



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

January 15, 2020



Houston Waterworks Team

Drone Site Map: Jan 7, 2020





Construction Progress – EWP 1/3 & 6 Site Development

- **Site Crew managing soils and sand stockpiles**
- **Column tested sewer holding tanks for Trailer City 2.0**
- **Hydro tested and disinfected Trailer City 2.0 water lines**
- **Installing safety bollards around holding tanks, water meter, and fire hydrants at Trailer City 2.0**



HWT Site Crew managing soils and sand stockpiles




Trailer City 2.0 – Hooked up sewer and water connections to trailers



Trailer City 2.0 – Installing Bollards





Construction Progress – Temporary Power / Site Electrical EWP-6

- **Sawcutting/Lifting Concrete on North-South road in Existing Plant**
- **Install Under Slab Conduit at Facility 111, Main Electrical**
- **Placement of Communication Manhole**
- **Site Electrical Material Staging, Duct Bank Conduit, Components**



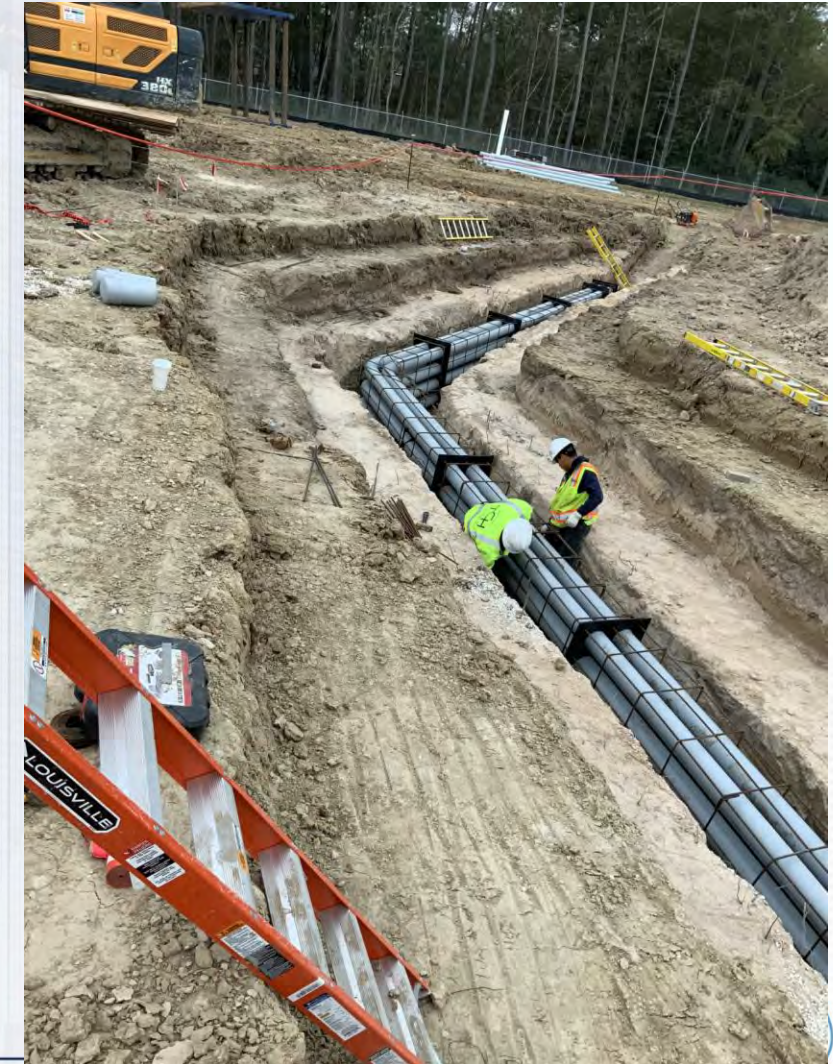
Site Electrical Staging



Saw cutting/Lifting of Concrete Blocks in Existing Plant



Underslab Conduit at Building 111





Construction Progress – EWP 4 Raw Water Corridor

- **Installing pipe and sta 128+50/134+50/142+50**
- **Welding and grouting joints all sta 128+50/134+50/142+50**



