



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

July 14, 2021

Houston Waterworks Team



Site Drone Map July 8, 2021





Construction Progress – Intake Pump Station (IPS)

- Chlorine Dioxide and PPW lines installation on the access bridge
- Installing soffit panels exterior of the IPS Building
- Removing the abutment sheet pile
- Manhole and oil separator installation
- Installing 48" slanting disc check valves



Chlorine Dioxide and PPW lines installation on the access bridge



Installing soffit panels exterior of the IPS Building



Removing the abutment sheet pile



Manhole and oil separator installation



Installing 48" slanting disc check valves





Construction Progress – Site Electrical

- Placement of Admin Building Transformers
- Placement of 291 Transformers at Central Plant
- Placement of Power Factor Correction Capacitors (PFCC's)

Placement of Admin Building Transformers



Placement of 291 Transformers at Central Plant



Placement of Power Factor Correction Capacitors (PFCC's)

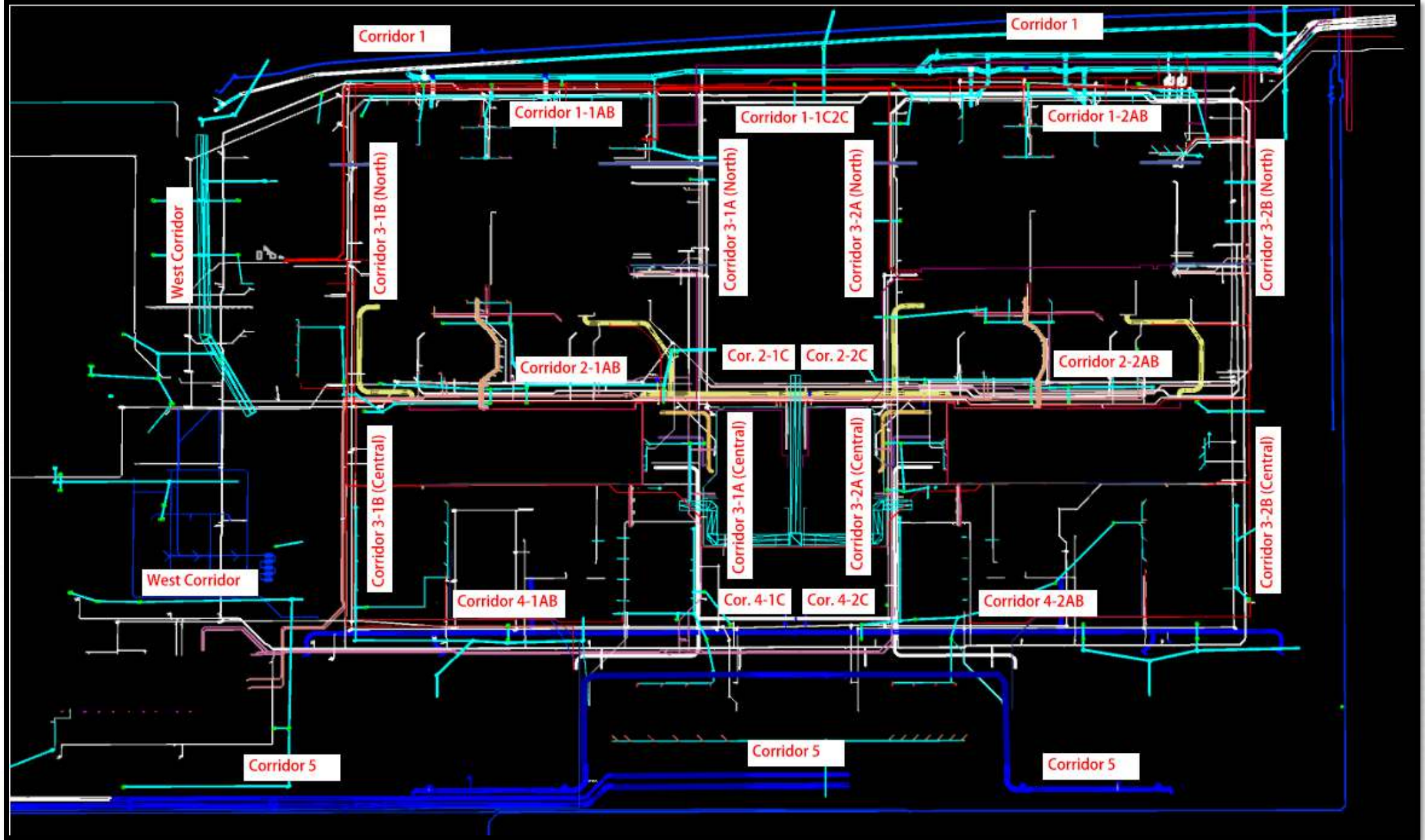




Construction Progress – Yard Piping

- Fusion welding and stringing the 42” HDPE bypass piping for RW tie-ins along north fence in Corridor 1
- Installing 24” PW pipe in North Road in Corridor 1-1AB
- Completed 16” CEN lines tie-ins at Fac 601 in C3-1A Central
- Installing the 4” Natural Gas (NG) Line in C3-1B North
- Installing 3/4” Sample (SA) Lines to Admin Building/West Corridor
- Field welding the 96” Victaulic ring on the OZW pipe to Fac 281 in Corridor 2-1AB
- Installing the 96” OZW pipe to Fac 281 in Corridor 2-1AB
- Installing Storm Roof Drains for HSPS 401 in Corridor 5
- Installing the 120” FW pipe and reinforcing the pipe encasement in Corridor 5 – Phase 2
- Set the 84” FW BFV for GST 3 in Corridor 5 – Phase 2





