VILLAGE OF DOWNERS GROVE
Report for the Village Council Meeting
8/9/2016

SUBJECT:	SUBMITTED BY:
Award of Bid for Inspection and Assessment of the Eleven Foot Diameter Storm Sewer (DR-041)	Nan Newlon Director of Public Works

SYNOPSIS

A motion is requested to award a contract for Engineering Services for the inspection and assessment of the 11' Diameter Storm Sewer to HBK Engineering, LLC of Chicago, Illinois in an amount of $138,521.90, which includes a 10% contingency.

STRATEGIC PLAN ALIGNMENT

The goals for 2015 to 2017 include *Top Quality Infrastructure.*

FISCAL IMPACT

The FY16 budget includes $85,000 in the Stormwater Fund for consultant services for this project. Sufficient savings from other stormwater-funded projects in 2016 have been achieved to offset the additional cost for this project. The award amount includes a contingency amount for additional costs for pumping and inspection, if necessary, due to potential weather-related impacts.

RECOMMENDATION

Approval on the August 9, 2016 consent agenda.

BACKGROUND

One of the main drainage corridors in Downers Grove, St. Joseph Creek, is conveyed through the Downtown Business District via an 11' diameter storm sewer. This storm sewer, which begins on the upstream end east of Village Hall and ends at Gilbert and Carpenter, is located beneath street pavement, parking lots, and building structures. As such, the condition of this pipe is critical to not only the on-going proper function of the Village's drainage system, but also the economic vitality of the downtown. In May 2014, the Village procured a preliminary assessment of portions of this pipe that were visible without the need for diving equipment or pumping. The preliminary report included a recommendation to perform a detailed inspection of the entire pipe.

In May 2016, the Village issued a Request for Proposal (RFP) for this project. Two consultants responded to the RFP. The major work items included in the proposal's scope of services include:

- Dewatering and maintaining the pipe in a dry condition during the inspections

- Condition assessment and video coverage of the entire interior of the pipe, with a corresponding written report detailing pipe size(s), pipe and joint materials, and any deficiencies noted, utilizing easily definable locations.
- Condition assessment and video coverage of all structures (both visible at the surface and buried) and blind pipe connections.
- Sediment depths and locations.
- Location and composition of any significant obstructions to flow.
- Analysis, including preliminary assessment of severity, for each significant defect noted.
- Photos of all areas of interest, including any significant deficiencies, all manholes and any pipe connections.
- Tunnel survey showing the exact dimensions and location (matching Village's coordinate system) of pipe and delivery of survey files.
- Delivery of Condition Assessment Report which will include prioritization of needed repairs and conceptual budgetary costs for each.

Upon receipt and review of the completed report staff will procure engineering and construction services as needed to address identified deficiencies.

The cost of this work is approximately $54,000 more than the amount budgeted for this project. This work is very specialized and during the preparation of the budget staff did not find comparable projects within the Village or the region to assist with providing comparable cost information. It was initially thought that inspection could occur without dewatering the pipe; however, it was determined that while less expensive, that approach would result in a poorer quality result and the potential to miss important information about the pipe's condition. Because this is a critical part of the Village's stormwater system it is staff's opinion that the additional cost is justified for this project.

After reviewing the proposals, HBK Engineering, LLC was identified as the firm whose proposal best met the needs of the Village. They have successfully performed similar work for multiple utility companies and agencies/municipalities including the City of Chicago and the Chicago Transit Authority. Staff recommends award of this contract to HBK Engineering, LLC.

ATTACHMENTS

Contract Documents

VILLAGE OF DOWNERS GROVE

COUNCIL ACTION SUMMARY

INITIATED: Public Works (Name) **DATE:** August 9, 2016

RECOMMENDATION FROM: _____ (Board or Department) **FILE REF:** _____

NATURE OF ACTION:

__ Ordinance

__ Resolution

_X_ Motion

__ Other

STEPS NEEDED TO IMPLEMENT ACTION:

Motion to authorize execution of a professional engineering services contract with HBK Engineering, LLC, in the amount of $125,929 plus 10% contingency in the amount of $12,592.90 for a total not-to-exceed $138,521.90 for the inspection and assessment of the 11' diameter storm sewer drainage corridor.

DCD

SUMMARY OF ITEM:

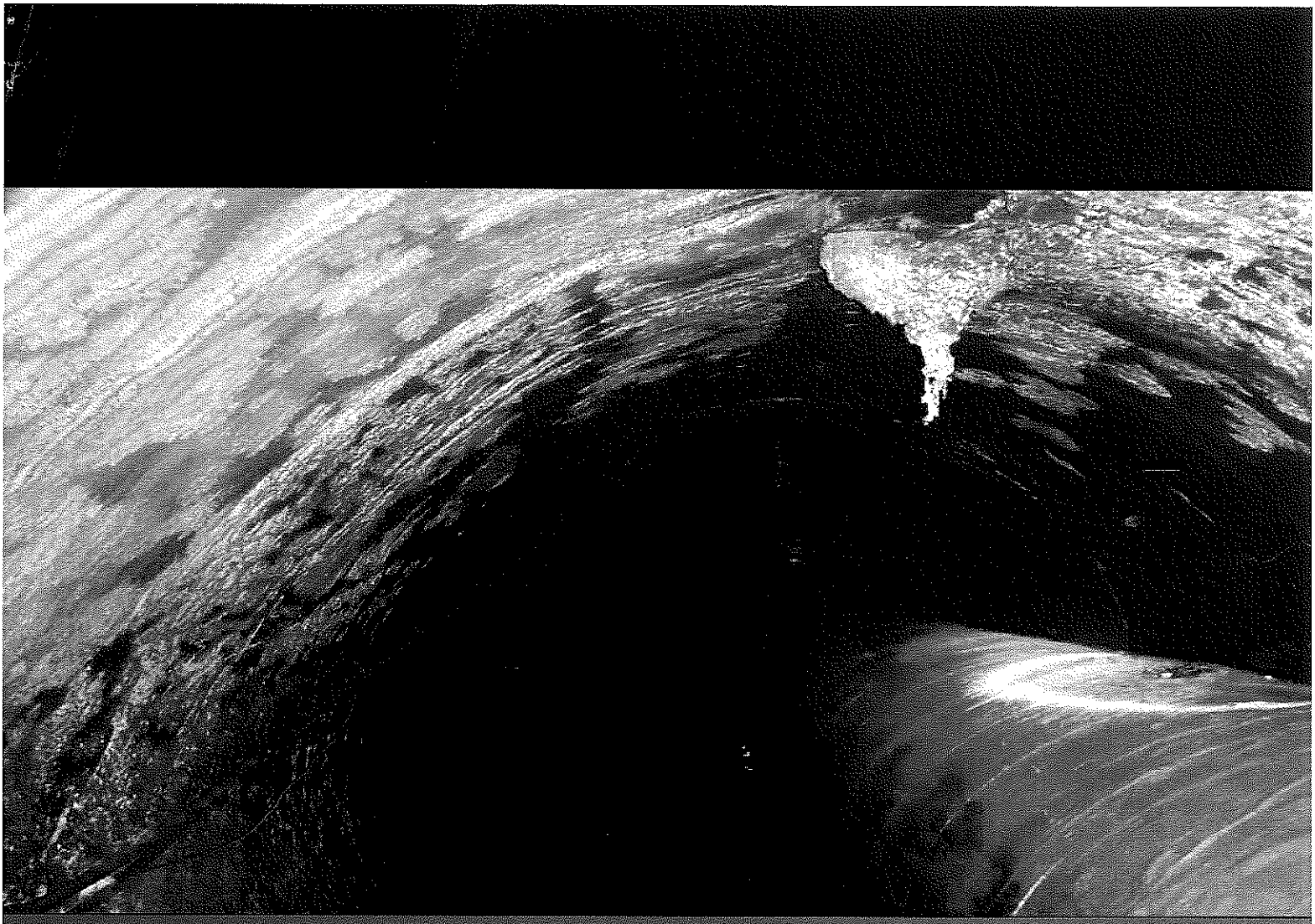
Adoption of this motion shall authorize execution of a professional engineering services contract with HBK Engineering, LLC, in the amount of $125,929 plus 10% contingency in the amount of $12,592.90 for a total not-to-exceed $138,521.90 for the inspection and assessment of the 11' diameter storm sewer drainage corridor.

RECORD OF ACTION TAKEN:

_____

_____

_____



Village of Downers Grove

Engineering Services for the Assessment of an 11'Diameter Pipe through the DBD

June 9, 2016

UTILITY
INFRASTRUCTURE
SOLUTIONS

hbk
ENGINEERING

UTILITY INFRASTRUCTURE SOLUTIONS | hbk ENGINEERING

June 9, 2016

Jim Tock, P.E.
Engineering Manager
Village of Downers Grove
5101 Walnut Avenue
Downers Grove, IL 60515

RE: *Engineering Services for the Assessment of an 11' Diameter Pipe through the* DBD
Proposal Number: DR-041

Dear Mr. Tock:

The HBK Engineering, LLC (HBK) team is pleased to provide you with this proposal package to the above-referenced Request for Proposal from the Village of Downers Grove.

This proposal details the HBK team's experience, qualifications, proposed teammates (Joshua Hoheneder, P.E., Andrew Schwarz, P.E., S.E, Jonathan Robinson, P.E., S.E, Peter Ivanovich, and Kurt Breitenbucher), and existing project experience. We believe that, after reading this response, you will agree that our locally-based, diverse and experienced team will be the best selection to assist Downers Grove with its tunnel inspection efforts.

For nearly 18 years, HBK Engineering, LLC (HBK) has provided inspections of tunnels, pipes, and other underground infrastructure for utility, municipal and DOT construction projects in the City of Chicago and surrounding communities. Combining the latest technology with a sophisticated knowledge of utility systems and underground construction has allowed HBK to successfully complete hundreds of utility projects within the Chicagoland area. Recently, HBK has performed inspections of a similar pipe under the Dan Ryan expressway (I-94) as well as several river crossing tunnels for utility clients. As part of the turn-key package HBK provides, we are also able to provide tunnel engineering design services should defects be found that need to be mitigated.

Thank you very much for the opportunity to provide this response. Should you have any questions or need any additional information, please contact us via phone at 312-432-0076, via email at dyerkes@hbkengineering.com, or via USPS at 921 West Van Buren Street, Suite 100, Chicago, IL.

Sincerely,

Douglas Yerkes, Ph.D., P.E.
Vice President

Contents

Project Understanding/Executive Summary

Introduction

Since our founding in 1998, HBK Engineering, LLC (HBK) has been a provider of various engineering services for its clients. HBK's clients include local municipalities, state agencies, contractors, and utility providers. Our company employs an experienced staff of structural, geotechnical, electrical, civil, and mechanical engineers to service the needs of their clients. In its structural engineering department, HBK employs licensed Structural and Professional Engineers with experience in the design of proposed structures and inspection of existing structures. Additionally, HBK provides surveying and utility mapping services for a wide range of utility infrastructure projects throughout the country. These projects include, but are not limited to; gas, power, telecommunication, and municipal infrastructure.

HBK has been providing tunnel dewatering, inspection, design, and remediation services for the past eighteen years. We provide a team including licensed engineers, inspectors, permitting coordinators, and program managers. We have performed inspections on tunnels ranging from 54" in diameter to 120" for both public and private utilities. HBK intends to use the experience it has gained from prior inspections to perform the dry inspection proposed in this response to proposal (RFP). HBK's position in the utility world has given it a unique perspective on the needs of the Client in regards to their underground infrastructure.

Safety is Our Top Priority

Safety of the public and of field personnel is the number one priority of HBK. Safety training starts on day one during the onboarding process, and continues throughout each employee's HBK tenure. Safety is overseen by our dedicated, full-time safety manager. Additionally, our survey crews and engineering field crews are audited in the field on a regular basis by HBK's in-house safety inspection team. From daily toolbox briefings to annual refresher classes, safety is always the priority. All HBK employees receive Confined Space Training at the beginning of their HBK careers and subsequent refresher training on a yearly basis.

To ensure the safety of the entrants performing this work, HBK's safety coordinator will create a Safe Work Plan (SWP). The SWP is drafted outlining expectations of entrants and attendants during the duration of the proposed work. The SWP is intended to summarize the safety requirements and protocols specific to this project as they relate to this proposal and is a stand-alone document. The SWP topics include, but are not limited to;

- All entrants are to be confined space trained
- Entrants are to be equipped with four-gas meter
- Strategies to maintain constant means of communication (expected to be via walkie-talkie due to the length of the tunnel).

HBK's current safety metrics:

- 2015 Experience Modification Rate (EMR): 0.80
- 2015 Lost Time Incident Rate (LTIR): 0.72

Valued Teammates

HBK has strong working relationships with contractors in the utility industry. HBK works closely with their subcontractors to coordinate safety and permitting efforts to complete projects on time and in budget. While HBK is experienced in structural inspections, we will rely on the experience of our subcontractor to provide dewatering and the confined space support of the tunnel inspection.

Team Qualifications and Training

Structural Professionals:

HBK has continued to build its structural engineering team and capabilities around a core group of highly qualified engineering professionals, including:

- Two Licensed Structural Engineers (SE)
- Four Professional Engineers (PE)
- Three Certified Engineers in Training (EIT)
- Two Geotechnical Engineers
- Six Master of Science degree recipients
- One Structural Drafter

HBK's structural engineering team has diversified professional experience that is utilized to build teams tailored to the project needs. HBK's engineering team works with various utility companies, municipalities, and state agencies to inspect tunnel structures in the Chicagoland area. The engineer's employed by HBK have experience inspecting tunnels constructed of blasted rock and concrete. Additionally, the team is experienced in inspecting steel and timber structures and has applied this experience to various structural tunnel inspections. This experience has been utilized during inspections of steel landings, platforms, ladders, and other appurtenances such as anti-buoyancy systems in various tunnels. The team utilizes the data collected in the field to compile a comprehensive report summarizing for their clients the deficiencies observed during the inspection and creates recommendations of repair. Moreover, HBK compiles the field notes taken and existing drawings to create drawings to pictorially layout observed deficiencies, structure locations, pipe protrusions, and other notable observed conditions.

Permitting Professionals:

HBK has a highly experienced group of individuals who comprise HBK's permitting department. Currently, HBK's permitting department consists of six (6) professionals dedicated to obtaining necessary permits for all types of construction projects. The team regularly works with the City of Chicago and surrounding municipalities, Counties, DOTs and other entities to successfully coordinate and facilitate the collection of permits to adhere to state and local requirements. The HBK permitting teammates are stakeholders that work on our Client's behalves to help ensure the successful completion of a project by forming long-lasting, trusting relationships with the permitting entities.

A Full-Service Firm

HBK provides the resources of a full-service, multi-disciplinary utility engineering firm. We bring to the table a wealth of records, knowledge, and contacts that have been acquired through our work on utility

design and construction projects in the Greater Chicago Metropolitan area since 1998. We believe that a comprehensive approach to all project phases including; planning, design, and construction results in a team that is best positioned to deliver the outstanding results our clients have come to expect of HBK. All of our work, including dewatering, hiring of sub-contractors, and tunnel inspection services is backed by a portfolio of insurance coverages from general liability to Professional E & O coverage.

Equipped for Success

HBK's field personnel, including the inspection teams and field support staff, are outfitted with a full suite of the latest tools and equipment. Each tunnel inspection crew is outfitted with proper headlights, cameras, and notetaking tools (for wet and dry conditions). This equipment allows our crews to efficiently and accurately collect inspection data while in tight, underground, confined spaces. For tunnel entries, HBK will provide ventilation to provide proper airflow while entrants are in the tunnel. To ensure proper ventilation of the structure, a minimum air flow of 200 CFM per entrant shall be maintained in the tunnel during entries

All our field personnel are issued company vehicles and a full range of field apparel and personal protective equipment (PPE) for all seasons. Our vehicles feature company branding and numerous safety features including real-time GPS tracking, strobe lights, backup alarms, on-board fire extinguishers, and first-aid kits. HBK makes provisions for any other required equipment as well, ensuring that our team can focus on the task at hand.

Experience and Qualifications

Company Background

- Number of years in business
  - HBK Engineering has been in business since 1998 with its first office opening in Chicago, Illinois. Since its beginning, HBK has added offices in Chicago, Illinois; Oakbrook, Illinois; Philadelphia, Pennsylvania; and Iowa City, Iowa.
- Officers of Company
  - See the company organizational chart for full listing of officers involved with this project.
- Annual Volume of Similar work
  - HBK has averaged over the past few years one to two structural tunnel inspections per year.
  - HBK performs civil designs and observations of tunnels as well including the existing freight tunnels in Chicago. This experience has helped the company to design safety and observational procedures utilized during its structural inspections of similar structures.
  - HBK has been performing structural inspections of utility vaults for the past five years. The last couple of years, we have been inspecting over 500 of these vaults a year.
- Current Capacity
  - HBK is currently staffed with over 400 employees. The employees include administrative, surveyors, locators, and engineers. HBK currently employs a structural engineering staff of 11 individuals. Of these individuals, two are licensed Structural Engineers and 4 are licensed Professional Engineers.
- Listing of existing suits, claims, or pending judgments:
  - The following is a summary statement of legal actions associated with HBK Engineering, LLC. This statement is as of June 7th, 2016. Additional information is available upon request.
    - Inception to date, approximately 17 years:
      1. A construction contractor's subcontractor damaged building property in the course of its work. Property Owner filed suit against Contractor and Subcontractor and joined HBK in its complaint citing alleged design issues as a contributing factor. Settlement discussions are in progress.
      2. HBK has been named as an alleged contributing party in three actions but not lead actor in the primary cause of action. HBK vigorously denied such claims. One case has settled. Two are in progress.
      3. In April, 2013 HBK Engineering, LLC was cited for a one-time violation of a City's permit notification terms. Although HBK believed the citation was issued in error, HBK elected to pay a minimal fine rather than spend time and money challenging the citation.
    - Further, during this same period, HBK has not engaged in any of the following except as noted above.
    - A debtor in bankruptcy; or

- A defendant in a legal action for deficient performance under a contract or violation of a statute or related to service reliability; or
- A Respondent in an administrative action for deficient performance on a project or violation of a statute or related to service reliability; or
- A defendant in a criminal action; or
- A principal in any action taken against an insurance or bonding company of the firm or of a team member; or
- A defendant or respondent in a governmental inquiry or action regarding the accuracy of prepared financial statements or disclosure documents.

Services Provided in House Vs Sub-Contracted

HBK Engineering is a multi-discipline engineering firm with three offices servicing the Chicagoland area. The company employs structural, civil, mechanical, and electrical engineers in an effort to satisfy the needs of its clients. The structural engineering staff is experienced in performing designs of proposed temporary and permanent structures that conform to local, state, and national regulations. Additionally, the staff is experienced in inspection and evaluation of existing structures. The engineers are experienced in inspecting various construction materials including concrete, timber, and steel. HBK's surveying crews are experienced in surveying in various locations under a variety of conditions. Their crews regularly survey city streets, tunnels, and construction sites for their clients.

HBK will be self-performing the inspection of the tunnel. In addition, we will be self-performing the coordination, permitting, and project management of the project in addition to providing in-house personnel as part of the safety team (confined space attendant).

HBK works closely with experienced contractors to provide services on projects that are outside the services provided by our company. On this project, the dewatering will be performed by a partner Sub-Contractor experienced in utility work. The Sub-Contractor will also perform confined space and safety support of the inspection.

Similar Project Experience

HBK Engineering has an extensive experience in all aspects of below grade infrastructure. This experience ranges from designing proposed infrastructure to the inspection of existing structures. Clients of HBK own and operate thousands of miles of underground cable, tunnels, and manholes as a part of their existing infrastructure. HBK actively contributes to maintaining, improving, and updating the existing infrastructure through the design of new structure and performing inspections.

HBK is actively involved with the inspection of existing tunnels. Engineers employed by HBK are experienced in observing concrete, rock, and concrete lined rock tunnels for their clients. Recently, HBK's engineers have inspected tunnels for Peoples Gas, Illinois Department of Transportation (IDOT), and the City of Chicago. Attached to this submittal are cut-sheets that describe in depth our general

tunnel inspection program. Also included in the company's past projects is a main drain inspection for IDOT in March of 2015. The inspected tunnel was a precast concrete tunnel with an inspected length of approximately 800 feet. Tunnel inspections typically include inspections of the entrance shafts, the subject tunnel, and all structural elements in the structure including, but not limited to; ladders and landings.

A list of similar projects, including the owner of the structure and year inspected, is below.

- Albany and Eisenhower tunnel inspection for Peoples Gas – 2015
- IDOT main-drain inspection for IDOT – 2015
- North Avenue and Magnolia Tunnel inspection for Peoples Gas– 2014
- Lemont Tunnel inspection for Nicor Gas – 2013
- Albany and Kennedy Tunnel inspection for Peoples Gas – 2012
- Dearborn Tunnel inspection for Peoples Gas– 2012

See attached cut-sheets in the Appendix for further information on these projects and HBK's project experience.

Proposed Project Team

HBK Engineering employs an experienced staff of engineers who perform inspections for their clients. Safety and accuracy are among the top concerns during onsite inspections of tunnels and other infrastructure. To ensure that the project is completed safely and accurately, HBK proposes the following team to perform the onsite inspections. Resumes for the listed engineers are attached as well as a team organizational chart.

- Joshua A. Hoheneder, P.E.
- Andrew J. Schwarz, P.E., S.E.
- Jonathan D. Robinson, P.E., S.E.
- Peter Ivanovich
- Kurt E. Breitenbucher

Project Experience and References

City of Chicago - Water and Sewer System Improvements

HBK has been instrumental in supporting the Department of Water Management's Water and Sewer System Improvement Program. HBK has partnered with our diverse teammates to survey and develop more than 40 miles of utility base map since the program commenced in 2009. HBK's team has solidified its role within the program by continuing to provide a high quality product within very critical schedule demands, to include the delivery of more than 27 miles over the past two years.

Key Contact:

Barrett Murphy, Commissioner — (312) 744-7001
Chicago Department of Water Management — Barrett.Murphy@CityOfChicago.org

Peoples Gas (PGL) – Gas Pipeline Tunnel Inspections

HBK has been instrumental in supporting Peoples Gas (PGL) with their compliance efforts. PGL has a network of tunnels containing 36" diameter high pressure mains crossing under various rivers and expressways in the Chicagoland area. As part of this effort, HBK has inspected three such tunnels in the past few years providing PGL with a high-quality deliverable consisting of inspection results and recommendations. There are several more tunnel inspections planned as part of this program that HBK will undertake in the near future.

