



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

February 2, 2022



Site Drone Map January 26, 2022



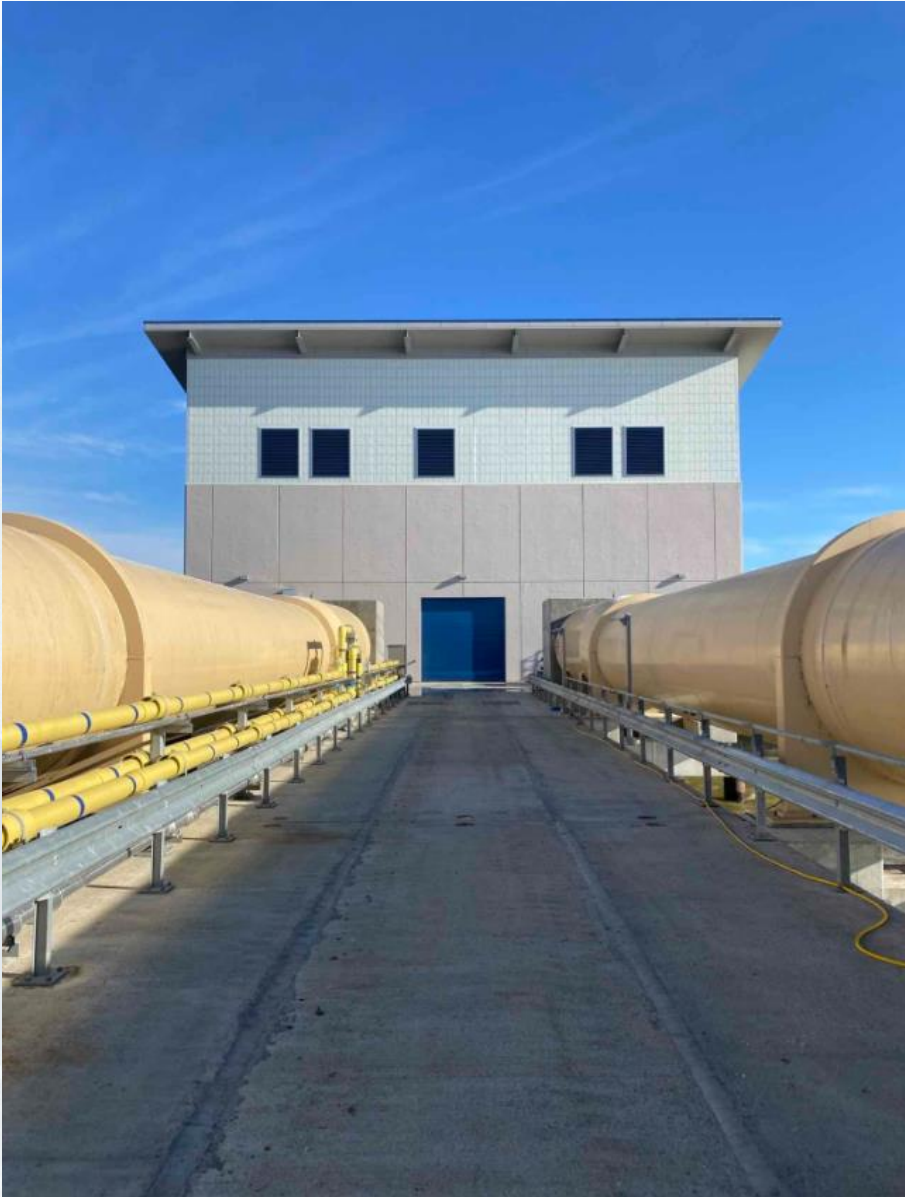


Construction Progress – Intake Pump Station (IPS)

- **Completed Precast Concrete Wall Panel Repair**
- **Installing Motor Control Panels**



