



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

May 5, 2021





Site Drone Map
April 21, 2021



Construction Progress – Intake Pump Station (IPS)

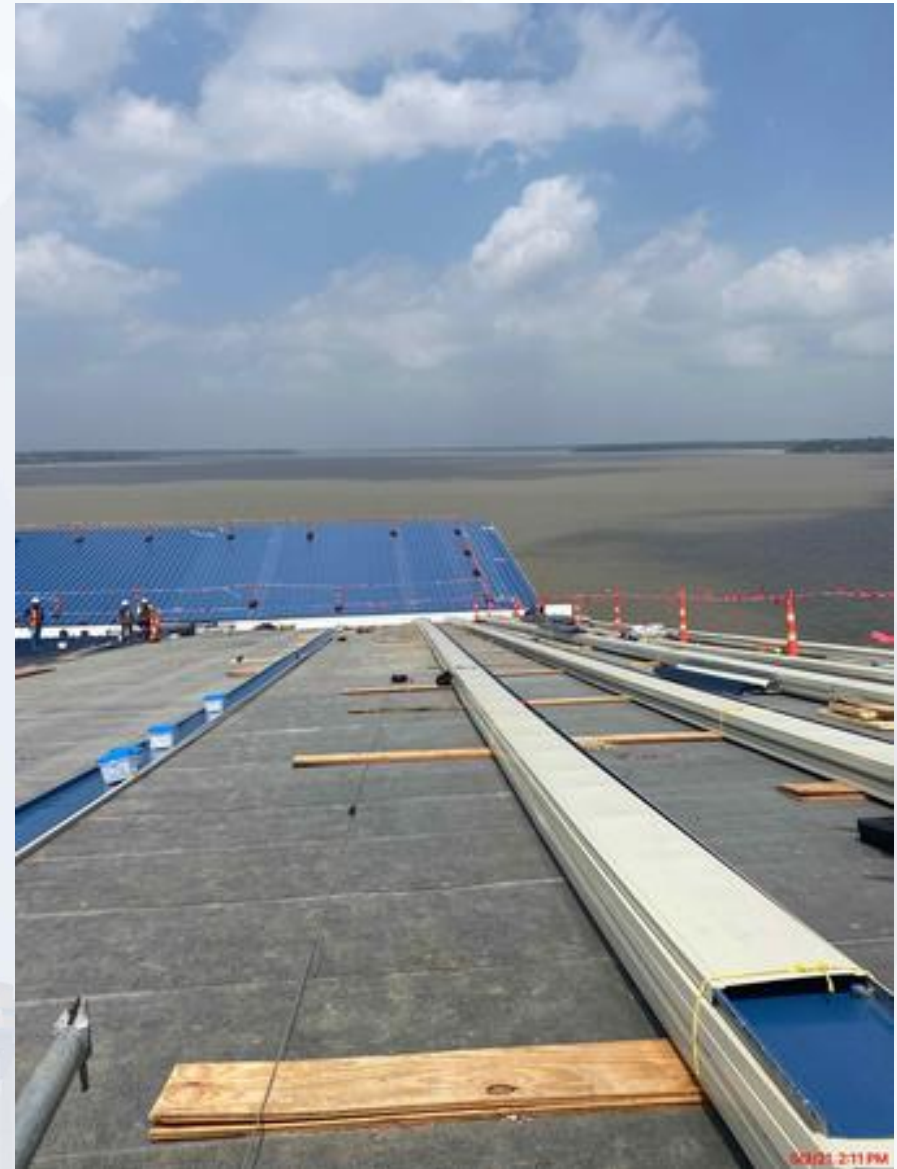
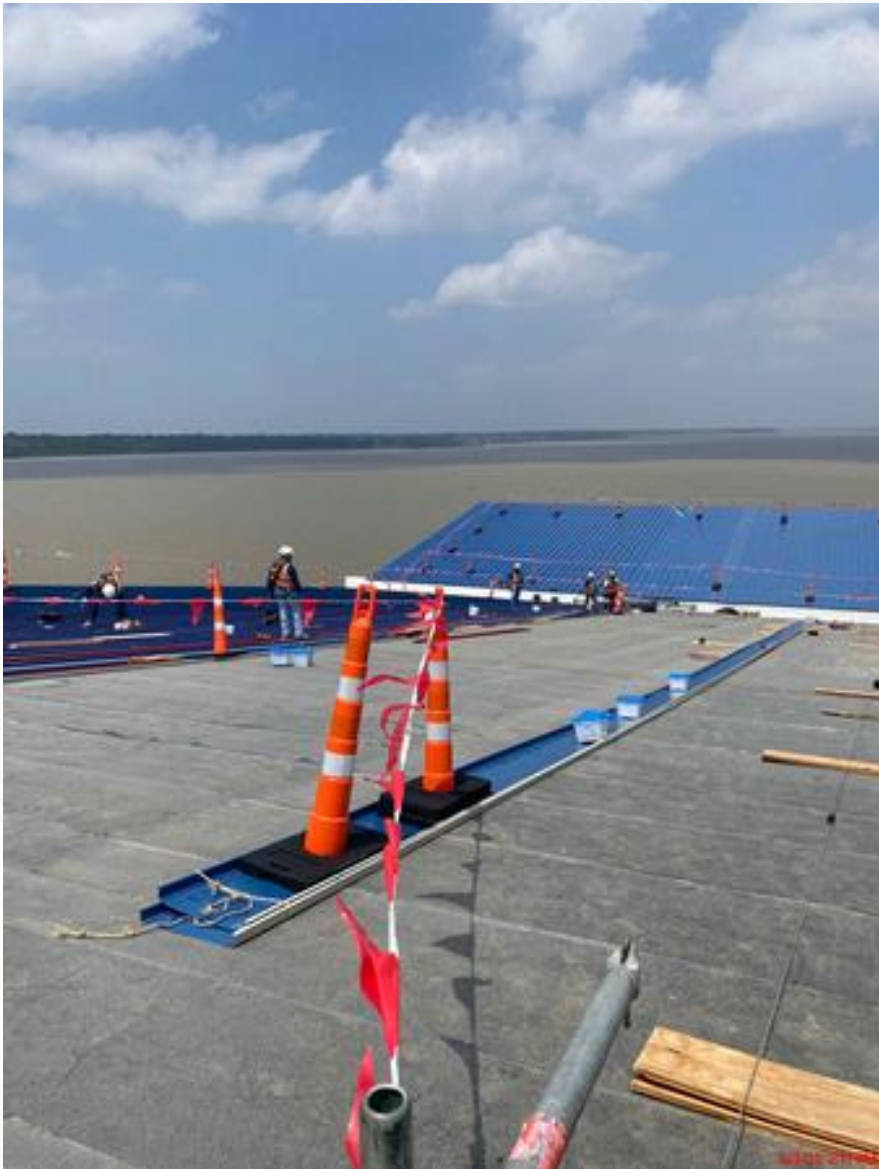
- Installing VTP sole plates
- Roof installation at the IPS
- HVAC duct installation in the IPS pump room
- Installing chlorine dioxide pipe on the bridge
- CMU installation at the electrical building 152



