

Beacon Hill Water Storage Tank Replacement Project



Presentation Outline

- Project Update and Meeting Purpose
- Recap
 - Previous Meetings and Communications
 - Existing Tank- Location and Need for Replacement
 - Proposed Tank- Design and Benefits
- Contractor (Caldwell Tanks Inc.) Experience
- Construction Schedule
- Impacts during Construction
- Mitigation Measures for Impacts
- Questions
- Contact Person for any future questions



Project Update

- Existing Beacon Hill Water Storage at the end of its useful life
- PWWD will be replacing this tank with a new state-ofthe-art, pedesphere style tank
- Most cost-effective option for our community
- PWWD awarded the contract to Caldwell Tanks, Inc.
- Currently reviewing shop drawing submittals



Meeting Purpose

- Review Caldwell Tank's detailed construction schedule
- Discuss significant activities in each phase of construction
- Review construction impacts and mitigation measures
- Discuss any questions about the project
- Provide PWWD contact information for any future questions or concerns



Previous Meetings and Correspondence

- Met with Elected Officials
- Hosted Public Meeting at Library
- Hosted meeting at PWWD for neighbors
- Learned: Community understands the need to replace the tank and has some specific requests:
 - Mitigate construction impacts including traffic, dust and noise
 - Ensure dialog is proactive and continuous throughout the whole process
 - Provide landscape beautification upon project completion



Beacon Hill Water Storage Tank Location



Recap- Existing Beacon Hill Tank

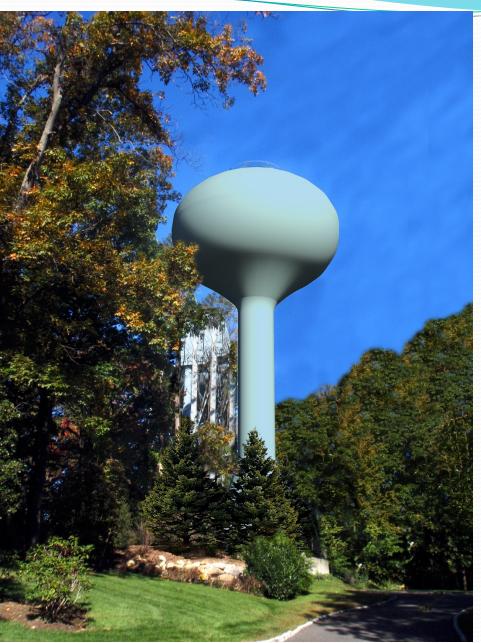






- Serves nearly half of the District's 30,000 residents and 9,350 households and businesses
- Built in the 1930's 80+ years later it is at the end of its useful life
- Capacity of 250,000 gallons
- Riveted steel, multi-leg style tank with conical roof
- Current tank does not meet new hurricane wind and seismic load safety standards
- The most recent condition assessment of the tank revealed the start of coating system failure and corrosion could impact future water system operations

Recap - Proposed Beacon Hill Tank







Recap - Proposed Beacon Hill Tank

- Pedesphere Style- Design keeps pressure in system longer, which benefits firefighting operations during emergencies
- Capacity and overflow height would be the same; 250,000 gallons and 94 feet, respectively
- Requires less maintenance and is easier to repair due to reduced surface area and welded construction elements
- Designed to meet new hurricane wind and seismic load safety standards
- New tank will include a light on the roof in order to satisfy FAA regulations



Contractor- Caldwell Tanks Inc.

- Has been constructing potable water storage tanks in the United States since 1887
- Most recent and successfully completed project on Long Island was for the Manhasset-Lakeville Water District (MLWD)
- The MLWD tank was placed into operation this past February

