalt	7.9	48	4	Concrete Block		X					X												M1
17436	1115	Cypress Ln	Light Highway	Asphalt	7.5	48	2	Concrete (reinforced)		X										X							M1
17437	2303	Cypress Ln	Light Highway	Asphalt	6.7	48	3	Concrete (reinforced)				X															M1
17438	2217	Mac Farlane Dr	Light Highway	Asphalt	6.9	48	0	Brick							X												M1
17439	808	Brentwood Dr	Light Highway	Asphalt	12.6	48	5	Concrete Block	X						X												M7
17440	820	Brentwood Dr	Light Highway	Asphalt	8.1	48	0	Concrete Block							X												M4
17441	902	Brentwood Dr	Light Highway	Asphalt	6.8	48	6	Brick		X					X		X	1	A								M4
17470	2307	Black Rd	Main Highway - Suburban/Rural	Concrete/Pavement	14.7	48	0	Concrete Block							X												M7
17472	2300	Black Rd	Main Highway - Suburban/Rural	Asphalt	7.3	48	6	Concrete (reinforced)				X											X				M7
17473	2230	Black Rd	Main Highway - Suburban/Rural	Asphalt	4.5	48	0	Concrete (reinforced)				X			X												M7
17481	805	Ann St	Sidewalk	Concrete/Pavement	12.4	48	3	Concrete (reinforced)				X															M8
17482	811	Ann St	Sidewalk	Concrete/Pavement	11.3	48	2	Concrete (reinforced)							X												M8
17483	815	Ann St	Sidewalk	Concrete/Pavement	10.5	48	10	Concrete Block				X								X							M5
17484	2011	Dryden Ln	Easement/Right of Way	Grass/Dirt	6.5	48	0	Concrete (reinforced)					X														M3
17485	2215	George Ave	Light Highway	Asphalt	8.5	48	15	Brick		X					X												M4
17486	917	Cypress Ln	Light Highway	Asphalt	9.4	48	13	Concrete (reinforced)				X					X	2	A,B				X				M4
17487	2307	George Ave	Light Highway	Asphalt	7.8	48	5	Concrete (reinforced)		X																	M4
17488	2319	Hollyberry Ct	Easement/Right of Way	Grass/Dirt	7.5	48	0	Concrete Block				X					X	1	A								M4
17489	2305	George Ave	Light Highway	Asphalt	7.7	48	2	Concrete Block		X																	M4
17490	2211	George Ave	Light Highway	Asphalt	10.5	48	15	Brick				X			X								X				M5
17491	2201	George Ave	Light Highway	Asphalt	13.9	48	14	Brick				X			X									X			M5
17492	1005	Cypress Ln	Light Highway	Asphalt	7.7	48	0	Concrete (reinforced)	X																		M4
17494	1015	Cypress Ln	Light Highway	Asphalt	8.3	48	12	Concrete Block				X															M1
17495	806	Hollyberry Dr	Light Highway	Asphalt	9.2	48	4	Concrete Block		X							X	1	A	X		X					M4
17496	811	Pearson Dr	Light Highway	Asphalt	10.2	48	0	Brick		X					X												M7
17497	901	Pearson Dr	Light Highway	Asphalt	7.8	48	3	Concrete Block	X						X									X			M5
17498	902	Pearson Dr	Light Highway	Asphalt	7.0	48	3	Concrete Block				X			X												M5
17499	912	Pearson Dr	Light Highway	Asphalt	8.9	48	17	Concrete Block				X			X												M5
17500	912	Lilac Ln	Light Highway	Asphalt	15.1	48	8	Concrete Block		X					X												M5
17501	902	Lilac Ln	Light Highway	Asphalt	16.0	48	9	Brick		X					X												M5
17502	811	Lilac Ln	Light Highway	Asphalt	18.1	48	4	Concrete Block							X												M8

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Joliet , IL
2024 MANHOLE REHABILITATION SCHEDULE

