

Client: Department of Design & Construction, Infrastructure

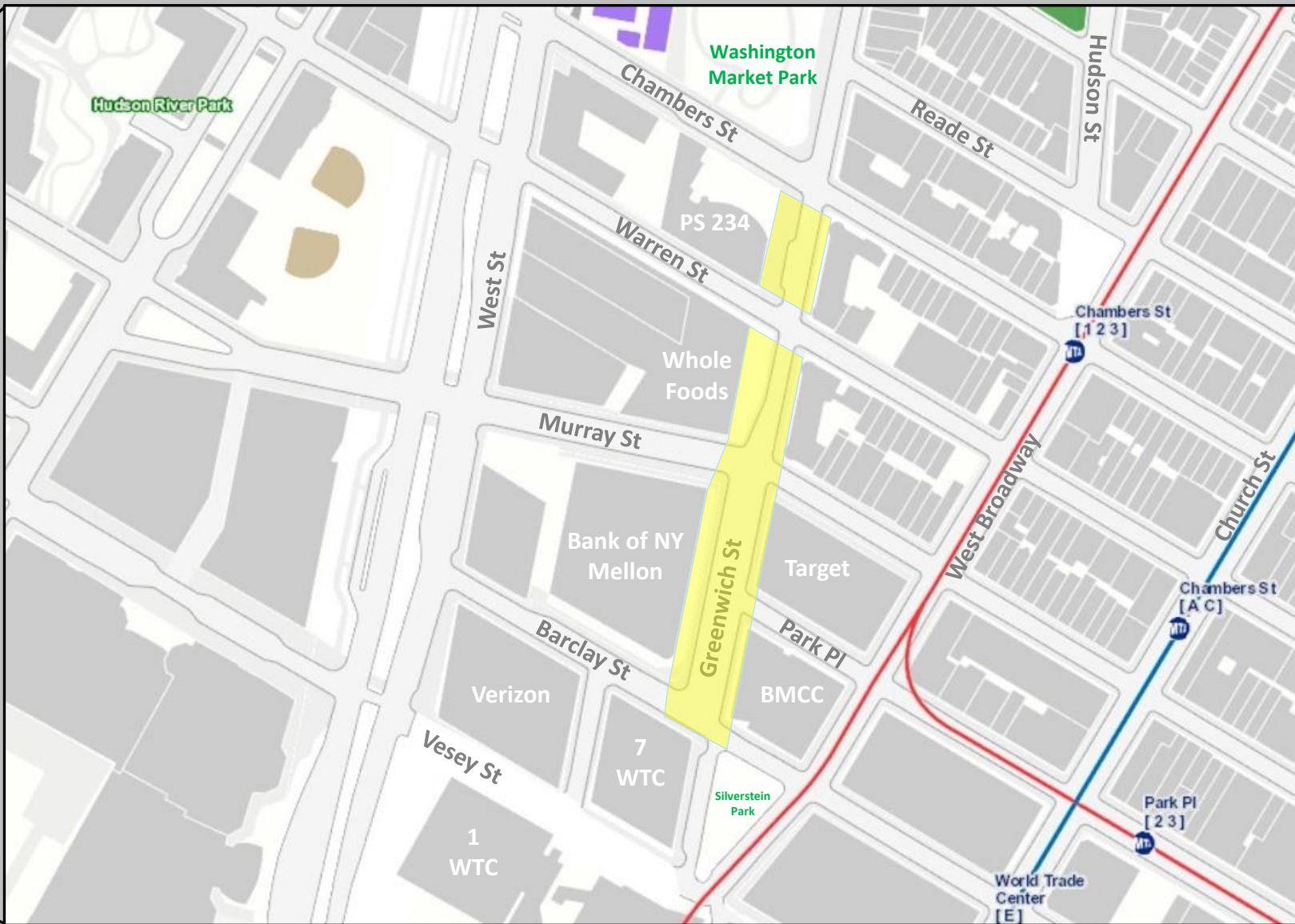
