HYDROMAX USA
Advanced Water, Wastewater and Gas Data Collection

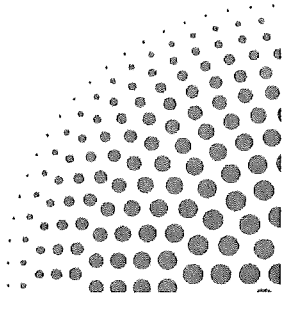
Village of Wellington

Fire Hydrant Service and Repair Quotation (a)

Prepared for Corey Robinson

Prepared by Shane Majetich

April 12th, 2017



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HYDRANT ASSESSMENT AND REMEDIATION QUOTATION

ITEM NUMBER	UNIT OF MEASURE	ITEM DESCRIPTION	QTY	UNIT PRICE	EXTENSION
A1	Each	Hydrant Maintenance (includes scrape, wire brush and paint)	600	$47.00	$28,200.00
A4	Each	Furnish and attach Hydrant ID Tag	0	$12.00	$0.00
A5	Each	Furnish and install reflective road marker	0	$10.00	$0.00
A8	Each	Upper Barrel Repair (Upper barrel only including materials)	0	$250.00	$0.00
A9	Each	Lower Barrel Repair (Lower barrel only including materials)	0	$480.95	$0.00
				Total	$28,200.00

Per Pricing Terms and Condition of Seminole County specification IFB-602347-15/GCM

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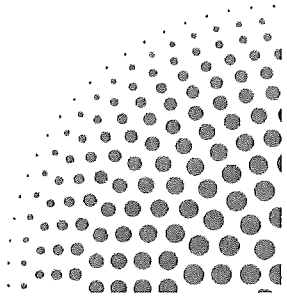

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HYDRANT ASSESSMENT AND REMEDIATION QUOTATION

ITEM NUMBER	UNIT OF MEASURE	ITEM DESCRIPTION	QTY	UNIT PRICE	EXTENSION
A1	Each	Hydrant Maintenance (includes scrape, wire brush and paint)	2400	$47.00	$112,800.00
A4	Each	Furnish and attach Hydrant ID Tag	0	$12.00	$0.00
A5	Each	Furnish and install reflective road marker	0	$10.00	$0.00
A8	Each	Upper Barrel Repair (Upper barrel only including materials)	0	$250.00	$0.00
A9	Each	Lower Barrel Repair (Lower barrel only including materials)	0	$480.95	$0.00
				Total	$112,800.00

Per Pricing Terms and Condition of Seminole County specification IFB-602347-15/GCM

April 12th, 2017

Corey Robinson
Village of Wellington
12300 Forest Hill Blvd
Wellington, FL 33414

RE: Hydrant Assessment/Repair & Related Asset Management Services

Dear Corey:

Hydromax USA is extremely pleased to provide the enclosed Quote in response to your request.

Established in 2003, Hydromax USA is a professional services firm specializing in data collection in support of locating and assessing the condition of the country's aging water, wastewater and natural gas conveyance systems. HUSA's vast experience with new technologies and techniques empowers contractors, engineers and utility owners to make the best rehabilitation decisions regarding their buried infrastructure.

Based upon a strong record of performance, our customers have recognized that HUSA brings a unique ability to meet their needs for advanced data collection. We work from coast to coast covering the entire United States, without exception. Hydromax USA utilizes the largest array of technologies, within one company, to provide the broadest capability in the country to assess buried infrastructure.

Our in-house crews and project managers have first-hand experience working with buried infrastructure for water, wastewater, and gas systems.

We have 16 full-time GIS professionals in our data center that specialize in client information management, condition assessment program analytics, and customer reporting.

Our proven processes and best practices in the areas of progress reporting, risk management and quality assurance help us to plan for and deliver projects on-time and within budget.

Our team continues to be excited about this opportunity and looks forward to working with you and the other members of the Wellington team in the weeks and months ahead. Should you have any questions regarding the enclosed proposal, please do not hesitate to contact me directly at (813) 305-6610.

Thank you again for your time and consideration.

Sincerely,

Shane Majetich

Shane Majetich
Manager, National Water Distribution Services
2500 Drane Field Road, Ste 204
Lakeland, FL 33811
813.305.6610
shane.majetich@hydromaxusa.com

Corporate Office and Data Center
11420 Watterson Ct, Suite 1100
Louisville, KY 40299
877-389-2227
www.hydromaxusa.com

INTRODUCTION

WELCOME TO HYDROMAX USA, A UNIQUE ORGANIZATION PROVIDING ESSENTIAL SERVICES FOR UTILITIES ACROSS AMERICA.

