



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

December 8, 2021



Site Drone Map December 2, 2021





Construction Progress – Intake Pump Station (IPS)

- **Continue site grading**
- **Installation of leak detection cable**
- **Continue coating repair of the precast concrete wall**



Continue site grading



Installation of leak detection cable



Continue coating repair of the precast concrete wall





Construction Progress – Site Electrical

- 510/520 Fiber Duct bank
- North Fiber Duct bank
- 242/272 Cable Run Pipe Installation

510/520 Fiber Duct bank



North Run Fiber Duct bank



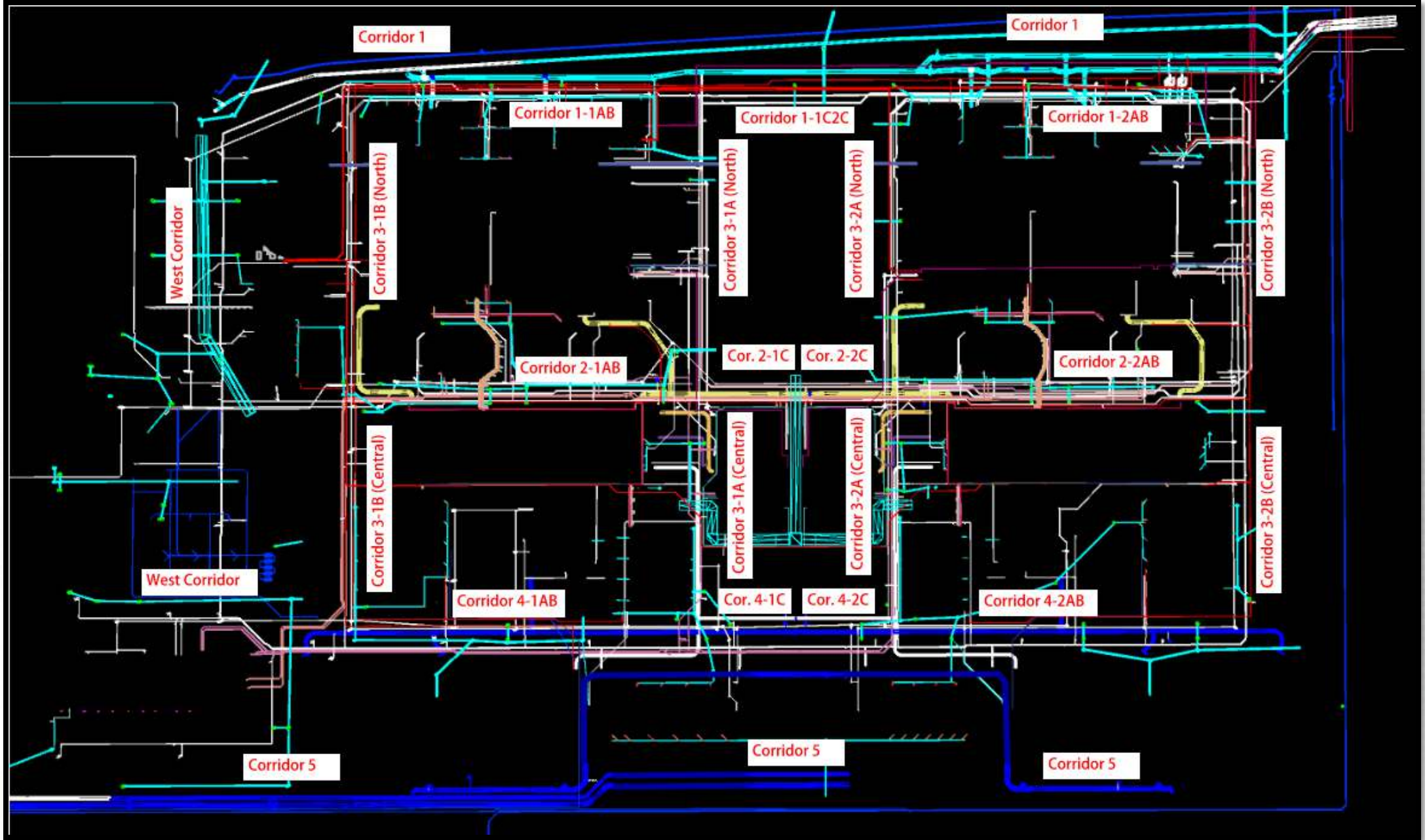
242/272 Cabel Run Pipe Installation





Construction Progress – Yard Piping

- Corridor 1 – Performed wet taps, installed line stop housing, and attempted to insert line stops in the 66-inch Raw Water Main
- Corridor 1 – Installing 36-inch Clarified Recycle ductile iron piping
- Corridor 1 – Installing Storm Sewer manholes and PVC piping
- West Corridor – Installing Storm Sewer manholes and RCP by GST 361
- Corridor 5- Installing the 120-inch FW distribution piping along site access entrance road
- Corridor 5 – Set and welded the 2nd 60x84" Tapping Saddle, and set and bolted both 60" Gate Valves
- Corridor 5 – Performed two 60" wet taps on the existing 84-inch FWM
- Corridor 5 – Traffic shift island improvements for upcoming 120" FW work– Relocating light/camera poles
- Corridor 5 – Traffic shift island improvements for upcoming 120" FW work– Relocating light/camera poles
- Corridor 5 – Installing Storm Sewer manholes and RCP by Road 1



Corridor 1 – Performed wet taps, installed line stop housing, and attempted to insert line stops in the 66-inch Raw Water Main