Fusion welding and stringing the 42" HDPE bypass piping for RW tie-ins along north fence in Corridor 1



Installing 24" PW pipe in North Road in Corridor 1-1AB



Completed 16" CEN lines tie-ins at Fac 601 in C3-1A Central



Installing the 4" Natural Gas (NG) Line in C3-1B North



Installing 3/4" Sample (SA) Lines to Admin Building/West Corridor



Field welding the 96" Victaulic ring on the OZW pipe to Fac 281 in Corridor 2-1AB



Installing the 96" OZW pipe to Fac 281 in Corridor 2-1AB



Installing Storm Roof Drains for HSPS 401 in Corridor 5



Installing the 120" FW pipe and reinforcing the pipe encasement in Corridor 5 – Phase 2



Set the 84" FW BFV for GST 3 in Corridor 5 – Phase 2





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- Installing UD Blocks-Filter 09,10,11
- MEP work in Gallery
- Setting BWW Gates
- Installing 36 FE/FTW Lines in Gallery

291-TRANSFER PUMP STATION 1:

- Deliver and Set ASDs, RVSSs, and PLCs in Electrical Room
- Install HVAC Ducts in Electrical Room
- Place Conduits on T-Supports
- Pour North 6" PPW Encasement
- Install Mixers

292-TRANSFER PUMP STATION 2:

- 60" Block-outs Pour Back
- Overflow Channel Flowable Fill Pour-1st Pour

311-POST CHEMICAL FACILITY 1 SH/CS :

- Chemical Resistant Coatings Application.
- Metering Pumps Mock-up .

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

- CMU Placement for Chem Bldgs.
- Joist System Installation.
- Metal Deck Installation.

314 – POST CHEMICAL FACILITY 4 SH/CS :

- F/R/P Sump SOG and Walls
- F/R/P Containment Area SOG

282 -FILTER MODULE 2:

- Reinforcing /Forming Tall Walls.
- Pouring Tall Walls.



