October 2, 2024

Mr. Owen Dean, P.E.
Civil Engineer II
City of Joliet
150 West Jefferson Street
Joliet, Illinois 60432-4148

SUBJECT: PROPOSAL FOR PROFESSIONAL ENGINEERING SERVICES
I-80 INTERCEPTOR REHABILITATION PROJECT

Dear Mr. Dean:

RJN Group, Inc. (RJN) is pleased to submit this proposal to provide Professional Engineering Services to the City of Joliet (City) for the I-80 Interceptor rehabilitation Project.

On January 21, 2022, RJN submitted a Statement of Qualifications (SOQ) to the City of Joliet for Professional Consulting Services for Sanitary Sewer Investigations & Rehabilitation. Following the submittal and interview process, RJN was selected by the City for this work.

RJN, established in 1975, is a professional engineering consulting firm focused on providing innovative engineering solutions and field services. With more than 90% of our clients being municipalities and public utilities, and over 85% of our work focused on sewer collection systems, we are uniquely qualified for this project.

Key Project Goals and Objectives

The I-80 bridge replacement project in Illinois is a significant part of the broader $1.3 billion reconstruction effort aimed at modernizing and improving a 16-mile stretch of the interstate through Will County. This project is a cornerstone of the Rebuild Illinois capital program, which seeks to enhance infrastructure across the state. The project involves rebuilding and widening nearly 12 miles of I-80, including the replacement of over 30 bridges and the reconstruction of several interchanges.

The reconstruction of the Center Street interchange in Joliet is a crucial component of this project. This interchange, along with others such as those at Interstate 55, Illinois 7, Chicago Street, Richards Street, and Briggs Street, will be rebuilt or improved to enhance traffic flow and safety.

The Center Street interchange reconstruction will involve redesigning auxiliary lanes to reduce congestion and improve traffic flow, and rehabilitating or replacing bridges to ensure structural integrity and safety.

The overall project is expected to be substantially complete by the end of 2028, with some landscaping, bridge demolition, and miscellaneous work extending into 2029. The work on the Center Street interchange is part of the final stage of the project, anticipated to be bid in 2025 and start in 2026.

One of the City's major interceptors, which conveys over 30 million gallons per day (mgd) of sewage to the East Side Wastewater Treatment Plant, is located near the I-80 interchange and will be impacted by its reconstruction. In certain areas, the ground cover will be significantly reduced, sometimes to less than two feet. To protect this critical infrastructure, the City has proposed rehabilitating sections of the interceptor as part of the IDOT project.

After evaluating the advantages and disadvantages of various rehabilitation methods, the City has recommended using the "slip-lining" method to rehabilitate the interceptor. Slip lining is a trenchless sewer rehabilitation method where a new, smaller pipe is inserted into an existing, deteriorated pipe. This process involves the insertion of a smaller diameter pipe, into the larger, existing pipe, the grouting of the space between the new and old pipes to secure the new pipe in place, and the sealing of the ends of the new pipe to ensure a tight fit. This method is cost-effective and minimizes disruption since it does not require extensive excavation. More conventional rehabilitation methods, such as CIPP lining, were also evaluated. However, they appear to be less cost-effective due to the expense of drilling a bypass underneath the interchange before the lining work can commence. In contrast, slip-lining does not require bypassing the flow, as the new pipe is inserted into the existing one during live flow. In fact, the flow actually aids in the insertion of the new pipe by allowing it to float into place.

Even though slip lining is the primary method of rehabilitation, smaller segments may still need to be excavated. The slip lining design will encompass the creation of pits, among other elements. Additionally, manholes located on the segments being rehabilitated must be inspected to assess their condition. A sub-centimeter survey and precise measurement of manhole depth will also be required for the design.

Leveraging our subconsultant V3 Companies' extensive involvement in the I-80 interchange replacement project, we will deliver comprehensive maintenance of traffic plans and coordinate closely with IDOT. Additionally, our deliverables will be prepared and formatted to seamlessly integrate into IDOT's plans, specifications, and cost estimates.

Exhibit D provides maps of the overall IDOT I-80 project and of these sanitary sewer lines that need rehabilitation.

The projected budget for the construction phase of this project stands at an estimated $1,1 million.

PROJECT TEAM AND EXPERIENCE

Team

The RJN Team for this project includes Yann Gallin as Project Manager and handling Client Management, Patrick Hulsebosch and Jon Merki as Project Engineers, Andrew Ico as the AutoCAD Project Engineer, Marco Lopez as the GIS Senior Specialist, Mike Young and Randy Brodner overseeing Quality Assurance/Quality Control (QA/QC).

V3 Companies will serve as our subconsultant for this project. V3 Companies will assist with IDOT coordination, develop MOT plans, and format RJN engineering documents to meet IDOT requirements.