Corridor 1 – Installing 36-inch Clarified Recycle ductile iron piping



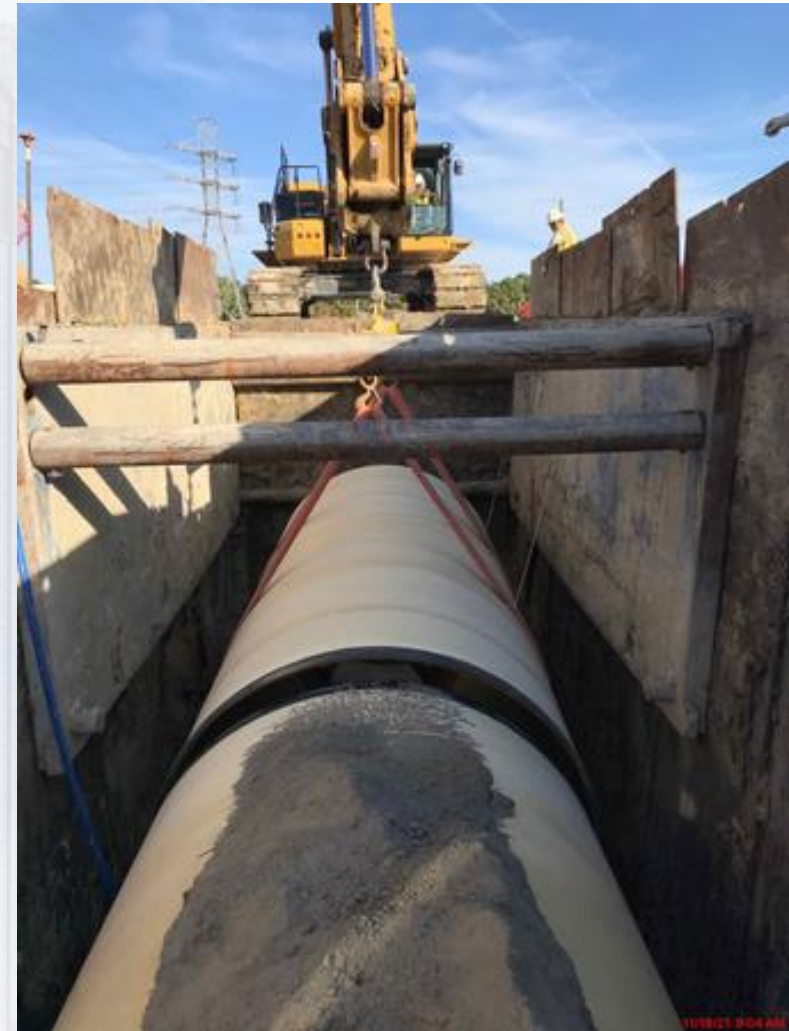
Corridor 1 – Installing Storm Sewer manholes and PVC piping



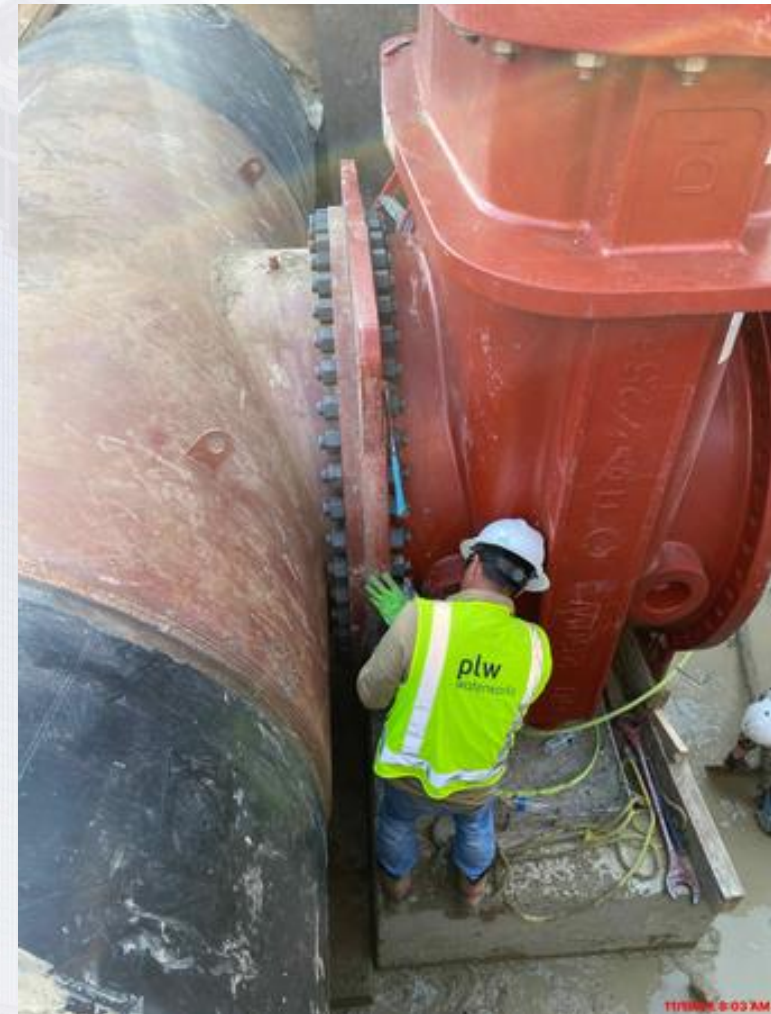
West Corridor – Installing Storm Sewer manholes and RCP by GST 361



Corridor 5- Installing the 120-inch FW distribution piping along site access entrance road



Corridor 5 – Set and welded the 2nd 60x84" Tapping Saddle, and set and bolted both 60" Gate Valves



Corridor 5 – Performed two 60" wet taps on the existing 84-inch FWM



Corridor 5 – Traffic shift island improvements for upcoming 120" FW work – Relocating light/camera poles



Corridor 5 – Traffic shift island improvements for upcoming 120" FW work – asphalt paving



Corridor 5 – Installing Storm Sewer manholes and RCP by Road 1





Construction Progress – Central Plant 1

281-FILTER MODULE 1 :

- Finish Installing Under-drain Blocks
- Continue grouting Filters Under-drains.
- Bypass Vault- Piping & Grating support Install.
- FD Line VTP Motor install & Thurst block install.
- Finish Installing Large Valves.
- Wiring Actuators & Instrumentations.
- Upper Manifold Channel Slab Sloped Topping pour.

291-TRANSFER PUMP STATION 1:

- Chemical Piping Beam Supports Installation
- Pour 42" FW Piping Supports Saddles & Grout Anchors
- Install Conduits from ASD's to VTP Motors
- Install Seal Water Assembly Panels' Piping System

311 – POST CHEMICAL FACILITY SH/CS :

- CRC Surface Application at containment areas.
- Pipe support installation at containment areas.
- Continue Installation Electrical and Plumbing lines.
- Continue Installation Chemical Metering Pumps.
- Bridge Installation between 311/281.

312 – POST CHEMICAL FACILITY FA/LAS/PEC/SB :