Completed Precast Concrete Wall Panel Repair



Installing Motor Control Panels

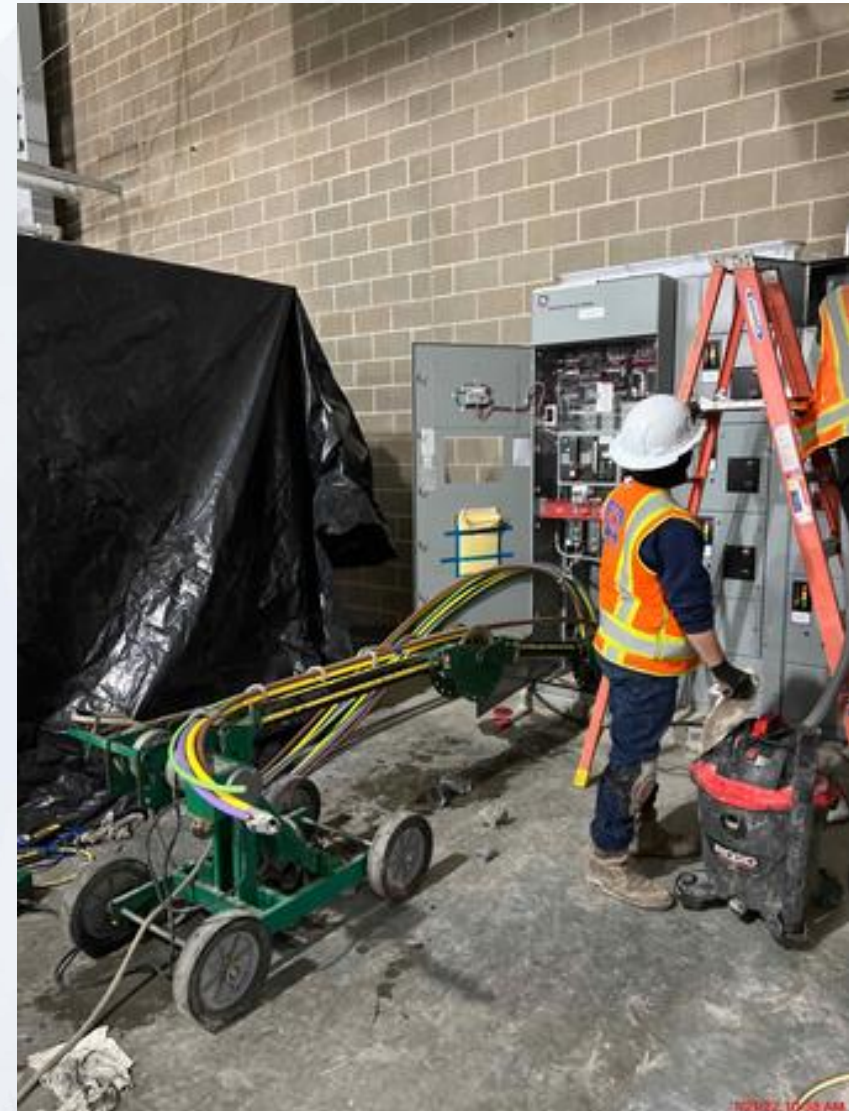




Construction Progress – Site Electrical

- 401 Cable Pull
- Take Delivery of 271 breakers

401 Cable Pull



Take Delivery of 271 breakers

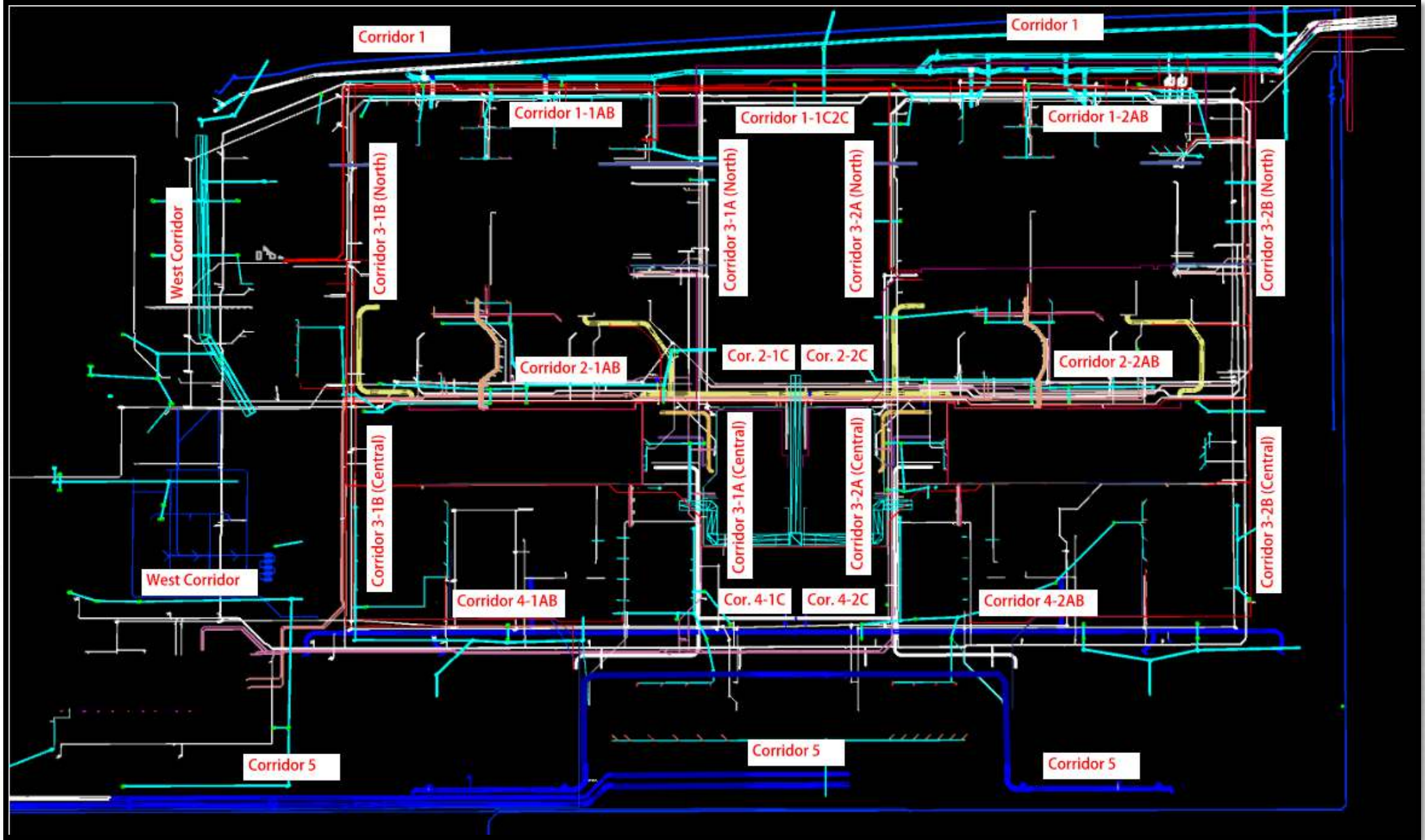




Construction Progress – Yard Piping

- Corridor 1 – Installing Natural Gas and Sample Lines
- Corridor 2-1AB – Installing 24" DEC line and dual 20" TSL lines
- Corridor 3-1A – Installing 24" OF pipe from 611 to Pond 7
- Corridor 4 – Installed the 60" BFV and piping for the air gap on 60" BWS line
- Corridor 4 – Installing second BFV, concrete supports, and piping for the air gap monitoring system on the 96" FW line
- West Corridor – Installing PW line by Dewatering Building
- West Corridor – 84" FW Wet Connection activities