Installing VTP sole plates



Roof installation at the IPS



HVAC duct installation in the IPS pump room



Installing chlorine dioxide pipe on the bridge



CMU installation at the electrical building 152

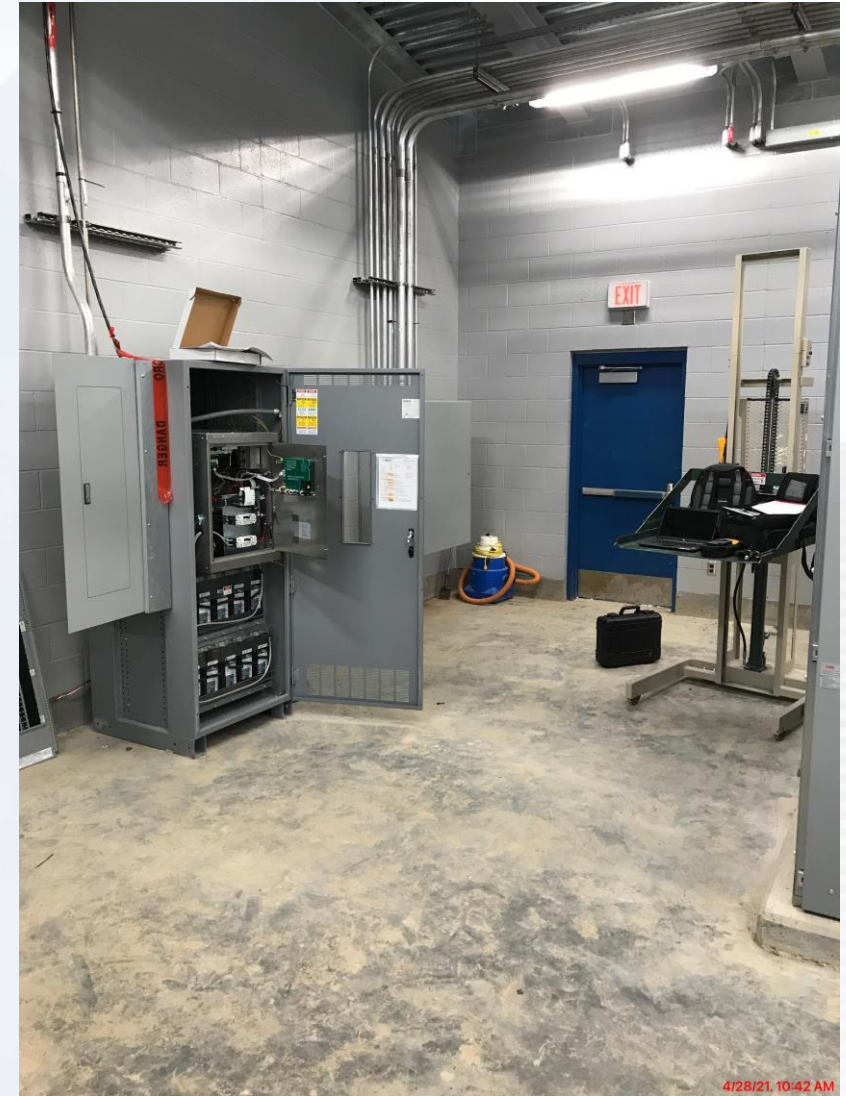




Construction Progress – Site Electrical

- Battery Cabinets at Facility 111
- North Fiber Duct Bank Run
- 080 and 152 Cable Pulls

Battery Cabinets at Facility 111



North Fiber Duct Bank Run



Building 314 Duct Bank

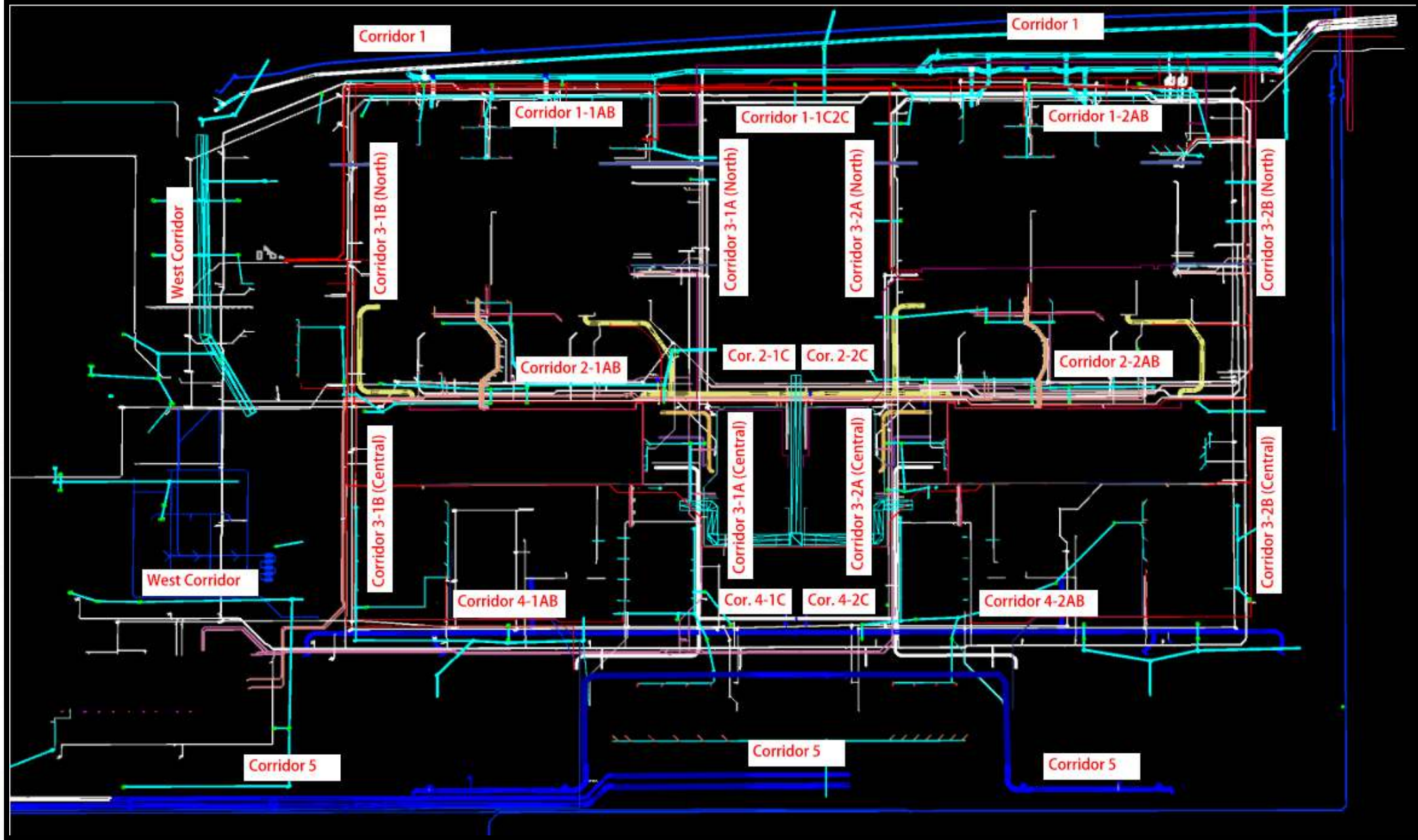




Construction Progress – Yard Piping

- **Installing the 60” OF from Fac 241 in Corridor 3-1B North**
- **Installing 12” PW line in C3-1B North, and 24” PW in C1-1AB**
- **Installing 24” RCP & 8” PVC Storm piping and manhole in Corridor 1-1AB**
- **Installing 10” SSG line in Corridor 1-1AB**
- **Installing the 36” CRCY line in Corridor 1-2AB**
- **Installing 2-14” TSL lines in Corridor 2-1C**
- **Completing 72” BWW Tie-in to Fac. 281 in Corridor 3-1A Central**
- **Completing 42” FTW Tie-in to Fac. 281 in Corridor 3-1A Central**
- **Laying the 120” FW distribution line in Corridor 5**
- **Laying the 84” FW line going North in Corridor 5**
- **Installing the 120” FW header piping in Corridor 5 – Phase 2**