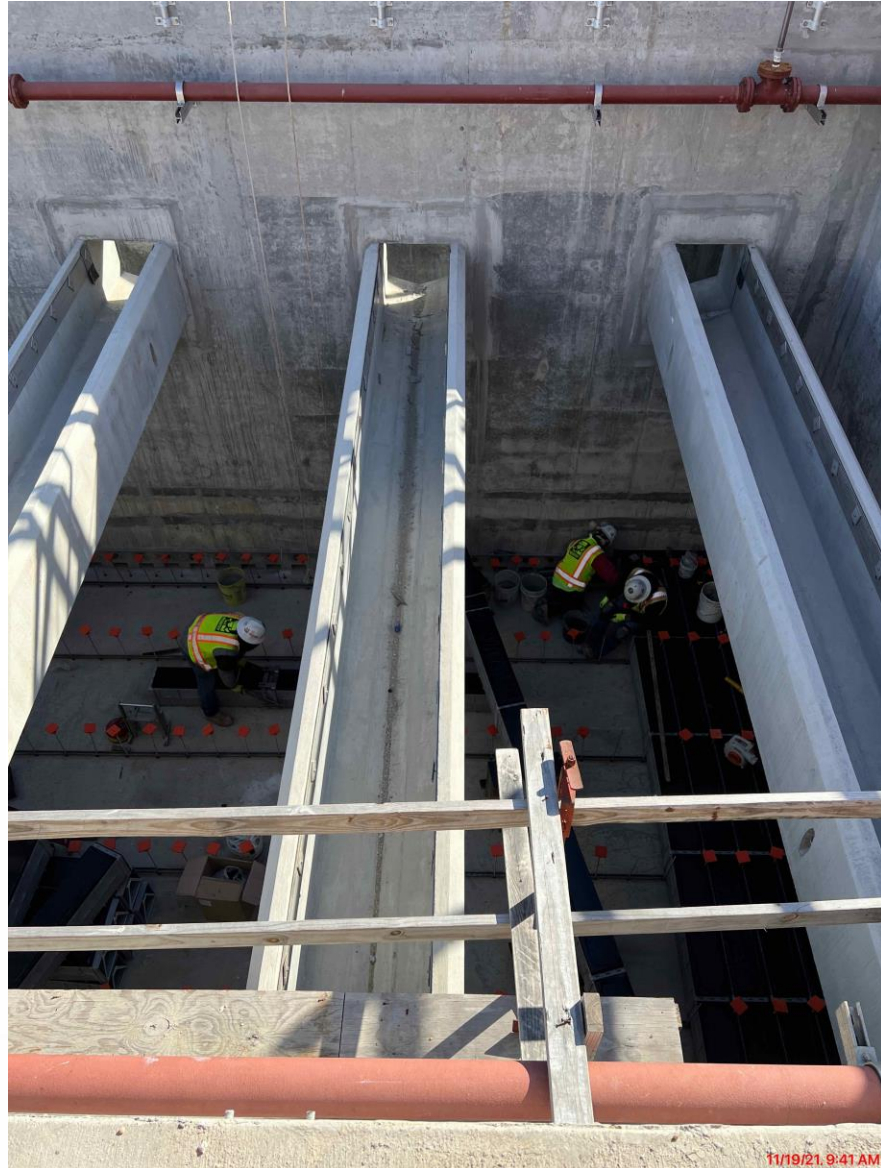
- Mock up for Chem Systems.
- CRC Coating preparation
- Installation of Electrica lines above ground
- F/R/P footings for metal bridge between 312/281.



CENTRAL PLANT- PHASE 1



281-FILTER MODULE – Finish installing Under-drain Blocks



281-FILTER MODULE- Continue grouting Filter UD



281-FILTER MODULE- Bypass Vault- Piping & Grating Support



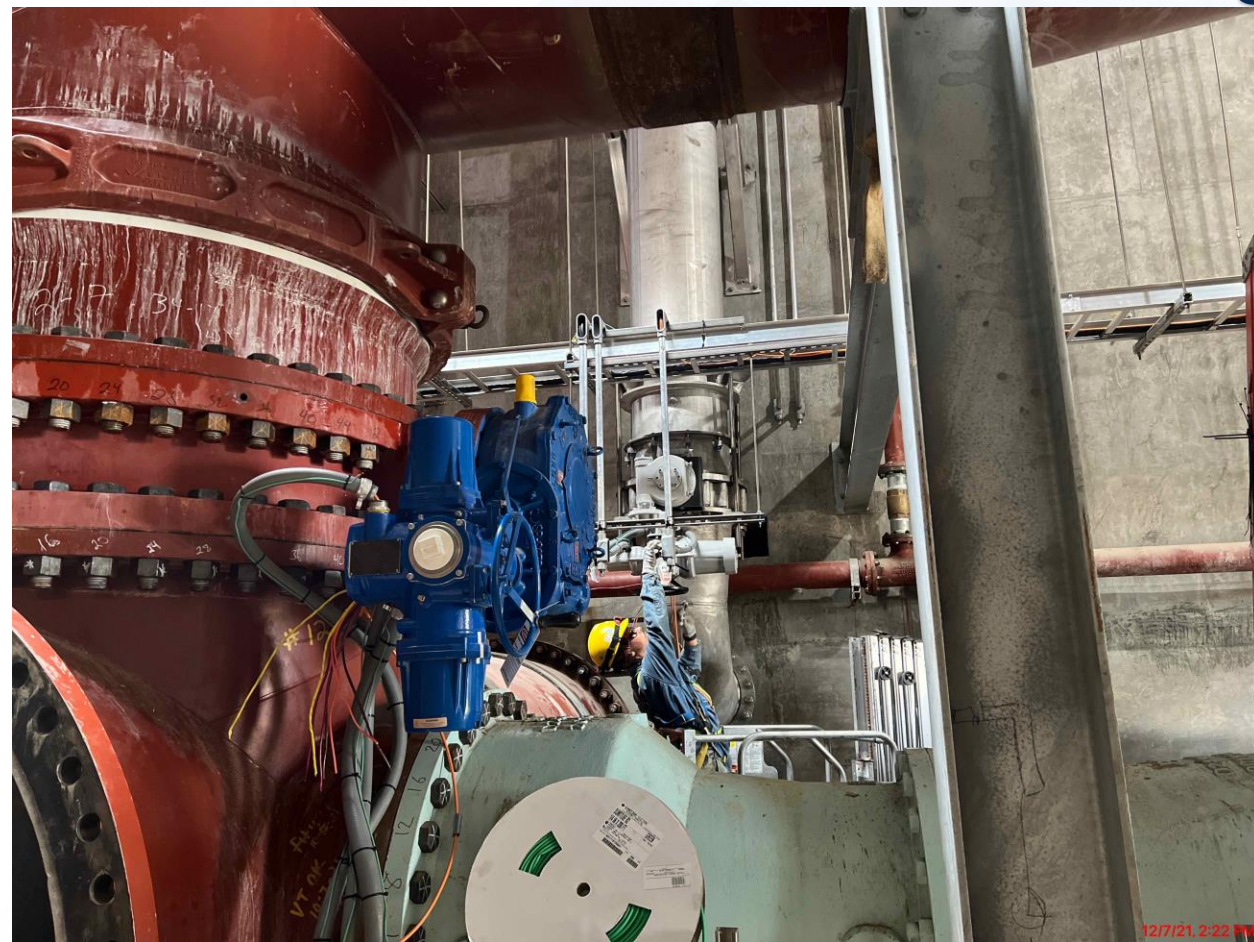
281-FILTER MODULE- FD Line VTP Motor & Thrust Block Install