Experience

Over the last 49 years, RJN has successfully executed more than 2,000 sewer programs and assessed 291 million feet of pipelines. These comprehensive evaluations have culminated in nearly $400 million worth of construction improvements nationwide. Among the recent local endeavors are the 2024 Sanitary Sewer Rehabilitation Program and the Bluff Street Interceptor Rehabilitation Project.

ASSURING QUALITY AND SAFETY

Quality Assurance

RJN is committed to providing **quality** deliverables. The completion of these inspections is critical in providing actionable results for the City. As collection system specialists, RJN has built data review processes that ensure that all data is accurate. Our engineers and field inspection crews hold industry-standard NASSCO certifications for defect coding and are extensively trained on all field inspection tasks. RJN's internal Quality Control tools, as well as our corporate training and Quality Assurance processes in place, will ensure that the program will provide value for the City.

Safety

As an employee-owned firm, RJN's commitment to the **safety** of our employees, City staff, and the public is paramount. RJN demonstrates that commitment to safety in our internally developed and audited safety program where our goal is to have all field staff, engineers, and project managers "RJN Safety Certified." Every project follows RJN's health and safety guidelines when completing any field work.

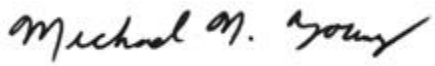
PRICE AND SCHEDULE SUMMARY

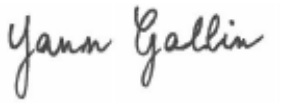
This project will be invoiced on a Time & Material basis for **a total not-to-exceed fee of $141,700**. RJN will complete the design **by January 31, 2025**. Complete Scope of Services, Pricing, and Schedules are provided in the following exhibits:

- Exhibit A – Scope of Services
- Exhibit B – Pricing
- Exhibit C – Schedule
- Exhibit D – Maps

We are looking forward to the opportunity to work with the City of Joliet on this important project. It is our pleasure to submit this proposal to you. Please feel free to contact **Yann at 847-899-8723** if you would like to discuss this proposal or have any questions.

Sincerely,





Michael N. Young, PE
Principal

Yann Gallin
Principal Project Manager

EXHIBIT A
SCOPE OF SERVICES

The RJN scope of services for the I-80 Interceptor Rehabilitation Project will include the rehabilitation design for approximately 800 LF of interceptor sewer lines.

1. Prepare for and attend a kick-off design meeting.
2. Review CCTV and rehabilitation recommendations to confirm work to be completed.
3. Perform approximately 5 surface manhole inspections according to the Standard Scope of Services detailed in our 2024 Sewer Investigations Program, including 360 GoPro video footage.
4. Perform sub-centimeter survey of approximately 5 manhole rim and invert elevations.
5. Evaluate options for the interceptor rehabilitation including field check and constructability review as necessary.
6. Review IDOT plans, and provide options for slip design depending on placement of new roadways and sequencing of construction.
7. Design and calculations for the placement and location of slip lining pits involving several key steps and considerations. The design steps include the following:
    a. Review of CCTV,
    b. Cleaning and clearing the pipe,
    c. Selection of pipe liner diameter to maximize flow capacity,
    d. Determination of liner wall thickness for structural integrity,
    e. Flow capacity calculation through hydraulic analysis,
    f. Evaluating the need for point repairs,
    g. Design of access pits, determine size and location based on factors like depth of existing pipe, length of new pipe, soil conditions, etc.
8. Prepare detailed schedules and an AutoCAD construction plan set for the recommended rehabilitation work as follows:
    a. Cover sheet,
    b. General notes and summary of quantities,
    c. Manhole and pipe work item tables,
    d. Sewer plan & profile sheets,
    e. Project specific details.
9. IDOT geotechnical and topographic surveys will be utilized to prepare the Construction Plan Set
10. Prepare detailed project technical special provisions.
11. Prepare an Opinion of Probable Construction Cost.
12. Prepare the Illinois Environmental Protection Agency (IEPA) construction/operating permit application. Submit completed application to the IEPA and address comments as necessary.
13. Provide two (2) progress review submittals at 60% and 90% of Plans, Specifications and Opinion of Probable Construction cost for City review and comment prior to bidding.
14. Perform a quality control/quality assurance review for each submittal and final plans and specifications.
15. Have senior design P.E. provide an overall review and engineering stamp for the final submittal.

16. Prepare a final submittal with the following:
    a. Construction plan set in AutoCAD format (2023 version).
    b. Project technical special provisions in MS Word format.
    c. Opinion of Probable Construction Cost in MS Excel format.
17. Bidding Assistance:
    a. Respond to Contractors' questions.
18. Prepare and attend monthly progress meetings with City and IDOT Staff as needed.
19. Provide project management for the duration of the design project.

