



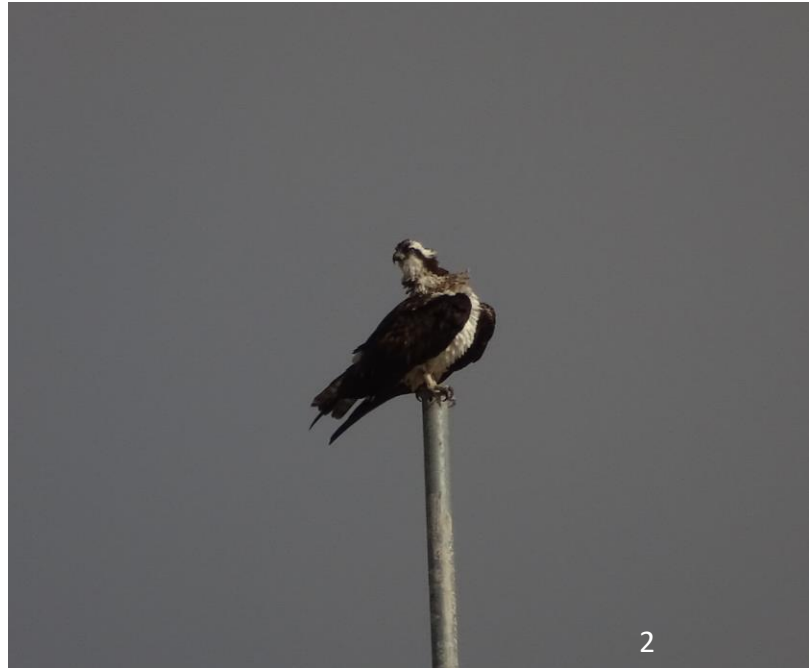
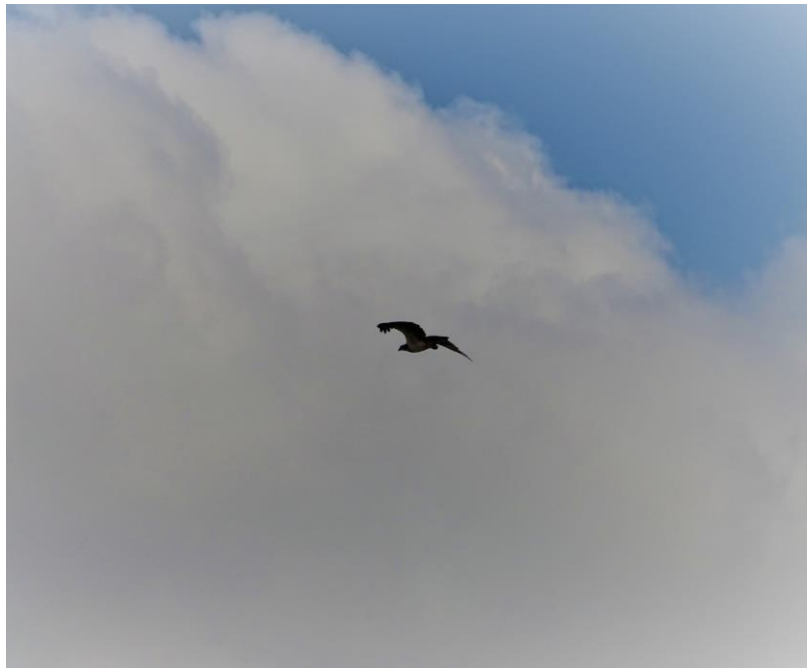
CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

December 22, 2021





Site Drone Map December 2, 2021





Construction Progress – Intake Pump Station (IPS)

- Finishing the pump room inside Intake Pump Station
- Continue coating repair of the precast concrete wall

Finishing the pump room inside Intake Pump Station



Continue coating repair of the precast concrete wall





Construction Progress – Site Electrical

- 242/272 Cable Run (Cable Pulled)
- 401 Transformer Move
- Installation of NGR Neutral (Grounding Resistor) on 401 Transformer



242/272 Cable Run (Cable Pulled)