CENTRAL PLANT- 1st PHASE OVERALL



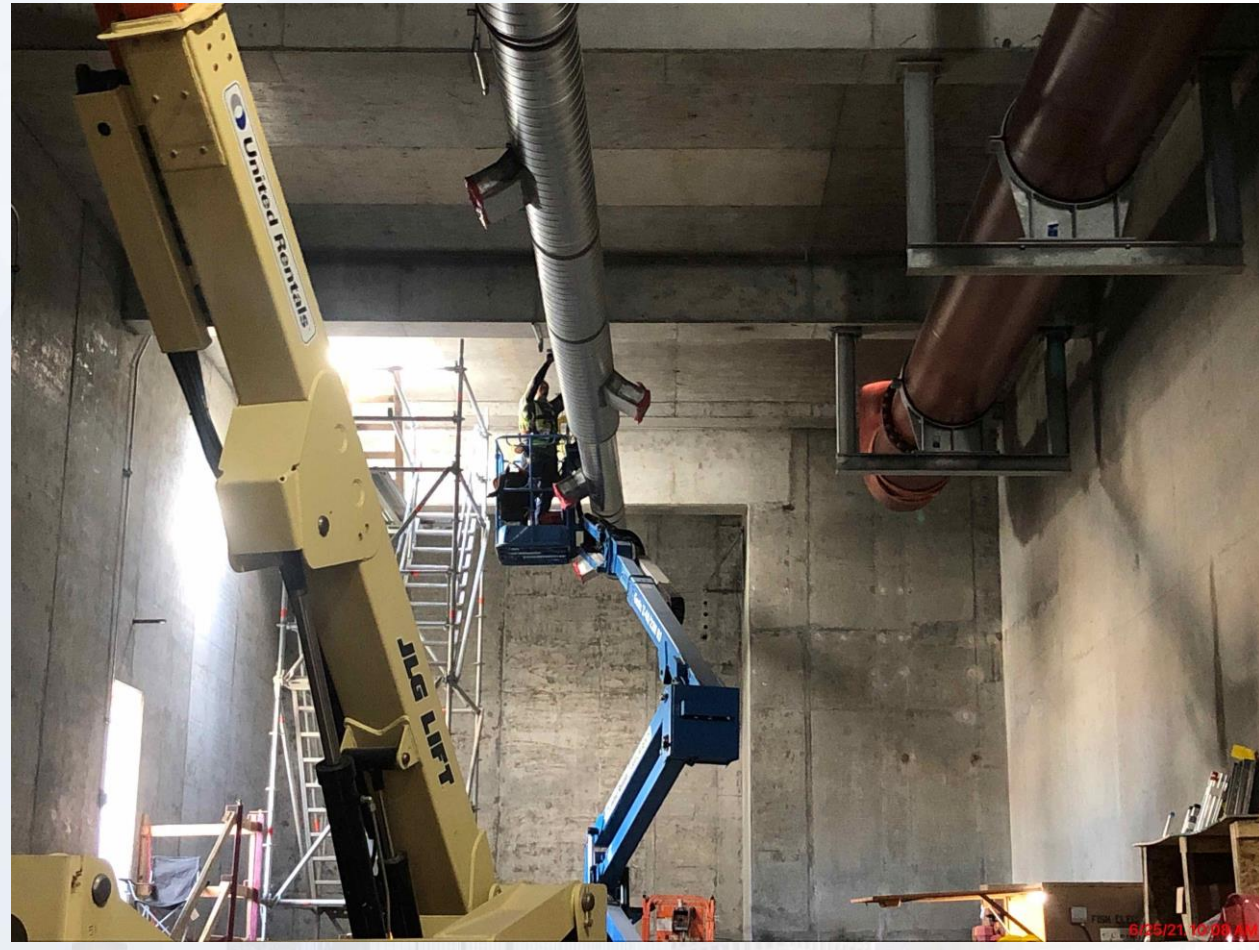
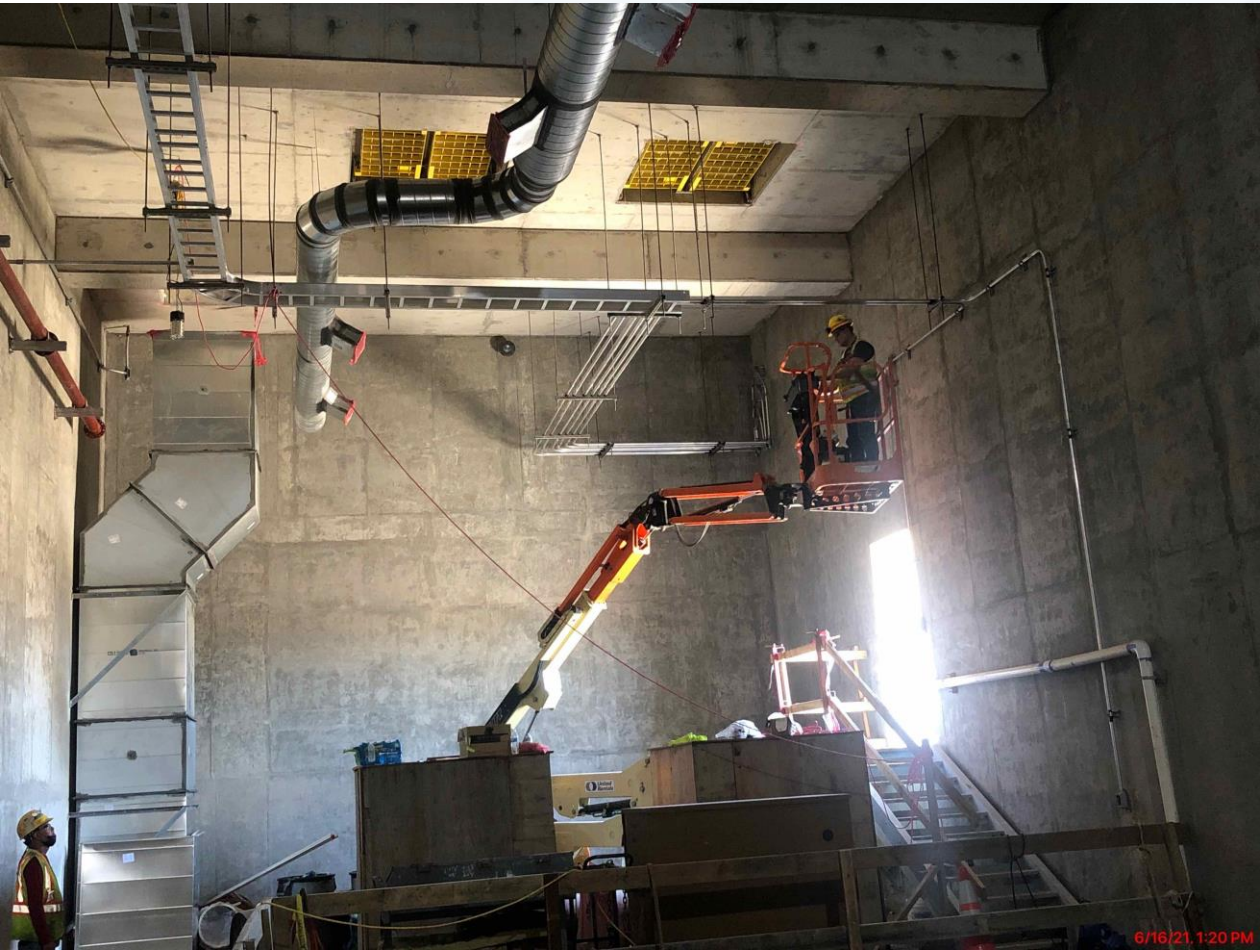
281-FILTER MODULE- Installing UD Blocks- Filter 09,10,11



