



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

July 1, 2020

Houston Waterworks Team



Drone Site Map: June 18, 2020





Construction Progress – Intake Pump Station (IPS)

- Setting up the 108" bridge piping
- Completed stripping formwork of the 108" pipe pedestals



Setting up the 108" bridge piping



Completed stripping formwork of the 108" pipe pedestals





Construction Progress – Site Electrical

- Existing Plant - Repair MDB 111A/B, FDB101 at 36" Storm Drain
- Existing Plant - Excavate/Repair MDB 111A/B, FDB101 at 36" Storm Drain
- Existing Plant – Backfill, Excavate & Duct Bank Installation West to East (Zone 2)



Existing Plant - Repair MDB 111A/B, FDB101 at 36" Storm Drain




Existing Plant - Excavate & Duct Bank Installation West to East (Zone 2)



Existing Plant – Backfill, Excavate & Duct Bank Installation West to East (Zone 2)





Construction Progress – Substation Facility 102

- Installation of Formwork, Rebar and Concrete for Building Stairs
- Setting of Steel Channel Supports and Concrete Placement
- Remove Building and Stair Foundations Formwork / Backfill around Building

Installation of Formwork, Rebar and Concrete for Building Stairs



Setting of Steel Channel Supports and Concrete Placement



Remove Building and Stair Foundations Formwork / Backfill around Building

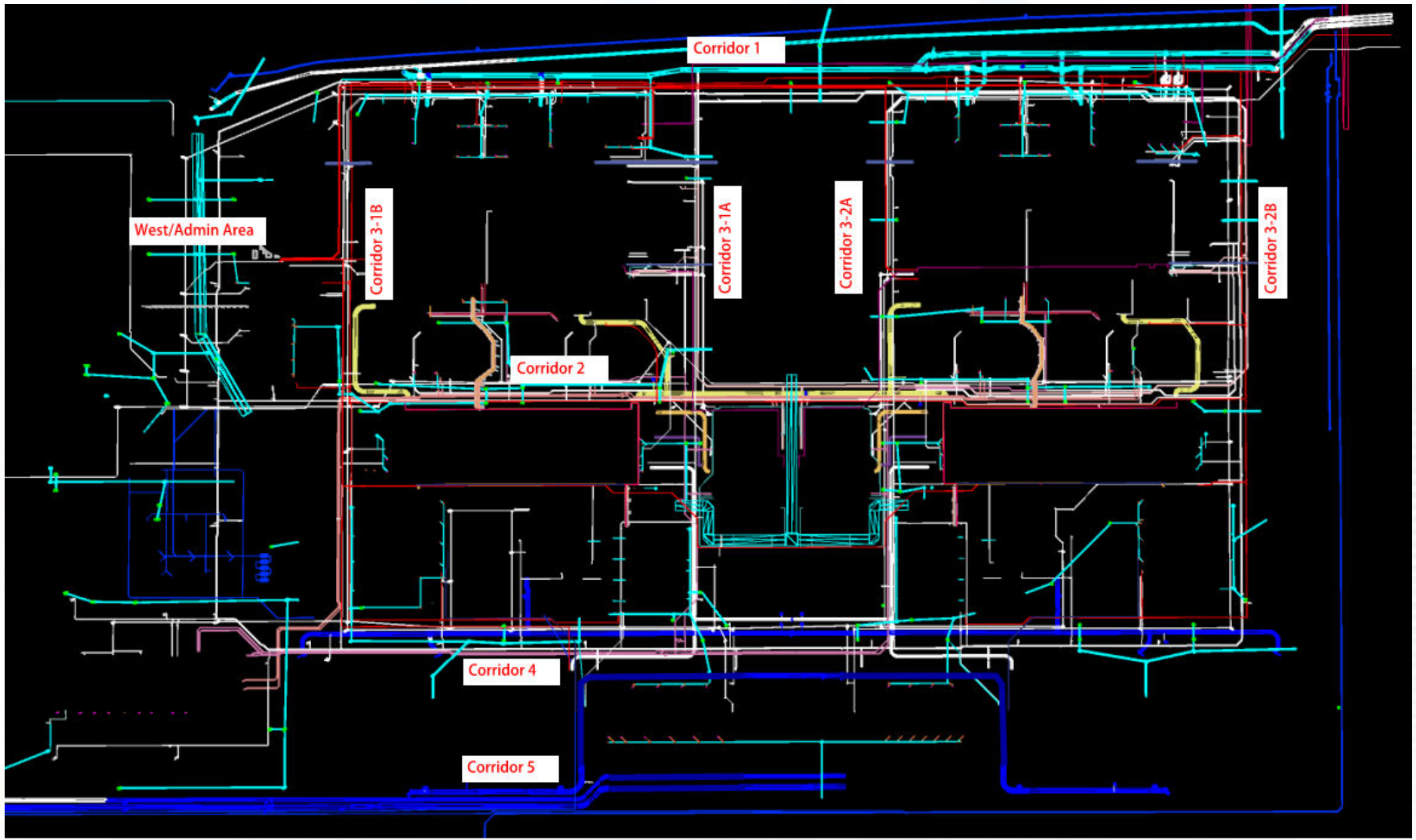




Construction Progress – Yard Piping

- **Installing and welding dual 108” and 78” RW steel pipe in Corridor 1 and 78” BFV’s**
- **Installing 36” CRCY and 24” PW ductile iron pipe in Corridor 1**
- **Installing and welding 60” BWS steel pipe in Corridor 4**
- **Set MH502, and installing 10” SSG and 12” PDR pipe in Corridor 4**
- **Installing 2-20” TSL lines crossing Road 1 in Corridor 4**
- **Installing 6” PW line crossing Road 1 in Corridor 4**
- **Setting 120” BFV on Finished Water pipe**
- **Installing and welding 120” FW steel pipe in Corridor 5 and by HSPS**
- **Installing and welding 84” FW steel pipe in Corridor 5**
- **Receival of butterfly (BFV) and knife gate (KGV) valves at HWT warehouse**





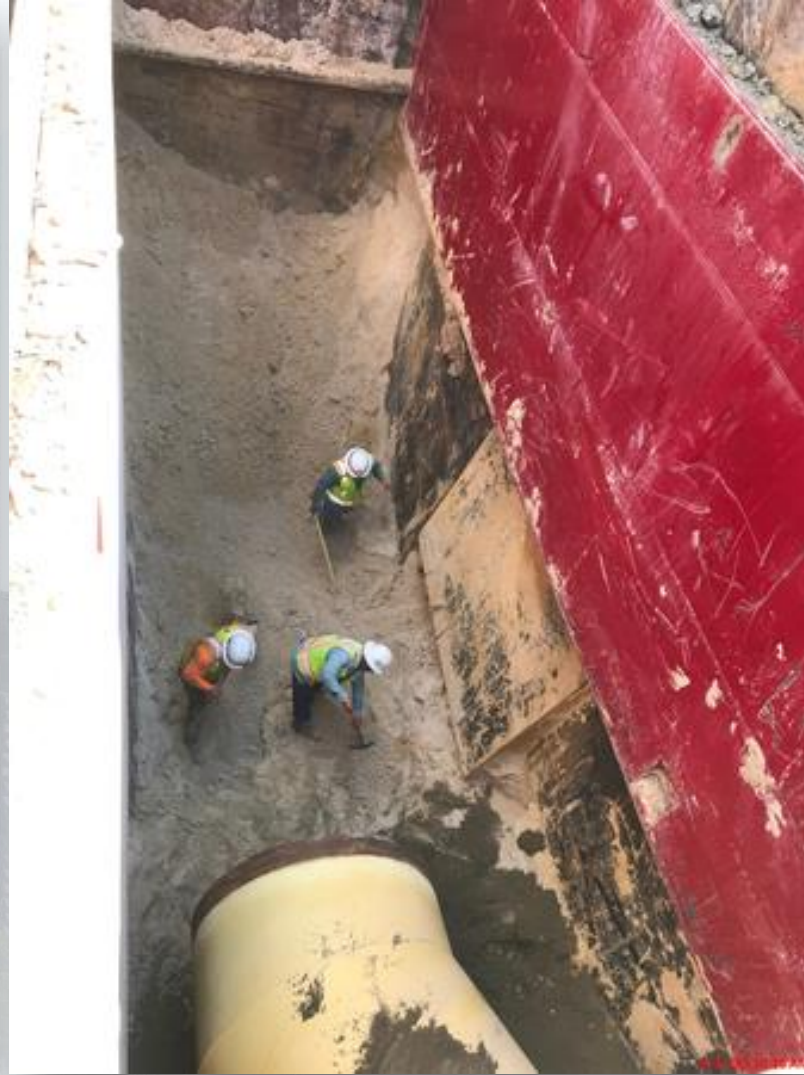
Formed and poured 78" valve supports in Corridor 1