Key Contact:

Katie Pacholski, Sr. Project Manager — (312) 744-7001
Project Services — CJPacholski@integrysgroup.com

List of Municipal Clients in Illinois

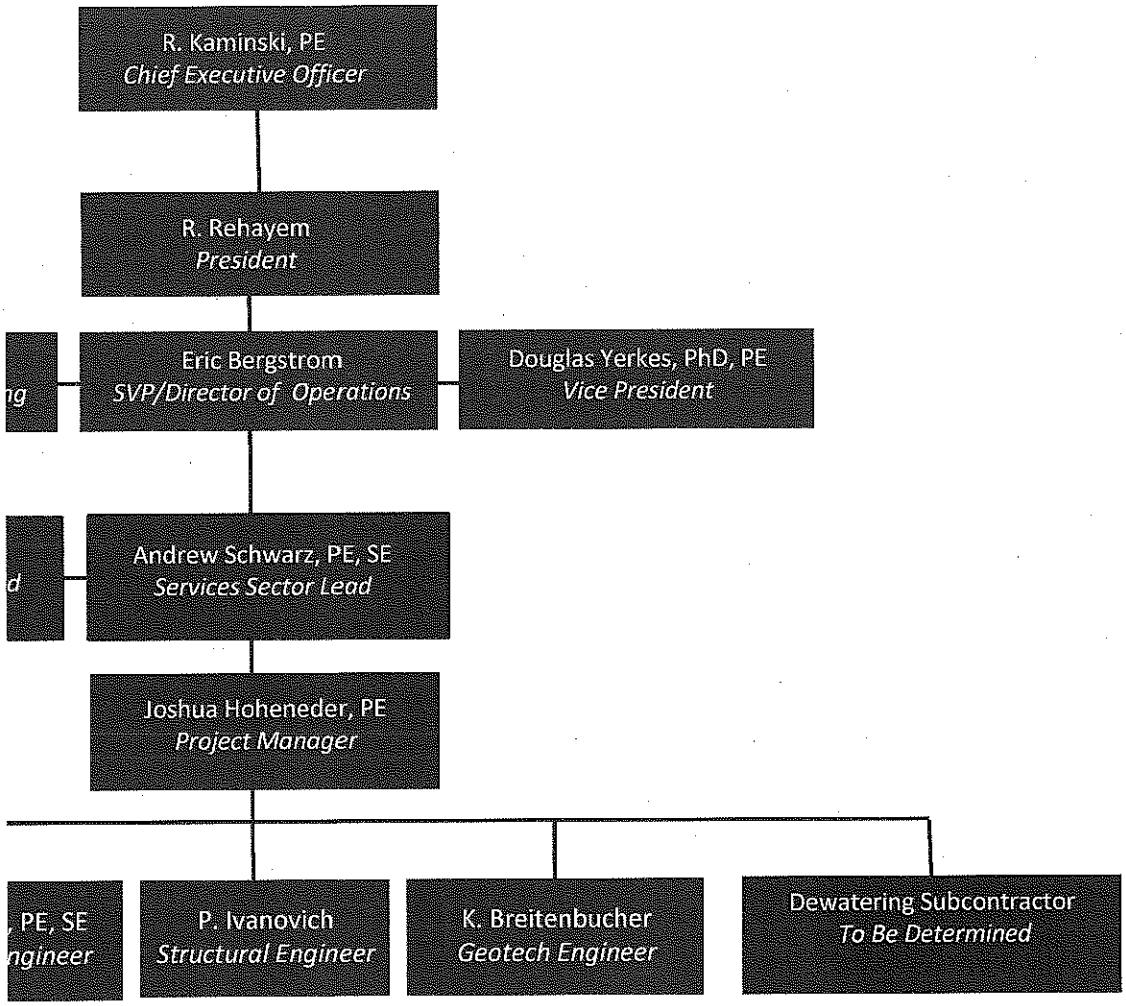
- City of Chicago (Department of Transportation) (CDOT)
- City of Chicago (Department of Water Management) (CDWM)
- City of Chicago (Office of Emergency Management & Communications) (OEMC)
- City of Chicago Heights
- City of Batavia
- City of Rockford
- Village of Orland Park

List of Additional Agency Clients in Illinois

- Illinois State Toll Highway Authority (ISTHA)
- Metropolitan Water Reclamation District of Greater Chicago (MWRD)
- Illinois Department of Transportation (IDOT)

[redacted]

Project Organizational Chart


R. Kaminski, PE
Chief Executive Officer
R. Rehayem
President
Eric Bergstrom
SVP/Director of Operations
Douglas Yerkes, PhD, PE
Vice President
Andrew Schwarz, PE, SE
Services Sector Lead
Joshua Hoheneder, PE
Project Manager
P. Ivanovich
Structural Engineer
K. Breitenbucher
Geotech Engineer
Dewatering Subcontractor
To Be Determined

Proposed Fee and Billing Rates

Part I: Scope of Services

1. MEETINGS & COORDINATION
   Consultant shall, as required, provide support to, and attend meetings with: the Client; Owner; Owner's consultants and Owner's contractors to discuss specific requirements of the Owner, the Client, project stakeholders and various public and private agencies. Consultant shall provide assistance to Client and Owner for the coordination with various public and private agencies. Meeting time provided in this proposal is an estimate that may be exceeded due to meeting requirements of Client, Owner and governing agencies. Consultant shall provide timely notification to Client when required meeting time exceeds the estimate; such additional meeting time required will be billed at the Standard Hourly rates provided in this proposal.

2. PROJECT MANAGEMENT
   Consultant shall assist Client / Owner with required scheduling, forecasting and management of Project timeline. Schedules and exact design activities/deliverables will be delineated in Project team meetings. If required by Client / Owner the Consultant shall provide the following: weekly reporting to include amount spent per week; cash flow summary including estimated cost, amount spent to date and estimated cost to complete to be included with each billing. Consultant shall provide timely notification to Client when changes in scope arise along with the associated cost changes to the original Client approved scope. The estimated cost will be updated based upon changed conditions, if required.

3. SAFE WORK PLAN AND SAFETY COORDINATION
   Preparation of Consultant's Safe Work Plan for the planned project-related field activities of the Consultant and any Sub-Consultant(s). Coordination of safety equipment, training, and evaluations necessary for project.

   Note: The Consultant, Consultants Sub-Consultant(s), and their respective personnel have no authority to exercise any control over Client's personnel or construction contractor(s) or other entity or their employees in connection with their work or any health or safety programs or procedures.

4. RECORDS RESEARCH
   Consultant shall review and coordinate available existing topographic maps, soils reports, surveys, and design drawings (provided by Client) with the goal of obtaining a thorough understanding of the existing conditions at the various sites. Consultant shall conduct additional records research and coordinate with various public and private entities in an effort to obtain available information associated with past and planned improvement projects near the project limits. This includes, but is not limited to; design drawings, design documents, surveys, historical records, existing facility atlases, demolition plans, record drawings, utility base maps, geotechnical reports, and as-built drawings associated with improvement projects located within the project limits.

   The Consultant shall conduct the research that, in its professional opinion, is necessary for the preparation of the documents described in this proposal. The Consultant shall review collected records for duplicate information, credibility of such duplicate information, and need for clarifications by utility/infrastructure owners. Such services will be performed in a manner consistent with the ordinary standard of professional care.

The Client must recognize, however, that such research may not identify all above-ground and underground improvements, and that the information upon which the Consultant reasonably relies may contain errors or may be incomplete.

5. DEWATERING PLAN
Dewatering plans and calculations will be prepared by Consultant for the tunnel based on water level determined by onsite observations. The goal of the dewatering plan is to remove water the tunnel in such a way that the existing sediment, structures, and facilities are not adversely impacted. This plan will take into account all information provided to Consultant. Consultant, however, cannot be held responsible for unavailable, inaccurate, and/or erroneous information, and for other factors outside of their control.

The dewatering calculations and drawings will be signed and sealed by a Licensed Professional Engineer registered in the State of Illinois.

6. PERMIT ACQUISITION
Consultant will assist the Client in the application for permits required by the Village of Downers Grove and relevant governing agencies to obtain required permits for the subject inspection. Client to provide estimated permit fees at time of project award submittal, if fee changes based on requirements Consultant will notify Client as soon as possible of the permit fee change. Permitting fees are as an allowance of $10,000. Actual permit fees, whether greater or less, will be passed directly to the client without markup.

7. DEWATERING

Consultant shall engage a Sub-Contractor to provide a competent crew and appropriate equipment to perform dewatering operations within the Project Limits. See Exhibit 'A' for the estimated quantity of dewatering included with this proposal.

Engineer shall provide a qualified individual to perform observation services during the dewatering process. See Exhibit 'A' for the estimated quantity of days of dewatering observation included with this proposal. Note: the duration of dewatering activities given in Exhibit A is an estimate that may be exceeded based on factors outside of Consultant's control. Charges associated with this scope item will be based on the actual time spent.

8. MANHOLE/TUNNEL ENTRY AND INSPECTION
Provide equipment and personnel necessary (except that which is excluded below) to enter the manhole/tunnel for the purpose of a visual inspection and documentation of the tunnel, manholes(s), facilities, and structures contained therein.

Consultant understands that this is a permit-required confined space as defined by OSHA.

9. DATA COMPILATION AND INSPECTION REPORT
Consultant shall create a report documenting and summarizing the findings of the inspection and recommendations. The recommendations may pertain to, as appropriate:

- Repair and/or replacement of the tunnel, manhole(s), pipes, structures, other appurtenances, or portions thereof.

- Further testing to be performed on the tunnel, manhole(s), other appurtenances, or portions thereof.
- Further surveying or geometric modeling of the tunnel and/or manhole(s).

The report may contain digital photographs, sketches, or other graphics as deemed necessary by Consultant to accurately portray the condition of tunnel, manhole(s) and appurtenances to Client. The report will document examples of the typical defects found during the inspection. The report may not contain a comprehensive catalog of every defect present and/or observed. Consultant will supply four (4) hard copies with DVD copies of video footage and one (1) flash drive with pertinent information and inspection report.

Report will be performed in accordance with the Report Requirements as provided in the RFP.

Exceptions and Clarifications:

- All work performance as described in this Part 1 Scope document will be performed in accordance with the Work Performance Standards as provided in the RFP.
- Preparation of engineering design repair details is not included in the scope of this project scope.
- Consultant may provide general recommendations recommended tests as deemed appropriate during Consultant's review, however, detailed recommendations, coordination and performance of the recommended testing is not included in project scope.
- Per the pre-bid meeting on 6/1/2016, the proposal has been prepared assuming 4,500 linear feet of tunnel to inspect (excluding manhole structures).
- Inspection crews are to enter the structure after the subject structure has been pumped to a sufficient level to allow for safe entry. Additional days of pumping due to rain events will be performed at a time and expense billing at the rates outlined in the pricing break down.
- Consultant shall document locations of excessive debris accumulation that may obstruct regular flow. Removal of debris accumulation is not included in this project scope.
- Stationing of the structure shall be performed during the tunnel's inspection. The stationing determined during this process will be utilized to locate laterals, inlets, deficiencies, and manhole structures. This stationing will be performed utilizing hand methods (not survey quality stationing).
- This proposal assumes one mobilization only for the dewatering and inspection of the subject tunnel and encompassing structures as defined by the RFP. Additional mobilizations are outside the scope of this proposal and work shall be performed at a time and expense billing at the rates outlined in the RFP.
- Consultant shall endeavor to inspect the entire tunnel and manholes(s) in the specified project scope. Certain portions of the structures, however, may not be able to be inspected due to inaccessibility, safety concerns, or other factors beyond Consultant's control. Locations unable to be observed shall be documented in the project's report submittal.
- As part of the inspection process, Consultant may take certain measurements in order to serve the purpose of the inspection, as Consultant's own discretion. This proposal does

not include detailed measurements, survey, or any other form of geometric modeling of Client's facilities.

- The following items will be inspected (subject to applicability and consultant's ability to safely access): Scope items not specifically listed in this proposal are excluded from Consultant's Scope of Work.
    - Tunnel and manhole interior surfaces
    - Inlets/laterals to the tunnel including condition and size
    - Wing walls and head walls adjacent to the structure as described in the RFP
- The inspection as described in this proposal is intended for the purpose of evaluating and documenting the general condition (insofar as can be done by means of a visual examination), identifying and documenting visible defects in the tunnel and/or manhole structure, and the facilities contained therein. Inspection means, methods, or procedures other than visual observation are outside the scope of this proposal.
- Consultant anticipates that the Client will provide the following, subject to availability:
    - Design and/or record drawings of tunnel and manholes
    - Documentation of previous inspections
    - Existing soil information from Client and other sources

End Part I

UTILITY INFRASTRUCTURE SOLUTIONS

hbk ENGINEERING

July 1, 2016

Jim Tock, P.E.
Engineering Manager
Village of Downers Grove
5101 Walnut Avenue
Downers Grove, IL 60515

RE: *Engineering Services for the Assessment of an 11' Diameter Pipe through the* DBD
Proposal Number: DR-041

Dear Mr. Tock:

Thank you for taking time out of your day to meet with myself and the HBK team on Tuesday, June 28th. It was a pleasure meeting you and John. The meeting served as an excellent way to introduce the proposed HBK team as well as discuss the project specifics.

During our conversation it was discussed that Downers Grove would like to have portions of the submittal updated. In an effort to address the comments discussed, we have prepared for you this updated submittal document. This revision details the additional optional scope line items that the Village may choose to include in the final award for surveying services. The attached scope line items (items 10, 11, and 12) detail the proposed tunnel surveying tasks. The proposed fees for the surveying scope line items have been included in the updated Exhibit A document outlining proposed hourly rates for the surveying services. Additionally, per our conversation, HBK has updated the Exhibit A document to include both daily and hourly rates for dewatering for both the HBK effort and estimated contractor rates for ease of review. The quote for the project's required scope items (items 1 through 9) has not changed and the additional proposed optional charges for the surveying scope items have been included at the end of the exhibit.

Thank you very much for the opportunity to work with you. Should you have any questions or need any additional information, please contact us via phone at 312-432-0076, via email at dyerkes@hbkengineering.com, or via USPS at 921 West Van Buren Street, Suite 100, Chicago, IL.

Sincerely,

Douglas Yerkes, Ph.D., P.E.
Vice President

Part I: Scope of Services

1. MEETINGS & COORDINATION
   Consultant shall, as required, provide support to, and attend meetings with: the Client; Owner; Owner's consultants and Owner's contractors to discuss specific requirements of the Owner, the Client, project stakeholders and various public and private agencies. Consultant shall provide assistance to Client and Owner for the coordination with various public and private agencies. Meeting time provided in this proposal is an estimate that may be exceeded due to meeting requirements of Client, Owner and governing agencies. Consultant shall provide timely notification to Client when required meeting time exceeds the estimate; such additional meeting time required will be billed at the Standard Hourly rates provided in this proposal.

2. PROJECT MANAGEMENT
   Consultant shall assist Client / Owner with required scheduling, forecasting and management of Project timeline. Schedules and exact design activities/deliverables will be delineated in Project team meetings. If required by Client / Owner the Consultant shall provide the following: weekly reporting to include amount spent per week; cash flow summary including estimated cost, amount spent to date and estimated cost to complete to be included with each billing. Consultant shall provide timely notification to Client when changes in scope arise along with the associated cost changes to the original Client approved scope. The estimated cost will be updated based upon changed conditions, if required.

3. SAFE WORK PLAN AND SAFETY COORDINATION
   Preparation of Consultant's Safe Work Plan for the planned project-related field activities of the Consultant and any Sub-Consultant(s). Coordination of safety equipment, training, and evaluations necessary for project.

   Note: The Consultant, Consultants Sub-Consultant(s), and their respective personnel have no authority to exercise any control over Client's personnel or construction contractor(s) or other entity or their employees in connection with their work or any health or safety programs or procedures.

4. RECORDS RESEARCH
   Consultant shall review and coordinate available existing topographic maps, soils reports, surveys, and design drawings (provided by Client) with the goal of obtaining a thorough understanding of the existing conditions at the various sites. Consultant shall conduct additional records research and coordinate with various public and private entities in an effort to obtain available information associated with past and planned improvement projects near the project limits. This includes, but is not limited to; design drawings, design documents, surveys, historical records, existing facility atlases, demolition plans, record drawings, utility base maps, geotechnical reports, and as-built drawings associated with improvement projects located within the project limits.

   The Consultant shall conduct the research that, in its professional opinion, is necessary for the preparation of the documents described in this proposal. The Consultant shall review collected records for duplicate information, credibility of such duplicate information, and need for clarifications by utility/infrastructure owners. Such services will be performed in a manner consistent with the ordinary standard of professional care.

The Client must recognize, however, that such research may not identify all above-ground and underground improvements, and that the information upon which the Consultant reasonably relies may contain errors or may be incomplete.

5. DEWATERING PLAN
Dewatering plans and calculations will be prepared by Consultant for the tunnel based on water level determined by onsite observations. The goal of the dewatering plan is to remove water the tunnel in such a way that the existing sediment, structures, and facilities are not adversely impacted. This plan will take into account all information provided to Consultant. Consultant, however, cannot be held responsible for unavailable, inaccurate, and/or erroneous information, and for other factors outside of their control.

The dewatering calculations and drawings will be signed and sealed by a Licensed Professional Engineer registered in the State of Illinois.

6. PERMIT ACQUISITION
Consultant will assist the Client in the application for permits required by the Village of Downers Grove and relevant governing agencies to obtain required permits for the subject inspection. Client to provide estimated permit fees at time of project award submittal, if fee changes based on requirements Consultant will notify Client as soon as possible of the permit fee change. Permitting fees are as an allowance of $10,000. Actual permit fees, whether greater or less, will be passed directly to the client without markup.

7. DEWATERING

Consultant shall engage a Sub-Contractor to provide a competent crew and appropriate equipment to perform dewatering operations within the Project Limits. See Exhibit 'A' for the estimated quantity of dewatering included with this proposal.

Engineer shall provide a qualified individual to perform observation services during the dewatering process. See Exhibit 'A' for the estimated quantity of days of dewatering observation included with this proposal. Note: the duration of dewatering activities given in Exhibit A is an estimate that may be exceeded based on factors outside of Consultant's control. Charges associated with this scope item will be based on the actual time spent.

8. MANHOLE/TUNNEL ENTRY AND INSPECTION
Provide equipment and personnel necessary (except that which is excluded below) to enter the manhole/tunnel for the purpose of a visual inspection and documentation of the tunnel, manholes(s), facilities, and structures contained therein.

Consultant understands that this is a permit-required confined space as defined by OSHA.

9. DATA COMPILATION AND INSPECTION REPORT
Consultant shall create a report documenting and summarizing the findings of the inspection and recommendations. The recommendations may pertain to, as appropriate:

- Repair and/or replacement of the tunnel, manhole(s), pipes, structures, other appurtenances, or portions thereof.

- Further testing to be performed on the tunnel, manhole(s), other appurtenances, or portions thereof.
- Further surveying or geometric modeling of the tunnel and/or manhole(s).

The report may contain digital photographs, sketches, or other graphics as deemed necessary by Consultant to accurately portray the condition of tunnel, manhole(s) and appurtenances to Client. The report will document examples of the typical defects found during the inspection. The report may not contain a comprehensive catalog of every defect present and/or observed. Consultant will supply four (4) hard copies with DVD copies of video footage and one (1) flash drive with pertinent information and inspection report.

Report will be performed in accordance with the Report Requirements as provided in the RFP.

Exceptions and Clarifications:

- All work performance as described in this Part 1 Scope document will be performed in accordance with the Work Performance Standards as provided in the RFP.
- Preparation of engineering design repair details is not included in the scope of this project scope.
- Consultant may provide general recommendations recommended tests as deemed appropriate during Consultant's review, however, detailed recommendations, coordination and performance of the recommended testing is not included in project scope.
- Per the pre-bid meeting on 6/1/2016, the proposal has been prepared assuming 4,500 linear feet of tunnel to inspect (excluding manhole structures).
- Inspection crews are to enter the structure after the subject structure has been pumped to a sufficient level to allow for safe entry. Additional days of pumping due to rain events will be performed at a time and expense billing at the rates outlined in the pricing break down.
- Consultant shall document locations of excessive debris accumulation that may obstruct regular flow. Removal of debris accumulation is not included in this project scope.
- Stationing of the structure shall be performed during the tunnel's inspection. The stationing determined during this process will be utilized to locate laterals, inlets, deficiencies, and manhole structures. This stationing will be performed utilizing hand methods (not survey quality stationing).
- This proposal assumes one mobilization only for the dewatering and inspection of the subject tunnel and encompassing structures as defined by the RFP. Additional mobilizations are outside the scope of this proposal and work shall be performed at a time and expense billing at the rates outlined in the RFP.
- Consultant shall endeavor to inspect the entire tunnel and manholes(s) in the specified project scope. Certain portions of the structures, however, may not be able to be inspected due to inaccessibility, safety concerns, or other factors beyond Consultant's control. Locations unable to be observed shall be documented in the project's report submittal.
- As part of the inspection process, Consultant may take certain measurements in order to serve the purpose of the inspection, as Consultant's own discretion. This proposal does

not include detailed measurements, survey, or any other form of geometric modeling of Client's facilities.

- The following items will be inspected (subject to applicability and consultant's ability to safely access): Scope items not specifically listed in this proposal are excluded from Consultant's Scope of Work.
    - Tunnel and manhole interior surfaces
    - Inlets/laterals to the tunnel including condition and size
    - Wing walls and head walls adjacent to the structure as described in the RFP
- The inspection as described in this proposal is intended for the purpose of evaluating and documenting the general condition (insofar as can be done by means of a visual examination), identifying and documenting visible defects in the tunnel and/or manhole structure, and the facilities contained therein. Inspection means, methods, or procedures other than visual observation are outside the scope of this proposal.
- Consultant anticipates that the Client will provide the following, subject to availability:
    - Design and/or record drawings of tunnel and manholes
    - Documentation of previous inspections
    - Existing soil information from Client and other sources

10. TUNNEL SURVEY

    Utilizing conventional surveying data collection methods consultant shall provide the equipment and personnel necessary to survey the route, floor, ceiling, and sides of the tunnel with a robotic total station. Survey measurements shall be taken at an interval of 100' and at any change in direction. In addition, the consultant will locate any shafts, basins or manholes along the tunnel route. The survey performed under this proposal and scope item is not sufficient to perform civil engineering grading and drainage designs.

11. TUNNEL CONTROL

    Utilizing conventional surveying (Total Station) data collection methods and a two-person field crew, perform a field control survey of the area surrounding the Project to the extent necessary to determine the Tunnel location within the described project limits and match the Client's existing coordinate system/control points (to be provided by others - CGS).

12. DATA ADJUSTMENT / CAD FILE

    Consultant shall use the data from scope item 11 to rotate and/or adjust the tunnel survey data into Illinois East state plane horizontal coordinates. Consultant shall also adjust the survey elevations to match North American Vertical Datum of 1988. In addition consultant shall complete an AutoCAD file in 2015 Civil3D containing the location, route and elevations for the entire length of the tunnel.

End Part I

UTILITY
INFRASTRUCTURE
SOLUTIONS

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ENGINEERING

July 14, 2016

Jim Tock, P.E.
Engineering Manager
Village of Downers Grove
5101 Walnut Avenue
Downers Grove, IL 60515

RE: *Engineering Services for the Assessment of an 11' Diameter Pipe through the* DBD
Proposal Number: DR-041

Dear Mr. Tock:

Thank you for taking time out of your day on Wednesday, July 13th to continue to work with the HBK team on this RFP. I hope the conversation served to answer the questions you had for our team's proposal.

During the conversation the team addressed some outstanding questions you had on our submitted RFP documents. I hope the additional contact information sent to you was sufficient for your purposes. Additionally, as discussed, HBK took another quick look into our proposed line items to see where we might be able to make adjustments to our proposed fee. In an effort to address this, we have prepared for you this updated Exhibit A document. This revision details the revisions to our fees by attempting to refine our assumptions. Through this process we were able to reduce our proposed fee by approximately 9%. For ease of your review, I have included these updates in red text. As discussed, we have also removed from the subtotal the assumed $10,000 permitting fee. These two considerations have allowed HBK to reduce the proposed fee for the project to $116,941 as shown in the Exhibit A.

Thank you very much for the opportunity to work with you. Should you have any questions or need any additional information, please contact us via phone at 312-432-0076, via email at dyerkes@hbkengineering.com, or via USPS at 921 West Van Buren Street, Suite 100, Chicago, IL.

