

Northrop Grumman Bethpage Environmental Remedies Update

Virtual Meeting and Community Update

Ed HannonProject Director
August 18, 2021



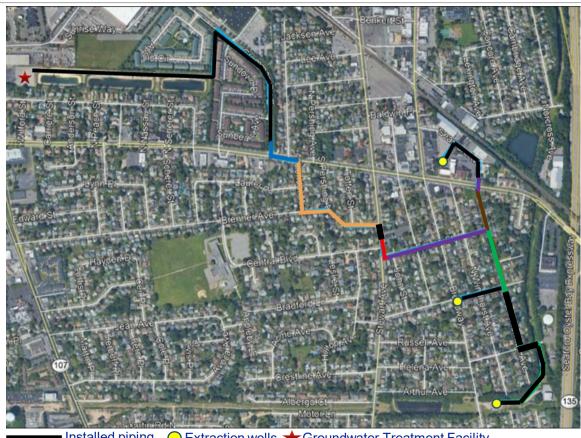
Agenda

- Groundwater treatment system piping route progress
- Street-by-street review
- Bethpage School Bus Route update
- Treatment system facility, construction timeline and progress
- Soil treatment and sampling progress at Bethpage Park
- Questions via Zoom chat and telephone



Piping Installation Progress

- Residential street access request approved on May 19
- Utility location completed for all Town roads and Stewart Avenue
- Utility corridor piping installation is complete
- Contractors present at the work location from 7 a.m. to 5 p.m., Monday through Friday, excluding holidays
- Construction work
 7:30 a.m. to 4:30 p.m.
 Schedule is weather dependent





Piping Installation Timeline as of 8/18/21

	Start Date	End Date	Q2	lun		3	Q4	Q1 ec Jan Feb M	ar Ar	Q2	lun	lul	Q3
			Api iviay	Juli	Jui A	ag Sep				n iviay	Juli	Jui	Aug
TOB Utility Corridor (RW-22 to BWD Driveway)-Complete	03/30/21	05/03/21	ТОВ	Utility	Corridor	(RW-22	to BWD Drivewa	ay)-Complete					
Town of Oyster Bay residential street access permits (approved)	05/19/21	05/19/21	I To	own o	f Oyster	Bay resid	dential street ac	cess permits (appr	oved)				
RW-22 well vault equipment installation (ongoing)	06/08/21	09/08/21				RW	/-22 well vault e	quipment installati	on (on	going)			
Sophia St and N. Herman to Emma (ongoing)	06/10/21	08/20/21				Sophia	St and N. Herm	nan to Emma (ongo	ing)				
RW-20 well vault equipment installation (ongoing)	07/13/21	10/21/21					RW-20 we	ell vault equipment	install	ation (or	ngoing)	
RW-21 well vault equipment installation (ongoing)	07/27/21	12/14/21						RW-21 well vault	quipn	nent inst	allatior	n (ongo	oing)
Stewart Ave from S Pershing to Emma St (ongoing)	08/04/21	09/03/21				Ste	wart Ave from S	Pershing to Emma	St (or	ngoing)			
Virtual Community Meeting Progress Report	08/18/21	08/18/21				Virtual	Community Me	eting Progress Rep	ort				
N. Herman from Emma St to Central Ave	08/23/21	09/10/21				■ N.	Herman from E	mma St to Central	Ave				
Central Ave (cross to Seaman Ave)	09/07/21	09/24/21					Central Ave (cr	oss to Seaman Ave)				
Emma St (to N. Herman)	09/07/21	10/08/21					Emma St (to	N. Herman)					
Central Ave (cross to Grumman Rd E)	09/27/21	10/29/21					Central A	Ave (cross to Grum	man R	d E)			
S. Pershing, Brenner and Sheridan	10/12/21	11/12/21					S. Per	shing, Brenner and	Sher	dan			
Leak detection wire connection quality check	11/02/21	12/07/21						eak detection wire	conn	ection q	uality	check	



