

# Northrop Grumman Bethpage Environmental Remedies Update

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Virtual Meeting and Community Update

**Ed Hannon**  
Project Director

December 1, 2021

# Agenda

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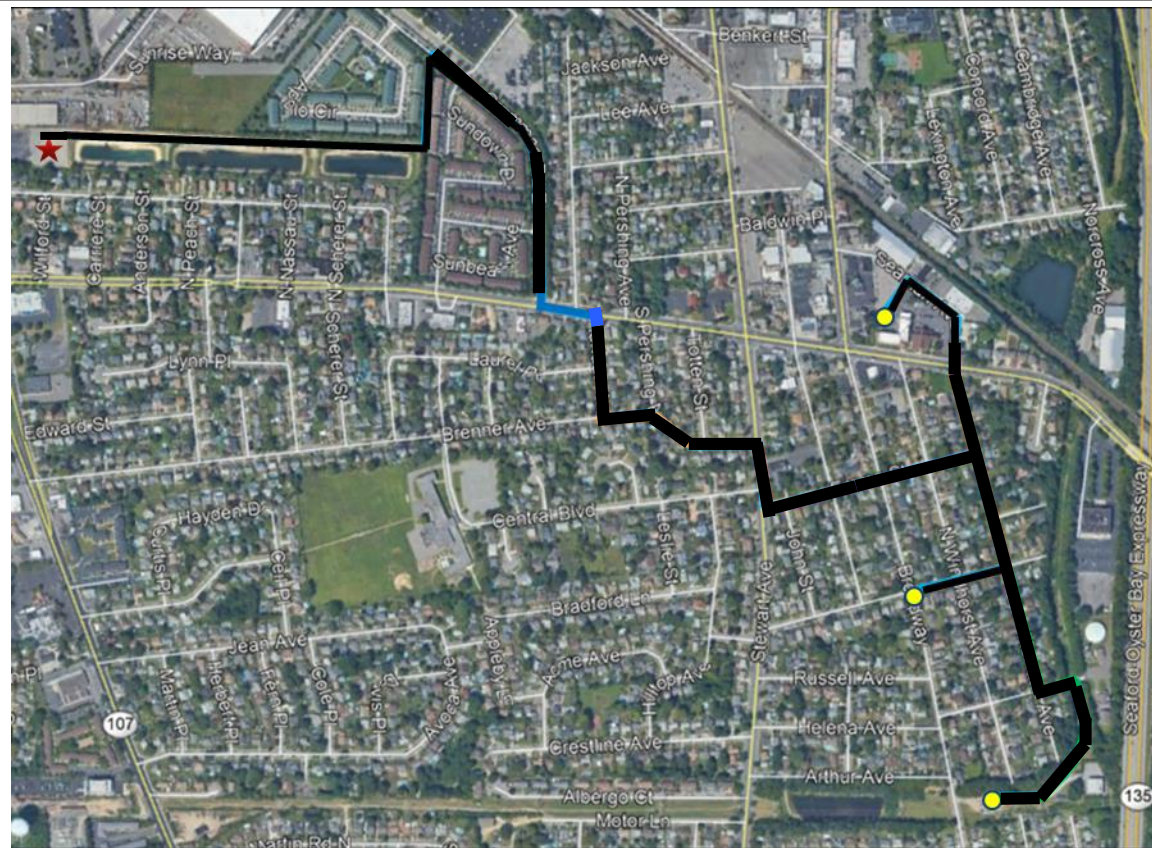
- Groundwater treatment system piping route progress
- Treatment system facility, construction timeline and progress
- Soil treatment and sampling progress at Bethpage Park
- Questions via Zoom chat and telephone