Sincerely,

Douglas Yerkes, Ph.D., P.E.
Vice President

Scope Item	Description	Personnel	Estimated Hours	Standard Hourly Rates	Estimated Fee
1	**MEETINGS & COORDINATION**	ENG	15	113	$ 1,695
		PM	20	113	$ 2,260
		SENG	15	144	$ 2,160
		FL	10	108	$ 1,080
2	**PROJECT MANAGEMENT**	PM	20	113	$ 2,260
		SENG	15	144	$ 2,160
		FL	10	108	$ 1,080
3	**SAFE WORK PLAN AND SAFETY COORDINATION**	SENG	2	144	$ 288
		ENG	6	113	$ 678
		PM	8	113	$ 904
	SubConsultant				*$ 1,000*
4	**RECORDS SEARCH**	ENG	4	113	$ 452
		SENG	2	144	$ 288
		A2	4	103	$ 412
		D3	16	108	$ 1,728
5	**DEWATERING PLAN**	SENG	8	144	$ 1,152
		ENG	12	113	$ 1,356
		A2	16	103	$ 1,648
6	**PERMIT ACQUISITION**	PM	16	113	$ 1,808
	~~*Estimated Permitting Fee*~~				~~$ 10,000~~
	Note: Permit fees will be paid by Downers Grove				
7	**DEWATERING**				
	Assume four (4) days @ twelve (12) hours each are required to dewater the tunnel				
	Observation	A2	48	103	$ 4,944
	Dewatering Sub-Consultant	*Mobilization*			*$ 8,000*
		Equipment	4	*$ 3,500*	*$ 19,000*
	Daily Fee		4	*$ 2,550*	*$ 10,200*
	Hourly contractor labor fee		1	*$ 260.00*	*$ 260*
	Hourly rates are included in the event additional hours are required due to inclement weather, etc. These fees are not included in the project's proposed total fee on sheet 2 of 3.				
	Hourly equipment fee		1	*$ 400.00*	*$ 400*
	Overtime rates included in the event additional hours are required due to inclement weather, etc. These fees are not included in the project's proposed total fee on sheet 2 of 3.				
	Daily rate equivalent for dewatering observation (1 HBK employee) and contractor fee (daily equipment fee and crew member fee). Daily rates are included in the event additional days are required due to inclement weather, etc. These fees are not included in the project's proposed total fee on sheet 2 of 3.				$ 7,286
8	**MANHOLE/TUNNEL ENTRY & INSPECTION**	ENG	96	113	$ 10,848
	Assume four (4) days @ twelve (12) hours each are required to inspect the tunnel and 2 inspection crews	A2	96	103	$ 9,888
	Top Man	FL	48	108	$ 5,184
	Confined Space Sub-Consultant		48	260	$ 12,480
	Ventilation & Equipment				*$ 2,500*

Scope Item	Description	Personnel	Estimated Hours	Standard Hourly Rates	Estimated Fee
	Daily rate equivalent for onsite inspection crew (2 inspectors 1 top person) and estimated Confined space consultant fee (1 contractor at 260$ per hour assumed). Daily fees are assumed in the event additional days are required due to inclement weather, etc. These fees are not included in the project's proposed total fee on sheet 2 of 3.				$ 7,008
9	**DATA COMPILATION AND INSPECTION REPORT**	SENG	10	144	$ 1,440
		A2	48	103	$ 4,944
		ENG	16	113	$ 1,808
		D3	12	108	$ 1,296
	Total Estimated Hours and Estimated Fee		717		$ 116,941
	Optional Alternative Scopes				
10	**TUNNEL SURVEY**	PM	2	113	$ 226
	Assume two (2) days @ twelve (12) hours each are required to survey the tunnel	FL	24	108	$ 2,592
		FL	24	108	$ 2,592
		FT	24	72	$ 1,728
11	**TUNNEL CONTROL**	PM	2	113	$ 226
		FL	4	108	$ 432
		FT	4	72	$ 288
12	**DATA ADJUSTMENT / CAD DRAWING**	PM	8	113	$ 904
	Notes/Comments:				
1	HBK Personnel Initials				

Position Description	2016 Rate	Abbreviation
Principal	$165.00	PRIN
Program Manager	$144.00	PRO
Senior Engineer	$129.00	SRENG
Structural Engineer	$144.00	SENG
Engineer	$113.00	ENG
Associate 3	$108.00	A3
Associate 2	$103.00	A2
Associate 1	$98.00	A1
Senior Project Manager	$129.00	SPM
Project Manager	$113.00	PM
Project Coordinator	$103.00	PC
Permitting Coordinator	$103.00	PERC
Analyst 2	$77.00	AN2
Analyst 1	$67.00	AN1
Administrative	$62.00	ADMIN
Designer 3	$108.00	D3
Designer 2	$98.00	D2
Designer 1	$82.00	D1
Designer 0	$77.00	D0
Distribution Designer	$88.00	DD
Construction Manager	$124.00	CM
Construction Liaison	$124.00	CL
Construction Specialist 2	$124.00	CS2
Construction Specialist 1	$108.00	CS1
Field Administrator	$93.00	FA

Scope Item	Description	Personnel	Estimated Hours	Standard Hourly Rates	Estimated Fee
	Professional Land Surveyor	$129.00	PLS		
	Field Lead	$108.00	FL		
	Field Technician	$72.00	FT		
	Locator 3	$67.00	L3		
	Locator 2	$57.00	L2		
	Locator 1	$46.00	L1		
	Locator 0	$36.00	L0		

Appendix

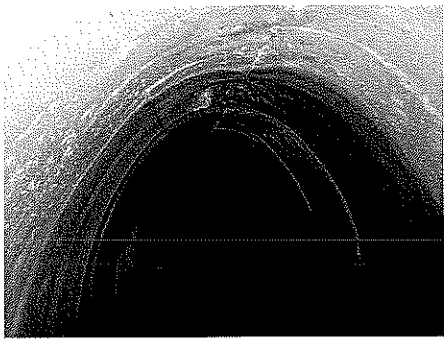
Project Cut sheets

UTILITY INFRASTRUCTURE SOLUTIONS hbk ENGINEERING

IDOT Maindrain Tunnel Inspection

Clients: Illinois Department of Transportation (IDOT), Chicago Transit Authority (CTA)

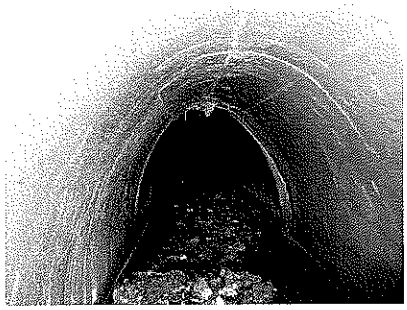
Project Description: IDOT has an extensive network of tunnels that are utilized for services ranging from vehicle transportation to water drainage. These tunnels traverse under various expressways and waterways in the City of Chicago and its surrounding suburbs. These tunnels undergo regular inspections to determine potential sources of deterioration and identify necessary remediation efforts required. The IDOT maindrain tunnel inspection was conducted in a joint effort with the CTA due to proposed station upgrades along the Dan Ryan Expressway above the tunnel. HBK was responsible for the structural evaluation and surveying of the tunnel.



Role HBK provides in project: HBK's scope of work included the review of the provided existing drawings or references to determine the type of tunnel construction and its approximate location. HBK utilized this information to gain access to the structure. HBK worked with the CTA, IDOT, and their contractors to coordinate the on-site field assessment of the tunnel, manholes, and various structural elements. The inspection noted locations of deficiencies, pipe inlets, manholes, and connection conditions. Additionally, HBK's surveyors performed a survey of the existing tunnel to accurately establish the structure's running line to allow for the installation of drilled shafts associated with the proposed CTA platform. HBK's inspectors prepared an in-depth report detailing the existing conditions observed and provided the CTA with a record survey detailing the structure's running line.

Action Items:

- **Reviewed existing drawings and geotechnical information to determine the existing construction and adverse geotechnical conditions involved.**
- **Coordinated with the City of Chicago, IDOT, CTA, and the utility's contractors to safely gain access to the structure for the on-site inspection.**
- **Thoroughly inspected, recorded, and documented all structural and geotechnical aspects of the tunnel, manholes, and any observed connections.**
- **Developed an in-depth report documenting the existing conditions encountered during the inspection and recommended any subsequent measures needed to rehabilitate observed deficient elements.**
- **Created record drawings based on survey data collected and reviewed by HBK's Professional Land Surveyor.**



Closing: The tunnel inspection and survey of the IDOT maindrain provided HBK the opportunity to assist its client in protecting its existing infrastructure during construction. HBK reported and detailed observed deteriorations to allow for proper planning and coordination of future infrastructure projects.

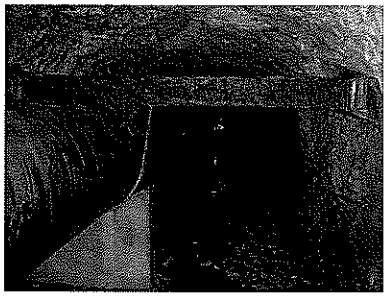
Illinois Department of Transportation

cta

UTILITY INFRASTRUCTURE SOLUTIONS | hbk ENGINEERING

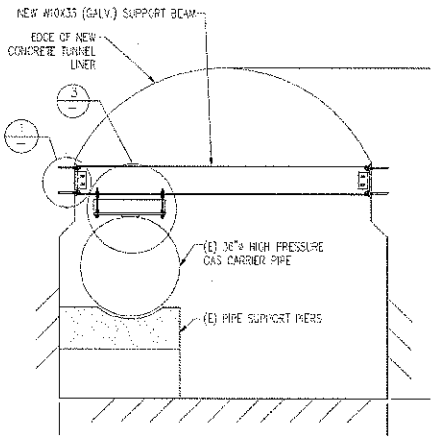
Tunnel Inspection Program

Clients: Peoples Gas (PGL), Nicor Gas



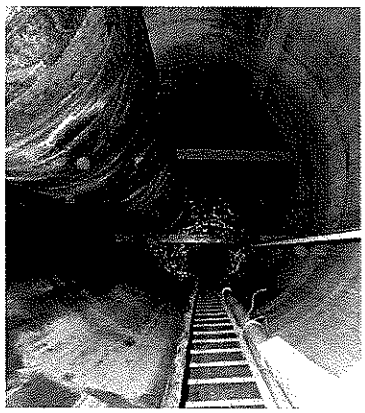
Project Description: PGL and Nicor have an extensive network of tunnels containing high-pressure natural gas mains under various expressways and waterways in the City of Chicago. As part of the requirements set forth by the Illinois Commerce Commission (ICC), they have begun to institute an inspection program for these tunnels. This program consists of two parts, the structural evaluation of the tunnels and the evaluation of the pipeline integrity within the tunnel. HBK is responsible for the structural evaluation of the tunnel, shafts, and associated structural elements in the contracted structures.

Role HBK provides in project: HBK's scope of work includes the review of relevant existing drawings or references to determine the type of tunnel construction. HBK utilizes this information to formulate dewatering plans used to gain access to the subject tunnel. HBK works with the Utilities and its contractors to perform an on-site field assessment of the tunnel, shafts, and various structural elements within and records measurements that will be used in future designs and rehabilitations of the tunnel structure. HBK prepares an in-depth report highlighting the existing conditions observed and makes recommendations which will be used to make decisions regarding any rehabilitation work, if needed. HBK also provides structural designs to rehabilitate any deficient structural elements that is code compliant to provide a tunnel that is structurally sound and able to function for many years to come.



Action Items:

- **Review existing drawings and geotechnical information to determine the existing construction and adverse geotechnical conditions involved.**
- **Coordinate with the City of Chicago and the utility's contractors to safely dispose of water pumped out of the tunnel and safely gain access to the structure for the on-site inspection.**
- **Thoroughly inspect, record, and document all structural and geotechnical aspects of the tunnel, shafts, and any support structures.**
- **Develop an in-depth report documenting the existing conditions encountered during the inspection and recommend any subsequent measures that are needed to rehabilitate any deficient elements.**
- **Coordinate with utilities to determine the scope of any repairs needed that were identified in the inspection and work to develop cost-effective and constructible solutions.**



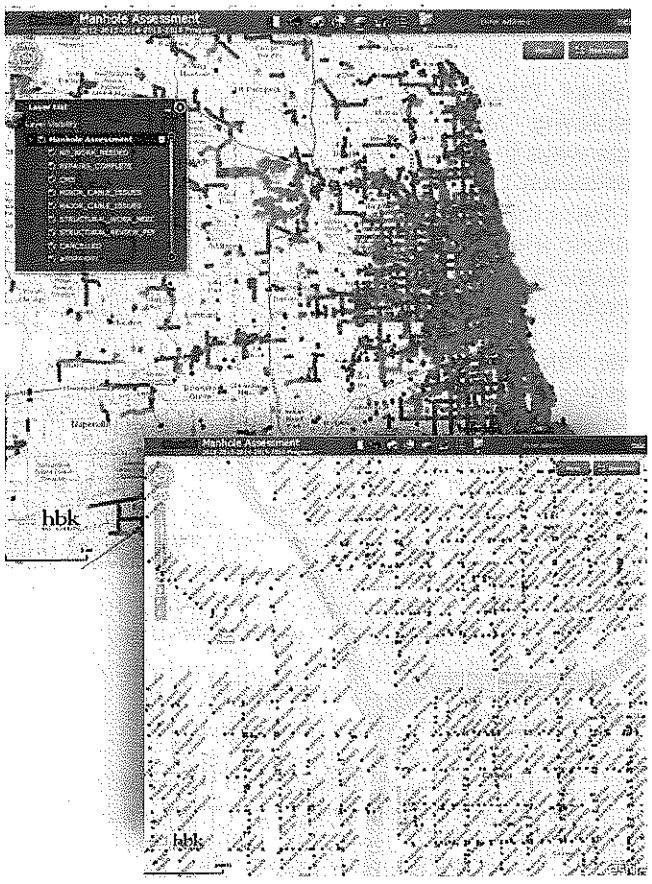
Closing: The tunnel inspection and rehabilitation program provides HBK the opportunity to assist its clients in conforming to the requirements set forth by the ICC and help maintain a safe and reliable infrastructure network to continue serving its clients for years to come.

Nicor Gas®

PEOPLES GAS
NATURAL GAS DELIVERY

UTILITY INFRASTRUCTURE SOLUTIONS | hbk ENGINEERING

EIMA Manhole Assessment and Mainline Cable Refurbishment Program



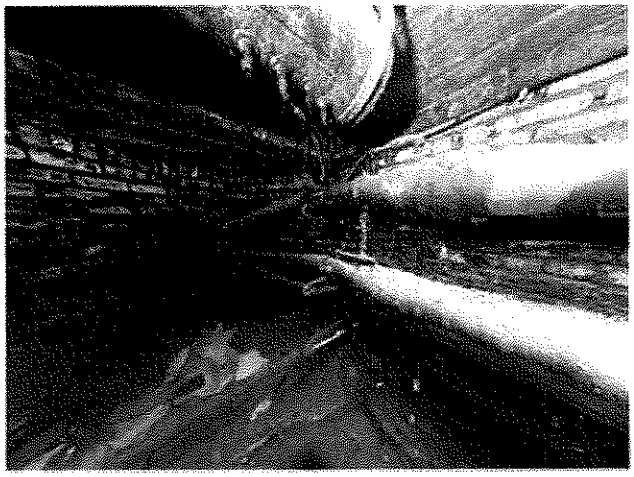
Clients: **Commonwealth Edison, Aldridge Electric**
Owner: **Commonwealth Edison**
HBK Project Manager: **Mike Tedeschi**
Project Start: **January 2012**
Project Complete: **Ongoing**

Project Description:
The Energy Infrastructure Modernization Act (EIMA) includes the assessment and refurbishment of Commonwealth Edison's entire underground distribution system. HBK plays a number of vital roles within the program providing engineers to accompany contractor electricians to each manhole. HBK employees perform detailed assessments of each structure including; reporting cable and joint condition, environmental condition, and structural deterioration. Additionally, HBK has developed software used to capture the assessment data for each of the approximately 35,000 manholes. The software is utilized to map individual manhole location and condition in an efficient, consistent and accurate manner HBK software modules assist in facilitating a complete workflow for each manhole structure from assessment to completion of repairs.

Each activity, from initial inspection to final repair is stored in a central repository. The information gathered is served back to the client over a web-based GIS browser, offering photo documentation, reports, and 360 degree views for each structure in a single location. Each manhole's inspection history is stored and accessible to serve the client's needs. All structures are searchable by either address or structure name, using an intuitive graphical interface.

Project Highlights:

- Assessment of over 35,000 manholes completing approximately 7,000 inspections yearly
- Tracks condition and repair status for over 200,000 segments of distribution cable on 6,200 feeders
- Custom data capture software developed for tracking distribution manhole and cable inspections
- Assisted in the management of the refurbishment of over 25,000 manholes to date



Resumes

UTILITY INFRASTRUCTURE SOLUTIONS hbk ENGINEERING

Joshua A. Hoheneder, PE

Professional Engineer
5 years of experience

KEY QUALIFICATIONS:

Joshua Hoheneder has over five years of experience in the field of Civil and Structural Engineering. His areas of expertise include project management, structural design, structural inspection, and construction observation. He has been instrumental in the development of structural standard calculations and drawings.

Mr. Hoheneder provides HBK with experience ranging from onsite field observations to creating designs. Prior to working for HBK, Joshua gained experience in topographical surveying, field observations of posttensioned concrete, and testing of various construction materials for quality control/quality assurance. Since working for HBK, he has gained experience with design and inspection of structures consisting of various construction materials including concrete, steel, and timber.

Joshua is directly responsible for the management involved with the company's Bridge Erection and Crane Placement Programs. He has developed and maintained the structural design procedures for these programs. Joshua's responsibilities include project management, writing/reviewing erection procedures, client coordination, site research, and building observations. He performs the structural analysis of the infrastructure below and adjacent to the crane set up, analyzes soil pressures, and designs the reinforcement of the existing infrastructure as required.

EDUCATION:

Master of Science:	Civil and Structural Engineering, University of Wisconsin - Milwaukee (December 2012)
Bachelor of Science:	Civil Engineering, University of Wisconsin - Milwaukee (May 2011)
Professional Societies:	American Society of Civil Engineers (ASCE) American Institute of Steel Construction (AISC) American Concrete Institute (ACI)
Professional Registration:	State of Illinois Professional Licensed Engineer (No. 062-067087) (2015)
Continuing Education:	OSHA Confined Space Awareness Training (2014) CPR Certified (2013)

UTILITY INFRASTRUCTURE SOLUTIONS hbk ENGINEERING

EXPERIENCE RECORD:

Bridge Erection Design, Chicago, IL
Client: Clausen Structures
Joshua is the lead engineer and project manager for the company's bridge erection program in the Chicagoland area. Joshua coordinates with the client, performs design calculations, reviews design drawings, and writes/reviews erection procedures. His calculations include analyzing rigging, steel and precast concrete beams during and after placement, designing temporary beam bracing, and analyzing crane capacities during the erection. (May 2014 - Present)

Chicago Crane Placement Program, Chicago, IL
Client: Various
Joshua is the lead engineer and project manager responsible for the company's crane placement program in the Chicagoland area. Joshua coordinates with the field crews, building owners, and clients. He also coordinates onsite field observations to verify underground utilities and vaulted spaces in the subject area. When necessary, he performs structural calculations to verify that crane activity will not have an adverse effect on the adjacent infrastructure. (March 2013 - Present)

Commonwealth Edison Vault Roof Inspection Program, Chicago, IL
Client: Commonwealth Edison
Joshua provides structural inspection services for numerous existing concrete vault roofs for the underground ComEd network centers located throughout the City of Chicago. The inspection consists of reviewing the condition of the concrete slab by attempting to observe deteriorated concrete and reinforcement, as well as a review of the condition at street level. Joshua provides project management, review of inspection reports, and development of the final report. (January 2013 – Present)

Chicago PD Building Evaluation, Chicago, IL
Client: Universal Television
Joshua worked with Universal Television to conduct a visual evaluation of a building located in Chicago. The studio requested that HBK assess the structure's structural stability during filming where loads due to equipment and crew would be applied to the unoccupied, dilapidated structure. This project's work included noting visual degradation of the timber members including connections, joist, support beams, and the components of the structural support system. Joshua provided the client with a detailed report summarizing the deficiencies and noted recommendations. (February 2015 – May 2015)

IDOT Maindrain Tunnel Inspection, Chicago, IL
Client: Parsons
Joshua conducted a visual evaluation of an existing concrete tunnel located under the 95th Street CTA station in Chicago. The work included noting visual degradation of the concrete including cracking, spalling, and condition of exposed steel while noting any undocumented protrusions into the tunnel as they occurred. He also provided the client with a detailed report summarizing the deficiencies and noted recommendations. (September 2014 – April 2015)

Rees House Relocation, Chicago, IL
Client: Bulley and Andrews
Joshua acted as the lead engineer in the design of the relocation of a structure of historical significance on S. Prairie Ave. in Chicago. The relocation involved two brick buildings: a three story house and a secondary two story building. He analyzed the existing roadway and infrastructure along the travel path for the applied loadings and designed a structural system utilizing cribbing and fill material to distribute

applied loads to the existing infrastructure. Joshua coordinated with the field crews, building owners, and clients to determine the locations of vaulted spaces and existing underground structures. Provided construction support prior to relocation activities to verify the structural system conformed to construction documents. (March 2014 – December 2014)

1 W. Wacker Crane Pick, Chicago, IL

Client: Lend Lease

As the lead engineer and project manager for the placement of multiple cranes on the elevated structures located on Wacker Driver in Chicago, Joshua coordinated with the field crews, building owners, and clients to determine the locations that would allow for safe crane operations during construction. He conducted field observations to verify the structural integrity of the existing bridge structures and to identify the location of existing underground utilities. Due to the anticipated loading and the location of the crane, he designed temporary shoring towers to transfer the outrigger loads from the bridge deck to the ground below. (August 2015 – January 2016)

455 N Park Dr. Crane Pick, Chicago, IL

Client: Lend Lease

As the lead engineer for the placement of multiple cranes on the elevated structures located on E. North Water St. in Chicago, Joshua coordinated with the field crews, building owners, and clients to determine the locations that would allow for safe crane operations during construction. He conducted field observations to verify the structural integrity of the existing bridge structures, and to identify the location of existing underground utilities. Due to the anticipated loading and the location of the crane, Joshua designed temporary shoring towers to transfer the outrigger loads from the bridge deck to the ground below. Additionally, he provided construction support prior to crane activities to verify the towers conformed to construction documents. (August 2013 – February 2014)

Commonwealth Edison Vault Roof Replacement Program, Chicago, IL

Client: Commonwealth Edison

Joshua performs the analysis and design of new structural roofs and temporary shoring for various underground, vaulted ComEd network centers located throughout the City of Chicago. The new structural slabs typically consist of a reinforced, cast-in-place concrete beam and slab system to support typical dead and live loads including AASHTO truck loading. Temporary shoring typically consists of wood posts to support the existing concrete walls during removal and replacement of the roof. Joshua designs traffic control plans, grading plans, and create base maps for vault roof replacements. His project responsibilities include: structural engineering design, drawing preparation, and shop drawing review. (January 2013 – Present)

Manhole Design for various utilities

Client: ComEd, PECO, AT&T

Joshua performs structural engineering services for the redesign of various manholes throughout the United States. Due to onsite existing and proposed conditions, the standard manhole designs are not always applicable, and therefore, require special considerations. For these designs, his responsibilities include coordination with various municipalities, and the design of the structural system. Joshua conducts field visits to observe the construction of the structure and to give recommendations to the contractors as required. (March 2013- Present)

UTILITY INFRASTRUCTURE SOLUTIONS hbk ENGINEERING

Commonwealth Edison Electrical Infrastructure Maintenance Act (EIMA) Manhole Assessment Program

Client: Commonwealth Edison, Aldridge Electric, Meade Electric

Joshua conducts visual structural evaluation of manholes by reviewing field reports and field survey photographs for structural deterioration. HBK provides a database for the client summarizing observations of deficiencies and professional opinions regarding the extent of repairs or replacement needed to correct observed deficiencies. (January 2013 - Present)

Jardine Water Purification Plant Installation of 8" STMP Gas Main, Chicago, IL

Client: Peoples Gas

Mr. Hoheneder conducted structural calculations and prepared structural drawings for the design of the 8" STMP gas main thrust and gravity support system. His responsibilities included the analysis and design of the support system and its connections to the existing structure. (March 2013 – February 2015)