401 Transformer Move



Installation of NGR Neutral (Grounding Resistor) on 401 Transformer

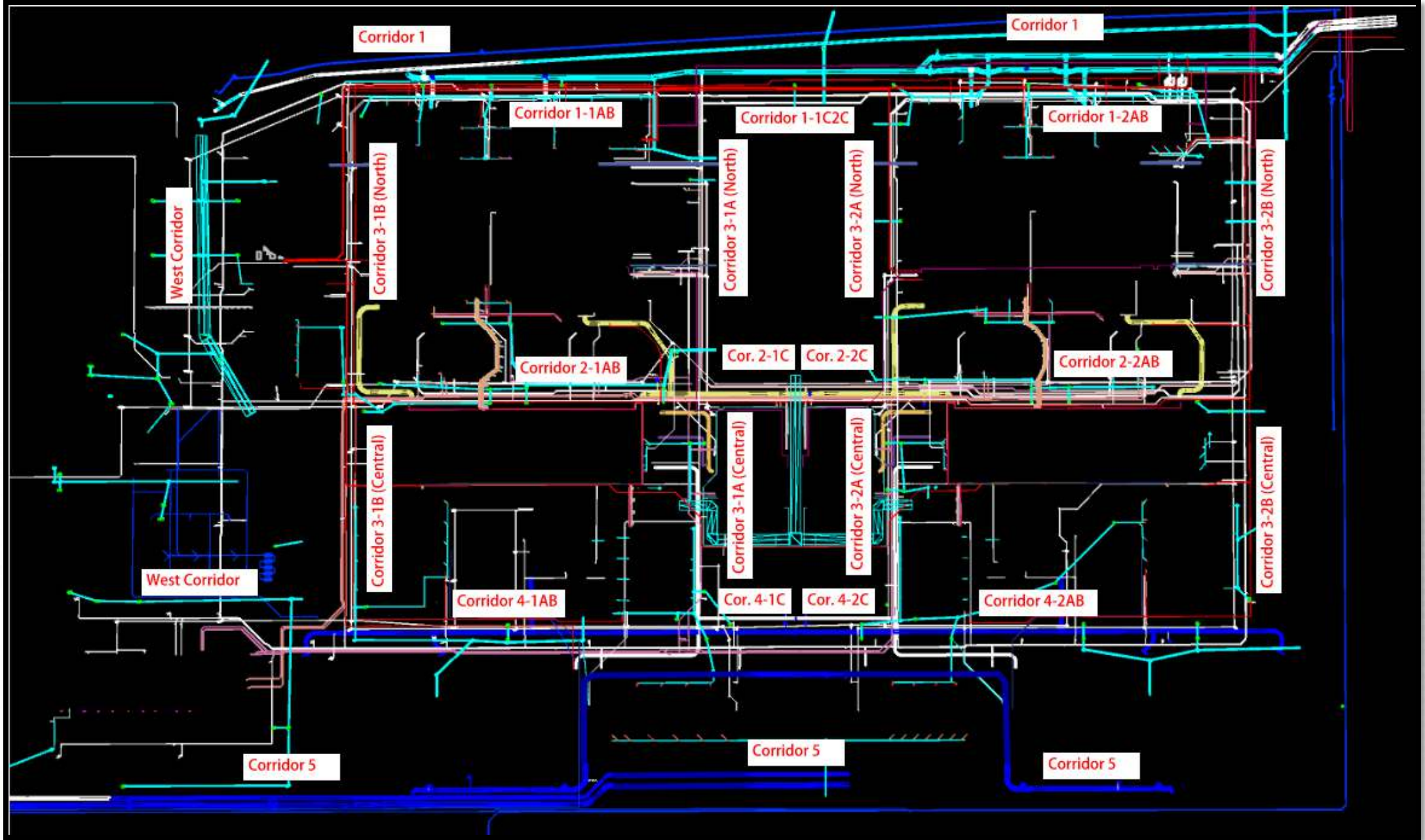




Construction Progress – Yard Piping

- Corridor 1 – Removed line-stop housing from the 66-inch Raw Water Main and placed trench box around existing manhole
- Corridor 4 – Installing BFV and associated valve supports and piping for the air gap on 60" BWS line
- Corridor 5- Welding and grouting the 120-inch FW distribution piping
- Corridor 5 – Applied the Canusa wrap around the 84" weld seams and Denso wrap around the 60" valve bots, and forming for pipe bedding backfill
- Corridor 5 – Reinforced, formed, and placed the valve support pedestals
- West Corridor – Installing 8" SSG Line north of Dewatering Bldg.





Corridor 1 – Removed line-stop housing from the 66-inch Raw Water Main and placed trench box around existing manhole



Corridor 4 – Installing BFV and associated valve supports and piping for the air gap on 60" BWS line



Corridor 5- Welding and grouting the 120-inch FW distribution piping



Corridor 5 – Applied the Canusa wrap around the 84" FWM Saddle weld seams and Denso wrap around the 60" valve bolts, and forming for pipe bedding backfill



Corridor 5 – Reinforced, formed, and placed the valve support pedestals for the two 60" Gate valves



West Corridor – Installing 8" SSG Line north of Dewatering Bldg.





Construction Progress – Central Plant 1

- **281-FILTER MODULE 1 :**

- Continue grouting Filters Under-drains.
- Wiring Actuators & Instrumentations.
- BWW Vent Piping Install

- **291-TRANSFER PUMP STATION 1:**

- Install 42" FW Piping Supports
- Install Conduits from ASD's to VTP Motors - Ongoing
- Install Discharge Head LCP's
- Install Piping in Mechanical Building
- Install Card Readers and Cameras
- Install Analyzers' Piping System

- **311 – POST CHEMICAL FACILITY SH/CS :**

- CRC Surface Application at containment/Fill Station areas.
- Continue Installation Chemical Metering Pumps.
- F/R/P Sidewalks.

