



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

May 20, 2020

Houston Waterworks Team



Drone Site Map: May 1, 2020





Construction Progress – Influent Pump Station (IPS)

- Final Deck Pour
- Precast Bridge Beams Placement
- Permanent Underdeck Steel



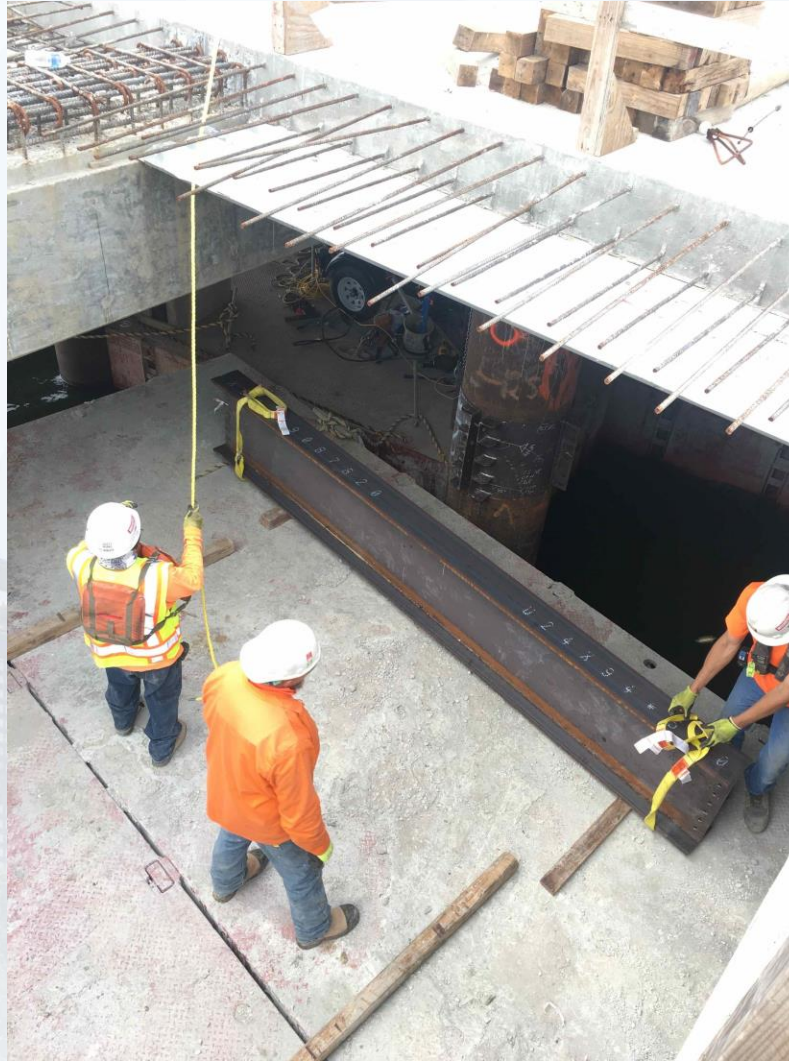
Final Deck Pour



Precast Bridge Beams Placement



Permanent Underdeck Steel





Construction Progress – Site Electrical

- **MDB111A & B Eastward Duct Bank Installation**
- **Existing Plant Duct Bank Installation Near 102**
- **Excavate/Repair MDB 111A/B FDB1010 at 36" Storm Drain in Existing Plant**