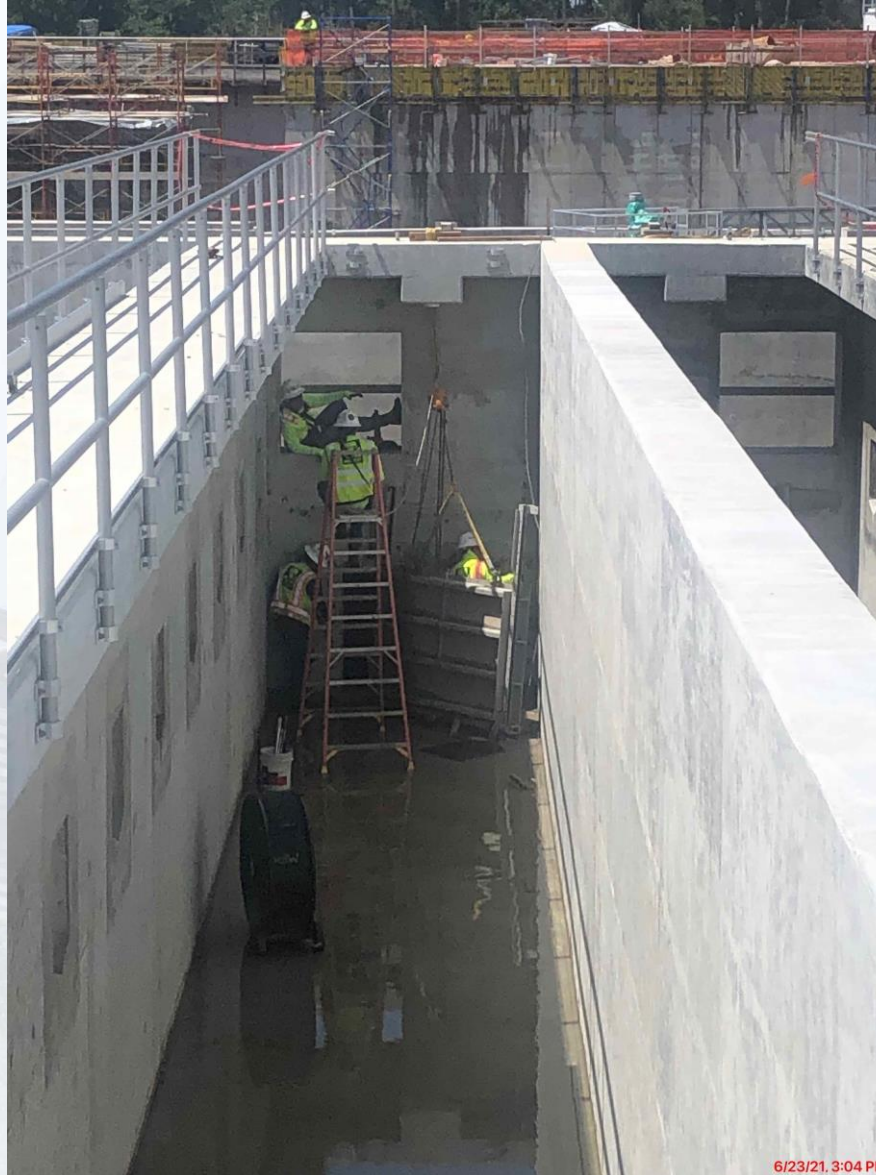
281-FILTER MODULE – Installing 36" FE/FTW Lines



281-FILTER MODULE- MEP work in Gallery



281-FILTER MODULE- Setting BWW Gates



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291-TPS – Aerial View (06/02/2021)