GENERAL INFORMATION									RECOMMENDATIONS																		
Manhole No.	Street Number	Street Name	MACP Location Code	Surface Type	Structure Depth (ft)	Structure Diameter (in)	Chimney Height (in)	Wall Material	Replace Cover	Replace Frame & Cover (Paved) ¹	Replace Frame & Cover (Non-Paved) ¹	Seal & Adjust Frame (Paved) ¹	Seal & Adjust Frame (Non-Paved) ¹	Internal Chimney Seal	Cementitious Manhole Sealing	Grout Cone	Grout Wall Joints	Number of Wall Joints	Wall Joint Location ²	Curtain Grout Bottom 18"	Full Curtain Grout	Repair Bench & Trough	Replace Bench & Trough	Uncover/ Raise Buried Manhole (Paved)	Uncover/ Raise Buried Manhole (Non-Paved)	Exhibit Grid #	
17503	831	Cypress Ln	Light Highway	Asphalt	9.6	48	16	Concrete (reinforced)				X			X												M7
17504	800	Lilac Ln	Light Highway	Asphalt	18.9	48	6	Brick							X												M8
17528	810	Sudbury Dr	Easement/Right of Way	Grass/Dirt	12.7	48	0	Concrete (reinforced)					X				X	1	A								M8
17529	900	Sudbury Dr	Easement/Right of Way	Grass/Dirt	11.8	48	8	Concrete (reinforced)					X		X												M5
17530	912	Sudbury Dr	Easement/Right of Way	Grass/Dirt	7.7	48	8	Concrete (reinforced)						X			X	2	A,B								M5
17542	600	Kungs Way	Light Highway	Asphalt	22.9	48	4	Concrete (reinforced)		X												X					M13
17549	900	Stonegate Ct	Sidewalk	Concrete/P avement	8.7	48	5	Concrete (reinforced)					X														M8
17550	904	Stonegate Ct	Sidewalk	Concrete/P avement	8.4	48	0	Concrete (reinforced)							X												M8
17551	911	Stonegate Ct	Sidewalk	Concrete/P avement	8.2	48	8	Concrete (reinforced)						X													M8
17552	905	Ann St	Easement/Right of Way	Grass/Dirt	10.1	48	0	Concrete (reinforced)							X												M5
17553	909	Ann St	Easement/Right of Way	Concrete/P avement	10.3	48	0	Concrete (reinforced)					X														M5
17554	913	Ann St	Easement/Right of Way	Concrete/P avement	10.3	48	0	Concrete (reinforced)					X		X												M5
17555	805	Edgerton Dr	Sidewalk	Concrete/P avement	8.9	48	4	Concrete (reinforced)					X														M9
17556	2001	Sudbury Dr	Sidewalk	Concrete/P avement	10.2	48	4	Concrete (reinforced)					X														M9
17557	807	Edgerton Dr	Easement/Right of Way	Grass/Dirt	9.5	48	4	Concrete (reinforced)					X														M9
17559	1101	Ann St	Easement/Right of Way	Grass/Dirt	8.7	48	0	Concrete (reinforced)					X								X						M2
17560	2107	Ann St	Light Highway	Asphalt	5.8	48	4	Concrete (reinforced)					X														M2
17561	1015	Belden Way	Sidewalk	Concrete/P avement	5.0	48	7	Concrete (reinforced)					X														M3
17562	1013	Belden Way	Easement/Right of Way	Grass/Dirt	7.1	48	4	Concrete (reinforced)					X														M3
17563	1001	Belden Way	Easement/Right of Way	Grass/Dirt	10.5	48	4	Concrete (reinforced)					X				X	1	A								M6
17564	1101	Cypress Ln	Light Highway	Asphalt	7.9	48	0	Concrete (reinforced)	X																		M1
17565	1107	Cypress Ln	Light Highway	Asphalt	8.7	48	11	Concrete (reinforced)					X														M1
17566	2312	Birchwood Ln	Light Highway	Asphalt	8.1	48	9	Concrete (reinforced)		X																	M1
17567	2308	Birchwood Ln	Light Highway	Asphalt	9.3	48	5	Concrete (reinforced)					X														M1
17568	1016	Birchwood Ln	Easement/Right of Way	Grass/Dirt	11.7	48	5	Brick									X	2	A,B			X					M1
17569	1006	Brentwood Dr	Light Highway	Asphalt	9.3	48	2	Concrete Block							X								X				M4
17570	900	Brentwood Dr	Light Highway	Asphalt	6.0	48	8	Concrete Block							X												M4
21778	913	Brentwood Dr	Main Highway - Suburban/Rural	Concrete/P avement	4.5	48	0	Concrete (reinforced)									X	1	A				X				M7
17573	813	Cypress Ln	Light Highway	Asphalt	10.7	48	4	Concrete Block					X		X												M7
17574	814	Cypress Ln	Light Highway	Asphalt	10.2	48	8	Concrete Block							X												M7
17575	823	Cypress Ct	Easement/Right of Way	Grass/Dirt	6.6	48	11	Concrete (reinforced)					X														M7
17606	2317	Black Rd	Main Highway - Suburban/Rural	Concrete/P avement	10.7	48	4	Concrete Block					X									X					M7
17607	2325	Black Rd	Sidewalk	Concrete/P avement	9.3	48	2	Concrete (reinforced)					X				X	2	A,B								M7
17608	2301	Black Rd	Main Highway - Suburban/Rural	Concrete/P avement	17.9	48	4	Brick							X												M7