Anticipated Construction Schedule

| me Gallon Pedisphere Tank e to Proceed dation Dwgs Submittal/Approval | Start | Finish | Otr 4, 2016 Otr 1, 2017 Otr 2, 2017 Otr 3, 2017 Otr 4, 2017 Otr 1, 2018 Otr 2, 2018 | |
|---|---|--|---|--|
| e to Proceed | | 5 | Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Aug Sep Oct Nov Dec Jan Feb Mar Apr May | un Otr |
| | Thu 2/23/17 | Wed 7/18/18 | 250,000 Gallon Pedispere Tank | + |
| fation Dwgs Submittal/Approval | Thu 2/23/17 | Thu 2/23/17 | Notice to Proceed 2/22 | - 1 |
| | Fri 4/28/17 | Thu 6/8/17 | Foundation Dwgs Submittal/Approval | 1 |
| Dwgs Submittal/Approval | Fri 5/12/17 | Thu 6/22/17 | Tank Dwgs Submittal/Approval | - 1 |
| g, Valves & Fittings Submit/Approval | Thu 5/18/17 | Wed 6/28/17 | Piping, Valves & Fittings SubmittApprova | - 1 |
| door Submit/Approval | Fri 5/12/17 | Thu 6/22/17 | Man-door Submit/Approval | 1 |
| rical & Control Submittal/Approval | Thu 5/18/17 | Wed 6/28/17 | Electrical & Control Submittal/Approval | - 1 |
| rical Service Application | Wed 6/7/17 | Wed 6/7/17 | Electrical Service Application 6-67, | - 1 |
| ead Electrical Removal | Mon 6/5/17 | Fri 7/14/17 | Ovehead Electrical Removal | 7 |
| ng Submit/Approval | Thu 9/21/17 | Wed 10/4/17 | Fencing Submit/Approval 22 | ÷ |
| Demo Plan Submittal/Approval | Mon 6/5/17 | Fri 6/16/17 | Tank Demo Pian Submittal/Approval | 7 |
| and Landscaping removal | Mon 8/21/17 | Fri 8/25/17 | Tree and Landscaping removal (2) | 7 |
| Installation and Initial Site work | Mon 8/28/17 | Fri 9/1/17 | E&S Installation and Initial Site work | |
| ng Tank Demolition | Mon 9/4/17 | Fri 9/22/17 | Existing Tarik Demolition | 1 |
| ork Excavation | Mon 9/25/17 | Fri 10/6/17 | Sitework Excavation | 1 |
| dation Construction | Mon 10/9/17 | Fri 11/10/17 | Foundation Construction (/////) | - |
| Purchase/Tank Shop Fabrication | Mon 7/31/17 | Fri 9/22/17 | Steel Purchase Tank Shop Fabrigation | \neg |
| cated Material Delivery | Thu 11/16/17 | Mon 11/20/17 | Fabricated Material Delivery | 1 |
| Tank Construction | Thu 11/16/17 | Mon 1/22/18 | Field Tank Construction 1/22 | - |
| et Base Cone, Pedestal and Derrick | Thu 11/16/17 | Wed 11/29/17 | Set Base Cone, Pedestal and Derrick | Ť |
| eld Out Base Cne and Pedestal | Thu 11/30/17 | Wed 12/13/17 | Weld Out Base Cne and Pedestal | ÷ |
| and Weld C1-C3 | Thu 12/14/17 | Wed 12/27/17 | Fit and Weld C1-C3 | - |
| and Weld S1-S5 | Thu 12/28/17 | Wed 1/10/18 | Fit and Weld S1-S5 | + |
| and Weld Roof and Piping | Thu 1/11/18 | Wed 1/17/18 | Fit and Weld Roof and Piping & | + |
| sc and Demo | Thu 1/18/18 | Mon 1/22/18 | Misc and Demo | + |
| or Piping, Floor Man Door | Mon 1/29/18 | Fri 2/9/18 | Interior Piping, Floor Man Door | + |
| ior Piping and Culverts | Mon 2/12/18 | Fri 3/9/18 | Exterior Piping and Culverts | + |
| Tank Painting | Mon 3/12/18 | Fri 4/20/18 | Field Tank Painting 4/20 | ÷ |
| stall Containment | Mon 3/12/18 | Wed 3/21/18 | Instat Containment | ÷ |
| terior Wet - Blast and Paint | Mon 3/19/18 | Fri 3/30/18 | Interior Wet - Blast and Paint | + |
| terior Coatings - Blast and Paint | Thu 3/22/18 | Wed 4/11/18 | Exterior Coatings - Blast and Paint | + |
| lerior Dry - Blast and Paint | Mon 4/2/18 | Fri 4/13/18 | Interior Dry - Blast and Paint | + |
| emove Containment, Touch-up & Den | mob Thu 4/12/18 | Fri 4/20/18 | Remove Containment, Touch-up & Demob | + |
| Pipe Insulation | Wed 4/18/18 | The state of the s | Riser Pipe Insulation | + |
| Cone Insulation | Mon 4/23/18 | A STATE OF THE PARTY OF THE PAR | Sase Cone insulation in | + |
| rical Service Installation | Mon 4/23/18 | Secretary Control of the Control of | Electrical Service Installation | ÷ |
| Electrical & Controls | | A CONTRACTOR OF THE PARTY OF TH | | + |
| | #2.000000000000000000000000000000000000 | | | + |
| | | | | + |
| tantial Completion | | | | 5 |
| Sitework | STORY DOWN BOOK TO STORY AND ADDRESS OF | A STATE OF THE PARTY OF THE PAR | | + |
| na | | | | 1 |
| h List & Close-out | E 100 CO | A CONTRACTOR OF THE PARTY OF TH | | |
| | | | | - 624 |
| | Task | | | |
| Inc. r: Eric Koetter | Milestone | • | Manual Task 💠 Start-only Progress | - |
| | Summary | 4 | ■ Duration-only Finish-only Deadline | |
| l l | Inactive Milestone | | | |
| tar ing | sampling Station ston & VOC Testing/NCDH Approv site Completion sitework List & Close-out c. Eric Koetter | Ampling Station | Ampling Station | Install Sampling Station Thu 5/10/18 Wed 5/16/18 Install Sampling Station Install Sampling S |

WASHINGTON WATER



Construction Schedule

- Shop Drawing Reviews (April 2017 June 2017)
- Tank Shop Fabrication (July 2017 Sept. 2017)
- Initial Site Work (August 2017)
 - Includes tree removal and erosion and sediment control
- Existing Tank Demolition (Sept. 2017)
- Sitework Excavation (Late Sept. 2017 Early Oct. 2017)
- Foundation Construction (Mid Oct. Mid Nov. 2017)
- Field Tank Construction (Mid Nov. 2017 Early Feb. 2018)
 - Includes steel deliveries, steel placement and welding