Installing the 60" OF from Fac 241 in Corridor 3-1B North



Installing 12" PW line in C3-1B North, and 24" PW in C1-1AB



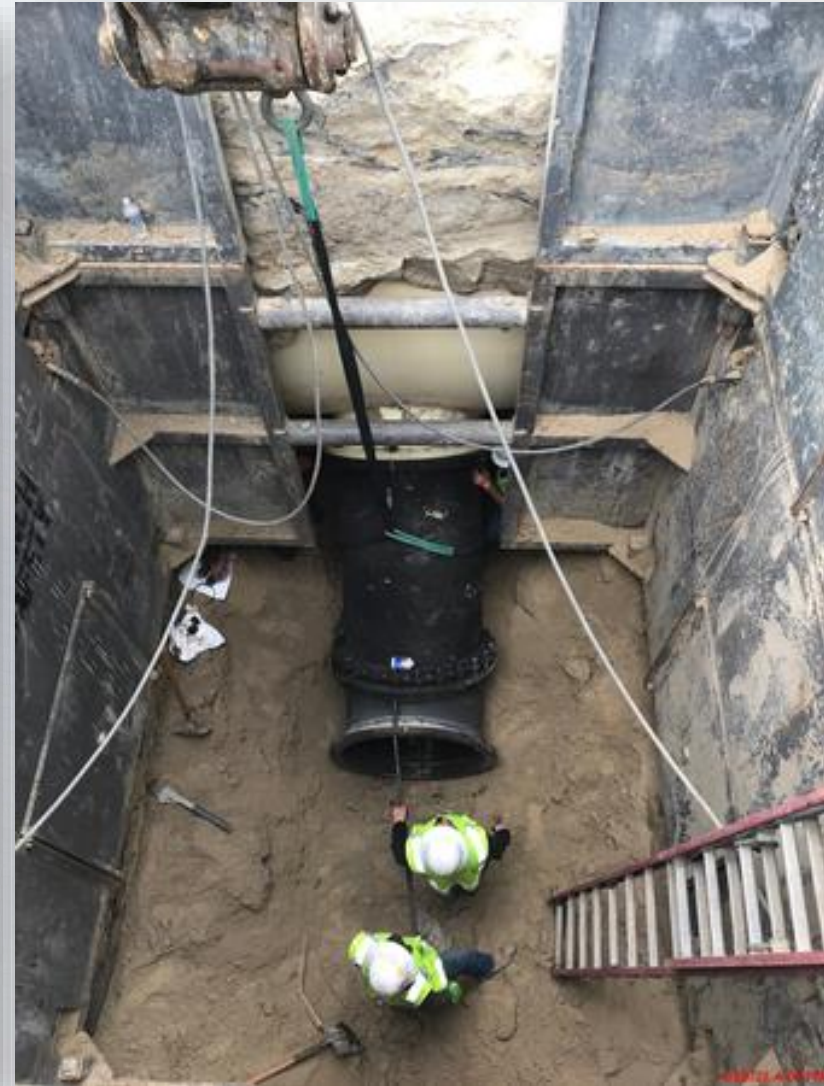
Installing 24" RCP & 8" PVC Storm piping and manhole in Corridor 1-1AB



Installing 10" SSG line in Corridor 1-1AB



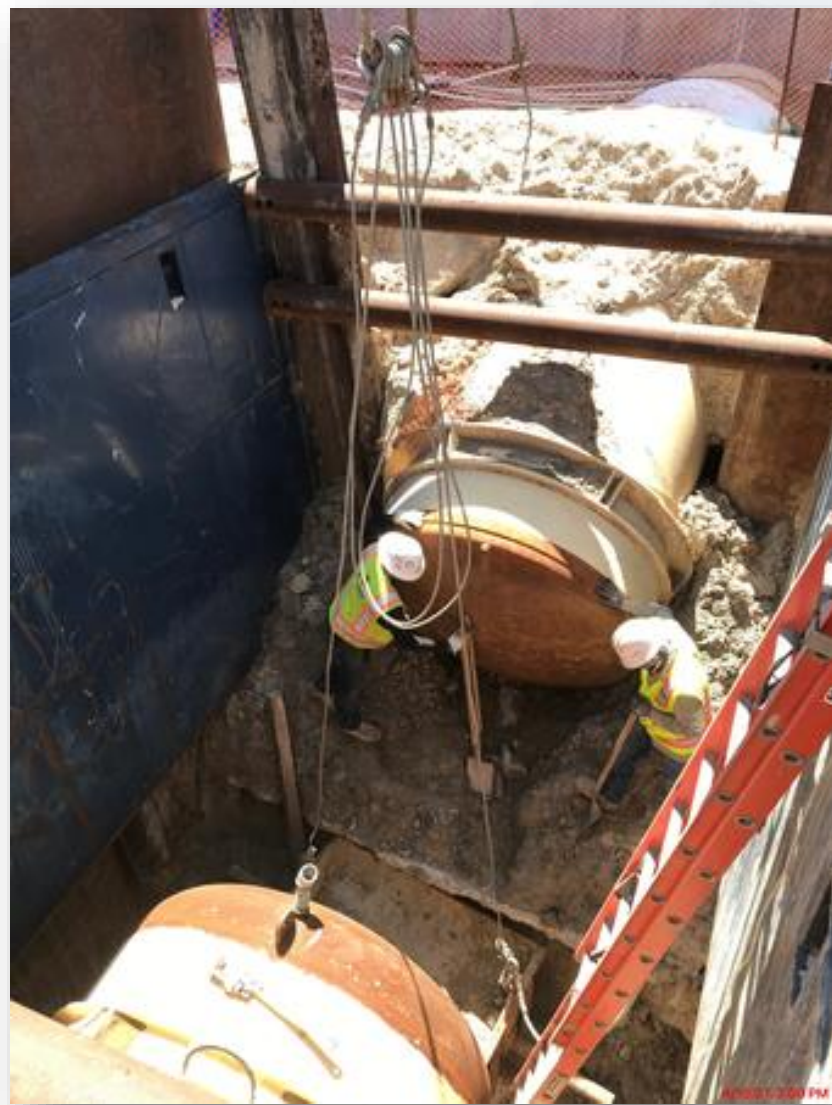
Installing the 36" CRCY line in Corridor 1-2AB