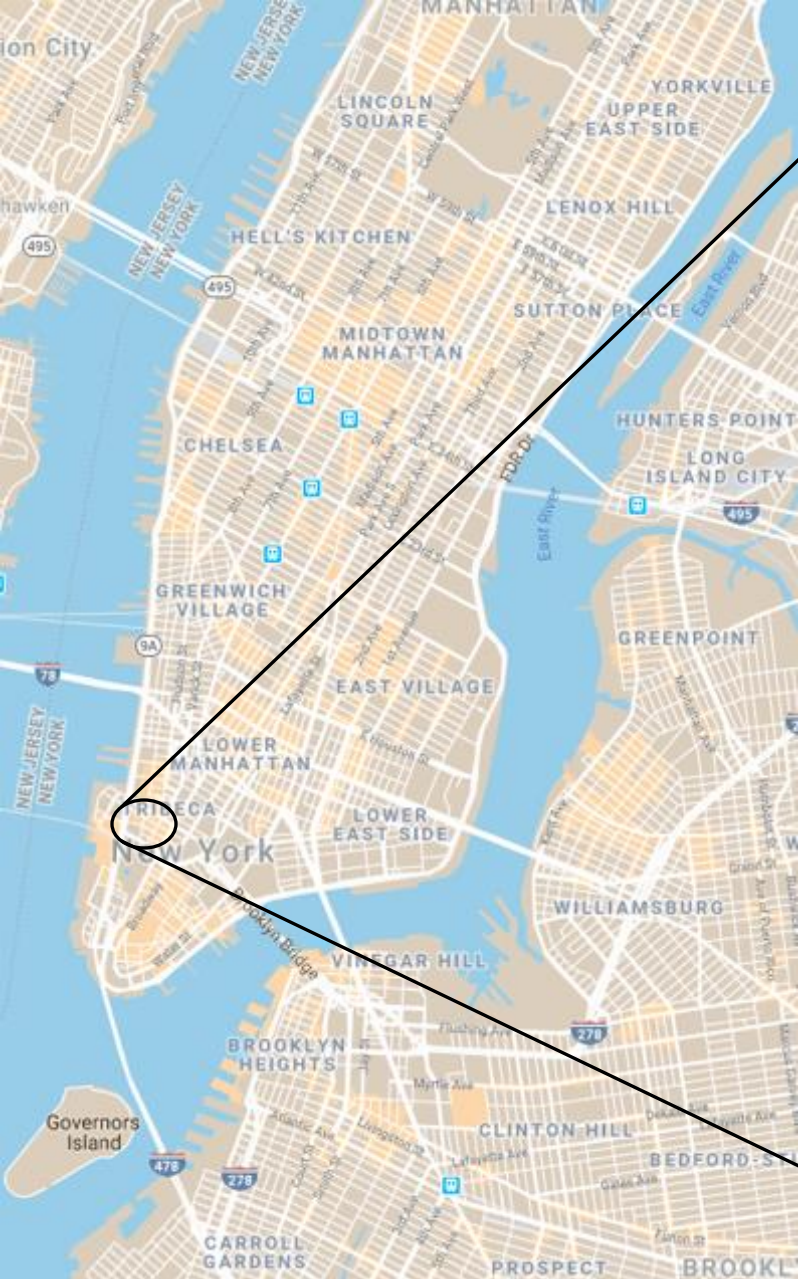
Project: **HWMWTCB2**
Reconstruction of Greenwich Street

