

SOUTH ORANGE VILLAGE
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RESOLUTION #2021-243

September 13, 2021

RESOLUTION ACCEPTING AND AUTHORIZING THE PROPOSAL AND TASK ORDER 2021-04 OF HDR, INC. FOR ADDITIONAL PROFESSIONAL ENGINEERING SERVICES TO ENGINEER, SUPPORT AND PROJECT MANAGE THE CREST DRIVE TANK REPLACEMENT AND VARIOUS CRITICAL WATER INFRASTRUCTURE IMPROVEMENT PROJECTS IN AN AMOUNT NOT TO EXCEED \$422,540.00

WHEREAS, the Township of South Orange Village (the "Village") has a need for professional engineering services; and

WHEREAS, HDR, Inc. is experienced and qualified in providing the needed engineering services and was previously contracted by the Village, through Village Counsel, to provide consulting services; and

WHEREAS, the Village has received from HDR, Inc. Task Order 2021-04 for additional services by HDR, Inc. to engineer, support and project manage the Crest Drive Tank Replacement and Various Critical Water Infrastructure Improvements which fulfill and correct deficiencies as reported by the DEP and resolve critical system exposures so as to meet the Water System operational objectives; and

WHEREAS, as a result of prior consulting services, the HDR, Inc. services in the attached Task Order 2021-04 constitute Additional Professional Services pursuant to §27-23.B of the Village Code as amended; and

WHEREAS, the Village Treasurer has certified below that the funds are available for this contract.

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of the Township of South Orange Village that it hereby accepts authorizes Task Order 2021-04 and awards a contract to HDR, Inc. in an amount not to exceed \$422,540.00; and

BE IT FURTHER RESOLVED that the Village President or Village Administrator and Village Clerk are hereby authorized to execute a Task/contract for said services in a form approved by Village Counsel.

CERTIFICATION OF AVAILABLE FUNDS

As required by N.J.S.A. 40A:4-57, N.J.A.C. 5:34-5.1 et seq. and any other applicable requirement, I, Gregory Bock, Village Treasurer of the Township of South Orange



Village, have ascertained that there are available sufficient uncommitted funds in the line item specified below to award the contract specified in the above resolution, in the amount specified below. I further certify that I will encumber these finds upon the passage of this resolution.

06-2150-18-2800-000 Crest Dive Standpipe NTE \$ 422,540.00
 Line Item Description Amount

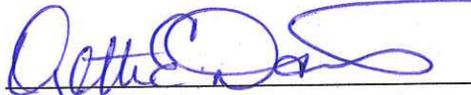
 Gregory Bock, Village Treasurer 9/13/21

 Date

Trustee Member	Motion	Second	Ayes	Nays	Abstain	Absent
Brown			X			
Coallier			X			
Haskins			X			
Hartshorn Hilton		X	X			
Jones			X			
Zuckerman	X		X			

CERTIFICATION

I, Ojetti E. Davis, Acting Village Clerk of the Township of South Orange Village, County of Essex, State of New Jersey, do hereby certify that this is a true and correct copy of the Resolution adopted by the Board of Trustees at their regular meeting held on Monday, September 13, 2021.


 Ojetti E. Davis
 Acting Village Clerk

TASK ORDER AMENDMENT

ADDITIONAL ENGINEERING SERVICES

IN SUPPORT OF

CREST DRIVE WATER TANK REPLACEMENT AND VARIOUS CRITICAL WATER INFRASTRUCTURE IMPROVEMENT PROJECTS

Background: This agreement is for additional engineering services in support of Crest Drive Standpipe Replacement Project and critical water infrastructure improvements and is an amendment to the Task Order dated June 8, 2017, included as **Attachment 1**.

PART 1.0 PROJECT DESCRIPTION

The intent of this project is to provide professional engineering and design services for a new standpipe system to replace the existing 1.5 million gallon (MG) Crest Drive water storage tank that is a critical element to the Township of South Orange Village (Village) water distribution system. In addition, this amended scope addresses critical water infrastructure improvements that are necessary as part of the Crest water tank replacement to provide system redundancy, improved reliability and emergency interconnects to ensure uninterrupted water supply to the Village during the Crest project.