The GEMS Project, Chicago, IL

Client: Thermal Chicago

Joshua served as the design engineer for the structural engineering design to support a 14 inch diameter chill water service connection from lower E. South Wacker and Columbus to the GEMS World Academy at E. Benton Place in Chicago, IL. The project included the design of structural attachments to concrete columns along three (3) buildings: 303 E. Wacker Dr., Aqua, and The Tides buildings. An analysis of the existing building's concrete columns was prepared to verify their structural capacity to support the new chill water service. In addition, Joshua prepared a structural detail design through an existing Autoclaved Aerated Concrete (AAC) wall. (February 2014 – May 2014)

Morgan St. Bridge Rebuild, Chicago, IL

Client: ComEd

Joshua conducted structural calculations for the support of ComEd electrical feeders over I-290 during bridge construction. The support system included a temporary shoring tower in the CTA right of way, support frames at existing abutments, and steel support beams. His responsibilities consisted of: preparing structural calculations for temporary frames, analyzing existing abutments, designing support beams for ComEd ducts, analyzing existing roadway for end bearing pressure, project coordination, and structural drafting of the support beam, support towers, and connections. (March 2013 – May 2014)

Various Temporary Utility Support, Chicago, IL

Client: Peoples Gas & ComEd

Joshua designs support systems for existing utilities in the public right-of-way in various municipalities. The systems are designed to support utility pipes and their connections over proposed excavations. His responsibilities include preparing structural calculations and drawings for the proposed supports. Joshua has also been integral for the development of standard drawings and calculations used for typical support scenarios. (January 2013 – Present)

Water tower inspection, Chicago, IL

Client: Meade Electric

Joshua conducted a visual evaluation of an existing water tower located at 6800 W. 62nd St. The work included noting visual degradation of the structural members including welds, walkways, handrails, and other components of the structural system. He provided the client with a detailed report summarizing the deficiencies and noted recommendations. (November 2013 – February 2014)

Indian Trails Temporary Conduit Support, Aurora, IL
Client: ComEd
Joshua provided structural engineering services for a temporary support system for ComEd conduits during the reconstruction of the Indian Trails Bridge in Aurora, IL. The temporary support system consists of timber framing supported by the existing bridge girders. His responsibilities included the analysis, design, and drawing preparation of the structural system. (November 2013 – March 2014)

Zoo Interchange Tunnels, Milwaukee, WI
Client: WE Energies
Joshua worked with WE Energies as the project structural engineer to design an earth retention structure for the interchange tunnels in Milwaukee. This installation encompassed engineered shored shaft excavations at varying depths. These shored shafts were composed of drilled steel soldier piles and wood lagging with structural steel waler frames. His responsibilities included the analysis, design, and drawing preparation of the structural system. (January 2013 – July 2013)

Crown Castle DAS Node Placement, Ocean City, NJ
Client: Crown Castle
Joshua served as the project engineer to conduct structural calculations for the addition of a pre-fabricated cupola to an existing wood structure in Ocean City, NJ. His responsibilities included the analysis of the existing structure as well as the detailing and plan preparation for the design of the connection of the new structure to the existing structure. (January 2013 – March 2013)

Pre-HBK Engineering Experience

GreenWhey Anaerobic Digesters, WI
Joshua performed structural calculations and reviewed shop drawings to verify adherence to design specifications. Materials used for designs included concrete and steel. Designs included stairwells, concrete foundations, and anchorage systems. (October 2012-January 2013)

Concrete Research, Milwaukee, WI
Joshua served as the lead researcher for master's thesis work at the University of Wisconsin - Milwaukee. His aim was to create a system to non-destructively monitor concrete structures through the addition of self-sensing materials including carbon nanotubes and carbon nanofibers to mix designs. The project aimed to use the electrical conductivity of concrete to monitor stresses, crack formation, and chloride ingress in structures. He designed experiments, researched alternatives for detecting changes in conductivity over specimens, published his thesis, and has a paper submitted for publication based on this research.

In addition to the work conducted on his own project, he worked on projects for private and public companies to enhance concrete properties. Projects included increasing durability, increasing early strength of concrete, and had involvement in optimizing the concrete mix designs for the Wisconsin DOT. (2010-2013)

Various Inspection projects, Wisconsin
As the field representative for various companies, Joshua conducted quality control/quality assurance inspections. He conducted on-site inspections of reinforced concrete, post tensioned concrete, asphalt,

and soils were conducted. He has experience testing construction materials both in the field and in the lab to ensure proper adherence to construction specifications. (2007-2013)

Wisconsin State Park Topographic Survey, WI
Joshua served as the project manager for the topographic survey of a 400 acre state park in Crivitz, Wisconsin. His responsibilities included: managing crew members, equipment, budgets, and scheduling. During the surveying process, Joshua used a total station to establish control; recorded accurate survey data, drafted the information gathered, and wrote reports for client review. (2008)

UTILITY INFRASTRUCTURE SOLUTIONS hbk ENGINEERING

Andrew J. Schwarz, PE, SE, LEED AP

Lead Structural Engineer/Senior Project Manager

16 years of experience

Key Qualifications:

Andrew Schwarz has a proven record of over 16 years of Structural Engineering experience both nationally and internationally. His areas of expertise consist of the design of transportation structures, including: steel and post-tensioned concrete bridges; the design of steel, concrete, and masonry hospital, military and university building structures; and the design of aluminum, fiberglass, steel, concrete utility structures, above and below ground. Andrew demonstrates his project management and engineering skills leading the structural engineering operations for HBK Engineering. Knowledgeable with construction techniques, he led the construction administration efforts for various structural engineering projects.

Andrew resolves design and field related issues, solves key problems, schedules and interacts with clients, consultants, municipal representatives, and contractors. He is knowledgeable in all project phases of the structural engineering work including planning, preliminary engineering, design, estimating, procurement, construction, and closeout. Andrew has direct oversight and responsibility for all HBK structural engineering services performed.

Education:

Professional Masters:	Structural Engineering, Illinois Institute of Technology (2005)
Bachelor of Science:	Civil Engineering, Purdue University (1998)
Professional Societies:	Structural Engineers Association of Illinois (SEAOI) American Institute of Steel Construction (AISC) Chi Epsilon
Professional Registration:	State of Illinois Licensed Structural Engineer (No. 081.006389) 2006 State of Illinois Licensed Professional Engineer (No. 062.057205) 2003 LEED AP
Continuing Education:	OSHA Confined Space Awareness City of Chicago Peer Review Program OSHA/ASCE Crane Safety Training CPR Training

Experience Record:

Various Existing River and Highway Tunnel Evaluations, Chicago, IL

Client: Integrys/Peoples Gas, Nicor

Andrew is the lead structural engineer for this evaluation project consisting of the structural inspection of existing reinforced concrete and rock tunnels and shafts. The evaluation includes a visual structural assessment and documentation of all significant defects. Soundings were performed of the tunnel to ascertain further information as to the condition of the tunnel and shaft structures. Formal reports are

written to document HBK's findings that are then submitted to the responsible governing agencies. To date, three tunnels have been inspected with others expected to be performed in the future. (November 2012 – Present)

Commonwealth Edison Electrical Infrastructure Maintenance Act (EIMA) Manhole Assessment Program

Client: Commonwealth Edison, Aldridge Electric, Meade Electric

Andrew is the lead structural engineer for this large program consisting of conducting visual structural evaluation of over 30,000 manholes and evaluating field reports and field survey photographs for structural deterioration. HBK has provided a database for the client with observations of deficiencies and professional opinions regarding the extent of repairs or replacement needed to correct observed deficiencies. Andrew prepared the guidelines and procedures for the structural evaluation program. (January 2013 - Present)

The GEMS Project, Chicago, IL

Client: Thermal Chicago

Lead Structural Engineer for the structural engineering design for supporting a 14 inch dia. chill water service connection from lower E. South Wacker and Columbus to the GEMS World Academy at E. Benton Place in Chicago, IL. The project included the design of structural attachments to existing concrete columns in three (3) buildings: 303 E. Wacker Dr., Aqua and Tides buildings. An analysis of the existing building's concrete columns was prepared to show the adequacy of the columns to support the new chilled water service. In addition, the structural detail design through an existing Autoclaved aerated concrete (AAC) wall was prepared. (February 2014 – May 2014)

Freight Tunnel Penetration at Wacker and Van Buren, Chicago, IL

Client: Raimonde Drilling Corporation

Andrew is the lead structural engineer of this project consisting of the strengthening and penetration of the existing Chicago Freight Tunnel System. The team performed a walk down of the system to determine what material could be effectively brought to the site and used to strengthen the existing tunnel for the proposed penetration. An approximately 12' by 5' penetration was placed into the side of the 40' deep, approximately 7' diameter,100 year old tunnel. The existing tunnel was analyzed and a strengthening scheme developed composed of structural steel members.
(May 2013 – June 2013)

Michigan Ave Building Antenna Attachment, Chicago, IL

Client: VACK Inc.

Andrew is the project manager and lead engineer for this project which consisted of designing a structural steel mount to attach a ten foot diameter antenna to the side of the penthouse on top of a thirty story building. He coordinated between the client, contractor and the building owner regarding the connection details. Andrew led the four-person structural engineering team in preparing the design calculations and drawings. In addition, HBK performed construction administration duties including contractor shop drawing review. (April 2012 – June 2012)

Burnham Taylor Underground Transmission Design, Chicago, IL

Client: Commonwealth Edison

Andrew served as lead Structural Engineer on this project. His responsibilities included the planning, implementation and oversight of all of the structural engineering work on this large infrastructure improvement project. This installation encompassed engineered shored excavations at varying depths and

of various types including box tunnels, drilled soldier pile shafts and wood sheeted trenches. Additionally HBK was able to plan and design the temporary support & protection structures of existing utilities that would be affected during installation activities. The structural engineering that was performed included the design and coordination of seventeen reinforced cast-in-place manhole structures and the development of penetration details for two additional details. Additional structural engineering work consisted of penetration details and cable support details for the existing tunnel and associated shafts in addition to the designed and detailing of large penetrations into the shaft walls from the street. (January 2012 - Present)

Washington Trolley Tunnel Inner Tunnel, Chicago, IL
Client(s): James McHugh Construction Co., CDOT
Andrew is the project manager and lead engineer for the project. He is performing the structural engineering and project oversight for the design build project. The 700' long new inner tunnel consists of reinforced, cast-in-place concrete slabs supported by reinforced, cast-in-place concrete walls within the confines of the existing tunnel. There are numerous different design conditions and the project requires heavy coordination with the contractor and the owner due to the many existing conflicts. A double tunnel condition and a single-tunnel condition were provided as well as two entrance shafts. HBK is assisting the contractor with various design tasks as part of the Wacker Drive North Viaduct Reconstruction. As part of the reconstruction, CDOT is filling the existing tunnel and building a new inner tunnel structure. The existing Washington Street Trolley Tunnel is no longer used for transportation purposes and is now used primarily as a resource for utilities to cross underneath the river. (December 2010 – April 2012)

Portland Generator Replacement, Mount Bethel, PA
Client: American Electrical Testing Company
Owner: GenOn
Lead structural engineer for the design of a new foundation system for a 415 ton electrical transformer. Foundation system consisted of existing and new cast-in-place reinforced concrete grade beams supported by grout filled steel pipe micropiles. The transformer rests on a structural steel skid which transfers the load to the foundation. The cooler bank portion of the transformer is supported by new cast-in-place, reinforced concrete piers and spread footings. HBK worked side-by-side with Kenny Construction (contractor), AETCO and the rigging company to develop a design and respond to field requests to facilitate the resources available and the aggressive schedule. Reviewed and analyzed the structure and adjacent ground bearing pressures for loads during the moving (sliding) of the transformer into position. (October 2011 – December 2011)

Commonwealth Edison Vault Roof Replacement Program, Chicago, IL
Client: Commonwealth Edison
Structural Engineering design of new structural roof slabs and temporary shoring for various underground, vaulted ComEd network centers located throughout the City of Chicago. The new structural slabs typical consist of a reinforced, cast-in-place concrete beam and slab system to support AASHTO truck loading as well as the slab's self weight and a nominal concrete topping slab. Temporary shoring typically consists of wood posts to support the existing concrete walls during removal and replacement of the roof. Project responsibilities include project management, sub-contractor coordination, structural engineering design, plan preparation, construction observation and shop drawing review. Walked down and site assessed project locations noting overall design constraints. (July 2010 – Present)

Lower Wacker Drive, Chicago, IL
Client(s): ComEd, ATT
Structural Engineering services for the support of the relocation of various electrical and telecommunication lines. Support of existing utilities included sewer and water lines, as well as

telecommunication lines. Services also included the design of the structural components of earth retention systems. Designed, planned preparation and reviewed various concrete manhole roof replacements as well as completed manhole replacements. Provided construction administration services for structural components as necessary. (April 2010 – December 2012)

Laramie Ave. Viaduct Infrastructure Protection

Client: Commonwealth Edison

Design engineer for the geotechnical and structural engineering for protection of electrical infrastructure from addition of approximately 30' of additional soil loading from new bridge viaduct fill structure. Design consisted of protection of existing duct packages and manholes via reinforced, cast-in-place concrete shells. (April 2011 – October 2011)

Crown Castle Distributed Antenna System – Chicago, Pennsylvania, New Jersey, and Baltimore.

Client: Crown Castle

Provided outside plant engineering while Crown Castle's deployment of multi-antenna wireless network in various markets throughout the U.S. Responsibilities included meetings and consultation with Crown Castle, contractors, and governing agencies to establish guidelines and requirements to implement project. Conducted structural engineering analysis and oversaw wood and steel utility poles to be attached to. Performed QA/QC of CADD services and design drawings. (June 2010 – Present)

Crane Placement Program

Client: Various

Designed and coordinated crane placement with adjacent buildings to determine safe setup locations for cranes within the Chicago central business district and at other locations, such that the underground infrastructure and vaulted areas within the public way will not be adversely affected. Responsible for structural analysis of existing structures and soil pressures as well as plan preparation. (June 2010 – Present)

Commonwealth Edison Vault Roof Inspection Program, Chicago, IL

Client: Commonwealth Edison

Andrew is providing structural inspection services for numerous existing concrete vault roofs for various underground, vaulted ComEd network centers located throughout the City of Chicago. The inspection consists of reviewing the condition of the concrete slab from the bottom by looking for spalling, deteriorated concrete and reinforcing as well as a review of the condition of the top. A detailed report is filled out and submitted in the form of a report. Andrew is also leading the project management and report preparation. (June 2011 – Present)

Vault Structural Assessments, Milwaukee, WI

Client: WE Energies

Andrew provided structural assessment services for ten existing concrete vault roofs for various underground, vaulted We Energies network centers located throughout the Milwaukee Central Business District. The inspection consists of reviewing the condition of the concrete roof, walls, and floor from the inside by looking for spalling, deteriorated concrete and reinforcing as well as a review of the condition of the roof from the top. A detailed report was customized to meet WE Energies' needs. It is anticipated that this program will be a kick-off to a yearly assessment program for all the vaults in the system. Andrew is also leading the project management and report preparation. (May 2013 – September 2013)

Transformers 3 Movie, Chicago, IL and Gary, IN

Client: DW Studios Productions

Performed structural engineering services related to the support of stunts for the movie production. Responsibilities included structural engineering analysis and plan preparation as well as meeting and consultation with movie personnel and facilities owners. Stunt support consisted of varying activities including structural analysis of roofs, floors, and parking garages for loading conditions, modifications to the Michigan Ave. bascule bridge over the Chicago River to support cars in the up position, and removal and support of existing building column to allow for explosion and replacement with new column. (July 2010 – August 2010)

BP Naperville Complex, Naperville, IL

Client: BP (British Petroleum)

Performed various structural engineering duties related to above and below ground infrastructure as follows. Investigated various structural engineering options for the possible rehabilitation and addition to an underground three-story processed waste/sewer lift station manhole/vault structure. Performed a structural peer review of a one-story, 2,500 s.f. steel frame connector building. Building is founded on spread footings and contained concrete shear walls for its lateral system. Conducted structural field observations for the connector building. Led design team and reviewed the plan preparation of the earth retention systems for a 31' deep trench and shaft. Trench earth retention consisted of steel pipe struts supporting wood walers and wood timber sheeting. Shaft earth retention consisted of wood lagging supported by structural steel walers and structural steel drilled or driven piles. In addition, designed various miscellaneous shallow foundations as part of the civil design package. (July 2010 – April 2011)

Pre-HBK Engineering, LLC

55th/56th/57th Street Station, Chicago, IL

Client: Metra

Staff structural engineer directed design of commuter rail station. Design components included platforms, headhouses, canopy stairs. Decorative canopy was designed and constructed out of exposed structural steel. Headhouse, stairs and platform was designed and constructed out of reinforced concrete. Tasks also included plan preparation and estimating of quantities. (1999 – 2000)

Southwest Service Expansion, Cook County, IL

Client: Metra

Design structural engineer for several stations along the Southwest Line Expansion project. Project included the design of several new stations and redesign of existing stations. Responsibilities included wood design and plan preparation of timber roof structures. Structures were supported by foundations consisting of spread footings. (2002 – 2005)

Rush Copley Medical Center (RCMC), Aurora, IL

Client: RCMC

Lead structural engineer responsible for the design of five separate additions to hospital campus plus several smaller projects inside of hospital. Additions ranged in size from approximately 6,000 sq. ft. to approximately 85,000 sq. ft. Project management started with preliminary concepts, progressed through design and finished with the construction of the additions. The buildings consisted of concrete composite metal decks supported by structural steel framing. The foundations consisted of spread footings,

caissons, and auger-cast pile systems. Lateral systems comprised of concrete shear walls, steel braced frames, and structural steel moment frames. (2005 – 2010)

Clark/Deming Buildings, Chicago, Illinois
Client: Children's Memorial Hospital
Analyzed two nine-story existing concrete structures for rehabilitation and remodeling. The analysis was applied to the addition of new mechanical units and placement of green roof along with change of use of existing floors. Lead effort to produce construction pricing drawings. The two buildings together totaled approximately 300,000 sq. ft. of remodeled space. (2009 – 2010).

Intramural Physical Education Building, Urbana IL
Client: University of Illinois Urbana-Champaign
Complete Construction administration services for 160,000 sf, $23M five-story addition and renovation. Expansion was both vertical and horizontal. Responsibilities included shop drawing review, partial field observation, and complete construction services. (2005 – 2007)

Washington Boulevard Loop Lighting Project, Chicago, Illinois
Client: CDOT (Chicago Department of Transportation)
Lead Structural Engineer responsible for the oversight and development of the design of foundations and plan preparation for new light poles places on a major downtown street. Design included site-specific foundations depending on the location. Many foundations were founded on existing vaulted sidewalk areas of historic buildings. Lead and performed structural inspections of all the vaulted sidewalks along the route. Coordinated effort between building owners, design team, and the City's requirement's. Performed structural analysis of existing vaulted sidewalk roofs and prepared repair drawings where needed. (2004 – 2005)

Dan Ryan Expressway Rehabilitation and Expansion, Chicago, IL
Client(s): IDOT
Design of superstructure of EB I-90 Ramp from the Chicago Skyway to the Dan Ryan Expressway. Bridge consists of a five-span, skewed, curved, plate girder structure. Performed the complete design and detailing of all the superstructure elements consisting of the concrete deck, plate girders, splices, bearings, and cross-frames. Performed pier layout and study due to the unique dimensions and characteristics of the bridge.

Lead structural design and plan preparation of Retaining Wall 903 along the Dan Ryan Expressway. Wall consisted of cast-in-place concrete cantilever construction supported by continuous spread footings. (2002 - 2003)

UTILITY INFRASTRUCTURE SOLUTIONS hbk ENGINEERING

Jonathan D. Robinson, PE, SE

Structural Engineer

10 years of experience

Key Qualifications:

Jonathan Robinson is experienced in the design of structures comprised of structural steel, steel connections, reinforced concrete, masonry, wood, cold-formed steel, and precast / pre-stressed concrete. He possesses practical design and detailing experience and has extensive knowledge of all aspects of structural engineering services from schematic design through project closeout, including design and technical expertise and on-site construction support. Jonathan has a comprehensive understanding of the coordination aspects and related requirements of all design disciplines. He monitors staff to produce quality services within a project team concept.

Education:

Master of Science:	Structural Engineering, Milwaukee School of Engineering (2006)
Bachelor of Science:	Architectural Engineering, Milwaukee School of Engineering (2006)
Professional License:	State of Illinois Licensed Structural Engineer (No. 081.006958) State of Ohio Licensed Professional Engineer (PE 75595)
Continuing Education:	OSHA Confined Space Awareness

Experience Record:

Crown Castle Distributed Antenna System – Chicago, New Jersey, Philadelphia and Virginia

Client: Crown Castle NG East

HBK performs general engineering services to provide outside plant engineering with Crown Castle's deployment of a multi-antenna wireless network in various markets throughout the country. Review of structural engineering calculations for analysis of wood, steel and aluminum utility poles that the DAS equipment will be attached. Jonathan performs QA/QC of a proprietary calculation package used by HBK to analyze pole structures and has been part of a field crew to document geometry, locations and existing attachments to existing steel poles in the Chicago area as well as perform structural inspections. (June 2015 – Present)

Commonwealth Edison Electrical Infrastructure Maintenance Act (EIMA) Manhole Assessment Program

Client: Commonwealth Edison, Aldridge Electric

Jonathan is one of the structural engineers for this large program consisting of conducting visual structural evaluation of over 30,000 manholes and evaluating field reports and field survey photographs for structural deterioration. HBK has provided a database for the client with observations of deficiencies and professional opinions regarding the extent of repairs or replacement needed to correct observed deficiencies. (June 2015 – Present)

UTILITY INFRASTRUCTURE SOLUTIONS hbk ENGINEERING

Commonwealth Edison Vault Roof Replacement Program, Chicago, IL
Client: Commonwealth Edison
HBK provides analysis and design of new structural roofs and temporary shoring for various underground, vaulted ComEd network centers located throughout the City of Chicago. The new structural slabs typically consist of a reinforced, cast-in-place concrete beam and slab system to support AASHTO truck loading as well as the slabs self-weight and a nominal concrete topping slab. Temporary shoring typically consists of wood posts to support the existing concrete walls during removal and replacement of the roof. Project responsibilities include structural engineering design, drawing preparation and shop drawing review. (June 2015 – Present)

Motorola - OEMC (Office of Emergency Management and Communications) Camera Infrastructure Program (CIP), Chicago, IL
Client: Motorola
HBK conducts field survey work and structural analysis of City of Chicago DEO (Division of Electrical Operations) infrastructure for the OEMC (Office of Emergency Management and Communications) Camera installation project. (June 2015 – Present)

Crane Placement Program
Client: Various
Designed and coordinated crane placement with adjacent buildings to determine safe setup locations for cranes within the Chicago central business district and at other locations, such that the underground infrastructure and vaulted areas within the public way will not be adversely affected. Responsible for structural analysis of existing structures and soil pressures as well as plan preparation. (June 2015 – Present)

Various Temporary Utility Support, Chicago, IL
Client: Peoples Gas & ComEd
Design support systems for existing utilities in the public right-of-way in various municipalities. The systems are designed to support utility pipes and their connections over proposed excavations. His responsibilities include, preparing structural calculations and performing structural drafting of the proposed supports. (June 2015 – Present)

Pre-HBK Engineering, LLC

PARSONS TSSC / FAA, Des Plaines, IL (July 2009 – June 2015)

O'Hare Modernization Project, Chicago, IL
Performed construction related site inspection services by performing drawing, specification and code compliance. Prepared and monitored project status reports. He created as-built drawing. Jonathan created an innovative system that included coordination, scheduling, monitoring, and mentoring of all engineering technicians working at O'Hare International Airport over multiple projects, in response to a client need. He provided training and talent evaluation of new and existing engineering technicians

Resident Engineering Services at Various FAA Facility Projects
Performed construction related site inspection services by performing drawing, specification and code compliance. Prepared and monitored project status reports. He created as-built drawing. He provided training and talent evaluation of new and existing engineering technicians.