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

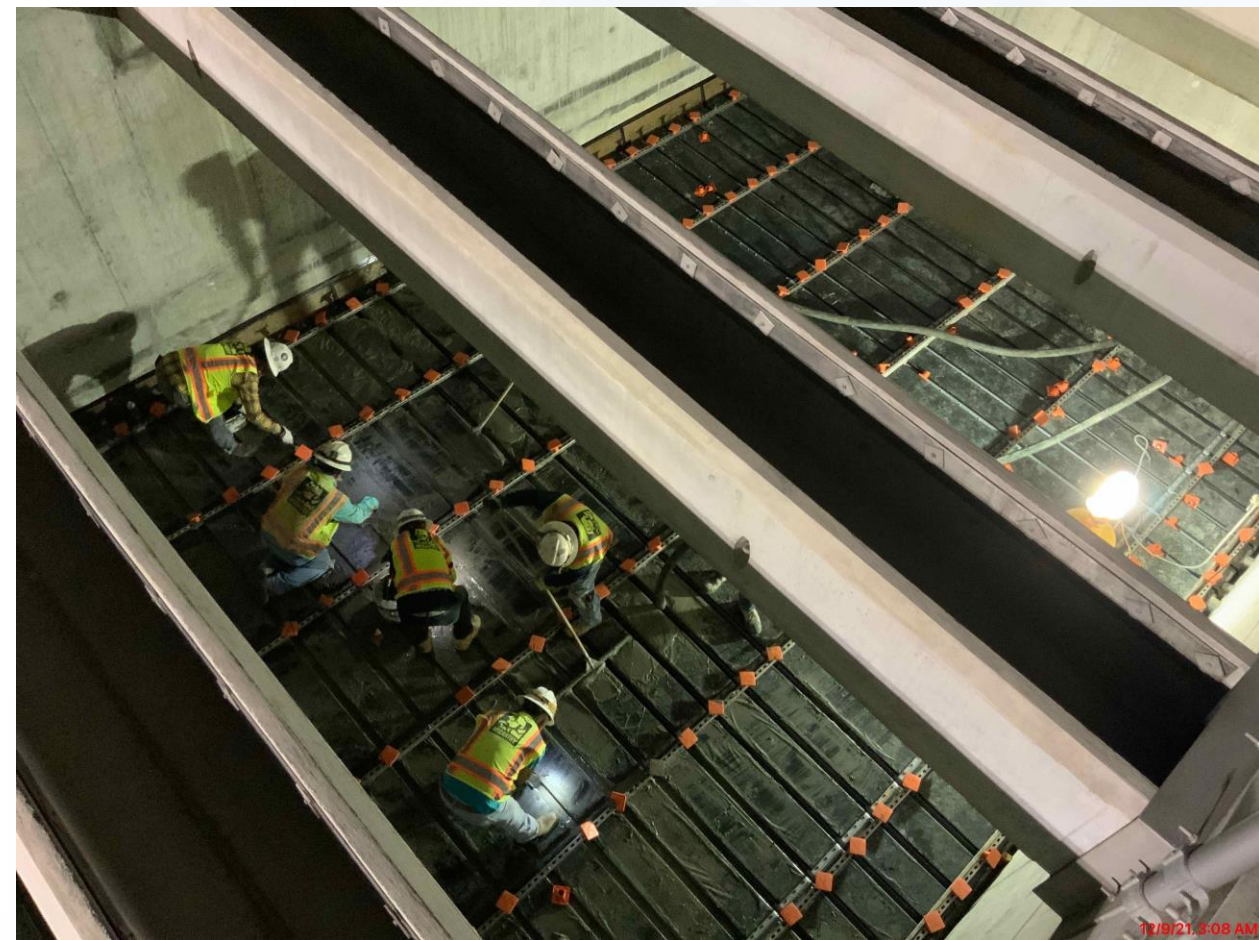
- Installation Chemical Metering Pumps piping system inside building.
- Installation Chemical Piping system containment area.
- F/R/P Sidewalks.



CENTRAL PLANT- PHASE 1



281-FILTER MODULE- Continue grouting Filter UD



281-FILTER MODULE- Wiring Actuators & Instrumentation



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Houston Waterworks Team



281-FILTER MODULE- BWW Vent Piping Install



291-TPS – Aerial View (12/03/2021)