In consultation with the Owner, the following water infrastructure resiliency and sustainability projects and scope of services has been added to the Crest Drive Water Tank Replacement Project. **These projects have been added to the project to provide enhanced reliability, resiliency, and redundancy at strategic locations in South Orange water distribution system so as to provide transition infrastructure for project implementation.**

1. South Orange Avenue (SOA) Pump Station Improvements

- a. Replace the existing pumps that supply water to Crest Drive Tank with larger 75 HP pumps to facilitate lifting water to the future, taller Crest Drive Tank hydraulic grade line (HGL) at greater pumping rate than today to allow optimized tank refilling, i.e., tank refilling at night (off-peak) when electrical demands and associated rates are lower.
- b. Hydraulic modeling to support larger pump selection, dedicated water main to Crest Drive Tank and elevated HGL.
- c. Replace Pump suction & discharge piping, connections, fittings, isolation valves and discharge check valves.
- d. Remove existing and install new electrical cabinets, motor control centers and variable frequency drives (VFDs), *(transition to new generator – attach to current MCC's, test, and remove)*
- e. Add an automatic transfer switch for standby power generator *(should be integrated in generator cabinet as well as PSEG CT & Meter)*
- f. *Provide grid backup to 6" main supply to The Top and The Newstead.*
- g. Remove existing emergency generator and add a new larger generator including foundation, sound / security enclosure adjacent to the *west side of reservoir* and landscaping plan
- h. Security monitoring of station, fencing surrounding the perimeter;
- i. Upgrade / replace existing station heating / ventilation for incremental heat load associated with larger pumps and electrical equipment including replacing the motorized fresh air louvers.

- j. *Repair and restoration of existing building due to generator removal*

2. Water Main Reinforcements

- a. Prepare Discovery Specification for full utility mark-out field survey of subsurface utilities w/ vacuum excavates for depths at critical locations of pipe crossings
 - i. Obtain and review quotes for survey and utility locating (up to three quotes)
 - ii. Field coordination with selected firm
 - iii. Review of survey drawing
 - iv. Provide summary report
- b. New, larger diameter *dedicated* water main to deliver water from the South Orange Avenue PS up to the Crest Drive tank site
- c. New *dedicated* water main connections at the reservoir to provide redundant supply at two locations from NJAW's 16 inch main in South Orange Avenue (*providing mixing*)
- d. Acquisition of water easement at 32 Crest Drive (Note: Survey already included in Task Order 2021-03)
- e. Provide grid backup to 6" main supply to The Top and Newstead (*converted to Mountain Zone*)

3. EOWC Emergency Interconnect Activation

- a. Develop a Standard Operating Procedure (SOP) for the reactivation of the EOWC (East Orange Water Commission) Emergency Interconnect. Coordinate with the Village, NJAW and EOWC on available capacity EOWC can provide and coordinate necessary I&C/SCADA improvements
 - i. Identify instruments and equipment needed at EOWC meter vault and control valve (automatic 12" BFV) vault to read flow rate and reservoir level and integrate to EOWC SCADA system
 - ii. Identify instruments and equipment needed for NJAW to read flow measurement and provide level readings to EOWC
- b. Deliverables - General site plan, P&ID drawing and SOP

4. Pressure Reducing Valve (PRV) Stations and System Zonal Valves using hydraulic modeling scenarios

- a. High / Low zone boundary
 - i. Replace three PRV vaults
 - ii. Abandon three PRV vaults
- b. Mountain / High zone boundary
 - i. Replace the one PRV vault (*currently be implemented*)
- c. WQAA Prioritization of Valves
 - i. Weekly coordination calls with Village/NJAW
 - ii. Field book preparation, updates and mark-ups to identify priority valve replacements to meet WQAA requirements

5. Interconnect Improvements

- a. Decommission the City of Newark *interconnection*
- b. New Lenox Connection from NJAW 16" supply main
 - i. Hydraulic analysis and site evaluation

- ii. Connection and Control Valve Vault Design and Permitting
- c. Decommission Walton & Audley Interconnect (Farrell Field) – *EOWC & NJAW (vault/PS & mains)*
- d. Luddington PS and Interconnect Improvements (Phase 2) – *(support High & Mountain Zones)*
 - iii. Site Alternatives Evaluation
 - iv. Pump Station Design and Permitting
 - v. Bidding Assistance

PART 2.0 ENGINEER'S SCOPE OF SERVICES

The task details associated with the additional scope are presented as **Attachment 2**.

