
THE VILLAGE OF TINLEY PARK
Cook County, Illinois
Will County, Illinois

RESOLUTION
NO. 2018-R-049

**A RESOLUTION APPROVING A CONTRACT BETWEEN THE VILLAGE OF TINLEY PARK
AND M.E. SIMPSON CO. FOR WATER ASSESSMENT PROGRAM**

JACOB C. VANDENBERG, PRESIDENT
KRISTIN A. THIRION, VILLAGE CLERK

MICHAEL J. PANNITTO
BRIAN H. YOUNKER
CYNTHIA A. BERG
WILLIAM P. BRADY
MICHAEL W. GLOTZ
JOHN A. CURRAN
Board of Trustees

RESOLUTION NO. 2018-R-049

A RESOLUTION APPROVING A CONTRACT BETWEEN THE VILLAGE OF TINLEY PARK AND M.E. SIMPSON CO. FOR WATER ASSESSMENT PROGRAM

WHEREAS, the Village of Tinley Park, Cook and Will Counties, Illinois, is a Home Rule Unit pursuant to the Illinois Constitution of 1970; and

WHEREAS, the Corporate Authorities of the Village of Tinley Park, Cook and Will Counties, Illinois, have considered entering into an Agreement with M.E. Simpson Co., a true and correct copy of such Agreement being attached hereto and made a part hereof as **EXHIBIT 1**; and

WHEREAS, the Corporate Authorities of the Village of Tinley Park, Cook and Will Counties, Illinois, have determined that it is in the best interests of said Village of Tinley Park that said Agreement be entered into by the Village of Tinley Park;

NOW, THEREFORE, Be It Resolved by the President and Board of Trustees of the Village of Tinley Park, Cook and Will Counties, Illinois, as follows:

Section 1: The Preambles hereto are hereby made a part of, and operative provisions of, this Resolution as fully as if completely repeated at length herein.

Section 2: That this President and Board of Trustees of the Village of Tinley Park hereby find that it is in the best interests of the Village of Tinley Park and its residents that the aforesaid "Agreement" be entered into and executed by said Village of Tinley Park, with said Agreement to be substantially in the form attached hereto and made a part hereof as **EXHIBIT 1**.

Section 3: That the President and Clerk of the Village of Tinley Park, Cook and Will Counties, Illinois are hereby authorized to execute for and on behalf of said Village of Tinley Park the aforesaid Agreement.

Section 4: That this Resolution shall take effect from and after its adoption and approval.


ADOPTED this 17th day of July, 2018, by the Corporate Authorities of the Village of Tinley Park on a roll call vote as follows:

AYES: Younker, Pannitto, Berg, Brady, Glotz, Curran

NAYS: None

ABSENT: None

APPROVED this 17th day of July, 2018, by the President of the Village of Tinley Park.



Village President

ATTEST:


Deputy Village Clerk

STATE OF ILLINOIS)
COUNTY OF COOK) SS
COUNTY OF WILL)

CERTIFICATE

I, KRISTIN A. THIRION, Village Clerk of the Village of Tinley Park, Counties of Cook and Will and State of Illinois, DO HEREBY CERTIFY that the foregoing is a true and correct copy of Resolution No. 2018-R-049, "A RESOLUTION APPROVING A CONTRACT BETWEEN THE VILLAGE OF TINLEY PARK AND M.E. SIMPSON CO. FOR WATER ASSESSMENT PROGRAM," which was adopted by the President and Board of Trustees of the Village of Tinley Park on July 17, 2018.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of the Village of Tinley Park this _____ day of _____ 2018.