291-TPS – Install 42" FW Piping Supports



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



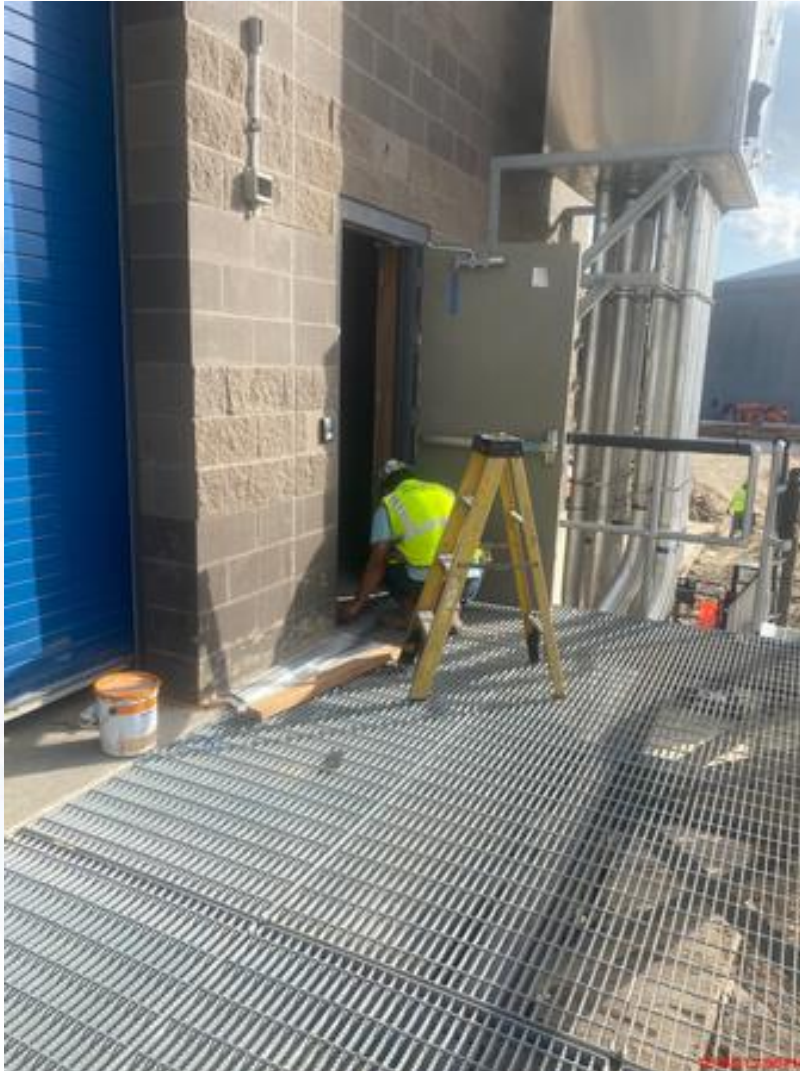
291-TPS – Install Discharge Head LCP's



291-TPS – Install Piping System in Mechanical Building