MDB111A & B Eastward Duct Bank Installation



Existing Plant Duct Bank Installation



Excavate/Repair MDB 111A/B FDB1010 at 36" Storm Drain in Existing Plant

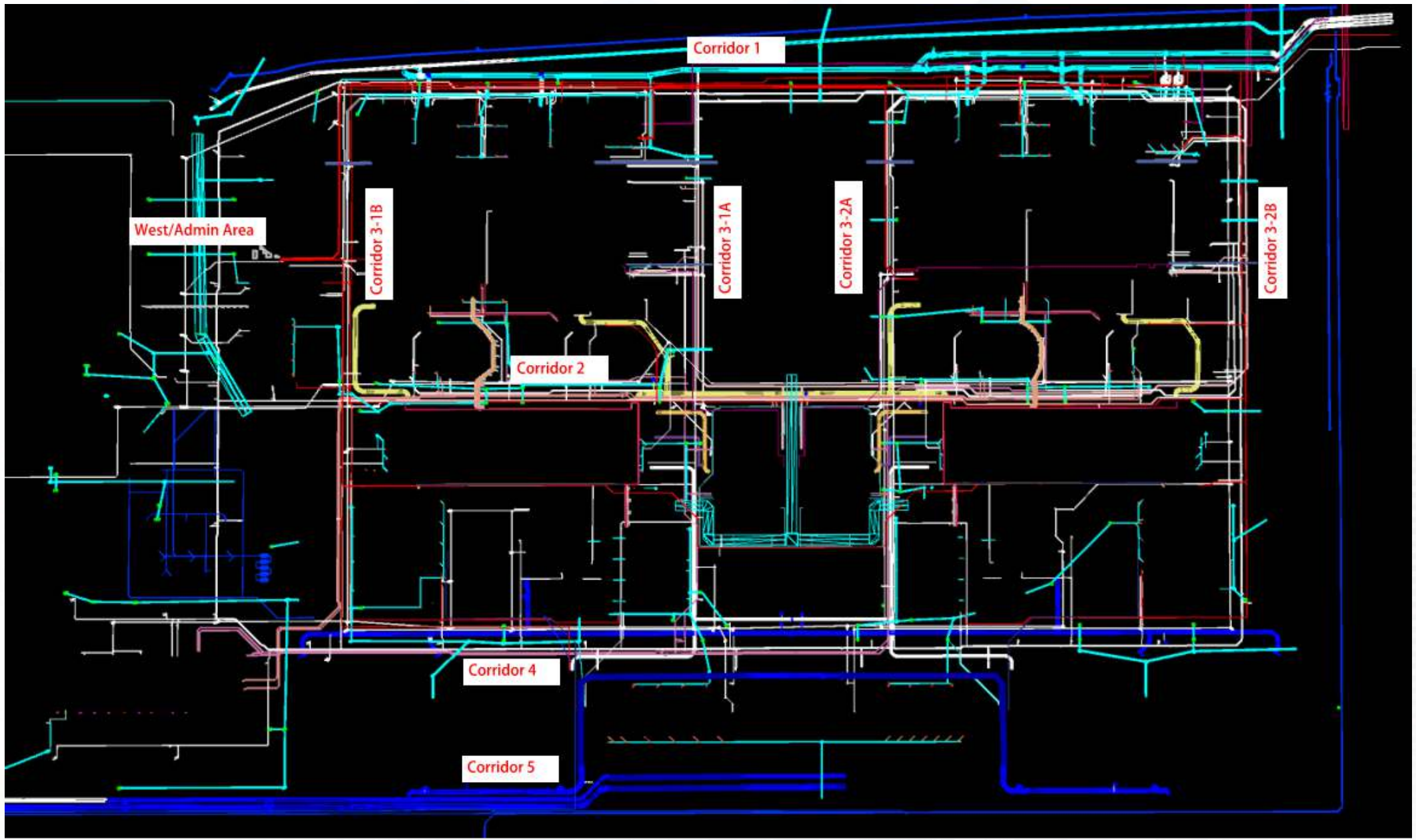




Construction Progress – Yard Piping

- **Hydro-excavating existing 66” RW pipe to locate both tie-in points**
- **Installing and welding both runs of 108” RW steel pipe in Corridor 1**
- **Installing 24” PW ductile iron pipe in Corridor 4**
- **Installing 2-16” CEN ductile iron pipe in Corridor 4**
- **Installing 10” SSG in Corridor 4**
- **Installing 60” BWS in Corridor 4**
- **Installing and welding 120” FW steel pipe in Corridor 5 and by HSPS**