Corridor 1 – Installing Natural Gas and Sample Lines



Corridor 2-1AB – Installing 24" DEC line and dual 20" TSL lines



Corridor 3-1A – Installing 24" OF pipe from 611 to Pond 7



Corridor 4 – Installed the 60" BFV and piping for the air gap on 60" BWS line



Corridor 4 – Installing second BFV, concrete supports, and piping for the air gap monitoring system on the 96" FW line



West Corridor – Installing PW line by Dewatering Building



West Corridor – 84" FW Wet Connections



West Corridor – Placed CLSM pipe supports for existing 84" FW main and then removed the temporary supports and formwork



West Corridor – Installing 84"x 60" FW wye and first 60" branch to tie-in to existing 84" FW main



West Corridor – Placed three lifts of CLSM backfill in excavations behind the existing 84" FW main wet connections and removed the back trench boxes



West Corridor – Installing 84"x60" FW reducer and second 60" branch to tie-in to existing 84" FW main



West Corridor – Welding the 84" and 60" FW piping



West Corridor – Installing the 60" FW M-11 flex couplings





Construction Progress – Central Plant 1

281-FILTER MODULE 1 :

- Reinforcing Access Ramp(East)
- Final Coating of Pipes

291-TRANSFER PUMP STATION 1 Click to add text

- Install Baffle Walls in the Basins
- Install Eye Wash Showers on Top Deck
- Install AL Ladders in the Basins
- Install & Terminate LCPs for SA Pumps on Top Deck

311 – POST CHEMICAL FACILITY SH/CS :

- Continue Installation Chemical Metering Pump piping
- Process Mechanical Pipe installation.
- FRP Handrail system installation.
- LCP installation at containment area.

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

- Installation Chemical Metering Pumps piping system inside building.
- LCP installation at containment area.



CENTRAL PLANT- PHASE 1



281-FILTER MODULE- Access Ramp and Walls Construction



281-FILTER MODULE- Reinforcing Access Ramps(EastFinal Coating of Pipes)



291-TPS – Aerial View (01/04/2022)



291-TPS – Install Baffle Walls in the Basins



291-TPS – Install Eye Wash Shower on Top Deck



291-TPS – Install AL Ladders in Basins



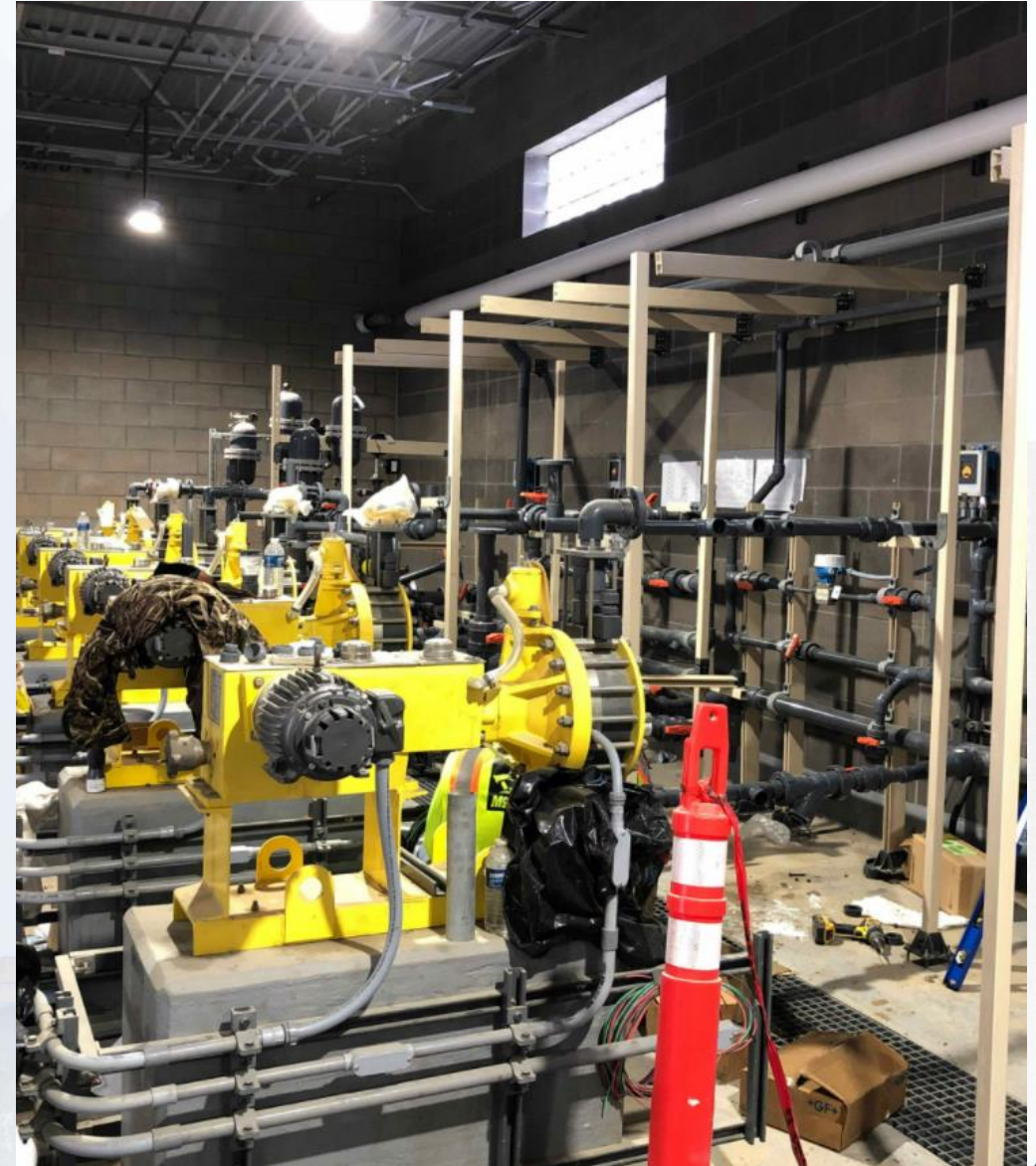
291-TPS – Install & Terminate LCPs for SA pumps on Top Deck