Installing 2-14" TSL lines in Corridor 2-1C



Completing 72" BWW Tie-in to Fac. 281 in Corridor 3-1A Central



Completing 42" FTW Tie-in to Fac. 281 in Corridor 3-1A Central



Laying the 120" FW distribution line in Corridor 5



Laying the 84" FW line going North in Corridor 5



Installing the 120" FW header piping in Corridor 5 – Phase 2





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- **Installing/Pull -Testing Under-drain Block Anchors**
- **Air Scour Blower Delivery**
- **Installing Gallery Piping/Plug Valve**
- **Installing Cable Tray & Support**

291-TRANSFER PUMP STATION 1:

- **Welding Steel Roof Deck**
- **Install 42" FW Discharge Pump Piping**

292-TRANSFER PUMP STATION 2:

- **Wall Section A1 Concrete Pour**
- **Form up and Reinforce BW5 and BW6**
- **84" and 60" Block-outs Form up and Reinforce**

311-POST CHEMICAL FACILITY 1 SH/CS :

- **Final Inspection Chem Tanks.**
- **CMU Placement for Chemical Bldgs.**
- **Installing Deck and Ledger System**

312 – POST CHEMICAL FACILITY 2 FA/LAS/PEC/SB

- **CMU Placement for Chem Bldgs.**
- **Leak Test Containment Areas.**

314 – POST CHEMICAL FACILITY 4 SH/CS :

- **Installation of Underground Conduits Containment.**
- **F/R/P Building Footings and Stem Walls.**

282 -FILTER MODULE 2:

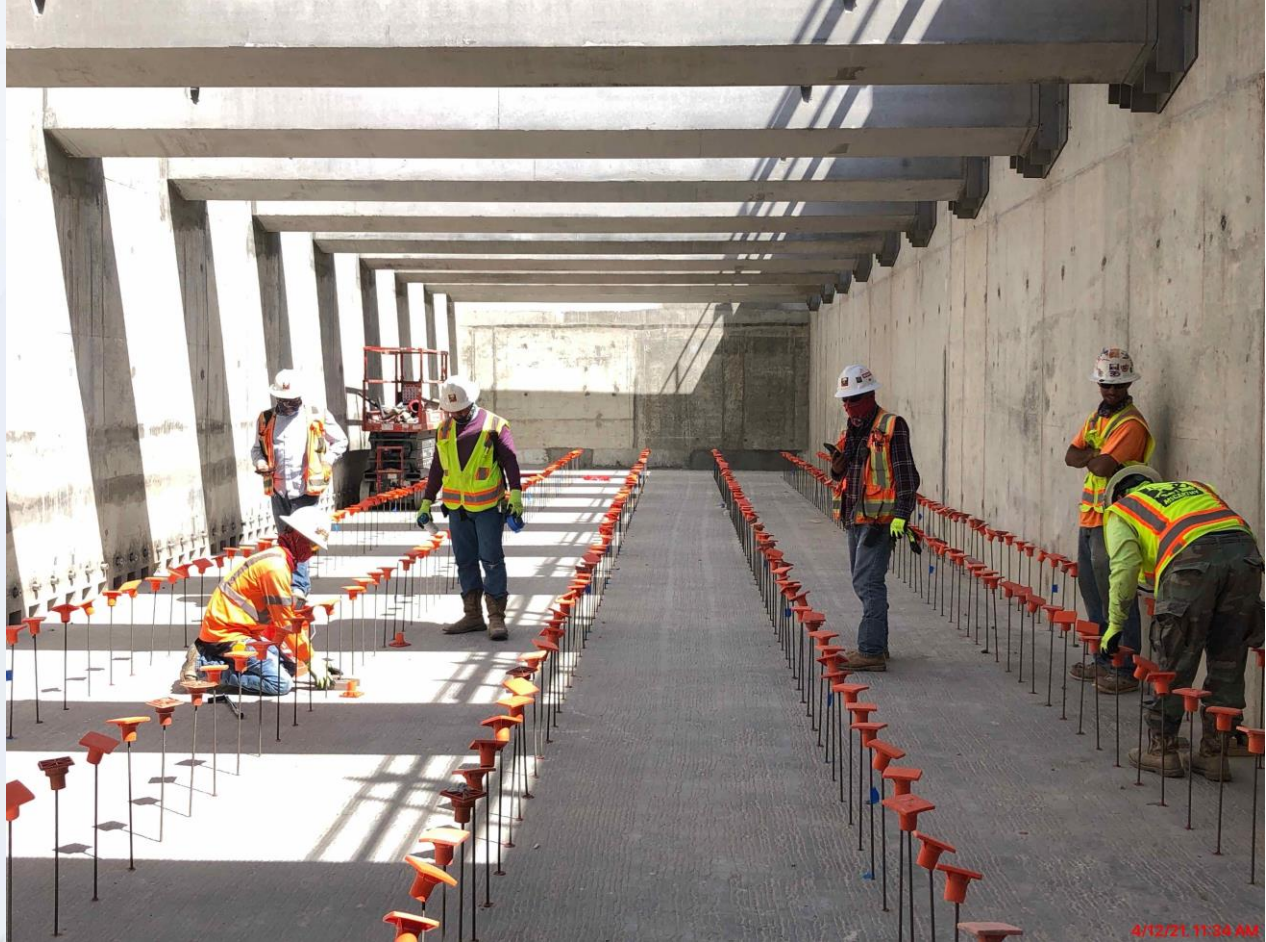
- **Reinforcing /Pouring Interior Tall Walls.**
- **Forming/Reinforcing/Pouring Lower/Upper Manifold Decks**



CENTRAL PLANT- 1st PHASE OVERALL



281-FILTER MODULE- Installing/Pull -Testing Under-drain Block Anchors



281-FILTER MODULE- Setting the Air Scour Blowers



281-FILTER MODULE – Installing Gallery Piping/Plug Valve



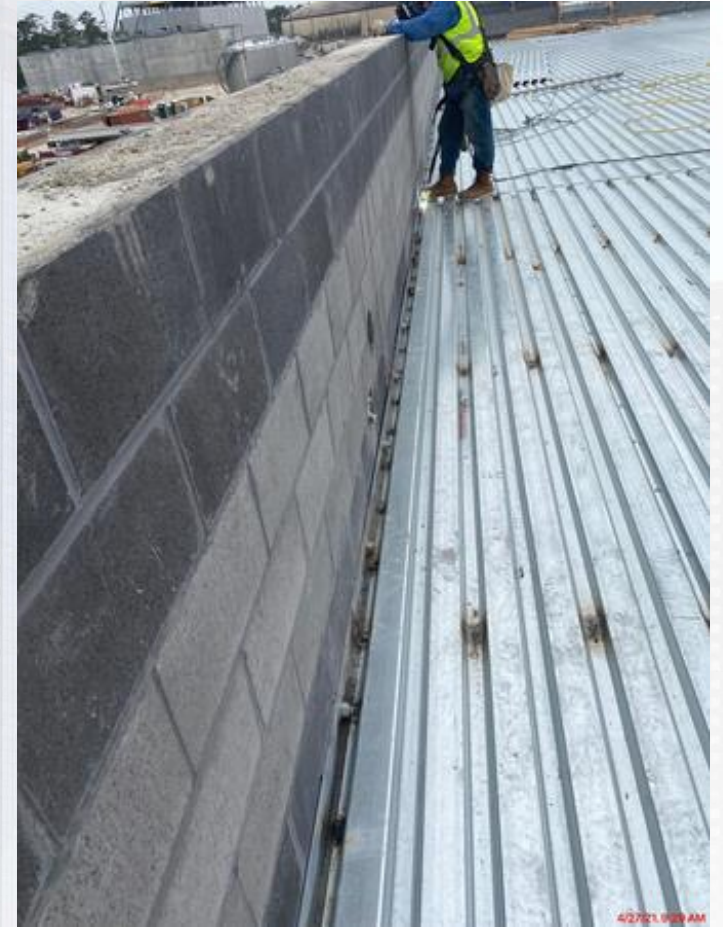
281-FILTER MODULE – Installing Cable Tray & Supports