Hydro-excavating to locate the 66" RW steel pipe tie-in locations



Installing dual 108" RW steel pipe, and set 78" tee in Corridor 1



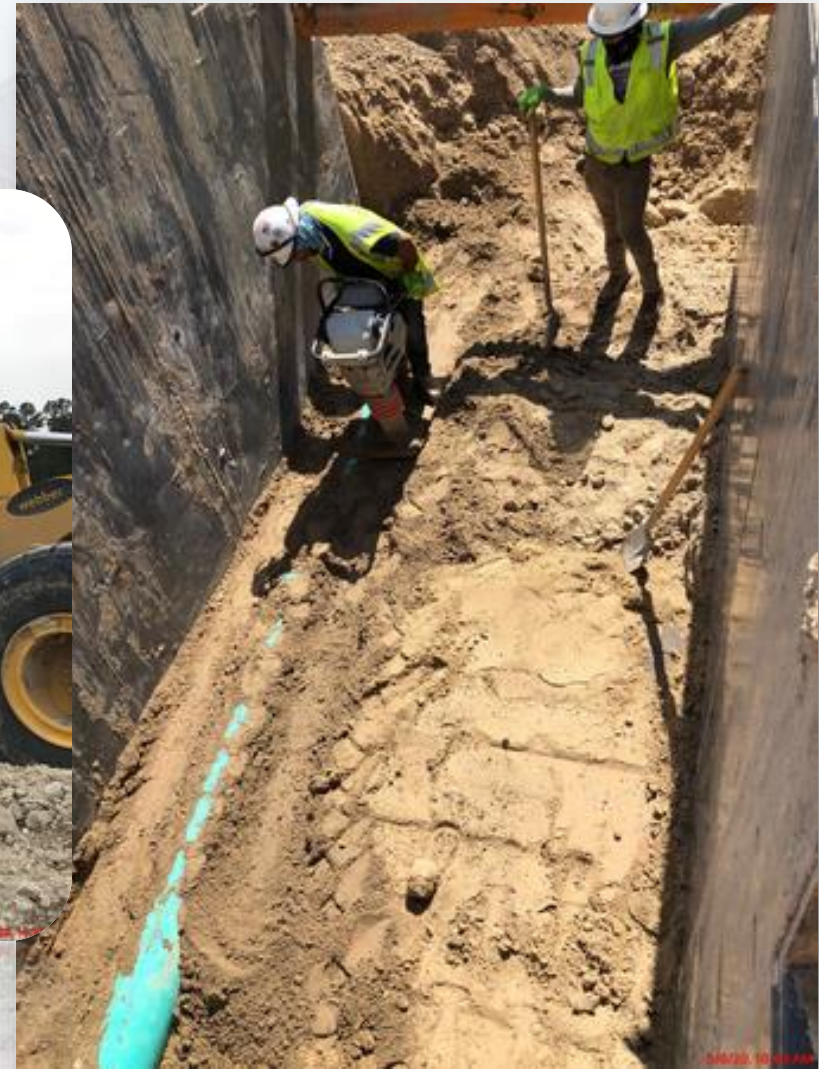
Installing 24" PW pipe in Corridor 4



Installing 2-16" CEN pipe lines in Corridor 4 and to Dewatering Bldg



Installing 10" SSG in Corridor 4



Installing 60" BWS in Corridor 4 and to Filter Module 1



Installing 120" FW steel pipe and tees north of HSPS 1



Installing 120" FW steel pipe in Corridor 5





Construction Progress – Site Civil

Pipe Relocates in proposed 120" FW pipe zone (JSG):

- **Installed, tested, and tied-in the 4" SSFM**
- **Removed a section of existing 4" SSFM pipe**
- **Stringing and fuse welding the 6" Temp Water HDPE pipe to be relocated**



Laid, tested, and tied-in 4" SSFM



Removed section of existing 4" SSFM pipe



Laying and fuse welding the 6" temp Water HDPE pipe





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- Forming/Reinforcing/Pouring Walls.
- Reinforcing Filter/Manifold Walkways
- Reinforcing Walkway Slabs
- Receiving FD Pumps/Motors

291-TRANSFER PUMP STATION 1:

- Wall B4 & A6 & Columns Concrete Pour 2nd Lift
- Tie rebar and form up Air Gap 12" Wall
- Strip forms of Overflow channel upper walls
- 42" BFV's Delivery

311-POST CHEMICAL FACILITY 1 SH/CS :

- Installation of Rebar Tank Farm
- Installation of Rebar –Sump Pump Areas.