# Piping Installation Timeline as of 12/1/21

Activity	Start Date	End Date	Q2 FY 2021			Q3 FY 2021			Q4 FY 2021			Q1 FY 2022			Q2 FY 2022			Q3 FY 2022			Q4 FY 2022			Q1 FY 2023		
			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
<b>RW-21 Pipeline Construction (Town and County-Owned)</b>	03/30/21	04/22/22	RW-21 Pipeline Construction (Town and County-Owned)																							
TOB Utility Corridor (RW-22 to BWD Driveway)-Complete	03/30/21	04/30/21	TOB Utility Corridor (RW-22 to BWD Driveway)-Complete																							
Town of Oyster Bay residential street access permits (approved)	05/19/21	05/19/21	Town of Oyster Bay residential street access permits (approved)																							
Northrop Grumman Hosted Virtual Community meeting (complete)	06/03/21	06/03/21	Northrop Grumman Hosted Virtual Community meeting (complete)																							
Sophia St and N. Herman to Emma (complete)	06/10/21	09/01/21	Sophia St and N. Herman to Emma (complete)																							
RW-22 well vault equipment installation (ongoing)	06/11/21	12/10/21	RW-22 well vault equipment installation (ongoing)																							
RW-20 well vault equipment installation (ongoing)	07/14/21	12/10/21	RW-20 well vault equipment installation (ongoing)																							
Stewart Ave from S Pershing to Emma St (complete)	07/19/21	09/01/21	Stewart Ave from S Pershing to Emma St (complete)																							
RW-21 well vault equipment installation (ongoing)	07/27/21	12/10/21	RW-21 well vault equipment installation (ongoing)																							
Northrop Grumman Hosted Virtual Community meeting (complete)	08/18/21	08/18/21	Northrop Grumman Hosted Virtual Community meeting (complete)																							
Emma St from Stewart to N. Herman (complete)	09/02/21	10/25/21	Emma St from Stewart to N. Herman (complete)																							
Northrop Grumman Hosted Virtual Community meeting (complete)	09/23/21	09/23/21	Northrop Grumman Hosted Virtual Community meeting (complete)																							
N. Herman from Emma St to Central Ave (complete)	10/07/21	10/11/21	N. Herman from Emma St to Central Ave (complete)																							
S. Pershing, Brenner and Sheridan (ongoing)	10/13/21	12/03/21	S. Pershing, Brenner and Sheridan (ongoing)																							
Central Ave crossing to Seaman Ave (ongoing)	10/27/21	12/01/21	Central Ave crossing to Seaman Ave (ongoing)																							
Central Ave crossing to Grumman Rd E/Hickey Blvd	11/29/21	12/22/21	Central Ave crossing to Grumman Rd E/Hickey Blvd																							
Northrop Grumman Hosted Virtual Community meeting	12/01/21	12/01/21	Northrop Grumman Hosted Virtual Community meeting																							
Leak detection system installation and quality check	12/20/21	04/22/22	Leak detection system installation and quality check																							

# Piping Installation Progress as of 12/1/21

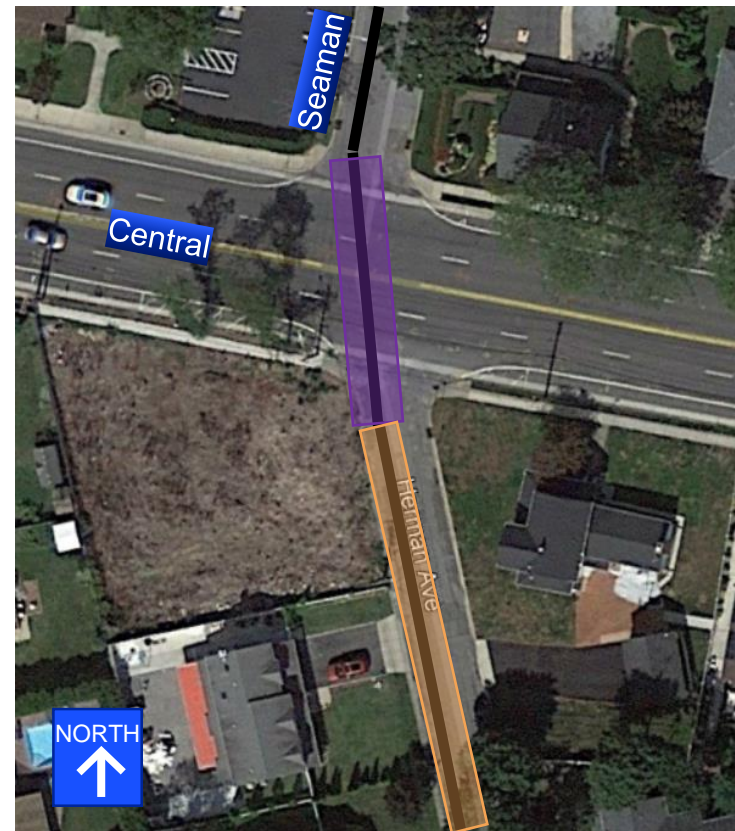
- 10,700 feet of piping is installed
- Installation of the final segment (370 feet of piping) is underway