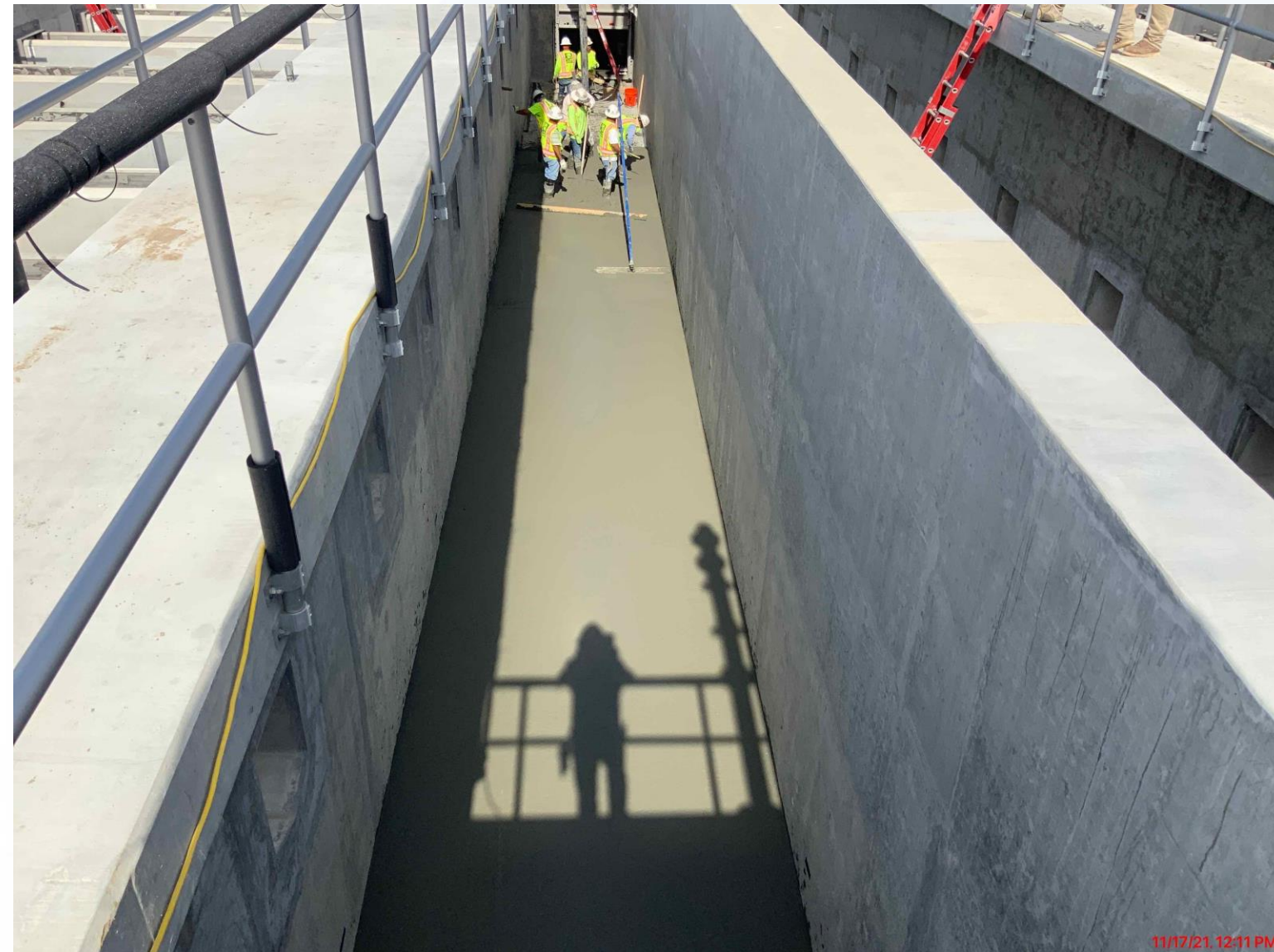
281-FILTER MODULE- Finish Installing Large Valves



281-FILTER MODULE- Wiring Actuators & Instrumentation



281-FILTER MODULE- Upper Manifold Channel Slab Sloped Topping



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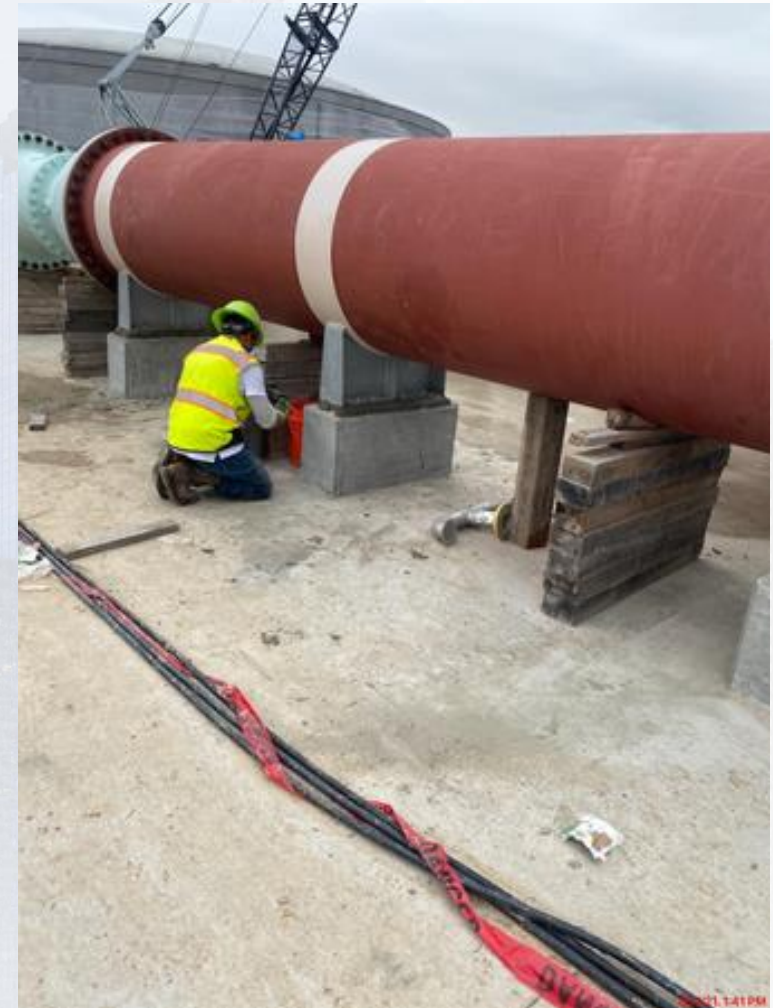
291-TPS – Aerial View (12/03/2021)