291-TPS – Deliver and Set ASDs, RVSSs, and PLCs in Electrical Room



- 291-TPS – Install HVAC Ducts in Electrical Room



291-TPS – Place Conduits on T-Supports



291-TPS – Pour North 6" PPW Encasement



291-TPS – Install Mixers



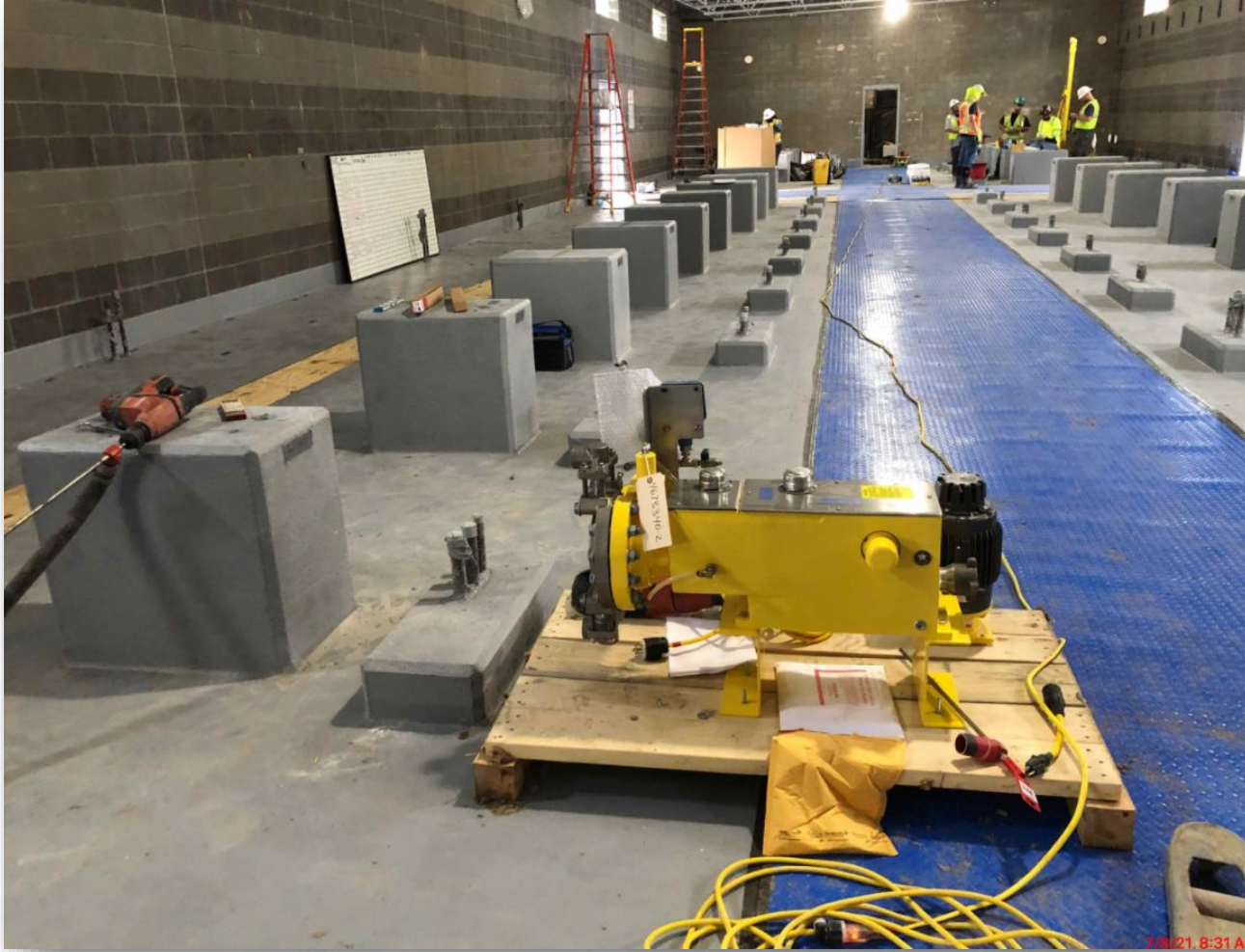
311 – Aerial view –07/12/2021



311 – Chemical Resistant Coatings Application



- 311 – Metering Pumps Mock-up .



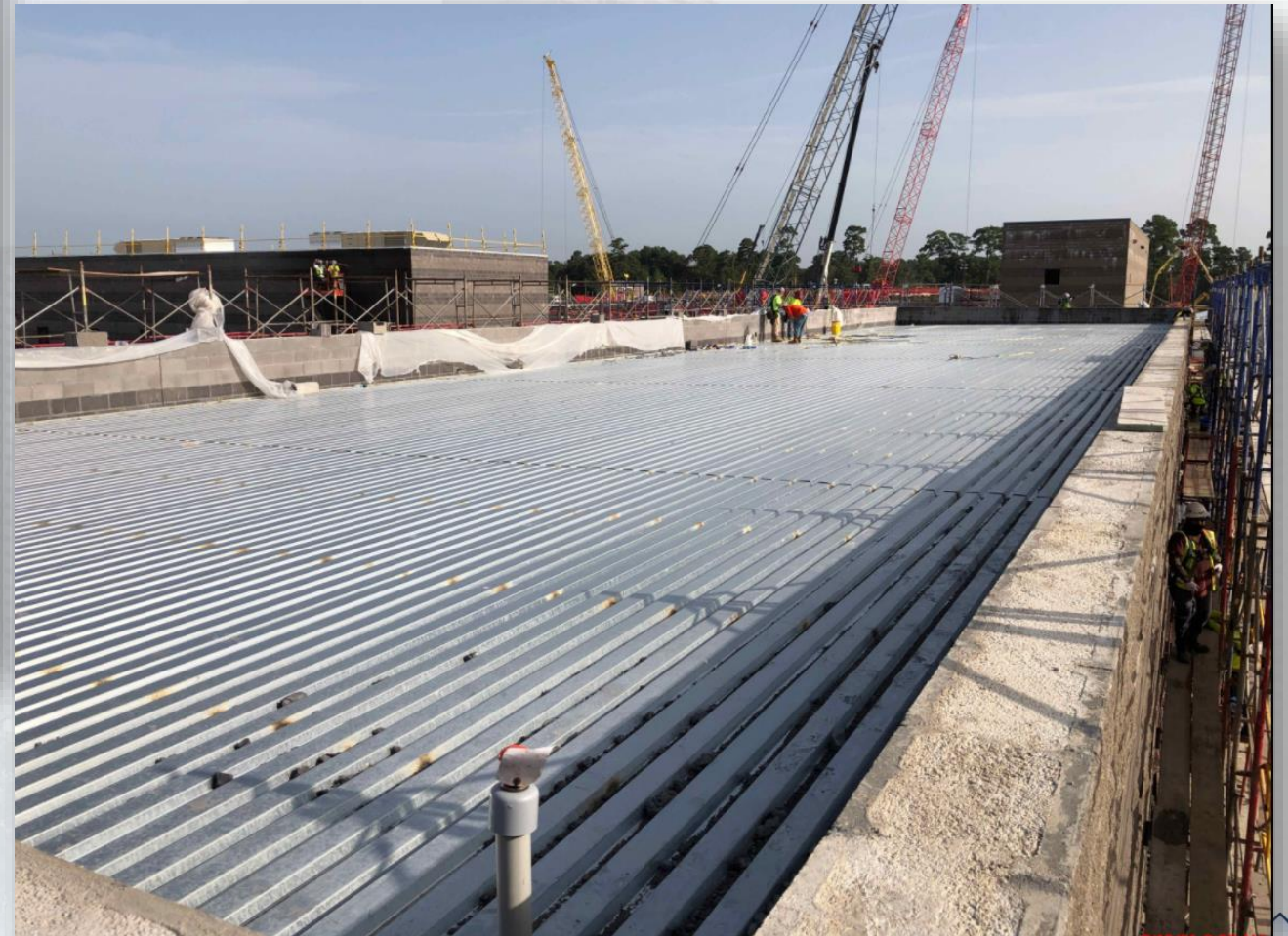
312 - Overall view 06/12/21



- 312 –CMU Placement for Chem Bldgs.