KRISTIN A. THIRION, VILLAGE CLERK

EXHIBIT 1

M.E. SIMPSON CO. AGREEMENT

PROFESSIONAL SERVICES AGREEMENT

This Agreement is made between M.E. Simpson Co, Inc. (hereinafter "Contractor") having its principal place of business at Valparaiso, In, and the Village of Tinley Park, an Illinois home-rule municipal corporation (hereinafter the "Village"; collectively the "Parties"):

Water Assessment Program (Scope of Work set out in Exhibit A)

FOR AND IN CONSIDERATION of their mutual promises, covenants, undertakings and agreements, the parties agree as follows:

- I. Services
 - A. Contractor agrees to provide, as an independent contractor, the professional services included in Exhibit A, attached hereto and made a part hereof, as well as such other or incidental services as may be necessary to carry out said professional services, as well as any other professional services requested by the Village (hereinafter the "Services"). Said Services shall be conducted in accordance with the nationally recognized standards in the industry, the expectations of the Village, and the laws and regulations of the State of Illinois and the Village of Tinley Park. The express terms of this Agreement shall take precedence and control over any term or provision of any Exhibit that in any way conflicts with, differs from, or attempts to alter the terms of this Agreement.
 - B. The Services shall be provided by employees of Contractor, who are experienced, certified, and/or qualified and licensed, to the extent necessary to perform said Services in the State of Illinois.
 - C. It is understood and agreed by the parties that the Contractor is an independent contractor retained for the above-mentioned purpose. The Village shall not control the manner nor the means of the Contractor's performance, but shall be entitled to a work product as described herein. The term "subcontractor" shall mean and include only those hired by and having a direct contract with Contractor for performance of work on the Project. The Village shall have no responsibility to any subcontractor employed by a Contractor for performance of work on the Project, and all subcontractors and material suppliers shall look exclusively to the Contractor for any payments due. The Village will **not** be responsible for reporting or paying employment taxes or other similar levies that may be required by the United States Internal Revenue Service or other State or Federal agencies. Every subcontractor shall be bound by the terms and provisions of this Contract as far as applicable to their work. The Contractor shall be fully responsible to the Village for the acts and omissions of its subcontractors, and shall ensure that any subcontractors perform in accordance with the requirements of this Agreement. Nothing contained herein shall create any contractual or employment relations between any subcontractor and the Village. The Contractor is solely responsible for the safety procedures, programs and methods of its employees and agents and shall hold the Village harmless for any and all damages resulting from violations

thereof. The Contractor shall comply with all applicable federal, State and local safety laws and regulations.

II. COMPENSATION

Contractor will be compensated based upon the fee schedule attached hereto as Exhibit B.

III. INDEMNIFICATION AND HOLD HARMLESS.

Contractor will indemnify and hold harmless, protect and defend, at its own cost and expense, the Village, its officers, officials, Village President and Board of Trustees, agents, employees, volunteers, representatives, assigns, successors, transferees, licensees, invitees, attorneys, or other persons or property standing in the interest of the Village, from any and all risks, lawsuits, actions, damages, losses, expenses (including attorneys' fees), claims, or liabilities of any character, brought because of any death, injuries or damages received or sustained by any person, persons, or property on account of any act, omission, neglect or misconduct of Contractor, its officers, agents and/or employees, including any of its subcontractors, arising out of or in performance of any provision of this Agreement, including any claims or amounts arising or recovered under the Workers' Compensation Act or any other law, ordinance, order or decree.

IV. INSURANCE

During the term of this Agreement, Contractor shall provide and maintain the types of insurance set forth in Exhibit C, written on the comprehensive form and as "occurrence" policies, primary to any insurance of the Village, in not less than the specified amounts.

Contractor shall furnish to the Village, prior to commencing any activities under this Agreement, and annually thereafter, satisfactory proof of the above insurance requirements by a reliable insurance company or companies authorized to do business in Illinois. Such proof shall consist of certificates executed by the respective insurance companies and attached to this Agreement as Exhibit D. Said certificates shall list the Village and its officers, officials, Village President and Board of Trustees, agents, employees, volunteers, representatives, assigns, successors, transferees, licensees, invitees, and attorneys, as additional insureds on all required insurance policies.

V. WARRANTY

Contractor represents and warrants to the Village that it has the experience and ability to perform the services required by this Agreement, that it will perform said services in a professional, competent and timely manner, as represented and suitable for the performance of the Agreement, and that that it has the power to enter into and perform this Agreement.