Structural Design for Various FAA Facility Projects
Created designs for various building projects including Air Traffic Control Towers, Office Facilities and Equipment Foundations and Shelters. Designs consisted of various materials and structure types including reinforced concrete, masonry, and wood. He was responsible for communication with both clients and contractors. Designs involved existing structure evaluation, repair design and repair detailing.

Structural Design for Various TSA Facility Projects
Evaluation of existing structures for new equipment loads. Checks were performed of existing building structures for both the path to the final location and the loads at the final location for new and relocated equipment. Checks were performed on various building structure material types.

CAMPBELL & ASSOCIATES CONSULTING ENGINEERS Chicago, IL (August 2007 – June 2009)

Structural Design for Various Building Projects
Designs for various building projects including office warehouses, retail buildings, low, mid, and high rise condominiums, senior assisted living centers and educational facilities. Designs consisting of various materials and structure types including structural steel, steel connections, reinforced concrete, masonry, wood, cold-formed steel, and precast / pre-stressed concrete. He was responsible for projects from design development to construction completion. He was responsible for communication with both clients and contractors. Designs included existing structure evaluation, repair design and repair detailing. Notable projects including Museum Park Place Tower II in Chicago, IL – 30 story residential condo building and Alta at K Station in Chicago, IL – 40 story residential apartment building.

WELSCH ENGINEERING Downers Grove, IL (June 2006 – July 2007)

Structural Design for Various Building Projects
Designs for various building projects including office warehouses, retail buildings, low, mid, and high rise condominiums, senior assisted living centers and educational facilities. Designs consisting of various materials and structure types including structural steel, steel connections, reinforced concrete, masonry, wood, cold-formed steel, and precast / pre-stressed concrete. He was responsible for projects from design development to construction completion. He was responsible for communication with both clients and contractors. Designs included existing structure evaluation, repair design and repair detailing.

JENDUSA ENGINEERING Hartland, WI (May 2005 – May 2006)

Structural Design for Various Building Projects
Designs for various building projects including office warehouses, retail buildings, low, mid, and high rise condominiums, senior assisted living centers and educational facilities. Designs consisting of various materials and structure types including structural steel, steel connections, reinforced concrete, masonry, wood, cold-formed steel, and precast / pre-stressed concrete. He was responsible for projects from design development to construction completion. He was responsible for communication with both clients and contractors. Designs included existing structure evaluation, repair design and repair detailing.

UTILITY INFRASTRUCTURE SOLUTIONS hbk ENGINEERING

Peter A. Ivanovich

Senior Project Designer

22 years of experience

Key Qualifications:

Peter Ivanovich is experienced in topographical, existing building, and structural condition assessment surveys. He conducts structural design calculations, prepares plans and details in AutoCAD, and investigates a variety of building and non-building structures. Peter designs traffic control plans and provides quality assurance/quality control checks for coordinating underground utilities.

Education:

Bachelor of Architecture:	Structures Concentration, University of Illinois at Chicago (1986)
Professional Societies:	Associate Member, SEAOI (Certificate No. 4148)
Professional Registration:	Currently pursuing registration to become a Structural Engineer in Illinois
Continuing Education:	Completed SEAOI Refresher Course (2009-2010) Completed SEAOI Refresher Course (Spring 2012), Bridge Design OSHA Confined Space Awareness Training (2012) First Aid and CPR Training (2011)

Experience Record:

Commonwealth Edison Electrical Infrastructure Maintenance Act (EIMA) Manhole Assessment Program

Client: Commonwealth Edison, Aldridge Electric, Meade Electric

Conduct visual structural evaluation of manholes and evaluate field reports and field survey photographs. Provide database for client with observations of deficiencies and professional opinions regarding the extent of repair needed to correct observed deficiencies. (January 2012 - Present)

Michigan Ave Building Antenna Attachment, Chicago, IL

Client: VACK Inc.

As part of the four-person structural engineering team, designed a structural steel mount to attach a ten foot diameter antenna to the side of the penthouse on top of a thirty story building. Reviewed initial design requirements and performed preliminary design calculations at the inception of the project, and participated in design modifications during the detailed design phase of the project. (April 2012 – June 2012)

Peoples Gas Standard Steel Vault

Client: Peoples Gas, Chicago Department of Transportation

Designed standard gas vault that was implemented throughout the City of Chicago. The new structural vault consisted of reinforced concrete, structural steel, and slab system to support AASHTO truck loading. Performed structural design calculations and prepared plans and details in AutoCAD. (2012)

Commonwealth Edison Vault Roof Replacement Program, Chicago, IL

Client: Commonwealth Edison

Design new structural roof slabs and temporary shoring for various underground, vaulted ComEd network centers located throughout the City of Chicago. The new structural slabs typical consist of reinforced, cast-in-place concrete beam and slab system to support AASHTO truck loading as well as the slab's self-weight and a nominal concrete topping slab. Temporary shoring typically consists of wood posts to support the existing concrete walls during removal and replacement of the roof. Provide structural engineering design and review, and prepare plans and sections in AutoCAD. (July 2010 – Present)

Portland Generator Replacement, Mount Bethel, PA

Client: American Electrical Testing Company

Owner: GenOn

Designed new foundation system for a 415 ton electrical transformer. Foundation system consisted of existing and new cast-in-place reinforced concrete grade beams supported by grout-filled steel pipe micropiles. The transformer is supported on a structural steel skid which transfers the load to the foundation system. The cooler bank portion of the transformer is supported by new cast-in-place, reinforced concrete piers and spread footings. Designed new concrete grade beams to support the transformer, prepared design sketches for the steel skid and grade beam, and designed and detailed cooler bank foundations to resist seismic loading. (October 2011 – December 2011)

Commonwealth Edison Burnham-Taylor L17724 345kV Underground Transmission Lines, Chicago, IL

Client: Commonwealth Edison

Responsible for route planning, design, permitting and construction support for underground electrical transmission lines throughout the City of Chicago. Provide QA/QC review of a base map showing underground utilities that were prepared in AutoCAD. Coordinate information retrieved from existing utility atlases (ComEd, City Electric, Telephone, Data, Water and Sewer) and manhole survey data obtained by HBK's field survey crew. (October 2010 - Present)

O'Hare Feeder Relocation, Chicago, IL

Client: Commonwealth Edison

As part of the O'Hare Modernization Program (OMP), Commonwealth Edison continues to relocate feeder cables from overhead to underground in preparation for the O'Hare International Airport runway expansion. HBK's involvement includes the design of three cast-in-place manholes for the conduit relocation. The manholes are located in a parking lot, railroad yard and proposed roadway. Prepare structural design calculations for the manholes, e.g., a railroad yard had to be designed for railroad surcharges in addition to usually anticipated gravity and lateral earth pressure loads. Research, coordinate and implement applicable ComEd and railroad design specifications, research Coopers E-80 railroad surcharge loading, edit spreadsheet prepared to analyze lateral pressures. Prepare AutoCAD plans and sections for the subject manholes, and visit the site to help resolve any existing condition issues during construction of the manhole in the railroad yard. (April 2011-Present)

Central Business District Mapping Initiative, Chicago, IL

Client: City of Chicago, Department of Transportation

As senior project designer for the Vault Walkout Surveys, Central Business District (CBD) Mapping Initiative, reviewed maps and prepared field inspection documents for the observation and documentation of below grade sidewalk vaults in the CBD. Observed and documented approximately 250 properties in the CBD, of which approximately over 80% were vaulted. Documentation methods included photographs and the preparation of sketches. The documentation of the existence and extents of sidewalk vaults was part of a mapping project that was turned over to the City of Chicago to be implemented into the OUC information retrieval process and utilized by City officials and designers to better understand the subsurface and its effects on future designs in the Central Business District. (October 2010 – March 2011)

NextG Networks Distributed Antenna System – Chicago, Pennsylvania, and Baltimore.
Client: NextG Networks
HBK performs general engineering services to provide outside plant engineering with NextG's deployment of a multi-antenna wireless network in various markets throughout the country. Review structural engineering calculations for analysis of wood and steel utility poles that the DAS equipment is to be attached to. Perform QA/QC of a MathCAD spreadsheet used by HBK to analyze pole structures, and have been part of a field survey crew to document the geometry, locations and existing attachments to existing wood and steel utility poles. (June 2010 – Present)

AMRP – Accelerated Main Replacement Program (2011), Chicago, IL
Client: Integrys/Peoples Gas
HBK performed engineering services for Integrys/Peoples Gas in connection with the design of Peoples Gas 50 miles of gas main replacement program. Mr. Ivanovich prepared multiple traffic control plans for traffic re-routes during the construction phase of the project. (March 2011 – August 2011)

BP Naperville Complex, Naperville, IL
Client: BP (British Petroleum)
Assisted in the performance of a structural peer review of a one-story, 2,500 square feet steel frame connector building. The building is founded on spread footings and contained concrete shear walls for its lateral system. Reviewed calculations for structural design of various miscellaneous shallow foundations as part of the civil design package. (July 2010 – April 2011)

Wacker/Adams Freight Tunnel Observation, Chicago, IL
Client: City of Chicago, Department of Transportation
Worked as field chief and provided construction observation services for the construction of a new manhole entrance to a freight tunnel at Lower Wacker Drive at Adams Street. Verified that only authorized personnel are granted access to the construction site, observed that the construction conformed to the design intent of the drawings, and kept a detailed field record of the shift's activities. Assisted in the design of a steel grating platform for access to power panels in the freight tunnel entry, which included obtaining existing conditions field data in the newly constructed manhole. (September 2010 – October 2010)

City of Chicago Department of Water Management (CDOWM) – GIS Inventory of Combined Sewer Outfalls, Chicago, IL
Client: City of Chicago Department of Water Management
Provided field support to assist with the development of the GIS database that was used throughout the project to hold all collected data, gathered aboard a City of Chicago pontoon boat, obtaining digital photographs, notes and sketches of each accessible outfall. All information was transferred to the project database that was compatible with the City of Chicago's Bureau of Information Systems' GIS Division. (September 2010)

Operation Virtual Shield Project (Planning Phase), Chicago, IL
Client: IBM Inc.
Surveyed existing City of Chicago facilities (wire and conduit in manholes) from above ground for the purpose of the installation of power and data infrastructure and the installation of security cameras for the Office of Emergency Management and Communications (OEMC). Observed and documented City of Chicago and Chicago Park District manholes for existing connectivity and potential tie-in for new infrastructure, principally along Lake Shore Drive from approximately Fullerton Ave. (2400 N.) to Museum Campus (3200 S.). (March 2009)

Siemens-CHA Camera Placement Project, Chicago, IL
Client: Siemens Inc.
Designed placement of new fixed- and pivot-tilt-zoom cameras for the interiors and exteriors of CHA family and senior properties. Project responsibilities included: surveying existing conditions, documenting space requirements and proposed

locations for Main Distribution Frame and Individual Data Frame server locations, proposed camera placements, along with documenting proposed data and power routing to service the cameras. (February 2009 – March 2010)

Pre-HBk Experience

J.W. Marriott Hotel at 208 S. LaSalle St. Building, Chicago, IL

Client: Lucien LaGrange Architects

Project involved the conversion of the lower floors of 20 stories, approximately 1,100,000 square feet office building into a hotel. Prepared exploratory demolition sketches in order to have portions of architectural finishes removed from existing selected structural members and connections, field document their positions sizes and locations in order to verify their present design capacity or increase the capacity to bring the structural element or system up to municipal code requirements. Maintained a field sketch log, communicated findings with the project team, and reviewed historic and working drawings of the building and coordinated efforts to interrelate existing conditions with proposed new modifications or additions to the building structure at the physical area under consideration. (Fall 2008 – Spring 2009)

Tree Studios Renovation, Unit Building Addition & Sidewalk Vault Renovation, Chicago, IL

Client: Friedman Properties, Ltd.

Prepared design drawings, sketches and calculations for the core and shell renovation and tenant improvement work at the Tree Studios, two stories addition to the unit building adjacent to the Medinah Temple Building, and renovations to the Medinah Temple Sidewalk Vaults on Ohio and Ontario Streets. Observed the existing conditions of the Medinah Temple sidewalk vaults, made and documented field measurements of the vaults both above and below grade, and made observations during the construction phase of the project to confirm that the contractor's work followed the design intent of the drawings and specifications. Prepared design calculations to both to verify the capacity of the existing sidewalk vault structure and design new structural reinforcement where it was necessary. Met with a representative of the City of Chicago's Board of Transportation and prepared additional drawings and calculations to shore a portion of the Ohio Street vault wall prior to the temporary removal of selected sidewalk vault girders to permit access for a new electrical transformer to be installed at a proposed space for a new ComEd vault.
(Fall 2002 – Spring 2003)

Analysis of Crane Runway Girders and Design of A-frames, Peoria, IL

Client: Keystone Steel & Wire Co.

Performed onsite inspection of two existing crane runways for the billet yard cranes. Prepared report to assess the condition of the crane runways and prioritize repair recommendations. Analyzed crane runway girders to check their ability to resist applied loads. and prepared drawings and calculations to reinforce the crane girders to increase the design capacity for a future crane having a greater load carrying capacity. Prepared design calculations and drawings for the replacement of existing crane girder support A-frames. (September 2007)

Harris Bank Bollard Design at Harris Bank Building Plaza, Chicago, IL

Client: Jones Lang LaSalle/Harris Bank

Prepared calculations and design drawings for the design of granite encased steel pipe bollards to resist required impact loads at the Harris Bank Plaza at Monroe and LaSalle Streets in Chicago. Visited the site and documented conditions both above and below grade, prior to and during the construction phase of the project. (July 2003)

John Hancock Grid Extension Project, Chicago, IL

Client: Communications Site Management at John Hancock Center

Prepared drawings and calculations for the Penthouse East Exterior Access Stair and South Penthouse Emergency Egress Ladder Platform. These structures were part of a larger Grid Extension Project at the west end of the John Hancock Penthouse. Prepared spreadsheet to evaluate bid alternates for steel erectors bidding of the project and checking steel shop drawings. Also rectified field situation during steel erection that required on-site analysis, coordination with as-built drawings

and communication with sketches. Researched dynamics and analyzed pole antennas for dynamic loading on a steel antenna grid and designed a fiberglass antenna support with an extended mount. (Fall 1994 – Spring 1995)

UTILITY INFRASTRUCTURE SOLUTIONS hbk ENGINEERING

Kurt Breitenbucher, MS

Designer II

2 years of experience

Key Qualifications:

Kurt Breitenbucher joined HBK Engineering, LLC. after graduating with his Masters of Science in Geotechnical Engineering degree from Michigan Technological University. He performs geotechnical field investigations, designs foundations and earth retention systems, performs structural designs of various above grade and subsurface structures and works with his structural and civil colleagues to produce efficient and cost-effective designs for clients. He has experience with geotechnical field testing, laboratory testing, structural and geotechnical design, and various structural inspections.

Education:

Master of Science:	Civil Engineering (Geotechnical Focus), Michigan Technological University, Houghton, MI (2013)
Bachelor of Science:	Civil Engineering, Michigan Technological University, Houghton, MI (2012)
Continuing Education:	OSHA Confined Space Awareness

Experience Record:

Bloomingdale Trail (The 606) Light Pole Foundations, Chicago, IL
Client: Aldridge Electric
Project Engineer/Designer, for the geotechnical design of drilled pier foundations for 200 plus light poles along the 2.6 mile Bloomingdale Trail project. Project included designing soil profiles for different locations that included infiltration basins, existing bridge decking, and difficult soil conditions. (April 2014-July 2014)

People's Gas Calumet System Upgrade, Chicago, IL
Client: Integrys Energy
Project Engineer/Designer, for the geotechnical design of drilled pier foundations for pipe supports and slab on grade foundations for the Calumet distribution station. Project involved field engineering support during geotechnical investigation, design recommendations provided to mechanical and structural teams.

Included in the Calumet upgrade is a series of trenches of varying depths and a number of pits to facilitate railroad and intersection crossings. Provided the full design of trench and pit SOE (Support of Excavation). Dewatering design and construction support. (January 2014-Present)

Northwest Interconnect High-Pressure Project: Design and permitting of trenches, jack and bore pits and various earth retention systems for a high pressure gas main. Project was broken up to into segments of varying length from approximately the downtown Chicago area north to the city line. The project involved miles of trenches and bore pits to cross under major intersections and the Kennedy Expressway.

High Pressure Existing Tunnel & River Crossing Evaluation Project: Structural and Geotechnical exploration of an existing river crossing tunnel. HBK provided survey, inspection, dewatering observation, and remediation recommendations, as well as construction support. The tunnel included two approximately 100 foot deep concrete shafts and a 350 foot bedrock drift section underneath the Chicago River at North Avenue and Magnolia.

ComEd Wrigley Field Upgrades: Provided design and permitting support for existing manhole repairs and the installation of two new manholes with an accompanying conduit run from Clark and Waveland to Waveland and Sheffield. This system was put in place to add redundancy to the ComEd system and provide additional capacity for the Wrigley Field Stadium Upgrades.

Conduit Riser Designs, Chicago, IL
Client: ComEd
He performed the structural calculations and detailed drawings for conduit risers at various electrical substations. These risers had to withstand the pulling forces applied during conduit runs. (various dates)

Commonwealth Edison Electrical Infrastructure Maintenance Act (EIMA) Manhole Assessment Program
Client: Commonwealth Edison, Aldridge Electric, Meade Electric
Conducts visual structural evaluation of manholes and evaluate field reports and field survey photographs for structural deterioration. Provide database for client with observations of deficiencies and professional opinions regarding the extent of repairs or replacement needed to correct observed deficiencies. (January 2013 - Present)

Loop Utility Improvement for upcoming Bus Rapid Transit (BRT), Chicago, IL
Clients: Chicago Department of Water Management, Commonwealth Edison, People Gas, AT&T, MCI, RCN, XO/ZAYO, Sunesys, Level 3, City Electric, and Unicom Thermal
Responsible for coordination, design, and permitting of earth retention for various utility infrastructure improvements due to the BRT upgrades in downtown Chicago. (July 2014 – ongoing)

TSS 30 Columbus Park to Kenton Terminal 138kV UG Transmission Line, Chicago/Cicero, IL
Client: Commonwealth Edison
Designer responsible soil boring logging, geotechnical report, and earth retention design calculations for 4700 feet of underground transmission conduit and two transmission manholes between TSS 30 and Kenton Terminal. HBK provided analysis of spread footings, drilled piers, and riser foundations for both Kenton Terminal and Columbus Substation TSS 30. HBK also provided permitting support to ComEd for both the Village of Cicero and City of Chicago Department of Transportation. (April 2015 to Present)

Geotechnical Investigations and Reports
Client: Various Clients
He performed the field observations and data logging for geotechnical investigation. He identified soil areas of concern, facilitated soil and rock testing, and developed comprehensive geotechnical reports for the client tailored to the specific project. (various dates)

Pre-HBK Engineering, LLC

Analysis of High-Speed Railroad Ballast, Feasibility study for Michigan Department of Transportation, MDOT
Michigan Technological University Houghton, MI (September 2012 – September 2013)

- Determine suitable sources of rock for railroad ballast.
- Map their modes of transportation to the proposed Detroit/Chicago corridor.
- Analyze existing specifications and testing methodology for ballast in the United States.
- Determine if other methods of dynamic testing would be better suited towards rail ballast than Resilient Modulus testing (Specifically Split Hopkins Pressure Bar)

Signature Research Calumet, MI, Contract Researcher
(September 2012 - December 2012)

- Basic Geotechnical Soil Analysis
- Advanced Geotechnical Soil Analysis – Scanning Electron Microscope, Salt Content Flexible-Wall-Permeameter
- Data Processing

Kiewit, Lower Mattagami River Project, Circular Cell Cofferdams
Michigan Technological University Houghton, MI (May 2012 – June 2012)

- Design, Construct-ability, and Cost Estimation
- Designed 3 Circular Cell Cofferdams to retrofit an existing hydro-electric power plant
- Provided step-by-step construction documentation, including constructing of templates.
- Provided an overall cost estimate of the project.
- Presented the project to members of Kiewit, and the Civil and Environmental Engineering Faculty

Selected RFP Documents

REQUEST FOR PROPOSAL

Name of Proposing Company: HBK Engineering

Project Name: **Engineering Services for the Assessment of an 11' Diameter Pipe through the DBD**
Proposal No.: DR-041
Proposal Due: June 9, 2016; 10:00 A.M.

Pre-Proposal Conference: June 1, 2016; 10:00 A.M. @ 5101 Walnut Ave, Downers Grove, IL

Required of All Proposers:
Deposit: No
Letter of Capability of Acquiring Performance Bond: No

Required of Awarded Proposer:
Performance Bond/Letter of Credit: No
Certificate of Insurance: Yes

Date Issued: May 19, 2016
This document consists of 36 pages, plus Appendix A consisting of 11 pages.

Return **original** and **two duplicate copies** (one hard copy and one PDF) of proposal in a **sealed envelope** marked with the Proposal Number as noted above to:

JIM TOCK, P.E.
ENGINEERING MANAGER
VILLAGE OF DOWNERS GROVE
5101 WALNUT AVENUE
DOWNERS GROVE, IL 60515
PHONE: 630/434-5460
FAX: 630/434-5495
www.downers.us

The VILLAGE OF DOWNERS GROVE will receive proposals Monday thru Friday, 8:00 A.M. to 5:00 P.M. at Public Works, 5101 Walnut Ave, Downers Grove, IL 60515.

SPECIFICATIONS MUST BE MET AT THE TIME THE PROPOSAL IS DUE.

The Village Council reserves the right to accept or reject any and all Proposals, to waive technicalities and to accept or reject any item of any Proposal.

The documents constituting component parts of this contract are the following:

I. REQUEST FOR PROPOSALS

II. TERMS & CONDITIONS

III. DETAILED SPECIFICATIONS

IV. PROPOSER'S RESPONSE TO RFP

V. PROPOSAL/CONTRACT FORM

DO NOT DETACH ANY PORTION OF THIS DOCUMENT. INVALIDATION COULD RESULT. Proposers MUST submit an original, and 2 additional paper copies of the total Proposal. Upon formal award of the Proposal, the successful Proposer will receive a copy of the executed contract.

I. REQUEST FOR PROPOSALS

1. GENERAL

1.1 Notice is hereby given that the Village of Downers Grove will receive sealed Proposals up to June 9, 2016; 10:00 a.m..

1.2 Proposals must be received at the Village of Downers Grove by the time and date specified. Proposals received after the specified time and date will not be accepted and will be returned unopened to the Proposer.

1.3 Proposal forms shall be sent to the Village of Downers Grove, ATTN: JIM TOCK, in a sealed envelope marked "SEALED PROPOSAL." The envelope shall be marked with the name of the project, date and time set for receipt of Proposals.

1.4 All Proposals must be submitted on the forms supplied by the Village and signed by a proper official of the company submitting the Proposal. Telephone, email and fax proposals will not be accepted.

1.5 By submitting this Proposal, the Proposer certifies under penalty of perjury that they have not acted in collusion with any other Proposer or potential Proposer.

2. PREPARATION OF PROPOSAL

2.1 It is the responsibility of the Proposer to carefully examine the specifications and proposal documents and to be familiar with all of the requirements, stipulations, provisions and conditions surrounding the proposed services.

2.2 No oral or telephone interpretations of specifications shall be binding upon the Village. All requests for interpretations or clarifications shall be made in writing and received by the Village at least five (5) business days prior to the date set for receipt of Proposals. All changes or interpretations of the specifications shall be made by the Village in a written addendum to the Village's proposers of record.

2.3 In case of error in the extension of prices in the Proposal, the hourly rate or unit price will govern. In case of discrepancy in the price between the written and numerical amounts, the written amount will govern.

2.4 All costs incurred in the preparation, submission, and/or presentation of any Proposal including any Proposer's travel or personal expenses shall be the sole responsibility of the Proposer and will not be reimbursed by the Village.