291-TPS – Install Card Readers and Cameras



291-TPS – Install Analyzers' Piping System



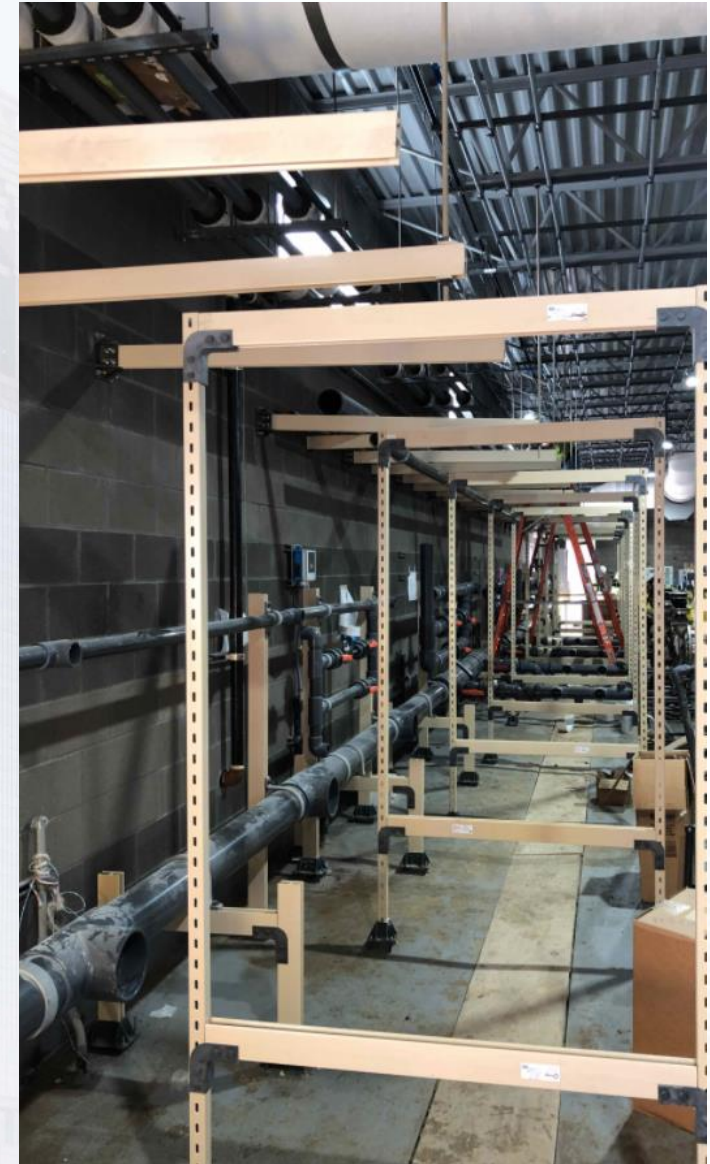
311 – Aerial view –12/03/2021



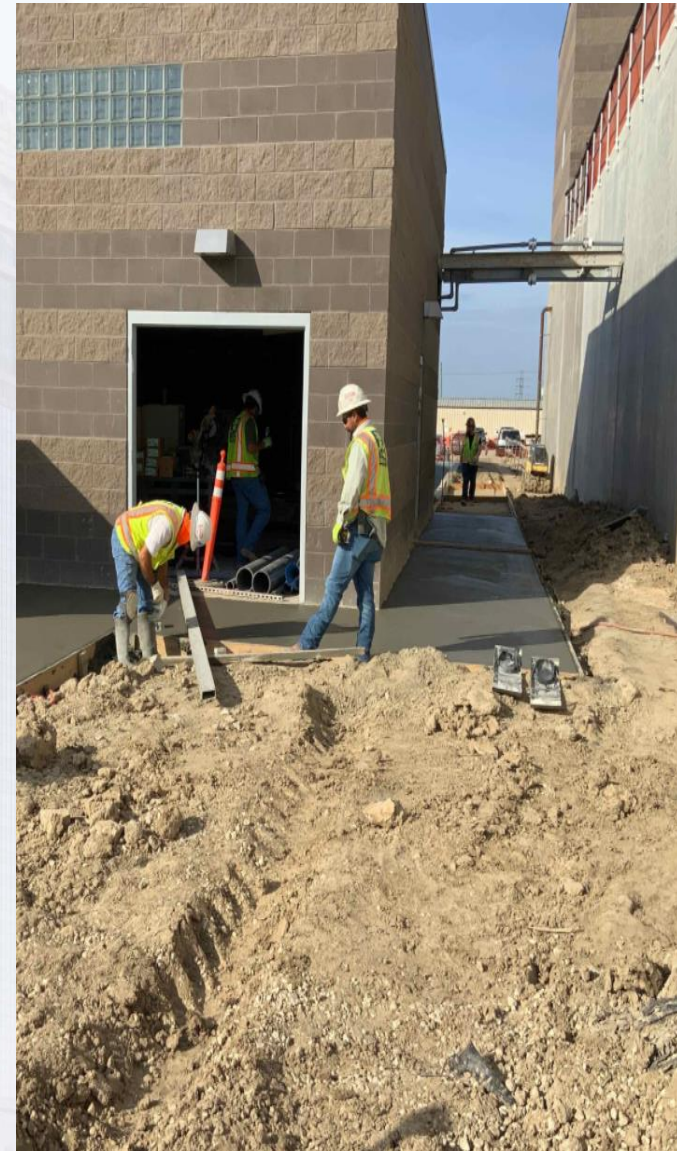
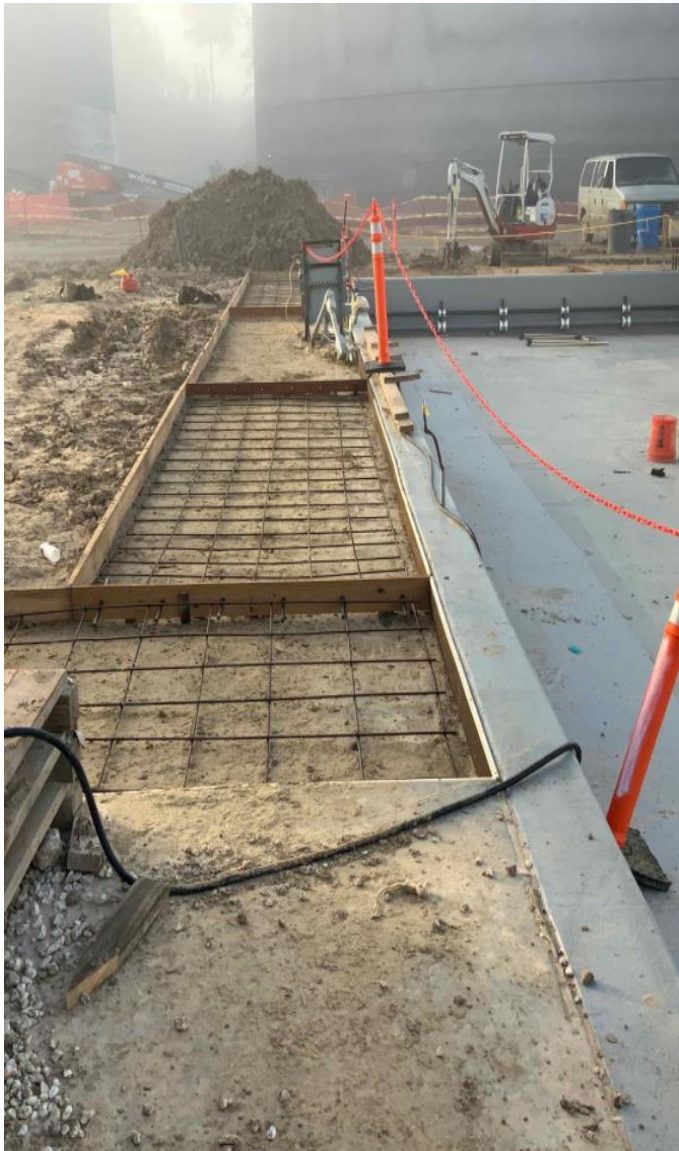
311 – CRC Surface Application