311 – Aerial view –01/04/2022



311 –Chemical Metering Pumps and LCPs Installation



311- Containment Process mechanical Piping



311- Containment handrail installation



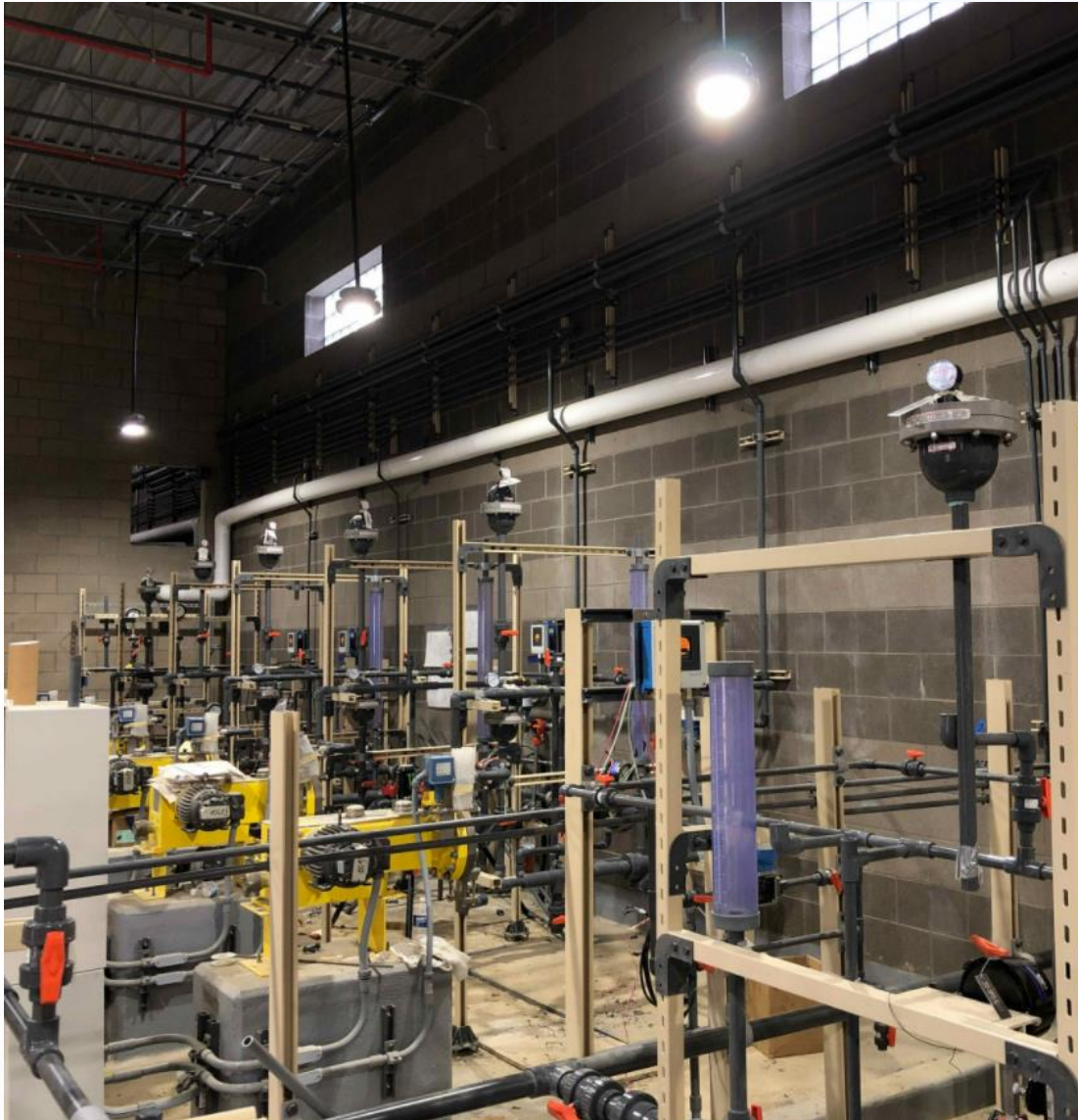
311- LCP Installation at Containment Area



312 - Overall view 01/04/22



312 – Chem pipe system Installation



312 – LCP Installation at Containment Area





Construction Progress – Central Plant 2

● 282 -FILTER MODULE 2:

- Continuing Masonry & Steel Deck Install.
- Continuing Trough Installation

● 292-TRANSFER PUMP STATION 2:

- FRP Top Deck Sections A1 & C1
- Place Embedded Beam Base Plates for East Platform
- Place Embedded PDR and SSA Lines under Analyzer Room

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

- F/R/P Slab on grade.
- Installation and Testing of 6-inch Fire Line

● 314 – POST CHEMICAL FACILITY 4 SH/CS :

- Field installation of SH Metal Tank.
- F/R/P Equipment pads
- Installation of Joist System.