The scope of services from our **subconsultant, V3**, will include:

1. IDOT Coordination.
2. Provision of Required Documents: V3 will provide RJN with the necessary IDOT CAD files, surveys, reports, etc.
3. Incorporation of RJN's Plans: V3 will integrate RJN's plans, specifications, and estimates into the IDOT 62R22 Plans, specifications and estimates (PS&Es), modifying RJN's PS&Es as needed to meet IDOT requirements.
4. Traffic and Construction Schedule Coordination: V3 will coordinate the maintenance of traffic and construction schedule with IDOT, designing and/or modifying IDOT's current maintenance of traffic as necessary to accommodate RJN's sewer lining scope.
5. Deliverables: V3 will provide 60%, 90%, and final PS&E submittals, with some submittals intended for internal review only.
6. Bid Assistance: During the IDOT bid process, V3 will address any RFIs or collaborate with RJN to respond to questions.
7. Meetings: V3 will attend all IDOT meetings and relay any pertinent information to RJN to facilitate the design of the sewer slip lining. V3 will also attend meetings between RJN and the City as needed.

ITEMS REQUESTED FROM THE CITY

1. Updated GIS geodatabases, shape files, or CADD atlases for the sanitary sewer collection system. Any design and/or record drawings, maintenance and repair records, past inspection data, and any other related data.
2. Updated IDOT construction plan set
3. IDOT topographic survey that can be imported in AutoCAD version 2023.
4. IDOT soil borings
5. Access to sanitary structures for inspection. Assistance locating or opening seized/buried manholes as required.
6. Assistance with traffic control in high traffic areas, as necessary.
7. Televising of sewers (if necessary).
8. Assistance with permitting and other regulatory agencies as applicable.

EXHIBIT B
PRICING

The proposed Scope of Services will be invoiced on a Time & Material basis using the fee schedule below at **a multiplier of 3.0** for an overall estimated billing of **$141,700**.

COST SCHEDULE

Task	Task Description	Cost
1001	Surface Manhole Inspection, Rim and Invert elevations	$4,810
1002	Interceptor Rehabilitation Option Evaluation (field check as needed)	$6,090
1003	Slip lining Design (review IDOT plans, placement of pits, etc.)	$6,350
1004	General Notes, Summary of quantities, Manhole and pipe work item tables	$3,700
1005	Open-Cut and Slip lining Plans & Profiles, and Detail Sheets	$12,000
1006	Technical Special Provisions	$9,450
1007	Opinion of Probable Construction Cost	$4,740
1008	IEPA permitting Assistance	$3,530
1009	Bidding Assistance	$5,620
1010	Kickoff Design and progress meetings with City Staff and IDOT as needed	$9,620
1011	QA/QC	$4,270
1012	Project management	$6,520
1013	Subconsultant V3 work	$65,000
	TOTAL	**$141,700**

RJN VEHICLES CHARGES (IF NECESSARY)

For each day that an RJN employee is onsite for:

- Equal or more than 4 hours, RJN vehicle will be charged at **$60 per day**.
- Less than 4 hours, RJN vehicle will be charged **$40 per day**.

PROPOSAL OPTION

This Proposal can be amended to include additional work upon joint approval by the City and RJN.

2024/25 HOURLY WAGE RANGES

	Classification	2024/25 Hourly Wage Ranges
PD	Project Director	$65.00 - $120.00
SPM	Senior Project Manager	$47.00 - $75.00
PM	Project Manager	$38.00 - $60.00
SCM	Sr. Construction Manager	$45.00 - $60.00
CM	Construction Manager	$35.00 - $50.00
CO	Construction Observer	$22.00 - $40.00
SPE	Senior Project Engineer	$35.00 - $50.00
PE	Project Engineer	$32.00 - $40.00
EI	Engineer I	$30.00 - $35.00
GSS	GIS Specialist	$25.00 - $40.00
GIS	GIS Analyst	$20.00 - $27.00
SDA	Senior Data Analyst	$25.00 - $40.00
DA	Data Analyst	$20.00 - $27.00
FM	Field Manager	$25.00 - $40.00
FS	Field Supervisor	$22.00 - $30.00
FT	Field Technician	$19.00 - $25.00
AS	Administrative Support	$20.00 - $40.00

EXHIBIT C
PROPOSED SCHEDULE

RJN is prepared to start work immediately upon an Agreement. The schedule for this project is based on a **notice to proceed no later than October 15, 2024**, and is summarized as follows:

Task	Timeline
60% Design Submittal	**Friday, December 13, 2024**
90% Design Submittal	**Friday, January 10, 2025**
Final Electronic Submittal	**Friday, January 31, 2025**

EXHIBIT D
MAP