311 –Chemical Metering Pumps and LCPs Installation



311- F/R/P Sidewalks



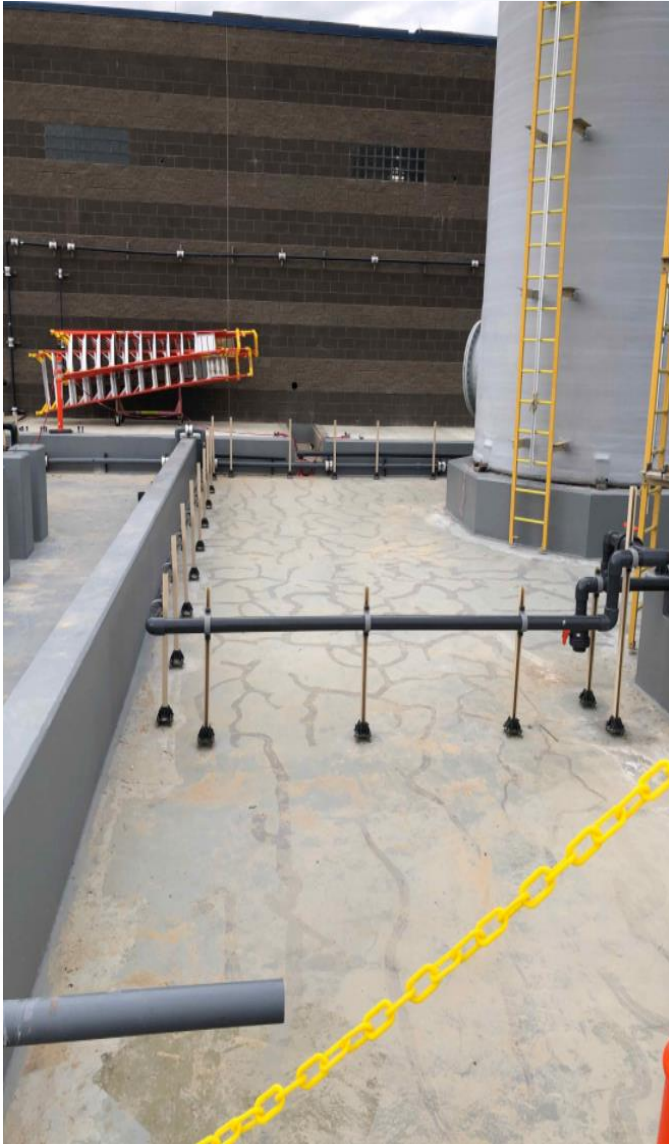
312 - Overall view 11/05/21



312 – Chem pipe system Installation



312 – Chem pipe installation at containment



312 – F/R/P Sidewalks





Construction Progress – Central Plant 2

● **282 -FILTER MODULE 2:**

- Continuing Masonry Structures.
- Finish pouring Top Decks.
- Start of Structural Steel Install.
- Trough Collar and Troughs Install.

● **292-TRANSFER PUMP STATION 2:**

- Top Deck Shoring - Ongoing

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

- F/R/P Footings and Stem walls at chem building.
- F/R/P Seal Slab at containment.

● **314 – POST CHEMICAL FACILITY 4 SH/CS :**

- Field installation of SH Metal Tank.
- Installation of CMU glass blocks.
- F/R/P Equipment pads



CENTRAL PLANT- Phase 2



313- Overall view 12/03/21



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



313 –F/R/P Containment seal slab.



314- Aerial view 12/03/21



314 –Installation of CMU Glass Blocks



314 –SH Steel tank fabrication



314 –F/R/P Equipment pads.



282-FILTER MODULE 2- Continuing Masonry Structures



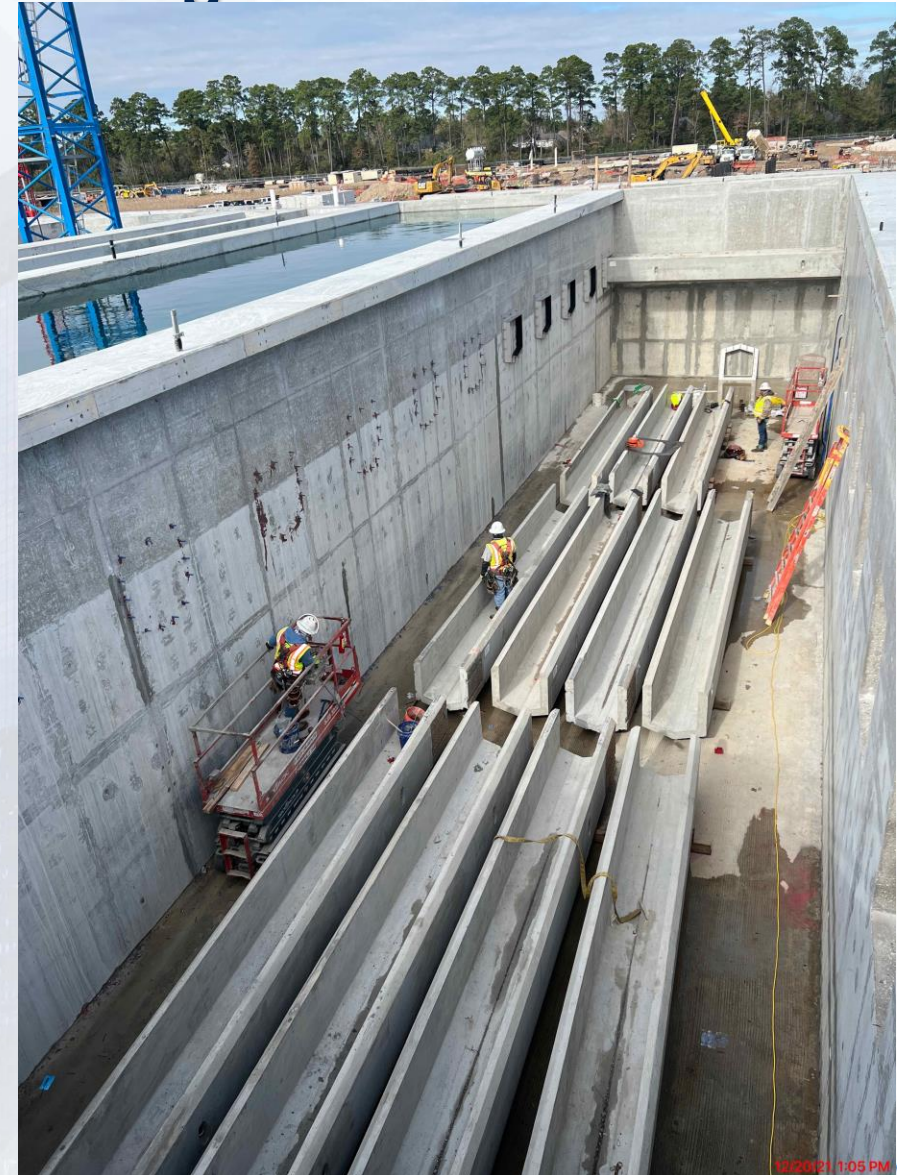
282-FILTER MODULE 2- Finish pouring Top Deck