— Installed piping    ● Extraction wells    ★ Groundwater Treatment Facility

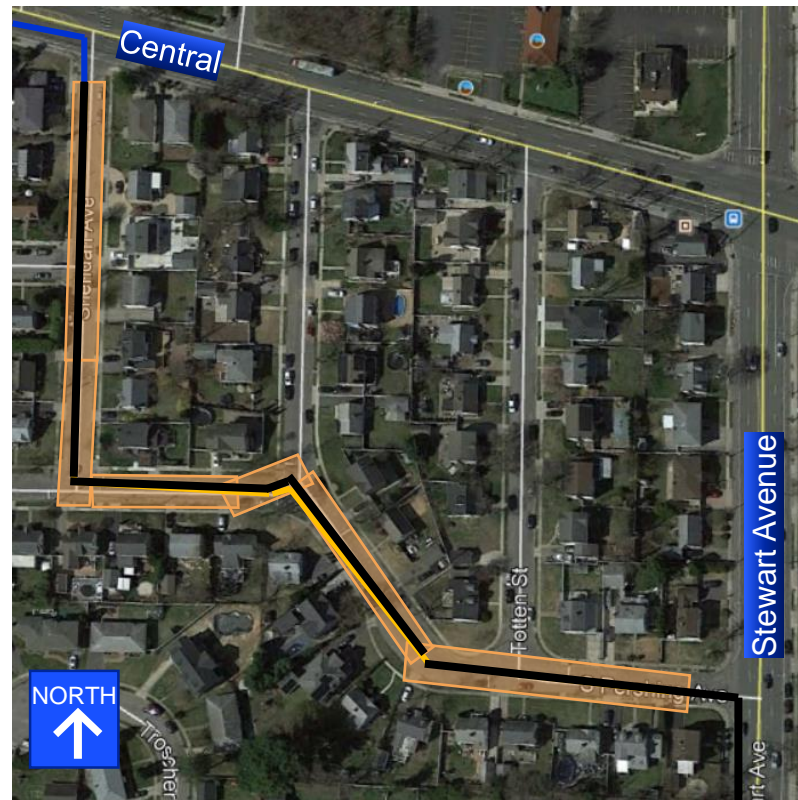
# Central Avenue (Crossing at Seaman Avenue)

- Work was completed on 12/1/21
- We have installed temporary paving
- Final paving will occur in 2022
- Special thanks to St. Martin of Tours Parish for allowing us to stage construction materials in their parking lot