2.5 The Proposer hereby affirms and states that the prices quoted herein constitute the total cost to the Village for all work involved in the respective items and that this cost also includes all insurance, bonds, royalties, transportation charges, use of all tools and equipment, superintendence, overhead expense, all profits and all other work, services and conditions necessarily involved in the work to be done and materials to be furnished in accordance with

the requirements of the Contract Documents considered severally and collectively.

3. PRE- PROPOSAL CONFERENCE

3.1 A pre-proposal conference may be offered to provide additional information, inspection or review of current facilities or equipment, and to provide an open forum for questions from Proposers. This pre-proposal conference is not mandatory (unless stated "Required" on the cover of this document), but attendance by Proposers is strongly advised as this will be the last opportunity to ask questions concerning the Proposal.

3.2 Questions may be posed in writing to the Village (faxed and emailed questions are acceptable), but must be received by the Village prior to the scheduled time for the pre-proposal conference. Questions received will be considered at the conference. An addendum may be issued as a result of the pre-proposal conference. Such an addendum is subject to the provisions for issuance of an addendum as set forth in Section 2.2 above.

4. MODIFICATION OR WITHDRAWAL OF PROPOSALS

4.1 A Proposal that is in the possession of the Village may be altered by a letter bearing the signature or name of the person authorized for submitting a Proposal, provided that it is received prior to the time and date set for the Proposal opening. Telephone, email or verbal alterations of a Proposal will not be accepted.

4.2 A Proposal that is in the possession of the Village may be withdrawn by the Proposer, up to the time set for the Proposal opening, by a letter bearing the signature or name of the person authorized for submitting Proposals. Proposals may not be withdrawn after the Proposal opening and shall remain valid for a period of ninety (90) days from the date set for the Proposal opening, unless otherwise specified.

5. SECURITY FOR PERFORMANCE

5.1 Not required for this contract.

6. DELIVERY

6.1 All proposal prices are to be quoted, delivered F.O.B. Village of Downers Grove, 5101 Walnut Avenue, Downers Grove, IL 60515.

7. TAX EXEMPTION

7.1 The Village is exempt from Illinois sales or use tax for direct purchases of materials and supplies. A copy of the Illinois Sales Tax Exemption Form will be issued upon request. The Village's federal identification will also be provided to selected vendor.

8. RESERVED RIGHTS

8.1 The Village reserves the exclusive right to waive sections, technicalities, irregularities and informalities and to accept or reject any and all Proposals and to disapprove of any and all subcontractors as may be in the best interest of the Village. Time and date requirements for receipt of Proposals will not be waived.

II. TERMS AND CONDITIONS

9. VILLAGE ORDINANCES

9.1 The successful Proposer will strictly comply with all ordinances of the Village of Downers Grove and laws of the State of Illinois.

10 USE OF VILLAGE'S NAME

10.1 The Proposer is specifically denied the right of using in any form or medium the name of the Village for public advertising unless express permission is granted by the Village.

11. SPECIAL HANDLING

11.1 Prior to delivery of any product which is caustic, corrosive, flammable or dangerous to handle, the Proposer will provide written directions as to methods of handling such products, as well as the antidote or neutralizing material required for its first aid before delivery. Proposer shall also notify the Village and provide material safety data sheets for all substances used in connection with this Contract which are defined as toxic under the Illinois Toxic Substances Disclosure to Employees Act.

12. INDEMNITY AND HOLD HARMLESS AGREEMENT

12.1 To the fullest extent permitted by law, the Proposer shall indemnify, keep and save harmless the Village and its agents, officers, and employees, against all injuries, deaths, losses, damages, claims, suits, liabilities, judgments, costs and expenses, which may arise directly or indirectly from any negligence or from the reckless or willful misconduct of the Proposer, its employees, or its subcontractors, and the Proposer shall at its own expense, appear, defend and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith, and, if any judgment shall be rendered against the Village in any such action, the Proposer shall, at its own expense, satisfy and discharge the same. This agreement shall not be construed as requiring the Proposer to indemnify the Village for its own negligence. The Proposer shall indemnify, keep and save harmless the Village only where a loss was caused by the negligent, willful or reckless acts or omissions of the Proposer, its employees, or its subcontractors.

13. NONDISCRIMINATION

13.1 Proposer shall, as a party to a public contract:

(a) Refrain from unlawful discrimination in employment and undertake affirmative action to assure equality of employment opportunity and eliminate the effects of past discrimination;

(b) By submission of this Proposal, the Proposer certifies that it is an "equal opportunity employer" as defined by Section 2000(e) of Chapter 21, Title 42, U.S. Code Annotated and Executive Orders #11246 and #11375, which are incorporated herein by reference. The Equal Opportunity clause, Section 6.1 of the Rules and Regulations of the Department of Human Rights of the State of Illinois, is a material part of any contract awarded on the basis of this Proposal.

13.2 It is unlawful to discriminate on the basis of race, color, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge for military service. Proposer shall comply with standards set forth in Title VII of the Civil Rights Act of 1964, 42 U.S.C. Secs. 2000 *et seq.*, the Human Rights Act of the State of Illinois, 775 ILCS 5/1-101 *et seq.*, and the Americans With Disabilities Act, 42 U.S.C. Secs. 12101 *et seq.*

14. SEXUAL HARASSMENT POLICY

14.1 The Proposer, as a party to a public contract, shall have a written sexual harassment policy that:

14.1.1 Notes the illegality of sexual harassment;
14.1.2 Sets forth the State law definition of sexual harassment;
14.1.3 Describes sexual harassment utilizing examples;
14.1.4 Describes the Proposer's internal complaint process including penalties;
14.1.5 Describes the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Human Rights Commission and how to contact these entities; and
14.1.6 Describes the protection against retaliation afforded under the Illinois Human Rights Act.

15. EQUAL EMPLOYMENT OPPORTUNITY

15.1 In the event of the Proposer's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the Proposer may be declared 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 voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of this Contract, the Proposer agrees as follows:

15.1.1 That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental disability unrelated to ability, military status, order of protection status, sexual orientation, sexual identity or an unfavorable discharge from military service; 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.

15.1.2 That, if it hires additional employees in order to perform this Contract or any portion thereof, it will determine the availability (in accordance with the Department's Rules and Regulations) 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.

15.1.3 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 disability unrelated to ability, military status, order of protection status, sexual orientation, or an unfavorable discharge from military services.

15.1.4 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 Proposer's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the Proposer in its efforts to comply with such Act and Rules and Regulations, the Proposer will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

15.1.5 That it will submit reports as required by the Department's Rules and Regulations, 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.

15.1.6 That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purpose of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.

15.1.7 That it will include verbatim or by reference the provisions of this 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 with other provisions of this Contract, the Proposer 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 Proposer will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

16. DRUG FREE WORK PLACE

Proposer, as a party to a public contract, certifies and agrees that it will provide a drug free workplace by:

16.1 Publishing a statement: (1) Notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the Village's or Proposer's workplace; (2) Specifying the actions that will be taken against employees for violations of such prohibition; (3) Notifying the employee that, as a condition

of employment on such contract or grant, the employee will: (A) abide by the terms of the statement; and (B) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

16.2 Establishing a drug free awareness program to inform employees about: (1) the dangers of drug abuse in the workplace; (2) the Village's or Proposer's policy of maintaining a drug free workplace; (3) any available drug counseling, rehabilitation and employee assistance programs; (4) the penalties that may be imposed upon employees for drug violations.

16.3 Providing a copy of the statement required above to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.

16.4 Notifying the contracting or granting agency within ten (10) days after receiving notice of any criminal drug statute conviction for a violation occurring in the workplace from an employee or otherwise receiving actual notice of such conviction.

16.5 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 5 of the Drug Free Workplace Act.

16.6 Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.

16.7 Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

17. SUBSTANCE ABUSE PREVENTION ON PUBLIC WORKS PROJECTS ACT

17.1 In the event this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, Proposer agrees to comply with the Substance Abuse Prevention on Public Works Projects Act, 820 ILCS 265/1 *et seq.*, and further agrees that all of its subcontractors shall comply with such Act. As required by the Act, Proposer agrees that it will file with the Village prior to commencing work its written substance abuse prevention program and/or that of its subcontractor(s) which meet or exceed the requirements of the Act.

18. PREVAILING WAGE ACT

18.1 Proposer agrees to comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*, for all work completed under this Contract. Proposer agrees to pay the prevailing wage and require that all of its subcontractors pay prevailing wage to any laborers, workers or mechanics who perform work pursuant to this Contract or related subcontract. For applicable rates, see the State of Illinois – Department of Labor website (http://www.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx) and use the most current DuPage County rate. The Department revises the prevailing wage rates and the Proposer or subcontractor has an obligation to check the Department's website for revisions to prevailing wage rates throughout the duration of this Contract.

18.2 Contractor and each subcontractor shall keep or cause to be kept accurate records of all laborers, mechanics and other workers employed by them on the public works project, which records must include each worker's name, address, telephone number when available, social security number, classification, hourly wage paid (including itemized hourly cash and fringe benefits paid in each pay period), number of hours worked each day, and the starting and ending times of work each day. These records shall be open to inspection at all reasonable hours by any representative of the Village or the Illinois Department of Labor and must be preserved for five (5) years from the date of the last payment on the public work.

18.3 In the event this is a contract for a public works project, as defined in 820 ILCS 130/2, Proposer agrees to post at the job site in an easily accessible place, the prevailing wages for each craft or type of worker or mechanic needed to execute the contract or work to be performed.

18.4 In the event this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, any and all contractors and subcontractors shall submit certified payroll records to the Village no later than the tenth (10^{th}) day of each calendar month for the immediately preceding month in which construction on a public works project has occurred. WITHOUT THIS PAPERWORK, NO INVOICE SHALL BE PAID BY THE VILLAGE. Contractors and subcontractors must also submit a statement affirming that the records are true and accurate, that the wages paid to each worker are not less than the prevailing rate, and that the contractor and subcontractor are aware that filing false records is a Class A misdemeanor. The records must include the name, address, telephone number, social security number, job classification, hours of work, hourly rate, and start and end time of work each day for every worker employed on the public work. The Village reserves the right to check the pay stubs of the workers on the job. The Village further cautions that payment for any services rendered pursuant to this Contract may be predicated upon receipt of said records.

18.5 In the event that this is a construction project where Motor Fuel tax monies or state grant monies are used in the construction, maintenance and extension of municipal streets, traffic control signals, street lighting systems, storm sewers, pedestrian subways or overhead crossings, sidewalks and off-street parking facilities, and the like, the Village will require an Apprenticeship and Training Certification, attached after the Proposer's Certification.

18.6 Any bond furnished as security for performance shall include a provision as will guarantee faithful performance of the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*

19. PATRIOT ACT COMPLIANCE

19.1 The Proposer represents and warrants to the Village that neither it nor any of its principals, shareholders, members, partners, or affiliates, as applicable, is a person or entity named as a Specially Designated National and Blocked Person (as defined in Presidential Executive Order 13224) and that it is not acting, directly or indirectly, for or on behalf of a Specially Designated National and Blocked Person. The Proposer further represents and warrants to the Village that the Proposer and its principals, shareholders, members, partners, or affiliates,

as applicable are not, directly or indirectly, engaged in, and are not facilitating, the transactions contemplated by this Contract on behalf of any person or entity named as a Specially Designated National and Blocked Person. The Proposer hereby agrees to defend, indemnify and hold harmless the Village, and its elected or appointed officers, employees, agents, representatives, engineers and attorneys, from and against any and all claims, damages, losses, risks, liabilities and expenses(including reasonable attorney's fees and costs) arising from or related to any breach of the foregoing representations and warranties.

20. INSURANCE REQUIREMENTS

20.1 Prior to starting the work, Proposer and any Subcontractors shall procure, maintain and pay for such insurance as will protect against claims for bodily injury or death, or for damage to property, including loss of use, which may arise out of operations by the Contractor or Subcontractor or any Sub-Sub Contractor or by anyone employed by any of them, or by anyone for whose acts any of them may be liable. Such insurance shall not be less than the greater of coverages and limits of liability specified below or any coverages and limits of liability specified in the Contract Documents or coverages and limits required by law unless otherwise agreed to by the Village.

Workers Compensation	$500,000	Statutory
Employers Liability	$1,000,000 $1,000,000 $1,000,000	Each Accident Disease Policy Limit Disease Each Employee
Comprehensive General Liability	$2,000,000 $2,000,000	Each Occurrence Aggregate ***(Applicable on a Per Project Basis)***
Commercial Automobile Liability	$1,000,000	Each Accident
Professional Errors & Omissions (pursuant to section 9 below)	$2,000,000 $2,000,000	Each Claim Annual Aggregate
Umbrella Liability	$ 5,000,000	

20.2 Commercial General Liability Insurance required under this paragraph shall be written on an occurrence form and shall include coverage for Products/Completed Operations, Personal Injury with Employment Exclusion (if any) deleted, Blanket XCU and Blanket Contractual Liability insurance applicable to defense and indemnity obligations and other contractual indemnity assumed under the Contract Documents. The limit must be on a "Per Project Basis."

20.3 Comprehensive Automobile Liability Insurance required under this paragraph shall include coverage for all owned, hired and non-owned automobiles.

20.4 Workers Compensation coverage shall include a waiver of subrogation against the Village.

20.5 Comprehensive General Liability, Employers Liability and Commercial Automobile Liability Insurance may be arranged under single policies for full minimum limits required, **or** by a combination of underlying policies with the balance provided by Umbrella and/or Excess Liability policies.

20.6 Contractor and all Subcontractors shall have their respective Comprehensive General Liability (including products/completed operations coverage), Employers Liability, Commercial Automobile Liability, and Umbrella/Excess Liability policies endorsed to add the "Village of Downers Grove, its officers, officials, employees and volunteers" as "additional insureds" with respect to liability arising out of operations performed; claims for bodily injury or death brought against the Village by any Contractor or Subcontractor employees, or the employees of Subcontractor's subcontractors of any tier, however caused, related to the performance of operations under the Contract Documents. Such insurance afforded to the Village shall be endorsed to provide that the insurance provided under each policy shall be ***Primary and Non-Contributory***.

20.7 Contractor and all Subcontractors shall maintain in effect all insurance coverages required by the Contract Documents at their sole expense and with insurance carriers licensed to do business in the State of Illinois and having a current A. M. Best rating of no less than A- VIII. In the event that the Contractor or any Subcontractor fails to procure or maintain any insurance required by the Contract Documents, the Village may, at its option, purchase such coverage and deduct the cost thereof from any monies due to the Contractor or Subcontractor, or withhold funds in an amount sufficient to protect the Village, or terminate this Contract pursuant to its terms.

20.8 All insurance policies shall contain a provision that coverages and limits afforded hereunder shall not be canceled, materially changed, non-renewed or restrictive modifications added, without thirty (30) days prior written notice to the Village. Renewal certificates shall be provided to the Village not less than five (5) days prior to the expiration date of any of the required policies. All Certificates of Insurance shall be in a form acceptable to Village and shall provide satisfactory evidence of compliance with all insurance requirements. The Village shall not be obligated to review such certificates or other evidence of insurance, or to advise Contractor or Subcontractor of any deficiencies in such documents, and receipt thereof shall not relieve the Contractor or Subcontractor from, nor be deemed a waiver of the right to enforce the terms of the obligations hereunder. The Village shall have the right to examine any policy required and evidenced on the Certificate of Insurance.

20.9 Only in the event that the Work under the Contract Documents includes design, consultation, or any other professional services, Contractor or the Subcontractor shall procure, maintain,

and pay for Professional Errors and Omissions insurance with limits of not less than $2,000,000 per claim and $2,000,000 annual aggregate. If such insurance is written on a claim made basis, the retrospective date shall be prior to the start of the Work under the Contract Documents. Contractor and all Subcontractors agree to maintain such coverage for three (3) years after final acceptance of the Project by the Village or such longer period as the Contract Documents may require. Renewal policies during this period shall maintain the same retroactive date.

20.10 Any deductibles or self-insured retentions shall be the sole responsibility of the Insured. At the option of the Village, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Village, its officers, officials, employees and volunteers; or the Proposer shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

21. COPYRIGHT/PATENT INFRINGEMENT

21.1 The Proposer agrees to indemnify, defend, and hold harmless the Village against any suit, claim, or proceeding brought against the Village for alleged use of any equipment, systems, or services provided by the Proposer that constitutes a misuse of any proprietary or trade secret information or an infringement of any patent or copyright.

22. COMPLIANCE WITH OSHA STANDARDS

22.1 Equipment supplied to the Village must comply with all requirements and standards as specified by the Occupational Safety and Health Act. All guards and protectors as well as appropriate markings will be in place before delivery. Items not meeting any OSHA specifications will be refused.

23. CERCLA INDEMNIFICATION

23.1 In the event this is a contract that has environment aspects, the Proposer shall, to the maximum extent permitted by law, indemnify, defend, and hold harmless the Village, its officers, employees, agents, and attorneys from and against any and all liability, including without limitation, costs of response, removal, remediation, investigation, property damage, personal injury, damage to natural resources, health assessments, health settlements, attorneys' fees, and other related transaction costs arising under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C.A. Sec. 9601, *et seq.*, as amended, and all other applicable statutes, regulations, ordinances, and under common law for any release or threatened release of the waste material collected by the Proposer, both before and after its disposal.

24. BUY AMERICA

24.1 The Contractor agrees to comply with 49 U.S.C.5323(j), the Federal Transportation Administration's (FTA) Buy America regulations at 49 C.F.R. Part 661, and any amendments thereto, and any implementing guidance issued by the FTA, with respect to this Contract, when financed by Federal funds (through a grant agreement or cooperative agreement).

24.2 As a condition of responsiveness, the Contractor agrees to submit with its proposal

submission, an executed Buy America Certificate, attached hereto.

25. CAMPAIGN DISCLOSURE

25.1 Any contractor, proposer, bidder or vendor who responds by submitting a bid or proposal to the Village of Downers Grove shall be required to submit with its submission, an executed Campaign Disclosure Certificate, attached hereto.

25.2 The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.

25.3 Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.

25.4 By signing the bid or proposal documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

26. SUBLETTING OF CONTRACT

26.1 No contract awarded by the Village shall be assigned or any part subcontracted without the written consent of the Village Manager. In no case shall such consent relieve the Contractor from their obligation or change the terms of the contract.

All approved subcontracts shall contain language which incorporates the terms and conditions of this Contract.

27. TERM OF CONTRACT

27.1 This Contract may be extended no more than twice for subsequent annual periods (two annual extensions) by mutual agreement of both parties, providing such agreement complies with Village purchasing policies and the availability of funds. However, if this Contract is not one that is subject to extension, such information will be available in the detailed specifications or special conditions section.

28. TERMINATION OF CONTRACT

28.1 The Village reserves the right to terminate the whole or any part of this Contract, upon written notice to the Contractor, for any reason and/or in the event that sufficient funds to complete the Contract are not appropriated by the Village.

28.2 The Village further reserves the right to terminate the whole or any part of this Contract, upon written notice to the Contractor, in the event of default by the Contractor. Default is defined as failure of the Contractor to perform any of the provisions of this Contract or failure to make sufficient progress so as to endanger performance of this Contract in accordance with

its terms. In the event that the Contractor fails to cure the default upon notice, and the Village declares default and termination, the Village may procure, upon such terms and in such manner as the Village may deem appropriate, supplies or services similar to those so terminated. The Contractor shall be liable for any excess costs for such similar supplies or services unless acceptable evidence is submitted to the Village that failure to perform the Contract was due to causes beyond the control and without the fault or negligence of the Contractor. Any such excess costs incurred by the Village may be set-off against any monies due and owing by the Village to the Contractor.

29. BILLING & PAYMENT PROCEDURES

29.1 Payment will be made upon receipt of an invoice referencing Village purchase order number. Once an invoice and receipt of materials or service have been verified, the invoice will be processed for payment in accordance with the Village payment schedule. The Village will comply with the Local Government Prompt Payment Act, 50 ILCS 505/1 *et seq.*, in that any bill approved for payment must be paid or the payment issued to the Proposer within 60 days of receipt of a proper bill or invoice. If payment is not issued to the Proposer within this 60 day period, an interest penalty of 1.0% of any amount approved and unpaid shall be added for each month or fraction thereof after the end of this 60 day period, until final payment is made.

29.2 The Village shall review in a timely manner each bill or invoice after its receipt. If the Village determines that the bill or invoice contains a defect making it unable to process the payment request, the Village shall notify the Contractor requesting payment as soon as possible after discovering the defect pursuant to rules promulgated under 50 ILCS 505/1 *et seq.* The notice shall identify the defect and any additional information necessary to correct the defect.

29.3 If this Contract is for work defined as a "fixed public work" project under the Illinois Prevailing Wage Act, 820 ILCS 130/2, any contractor or subcontractor is required to submit certified payroll records along with the invoice. No invoice shall be paid without said records.

29.4 Please send all invoices to the attention of Village of Downers Grove Public Works, ATTN: Jim Tock, 5101 Walnut, Downers Grove, IL 60515.

30. RELATIONSHIP BETWEEN THE PROPOSER AND THE VILLAGE

30.1 The relationship between the Village and the Proposer is that of a buyer and seller of professional services and it is understood that the parties have not entered into any joint venture or partnership with the other.

31. STANDARD OF CARE

31.1. Services performed by Proposer under this Contract will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representations express or implied, and no warranty or guarantee is included or intended in this Contract, or in any report, opinions, and documents or otherwise.

31.2 If the Proposer fails to meet the foregoing standard, Proposer will perform at its own cost,

and without reimbursement from the Village, the professional services necessary to correct errors and omissions caused by Proposer's failure to comply with the above standard and reported to Proposer within one (1) year from the completion of Proposer's services for the Project.

31.3 For Professional Service Agreements (e.g., Engineer, Consultant): Project site visits by Proposer during construction or equipment installation or the furnishing of Project representatives shall not make Proposer responsible for: (i) constructions means, methods, techniques, sequences or procedures; (ii) for construction safety precautions or programs; or (iii) for any construction contactor(s') failure to perform its work in accordance with contract documents.

32. GOVERNING LAW

32.1 This Contract will be governed by and construed in accordance with the laws of the State of Illinois without regard for the conflict of laws provisions. Venue is proper only in the County of DuPage and the Northern District of Illinois.

33. SUCCESSORS AND ASSIGNS

33.1 The terms of this Contract will be binding upon and inure to the benefit of the parties and their respective successors and assigns; provided, however, that neither party will assign this Contract in whole or in part without the prior written approval of the other. The Proposer will provide a list of key staff, titles, responsibilities, and contact information to include all expected subcontractors.

34. WAIVER OF CONTRACT BREACH

34.1 The waiver by one party of any breach of this Contract or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof will be limited to the particular instance and will not operate or be deemed to waive any future breaches of this Contract and will not be construed to be a waiver of any provision except for the particular instance.

35. AMENDMENT

35.1 This Contract will not be subject to amendment unless made in writing and signed by all parties.

36. NOT TO EXCEED CONTRACT

36.1 The contract price is a "Not-to-Exceed" cost. At any time additional work is necessary or requested, and the Not-to-Exceed price is increased thereby, any change, addition or price increase must be agreed to in writing by all parties who have executed the initial contract.

36.2 Change orders for public works projects which authorize an increase in the contract price that is 50% or more of the original contract price or that authorize or necessitate any increase in the price of a subcontract under the contract that is 50% or more of the original subcontract price must be resubmitted for bidding in the same manner by which the original contract was bid. (50 ILCS 525/1)

37. SEVERABILITY OF INVALID PROVISIONS

37.1 If any provisions of this Contract are held to contravene or be invalid under the laws of any state, country or jurisdiction, contravention will not invalidate the entire Contract, but it will be construed as if not containing the invalid provision and the rights or obligations of the parties will be construed and enforced accordingly.