312- POST CHEMICAL FACILITY 2

- 312 Facility excavation.

282 -FILTER MODULE 2:

- Reinforcing OZW Inlet Box(East) Walls.
- Under-slab CFE/FTW Piping .
- Erected Second Tower Crane.

292-TRANSFER PUMP STATION 2:

- Pump Can Area Excavation



281-FILTER MODULE-Reinforcing/Forming/Pouring Walls



281-FILTER MODULE- Reinforcing Walkway Slabs



281-FILTER MODULE- Receiving FD Pumps/Motors



291– Concrete Pour walls B4 & A6 & Columns 2nd lift



291– Tie Rebar and Form up Air Gap 12" Wall East and West Sections



291– Strip Forms at Overflow Channel Upper Walls & Columns



291-42" BFV's Delivery



311-PostChemical: Installation of Rebar –Tank farm



311-PostChemical: Installation of Rebar –Sump Pump area



312-PostChemical: Continue Clean up and Mass Excavation.



282- Reinforcing OZW Inlet Box(East) Walls



282-FILTER MODULE 2- Laying Under-slab CFE/FTW Pipeline



282-FILTER MODULE 2- Erected Second Tower Crane



292 – Pump Can Area Excavation





Construction Progress – LREQ Basins Facilities 601/602

- **Concrete Pour for Main Base Slab #9**
- **Formwork and Rebar Preparation for North Walls of 601**
- **Install Rebar and Formwork for North Walls of 601**



Concrete Pour for Main Base Slab #9



Formwork and Rebar Preparation for North Walls of 601



Install Rebar and Formwork for North Walls of 601





Construction Progress – North Plant

214-Pretreatment Chemical Facility 4 :

- **Mud Mat Prep**

222-Rapid Mix Train 2:

- **Erect Wall Rebar and Formwork**

242-FlocSed Train 2

- **Slab-on-Grade**
- **Elevated Slab Column Formwork**
- **Short Wall Column Stripping**
- **Backfilling of 96" CW**

252-Ozone Contractor Train 2:

- **Inlet and Outlet Box Backfill**

502-Gravity Thickener Complex 2

- **Basin #4 Mud Mat Prep and Rebar Placement**
- **Service Bldg Walls Stripping**
- **Basin #3 Gravel and Underdrain Placement**

611-Liquid Residuals Clarifier Facility 1:

- **Slab-on-Grade Pour (Slab 15)**
- **Rebar Prep for Slab-on-Grade FRP (Slab 11)**