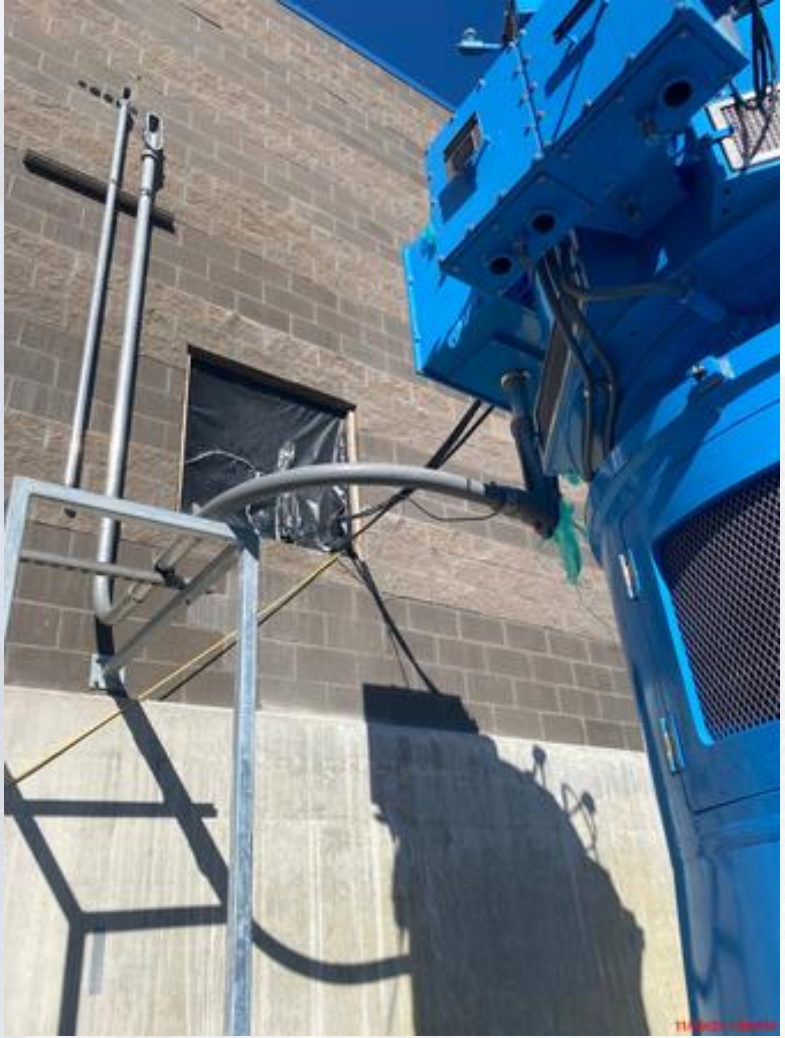
291-TPS – Chemical Piping Beam Supports Installation