Meeting Date: Thursday June 5, 2025
9:00 AM

Location: HRA conference center at 4 WTC, Manhattan

Subject: Subsurface 3 Symposium – Mass Excavation in Lower Manhattan





Reconstruction of Greenwich Street
Project ID: HMMWTCB2

PROJECT SUMMARY

1) Progress and Status

Time Elapsed 69%

Percent Complete 58%

2) Project Schedule

Original Contract: 11/8/21 to 11/6/2024 (3 Years)

Latest Schedule Update: **11/6/2026 (Additional 24 months)**

Schedule Phasing Overview:

Greenwich St Barclay St to Murray St 11/8/21 – 8/18/26
56 months

Greenwich St Murray St to Chambers St 6/19/26 – 11/6/26
5 months



BRIEF DESCRIPTION OF PROJECT SCOPE OF WORK

- Roadway reconstruction including sidewalks, curbs & pedestrian ramps
- Curb alignment modifications
- Removal of trolley materials
- Street furniture, signs and pavement markings
- Water mains:
 - 700 LF of 20" DIP WM
 - 150 LF of 12" DIP WM
 - 60 LF of 6" DIP WM
- Streetlights and traffic signals
- Catch basins and sewer manholes
- Capitol and interference joint bid utility work



UTILITY PHASING - CONSTRUCTION

1. Initial CPM Schedule by the GC

- City Scope of Work
- Pre-Engineered Utility Interference
- Pre-Engineered Capitol Utility Work

2. Test Pits and Trenching

3. Mass Excavation

- Expose, support & protect ALL facilities as directed
- Utility funded
- Not indicated on plans

4. Identify & Remove Abandoned Facilities

5. Determine Best Utility Relocation Solutions & Lanes for City Scope

6. Unplanned Utility Interference & Capitol Work

7. Schedule Updates



Test Pits

- Lower Manhattan congestion vs others
- ID issues
- Partial facility view
- Solutions for new lanes i.e. 20" water main
- No attempt to then trench water main



Trenching

- Standard DEP trenches





Mass Excavation Stage 1

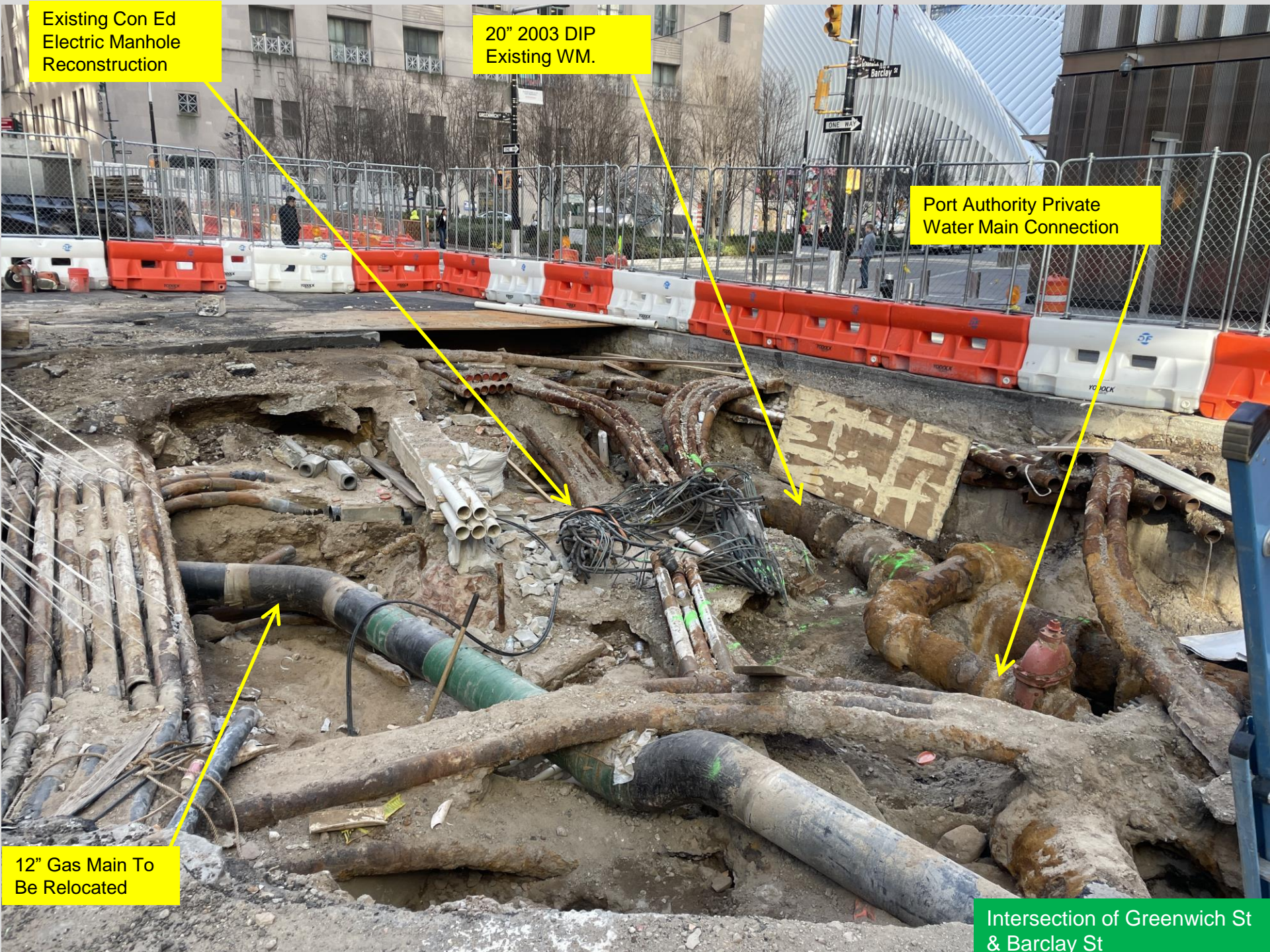
- JB utility funded
- Not comprehensive in Contract
- Utilities must agree to add after investigation
- Outer limits determined by MPT
- **Hand excavation**
- Hand removal of concrete encasement