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Joliet , IL
2024 MANHOLE REHABILITATION SCHEDULE

GENERAL INFORMATION									RECOMMENDATIONS																		
Manhole No.	Street Number	Street Name	MACP Location Code	Surface Type	Structure Depth (ft)	Structure Diameter (in)	Chimney Height (in)	Wall Material	Replace Cover	Replace Frame & Cover (Paved) ¹	Replace Frame & Cover (Non-Paved) ¹	Seal & Adjust Frame (Paved) ¹	Seal & Adjust Frame (Non-Paved) ¹	Internal Chimney Seal	Cementitious Manhole Sealing	Grout Cone	Grout Wall Joints	Number of Wall Joints	Wall Joint Location ²	Curtain Grout Bottom 18"	Full Curtain Grout	Repair Bench & Trough	Replace Bench & Trough	Uncover/ Raise Buried Manhole (Paved)	Uncover/ Raise Buried Manhole (Non-Paved)	Exhibit Grid #	
17609	2220	Black Rd	Sidewalk	Concrete/Pavement	10.8	48	6	Concrete (reinforced)	X						X								X				M7
17610	2208	Black Rd	Main Highway - Suburban/Rural	Asphalt	10.5	48	4	Concrete (reinforced)				X											X				M8
17611	2201	Black Rd	Main Highway - Suburban/Rural	Asphalt	18.1	48	8	Concrete (reinforced)												X			X				M8
17636	1015	Edgerton Dr	Easement/Right of Way	Grass/Dirt	6.4	48	4	Concrete (reinforced)				X															M3
17637	1009	Edgerton Dr	Easement/Right of Way	Grass/Dirt	7.0	48	2	Concrete (reinforced)				X					X	1	B								M3
17638	1007	Edgerton Dr	Easement/Right of Way	Concrete/Pavement	8.0	48	1	Concrete (reinforced)				X					X	2	A,B								M6
17639	2005	Dryden Ln	Easement/Right of Way	Grass/Dirt	6.7	48	0	Concrete (reinforced)				X					X	2	A,B								M3
17640	2005	Dryden Ln	Easement/Right of Way	Concrete/Pavement	6.9	48	0	Concrete Block				X															M3
17641	1107	Edgerton Dr	Easement/Right of Way	Concrete/Pavement	6.0	48	3	Concrete Block				X			X												M3
17642	1006	Pearson Dr	Light Highway	Asphalt	9.8	48	2	Concrete Block		X					X												M5
17643	1016	Pearson Dr	Light Highway	Asphalt	10.0	48	17	Concrete Block				X			X												M2
17644	1104	Pearson Dr	Light Highway	Asphalt	9.1	48	10	Concrete Block				X			X								X				M2
17645	1104	Pearson Dr	Light Highway	Asphalt	7.7	48	6	Concrete Block				X			X												M2
17646	2209	Mac Farlane Dr	Light Highway	Asphalt	7.1	48	4	Brick				X			X												M2
17647	2201	Mac Farlane Dr	Light Highway	Asphalt	8.4	48	8	Brick		X					X												M2
17648	901	Cypress Ln	Light Highway	Asphalt	8.1	48	5	Concrete (reinforced)				X			X												M4
17649	909	Cypress Ln	Light Highway	Asphalt	7.2	48	7	Concrete (reinforced)				X			X												M4
17650	914	Cypress Ln	Light Highway	Asphalt	6.4	48	10	Concrete (reinforced)				X															M4
17651	913	Hollyberry Dr	Light Highway	Asphalt	6.5	48	2	Concrete (reinforced)				X															M4
17652	907	Hollyberry Dr	Light Highway	Asphalt	8.5	48	8	Concrete (reinforced)				X					X	2	A,B	X							M4
17653	901	Hollyberry Dr	Light Highway	Asphalt	9.2	48	0	Concrete Block				X					X	2	A,B								M4
17684	800	Lilac Ln	Main Highway - Suburban/Rural	Concrete/Pavement	18.9	48	12	Concrete (reinforced)				X									X						M8
17685	2211	Black Rd	Main Highway - Suburban/Rural	Asphalt	16.5	48	22	Brick				X			X												M7
17688	2105	Sudbury Dr	Easement/Right of Way	Grass/Dirt	12.8	48	4	Concrete Block				X		X			X	2	B,C								M8
17689	2105	Sudbury Dr	Sidewalk	Concrete/Pavement	18.1	48	0	Concrete (reinforced)				X					X	2	B, C								M8
18290	500	Lavinia Ln	Light Highway	Asphalt	8.8	36	18	Brick				X			X								X				M15
18291	604	Lavinia Ln	Light Highway	Asphalt	10.5	48	7	Concrete Block				X															M12
18292	612	Lavinia Ln	Light Highway	Asphalt	8.8	48	7	Concrete Block				X					X	1	A								M12
18295	606	Palladium Dr W	Light Highway	Asphalt	8.7	36	9	Concrete Block				X			X												M12
18296	700	Palladium Dr W	Light Highway	Asphalt	9.6	36	10	Concrete Block				X			X								X				M12
18297	1910	Palladium Dr W	Light Highway	Asphalt	8.6	36	1	Concrete Block				X			X												M9
18298	718	Palladium Dr E	Light Highway	Asphalt	8.4	48	5	Concrete Block				X			X												M9
18300	708	Palladium Dr E	Light Highway	Asphalt	8.0	36	7	Concrete Block				X			X								X				M12
18305	401	Palladium Dr E	Light Highway	Asphalt	8.8	36	4	Concrete Block				X			X												M15