VI. NOTICE

Except to the extent that verbal notice is otherwise permitted herein, proper notice may be given by personal service or certified or registered mail to:

M.E. Simpson Co., Inc.
3406 Enterprise Avenue
Valparaiso, Indiana 46383

OR TO:

Village of Tinley Park
Village Manager
16250 South Oak Park Avenue
Tinley Park IL. 60477

Notice shall be effective upon the date of receipt by personal service or as evidenced by a valid return receipt. The name and/or address to which notice is required may be amended at any time by written notice to the other party as provided herein.

VII. INTERPRETATION

This Agreement provides for services to be performed within the State of Illinois. Accordingly, this Agreement, and all questions of interpretation, construction and enforcement hereof, and all controversies hereunder, shall be governed by the applicable statutory and common law of the State of Illinois. The parties agree that for the purpose of any litigation relative to this Agreement and its enforcement, venue shall be in the Circuit Court of Cook County, Illinois and the parties consent to the in personam jurisdiction of said Court for any such action or proceeding.

VIII. WAIVER.

The waiver of one party of any breach of this Agreement or the failure of one party to enforce any provisions hereof, shall be limited to the particular instance and shall not operate to bar or be deemed a waiver of enforcing against other or future breaches.

IX. SEVERABILITY

If any provision of this Agreement is found to be invalid, illegal or unenforceable, that provision shall be severable from the rest of this Agreement and the validity, legality and enforceability of the remaining provisions will in no way be affected or impaired.

X. ENTIRE UNDERSTANDING

This Agreement sets forth all of the entire understanding of the parties relative to the subject hereof and supersedes any and all prior agreements, express or implied, oral or written. No amendment or modification of this Agreement shall be effective unless reduced to writing and executed by the parties.

XI. TERM

The effective date of this Agreement is the date the Village executes the agreement by signing below. The Village may terminate this Agreement at any time and for any reason, upon providing twenty-four hours written notice to Contractor. The Agreement shall remain in effect for 12 months from the effective date and shall be automatically renewed for a like term, subject to the right of the Village to cancel this Agreement upon twenty-four hours written notice to Contractor.

IN WITNESS WHEREOF, the Village of Tinley Park and M.E. Simpson Co., Inc. have executed this agreement.

VILLAGE OF TINLEY PARK

M. E. Simpson Co. Inc.

By: 

By: 

Village President

Chief Executive Officer

DATE: July 17, 2018

DATE: 07/23/2018

CERTIFICATIONS BY CONTRACTOR

Eligibility to Contract

The undersigned hereby certifies that the Contractor is not barred from bidding on or entering into this contractor as a result of a violation of either the bid-rigging or bid-rotating provisions of Article 33E of the Criminal Code of 1961, as amended.

M. E. Simpson Co, Inc.

Name of Contractor (please print)

Submitted by (signature)

CEO
Title

Certificate of Compliance with Illinois Human Rights Act

The undersigned hereby certifies that the Contractor is in compliance with Title 7 of the 1964 Civil Rights Act as amended and the Illinois Human Rights Act as amended.

M.E. Simpson Co, Inc.

Name of Contractor (please print)

Submitted by (signature)

CEO
Title

Certificate of Compliance with Illinois Drug-Free Workplace Act

The undersigned, **having 25 or more employees**, does hereby certify pursuant to section 3 of the Illinois Drug Free Workplace Act (30 ILCS 580/3) that it shall provide a drug-free workplace for all employees engaged in the performance of the work under the contract by complying with the requirements of the Illinois Drug-Free Workplace Act and, further certifies, that it is not ineligible for award of this contract by reason of debarment for a violation of the Illinois Drug-Free Workplace Act.

M.E. Simpson Co, Inc.

Name of Contractor (please print)

Submitted by (signature)

CEO
Title

Certificate Regarding Sexual Harassment Policy

The undersigned does hereby certify pursuant to section 2-105 of the Illinois Human Rights Act (775 ILCS 5/2-105) that it has a written sexual harassment policy that includes, at a minimum, the following information: (i) the illegality of sexual harassment; (ii) the definition of sexual harassment under State law; (iii) a description of sexual harassment, utilizing examples; (iv) an internal complaint process including penalties; (v) the legal recourse, investigative and complaint process available through the Department of Human Rights and Human Rights Commission; (vi) direction on how to contact the Department of Human Rights and Human Rights Commission; and (vii) protection against retaliation.