Pipe Installation at sta 128+50



STA 134+50



STA 142+50





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- **Reinforcing/Pouring Base Slab B2B**
- **Reinforcing Base Slab A2B.**
- **Wall Pours**
- **DR Line Installation**
- **Top Deck Formwork & Rebar Installation**

291-TPS:

- **Poured Top Deck over contact basins, all 3 sections**
- **Poured 2nd and 3rd encasement lifts at pump cans 2,4,6**
- **Stripped forms pump cans encasements 2,4,6**

282 -FILTER MODULE 2:

- **FD Pump Cans Shoring Installation**





Construction Progress – Central Plant

311- POST CHEMICAL FACILITY CS/SH:

- Continue Site Mass Excavation.
- Building slope around building perimeter.
- Surveying elevations.



281-FILTER MODULE- Reinforcing/Pouring Slab B2B



281-FILTER MODULE- Reinforcing Base Slab A2B



281-FILTER MODULE- Pouring Walls



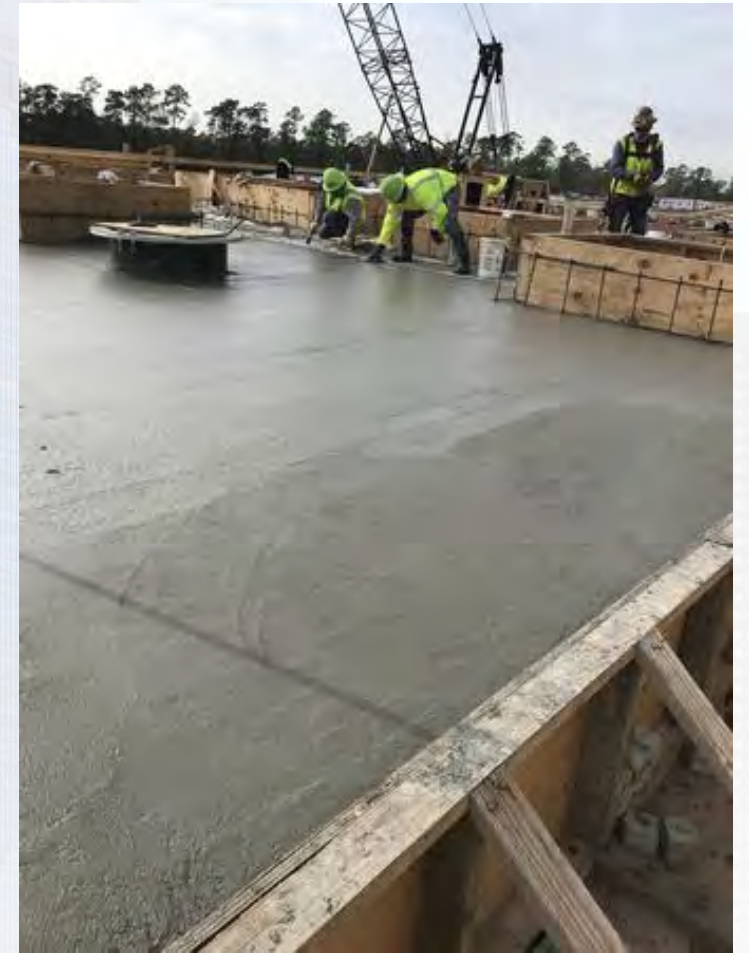
281-FILTER MODULE- DR Line Install (West Side)