291-TPS – Aerial View (03/23/2021)



291-TPS – Welding Steel Deck Roof



291-TPS – Install 42" FW Discharge Pump Piping



311 – Aerial view –03/23/2021



311 – Chem Tanks Final Inspection Walkthrough



311 – CMU Placement for Chemical Bldg. Top Course



311 – Installing Deck System



312 - Overall view 03/23/21



312 –Building – CMU Installation



312 – Containment Area Leak Test.



314 – Installation of Underground Conduits tank farm



- 314 – F/R/P Building Footings and stem walls.



282-FILTER MODULE 2- Forming/Reinforcing Exterior Tall Walls



282-FILTER MODULE 2- Pouring Lower/Upper Manifold Decks



282-FILTER MODULE 2- Reinforcing/Pouring Exterior Tall Walls



292-TPS – Aerial View (03-23-2021)



292-TPS – Wall Section A1 Pour Concrete



292-TPS – Form up and Reinforce BW4 and BW6



292-TPS – 84" and 60" Block-outs forming and reinforcing





Construction Progress – LREQ Basins Facilities 601/602

- **601 – Installation of handrails and interior wall finish**
- **601 – Installation of 72" BWW Pipe**
- **602 – Rebar Installation for P12, P14 and P16**
- **602 – Rebar Installation for walls P17 and P18**

601 – Installation of handrails and interior wall finish



601 – Installation of 72" BWW Pipe



602 – Rebar Installation for walls P12, P14 and P16



602 – Rebar Installation for walls P17 and P18





Construction Progress – North Plant

214-Pretreatment Chemical Facility 4:

- Area-B CMU Layout

221-Rapid Mix Train 1:

- Walls F/R/P

222-Rapid Mix Train 2:

- Valve and Flowmeter Install

241-Flocculation & Sedimentation Train 1:

- SL-15 Concrete Placement

242-Flocculation & Sedimentation Train 2:

- Elevated Deck F/R/P
- SL-31 F/R/P

252-Ozone Contactor 1:

- Walls Concrete Finishing & Roof

261-Ozone Generation Facility 1:

- SOG & OZ Generator-PSU Pads

272-Pretreatment Service Bldg 2

- SL-1 Curing

503-Gravity Thickener Complex 3:

- TSSB Elevated Slab F/R/P

504-Gravity Thickener Complex 4:

- Weir Walls and Slabs

611-Liquid Residuals Clarifier Facility 1:

- Ductbank Encasement
- ESL-1 Curing



214-Pretreatment Chemical Facility 4: Area-B CMU Layout



222-Rapid Mix Train 2: Valve and Flowmeter Install



241-FlocSed Train 1: SL-15 Concrete Placement



4/29/24 9:16 AM

242-FlocSed Train 2: Elevated Walkway and SL-31 Mudmat F/R/P



252-Ozone Contactor 1: Walls Concrete Finishing & Roof



4/28/21, 3:35 PM

261-Ozone Generation Facility 1: SOG & OZ Generator-PSU Pads



4/28/21 1:39 PM

272-Pretreatment Service Bldg 2: SL-1 Curing



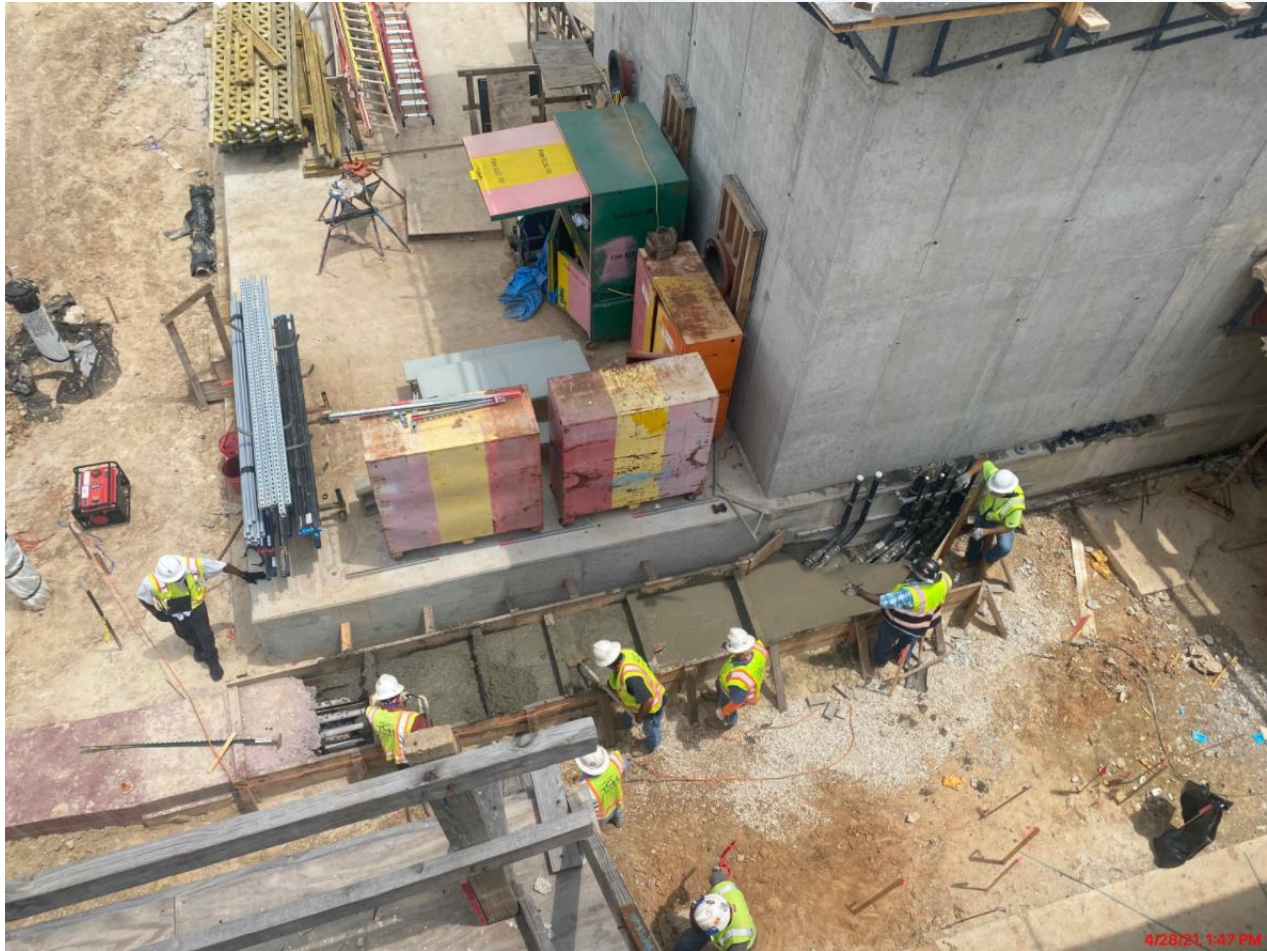
503-Gravity Thickener Complex 3: TSSB Elevated Slab Curing