Traffic Plan

- We issue daily progress updates to residents along work zone via flyer (and a broader audience via opt-in email and on project web site)
- Traffic control signs/flag persons are informing drivers in and outside of work zones
- NCPD enforcement and speed control signs in place on Stewart Avenue
- When pipeline is being installed in front of a driveway, the driveway is not accessible during the work day; re-opens at the end of each workday and on the weekends
- Work in front of driveways (during work hours) will be conducted over a three workday period. Metal plates will be installed over the excavated area at the end of each day



Sophia Street and N. Hermann (to Emma)



- We marked out utilities from 6/10 to 7/16
- We have installed 12" diameter pipe on Sophia and on N. Hermann Ave and connected to William Street piping
- We are now installing 16" diameter pipe heading north on N. Hermann to Emma through 8/20
- 40 to 60 feet of pipeline installed per day (weather permitting)
- We will complete site restoration and temporary paving this week



Pipeline installation



Trench and piping installation (intersection of Sophia and N. Herman)



Fusing piping (corner of Sophia and N. Herman)



Backfill and compact road base (Sophia at N. Herman)



Temporary paving (Sophia to N. Herman)



Stewart Avenue (S. Pershing to Emma)



- Second crew is installing 24" diameter pipe heading south on Stewart Ave from 8/4 to 9/3; piping will now cross Stewart to Emma before Central Blvd.
- 20 to 40 feet of pipeline installed per day (weather permitting)
- Weeks 1-5 Piping installation and site restoration/temporary paving
- We will be past Central Blvd. before school starts on 9/1



N. Herman (from Emma to Central)

- This is a refinement to our original project schedule based on the opportunity to accelerate work on N. Herman Avenue
- We will install 12" diameter pipe on N. Herman Avenue to Central Avenue from 8/23 to 9/10
- 30 to 50 feet of pipeline installed per day (weather permitting)
- Weeks 1 to 3 Excavation, piping installation, backfilling, site restoration and temporary paving





Central Avenue (Crossing at Seaman Avenue)

- Third crew will install 12" diameter pipe crossing Central Ave from 9/7 to 9/24
- 10 to 30 feet of pipeline per day (weather permitting)
- Weeks 1 to 3 Piping installation and site restoration/temporary paving





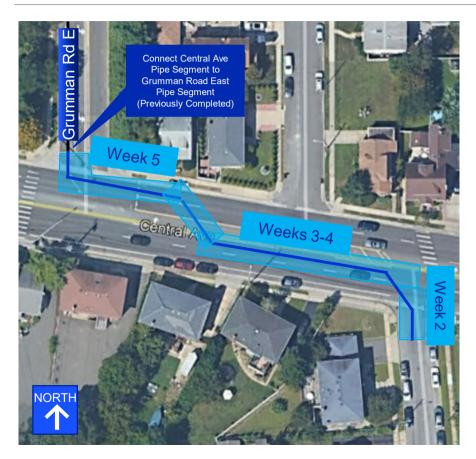
Emma Street (to North Herman)



- Second crew will install 24" diameter pipe heading east on Emma St from 9/7 to 10/8
- 40 to 60 feet of pipeline installed per day (weather permitting)
- Weeks 1 to 5 Piping installation and site restoration/temporary paving



Central Avenue (Crossing at Grumman Rd E)



- Third crew will install 24" diameter pipe heading west on Central Avenue to connect at Grumman Rd East from 9/27 to 10/29
- 10 to 30 feet of pipeline installed per day (weather permitting)
- Week 1 to 5 Piping installation and site restoration/temporary paving



S. Pershing, Brenner and Sheridan

- Second crew will install 24" diameter pipe generally heading west and north from 10/12 to 11/12
- 40 to 60 feet of pipeline installed per day (weather permitting)
- Weeks 1 to 5 Piping installation and site restoration/temporary paving