PART 3.0 OWNER'S RESPONSIBILITIES

Owner authorizes this Task Order Amendment request and provides Engineer and its sub-consultants with access to the past reports, records, and other relevant project data.

PART 4.0 PERIODS OF SERVICE

According to the Owner's recently developed Water Strategic Plan, these improvements will be designed, permitted and submitted for NJIB financing. The design and construction of these projects will be phased over a 24 to 36 month period as noted in **Attachment 3**.

PART 5.0 ENGINEER'S FEE

The additional, lump sum not -to-exceed fees associated with this Task order Refer to **Attachment 4** - Engineering fees.

Authorization:

Township of South Orange Village

HDR Engineering Inc.

By: _____

By: _____

Print: _____

Print: _____

Title: _____

Title: _____

Date: _____

Date: _____

ATTACHMENT 2

DETAILED SCOPE OF WORK FOR TASK ORDER AMENDMENT 1

CREST DRIVE WATER TANK REPLACEMENT AND VARIOUS CRITICAL WATER INFRASTRUCTURE IMPROVEMENT PROJECTS

Technical Project Management and Administrative Support

We have added time to provide Project management and administrative oversight for the increased scope for the following activities:

- Modifying the project schedule (Gantt Chart) and coordinating the project activities to achieve the Owner's requested phased construction schedule
- Coordination and communication with Owner and sub consultants for the expanded site survey and additional geotechnical borings;
- Preparing for and responding to comments from review meetings with key stakeholders – NJDEP, NJIB, Essex County and NJAW (as licensed operator).
- Participation in Owner's progress meetings and separate weekly coordination meetings with NJAW.

Permitting and NJ IB Application Process

There will be additional regulatory agency reviews and associated permitting with the increased scope as noted below:

- Hudson Essex Passaic Soil Conservation District Permit –application and supporting details expanded
- Essex County Engineering Department review and approval of
 - Work within a County road (Wyoming Avenue, South Orange Avenue, Irvington Avenue, and other PRV locations),
 - Maintenance of Traffic plans for work within and along shoulder and sidewalk fronting South Orange Avenue Reservoir and Pump Station and Wyoming Avenue between Blanchard to Luddington.
 - Maintenance of Traffic plans for interconnect and PRV improvements.
- NJDEP Bureau of Water System Engineering, Construct, Modify, Operate a Public Works Permit for improvements at South Orange Avenue Reservoir, Pump Station, PRV piping / vault replacements, PRV abandonments, City of Newark interconnect inactivation and removal from interconnection registry, Walton & Audley Interconnect ~~upgrade~~ *inactivation and removal from interconnection registry*.
- PSEG Electrical and Gas Service Upgraded Service coordination and application
- Technical application, agency interaction and document revisions based on NJDEP / NJIB comments for the additional scope items including
 - Environmental, cultural and historic preservation surveys and, developing reports, for improvements along South Orange Avenue Reservoir and Pump Station.

Design Document Development

The specific tasks related to the increased scope are noted below. Three separate design and bid packages will be prepared (refer to Drawing Lists for contents each bid package). Coordinated work sequencing plan is also provided.

South Orange Ave PS Improvements/Water Main Reinforcements to Support Crest Tank Replacement Project (refer to Table 1 and 2)