504-Gravity Thickener Complex 4: Weir Walls and Slabs FRP



611-Liquid Residuals Clarifier Facility 1: Ductbank Encasement & ESL-1 Curing



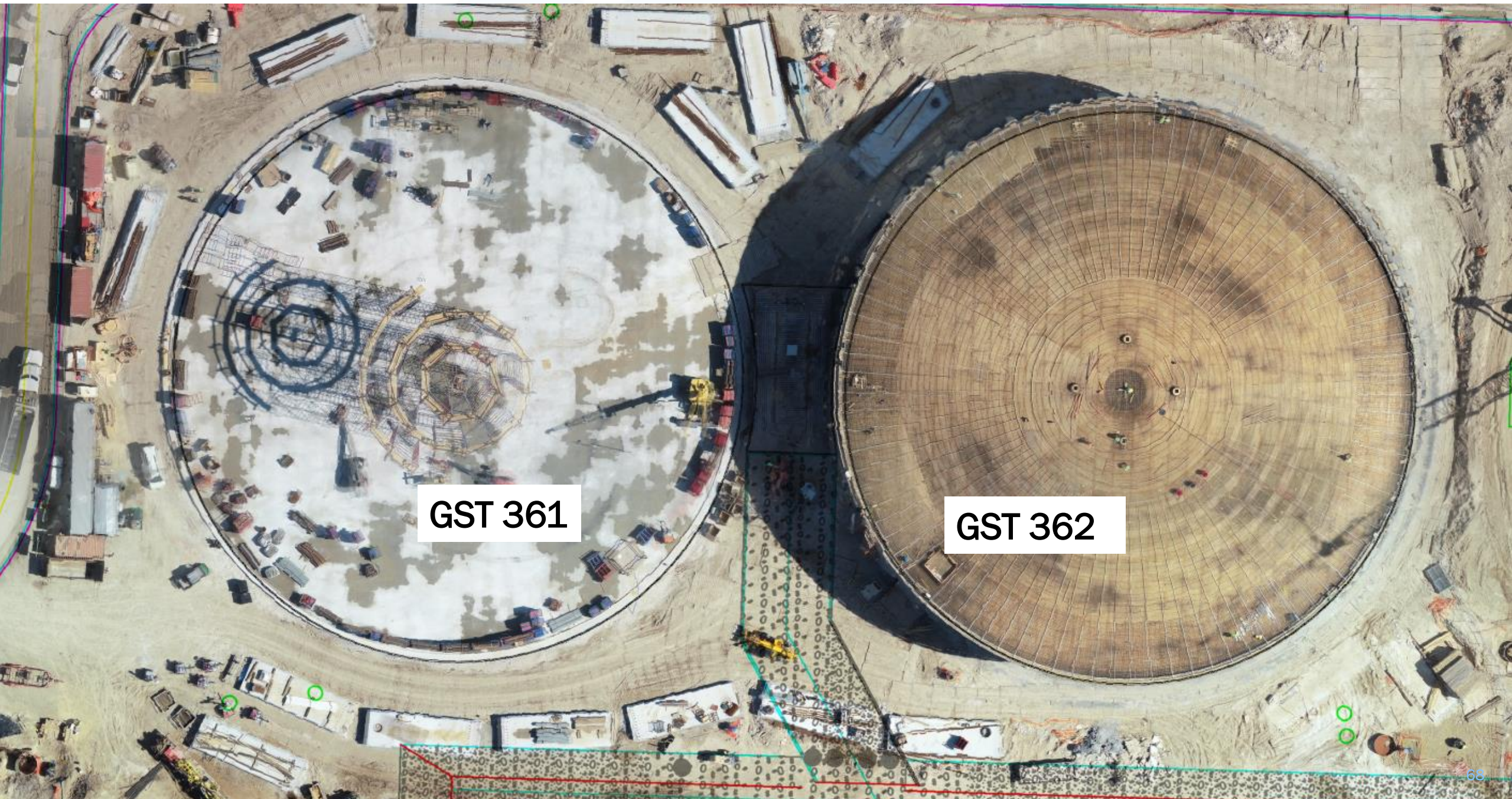


Construction Progress – South Plant

- Commenced precast wall panel installation at GST 361.
- Commenced shoring erection at GST 361.
- Completed dome concrete at GST 362.
- Completed concrete slab pour at the pump room at Fac 401.
- Continued forming footers for the electrical room at Fac 401.
- Vertical turbine pump delivery at Fac 401.
- Continued installing under slab electrical & plumbing utilities at Fac 401.
- Installation of the 78" pipe at Fac 402.
- Only punch list items remain for Fac 111.
- Continued installation of HVAC at 1st, 2nd & 3rd floor at Fac 520.
- Continued CMU at the 1st, 2nd, and 3rd floor at Fac 520.
- Continued installation of cold metal framing at Fac 520
- Continued installation of interior process piping at Fac 520.
- Commenced slope fillet pours at Fac 510.
- Commenced ductile iron process piping at facility 510 & 520.
- Continued electrical raceway at fac 510.