281-FILTER MODULE- Top Deck Forming /Reinforcing



TPS – Poured Top Deck Sections over Contact Basins



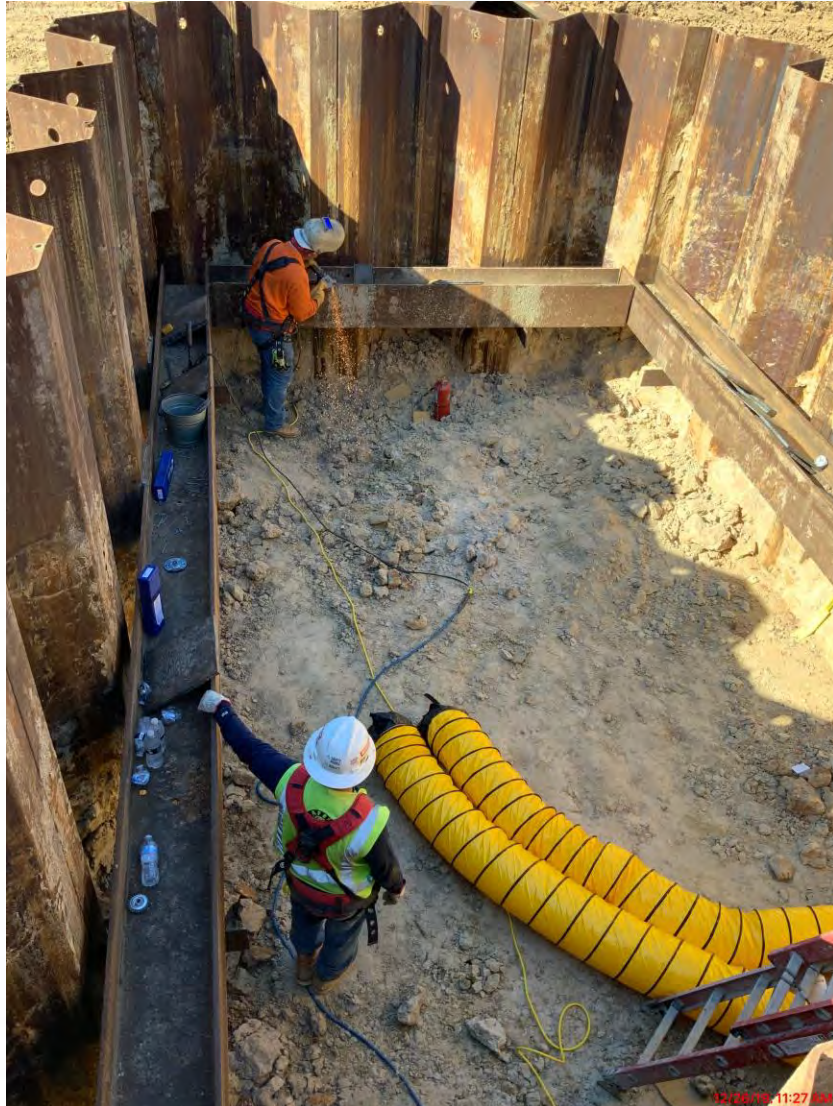
TPS – Poured 2nd and 3rd Encasement Lifts at Pump Cans 2,4,6



TPS – Stripped Forms at Pump Cans 2,4,6



282-FILTER MODULE 2- Installing FD Pump Can Shoring



311 – Mass excavation



311 – Sloping excavation perimeter



311 – Surveying



Central Plant Overall view





Construction Progress – EWP 6 North Plant

- **Facility 213 Slab-On-Grade F/R/P**
- **Facility 213 Stem Wall Preparation**
- **Facility 213 Sump F/R/P**
- **Facility 222 78" Encasement & Backfill**
- **Facility 242 Slab-on-grade F/R/P**
- **N-S Corridor 16" PDR Encasement**
- **Facility 502 Excavation (Gravity Thickener #4)**
- **Facility 611 Excavation & Sump Mud Mat**



Facility 213 Slab-On-Grade



Facility 213 Stem Wall, Mud Mat & Sump



Facility 222 78" Encasement & Backfill



Facility 242 Slab On Grade F/R/P



N-S Corridor 16” PDR



Facility 502 Excavation (Gravity Thickener #4)



Facility 611 Sump Mud Mat





Construction Progress – EWP 6 IPS

- **Drive Remaining 10' Pump Can Casings.**
- **Pouring of Deck Beams**
- **Deck Pour #1 Complete**