CENTRAL PLANT- Phase 2



313- Overall view 01/05/22



313 –F/R/P SOG Chem buildings.



313 – Installation and Testing of 6-inch Fire Line



314- Aerial view 01/04/22



314 – Installation Joist System



314 –SH Steel tank fabrication



282-FILTER MODULE 2- Structural Steel Installation



282-FILTER MODULE 2- Continuing Masonry & Steel Structures Install



282-FILTER MODULE 2- Trough Collars & Troughs Install

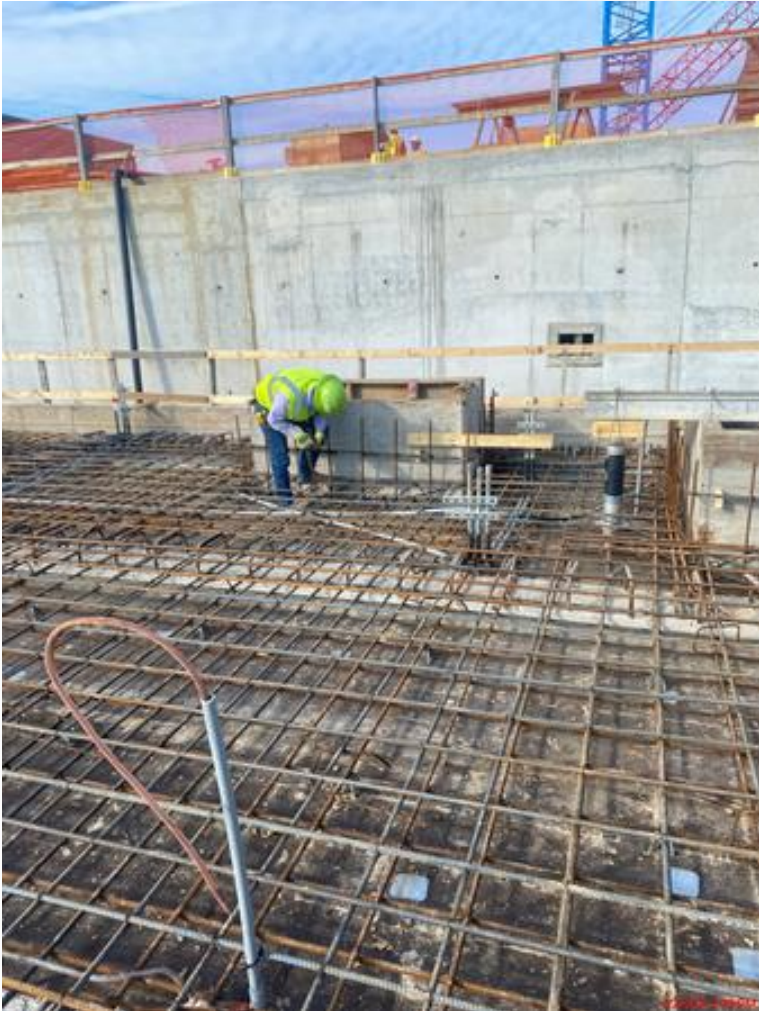


292-TPS – Aerial View (01-04-2022)



Click to add text

292-TPS – FRP Top Deck Sections A1 & C1



292-TPS – Place Embedded Beam Base Plates for East Platform



292-TPS – Place Embedded PDR and SSA Lines Under Analyzer Room





Construction Progress – LREQ Basins Facilities 601/602

- **601 – Install Underdrain Pump Station and Valve Vault**
- **601 – Install 42" FTW Pipe Spool**
- **601/602 – Backfilled Between 601 & 602**
- **602 – Continue interior wall finish**



601 – Install Underdrain Pump Station and Valve Vault



601 – Install 42" FTW Spool



601/602 – Backfilled Between 601 & 602



602 – Continue interior wall finish





Construction Progress – North Plant

- **201-Chlorine Dioxide Facility 1:**
- Continued steel decking / TPO roofing
- **211/212-Pretreatment Chemical Facility 1/2:**
- Installation of vertical dowels, North duct bank installation
- **213-Pretreatment Chemical Facility 3:**
- Installation of CO2 tanks, Electrical equipment ongoing install
- **214-Pretreatment Chemical Facility 4:**
- CRC coating, installing conduit supports, continue TPO Roofing
- **242-Flocculation & Sedimentation Train 2:**
- FBDC steel for aluminum grating, SB4 chain flight install
- **241-Flocculation & Sedimentation Train 1:**
- FBDC steel for aluminum grating, SB2 slab placement
- **252-Ozone Contactor 2:**
- Installation of West area stairs, began work on destruct unit enclosure
- **261-Ozone Generation Facility 1:**
- LOX tanks installation, electrical conduit supports
- **272-Pretreatment Service Building 2:**
- West area overhead door install
- **611-Liquid Residuals Clarifier Facility 1:**
- Installation of 30" RCY pipe
- **218-Pretreatment Chemical Facility 8:**
- Facility Excavation