GST 361 & 362 AERIAL VIEW



GST 361

GST 362

GROUND STORAGE TANK 361



Commenced precast wall panel installation at GST 361

GROUND STORAGE TANK 361



Commenced shoring erection at GST 361

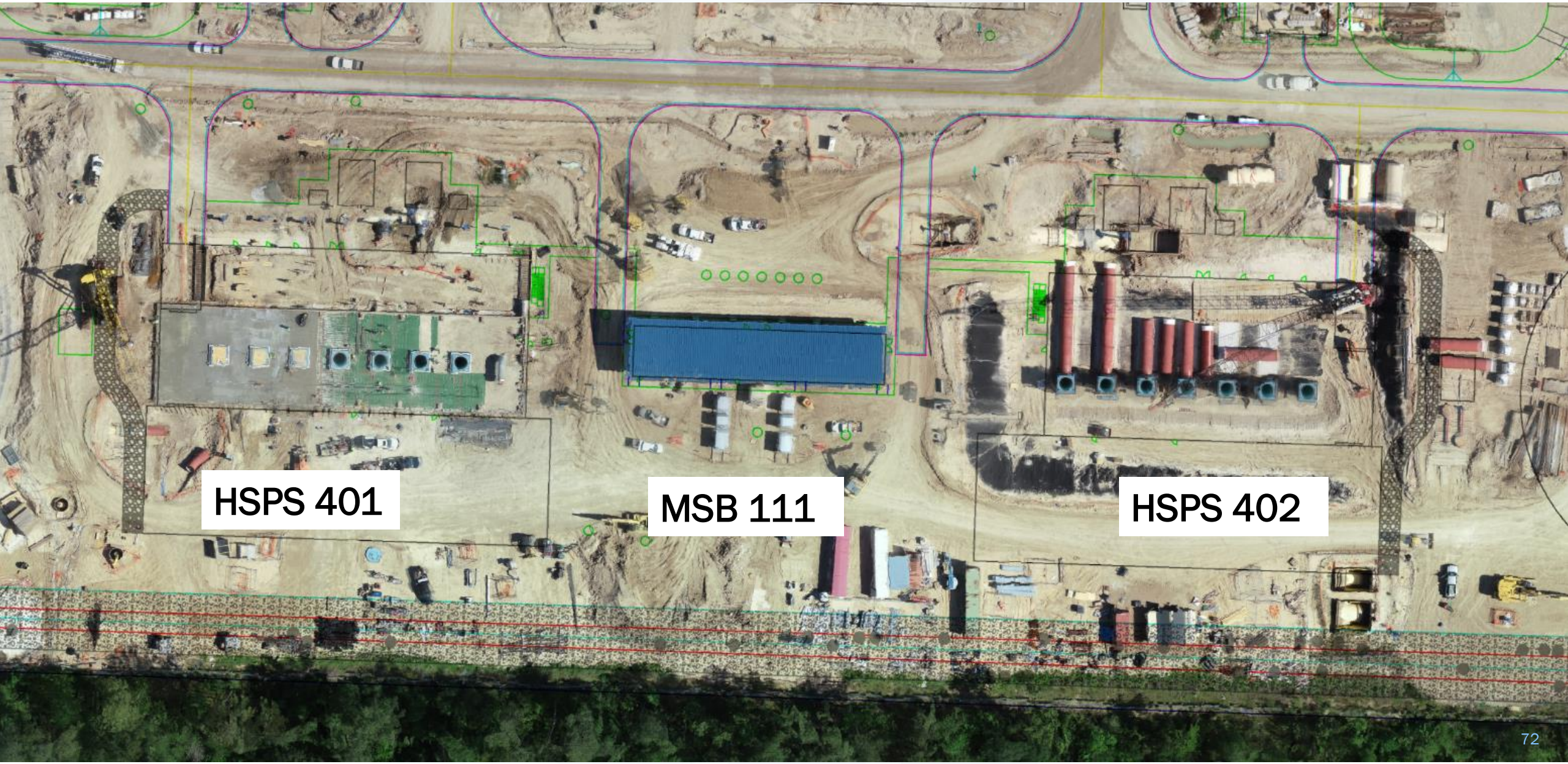
GROUND STORAGE TANK 362



4/27/21 4:03:43 PM CDT

Completed dome Concrete at GST 362

HSPS 401, MSB 111, HSPS 402 AERIAL VIEW



HSPS 401

MSB 111

HSPS 402

HIGH SERVICE PUMP STATION 401



Completed concrete slab pour at the pump room at Fac 401



Continued forming footers for the electrical room at Fac 401

HIGH SERVICE PUMP STATION 401



Vertical turbine pump delivery at Fac 401



Continued installing under slab electrical & plumbing utilities at Fac 401

HIGH SERVICE PUMP STATION 402



4/29/21 8:21:39 AM CDT

Installation of the 78" pipe at Fac 402

MAIN SWITCHGEAR BUILDING 111



Only punch list items remain for Fac 111

DEWATERING BUILDING 520 & THICKENED SLUDGE EQUALIZATION TANK 510 AERIAL VIEW

March 29, 2021



DEWATERING BUILDING 520



Continued installation of HVAC at the 1st, 2nd & 3rd floor at Fac 520

DEWATERING BUILDING 520



4/29/21 7:49:51 AM CDT

Continued CMU at the 1st, 2nd, and 3rd floor at Fac 520

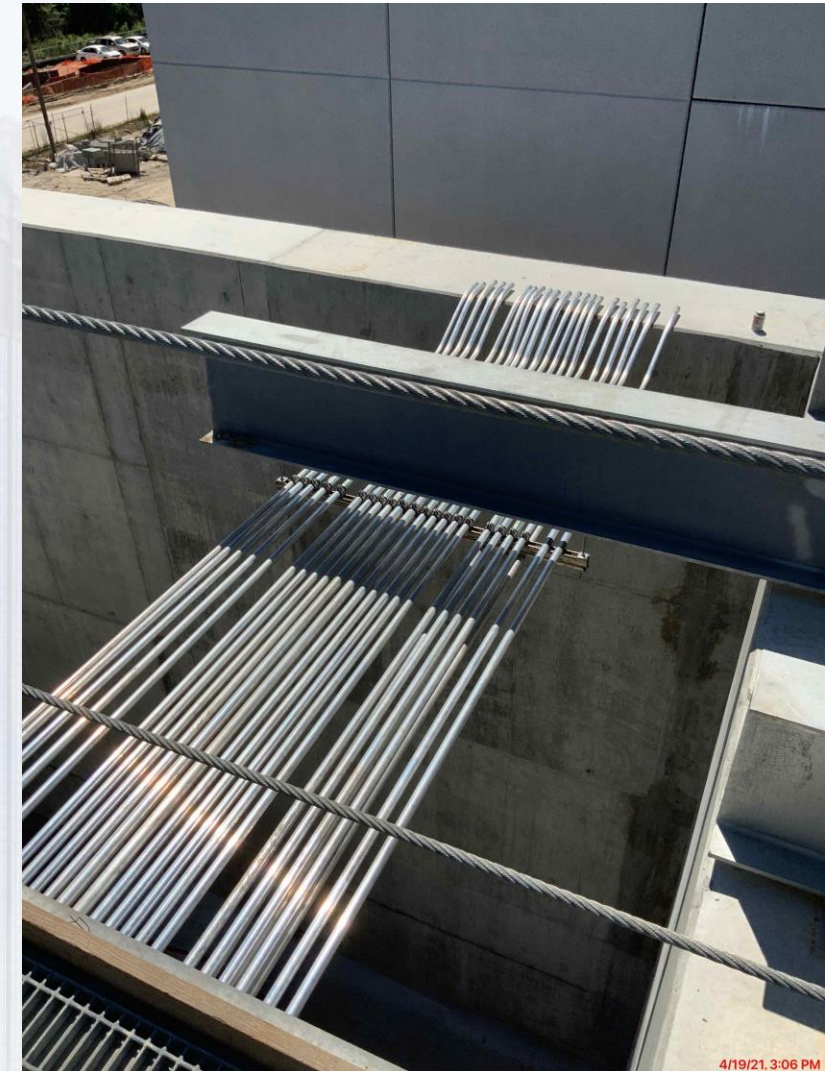


Continued installation of cold metal framing at Fac 520

Sludge Equalization Tank 510



Commenced slope fillet pour at Fac 510



Continued electrical raceway at
fac 510



Construction Progress – Administration & Maintenance Building

- Installed HVAC Equipment
- Installed Roof Rigid Installation and TPO for AB Roof
- Installed Overhead Electrical Conduit
- Installed CFMF for Gypsum Walls
- Installed Gypsum Walls