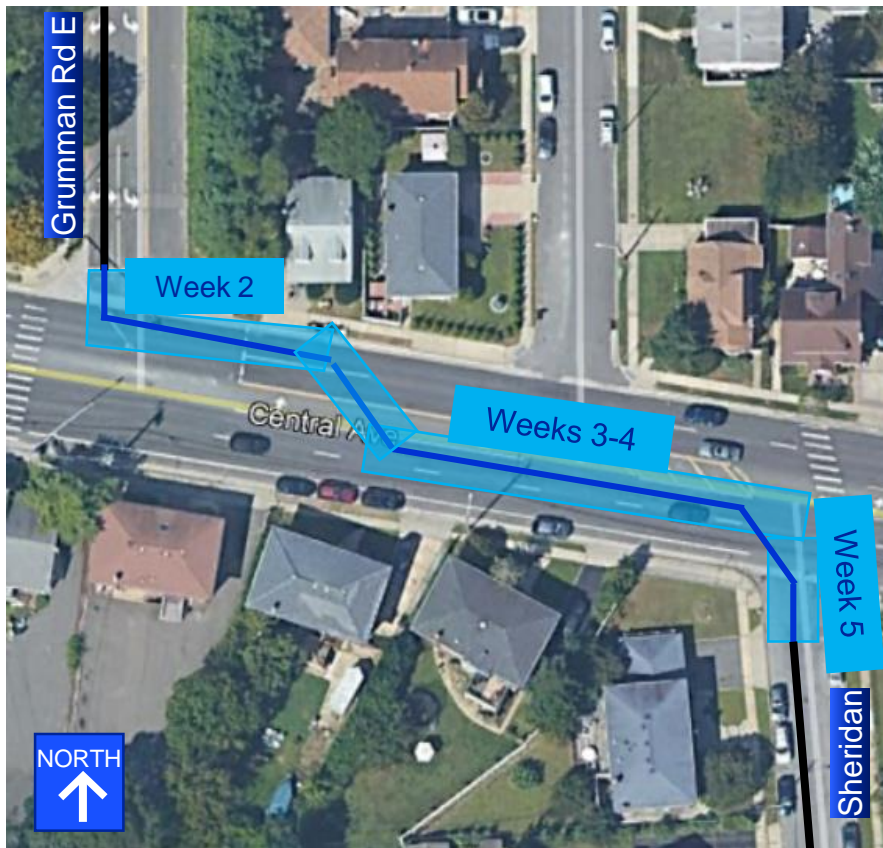


## S. Pershing, Brenner and Sheridan

- Work will be completed on 12/3/21
- We will install temporary paving
- Final paving will occur by the Town of Oyster Bay in 2022
- We appreciate everyone's continued support to relocate their cars during the work day



# Central Avenue (Crossing at Grumman Rd E)



- Crew will install 24" diameter pipe at Grumman Rd East heading east on Central Avenue to connect to Sheridan from 11/29-12/22
- 10 to 30 feet of pipeline installed per day (weather permitting)
- Week 1 to 5 – Piping installation and site restoration/temporary paving
- We are in close communication with Bethpage School District transportation office