Our Solutions are designed to maximize the value of our customer's water products and services by optimizing water distribution system performance and reliability, minimizing delivery costs, controlling water loss, and enhancing water quality.

Our Team has performed infrastructure condition assessment programs that have evaluated *hundreds of thousands* of water distribution system assets, helped clients recover *millions of gallons* in lost water, and provided information management services for improvement of system models and development of GIS integrated solutions for utilities across the United States. Our customers consider us a part of their team and appreciate our genuine sense of accountability in meeting their goals. No matter how large or small your needs are, our professionals are ready to exceed your expectations.

HYDRANT ASSESSMENT AND MAINTENANCE PROGRAM

Hydromax USA's Water Distribution Services Team has built a reputation for the quality of our hydrant maintenance programs. Our capabilities have allowed us the opportunity to provide assessments and GIS services to utilities throughout the US ranging from a few thousand assets to tens of thousands of assets. Following is a summary of Hydromax USA's project understanding and approach.

Hydrant Assessment and Maintenance

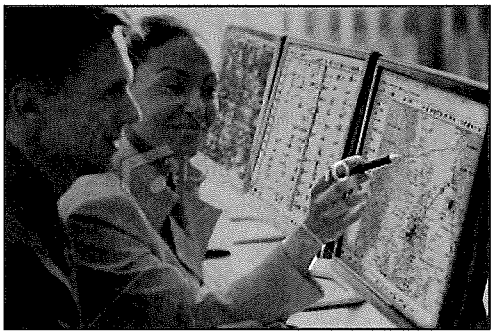
Hydrant maintenance is an essential part of good distribution system management. Few things can harm a utility's reputation so quickly as a fire hydrant that does not work in an emergency.

Annual system-wide hydrant maintenance can help to improve the utility's ISO rating. It is also a visible sign to the public that the utility is "on the job" making sure fire hydrants are in working order to protect their property and personal safety. Annual hydrant maintenance can also play a vital part in maintaining water quality when incorporated into an organized flushing program. Hydromax USA's hydrant assessment and maintenance program is designed to comply with AWWA standards (including publication M17 – Installation, Field testing, and Maintenance of Fire Hydrants) and meet the requirements of oversight environmental agencies. Hydromax USA works to develop a comprehensive hydrant assessment and maintenance program that meets the individual needs of each utility.

Hydromax USA will develop an overall schedule of work to be approved by The Client, prior to commencement of work. HUSA will also provide all spatial and feature class attribute data collected, metadata, including a detailed citation describing field data collection practices, equipment settings, post processing procedures, base stations used for differential correction and expected accuracy will be submitted with final and interim data deliveries.

Hydromax USA has the ability to perform required repairs in order to bring hydrants in the system to 100% operability. Aforementioned repairs will be captured and HUSA will work with the utility to provide this data in a format suitable for client documentation in the GIS systems.

Hydromax USA will also evaluate and analyze the results of the hydrant assessment program and develop an evaluation report for The Client. The evaluation report will include an analysis of the results of the program, findings and recommendations. The following deliverable reports will be provided to The Client.



- Validated compliant database
- Annotated maps which depict the program area
- A list of recommended hydrant repairs
- Work orders for these repairs
- Repair Services

Project Management Support

Hydromax USA employs a critical path project approach utilizing PMI principles and philosophies. This is designed to ensure a continuum of the following:

- Management of key decisions and milestones during this project.

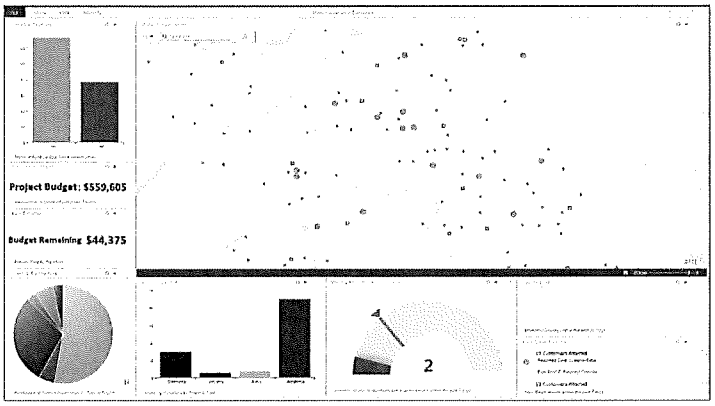
- Preparation of initial project development plan (including the schedule of work tasks and key personnel to perform the work in the field to meet the milestones and objectives)
- Coordination of communications and meetings with the Utility as needed or requested to review technical concepts and alternatives, gathering staff feedback and coordinating activities with the project team.
- Oversight of the execution and development of the project deliverables.