201-Chlorine Dioxide Facility 1: Continued steel decking / TPO roofing



211-Pretreatment Chemical Facility 1: Installation of vertical dowels



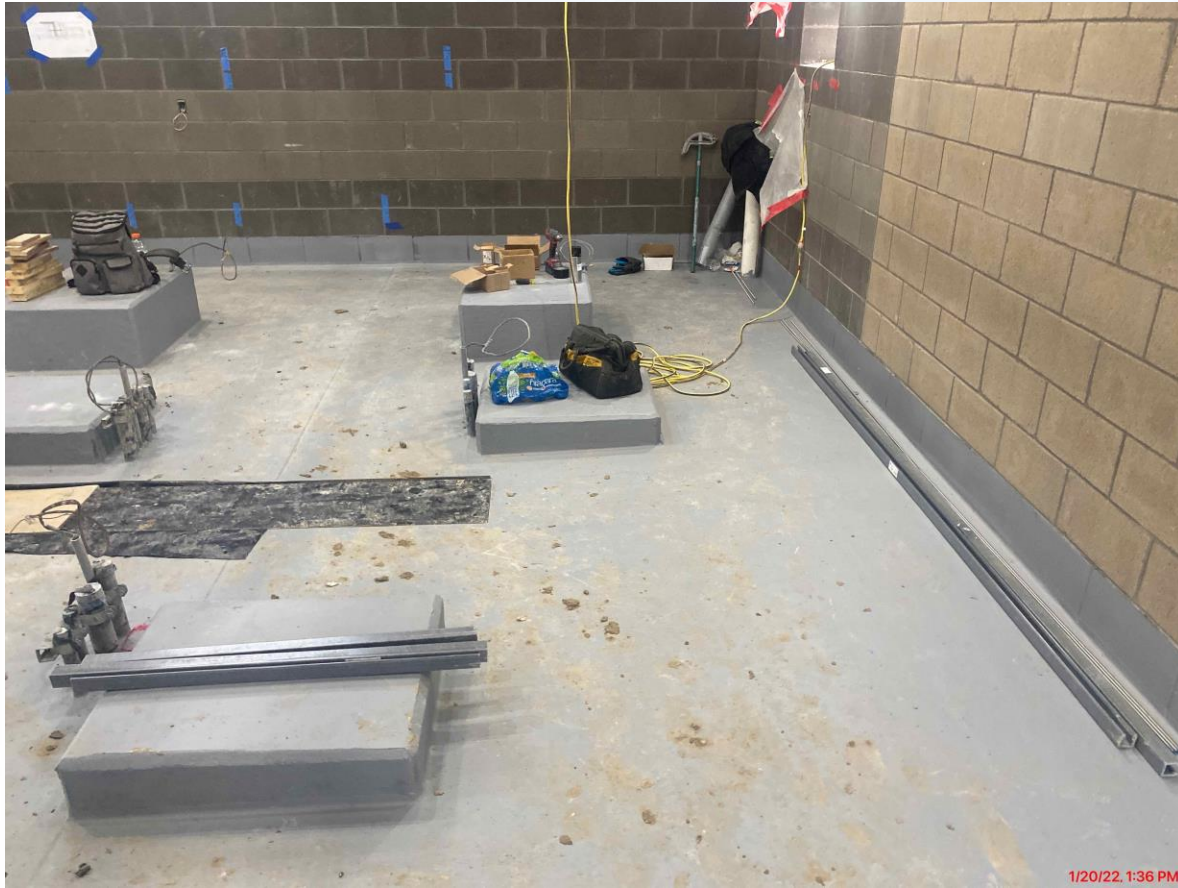
212-Pretreatment Chemical Facility 2: North duct bank installation



213-Pretreatment Chemical Facility 3: Installation of CO2 tanks, Electrical equipment ongoing install



214-Pretreatment Chemical Facility 4: CRC coating, installing conduit supports, continue TPO Roofing



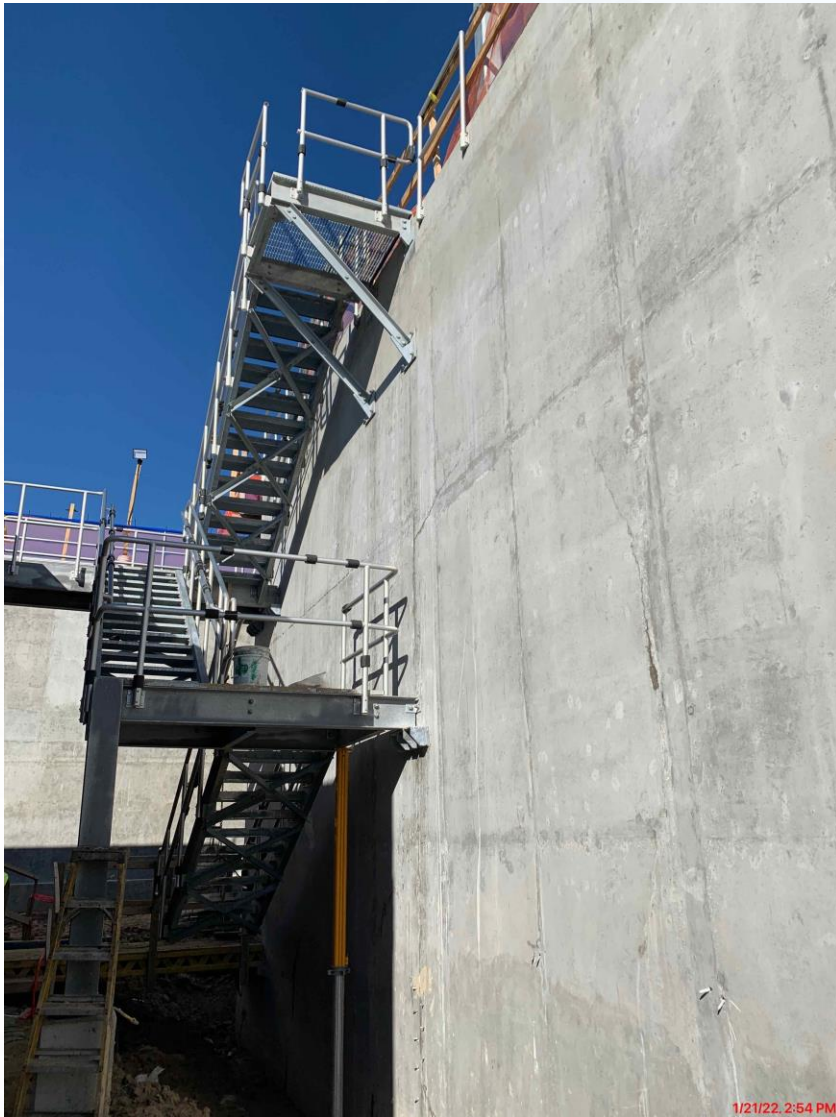
242-Flocculation & Sedimentation Train 2: FBDC steel for aluminum grating, SB4 chain flight install