- Expand hydraulic modeling to guide larger pump selection at South Orange Avenue Pump Station and dedicated supply main to Crest Drive tank site
- Prepare plans, section views for new 75 HP pumps and inlet and outlet piping connections
- Provide structural plans, section views and details for enlarged pump bases and wall penetrations for at South Orange PS
- Provide drawings and details for electrical, *generator sizing to accommodate upgraded equipment and to provide full backup of PS*, instrumentation and controls and new electrical service to support new 75 HP pumps, including VFDs, MCC and transfer switch equipment at the Pump Station
- Prepare demo plans for existing pumps, inlet and outlet piping and electrical *distribution*
- Prepare plan and details for new electric operated intake louvers in PS electrical room and upgrade the station ventilation system for increased heat load associated with larger pumps and electrical gear.
- Prepare site plan and plan and section views for new natural gas generator including route for conduits
- Prepare plan and profile of new supply main from NJAW and EOWC interconnects to South Orange Reservoir
- Provide topo and utility survey along new dedicated supply main corridor
- Prepare plan and profile drawings for new dedicated supply main from South Orange Ave. PS to Crest Drive tank site (approx. 800 lf)
- Prepare Maintenance of Traffic (MOT) plans for water main installation along South Orange Avenue and project improvements that front South Orange Avenue for the Reservoir and Pump Station upgrades
- Prepare encroachment permit package for Essex County approval
- Prepare security monitoring plans and details for the Pump Station and new fencing around the Reservoir perimeter
- Perform geotechnical borings at generator location and along supply main route (3 total) *and electrical conduit*
- Prepare plan and details to add two (2) VFDs at Crest Drive PS (Newstead Sphere supply) *and installation of new meter with interface to NJAW scada system and act as district meter to the AMI system.*
- Prepare easement plat and metes and bounds description for one easement parcel at 32 Crest Drive
- Prepare detailed landscaping plan including schedule of plantings at tank site
- Prepare renderings (various views) showing existing tank and new tank (*color specification*)
- Demolition of Old Tank and control and remediation plans for environment issues, *transition and testing phase in and piping reconfiguration.*
- Prepare remediation plan to remove contaminated soil at tank site
- Expand the Engineer's Basis of Design Report to incorporate the additional tasks
- Continued coordination with local residents in vicinity of Crest Tank project.

Pressure Reducing Valve (PRV) Stations and System Zonal Valves (Refer to Table 3)

- Prepare plan and section details to replace three(3) pressure reducing valve (PRV) stations and MOTs plan to perform the work (3 Sheets) (*based on hydraulic analysis and risk assessment – may be modified*)
- Prepare demolition and piping replacement plan to replace three (3) existing PRVs with zone boundary valves, including MOT requirements (Sheets 3)
- Provide limited site survey at six (6) PRV sites to supplement aerial photography

Interconnect Improvements (Refer to Table 3): To provide enhanced reliability, resiliency, and redundancy at strategic locations.

1.) Luddington PS and Interconnect (NJAW supplier)

Hydraulic modeling and hydrant flow testing provided by NJAW indicated up to 250 gpm can be provided at this interconnect. A preliminary review of the existing water infrastructure along this area shows that it is feasible with piping improvements and new booster pump station for this interconnect to provide back-up /emergency water supply to the Mountain and High Service pressure zones. The Village has decided to move forward with developing this project. The scope of services to support this project includes:

Task 1 – Site Alternatives Evaluation

- Prepare 11x17 Site Plan for up to 3 potential locations for the pump station. Site plan to include Road ROW, proposed piping improvements, approximate location/area needed for Luddington pump station
- ROW research/GIS based on obtaining available maps of existing utilities (no field verification included)
- Provide Class 5 Cost Estimate for each location (3)
- Prepare technical memorandum summarizing advantages/disadvantages of each site with recommendation for location.
- Village to reach out and coordinate with homeowner, if easement required.
- Provide preliminary submittal to agency with jurisdiction over roadway.

Task 2 – Pump Station Design and Permitting

- For the selected site: includes \$12,000 Allowance for Site Survey.
- Includes up to two geotechnical borings for bearing capacity evaluation (\$5,000 Allowance included)
- New Easement:
- Prepare easement plat
- Plat attached deed of easement to convey easement rights to South Orange
- Develop plans and specifications for pre-engineered packages pump station. Vendor to provide drawings for packaged system. HDR to provide
 - Site Plan (1 Sheet)
 - Plans and Sections for Pump Station (1 Sheet)
 - Piping Plan and Profile (2 Sheets: from supply to pump station, from discharge to tie-in piping)
 - Electrical and I&C (1 Sheet)
 - MOT plan (1 Sheet)
- Provide Functional Descriptions to coordinate with NJAW to provide SCADA panel integration
- Assumes sump pump discharge to surface
- Provide Environmental and Cultural Resources Evaluations and NJIB funding support

2.) New Lenox Connection from NJAW 16" Supply Main

A hydraulic evaluation would be performed to determine the benefits, operating parameters and location for adding a new connection from the NJAW 16" supply main to the South Orange water main along Lenox. The water provided from this connection is already metered the NJAW pumping station so a new interconnect agreement would not be required. The scope includes the following:

Task 1 – Hydraulic Modeling

- Determine location, available flow rate and pressure for the new connection;
- Determine operating parameter for new electrically/hydraulically operated control valve, that is required for the connection, to ensure the SO system is not over pressurized and the available flowrate

Task 2 – New Lenox Connection Design and Permitting

- Perform site survey (\$5,000 allowance)
- Prepare site plan
- Prepare plan and section views for control valve vault
- Prepare MOT plan
- Prepare electrical, I & C sheets
- Submit permit packages

3.) Walton and Audley (Farrell Field) Interconnect (NJAW and EOWC Supplier)

This interconnect would be decommissioned, and the pump station and meter chambers abandoned in place. Yard piping would be revised to ensures South Orange WMs continue toward the DPW yard.