This comprehensive approach is not just employed by the project manager who owns it, but each member of the support team and field crew in order to provide superior hydrant assessment service.

Project Scheduling / Project Reporting

Hydromax USA will prepare a formal project schedule for review and approval by The Client. Hydromax USA uses two primary methods to communicate project planning and project management. Project plans are formally prepared using MS Project and distributed to the project team for approval and coordination. If the project includes geographic assignments, the project schedule is updated to include this information for stakeholders inside and outside the municipality. Often this information is communicated to customer service to address customer questions regarding Hydromax staff field personnel performing assigned activities.

Hydromax utilizes our custom HUSA Operations Dashboard to provide client management real time access to field activity and program results. The dashboard will provide a vehicle for Hydromax to provide program metrics to the Utility on a daily basis and will form the foundation for monthly progress reporting. The Utility will be able to see detailed physical and operational conditions as they are found by our field crews.



Responsiveness – Routine, Urgent, Emergency

The Hydromax team is fully poised to deliver and mobilize the necessary equipment for this program's operational needs. Most importantly our Tampa Hydromax facility holds the ability to quickly mobilize a vast array of equipment to support the needs of the Utility during conditions where the ability to serve the public is in jeopardy or has been compromised. The utility's operations teams will have access to Hydromax teams for unscheduled activities as the contract requires. Phone information will be available for the on-site Project Lead and Operations Manager as well as the Manager of National Water Distribution Services to ensure access to the full complement of resources that Hydromax can bring to bear if needed. Our field technicians will be based out of our Tampa, FL office for the term of the project and will be able to respond appropriately as needed.

HYDRANT MAINTENANCE AND ASSESSMENT ACTIVITIES

HUSA is responsible for obtaining all permits, approvals, etc, required by any other governmental agency having jurisdiction, including the County. HUSA will follow the minimum requirements set forth in these specifications. All work will comply with all applicable provisions and standards of the following recognized entities: State and local building and plumbing codes, American National Standards Institute® (ANSI®), American Water Works Association® (AWWA®), Florida Department of Environmental Protection (FDEP), National Sanitation Foundation® (NSF®), US Environmental Protection Agency (EPA), US Food and Drug Administration (FDA) and the US Occupational Safety and Health Administration (OSHA).

Fire Hydrant Maintenance and Assessment (per Seminole County specification IFB-602347-15/GCM)

- Locate and access each fire hydrant
- Locate access and exercise fire hydrant isolation valve
- Check fire hydrant nozzle height for correct ground clearance
- Identify make, model, nozzle size and year of hydrant manufacture
- Lubricate operating nut (if appropriate for hydrant make/model) and all nozzle outlets with noncorrosive FDA approved lubricant
- Open hydrant with nozzle caps in place to check for seal leakage
- Verify that hydrant main (bottom) valve completely closes
- Flow hydrant to maximum rate for 15 minutes, record working pressure and calculate flow rate and gallons flushed. If hydrant fails to flow clear in the initial 15 minute flush, contact client.
- Continue to flow hydrant until water clears, checking in 15 minute increments. The use of a calibrated combination pitot gauge and hydrant diffuser is required for all hydrant flushing.
- Close hydrant completely. Back off the opening nut enough to take the pressure off the packing.
- Remove all outlet nozzle caps, clean the threads, check the condition of the gaskets replace as required, and lubricate the threads. Check the ease of operation of each cap.
- Check outlet nozzle chains for free action on each cap. If the chains bind, open the loop end around the cap until they move freely.
- Record static pressure
- Re-attach hydrant nozzle caps
- Scrape, wire brush/or sand blast and paint hydrant appropriate color. Paint shall be Sherwin-Williams Industrial Marine Coatings, ANSI Safety Yellow, Pantone 109 or approved equal.
- Coating shall be spray applied to a minimum of a 4 ml dry coat thickness.
- Replace (if defective) hydrant ID tag, or install (if not present) hydrant ID tag. – Separate Line Item Charge
- Replace (if defective) blue reflective road marker, or install (if not present) blue reflective road marker. Reflective pavement markers in blue shall be used to identify the hydrant locations. Each marker is to be placed on the center line of the roadway lane closest to the hydrant. – Separate Line Item Charge
- Obtain and record GPS site coordinates of hydrant.
- Document any operational deficiencies and/or miscellaneous findings.
    - Notification of all malfunctioning and/or out of service hydrants or valves shall be immediately reported to client.
    - Document all pertinent data into an electronic spreadsheet or database including the following:
    - Hydrant ID tag number
    - Hydrant address location
    - Hydrant GPS site coordinates

  - Date of flush or service
  - Hydrant brand
  - Hydrant model number
  - Hydrant year
  - Hydrant size
  - Hydrant flow rate obtained
  - Hydrant pressure after 5 minutes of flushing
  - Total gallons flushed during service
  - Degree of operating difficulty
  - Deficiencies and/or repairs required to be immediately reported to the Utility.
- Data shall be delivered to the client in an electronic format compatible with ArcGIS/ArcMap system or SQL database.