Construction Schedule

- Exterior Piping (Mid Feb. 2018 Mid March 2018)
- Field Tank Painting (Mid March 2018 Late April 2018)
- Tank Interior Insulation (Mid April 2018 Late April 2018)
- Electrical, Controls and Sample Station Work (Late April 2018
 Mid May 2018)
- Tank Sterilization and Testing (Late April 2018– Late May 2018)
- Substantial Completion (Late May 2018)
- Final Contract Site Work and Fencing (Late May 2018 Late June 2018)
- Site Landscaping (Fall 2018)



- Duration of on-site work contract work is approximately 12 months, with landscape beautification to follow
- Initial Site Work
 - Cutting and removing trees and bushes
 - Grading and soil removal
 - Installing stabilized construction entrance to minimize the tracking of soil from off site and silt fence to prevent the transport of sediment laden water during storm events
- Demolition Phase
 - Tank will be cut into small sections for removal and disposal
 - Excavation and demolition of existing tank foundation
 - Tractor trailers and dump trucks will be used to remove sections of the tank and foundation from the site
 - Large crane on site for approximately one week

- Foundation Construction
 - Prior to concrete placement, workers will install form work and reinforcing steel for approximately 2 weeks
 - Pumper truck and approximately 15 concrete trucks required
 - No more than 2 concrete trucks on site at one time
 - When one truck finishes, another takes its place





- Field Tank Construction
 - Includes steel deliveries by tractor trailer
 - Large crane initially on site to set the access tube

Access tube used as a crane to hoist and place remaining steel sections

along with small crane

Welding of steel sections





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- Field Tank Painting
 - Erection of containment structure around tank for sandblast material and paint overspray
 - Manlifts and scaffolding for worker access
 - Initial sandblasting to prepare surface for paint
 - Deliveries of sandblasting media and paint products
- On-site Storage
 - Contractor required to use off-site location for stockpiling and storing excess equipment (no material to be stored on Longview Road)
 - Tool trailer, generator trailer and small crane will be on site throughout construction



Maintenance and Protection of Traffic

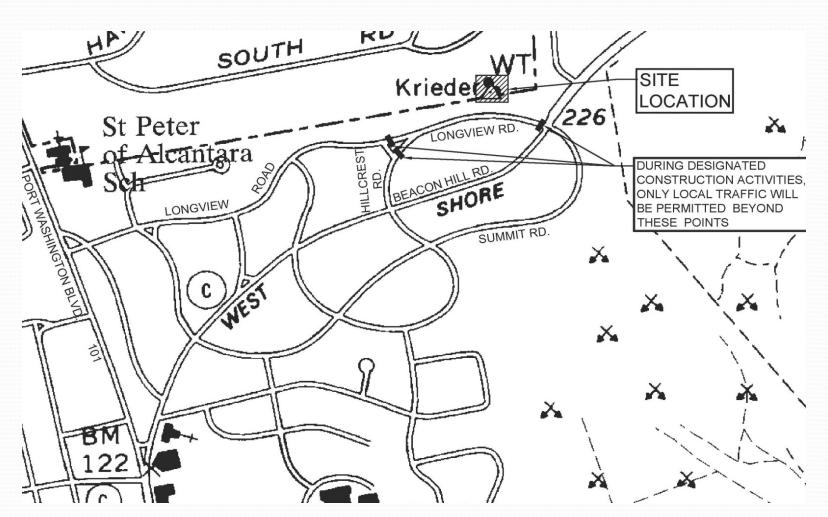
- Contractor to provide Maintenance and Protection of Traffic Plan
 - Flaggers, Signage, Barricade Placement

- Community Precautions
 - Stay Alert & Drive Slowly





Potential Road Closures





Site Security

- Work site will be monitored by a security firm with live video surveillance
- If an unauthorized person or suspicious activity is detected, the security firm will contact Caldwell
- Caldwell will call the police to respond as required





Construction and Community Impact Mitigation

- Committed to minimizing the impact/inconvenience on the community and surrounding residents
- Work hours limited to only Monday through Friday, 8:00 am through 4:00 pm. Weekend and holiday work will <u>not</u> be permitted
- Coordinated an off-site staging area for excess materials and equipment
- Coordinated with the neighboring Sands Point water department to use their tank to supply water while construction occurs at the Beacon Hill site



Our Pledge to the Community

- We will always be available to discuss any portion of this project with you.
- You will have access to a point person before, during and after construction.
- Any resident with special needs affected by construction or road closures is encouraged to reach out to us so we can appropriately address your needs/concerns.
- Continued beautification and landscaping projects at the Beacon Hill tank site to improve its aesthetic presence within the community will be completed.
- We will work to do whatever we can to make this project as convenient and seamless as possible.



Questions?

- We are happy to answer any questions you may have at this time.
- If additional questions come up after you leave today, please contact us at:
 - Telephone (516) 767-0171
 - Email info@pwwd.org