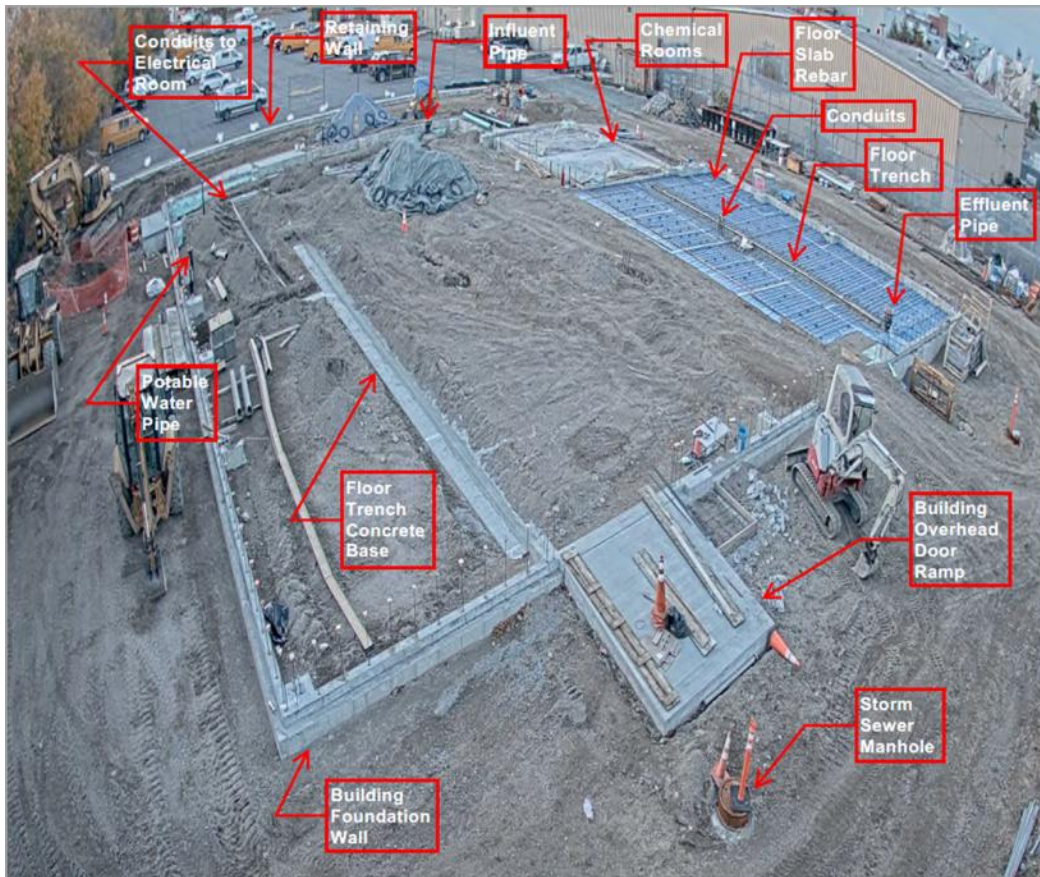
# Communication Activities and Traffic Plan

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- 110 daily progress reports issued to residents/leaders via email and posted to web site from June 25 to today
- Hard copy of daily progress update also provided to residents in work zone
- Responded to a variety of questions/requests over the work period
- Traffic control signs/flag persons continue to direct drivers in work zones
- When pipeline is being installed in front of a driveway, the driveway is not accessible during the workday; opens at the end of each workday and on the weekends.
- On average, work in front of driveways (during work hours) takes about three workdays. Metal plates are installed over the excavated area at the end of each day