312 – Joist system and Metal Deck Installation



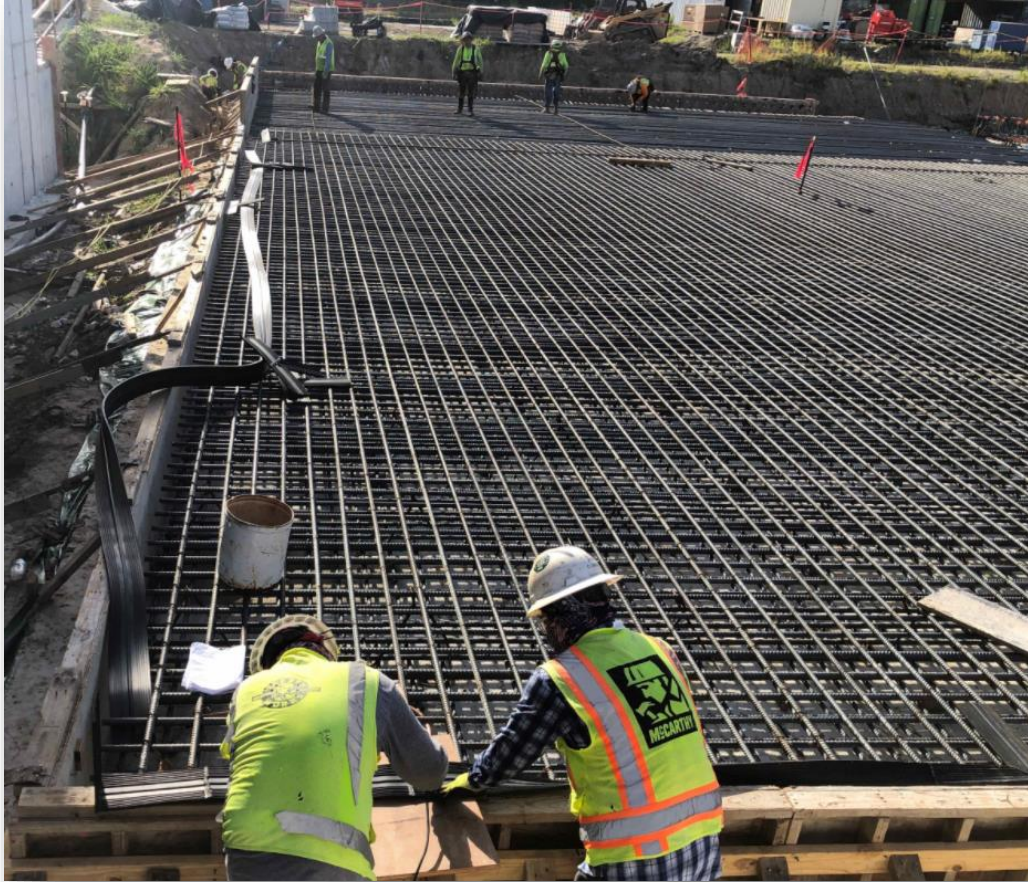
CENTRAL PLANT- 2nd Phase Overall



314 –F/R/P SOG C1 Concrete Pour at Chem Building



314 – F/R/P Containment A1 Slab



282-FILTER MODULE 2- Reinforcing/Forming Tall Walls



282-FILTER MODULE 2- Pouring Tall Walls



292-TPS – Aerial View (06-02-2021)



292-TPS – 60" Block-outs Pour Back



292-TPS – Overflow Channel Flowable Fill Pour-1st Pour





Construction Progress – LREQ Basins Facilities 601/602

- **601 – Basin 1 Volumetric Testing**
- **601 – Installation of Cathodic Protection on 72" BWW**
- **601 – Installation of handrails on Northwest of Basin 1**
- **601 – Backfill West Wall**

601 – Basin 1 Volumetric Testing



601 – Installation of Cathodic Protection 72" BWW



601 – Installation of handrails on Northwest of Basin 1



601 – Backfill West Wall





Construction Progress – North Plant

201-Chlorine Dioxide Facility 1:

- Area-B SOG F/R/P

212-Pretreatment Chemical Facility 2:

- Lime Slurry Tanks Welding

214-Pretreatment Chemical Facility 4:

- Area-B CMU Walls

241-Flocculation & Sedimentation Train 1:

- Knife Wall Placement

242-Flocculation & Sedimentation Train 2:

- Stair Footers Curing

252-Ozone Contactor 2:

- Roof-ESL-3 F/R/P

261-Ozone Generation Facility 1:

- Area-A CMU Walls

272-Pretreatment Service Building 2:

- Structural Steel Installation

502-Gravity Thickener Complex 2:

- Pipe Bridge Drilled Piers

611-Liquid Residuals Clarifier Facility 1:

- Grating Installation



201-Chlorine Dioxide Facility 1: Area-B SOG F/R/P



7/7/21, 3:07 PM

212-Pretreatment Chemical Facility 2: Lime Slurry Tanks Welding



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



241-Flocculation & Sedimentation Train 1: Knife Wall Placement



6/25/21, 4:38 AM

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242-Flocculation & Sedimentation Train 2: Stair Footers Curing



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



261-Ozone Generation Facility 1: Area-A CMU Walls



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272-Pretreatment Service Building 2: Structural Steel Installation



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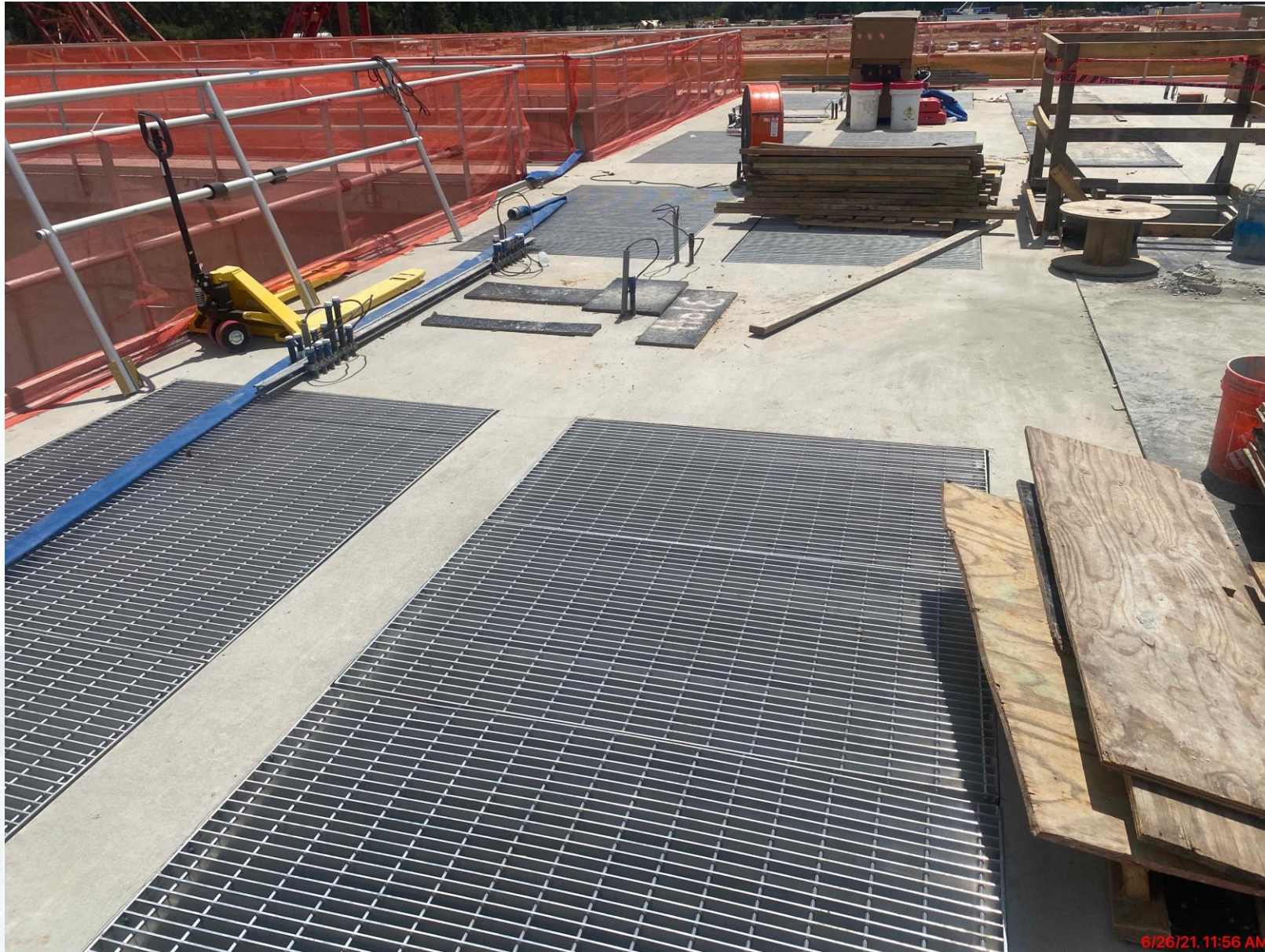


502-Gravity Thickener Complex 2: Pipe Bridge Drilled Piers



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611-Liquid Residuals Clarifier Facility 1: Grating Installation



6/26/21, 11:56 AM

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Construction Progress – South Plant

- **361 - Continued shoring erection and dome decking.**
- **361 – Shotcrete.**
- **362 – Wire winding.**
- **401 – Continued steel erection.**
- **401 – Below slab plumbing and encasements (electrical room).**
- **401 – Continued backfilling the electrical room.**
- **402 – Continued installation of 78” buried pipe.**
- **520 – Continued TPO roofing upper level.**
- **520 - Cleaning CMU at the electrical, mechanical, and other rooms.**
- **520 - Continued fire piping and plumbing.**
- **520 – Continued process pipe installation.**
- **520 – Continued electrical conduit installation.**
- **520 - Continued mechanical coatings.**
- **510 – Continued handrail installation.**



GST 361 & 362 AERIAL VIEW



GST 361

GST 362

GROUND STORAGE TANK 361



361 – Continued shoring erection and dome decking

GROUND STORAGE TANK 362



362 – Wirewinding

HSPS 401, MSB 111, HSPS 402 AERIAL VIEW



HSPS 401

MSB 111

HSPS 402

HIGH SERVICE PUMP STATION 401



401 – Below slab plumbing and backfilling (electrical room).