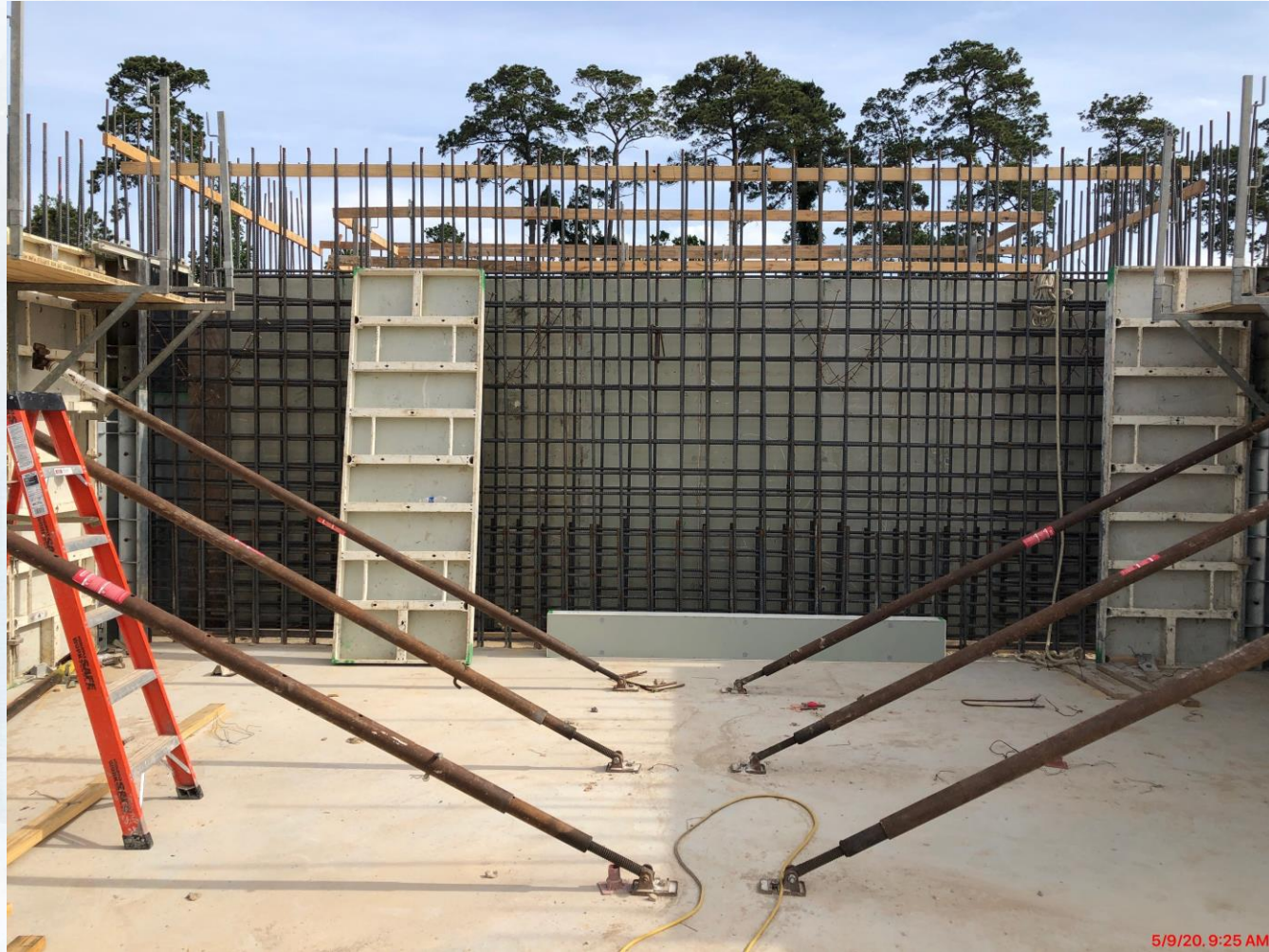
Facility 214-Pretreatment Chemical Facility 4



Facility 222-Rapid Mix Train



Facility 222-Rapid Mix Train



Facility 242-FlocSed Train 2



Facility 242-FlocSed Train 96" CW Backfill



Facility 252-Ozone Contractor Inlet & Outlet Box



Facility 502-Gravity Thickener Complex Service BLDG



Facility 502-Gravity Thickener Complex Basins #3 & #4



Facility 611-Liquid Residuals Clarifier





Construction Progress – South Plant

- **Backfilling the 84" pipe at GST 361**
- **Sheeting removal of the 84" pipe at GST 362**
- **SOG rebar installation of Pour #6 at Facility 520**
- **Masonry installation at Facility 111**
- **Pump can locking slab form stripping at HSPS 401**



Backfilling the 84" pipe at GST 361



Sheeting removal of the 84" pipe at GST 362



SOG rebar installation of Pour #6 at Facility 520



Masonry installation at Facility 111



Pump can locking slab form stripping at HSPS 401





Construction Progress – Administration Building

- Re-Formed the Elevator Pit
- Placed Foundation Base in the BW/AB
- Encased PDR Pipe
- Formed/Reinforced Grade Beams and Footings in the MB



Re-Forming of the Elevator Pit



Placement of Foundation Base in the AB/BW



Placement of Pipe Encasement for the PDR



Forming/Reinforcing of Grade Beams & Footings in the MB



Forming/Reinforcing of Grade Beams & Footings in the MB