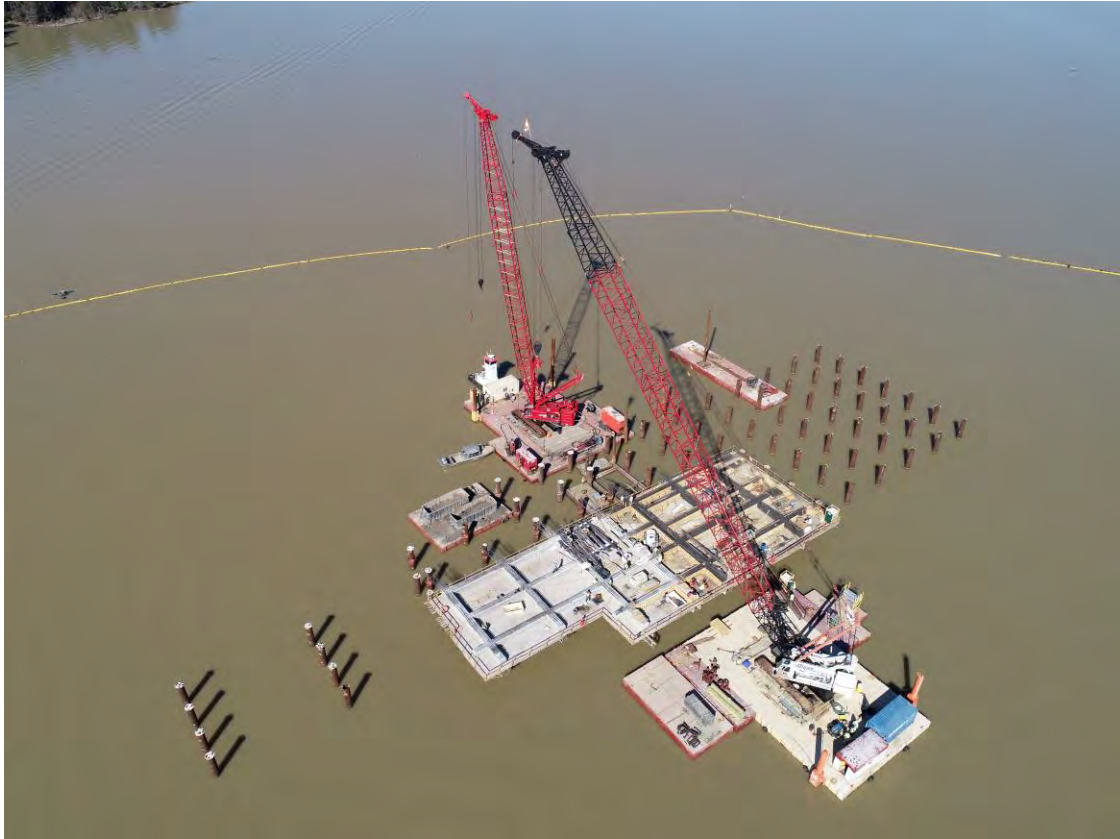
Driving Remaining 10' Casings



Pouring Deck Beams And IPS Deck



Deck Pour #1 Completion





Construction Progress – EWP 6 Substation Facility 102

- **Installation of 3 Gas Circuit Breakers**
- **Installation of radiators, fans, and surge arresters**




Installation of 3 Gas Circuit Breakers



Installation of radiators, fans, and surge arresters





Construction Progress – BOP LREQ Basins Facilities 601/602

- **Facility 601/602 Excavation Progress**
- **Limestone placement and compaction around 601/602 lower pump station**
- **Form fencing perimeter around excavation and build access road**
- **Begin mass excavation at the North side of Facility 601**
- **Formwork and pour for the seal slab around pump station walls**