M.E. Simpson Co, Inc.
Name of Contractor (please print)


Submitted by (signature)

CEO
Title

EXHIBIT A

Scope of Professional Services

Part 1 - FIRE HYDRANT ASSESSMENT:

The Village desires the Proposer to develop, plan and execute a program to locate, inspect, assess, operate, record water flowed, mark, grease, create a deliverable database in a format suitable and compatible with the VILLAGE current GIS/Database system platform, and create work orders for fire hydrants. This program will address approximately 1,156 fire hydrants (one-third of fire hydrants) throughout the Village water distribution system.

This work shall essentially consist of the following elements:

- Locations of all fire hydrants in such a manner that will allow their positions to be known and readily re-creatable by Village personnel upon demand.
- Inspection of all fire hydrants for appearance, accessibility, leakage and functionality in accordance with the AWWA M-17 manual, NFPA 291 and ISO requirements.
- Operation of each of the located fire hydrants to such an extent as to insure its ability to operate and fully "flow" upon demand. Adherence to the AWWA M-17 manual, NFPA 291 and ISO requirements is required.
- Compilation of the fire hydrant information collected by means of Pro-Maps™ / Pro-Hydrant® or equal, a fire hydrant online/web based database with hard copy reproduction capabilities. The Pro-Maps™ / Pro-Hydrant® online/web based database is accessible in a majority of GIS systems that support Open Database Connectivity.
- Perform an analysis of the condition and criticality of each fire hydrant. This will be done based on the size of the water mains that feed the fire hydrant; proximity of critical services; location of the fire hydrant in relation to roads or other structures; location of the fire hydrant in relation to water production plants pump stations and/or water towers/storage tanks, and actual operability of the fire hydrant.

Fire Hydrant Location

It is the intent of the Village to maintain a complete and current inventory of the location of all Fire Hydrant attributes in the Village water system.

- The existence of all fire hydrants shown on the water maps will be verified by visual inspection.
- If a new hydrant is located, the fire hydrant shall be marked with for future identification.
- Fire hydrant Attributes will be located in such a manner that allows their positions to be known and readily accessed by Village personnel upon demand.

Fire Hydrant Appearance

- Condition of the paint.
- Verify color correctness, based on the utilities color scheme.
- Note the upright position of the fire hydrant. Note any evidence of being hit by a vehicle.
- Should bollards be installed to protect the fire hydrant? Should the fire hydrant be relocated away from traffic?
- Include in GIS a photo of hydrant in relation to surroundings.

Fire Hydrant Accessibility

- Does the fire hydrant need to be [horizontally] raised, or lowered?
- Do the pumper port and nozzles face the correct direction?
- Does the fire hydrant need to be relocated? Is the soil surrounding the fire hydrant capable of supporting it (important for proper breakaway)?

Fire Hydrant Functionality

- Are the nozzle/pumper threads in working condition?
- Do the nozzle/pumper ports require any maintenance or need to be replaced?
- Does the fire hydrant drain properly (dry-barrel)?
- Is the fire hydrant barrel still dry after pumping out the water and waiting a few minutes?
- Is it difficult to operate?
- Does it provide adequate fire-flow?
- Is the operating nut of the fire hydrant in good condition?
- Have the corners of the operating nut been rounded off (from people using a pipe wrench instead of a fire hydrant key)?
- If it appears that the fire hydrant has been illegally operated, should protective devices be installed to deter vandalism?