38. NOTICE

38.1 Any notice will be in writing and will be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed, and addressed to the party at the party's place of business. Notices shall be addressed to the Village as follows:

Village Manager
Village of Downers Grove
801 Burlington Ave.
Downers Grove, IL 60515

And to the Proposer as designated in the Contract Form.

39. COOPERATION WITH FOIA COMPLIANCE

39.1 Contractor acknowledges that the Freedom of Information Act may apply to public records in possession of the Contractor or a subcontractor. Contractor and all of its subcontractors shall cooperate with the Village in its efforts to comply with the Freedom of Information Act. 5 ILCS 140/1 *et seq.*

40. HOURS OF WORK

40.1 The Contractor shall do no work between the hours of 7:00 p.m. and 7:00 a.m., nor on Saturdays, Sundays or legal holidays, unless otherwise approved in writing by the Village. However, such work may be performed at any time if necessary, for the proper care and protection of work already performed, or in case of an emergency. All after-hour work is still subject to the permission of the Village. Any work, including the starting and/or idling of vehicles or machinery, or a congregation of workers prior to starting work, which may cause any noise level that can be heard by adjacent residents, performed outside of these hours of work and not authorized by the Village shall be subject to a fine of $250 per day, per violation.

41. PERMITS AND LICENSES

41.1 The Contractor shall obtain all necessary permits and licenses required to complete the Work. The cost of acquisition of all necessary permits, bonds, insurance and services as specified herein shall be considered INCLUDED IN THE TOTAL COST, and no additional

compensation will be allowed the Contractor.

42. INSPECTION

42.1 The Village shall have a right to inspect, by its authorized representative, any material, components or workmanship as herein specified. Materials, components or workmanship that have been rejected by the Village as not in accordance with the terms of the contract specifications shall be replaced by the Contractor at no cost to the Village.

43. COMPLIANCE WITH OSHA STANDARDS

43.1 Equipment supplied to the Village must comply with all requirements and standards as specified by the Occupational Safety and Health Act. All guards and protectors as well as appropriate markings will be in place before delivery. Items not meeting any OSHA specifications will be refused.

44. CERCLA INDEMNIFICATION

44.1 The Contractor shall, to the maximum extent permitted by law, indemnify, defend, and hold harmless the Village, its officers, employees, agents, and attorneys from and against any and all liability, including without limitation, costs of response, removal, remediation, investigation, property damage, personal injury, damage to natural resources, health assessments, health settlements, attorneys' fees, and other related transaction costs arising under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C.A. Sec. 9601, *et seq.*, as amended, and all other applicable statutes, regulations, ordinances, and under common law for any release or threatened release of the waste material collected by the Contractor, both before and after its disposal.

44.2 If the Contractor encounters any waste material governed by the above Act, it shall immediately notify the Village and stop working in the area until the above requirements can be met.

45. COPYRIGHT or PATENT INFRINGEMENT

45.1 The Contractor agrees to indemnify, defend, and hold harmless the Village against any suit, claim, or proceeding brought against the Village for alleged use of any equipment, systems, or services provided by the Proposer that constitutes a misuse of any proprietary or trade secret information or an infringement of any patent or copyright.

46. LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

46.1 Section 107 of the Illinois Department of Transportation's Standard Specifications for Road and Bridge Construction (SSRBC) shall govern the Proposer's legal regulations and responsibility to the public, with the following additions:

46.1.1 PROJECT SAFETY. Add the following to Article 107.28:

46.1.1.1 The Proposer shall conduct his work in such a manner as to provide an environment consistent with the safety, health and wellbeing of those engaged in the completion of the Work specified in this Contract.

46.1.1.2 The Proposer shall comply with all State and Federal Safety Regulations as outlined in the latest revisions of the Federal Construction Safety Standards (Series 1926) and with applicable provisions and/or regulations of the Occupation Safety and Health Administration (OSHA) and Standards of the Williams-Stelger Occupational Health Safety Act of 1970 (Revised). SPECIAL ATTENTION SHALL BE PAID TO COMPLIANCE WITH OSHA'S SUBPART P – EXCAVATIONS STANDARD.

46.1.1.3 The Proposer and Village shall each be responsible for their own respective agents and employees.

46.1.1.4 The Proposer shall, prior to performing any work, request information from the Village regarding any existing confined spaces owned by the Village that may be entered in the course of the work, and shall obtain all required confined space entry permits prior to entering any confined spaces. Proposer shall follow all current laws and regulations with regard to confined space entry. Proposer shall maintain and, upon request, provide full documentation of compliance with the appropriate confined space permits for each separate confined space entered on the project.

46.1.2 BACKING PRECAUTIONS. Pursuant to Sections 14-139(b) and 14-171.1 of the Downers Grove Municipal Code, any motor vehicle which has an obstructed view to the rear and is to be operated at any time in reverse gear on the public streets of the Village by the Proposer or any sub-contractor shall either be equipped with a reverse signal alarm (backup alarm) audible above and distinguishable from the surrounding noise level, or shall provide an observer to signal that it is safe to back up.

46.1.3 OVERWEIGHT, OVERWIDTH AND OVERHEIGHT PERMITS. The Village has and supports an overweight truck enforcement program. Contractors are required to comply with weight requirements and safety requirements as established by Illinois Law or Village Ordinance, for vehicles, vehicle operators and specialty equipment. In some instances, specialty equipment for road repairs or construction projects requires the movement of overweight, overwidth, or overheight loads utilizing a Village roadway. Such movement will require obtaining a permit from the Village Police Department's Traffic Supervisor.

46.1.4 BARRICADES AND WARNING SIGNS. The Proposer shall provide the Village with a telephone number of a person or company who is available 24 hours per day, seven days per week, to erect additional barricades or signs. If the Village or its representative deems it necessary for the Public's safety to erect additional barricades or signs during normal working hours, the Proposer will furnish the necessary barricades or signs, and have them in place within 30 minutes. If, after normal working hours, the requested signs are not in place within three hours after the request is made,

the Village reserves the right to have the barricades and signs erected. The cost of erecting the barricades and signs shall be deducted by the Village from any payments due the Proposer.

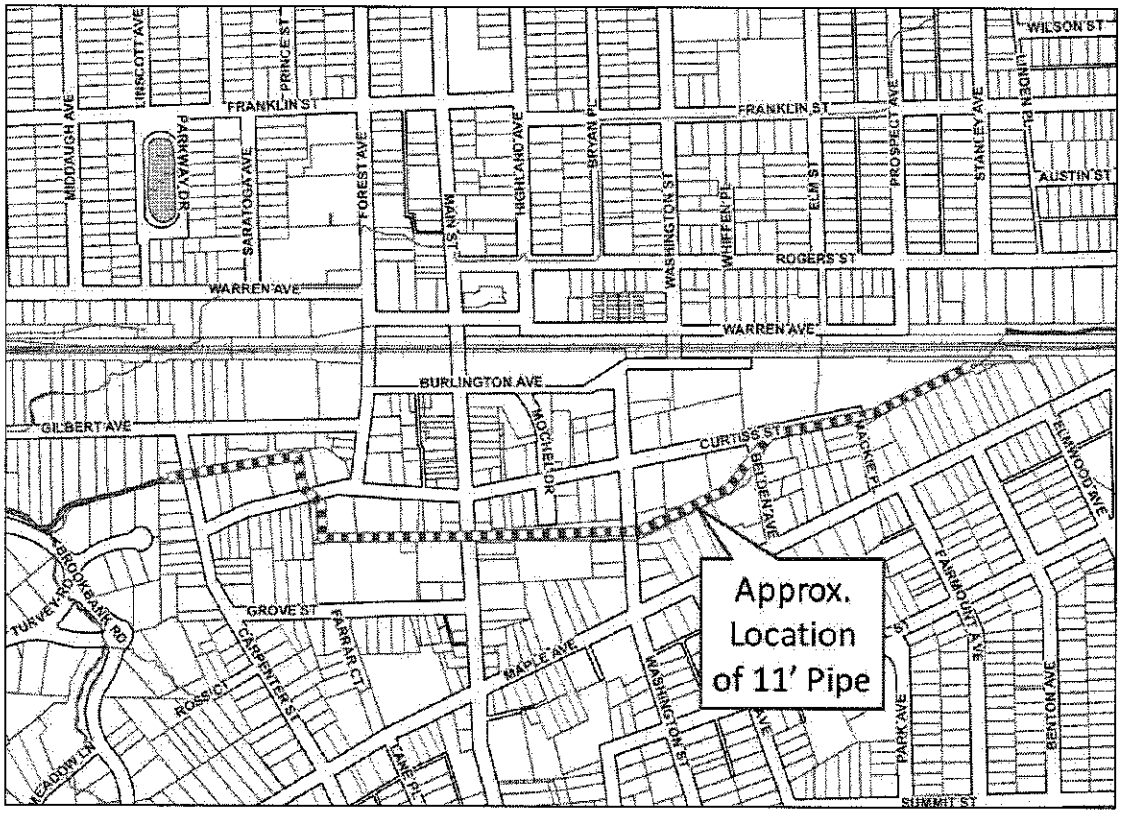
III. DETAIL SPECIFICATIONS

1. SCOPE OF SERVICES/DELIVERABLES

1.1 The firm (Proposer) selected by the Village pursuant to this RFP is not authorized to perform work for the Village until a fully executed and authorized Agreement is in place.

1.2 Project Description

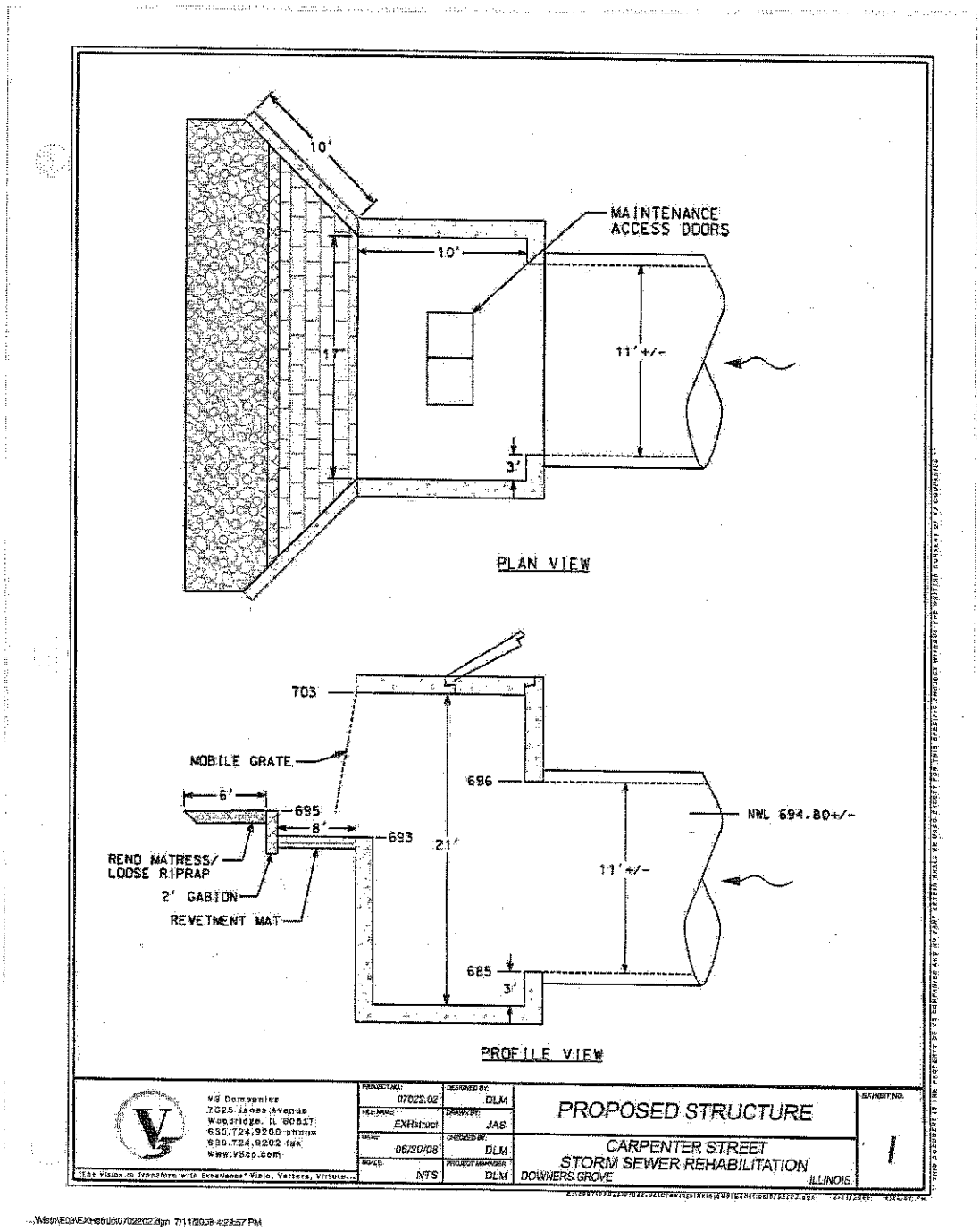
The Village is seeking a qualified consultant to assess the condition of an 11' diameter (+/-) pipe that traverses the Downtown Business District (DBD) of the Village of Downers Grove (see map below). The approximate location of this pipe is shown in greater detail in the attached plans (10 pages) dated 02/26/14, which are provided for reference only. Locations of the pipe, structures, etc. are depicted on these plans using GIS data and have not necessarily been field surveyed.



This pipe carries flow from St. Joseph's Creek through the DBD, and in some locations it is located beneath street pavement, parking lots, and building structures. As such, the condition of this pipe is critical to not only the on-going proper function of the Village's drainage system, but also the economic vitality of the DBD.

In May 2014, the Village procured a preliminary assessment of portions of this pipe that were visible without the need for diving equipment or pumping (see attached report by Smith

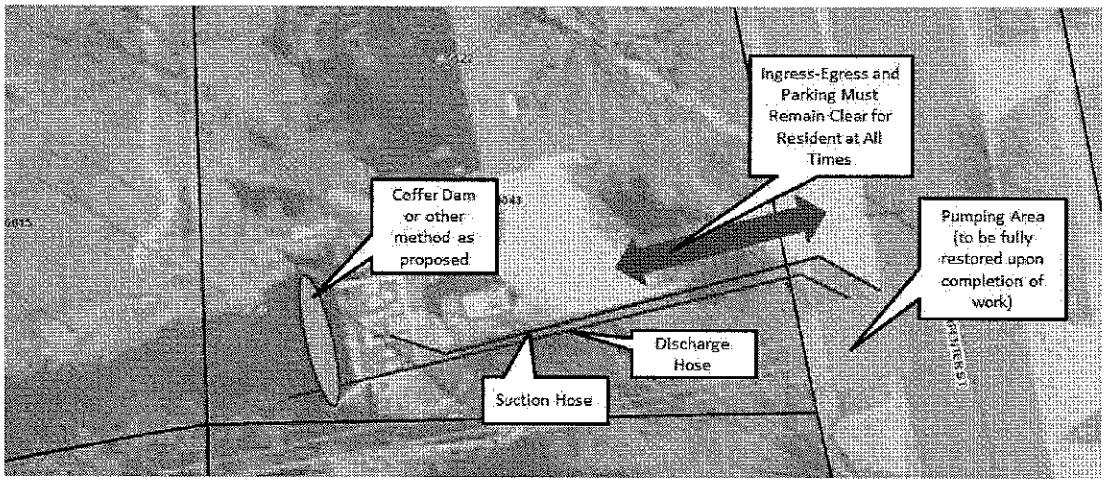
LaSalle Consulting Engineers, dated May 13, 2014). This preliminary report is provided for reference only. The selected Proposer will be required to provide a comprehensive report of the condition of the pipe from its eastern entry location (just east of the Village Hall property) to the large discharge structure located immediately west of Carpenter Street. See below for a detail of this structure.



1.3 Scope

Means and Methods – The selected Proposer will be entirely responsible for the means and methods utilized for this work. The Village will accept proposals for work "in the wet" (utilizing a combination of dry and underwater inspections) and proposals that include the pumping down of all the water in the pipe, to allow all work to be done "in the dry" utilizing dry inspections only. All things being equal, the Village would prefer the video and report to be prepared "in the dry," although this may require significant pumping and sediment control measures that may or may not be feasible within the easements available to the Village, which are limited to the area immediately surrounding the large structure west of Carpenter Street, and do not extend downstream far enough to allow for a sediment removal system (e.g., lined jute channel). As such, all sediment removal will have to be accomplished within the public ROW and allow for at least one lane of traffic to remain open.

When dewatering is performed at the downstream end of the pipe, west of Carpenter Street, ingress, egress and parking must remain open at all times for the resident of 5122 Carpenter Street (see below). A coffer dam and suction/discharge hoses are the only items that shall be allowed on the property at 5122. Any coffer dams proposed must be constructed of non-permanent and completely removable materials that can be carried into the site by hand or with a skid-steer loader, such as an inflatable coffer dam or sand bags, and existing landscaping, driveway pavement, etc. shall not be disturbed. Should Proposer feel it is absolutely necessary to provide a jute lined discharge trough along the southerly line of the driveway and/or a sediment bag at the end of the discharge hose to facilitate sediment removal, a plan must be prepared depicting how ingress-egress will not be impeded and any landscaping that will need to be restored. Any items that are inadvertently disturbed must be immediately restored to the satisfaction of the Engineer. If one or more lanes of traffic must be closed, flaggers must be provided at all times. The proper removal and legal disposal of all sediment removed from the discharge water shall be the responsibility of the Proposer. Any pumps used for dewatering shall be low-decibel pumps and will only be allowed to operate during normal hours of construction unless otherwise approved by the Village. Once all water has been pumped from the system, the removal of additional accumulated sediment in the pipe shall not be required.



Dewatering Limitations at 5122 Carpenter Street

Any permits necessary for the dewatering of the pipe into the creek are the responsibility of the Proposer and must be included in the "Not-to-Exceed" fee, including all permit fees, bonds, insurance, etc.

While the specific means and methods are the responsibility of the Proposer, all work shall be done, at a minimum, to conform with the attached Minimum Work Performance Standards (see Appendix A). All work shall comply with the appropriate confined space entry requirements, and the Consultant shall supply any/all labor, equipment and materials necessary to comply with said requirements.

If Proposer wishes to include two options in their proposal (e.g. both "in the wet" and "in the dry"), the Village will take them into consideration and will award the contract based on the option that Village Staff deems to be in the best interest of the Village.

Condition Assessment Report - The selected Proposer will be required to provide the Village with a comprehensive condition assessment of the entire length of pipe (approximately 4,200 lineal feet) including, but not limited to all structures and major pipe connections. The Village anticipates the condition assessment may include, but not be limited to the following:

a. Condition assessment and video coverage of the entire interior of the pipe, with a corresponding written report detailing pipe size(s), pipe and joint materials, and any deficiencies noted, utilizing easily definable locations (e.g., stationing).
b. Condition assessment and video coverage of all structures (both visible at the surface and buried) and blind pipe connections.
c. Sediment depths and locations.
d. Location and composition of any significant obstructions to flow.
e. Analysis, including preliminary assessment of severity, for each significant defect noted.
f. Prioritization of needed repairs, including conceptual budgetary costs for each.
g. Photos of all areas of interest, including any significant deficiencies, all manholes and any pipe connections.

h. The selected Proposer shall begin work on the project within seven (7) calendar days after receipt of the Notice to Proceed from the Village and shall abide by the deliverable schedule in section 3.2 below.

2. PROPOSAL

2.1 This RFP is the contract between the Proposer and the Village. This entire RFP document shall be submitted with the proposal.

2.2 Quantity and Format

One original and one copy of the Proposal (plus a .pdf file on a CD or flash drive) shall be submitted in an 8½ x 11 format and be organized as follows:

- Cover Letter (optional)
- Project Understanding/Approach
- Firm/Team Experience and Qualifications
- Project Organizational Chart
- Proposed "Not-to-Exceed" fee and billing rates

The Proposal shall be succinct and directly relevant to this project. Maximum number of pages shall not be limited, but keep the information provided to a minimum, providing only information relevant to this RFP. Double sided printing is allowed and encouraged. Only those persons planned to be directly involved with this project should be included.

2.3 Experience and Qualifications

The prospective Firm and proposed team members must have particular expertise in structural inspection of underground concrete structures/pipes in order to fully and properly act on the Village's behalf in all activities related to this RFP. If proposal is to perform the inspection "in the wet," the Firm must have significant experience with underwater structural inspection. The Firm must have a fully staffed office located within 100 miles of the Village. In order to be considered for this project, interested Firms must submit the following information. If sub-consultants/contractors are proposed, similar detailed information must be provided for each entity.

- Company Background
  i. Number of years in business
  ii. Officers of Company
  iii. Annual Volume of Similar Work
  iv. Current Capacity
  v. Listing of existing suits, claims, or pending judgments
- Services Provided In-House vs. Sub-contracted
- Similar Project Experience - Provide detailed information regarding similar projects performed by the submitting firm within the past ten (10) years. Include client contact information for all projects.

- Proposed Project Team – identify a project manager with qualifications, and primary supporting staff. The individuals proposed must be utilized for the duration of this project unless an alternate is approved in writing by the Village.

2.3 Deadline and Proposal Disposition

Proposals received after the specified time and date will not be accepted and will be returned unopened to the Proposer. Proposals shall become the property of the Village. The Village will maintain confidentiality of all received Proposals, and not disclose information provided by prospective Proposer with any other firm, nor with the selected Proposer, unless otherwise required to be disclosed pursuant to the Freedom of Information Act.

2.4 Fees

The Village prefers the method of compensation for professional services to be based on hourly-charged personnel rates plus expenses, with a Total "Not-to-Exceed" cost.

Please submit a schedule of hourly rates for the personnel anticipated to perform the scope of services as outlined in this RFP. Expenses shall be marked-up a maximum of 10% above direct cost, and shall be itemized with each monthly billing, along with receipts for each expense requested. Only costs associated with the printing and copying of final deliverables shall be reimbursable. Draft document printing and copy costs shall not be reimbursable. Hourly personnel rates shall include all incidental equipment, such as computers, survey equipment, consumables, vehicles, mileage, etc. Vehicle mileage shall not be billed separately. The "Not-to-Exceed" cost shall include all deliverables and reimbursable expenses, such as postage, delivery service, printing, etc. The Village shall be invoiced monthly, on a time and materials basis. The Village reserves the right to modify the scope of services, should it be deemed necessary to stay within the budgeted amount, or should it be in the best interest of the Village to do so. The selected Proposer shall not perform any work exceeding the "Not-to-Exceed" cost without a contract amendment or a subsequent RFP/contract.

2.5 Firm Selection

Firm Selection will be based on the following:

- Experience of project team members, with specific focus on the proposed project manager
- Project approach and understanding of the desired goals and outcomes
- Familiarity with Village of Downers Grove policies and preferences
- Proposed means and methods
- Not-to-Exceed fee and hourly rates

2.6 Pre-Proposal Field Review

Prior to submitting a Proposal, each prospective Firm shall make all investigations and examinations necessary to ascertain all site conditions and requirements affecting the full performance of this project and to verify any representations made by the Village upon which the prospective Firm will rely. These investigations shall be limited to public property only. The monetary expenses incurred as a result of conducting these investigations shall be borne by the prospective Firm and shall not be the responsibility of the Village.

3. PROJECT DELIVERABLES

3.1 General

The selected Proposer shall provide the following deliverables:

- Condition Assessment Report (as defined above)
- Video footage (on DVD and viewable on both standard DVD players and on Microsoft computers without proprietary software)

3.2 Deliverable Quantities and Project Schedule

- Four (4) bound hard copies of the final report, each with a DVD of the video footage included in a pocket within the report
- One (1) flash drive containing electronic copies of all final project files, drawings and any supporting documentation compatible with the programs listed above, including the final report, photos, field notes, videos, etc.
- It is anticipated the notice of award, if approved by Village Council, and subsequently the notice to proceed will be given on or about July 11, 2016. All deliverables will be due by no later than August 19, 2016 for an "in the wet" assessment and no later than September 16, 2016 for an "in the dry" assessment.