Task 1 – Design and Plans

- Site and piping improvement plans
- Decommissioning plans and filings with DEP

4.) Holland Road Interconnect (City of Newark Supplier)

This interconnect includes a below grade pump station chamber. Because of water quality concerns and no significant hydraulic benefit as back-up the Village has decided to decommission and abandon this interconnect. HDR will provide site survey to show existing water main and utilities. Proposed cut and cap on piping to isolate interconnect will provided. HDR to provide:

- A site plan and restoration plan (1 sheet)
- MOT plan (1 sheet)
- Demolition plan and sections (1 sheet) and filings with DEP
(Advanced from March 2016 preliminary drawing)

Document all main changes into main tracking program (WQAA requirement)

Work Sequencing Plan

The above referenced improvements will be designed, permitted, submitted for NJIB financing and constructed in phases as the following projects:

- South Orange Ave PS Improvements/Water Main Reinforcements
- Crest Drive Tank Replacement (Original Task Order)
- PRV and Zonal Valve Replacements/Interconnect Improvements
 - Luddington PS and Interconnect Piping
 - Audley and Walton Interconnect (Farrell Field) and PS Improvements (to be decommissioned)
 - PRV Replacements and Decommissioning
 - Holland Rd Interconnect Decommissioning
 - NJAW 16" to 12" main

Detailed work sequencing is anticipated to follow the following:

1.) Generator Upgrade

Site Survey

Design and construct and install on platform

PSEG Electric & Gas new location application

Equipment specification including transfer switch gear

Trench and run conduit to Pump Station

Switch power source

Decommission old generator and remove from pump station

Determine if it can be relocated to the DPW

Install new pump MCC's (with VFD's) and wiring

Repair building

Install temporary pump

2.) Piping design

New feeds to Reservoir (Direct NJAW 16")

New pump/main, temporary pump, metering, SCADA and transition to new SOA mains

Crest Drive reconfiguration

3.) Installation of new 16" Crest supply main

Site Survey

Easement - 32 Crest Drive

Contract for installation of main

4.) Construction of new Crest Drive Water Tank

5.) Crest Drive pump station

Installation of VFD's

Cut in new meter in piping in chase

Determine need for third pump and if should be decommissioned

Transfer to new Crest tank and demolition of old tank.

The anticipated project schedule for the design and construction of these projects is shown in **Attachment 3**.

The net impact of increased scope for the Crest tank design and critical water infrastructure improvements will add 51 design drawings for a total of 75 sheets, as noted in tables 1-3 below.

APPROXIMATE NUMBER OF DRAWINGS

Table 1 - South Orange Ave Pump Station Improvements/Water Main Reinforcements

	<u>Letter</u>	<u>Sheet</u>	<u>Title</u>
<u>General</u>	G	1	Title Sheet, Index of Drawings, Location Map
		2	Overall Site Plan (Include Crest Drive Site, Fill Line and South Orange PS Site)
<u>Civil</u>	C	1	Symbols, Abbreviations & Notes
		2	South Orange Pump Station Yard Piping Plan
		3	Supply Main Plan and Profile Drawing
		4	Supply Main Plan and Profile Drawing
		5	Water Main Tie-In Details
		6	Water Main Standard Details
		7	EPSC General Notes and Details
		8	Maintenance of Traffic Plan and Notes (Work along South Orange Avenue)
		9	Maintenance of Traffic Plan and Notes
<u>Structural</u>	S	1	Structural General Notes and Details
		2	South Orange Pump Station - Plan, Section and Details
<u>Process</u>	D	1	Symbols, Abbreviations & Notes
		2	South Orange Pump Station - Demolition Plan, Section and Details
		3	South Orange Pump Station - Plan, Section and Details
		4	South Orange Pump Station - Plan, Sections and Details
<u>Mechanical</u>	M	1	Symbols, Abbreviations & Notes
		2	South Orange PS - HVAC Floor Plan (Upgrades may be necessary for larger pumps/VFDs)
		3	South Orange PS - HVAC Details and Schedules (Upgrades may be necessary for larger pumps/VFDs)
<u>Electrical</u>	E	1	Electrical Notes, Symbols and Abbreviations
		2	Electrical South Orange Pump Station Site Plan
		3	Electrical One-Line Diagram (Included South Orange PS, Crest Drive Tank and PS)
		4	Electrical South Orange Pump Station Control Schematic
		5	Electrical South Orange Pump Station Panel board Schedule
<u>Instrumentation & Controls</u>	Y	1	Instrumentation Symbols, Abbreviations & Notes
		2	Process & Instrumentation Diagram
		3	Instrumentation Details and Notes
Approx. Dwgs.		28	