282-FILTER MODULE 2- Start of Structural Steel



282-FILTER MODULE 2- Trough Collars & Troughs Install



292-TPS – Aerial View (12-03-2021)



292-TPS – Install Top Deck Shoring - Ongoing





Construction Progress – LREQ Basins Facilities 601/602

- **601 – Installation of Road 7 between Central Plant Phase 1 and Fac. 601**
- **601/602 – Continue installation of 24" RCY interconnect pipe**
- **601/602 – Begin to backfill 24" RCY interconnect pipe**



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



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601/602 – Continue installation of 24" RCY interconnect pipe



601/602 – Backfilling 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 6 Concrete Curing**
- **213-Pretreatment Chemical Facility 3:**
- **Area-B Electrical Room Cable Pulling; Polymer Feed/Storage Area Permanent Lighting**
- **242-Flocculation & Sedimentation Train 2:**
- **Sed Basin 3: Plate Pack Installation Prep**
- **244-Flocculation & Sedimentation Train 3:**
- **Cross Collector Channel Walls Complete**
- **252-Ozone Contactor 2:**
- **Roof ESL-3 Concrete Placement**
- **261-Ozone Generation Facility 1:**
- **Area-A Roofing Ongoing, Fire System Installation, & Stainless Steel Ozone Pipe Spools Field Weld Prep**
- **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 SL-6 Concrete Curing



213-Pretreatment Chemical Facility 3: Area-B Electrical Room Cable Pulling; Polymer Feed/Storage Area Permanent Lighting



215- Area-B Concrete Placement for Tank Pads and Walls 4 & 7



242-Flocculation & Sedimentation Train 2: Sed. Basin 3 – Plate Pack Installation Prep



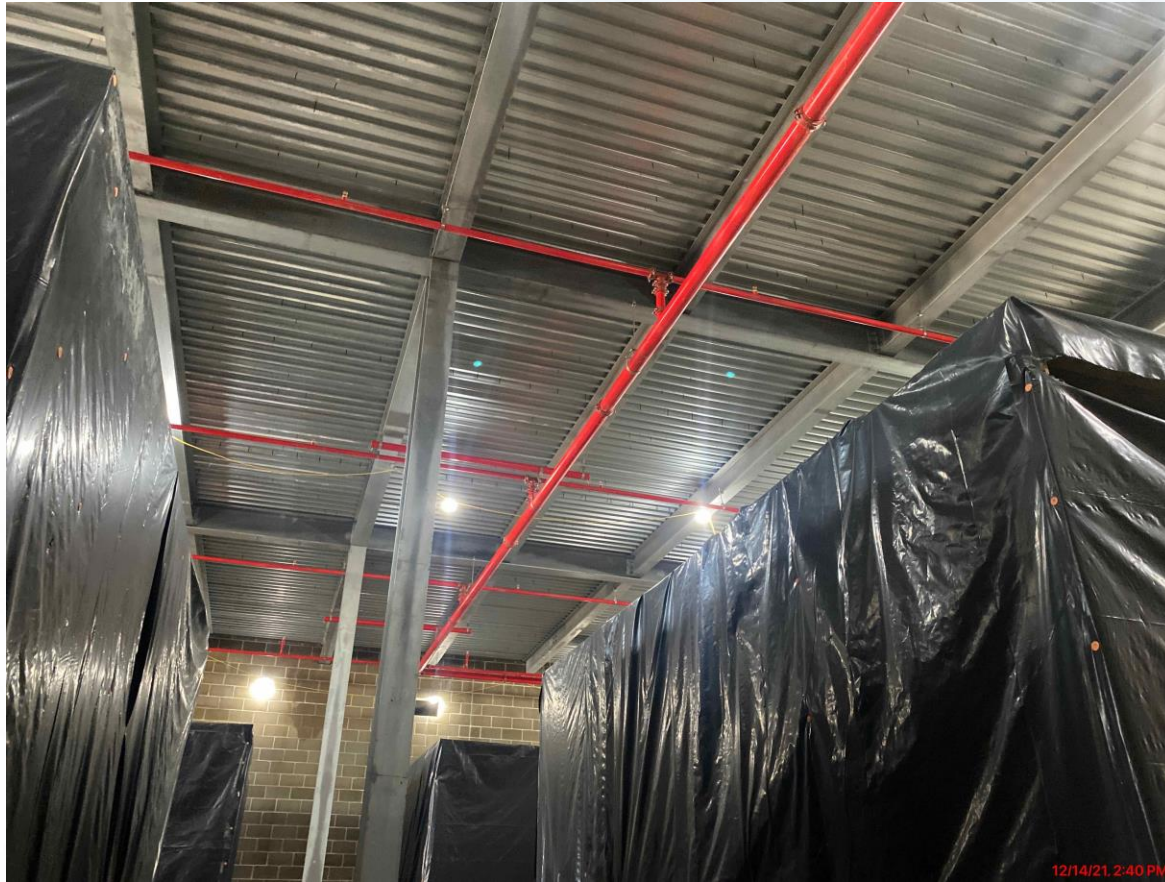
244-Flocculation & Sedimentation Train 3: Cross Collector Channel Walls Complete