# Treatment System Construction Progress

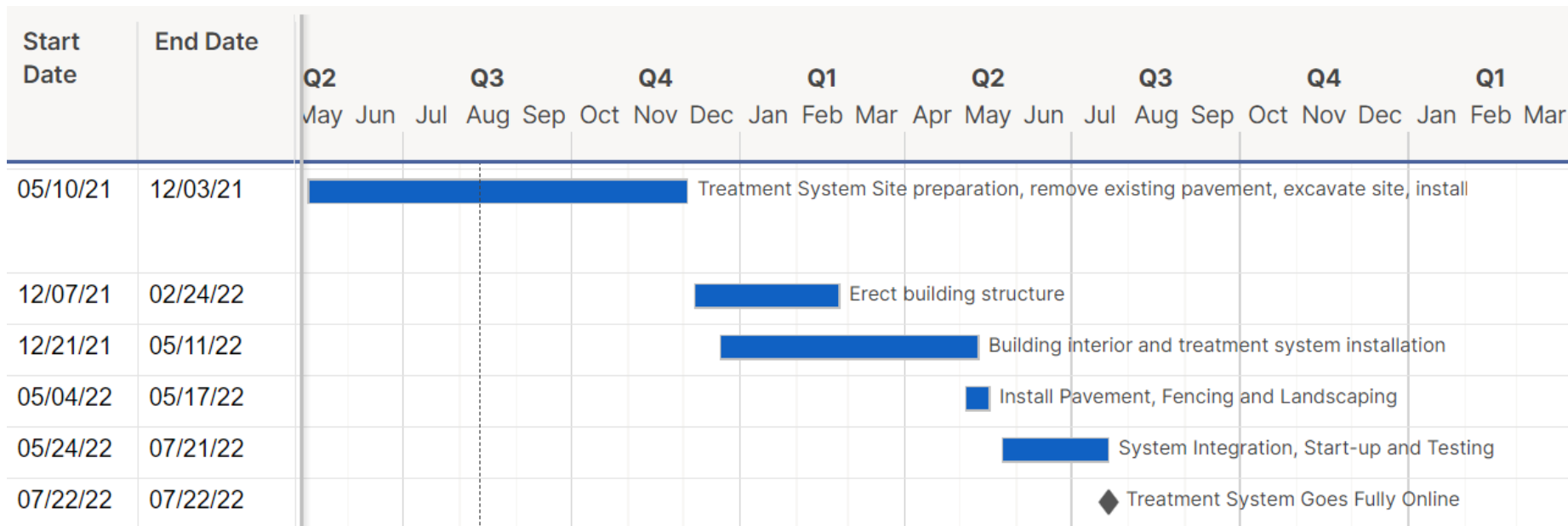


**Rebar Installed for Building  
(Northern Floor Trench)**



**Concrete Base for Building  
(Southern Floor Trench)**

# Treatment System Construction Timeline



**Schedule as of 12/1/21**

\*Timeline is weather permitting and material availability/market conditions

# Groundwater Treatment Facility

- The building will be 126 x 119 feet and 35 feet high at the peak of the roof. The state-of-the-art design approved by the NYSDEC
- Once the building shell is constructed, interior construction will begin, including installing the treatment system equipment and connecting water, electric, gas, communications, and sanitary sewer
- Work in progress and is expected to take approximately six more months (weather permitting)

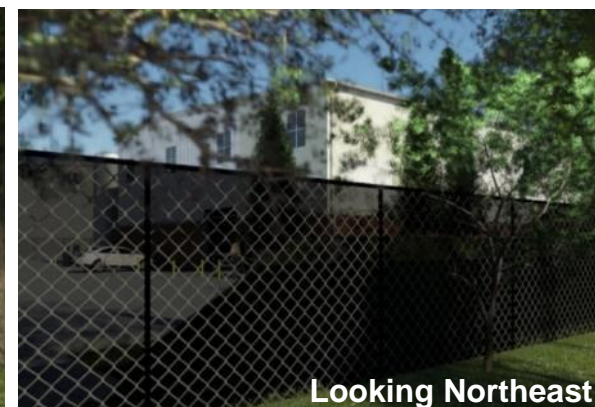


Artist's rendering of RW-21 Groundwater Treatment Facility (looking southeast)