241-Flocculation & Sedimentation Train 1: FBDC steel for aluminum grating, SB2 slab placement



252-Ozone Contactor 2: Installation of West area stairs, began work on destruct unit enclosure



261-Ozone Generation Facility 1: LOX tanks installation, electrical conduit supports



272-Pretreatment Service Building 2: West area overhead door install



611-Liquid Residuals Clarifier Facility 1: Installation of 30" RCY pipe



218-Pretreatment Chemical Facility 8: Facility Excavation





Construction Progress – South Plant

- Continued installation of miscellaneous metals at GST 361.
- Continued interior pipework at GST 361.
- Filled water at GST 362.
- Resumed overflow box finishes (pipe, concrete invert, and valves).

- Continued louvers and dampers installation at Fac 401.
- Continued installation of high roof at Fac 401.
- Continued precast wall repairs at Fac 401.
- Delivery and installation of the motor for BWS pump 2 at Fac 401.
- Continued pulling permanent cable from switchgear to ASD's at Fac 401.
- Continued installation of aboveground plumbing rough-in at the mechanical room and restroom at Fac 401.
- Continued 60" BWS connection at Fac 401.
- Continued backfilling at Fac 402.
- Continued top of pump can encasement at Fac 402.

- Continued installing plumbing, process pipe, and electrical conduit on levels 1, 2, and 3 at Fac 520.
- Continued wire pulling at Fac 520.
- Continued door and window frames installation at Fac 520.
- Continued overhead (O/H) coiling door installation at Fac 520.
- Continued bus duct installation at Fac 520.
- Continued fire-resistant joint system installation at Fac 520.
- Commenced terminating power to wiring sludge mixers, LCP's, and MCS's at Fac 510.
- Continued process pipe installation at Fac 510.



GST 361 & 362 AERIAL VIEW



GST 361

GST 362

GROUND STORAGE TANK 361 & 362



Resumed overflow box finishes (pipe, concrete invert, rails, and valves)

GROUND STORAGE TANK 361



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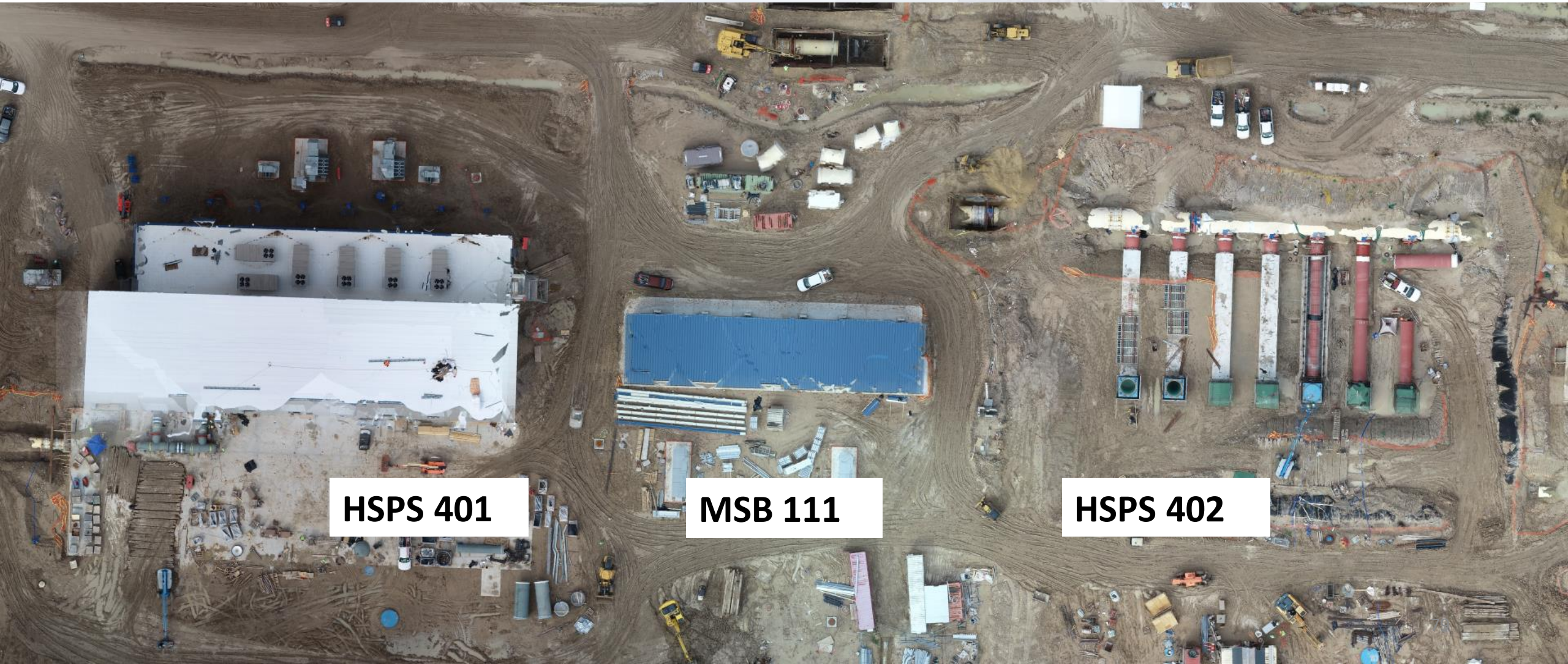
Continued interior pipework at GST 361