RW-21 Work and School Bus Routes/Times by 9/1

- Mapped bus stop and times for pick up and drop off
- 2. N. Hermann work zone 8/23-9/10
- 3. Stewart Avenue Work Zone by 9/3/21
- 4. Central Avenue crossing at Seaman Ave 9/7-9/24
- 5. Emma Street Work Zone 9/7-10/8
- 6. Central Avenue crossing at Grumman Road East 9/27-10/29
- 7. S. Pershing, Brenner and Sheridan work zone 10/12-11/12





Groundwater Treatment Facility

- The building is 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, we will begin interior construction, including installing the treatment system equipment and connecting water, electric, gas, communications, and sanitary sewer
- Work in progress and is expected to take approximately 11 months (weather permitting)

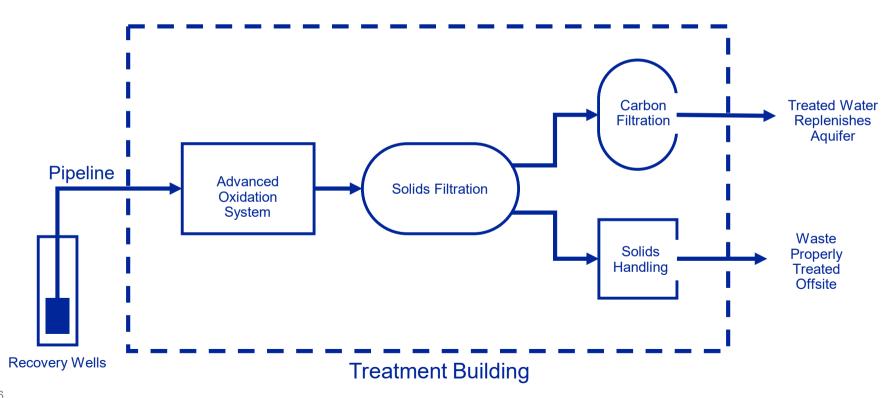


Artist's rendering of RW-21 Groundwater Treatment Facility (looking southeast)

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



RW-21 Treatment Process





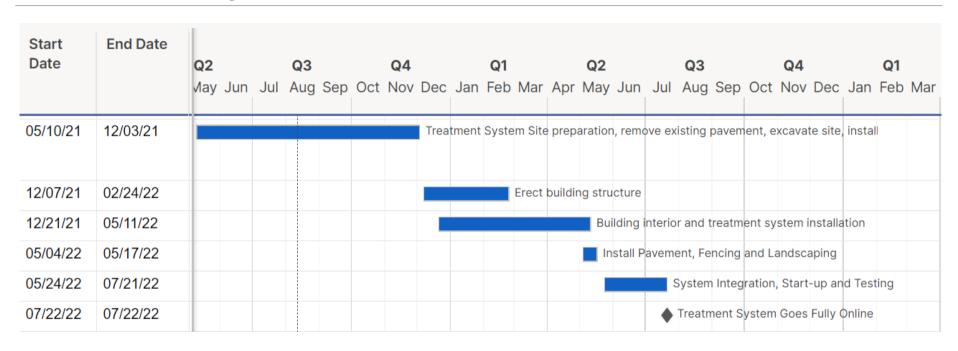
Treatment System Process



- 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



Treatment System Construction Timeline



Schedule as of 8/12/21

*Timeline is weather permitting and material availability/market conditions



Treatment System Construction Progress



Installing Storm Sewer Catch Basin (CB-4)



Compaction Testing of Piping Trench (between MH-1 and CB-2)



Top of Storm Sewer Catch Basin (CB-5)



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









Park Soil Thermal Remedy System

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





Park Soil Sampling Update

- Sampling (in yellow starred areas) is ongoing
- We expect to complete our additional sampling by late September
- Results are shared with NYSDEC, NYSDOH and Town of Oyster Bay
- Data and science will determine the remedy





Our Continued Commitment

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

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