Administration and Maintenance Building



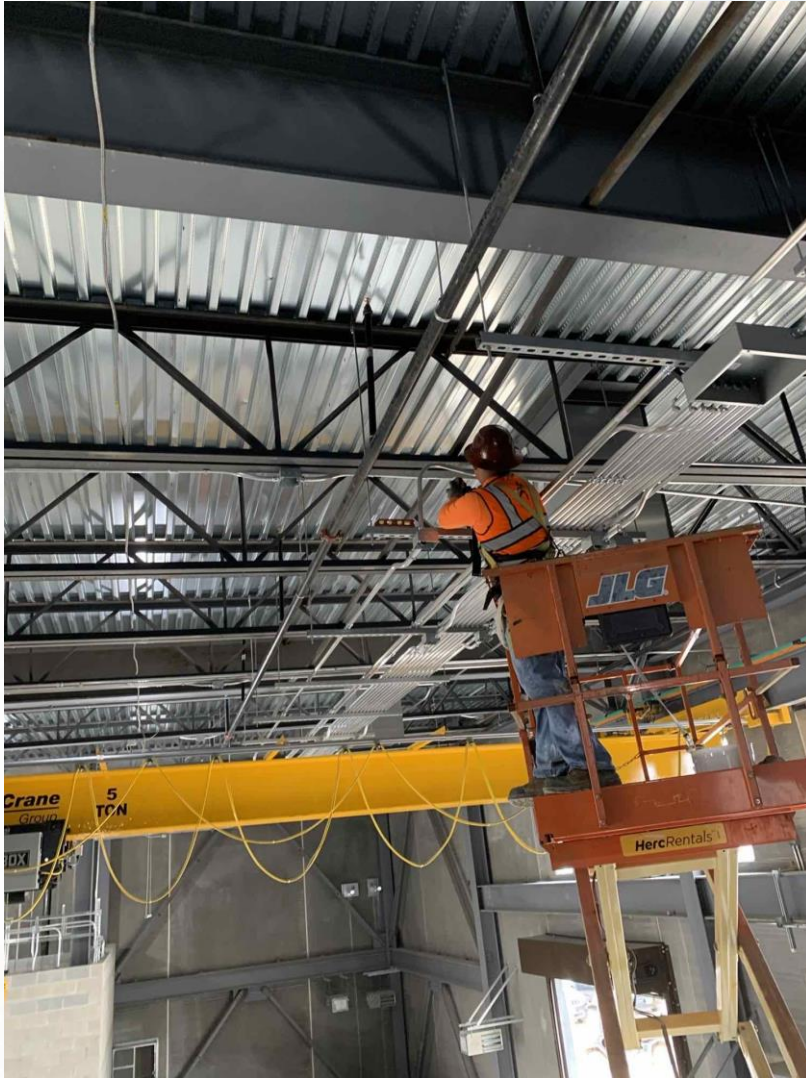
Installation of HVAC Equipment



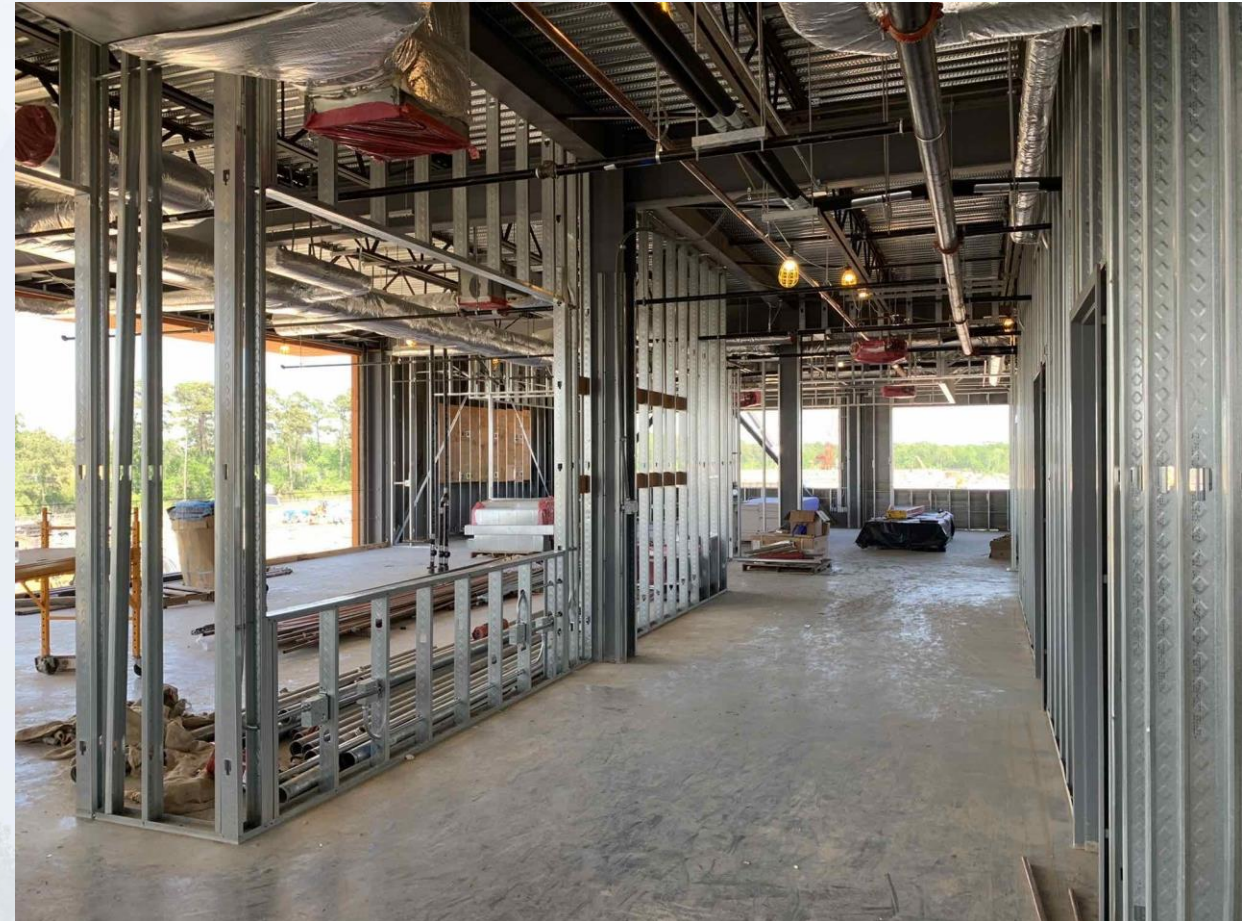
Installation of Roof Rigid Installation and TPO



Installation of OH Conduit



Installation of CFMF for Gypsum Walls



Installation of Gypsum Walls