291-TPS – Pour 42" FW Piping Supports Saddles & Grout Anchors



291-TPS – Install Conduits from ASD's to VTP Motors



291-TPS – Install Seal Water Assembly Panels' Piping System



311 – Aerial view – 11/05/2021



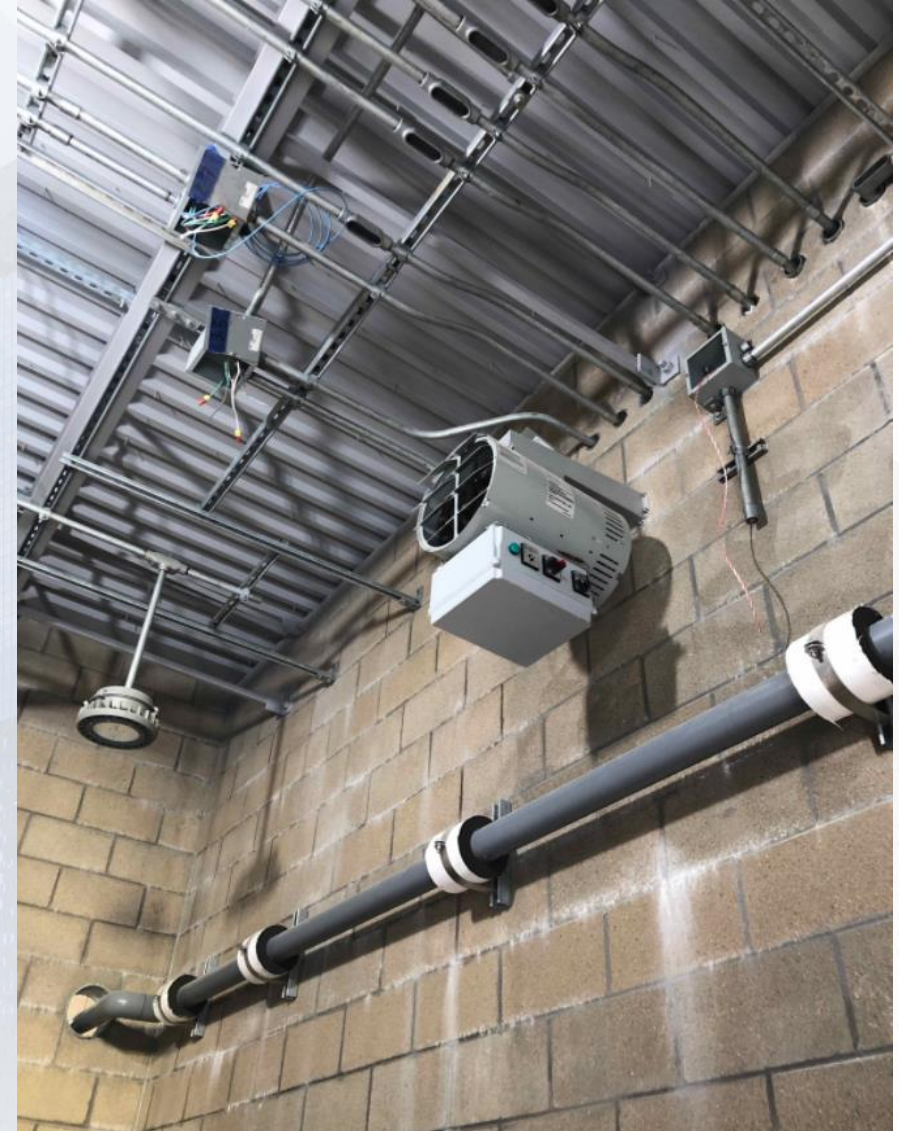
311 – CRC Surface Application



311 – Install FRP Ductwork



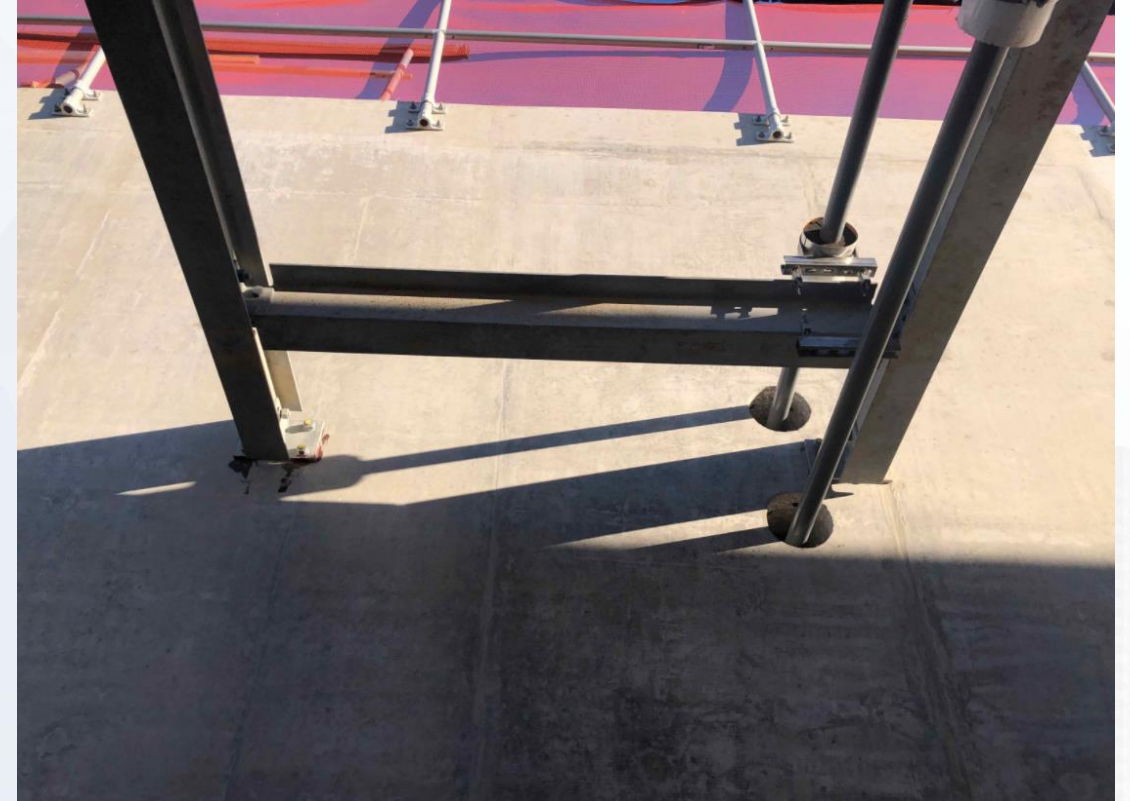
311 –Aboveground Electrical and Plumbing Installation.



311 –Chemical Metering Pumps and LCPs Installation



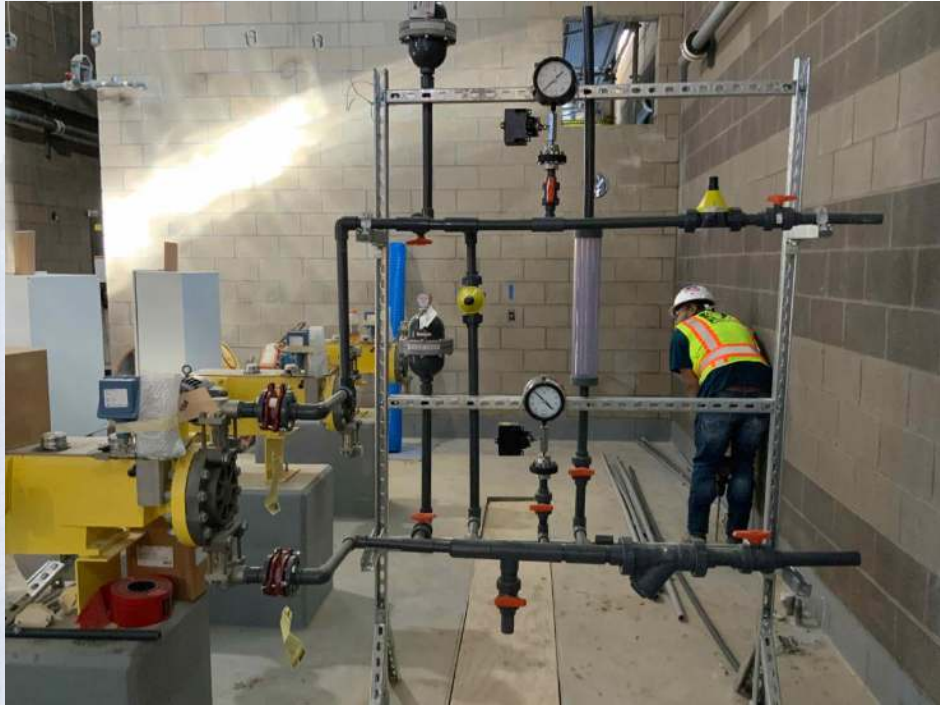
311 – Bridge Installation between 311 and 281.



312 - Overall view 11/05/21



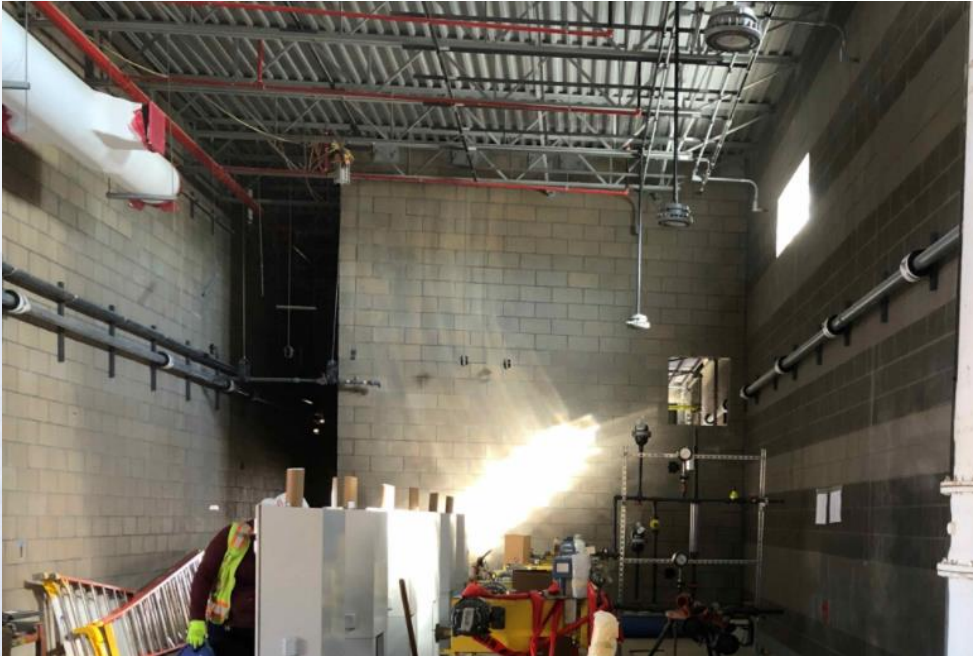
312 – Mock up for Chem Systems



312 – CRC Application at containment



312 – Installation of electrical lines



312 – F/R/P Metal Bridge footings connecting 312 and 281





Construction Progress – Central Plant 2

282 -FILTER MODULE 2:

- Start of Masonry Structures
- Reinforcing/Forming Top Deck.
- Concrete Placement for Top Deck

292-TRANSFER PUMP STATION 2:

- Backfill around Pump Cans
- Install Top Deck Shoring
- 36" Flap Gates Installation

313 – POST CHEMICAL FACILITY 3 FA/LAS/PEC/SB :

- F/R/P Footings and Stem walls at chem building

314 – POST CHEMICAL FACILITY 4 SH/CS :

- F/R/P Concrete Slabs for containment and building.
- Installation of CMU Blocks.



CENTRAL PLANT- Phase 2



313- Overall view 11/01/21



313 –F/R/P Footings Stem walls at chem building.



314- Aerial view 11/05/21



314 – Installation of CMU Blocks



282-FILTER MODULE 2- Start of Masonry Structures



282-FILTER MODULE 2- West Masonry Structure



282-FILTER MODULE 2- Forming/Reinforcing for Top Deck



282-FILTER MODULE 2- Pouring Top Deck



292-TPS – Aerial View (12-03-2021)



292-TPS – Backfill Around Pump Cans



292-TPS – Install Top Deck Shoring



292-TPS – 36" Flap Gates Installation





Construction Progress – LREQ Basins Facilities 601/602

- **601 – Installation of Road 7 between Central Plant Phase 1 and Fac. 601**
- **602 – Continue grouting Exterior/Interior Walls of Structure**
- **602 – Continue installation of 24" RCY interconnect pipe**



601 – Installation of Road 7 between Central Plant Phase 1 and Fac. 601



602 – Continue grouting Exterior/Interior Walls of Structure



602 – Continue installation of 24" RCY interconnect pipe





Construction Progress – North Plant

201-Chlorine Dioxide Facility 1:

- Area-B Steel Joist Installed

212-Pretreatment Chemical Facility 2:

- Area-B Slab 4&5 Concrete Pour Ongoing

213-Pretreatment Chemical Facility 3:

- Area-B PEN Polymer Metering Pumps Installation

242-Flocculation & Sedimentation Train 2:

- Sed Basin 3: Leak Test Full
- Exterior: Permanent Stair Tower Installation

244-Flocculation & Sedimentation Train 3:

- Cross Collector Channel Walls/Slabs

252-Ozone Contactor 2:

- Roof ESL-3 F/R/P Ongoing

261-Ozone Generation Facility 1:

- Area-A Roof Metal Decking Installation

271-Pretreatment Service Building 1:

- Electrical Installation

501-Gravity Sludge Thickener Complex 1:

- GT1 Walls

502-Gravity Sludge Thickener Complex 2:

- GT3 Rub & Finish



201-Chlorine Dioxide Facility 1: Area-B Steel Joist Installed



212-Pretreatment Chemical Facility 2: Area-B Slab 4&5 Concrete Pour Ongoing



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213-Pretreatment Chemical Facility 3: Area-B PEN Polymer Metering Pumps Installation



242-Flocculation & Sedimentation Train 2: Sed. Basin 3 – Leak Test Full Height / Permanent Stair Tower



244-Flocculation & Sedimentation Train 3: Cross Collector Channel Walls/Slabs



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252-Ozone Contactor 2: Roof ESL-3 F/R/P Ongoing



261-Ozone Generation Facility 1: Area-A Roof Metal Decking Installation



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Houston Waterworks Team



271-Pretreatment Service Building 1: Electrical Installation



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Houston Waterworks Team



501-Gravity Sludge Thickener Complex 1: Gravity Thickener 1 Walls F/R/P



502-Gravity Sludge Thickener Complex 2: Gravity Thickener 3 Rub & Finish





Construction Progress – South Plant

- 361 - Continued shotcrete and completed prestress.
- 362 – Continued interior tank work.
- 401 – Commenced exterior slab earthwork and U.G electrical.
- 401 – Commenced metal roof.
- 401 – Continued precast wall repairs.
- 401 – Continued 60-inch BWS installation.
- 401 – Continued of bridge crane installation.
- 401 – Completed TPO roofing installation.
- 401 – Delivery of ASD's, and switchgear.
- 401 – Continue painting.
- 402 – Continued installation of 78-inch buried pipe to pump cans.
- 402 – Continued pipe encasement of 78-inch buried pipe.
- 402 – Commenced backfilling around 78" encasements.
- 520 – Continued process pipe installation.
- 520 – Continued electrical conduit installation on level 1, 2, and 3.
- 520 – Continued wire pulling.
- 520 – Continued door & window frames.
- 520 – Continued plumbing finishes.
- 520 – Continued bus duct installation.
- 520 – Continued downspout installation.
- 520 – Continued elevator installation.
- 520 – Continued installation of upper and lower conveyors.
- 520 – Commenced overhead door installation.
- 510 – Continued process pipe installation.