Table 2 - Crest Drive Tank Replacement			
	Letter	Sheet	Title
<u>General</u>	G	1	Title Sheet, Index of Drawings, Location Map
<u>Civil</u>	C	1	Symbols, Abbreviations & Notes
		2	Water Main Tie-In Details
		3	Water Main Standard Details
		4	EPSC General Notes and Details
		5	Maintenance of Traffic Plan and Notes (Work along Crest Drive)
<u>Demolition</u>	X	1	Tank Site Demolition Plan
<u>Civil</u>	C	1	Tank Site Survey
-		2	Tank Site Soil Remediation Plan
-		3	Tank Site Soil Remediation Notes and Details
-		4	Tank Site Layout and Utilities
-		5	Tank Site Grading and Drainage Plan
-		6	Tank Site Landscaping and Restoration Plan
		7	Tank Site Details
		8	Tanks Site Soil & Erosion Control Plan
		9	Tank Site Yard Piping Plan (Fill and Drain Lines)
		10	Tank Site Yard Piping Profiles (Fill and Drain Lines)
<u>Structural</u>	S	1	Structural General Notes and Details
		2	Tank Foundation Plan and Details
<u>Electrical</u>	E	1	Electrical Notes, Symbols and Abbreviations
		2	Electrical Tank Site Plan
<u>Instrumentation & Controls</u>	Y	1	Instrumentation Symbols, Abbreviations & Notes
		2	Process & Instrumentation Diagram
		3	Instrumentation Details and Notes
Approx. Dwgs.		24	

Table 3 - PRV and Zonal Valve Replacements/Interconnect Improvements			
	Letter	Sheet	Title
<u>General</u>	G	1	Title Sheet, Index of Drawings, Location Map
	G	2	Overall Site Plan
<u>Civil</u>	C	1	Symbols, Abbreviations & Notes
	C	2	PRV Site Plan, Plan and Section Views, MOT
	C	3	PRV Site Plan, Plan and Section Views, MOT
	C	4	PRV Site Plan, Plan and Section Views, MOT
	C	5	PRV Removal Site Plan, Plan and Section Views, MOT
	C	6	PRV Removal Site Plan, Plan and Section Views, MOT
	C	7	PRV Removal Site Plan, Plan and Section Views, MOT
	C	8	Luddington PS Site Plan
<u>Mechanical</u>	M	1	Luddington PS Plan and Section Views
<u>Civil</u>	C	1	Luddington Piping Plan and Profile
-	C	2	Luddington Piping Plan and Profile
<u>Elect, Instr & Control</u>		1	Luddington PS Electrical and I&C
<u>Civil</u>	C	1	Luddington MOT Plan
-	C	2	Walton Interconnect Site Plan
-	C	3	Walton Interconnect Demolition Plan and Sections
	C	4	Walton Interconnect Mechanical Plan and Sections
	C	5	Walton Interconnect Structural Plan and Sections
	C	6	Walton Interconnect Electrical Plan and Sections

	C	7	Holland Interconnect Site and Restoration Plan
	C	8	Holland Interconnect MOT Plan
	C	9	Holland Interconnect Demolition Plan and Sections
Approx. Dwgs.		23	

Bidding Phase Support

The following services will be provided for three (3) bid projects:

- Provide technical and project management support for public advertisement
- Conduct pre-bid meeting and site walk
- Prepare two addenda on Owner's behalf
- Attend Bid Opening
- Evaluate bids and recommend award

Expenses:

- Incremental travel for site inspections and information collection for work at the South Orange Avenue Reservoir, Pump Station, and PRVs, zonal valves and interconnects.