Fire Hydrant Inspection and Operation Procedure

- Check the fire hydrants appearance. Condition of paint and proper color-coding should be assessed.
- Does the fire hydrant need raised? Is it accessible and facing the correct direction? Repair or schedule a repair, as necessary.
- Remove one nozzle/pumper cap and, using a listening device, check for main valve leakage. Repair or schedule a repair, as necessary.
- Replace the nozzle/pumper cap, loose enough for air to escape. Open fire hydrant a few turns, allowing air to vent from loose cap. Tighten cap.
- Open fire hydrant fully, checking for ease of operation. Repeatedly exercise the operating stem, as needed, to remove buildup and promote better operation. If lubrication or stem replacement is required, perform or schedule the necessary work.
- With the fire hydrant fully pressurized, check for leakage around the flanges, nozzles/pumpers, seals, and operating nut. Report to Village for repairs and maintenance.
- Partially close the fire hydrant to open the drain outlets, and flush for 10 to 15 seconds.
- Completely close the fire hydrant, and then open it a $\frac{1}{4}$ to $\frac{1}{2}$ to relieve the pressure on the thrust bearing or packing.
- Remove a nozzle/pumper cap, and attach a diffuser. Flush the fire hydrant to remove foreign material.
- Close the fire hydrant and remove the diffuser. Place your hand over the nozzle/pumper to check for suction as the water drains out of the barrel. For no-drain fire hydrants, the water must be pumped from the barrel.
- Check for fire hydrant leakage with a listening device.
- Remove all nozzle/pumper caps and inspect the threads. Clean and apply approved lubricant to caps and nozzles/pumpers.
- Inspect cap chains for binding and ease of movement. Unbind or replace, as necessary.
- Replace the caps and tighten them to the Utilities specification.
- Check operating nut lubrication and maintain as needed.
- Inspect breakaway device for damage.
- Collect or verify GPS location of fire hydrant.
- Notify the Village immediately of inoperable fire hydrants needing major repair.
- Due to the potential condition or deterioration of fire hydrants that may or may not have been operated in the past, the service provider will not be held liable for any assets that fail or break, or the consequences of such failures during the operating

procedures due to pre-existing conditions. Any assets that fail or break during operation will be repaired or replaced by the Village.

- The professional services firm shall notify the Utilities Director of their intent to operate a certain group of water fire hydrants. Permission shall be obtained to perform the work, at least twenty-four (24) hours or one (1) working day in advance of the intended start of that work.

Documentation

The professional services firm will provide a fire hydrant assessment report for each fire hydrant located and provide the information in a fire hydrant report in an electronic format. The information will then be entered into Pro-Maps™ / Pro-Hydrant® or equivalent software. The report shall include, but not be limited to, the following fire hydrant information:

- Location and number.
- Physical damage or defect.
- Obstructions on or around the fire hydrant.
- Fire hydrant outlets face proper direction.
- Minimum 15" clearance between lowest outlet and ground.
- Auxiliary valve is visible.
- Condition of paint – correct color code.
- All outlets are cleaned and lubricated.
- Status: Public, Private, or Non-Potable.
- Static pressure reading is taken.
- Operating stem is exercised and lubricated.
- Fire hydrant reflectors and markers are replaced and/or repaired.

Atlas Corrections and Notations

The Proposer will document and note any corrections needed on the Village's Atlas. The hydrant numbering system approach shall be discussed with the Village Engineer before being prepared. The Proposer shall be responsible to finalizing the hydrant numbering system. These notations shall be documented as a part of the final report so the Village can make corrections to their existing atlas.

Communications & Deliverables

The Proposer is expected to perform the following:

- Conduct a kick-off meeting with the Village to cover the goals of the project and outline work procedures. The field crew will meet daily or as agreed upon, with assigned Village personnel to go over areas of the fire hydrant assessment program for the prior workday, and plan current day and areas to survey.
- At the end of each day, or as requested, a list of any broken or inoperable fire hydrants will be turned in. Critical fire hydrants that may be subject to breakage will be discussed as far as operation PRIOR to exercising to prevent loss of fire protection.
- Each step of the fire hydrant program will be identified and the fire hydrants assessed and operated will be documented in a written fire hydrant report detailing the entire process from start to finish.
- Information collected by the Project Team during the fire hydrant assessment program and any other information provided by the Village shall be regarded as **CONFIDENTIAL** and will not be shared without permission from the Village.
- A fire hydrant assessment log of activity will be included with the final report that will include the following:
 - Areas work performed in
 - Type of problems observed
 - Location of problems discovered
 - Mapping errors on the water atlas
 - Recommendations of fire hydrants installations for better fire suppression control
 - Fire hydrants to be assessed by criticality.
- **A Final report** will be prepared at the completion of the project which will include all fire hydrant assessment reports and other problems found in the system during the course of the fire hydrant assessment program that need the attention of the Water Village. **This final report shall be made available for submission to the Water Department within thirty (30) working days of the completion of the fieldwork.**
- The final deliverable shall be a complete fire hydrant database accessible by the Village "on line" (web based) with appropriate users name and password. This web based system shall be the Pro-Maps™ / Pro-Hydrant® database or equivalent.
- Reports of fire hydrant assessment data shall be available from an export of the database into Excel.