Installing 36" CRCY and 24" PW pipe in Corridor 1



Installing 60" BWS in Corridor 4



Set MH502, and installing 10" SSG and 12" PDR pipe in Corridor 4



Installing 20" TSL line crossing Road 1 in Corridor 4



Installing 6" PW line crossing Road 1 in Corridor 4



Setting 120" BFV on FW pipe in Corridor 4



Installing 120" FW steel pipe in Corridor 5



Installing 84" FW steel pipe in Corridor 5



Receival of butterfly and knife gate valves at HWT warehouse





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- Forming/Reinforcing Walls.
- Pouring Walls.
- Pouring Upper Manifold Decks 1/2
- 84" BFV Install

291-TRANSFER PUMP STATION 1:

- Pour Concrete 36" Block-outs at Air Gap
- Pour Concrete Pump Cans 4, 5, and 6 Encasement Upper Level
- Install 36" Flap Gates
- 96" FW Pipes delivery

311-POST CHEMICAL FACILITY 1 SH/CS :

- Underground Conduit Installation –Building Area
- Installation of Rebar for SOG A3 & A4
- Concrete Pour SOG A4.

282 -FILTER MODULE 2:

- Backfilling around Pump Cans
- Hydrostatic Testing of Underslab 36" FTW.

292-TRANSFER PUMP STATION 2:

- Pump Can Slab Form up and Tying Rebar



CENTRAL PLANT - 1st PHASE



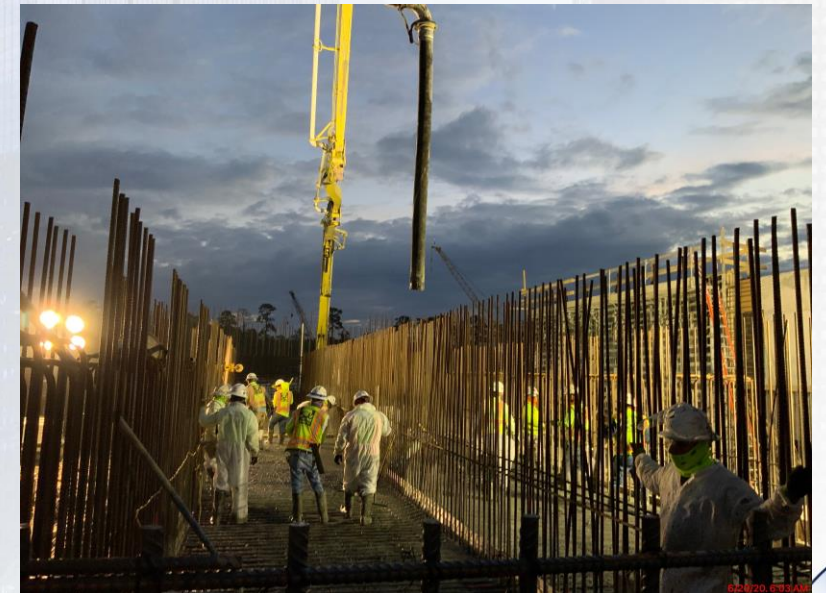
281-FILTER MODULE-Forming/Reinforcing Walls