GST 361 & 362 AERIAL VIEW



GST 361

GST 362

GROUND STORAGE TANK 361



361 – Completed prestress and continued shotcrete

GROUND STORAGE TANK 362



362 – Continued interior tank work

HSPS 401, MSB 111, HSPS 402 AERIAL VIEW

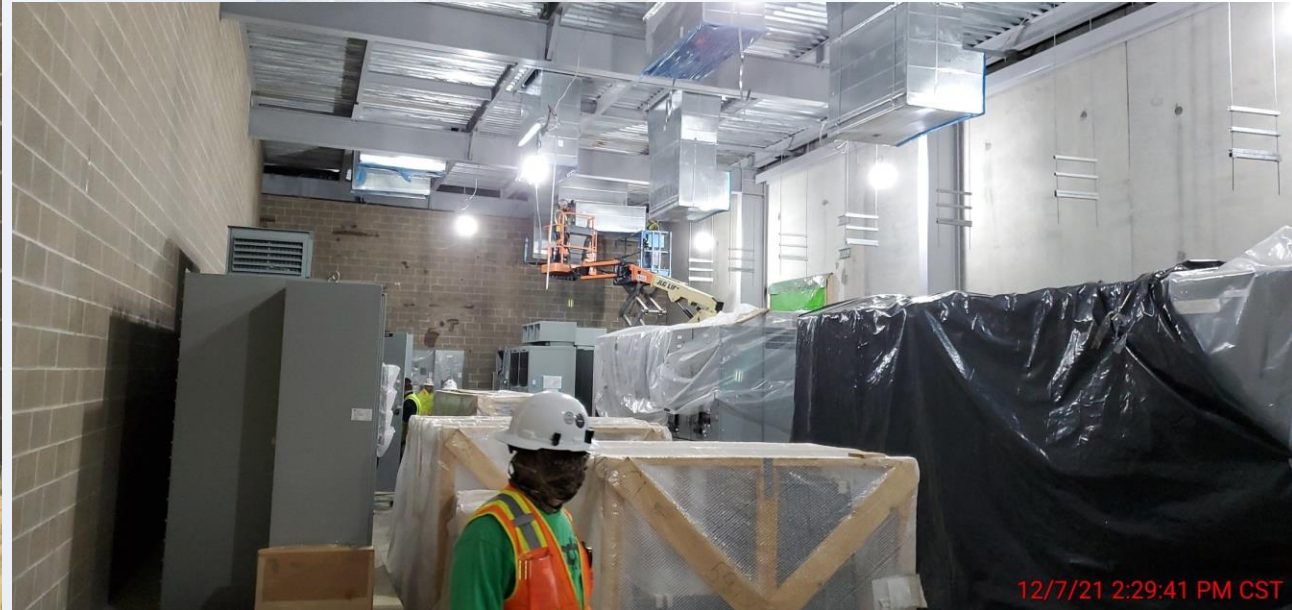


HSPS 401

MSB 111

HSPS 402

HIGH SERVICE PUMP STATION 401



401 - Delivery of ASD's and switchgear

HIGH SERVICE PUMP STATION 401



401 – Continued 60-inch BWS installation

HIGH SERVICE PUMP STATION 402



402 – Continued pipe encasement of 78” buried pipe and commenced backfilling

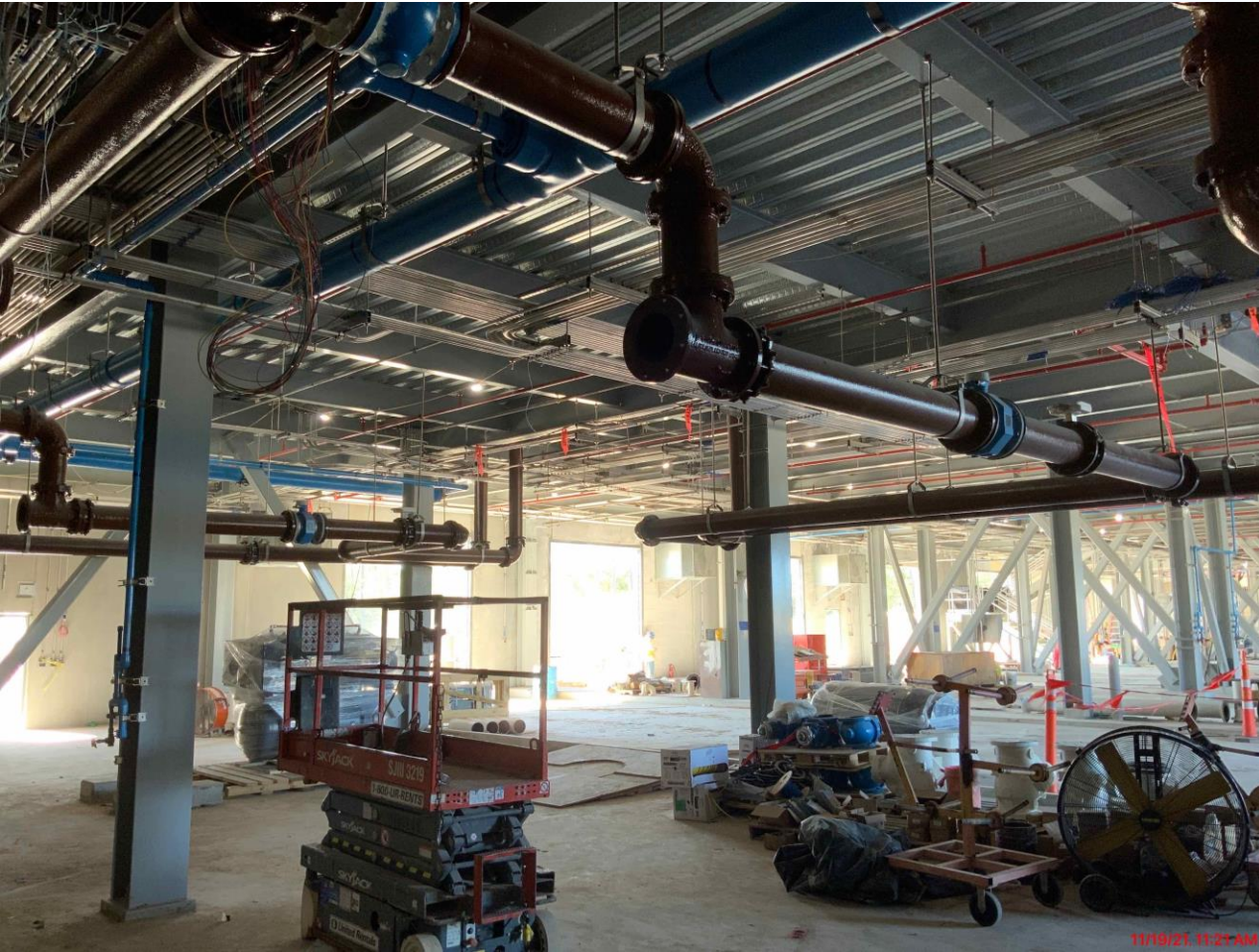
DEWATERING BUILDING 520 & THICKENED SLUDGE EQUALIZATION TANK 510 AERIAL VIEW



520

510

DEWATERING BUILDING 520



520 – Continued process pipe installation and continued electrical support & conduit installation at 1st, 2nd and 3rd floor

DEWATERING BUILDING 520



520 – Continued upper and lower conveyor installation at the 2nd floor

DEWATERING BUILDING 520



520 – Continued installation of bus duct and overhead doors

THICKENED SLUDGE & EQ BASIN 510



11/17/21 7:52:02 AM CST



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510 – Continued process pipe installation



Construction Progress – Administration & Maintenance Building

- Installation of Rebar for Precast Screen Wall Footing
- Placement of Precast Screen Wall Footing
- Installation of Server Racks
- Installation of Shower Tile
- Installation of Storefront Doors

Installation of Rebar for Precast Screenwall Footing



Placement of Precast Screen wall Footing



Installation of Server Racks



Installation of Shower Tile





Installation of Storefront Doors