- **If requested**, the Professional Services firm shall present findings of the Fire Hydrant Assessment Program to the Village at a Village Board Meeting at no additional charge.

SERVICES PROVIDED BY THE VILLAGE

- The *Village* will furnish all maps, atlases, (two copies) and records necessary to properly conduct the fire hydrant assessment program
- The *Village* will assist as necessary where traffic control may be extreme.
- The *Village* will also make available, on a reasonable but periodic basis, certain personnel with a working knowledge of the water system who may be helpful with inoperable or difficult to operate fire hydrants and for general information about the water system. *This person will not need to assist the Project Team on a full time basis*, but only on an “as needed” basis.

THE VILLAGE WILL ASSIST, IF NEEDED, TO LOCATE ALL NONMETALLIC PIPES WITHIN THE SERVICE AREA.

SCOPE OF SERVICE (continued)

Part 2 – WATER MAIN CAPACITY:

The Village desires the Proposer to develop, plan and execute a program to perform water main capacity-fire hydrant testing services on the water distribution system. This program will address approximately 694 fire hydrants (one-fifth of fire hydrants based on 5-year contract) throughout the Village water distribution system.

This work shall essentially consist of the following items:

- Locations of all fire hydrants in such a manner that will allow their positions to be known and readily re-creatable by Utility personnel upon demand.
- Inspection of all fire hydrants for appearance, accessibility, leakage, and functionality in accordance with the AWWA M-17 manual, NFPA 291 and ISO requirements.

- Operation of each of the located fire hydrants to such an extent as to insure its ability to operate and fully “flow” upon demand. Adherence to the AWWA M-17 manual, NFPA 291, and ISO requirements is required.

Compilation of the fire hydrant information collected by means of Pro-Hydrant® database or equal, a fire hydrant online/web based database with hard copy reproduction capabilities. The Pro-Hydrant® online/web based database is accessible in a majority of GIS systems that support Open Database Connectivity.

Perform an analysis of the condition and criticality of each fire hydrant based on the size of the water mains that feed the fire hydrant, proximity of critical services; location of the fire hydrant in relation to roads or other structures; location of the fire hydrant in relation to water production plants, pump stations and/or water towers/storage tanks, and actual operability of the fire hydrant.

The Service Provider will submit a written Standard Operating Procedure or SOP for fire hydrant inspections and flow testing. This SOP will include all aspects of the following:

Fire Hydrant Location

Submit a complete and current inventory of the location of all Fire Hydrant attributes identified on the water atlas in the Utility water system.

- The existence of all fire hydrants shown on the water maps will be verified by visual inspection.
- Once located, the fire hydrant shall be marked with for future identification.
- Fire hydrant Attributes will be located in such a manner that allows their positions to be known and readily accessed by Utility personnel upon demand.

Fire Hydrant Inspection and Operation Procedure

The Service Provider will provide an SOP for the inspection and operation of the hydrants in the distribution system. This SOP will have a detailed accounting of all the attributes of the hydrant such as paint condition, potential and/or actual leakage, operability, and any other condition that could possibly hamper the use of that hydrant in an emergency. GPS locations will be taken as part of this program. The GPS shall be map grade, with sub foot accuracy. A description of the GPS system along with all the details of the firm’s demonstrated ability to collect valid GPS points will be included with the submittal.

- Due to the potential condition or deterioration of fire hydrants that may or may not have been operated in the past, the service provider will not be held liable for any assets that fail or break, or the consequences of such failures during the operating

procedures due to pre-existing conditions. Any assets that fail or break during operation will be repaired or replaced by the Utility.