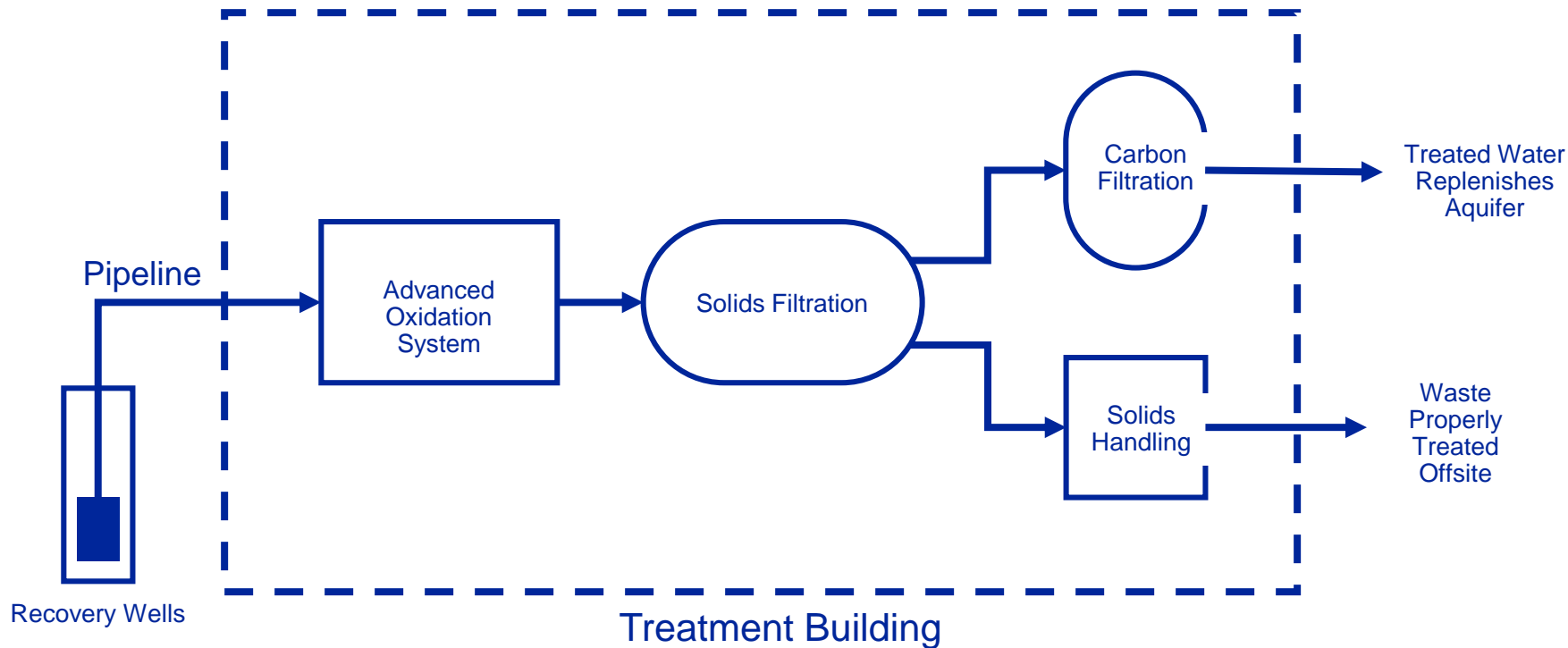
**The Town of Hempstead Planning Department and  
The Nassau County Fire Marshal have approved the project plan**

# Building after completion

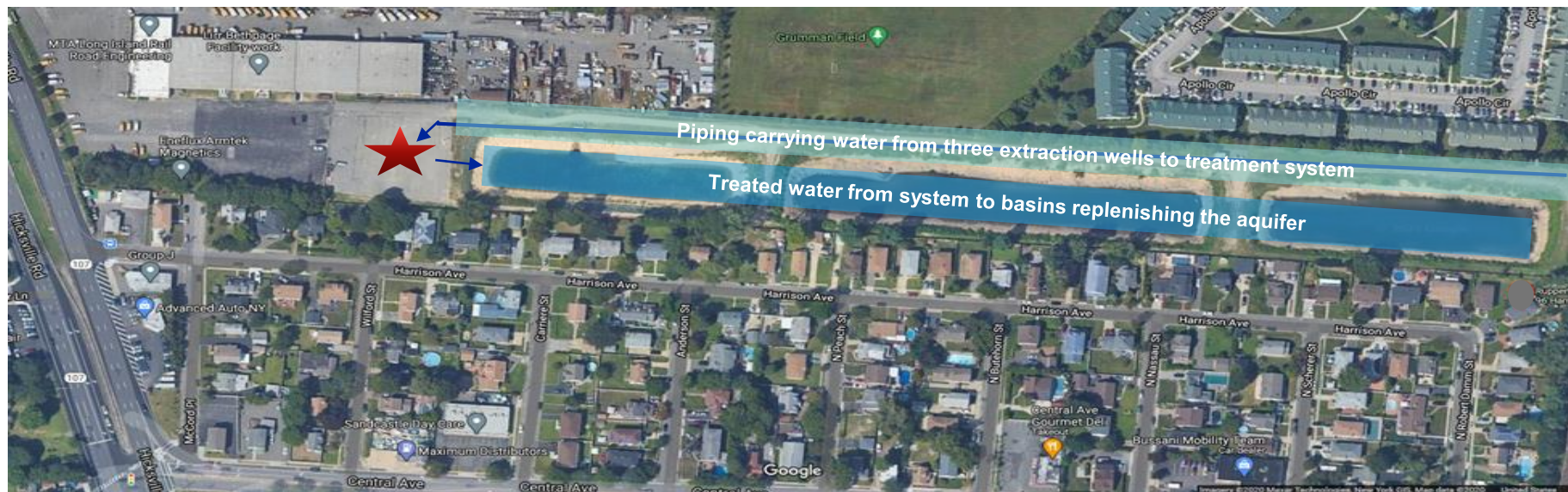
- Facility will operate 24/7
- Routine system maintenance and monitoring will be conducted in accordance with a NYSDEC-approved Site Management Plan
- Treating up to 2.7 million gallons a day