Scope Clarifications:

- Permitting fees will be paid by Owner.
- LSRP services are not included. The LSRP's services are being performed under a separate contract.
- Temporary crossing of private property may be required for the geotechnical exploration associated with the planned water main between the Reservoir and Crest Drive Tank. It is assumed that the Owner's attorney will secure property access. The Owner has confirmed that no Green Acres authorization will be required for this Project.
- No archaeological analyses will be required
- As part of the Engineer's landscaping plan development at the Crest Drive Tank and Reservoir sites, Engineer's landscape architect will conduct a site walk with Owner to identify trees targeted for removal, pruning and replacement. Site layout will be developed to minimize healthy tree removal
- Crest Drive new playground area will be developed and constructed by Village outside the Crest Drive tank replacement project

ATTACHMENT 3

PROJECT SCHEDULE FOR TASK ORDER AMENDMENT 1

VILLAGE OF SOUTH ORANGE WATER UTILITY																
SCHEDULE FOR CRITICAL WATER INFRASTRUCTURE IMPROVEMENT PROJECTS																
August 2021																
PROJECT	2020				2021				2022				2023			
	1st	2nd	3rd	4th												
<i>Crest Drive Tank Replacement Project (1MG Composite EWST)</i>																
Project Plan and Design (60% Complete)	x	x	x	x	x	X	X									
DEP/NJIB Application and Approval	x	x	x	x	x	x	X	X								
Bid and Award Contract										X						
Shop Drawing Preparation, Review and Approval										X						
Contractor Mobilization											X					
Construct New EWST and Related Sitework											X	X				
Demolish Standpipe, Rehab Playground and Final Restoration												X				
Finish Construction/Final Closeout Documents													X			
<i>South Orange Ave Pump Station Improvements/Water Main Reinforcements</i>																
Project Plan and Design	x	x	X	X	x	x	x									
Obtain Easement	x	x	x	x	x	x	x									
DEP/NJIB Application and Approval	x	x	x	x	X	X	x	x								
Bid and Award Contract										X						
Shop Drawing Preparation, Review and Approval										X						
Contractor Mobilization											X					
Construction (9 months)							X	X		X	X	X				
Final Closeout Documents								X							X	
<i>Interconnect and Zonal Valve/PRV Improvements</i>																
Project Plan and Design	x	x	x	x	X	X	X	X	X	X						
Luddington PS and Interconnect Piping (feed from NJAW)																
Audley and Walton PS Improvements (feed from NJAW and PRV Replacements and Decommissioning)																
DEP/NJIB Application and Approval (3 to 6 months)						X	X	X	X	X						
Bid and Award Contract											X					
Shop Drawing Preparation, Review and Approval												X				
Contractor Mobilization												X				
Construction (6 months)													X	X		
Final Closeout Documents															X	

ATTACHMENT 4

ENGINEERING DESIGN, FUNDING, PERMITTING & BID SUPPORT FEES

Task.	Description	Labor Hours	Labor (\$)	ODCs (\$)	Sub (\$)	Total (\$)
0	Project Management/Admin	127	\$25,360	\$3,360	-	\$28,720
1	NJIB and NJDEP/County Permit Coordination	54	\$11,230	\$145	-	\$11,375
2	SOA PS, WM Improvements					
	2.1 – SOA Pump Station Improvements	560	\$88,696	\$145	\$12,400	\$101,241
	2.2 – Discovery Spec & WM Reinforcements	88	\$16,236	-	-	\$16,236
	2.3 – EOWC Emergency Interconnect	94	\$17,011	-	-	\$17,011
	2.4 – Crest Tank Design Updates	462	\$75,529	-	-	\$75,529
3	PRVs and Zonal Valves	232	\$39,833	\$998	\$4,900	\$45,731
4	Interconnect Improvements					
	4.1 – Interconnect Improvements	318	\$54,277	\$145	-	\$54,422
	4.1 – Luddington PS	180	\$31,664	-	\$17,000	\$48,664
	4.2 – New Lenox Connection	46	\$6,912		\$5,000	\$11,912
5	Bid Support (3 projects)	64	\$11,699	-	-	\$11,699
	Total	2225	\$378,447	\$4,793	\$39,300	\$422,540