HIGH SERVICE PUMP STATION 401



401 – Continued steel erection

HIGH SERVICE PUMP STATION 402

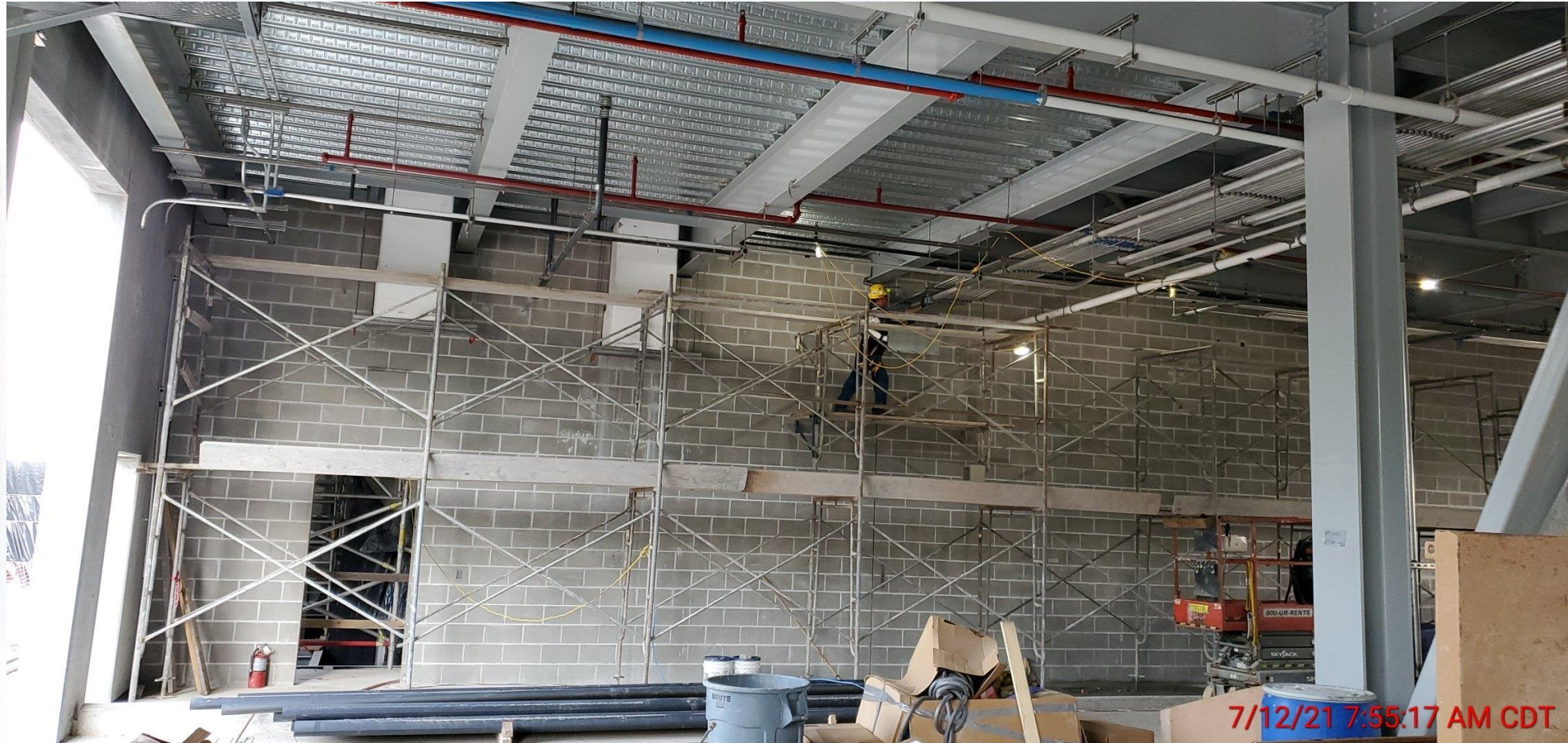


402 – Continued installation of 78" buried pipe

DEWATERING BUILDING 520 & THICKENED SLUDGE EQUALIZATION TANK 510 AERIAL VIEW



DEWATERING BUILDING 520



520 – Cleaning CMU at the electrical, mechanical, and other rooms.

DEWATERING BUILDING 520



520 – Continued process pipe installation

DEWATERING BUILDING 520



520 – Continued mechanical coatings.

THICKENED SLUDGE & EQ BASIN 510



510 – Continued handrail installation.



Construction Progress – Administration & Maintenance Building

- Installed Curtain Wall framing
- Placement of North Parking Lot
- Installed Acoustical Ceiling Grid
- Installed Process Mechanical Piping
- Primed Gypsum Walls



Installation of Curtain Wall Framing



Placed Pavement for North Parking Lot



Installation of Acoustical Ceiling Grid



Installation of Process Mechanical Piping



Priming of Gypsum Walls