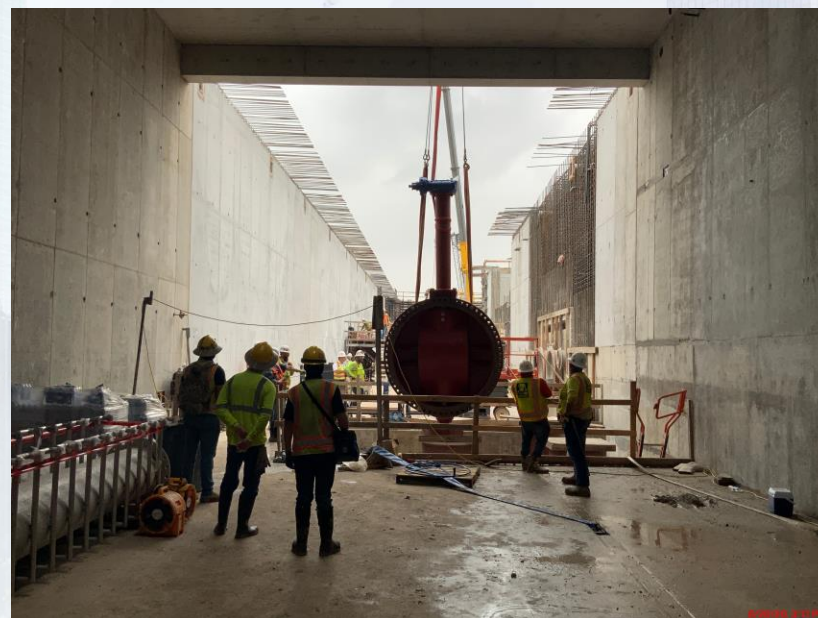
281-FILTER MODULE-Pouring Walls



281-FILTER MODULE- Reinforcing/Pouring Upper Manifold Decks 1/2



281-FILTER MODULE- Setting 84" BFV



291– Top View



291– Pour Concrete 36" Block-outs at Air Gap



291– Pour Concrete Pump Can Encasements Upper Level



291– Install 36" Flap Gates



291–96" FW Pipes Delivery



311-PostChemical: Underground Conduit installation - Building



311-PostChemical: Installation of Rebar Slab A3, A4 –Tank farm



311-PostChemical: Concrete Pour SOG A4 –Tank farm



CENTRAL PLANT – 2nd PHASE



282- Backfilling around Pump Cans



282-FILTER MODULE 2- Hydrostatic testing of Under-slab 36" FTW



292 – Pour Pump Can Form up and Tying Rebar





Construction Progress – LREQ Basins Facilities 601/602

- **Concrete Pour for Walls of 601 – P3 and P8**
- **Install Rebar on the South and East Walls of 601**
- **Formwork Installation for Walls of 601 – P7 and P20**



601 - Concrete pour for walls P3 and P8



601 - Install rebar on the South and East walls



601 - Formwork installation for walls P7 and P20





Construction Progress – North Plant

213-Pretreatment Chemical Facility 3:

- Structural Concrete Work with Galan
- U/G Electrical

214-Pretreatment Chemical Facility 4:

- Structural Concrete Work with Galan
- U/G Electrical

221-Rapid Mix Train 1:

- RM-WL-1 F/R/P
- 78 inch RW pipe Installation

222-Rapid Mix Train 2:

- ESL-1 F/R/P

242-FlocSed Train 2

- Slab-on-Grade
- Elevated Slab Column Formwork
- Short Wall Column Stripping

244-FlocSed Train 4

- East/West Corridor Excavation
- 8 inch RCYS and 24 inch PDR Installation

252-Ozone Contractor Train 2:

- Structural Concrete Work on Mat Foundation

502-Gravity Thickener Complex 2

- Basin #4 Slab-On-Grade and Walls F/R/P
- Service Bldg Walls F/R/P

504-Gravity Thickener Complex 4

- Started Mass Excavation

611-Liquid Residuals Clarifier Facility 1:

- Slab-On-Grade F/R/P

612-Liquid Residuals Clarifier Facility 2:

- RCYS and PDR Excavation



Facility 214 Ductbank Installation



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Facility 214 SL-2 and -4 F/R/P



Facility 242 SL-34 Concrete Placement



Facility 242 SL-36 Concrete Placement



6/30/20, 6:16 AM
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Facility 244 8 inch RCYS



6/19/20 1:50 PM

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Facility 244 24 inch PDR



6/15/20, 1:44 PM

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Facility 252 SL-1 and -3 F/R/P