- The professional services firm shall notify the Utilities Director of their intent to operate a certain group of water fire hydrants. Permission shall be obtained to perform the work, at least twenty-four (24) hours or one (1) working day in advance of the intended start of that work.

Documentation

The professional services firm will provide a fire hydrant assessment report for each fire hydrant located and provide the information in a fire hydrant report in an electronic format. The information will then be entered into Pro-Hydrant® or equivalent software. The report shall include, but not be limited to, the following fire hydrant information:

- Location and number.
- Physical damage or defect.
- Obstructions on or around the fire hydrant.
- Fire hydrant outlets face proper direction.
- Minimum ISO defined clearance between lowest outlet and ground.
- Auxiliary valve is present and visible.
- Condition of paint – correct color code.
- All outlets are cleaned and lubricated.
- Hydrant Status: Public, Private, or Non-Potable.
- Static pressure reading is taken for all hydrants.
- Operating stem is exercised and lubricated.
- Fire hydrant reflectors and markers are replaced and/or repaired.

Atlas Corrections and Notations

The Proposer will document and note any corrections needed on the Utility's Atlas. The hydrant numbering system approach shall be discussed with the Village Engineer before being prepared. The Proposer shall be responsible to finalizing the hydrant numbering system. These notations shall be documented as a part of the final report so the Utility can make corrections to their existing atlas.

DOCUMENTATION AND COMMUNICATION

The Proposer is expected to perform the following:

- Conduct a kick-off meeting with the Utility to cover the goals of the project and outline work procedures. The field crew will meet daily or as agreed upon, with assigned Utility personnel to go over areas of the water main capacity-fire hydrant flow testing program for the prior workday, and plan current day and areas to survey.

- At the end of each day, or as requested, a list of any broken or inoperable fire hydrants will be turned in. Critical fire hydrants that may be subject to breakage will be discussed as far as operation PRIOR to exercising to prevent loss of fire protection.
- Each step of the fire hydrant program will be identified and the fire hydrants assessed and operated will be documented in a written fire hydrant report detailing the entire process from start to finish.
- Information collected by the Project Team during the water main capacity-fire hydrant flow testing program and any other information provided by the Utility shall be regarded as **CONFIDENTIAL** and will not be shared without permission from the Utility.
- Pressure gauges to record flow and pressure shall be tested weekly with testing records logged.
- A fire hydrant assessment log of activity will be included with the final report that will include the following;
 - Areas work performed in
 - Type of problems observed
 - Location of problems discovered
 - Mapping errors on the water atlas
 - Recommendations of fire hydrants installations for better fire suppression control
 - Fire hydrants to be assessed by criticality.
- **A Final report** will be prepared at the completion of the project which will include all water main capacity test results, fire hydrant assessment reports and other problems found in the system during the course of the water main capacity-fire hydrant flow testing program that need the attention of the Water Utility. **This final report shall be made available for submission to the Water Department within thirty (30) working days of the completion of the fieldwork.**
- The final deliverable shall be a complete fire hydrant database accessible by the utility "on line" (web based) with appropriate users name and password. This web based system shall be the Pro-Maps™ / Pro-Hydrant® database.
- Reports of fire hydrant assessment data shall be available from an export of the database into Excel.

- **If requested**, the Professional Services firm shall present findings of the Water main capacity-fire hydrant flow testing program to the Village at a Village Board Meeting at no additional charge.

Part 3 - LEAK DETECTION:

The Village desires the Proposer to develop, plan and execute a program to perform leak detection services on the water distribution system. This program will address the Village water distribution system.

This work shall essentially consist of the following elements:

- Complete leak detection of the entire water distribution system through listening to all accessible main line valves, fire hydrants and needed appurtenances to ensure complete coverage of the system.
- Surveying the above appurtenances to locate leaks ensuring that distances between listening points are not greater than 500' on metallic type pipes, not greater than 300' on concrete type pipes and no more than 150' on PVC and HDPE type pipes.
- Collect GPS location of found main line leaks and service leaks.
- Correlation of found leaks.

Compilation of the leak detection information into a complete and comprehensive report.