Replacement of CE Electric Manhole

Proposed 20" DIP Water Main

Intersection of Greenwich St & Barclay St



Existing Con Ed
Electric Manhole
Reconstruction

20" 2003 DIP
Existing WM.

Port Authority Private
Water Main Connection

12" Gas Main To
Be Relocated

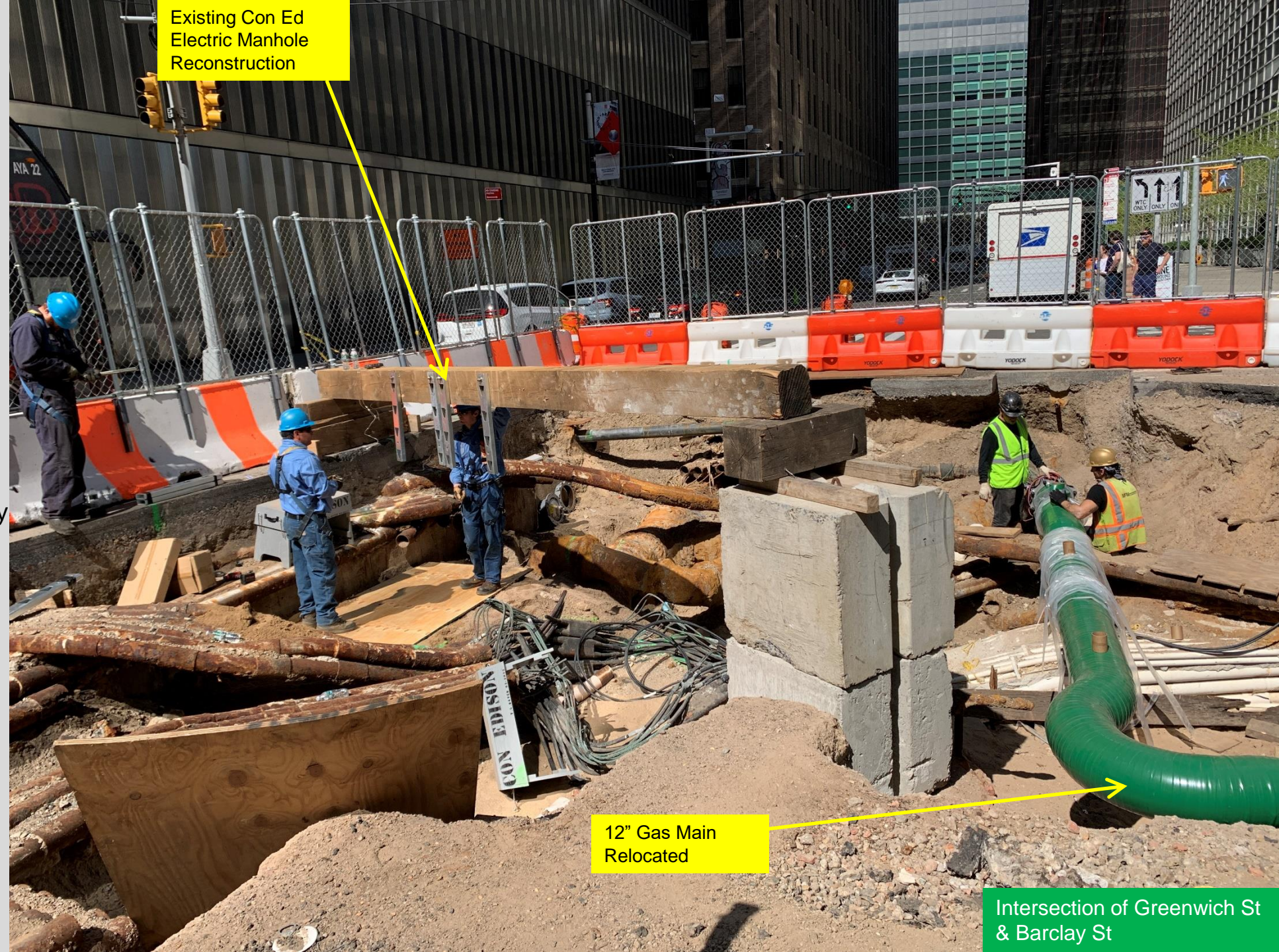
Intersection of Greenwich St
& Barclay St