Fire Hydrant Upper Barrel Repair (per Seminole County specification IFB-602347-15/GCM)

Upper Barrel Repair: An upper bonnet repair shall consist of repairing and/or replacing all necessary components within the upper portions of the hydrant, from the operating nut downwards to the top of the break away (upper barrel) flange, in order to return hydrant to working order. Hydrant rotation shall also be considered as an upper barrel repair.

Fire Hydrant Lower Barrel Repair (per Seminole County specification IFB-602347-15/GCM)

Lower Barrel Repair: A lower barrel repair shall consist of repairing and/or replacing all necessary components of the hydrant from the top of the break away (upper barrel) flange to the bottom of the hydrant foot valve in order to return hydrant to working order. Hydromax receives the data from Utilis ready for final correlation and can provide multiple options for completion of the leak verification and locating process.

GEOSPATIAL DATA MANAGEMENT

All the water distribution hydrants encountered in this contract are to be GPS mapped within sub-foot accuracy and the data delivered in a spatially accurate file compatible with The Client's existing enterprise system software. Coordinate data shall be field collected with autonomous GPS readings and subsequently differentially corrected via post-processing. HUSA shall further refine positions through filtering and inspection to eliminate noise, problematic satellite geometry and multi-path degradation. Point features will be collected at an epoch of 1 second with a minimum occupation of 30 seconds. Differential Post-processing of raw field collection data will be performed to achieve the desired positional accuracy described above. A minimum of (4) qualified GPS Base stations, within 100Km and as equally dispersed around the project site, will be identified, utilized and recorded in the GIS Meta-data.

Data Attribution – Hydrant Feature Class

Documentation data will be collected on each distribution hydrant and will be agreed upon with The Client in advance of work startup. Data documentation will include, at a minimum:
Location data - Mapping grade GPS coordinate data parameters as noted in the GPS mapping section.
Discrepancies - Details on discrepancies so that a work order (as described below) can be concisely created.

Physical data - Hydrant:

A Unique Identification Number	Date of Operation
Fire Hydrant source main size	Fire Hydrant Manufacturer
Fire Hydrant Year	Boolean indicting whether drained
Boolean indicating whether operated	Close Direction
Number of Turns	Fire Hydrant Condition (operable/inoperable)

Boolean indicating whether adequate flow observed
Address information submitted will conform to NENA standards

Deliverable Database – Hydrant Inventory Feature Classes

Hydromax USA will provide applicable hydrant data in a spatially accurate format compliant with the Utility's existing data structure in a format that will fully integrate into ESRI systems. Before field operations commence, a meeting to be attended by HUSA and The Client will be held to reach alignment on specific data schemas to be employed. It is at this juncture that HUSA and The Client will reach agreement on which specific features will be collected, the format this feature data will conform to, and the final resting place for all collected information within the Client data infrastructure so that it can be appropriately mapped and accessed by the utility staff.

Deliverable Database – Hydrant inspection Object Tables

Hydrant Inspection attributes will be provided in an Object Table to be related to the Inventory Feature classes by a Relationship Class built on a unique Feature ID. This relationship class will be built on a 1 to many basis to account for additional future inspections. HUSA will maintains an understanding of building and maintaining GIS Relationship Class objects and will provide recommendations for inspection data attributes to be collected.

Deliverable Database – GPS Location Object Table

Locational data, including GPS related attributes and coordinate data is to be delivered in a related GIS Object Table. This data is to be related using a GIS Relationship Class using a 1 to 1 relationship using the unique Feature ID. No orphaned records will be accepted.

Work Order Data – Hydrants

HUSA will create a report documenting repairs completed in order to bring the hydrants in the system up to 100% operability.

GIS Meta-Data

HUSA will complete and provide Meta-Data built on the ESRI platform, for delivered GIS product. This Meta-Data will include: complete provider contact information, a detailed citation describing field data collection practices; equipment settings; post processing procedures; base stations used for differential correction; spatial coordinate reference and expected accuracy