# RW-21 Treatment Process



# Treatment System Process



- The pipeline carries extracted water from our three recovery wells to the treatment system
- The system treats the water to NY State drinking water standards
- The aquifer is replenished via our basins

# Park Soil Thermal Remedy System

- The system has performed exceptionally well
- Received approval from NYSDEC to power down the heating elements in the ballfield
- The system will remain in place for now



# Park Soil Sampling Progress

- Sampling (in yellow starred areas) is complete
- Results have been shared with NYSDEC, NYSDOH and Town of Oyster Bay
- Data and science will determine next steps
- Scheduled sampling at two additional locations (green star)





# Park Soil Sampling Locations Underway

- 9 locations (shown in light green) are being sampled
- Work will be conducted over next few weeks
- No impact to walking path access
- Data and science will drive next steps



## Our Continued Commitment

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Northrop Grumman continues to work closely with the NYSDEC, the U.S. Navy and other federal, state, and local government regulatory authorities, to address environmental conditions in the area.

We remain committed to pursuing scientifically sound, targeted and effective remedial approaches that protect the health and well-being of the community and avoid unnecessary disruption.

**For ongoing updates, visit our project web site**  
**[www.northropgrumman.com/bethpage](http://www.northropgrumman.com/bethpage)**

**Opt-in email to [Dianne.baumert-Moyik@ngc.com](mailto:Dianne.baumert-Moyik@ngc.com)**

## Agreement with New York State on Bethpage Amended Groundwater Remedy

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In late December, the State announced it had reached an agreement in principle with each of Northrop Grumman and the Navy on additional measures the parties will take, in partnership with the State, to implement the Bethpage amended groundwater remedy.

- The agreements and the underlying Amended Record of Decision (AROD) were widely praised as significant steps forward in protecting public health and the environment.

Northrop Grumman is pleased to have finalized the terms of its agreement with the State of New York.

Under the agreement, in partnership with the State, the company will take additional measures to implement the Bethpage amended groundwater remedy, make payments to benefit water districts and other public water supply and restoration projects, and resolve claims for natural resource damages.

The additional measures will complement the work that we understand the Navy has agreed to undertake, and further benefit the citizens of Bethpage and surrounding communities and the local water districts.

The agreement builds on the company's long-standing partnership with the State and exhaustive work over the past 25 years to understand and remediate contamination.

We look forward to obtaining final court approval of the agreement and proceeding with the work.

**NORTHROP**  
**GRUMMAN**

The logo symbol consists of a thick horizontal line on the right side of the word "NORTHROP", which extends to the right and then turns 90 degrees downward to form a vertical line.