Mass Excavation Stage 3

- ID and removals continues
- Redesign of water main lane
Utility hierarchy
Original design
- JB utilities provide new
scopes of work:
ECS Wingback
Con Ed secondary removal
Con Ed primary relocation
Gas main relocation
- Order Out #1 issued for all
electric interference

HMMWTCB2
Reconstruction of Greenwich St
March 2023
Facing Southeast

Existing Con Ed
Electric Manhole
Reconstruction



Mass Excavation Stage 4

Utility Specialty Work

- Relocation of gas main
Welding specialty crew
Contractor support
Con Ed connection & bypass
- Con Ed electric crew
Removal of additional secondary
Support remaining secondary

Specialty Work
+ New Utility Scope
= Time

12" Gas Main
Relocated

Intersection of Greenwich St
& Barclay St

Existing Con Ed
Electric Manhole
Reconstruction

12" Gas Main
Relocated



Mass Excavation Stage 5

- CE Primary Layout work
1 month per primary
Remove abandoned conduit
- CE electric manhole rebuild
- ECS wingback
- Water Main Installation
- Con Ed secondary layout

HMMWTCB2
Reconstruction of Greenwich St
August 2023
Facing Southwest

Intersection of Greenwich St
& Barclay St

Mass Excavation Stage 6

- CE Primary Layout work
1 month per primary
Remove abandoned conduit
- Backfill / Restoration



Backfilling Process

New Con Ed Electric Manhole

Example #1

Trenching Attempt

- No Mass excavation on plans for Murray St
- New Con Ed layout for CB and chute required

Con Edison electric interference x2

New Type 1 Catch basin

Original trench excavation for new CB Chute

Murray St east of Greenwich St



Mass Excavation Example #1

Trench → Mass Ex

- New Con Ed manhole reconstruction due to deterioration and more space needed from other work in Murray St
- Existing water main found in contact w/ electric manhole



Proposed Con Edison Manhole Reconstruction

Existing 8" steam main 1873

“There is nothing in the United States that matches the complexity that would be required in constructing a utilidor in Lower Manhattan.”

- Road To Smart City: Life Cycle Cost Benefit Analysis and Financing Options Diagnosis of NYC’s Utilidor Project, Columbia SIPA
May 4, 2020