252-Ozone Contactor 2: Roof ESL-3 Concrete Placement Ongoing



261-Ozone Generation Facility 1: Area-A Roofing Ongoing, Fire System Installation, & Stainless Steel Ozone Pipe Spools Field Weld Prep



501-Gravity Sludge Thickener Complex 1: Gravity Thickener 1 Walls Concrete Placement



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





Construction Progress – South Plant

- 361 – Prepping for interior tank work.
- 361/362 – Digging up OFB for water fill.
- 362 – Continued interior tank work.
- 401 – Continued exterior slab earthwork and U.G electrical.
- 401 – Continued metal roof.
- 401 – Continued 60" BWS installation.
- 401 – Poured concrete slab on the south side of 401.
- 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 downspout installation.
- 520 – Continued installation of upper and lower conveyors.
- 520 – Continued overhead door installation.
- 510 – Continued process pipe installation.



GST 361 & 362 AERIAL VIEW



GST 361

GST 362

GROUND STORAGE TANK 361



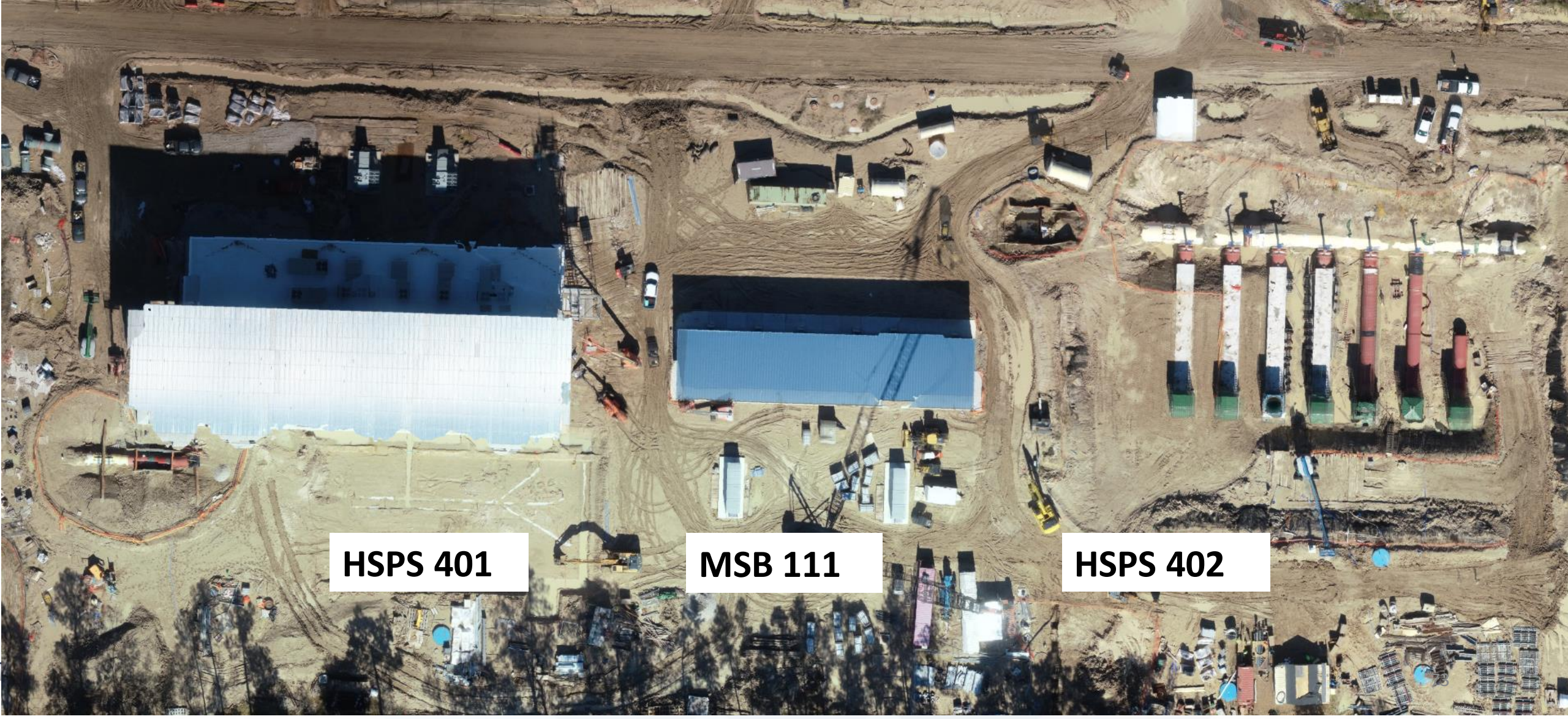
361 – Digging up OFB & prepping for interior pipe work.

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 – Poured concrete slab

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 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 – Commenced installation of underground PVC

THICKENED SLUDGE & EQ BASIN 510



510 – Continued process pipe installation



Construction Progress – Administration & Maintenance Building

- Installation of Precast Screen Wall
- Installation of Lab Casework
- Installation of Plumbing Fixtures
- Installation of Acoustical Ceiling Tile

Installation of Precast Screen Wall



Installation of Lab Casework



Installation of Plumbing Fixtures



Installation of Acoustical Ceiling Tiles