4. CONTACTS

All questions concerning the project, the submittal of a Proposal, the Village's review and evaluation submittals should be directed to:

Jim Tock
Village of Downers Grove
5101 Walnut Avenue
Downers Grove, Illinois 60515
Phone 630-434-5460
Fax 630-434-5495
jtock@downers.us

IV. PROPOSER'S RESPONSE TO RFP

(Proposer must insert response to RFP here. DO NOT insert a form contract, the RFP document including detail specs and Proposer's response will become the contract with the Village.)

V. PROPOSAL/CONTRACT FORM

*****THIS PROPOSAL, WHEN ACCEPTED AND SIGNED BY AN AUTHORIZED SIGNATORY OF THE VILLAGE OF DOWNERS GROVE, SHALL BECOME A CONTRACT BINDING UPON BOTH PARTIES.**

Entire Block Must Be Completed When A Submitted Proposal Is To Be Considered For Award

PROPOSER:

HBK Engineering, LLC
Company Name

921 W Van Buren St, Suite 100
Street Address of Company

Chicago, IL 60607
City, State, Zip

(312) 432-0076
Business Phone

Fax

ATTEST: If a Corporation

Signature of Corporation Secretary

Date: June 7, 2016

dyerkes@hbkengineering.com
Email Address

Douglas Yerkes, PhD, PE
Contact Name (Print)

(312) 545-4929
24-Hour Telephone

Signature of Officer, Partner or Sole Proprietor

Douglas Yerkes, Vice President
Print Name & Title

VILLAGE OF DOWNERS GROVE:

Authorized Signature

Title

Date

ATTEST:

Signature of Village Clerk

Date

In compliance with the specifications, the above-signed offers and agrees, if this Proposal is accepted within **90** calendar days from the date of opening, to furnish any or all of the services upon which prices are quoted, at the price set opposite each item, delivered at the designated point within the time specified above.

VENDOR W-9 REQUEST FORM

The law requires that we maintain accurate taxpayer identification numbers for all individuals and partnerships to whom we make payments, because we are required to report to the I.R.S all payments of $600 or more annually. We also follow the I.R.S. recommendation that this information be maintained for all payees including corporations.

Please complete the following substitute W-9 letter to assist us in meeting our I.R.S. reporting requirements. The information below will be used to determine whether we are required to send you a Form 1099. Please respond as soon as possible, as failure to do so will delay our payments.

BUSINESS (PLEASE PRINT OR TYPE):

NAME: HBK Engineering, LLC

ADDRESS: 921 W Van Buren Street, Suite 100

CITY: Chicago

STATE: Illinois

ZIP: 60607

PHONE: (312) 432-0076 **FAX:**

TAX ID #(TIN): 36-4304016

(If you are supplying a social security number, please give your full name)

REMIT TO ADDRESS (IF DIFFERENT FROM ABOVE):

NAME:

ADDRESS:

CITY:

STATE: **ZIP:**

TYPE OF ENTITY (CIRCLE ONE):

Individual	Limited Liability Company – Individual/Sole Proprietor
Sole Proprietor	Limited Liability Company-Partnership
Partnership	Limited Liability Company-Corporation
Medical	Corporation
Charitable/Nonprofit	Government Agency

SIGNATURE: **DATE:** 6/8/2016

PROPOSER'S CERTIFICATION ***(page 1 of 3)***

With regard to *Assessment of an 11' Diameter Pipe through the DBD (DR-041)* (Name of Project) Proposer, HBK Engineering, LLC, (Name of Proposer) hereby certifies the following:

1. Proposer is not barred from bidding this contract as a result of violations of Section 720 ILCS 5/33E-3 (Bid Rigging) or 720 ILCS 5/33E-4 (Bid-Rotating);

2. Proposer certifies that it has a written sexual harassment policy in place and is in full compliance with 775 ILCS 5/2-105(A)(4);

3. Proposer certifies that not less than the prevailing rate of wages as determined by the Village of Downers Grove, DuPage County or the Illinois Department of Labor shall be paid to all laborers, workers and mechanics performing work for the Village of Downers Grove. All bonds shall include a provision as will guarantee the faithful performance of such prevailing wage clause. Proposer agrees to comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*, for all work completed. Proposer agrees to pay the prevailing wage and require that all of its subcontractors pay prevailing wage to any laborers, workers or mechanics who perform work pursuant to this Contract or related subcontract. Proposer and each subcontractor shall keep or cause to be kept an accurate record of names, occupations and actual wages paid to each laborer, workman and mechanic employed by the Proposer in connection with the Contract. This record shall be sent to the Village on a monthly basis along with the invoice and shall be open to inspection at all reasonable hours by any representative of the Village or the Illinois Department of Labor and must be preserved for five (5) years following completion of the Contract. Proposer certifies that proposer and any subcontractors working on the project are aware that filing false payroll records is a class A misdemeanor and that the monetary penalties for violations are to be paid pursuant to law by the proposer, contractor and subcontractor. The Village shall not be liable for any underpayments. If applicable: Since this is a contract for a fixed public works project, as defined in 820 ILCS 130/2, Contractor agrees to post at the job site in an easily accessible place, the prevailing wages for each craft or type of worker or mechanic needed to execute the contract or work to be performed.

4. Proposer certifies that it is in full compliance with the Federal Highway Administrative Rules on Controlled Substances and Alcohol Use and Testing, 49 C. F.R. Parts 40 and 382 and that all employee drivers are currently participating in a drug and alcohol testing program pursuant to the Rules.

5. Proposer further certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue, or that Proposer is contesting its liability for the tax delinquency or the amount of a tax delinquency in accordance with the procedures established by the appropriate Revenue Act. Proposer further certifies that if it owes any tax payment(s) to the Department of Revenue, Proposer has entered into an agreement with the Department of Revenue for the payment

PROPOSER'S CERTIFICATION *(page 2 of 3)*

of all such taxes that are due, and Proposer is in compliance with the agreement.

BY: _____
Proposer's Authorized Agent

3	6	-	4	3	0	4	0	1	6

FEDERAL TAXPAYER IDENTIFICATION NUMBER

or _____
Social Security Number

OFFICIAL SEAL
BRENDA JIMENEZ
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires Jan 12, 2020

Subscribed and sworn to before me this 8th day of June, 2016.

Brenda
Notary Public

(Fill Out Applicable Paragraph Below) ***Selection (a), (b), (c) do not apply; Please see attached HBK Engineering, LLC company description and State of Illinois Certificate of Good Standing***

(a) **Corporation** *Not applicable*
The Proposer is a corporation organized and existing under the laws of the State of _____, which operates under the Legal name of _____, and the full names of its Officers are as follows:

President: _____

Secretary: _____

Treasurer: _____
and it does have a corporate seal. (In the event that this Proposal is executed by other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation which permits the person to execute the offer for the corporation.)

(b) **Partnership** *Not applicable*
Signatures and Addresses of All Members of Partnership:

_____

_____

_____

_____

PROPOSER'S CERTIFICATION *(page 3 of 3)*

The partnership does business under the legal name of: _____;
which name is registered with the office of _____ in the state of
_____.

(c) **Sole Proprietor** *Not applicable*
The Proposer is a Sole Proprietor whose full name is: _____;
and if operating under a trade name, said trade name is: _____;
which name is registered with the office of _____ in the state of
_____.

5. Are you willing to comply with the Village's preceding insurance requirements within 13 days of the award of the contract? yes

Insurer's Name Willis A&E Group

Agent Andrew Donovan

Street Address 233 S. Wacker Drive, Suite 2000

City, State, Zip Code Chicago, IL 60606

Telephone Number (312) 288-7848

I/We affirm that the above certifications are true and accurate and that I/we have read and understand them

Print Name of Company: HBK Engineering, LLC

Print Name and Title of Authorizing Signature: Douglas Yerkes, Vice President

Signature: _____

Date: June 7, 2016

UTILITY INFRASTRUCTURE SOLUTIONS | hbk ENGINEERING

PROPOSER'S CERTIFICATION *(continued from pages 31-32)*

- HBK Engineering, LLC (HBK) is a **Single-Member LLC** and is **100 percent owned by Ronald G. Kaminski, PE**
- **HBK is registered with the office of Secretary of State in the state of Illinois** (see attached certificate of good standing)
- Incorporated August 3, 1999
- 18 years in business

File Number 0031089-1

STATE OF ILLINOIS

OFFICE OF THE SECRETARY OF STATE

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

HBK ENGINEERING, LLC, HAVING ORGANIZED IN THE STATE OF ILLINOIS ON AUGUST 03, 1999, APPEARS TO HAVE COMPLIED WITH ALL PROVISIONS OF THE LIMITED LIABILITY COMPANY ACT OF THIS STATE, AND AS OF THIS DATE IS IN GOOD STANDING AS A DOMESTIC LIMITED LIABILITY COMPANY IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 11TH *day of* JANUARY *A.D.* 2016 .

Authentication #: 1601102480 verifiable until 01/11/2017
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

Apprenticeship and Training Certification

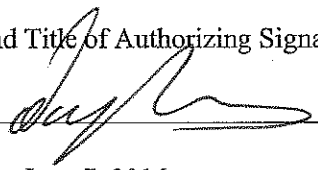
(Does not apply to federal aid projects. Applicable only to maintenance and construction projects that use Motor Fuel Tax funds or state grant monies.)

Name of Proposer: HBK Engineering, LLC

In accordance with the provisions of Section 30-22 (6) of the Illinois Procurement Code, the Proposer certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the Proposer will perform with its own forces. The Proposer further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this Contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Illinois Department of Labor, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The Proposer shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the Proposer is a participant and that will be performed with the Proposer's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. **The Proposer is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. Return this with the bid.**

The requirements of this certification and disclosure are a material part of the Contract, and the contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this Contract.

Print Name and Title of Authorizing Signature: Douglas Yerkes, Vice President

Signature: 

Date: June 7, 2016

BUY AMERICA CERTIFICATION

Certification requirement for procurement of steel, iron, or manufactured products when Federal funds (Grant Agreement or Cooperative Agreement) are used.

Instructions:
Bidder to complete the Buy America Certification listed below. Bidder shall certify EITHER COMPLIANCE OR NON-COMPLIANCE (not both). This Certification MUST BE submitted with the Bidder's bid response.
Special Note: Make sure you have signed only one of the above statements – either Compliance OR Non-Compliance (not both).

Certificate of Compliance

The bidder or offeror hereby certifies that it **will meet** the requirements of 49 U.S.C. 5323(j)(1), as amended, and the applicable regulations in 49 CFR Part 661.

Signature _____

Company Name _____

Title _____

Date _____

Certificate of Non-Compliance

The bidder or offeror hereby certifies that it **cannot comply** with the requirements of 49 U.S.C. 5323(j)(1), as amended, and 49 C.F.R. 661, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Signature _____

Company Name _____

Title _____

Date _____

AFTER THIS CERTIFICATE HAS BEEN EXECUTED, A BIDDER MAY NOT SEEK A WAIVER.

Note: The U.S/Canadian Free Trade Agreement does not supersede the Buy America requirement.

Suspension or Debarment Certificate

Non-Federal entities are prohibited from contracting with or making sub-awards under covered transactions to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement for goods or services equal to or in excess of $100,000.00. Contractors receiving individual awards for $100,000.00 or more and all sub-recipients must certify that the organization and its principals are not suspended or debarred.

By submitting this offer and signing this certificate, the Proposer certifies to the best of its knowledge and belief, that the company and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal, state or local governmental entity, department or agency;

2. Have not within a three-year period preceding this Proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction, or convicted of or had a civil judgment against them for a violation of Federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (2) of this certification; and

4. Have not within a three-year period preceding this application/proposal/contract had one or more public transactions (Federal, State or local) terminated for cause or default.

If the Proposer is unable to certify to any of the statements in this certification, Proposer shall attach an explanation to this certification.

Company Name: HBK Engineering, LLC

Address: 921 W Van Buren Street, Suite 100

City: Chicago State: IL Zip Code: 60607

Telephone: (312) 432-0076 Fax Number: (312) 432-0231

E-mail Address: dyerkes@hbkengineering.com

Authorized Company Signature:

Print Signature Name: Douglas Yerkes, PhD, PE Title of Official: Vice President

Date: June 7, 2016

CAMPAIGN DISCLOSURE CERTIFICATE

Any contractor, proposer, bidder or vendor who responds by submitting a bid or proposal to the Village of Downers Grove shall be required to submit with its submission, an executed Campaign Disclosure Certificate.

The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.

Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.

By signing the bid or proposal documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

Under penalty of perjury, I declare:

☒ Bidder/vendor has not contributed to any elected Village position within the last five (5) years.

Signature Douglas Yerkes
Print Name

☐ Bidder/vendor has contributed a campaign contribution to a current member of the Village Council within the last five (5) years.

Print the following information:

Name of Contributor: _____
(company or individual)

To whom contribution was made: _____

Year contribution made: _____ Amount: $ _____

_____ _____
Signature Print Name

APPENDIX A

MINIMUM WORK PERFORMANCE STANDARDS

INSPECTION REQUIREMENTS

WORK PERFORMANCE STANDARDS

The following requirements represent the minimum acceptable requirements for the condition assessment.

SCOPE OF WORK

The project shall consist of providing all professional services and pumping services necessary to conduct a detailed inspection of the identified reinforced concrete pipe and manhole structures and to determine whether deterioration of the structural elements has occurred, or if, any other structural defects are present as well as to provide an inspection report with drawings of the pipe and manhole structures and descriptions of the system.

Any other conditions that could have a detrimental effect on the structure, or require future remedial action, must be noted on the inspection report. In addition, the following is required:

(i) Determine stationing throughout the entire length of pipe, size of laterals and station location of manholes and laterals.

(ii) All manhole structures from rim elevation to invert elevation along the length of the line.

(iii) Condition of all connecting lateral pipes (and manholes if applicable) at the entry to the mainline pipe as observed from the main line.

(iv) All wing walls and head walls, including non-integral/non-structural walls, adjacent to the structure at the discharge and inlet ends.

(v) Any anomalies adjacent, above or below the structure and/or unusual flow characteristics, etc.

(vi) Inspection procedures shall be in accordance with the following standards:

- ASCE Underwater Investigations Standard Practice Manual No. 101
- ACI 201.1R (& 210) Visual Inspection of Concrete in Service (and related Documents)
- ADCI Association 6th Edition Consensus Standards
- AWWA Inspection Standards

DRY INSPECTION OF STRUCTURES

(i) The team of inspectors shall provide, operate and service all inspection equipment and materials necessary to conduct the inspection.

(ii) Execute a detailed inspection of all structural elements as related to the RCP pipe to discover deterioration and defects or abnormalities.

(iii) All defects will be photographed using digital photography capable of producing clear, sharp, color prints.

(iv) The entire inspection shall be recorded on video with audio identification of all structural elements. Locations of structural distress, defects, subsidence or foundation and deterioration shall be noted.

(1) **Notify Downers Grove personnel immediately of any critical unstable conditions.** A written notification must follow, typically comprised of a one-page summary sent to the **Client** within one (1) day of discovery.

UNDERWATER INSPECTION OFSTRUCTURES

(i) The team of divers shall provide, operate and service all diving and inspection equipment and materials necessary to conduct the inspection above and belowwater.

(ii) Execute a detailed inspection of all structural elements above and below the water elevation to discover deterioration and defects or abnormalities.

(iii) Where underwater vision is obscured to less than 1 foot, all portions of the structure will betactilely inspected with large sweeping motions of the divers hands while traversing the structural element. Marine growth shall be removed to facilitate the inspection of the foundation elements.

(iv) All defects below water level will be photographed using an underwater camera (or clear water box) capable of producing clear, sharp, color prints at least 4" x 6" in size. Underwater photos will not be required at water depths less than 2 feet.

(v) The entire underwater inspections shall be recorded on video with audio identification of all structural elements. Locations of structural distress, defects, subsidence or foundation and deterioration shall be noted.

(1) **Notify Downers Grove personnel immediately of any critical unstable conditions.** A written notification must follow, typically comprised of a one-page summary sent to the **Client** within one (1) days of discovery.

SITE ACCESS

The **Contractor** shall access the sites under his own arrangements via the nearest public street or through the Village (Owner) access requirements.

(i) Comply with all municipal and state regulations, ordinances, by-laws, etc., pertaining to the usage of municipal and state roads, and protect the **Owner** against any and all claims arising out of non- compliance with above ordinances, regulations and by-laws.

(ii) Access to the manholes and storm sewer line must be cleared with Downers Grove personnelprior to access.

(iii) All traffic control shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) at all times.

CONFINED SPACE WORK

All work to be performed in culverts, tunnels, and other confined spaces shall be done in strict compliance with OSHA 29 CFR 1910 and ANSI Z117.1 with specific job and safety procedures, confined space permits and confined space entry plan developed for each confined space.

No one shall enter a confined space unless he/she is trained, qualified and authorized to do so. No one

shall enter a confined space unless equipped with the prescribed personal protective equipment and rescue measures in- place. All personnel shall be trained and hold the following certifications:

- OSHA Standard 29 CFR 1910.46 Entrant, Attendant and Supervisor certification (this means each individual must hold all three certifications)

PUMPING REQUIREMENTS

Contractor shall provide pumping requirements to provide continuous dewatering for the entire duration of the inspection. Contractor shall be responsible to determine the required size, number, and location of dewatering pumps and related equipment. Pumping operations shall comply with all federal, state and local regulations.

DIVER REQUIREMENTS

DIVER REQUIREMENTS
WORK PERFORMANCE STANDARDS
(WPS)

The following represents the minimum acceptable requirements for conducting underwater inspections.

In addition to the requirements of The Village of Downers Grove following standards apply:

- Association of Diving Contractors International (ADCI) Consensus Standards for Commercial Diving and Underwater Operations – 5th Edition.
- OSHA 29 CFR Part 1910, Subpart T – Commercial Diving Operations
- United States Coast Guard Diving Regulations
- Association of Commercial Diving Educators (ACDE)
- ANSI/ACDE-01-2009 Minimum Standard for Commercial Diver Training

Company ("Contractor") Requirements:

- Shall have a company approved Safe Practices Manual (in accordance with ADCI, OSHA and USCG) on site at all times.
- All diving operations shall be conducted in accordance with ADCI, OSHA and USCG unless noted otherwise in the WPS.
- Only Surface-Supplied Air diving operations with two-way communications shall be conducted for all diving. In accordance with ADCI, a standby diver shall be designated and a standby dive helmet (in addition to the main diver helmet) shall be on standby at all times at the dive station with additional bail-out bottles, standby divers umbilical (separate from main divers umbilical), divers dress and secondary air source not connected to the main divers air. It should be noted not all regulations are listed individually in this document. It shall be the responsibility of the contractor to conform to all regulations and standards listed above.
- SCUBA diving operations are not permissible and shall not be used.
- Minimum inspection team for all underwater pipe inspections shall include three (3) fully qualified and certified ADCI personnel (see personnel requirements).
- In addition to the requirements above additional crew members shall be required when performing confined space and/or penetration diving. It shall be noted that this project has been designated as confined space and penetration diving. All requirements for confined space and penetration diving shall be in accordance with ADCI and OSHA regulations.
- Side-scan sonar or acoustic/electronic imaging may be used; however, all underwater inspections of the pipe and structures shall be conducted using a diver in the water and shall not be supplemented by acoustic imaging devices.
- Wading shall not be conducted in water deeper than three (3) feet on any part of the pipe.
- The inspector must be tethered to another person if wading methods are used.
- An Owners representative will be on site during all inspections.
- A sample report and format (intended for this project) shall be submitted with the Contractor's proposal.
- All company personnel on site shall possess the following:
    - Current ADCI Cards
    - Downers Grove Safety Orientation Course

Contractor Personnel Requirements:

- All members of the dive team shall have graduated from an accredited Association of Commercial Diving Educators dive school or military equivalent. Certifications such as PADI, SSI, NAUI, YMCA or other recreational SCUBA certifications do not qualify and will not be accepted.
- All members of the dive team shall possess a current ADCI Surface-Supplied Air Diver

Certification card. At least one member of the team shall be qualified as a diving supervisor and possess a current ADCI Surface-Supplied Air Diving Supervisor Certification card.

- At least one member of the dive team shall have graduated from an accredited ABET engineering school and hold a current registered professional engineer license from any jurisdiction in the United States. The engineer must also meet the diver requirements listed above.
- At least one member of the dive team shall have taken and passed the NHI Course No. 130091 Underwater Bridge Inspection. This individual must also meet the diver requirements listed above.
- All members of the dive team shall have a current ADCI physical in accordance with ADCI requirements that states. Physical must state "diver fit to dive" by physician.
- All proposed members of the contractors dive team shall submit copies (shall be included in the proposal) of the following documentation:
  - ADCI Physical
  - ADCI certification Card
  - Diploma from ACDE accredited diveschool
  - Illinois Professional Engineer & Structural Engineer license
  - CPR and First Aid
  - NHI Course 130091 Certificate

REPORT REQUIREMENTS

STRUCTURE INSPECTIONS REPORT FORMAT
WORK PERFORMANCE STANDARDS

The report format and contents shall be as follows:

Written Report Format:

- ***Cover sheet*** containing the following information:
  - Customer name
  - Structure information
  - Village information
  - Preparers name and address
  - Prepared for (customers name and address)

- ***Table of Contents*** - lists each section and appendices and page number of each section and appendix

- ***Executive Summary Table*** – describes the following:
  - All pertinent structure information
  - Previous date of inspection
  - Current date of inspection
  - Summary of report findings
  - Summary of recommendations
  - Condition Rating of structure

- ***Introduction/Background*** - describes the following:
  - Summary of the type of structure including the body of water, structure information as listed on cover sheet, and description of inspection.

- ***Structure Description*** - describes the following:
  - General description of structure including number of structural elements, manhole and pipe penetrations, abutments, wing walls and type.
  - Whether or not existing drawings or previous inspection reports are available.

- ***Method of Investigation*** – describes the following:
  - Level of inspection performed
  - Inspection data documented
  - Diving operation descriptions
  - Inspection team

- ***Inspection findings*** – describes the following:
  - Stream flow characteristics including velocity, visibility, pipe characteristics, manhole characteristics, pipes entering mainline pipe, wing walls, abutments in and out of water.
  - Documentation describing each structure including all structural elements.
  - Structural data sheets outlining all defects with location, size, description, recommendations for repairs and photo reference.

- ***Invert & Channel Bottom Conditions*** – describes the following:
  - Invert and channel bottom conditions, including debris or drift present and channel

bottom characteristics at inlet and discharge ends.

- ***Evaluation & Recommendations*** – describes the following:
  - Summarizes condition of report based on ASCE UW Investigations Std of Practice No. 101 condition assessment system.
  - Recommendations for way forward; e.g., removing drift or debris, repairs to pipe sections, manhole structures, wing walls, monitoring of defects, etc.

- ***Appendix A Figures*** – describes the following:
  - AutoCad Figure on 11x17
    - Title block with pertinent structure information
    - General notes including, date of inspection, waterline datum and velocity.
    - Structure plan and elevation of the entire pipeline (plan/profile) view showing flow arrow, stationing, north arrow, general notes, inspection notes, condition rating notes, and depth in feet. In addition, plan shall show all manhole structures in relation to the storm sewer horizontal and vertical alignment structure and substructure units.
    - Inspection notes shall be delineated by number and corresponding number to each substructure unit shown on substructure plan.

- ***Appendix B Photographs*** – describes the following:
  - Pertinent photos including:
    - Photos of the structure, water flow and manhole structures.
    - Photos of damaged or distress indications of structural elements.
    - Each photo shall be numbered and accompanied with a detailed description of photo.

- ***Appendix C Existing Drawings or other pertinent information*** –