GROUND STORAGE TANK 362



Filled water at GST 362.

HSPS 401, MSB 111, HSPS 402 AERIAL VIEW



HSPS 401

MSB 111

HSPS 402

HIGH SERVICE PUMP STATION 401



Continued 60" BWS connection and motor installation at Fac 401

HIGH SERVICE PUMP STATION 401



Continued Louver installation and grout precast weld plates at Fac 401

Houston Waterworks Team



HIGH SERVICE PUMP STATION 402



Continued backfilling and continued top of pump can encasement at Fac 402

DEWATERING BUILDING 520 & THICKENED SLUDGE EQUALIZATION TANK 510 AERIAL VIEW



520

510

DEWATERING BUILDING 520



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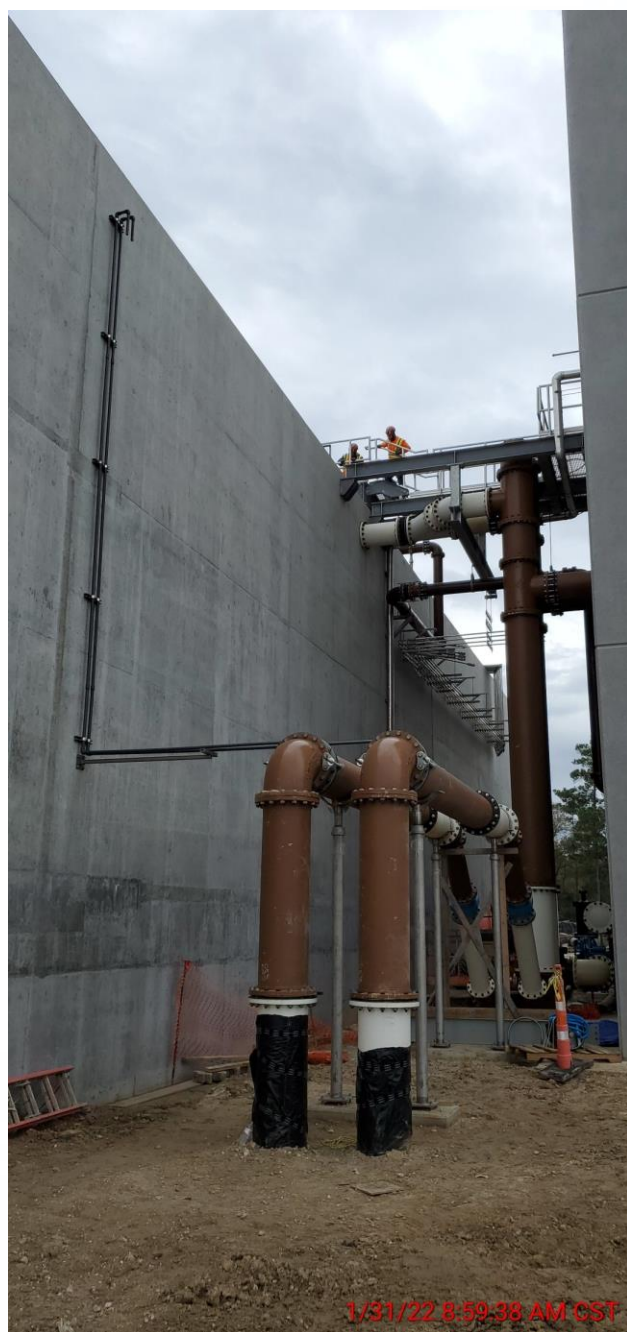
Continued overhead (O/H) coiling door installation at Fac 520

DEWATERING BUILDING 520



Continued installing plumbing, process pipe, and electrical conduit on levels 1, 2, and 3 at Fac 520.

THICKENED SLUDGE & EQ BASIN 510



Continued process pipe installation at Fac 510.



Construction Progress – Administration & Maintenance Building

- Installation of Control Room Furniture
- Installation of Carpet
- Installation of Plumbing Fixtures
- Installation of Millwork



Installation of Control Room Furniture



Installation of Carpet



Installation of Plumbing Fixtures



Installation of Millwork





Construction Progress – Site Civil

- **Installing rebar for the overflow concrete channel at STA 17+00**
- **Installing rebar for sidewalk at North Plant - 214**



Installing rebar for the overflow concrete channel at STA 17+00



Installing rebar for sidewalk at North Plant - 214