Facility 502 GT Basin #3 and Service Building



Facility 502 WL-5 and -6 Formwork Erection



Facility 502 WL-5 and -6 Formwork Erection



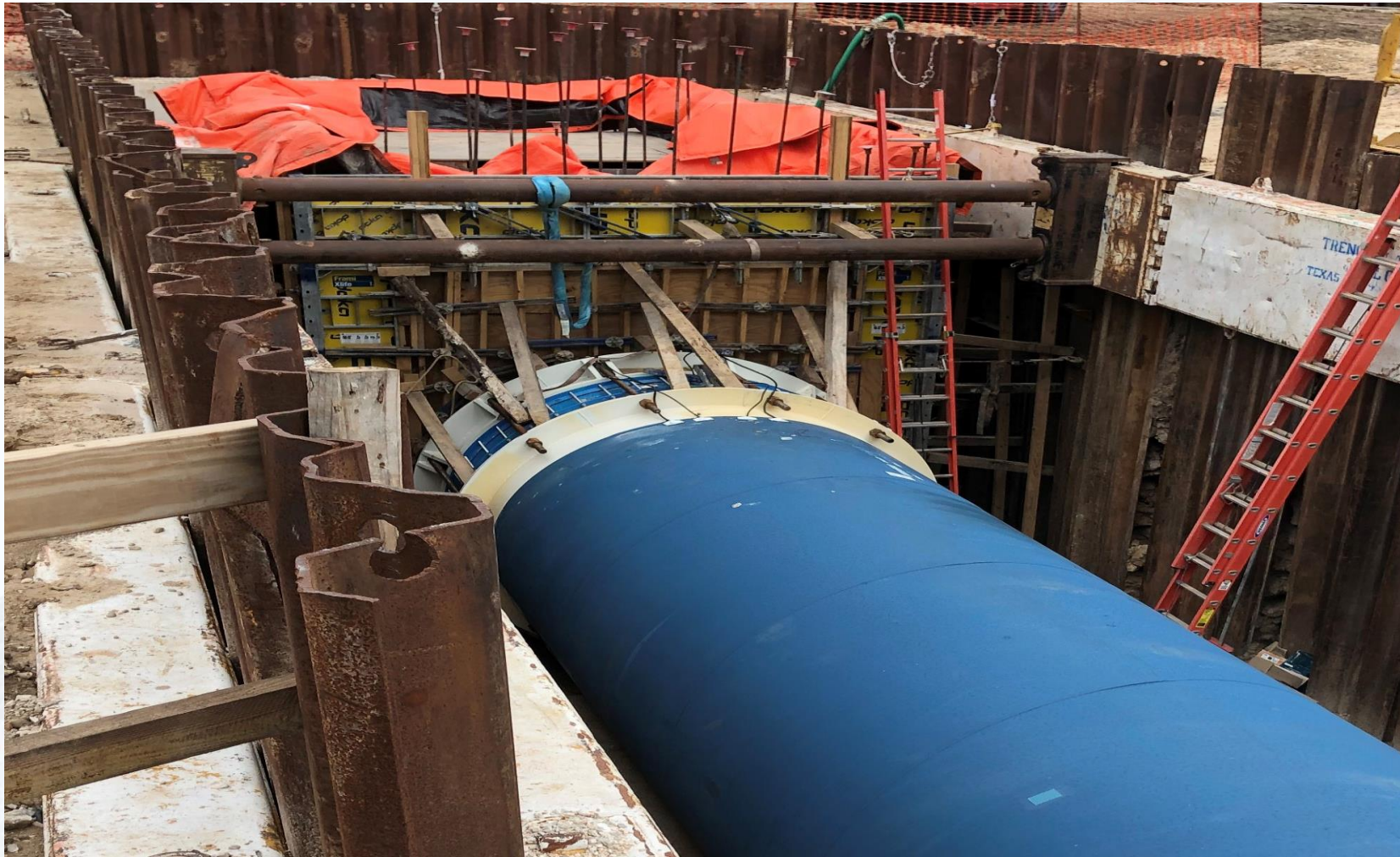


Construction Progress – South Plant

- **Installation of 102” outlet pipe at GST 361**
- **Geogrid on Load Transfer Platform installed at GST 362**
- **CMU installation at Facility 111**
- **Excavation at HSPS 402**
- **Sludge Equalization Building Footing and Stem Wall Placement at Facility 510**
- **Structural Steel Sequence 01 & 02 Erected at Facility 520**



Installation of 102" outlet pipe at GST 361



Geogrid on Load Transfer Platform installed at GST 362



CMU installation at Facility 111



Excavation at HSPS 402



Sludge Equalization Building Footing and Stem Wall Placement at Facility 510



Finished Structural Steel Sequence 01 & 02 Erected at Facility 520





Construction Progress – Administration Building

- Installed CP on PDR line
- Installed MB Plumbing above EL 53'
- Installed MB Electrical Conduit above EL 53'
- Encased Fire Riser Pipe



Encasement of Fire Riser Pipe



Installation of Electrical Conduit above EL 53'



Installation of Plumbing above EL 53'