DETAILED SCOPE

- Listen to all fire hydrants, all main line valves, and when necessary, selected service connections in the entire distribution system. Physical contact with the pipe, valve, hydrant auxiliary valve, hydrant, or service connection.
- Metallic type pipes; listening distances will not exceed 500' between points. I.E.: pipe, valves, hydrant auxiliary valves, hydrants, service valves or meter settings will be used with preference of listening points in order as follows; direct contact with the pipe, main line valves, hydrant valves, hydrants, then service valves or meter settings.
- AC/Concrete type pipe; listening distances will not exceed 300' between points. I.E.: valves, hydrants, service valves or meter settings will be used with preference of listening points in order as follows; direct contact with the pipe, main line valves, hydrant valves, hydrants, then service valves or meter settings.
- PVC and HDPE type pipe; All accessible valves, hydrants, service valves or meter settings will be used with preference of listening points in order as follows; direct

contact with the pipe, main line valves, hydrant valves, hydrants, then service valves or meter settings. Listening distances will not exceed 150'.

- Valve vaults full of water may be pumped down to see the valve nut and bonnet to facilitate listening.
- A "Leak" log shall be maintained indicating all areas where suspected leak noise was heard.
- When leak noise has been detected and or suspected, the Service Provider will verify the suspected area a second time to confirm the noise. At least four hours will pass between the initial listening of the area before a second listen and confirmation is attempted.
- The Service Provider will line locate the water main and service lines in the immediate area so the correct pipe distances can be input into the leak correlator. For Concrete, PVC and HDPE type pipe, locations will be interpolated to the best of the Service Providers ability.
- The leak location will be marked in the field (on the surface) using environmentally formulated Precautionary Blue paint.
- The Service Provider will document all leak locations with a diagram indicating the location of the leak. Other information related to that correlation will be included as part of the field sheet such as the filters used for the correlation, line locations, distances between sensors, etc.
- The Service Provider will report daily or per request of the Utility, to the assigned Utility Manager and go over the progress of the previous day, as well as cover what will be surveyed the current day.
- It may be necessary to conduct parts of the Leak Survey during "off hours" such as at night. This may be required in areas of high traffic volume where traffic noise may affect the ability to detect leak noise, and traffic volume may affect the ability of the Service Provider to be able to safely access main line valves in the middle of the street. The Service Provider will give 24-hour advanced notice of intent to survey a particular area that may require after hours surveying or nighttime surveying.
- *There will be a minimum of Two Persons per team working on the survey at all times.*
- The leak detection equipment to be used will be that which was described in the "Equipment to be used" section.

All Field Staff will have readily observable identification badges worn while in the field.

Atlas Corrections and Notations

The Proposer will document and note any corrections needed on the Utility's Atlas. The numbering system approach shall be discussed with the Village Engineer before being

prepared. The Proposer shall be responsible to finalizing the numbering system. These notations shall be documented as a part of the final report so the Utility can make corrections to their existing atlas.

DOCUMENTATIONS and COMMUNICATIONS

The Proposer is expected to perform the following:

- Conduct a kick-off meeting with the Utility to cover the goals of the project and outline work procedures. The field crew will meet daily or as agreed upon, with assigned Utility personnel to go over areas of the fire hydrant assessment program for the prior workday, and plan current day and areas to survey.
- At the end of each day, or as requested, a list of any leaks located.
 - Location of the leak.
 - Estimation of leak.
- Information collected by the Project Team during the leak detection program and any other information provided by the Utility shall be regarded as **CONFIDENTIAL** and will not be shared without permission from the Utility.
- A leak detection log of activity will be included with the final report that will include the following;
 - *Areas work performed in*
 - *Type of problems observed*
 - *Location of leaks discovered*
 - *Mapping errors on the water atlas*

A Final report will be prepared at the completion of the project which will include all leak location reports and other problems found in the system during the course of the leak detection program that need the attention of the Water Utility. **This final report shall be made available for submission to the Water Department within thirty (30) working days of the completion of the fieldwork.**

If requested, the Professional Services firm shall present findings of the Leak Detection Program to the Village at a Village Board Meeting at no additional charge.