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Joliet , IL
2024 MANHOLE REHABILITATION SCHEDULE

GENERAL INFORMATION									RECOMMENDATIONS																		
Manhole No.	Street Number	Street Name	MACP Location Code	Surface Type	Structure Depth (ft)	Structure Diameter (in)	Chimney Height (in)	Wall Material	Replace Cover	Replace Frame & Cover (Paved) ¹	Replace Frame & Cover (Non-Paved) ¹	Seal & Adjust Frame (Paved) ¹	Seal & Adjust Frame (Non-Paved) ¹	Internal Chimney Seal	Cementitious Manhole Sealing	Grout Cone	Grout Wall Joints	Number of Wall Joints	Wall Joint Location ²	Curtain Grout Bottom 18"	Full Curtain Grout	Repair Bench & Trough	Replace Bench & Trough	Uncover/ Raise Buried Manhole (Paved)	Uncover/ Raise Buried Manhole (Non-Paved)	Exhibit Grid #	
18306	410	Palladium Dr W	Light Highway	Asphalt	8.4	36	8	Concrete Block				X			X												M15
18410	600	Palladium Dr W	Light Highway	Asphalt	11.04	36	18	Brick				X			X												M12
18411	1820	Lavinia Ln	Light Highway	Asphalt	12.3	36	12	Brick				X			X								X				M12
20138	407	West Acres Rd	Yard	Grass/Dirt	6.04	36	0	Concrete Block					X		X												M15
20522	1107	Belden Way	Easement/Right of Way	Grass/Dirt	7.2	48	12	Concrete (reinforced)					X														M3
20523	2113	Glenwood Ave	Yard	Grass/Dirt	8.9	48	24	Concrete (reinforced)					X		X												M14

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