Facility 601/602 Excavation Progress



Limestone placement and compaction around 601/602 lower pump station



Form fencing perimeter around excavation and build access road



Begin mass excavation at the North side of Facility 601



Formwork and pour for the seal slab around pump station walls



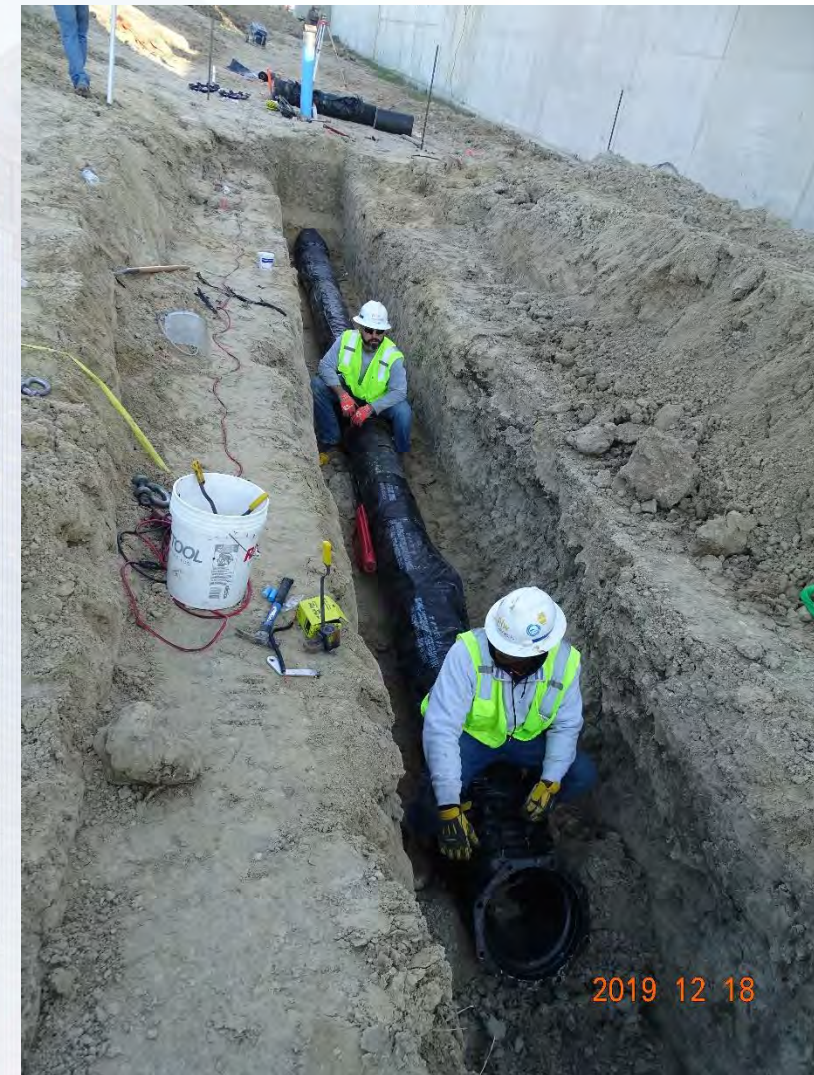


Construction Progress – Yard Piping

- **Installing 12” PW line in Corridor 2**
- **Installing 24” DEC line in Corridors 3 & 2**
- **Installing 16” and 12” PDR Line and manholes 501 & 511 in Corridor 4**
- **Installing and welding 66-in RW steel pipe line in Corridor 1**
- **Receiving deliveries of 84” & 96” FW pipe**
- **Started excavation of 84” & 96” FW trench in Corridor 4**
- **Received delivery of two HWT procured 84” BFV’s (Butterfly Valves)**



Installing 12" PW line in Corridor 2



Installing 24" DEC line in Corridor 3



Installing 24" DEC line in Corridor 2



Installing 16" & 12" PDR Line and manholes 501 & 511 in Corridor 4



Laying and backfilling 66-in RW steel pipe line in Corridor 1



Welding pipe joints of 66-in RW steel pipe line in Corridor 1



Receiving deliveries of 84" & 96" FW pipe



5 Companies mobilized, started cutting road, and excavating 84" & 96" FW trench in Corridor 4



Received delivery of two HWT procured 84" BFV's (Butterfly Valves)





Construction Progress – Administration Building

- **Dewatering of Administration and Maintenance Building**
- **Completing Safety & PMT Office Trailer Move**
- **Aerated excavated Admin and Maintenance footprint**
- **Laid 8" Crushed Concrete**

Dewatering of Administration and Maintenance Building



Completing Safety/Management Office Trailer Move



Aerated excavated Admin and Maintenance footprint



Laid 8" Crushed Concrete





Construction Progress – South Plant

- **Excavation of 84" inlet piping at GST 361**
- **Excavation and foundation installation at 102" outlet piping GST 362**
- **Overflow box complete pending water leak test**
- **111 main switch gear building underground conduit installation**
- **Excavation and dewatering at 401 pump cans**
- **Excavation at dewatering building 520**



Excavation of 84" Pipe trench at GST 361



Installation of outlet box at GST 362



Excavation and dewatering at HSPS 401



