

# MONTHLY PROGRESS REPORT

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Project: **Wallingford Energy Center Expansion Project**  
Client **Wallingford Energy II, LLC**  
Location **Wallingford, Connecticut**  
Job Number: **1015-5113**  
Reporting Period **February 1st, 2017 through February 28th, 2017**

Submitted:  
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## EXECUTIVE SUMMARY

ProEnergy is pleased to report three (3) Major Milestones were completed this month. The scheduled dates below are based on the October 26<sup>th</sup> Baseline Schedule. The three (3) completed milestones are:

- Pour CTG #6 Foundation – This foundation was poured on February 23<sup>rd</sup>. This was 16 days ahead of the March 11<sup>th</sup> scheduled date.
- Pour CTG #7 Foundation – This foundation was poured on Feb 17<sup>th</sup>. This was 37 days ahead of the March 25<sup>th</sup> scheduled date.
- Pour GSU Foundation – This foundation was poured on February 24<sup>th</sup>. This was 3 days ahead of the February 27<sup>th</sup> scheduled date.

ProEnergy was able to take advantage of some warm weather and the use of a covered enclosure to work in during the snow storms we had during the month. The focus has been to complete all the major foundations as soon as possible so as to prepare the site for the heavy equipment lifts coming up the end of March. A site survey has been completed for setting up the cranes and trailers with our logistics team, crane and trucking company.

With team work from the ProEnergy, the Wallingford Water Department, a local piping contractor and LS Power, the removal of the existing fire main piping and installation of the new fire main line was completed.

The existing dry fire line in way of the #6 CTG was removed. Through the efforts of all parties, the plan for the new dry fire main line at the GSU Area has been approved by the Fire Department and will be completed next month.

The issue with the new cable buss mounting on the existing sound wall was resolved. The new cable buss run will be installed on the south side of the existing sound wall on the ground level on sleeper supports. The cable buss will be supported on sliding feet and will go up and over the existing doorway and access way on the SW corner of the existing sound wall.

The drilled piers for the new GSU sound walls and the H-Frame were completed and the anchor bolts installed. ProEnergy found an issue with the south H-Frame foundation grade beam being part of the sound wall grade beam. The issue was the grade beam could not be completed until all the sound wall steel columns were installed. This would prevent the GSU from being installed and the H-Frame being ready for the May 22<sup>nd</sup> Outage. The H-Frame foundation and sound wall foundation was re-engineered with a construction joint to be installed. This will allow the south H-Frame to be completed for the May 22<sup>nd</sup> Outage and the accommodate GSU installation in June without having the sound wall steel installed.



ProEnergy has started coordinating plans for the May 22<sup>nd</sup> Outage. The isometric piping drawings for BOP and Natural Gas line tie-ins will be completed early March. The piping material and isolation valves have been identified. The valves are on order.

There was an issue with the existing pipe elevations. There is a discrepancy between the original PB Power, Inc. construction drawing the top of sound wall concrete elevation of 62.00' and the recent surveyed elevation 60.2' - 60.4'. This effects the how to determine the exact elevations of the underground piping.

The actual piping elevations are not known and essentially could be 1-1/2 feet lower than the construction drawings. The elevations cannot be determined without actually test digging the pipes and measuring them. In light of this ProEnergy has given our engineering company direction to design the BOP piping tie-ins to the lowest elevation.

Our major issue has been engineering deliverables. Moving forward we will be pushing our suppliers and vendors for drawings and information engineering needs to complete their tasks. We will work to improve the review and approval process. So far these slips have not caused any delays in construction.

Weekly review meetings are held each Thursday morning to discuss project status and issues.

ProEnergy is actively looking to improve the schedule dates for each major milestone and most importantly the last one.

## **1.0 MAJOR ACTIVITIES COMPLETED**

### **1.1 ENGINEERING**

- 1.1.1** Civil IFC Drawings Released
- 1.1.2** Mechanical/Process Engineering IFR Drawings Released
- 1.1.3** Structural Engineering IFR Drawings Released
- 1.1.4** Line List – Issued for Use.
- 1.1.5** Anchor Bolt Schedule – Re-Issued for Construction.
- 1.1.6** Stack and SCR Foundations – Issued for Construction.
- 1.1.7** Instrument List and Valve List, Native File Format – Issued for Information.
- 1.1.8** Wastewater Storage Tank and Sump Pump Specifications – Issued for Use.
- 1.1.9** General Site Utility Plan – Re-Issued for Construction.



- 1.1.10 125-VDC System – One-Line Diagram and Panelboard Schedules – Issued for Review.
- 1.1.11 120-VAC Essential Power System – One-Line Diagram and Panelboard Schedules – Issued for Review.
- 1.1.12 Overall One-Line Diagram – Issued for Review.
- 1.1.13 480 MCC One-Line Diagrams – Issued for Review.
- 1.1.14 Resistance Ground Systems Schematic and Wiring Diagram – Issued for Review.
- 1.1.15 Stack and SCR Foundations – Re-Issued for Construction.
- 1.1.16 General Site Utility Plan – Re-Issued for Construction.
- 1.1.17 Fin Fan Lube Oil Cooler Foundation Plan – Issued for Construction.
- 1.1.18 PDC Enclosure Foundation Plan – Issued for Construction
- 1.1.19 Sega Monthly report will be submitted separately

## **1.2 PROCUREMENT**

- 1.2.1 Lighting Control Power Transformer (PES134294) – Delivered to Sedalia Campus
- 1.2.2 Rebar for CTG's skids, aux skids, sprints skids, water injection skids, CTG's removal skids and CO2 rack skids (PES135065) – Delivered 2/9/2017
- 1.2.3 Fire main line installation (PES 135199) – Completed
- 1.2.4 LV High Resistance Grounding Transformer (PES134310) - Delivered 2/20/2017

## **1.3 FABRICATION / SHOP WORK**

SB 187 (TBV elimination) the main parts have been received and most installed in January 2017. Thrust balance piping has been received. The brackets that hold the piping in place are being manufactured by Pro Steel.

## **1.4 CONSTRUCTION**

- 1.4.1 Hauled soil and finished excavation for CTG # 6.
- 1.4.2 Poured flowable fill for CTG # 6, 88 cubic yards.



- 1.4.3 Surveyors laid out the CTG # 6, sprint skid, water injection skid, combustion turbine removal pad and CO2 rack.
- 1.4.4 Installed formwork, hardware and tied rebar for CTG # 7
- 1.4.5 Removed snow from parking lot, entrance road, office trailers and job site.
- 1.4.6 Built hooch around the CGT # 7 to keep proper temp for concrete placement.
- 1.4.7 Excavated & laid out Stack & SCR foundation # 6.
- 1.4.8 Hauled soil from Stack & SCR foundation # 6
- 1.4.9 Installed form work and tied rebar for CTG # 6.
- 1.4.10 Poured concrete for CTG # 7, 172 cubic yards.
- 1.4.11 Poured flowable fill for Stack & SCR foundation # 6, 145 cubic yards.
- 1.4.12 Set concrete blankets around CTG # 6 for the concrete placement.
- 1.4.13 Removed hooch from CTG # 7.
- 1.4.14 Removed formwork & hardware from CTG # 7.
- 1.4.15 Poured concrete CTG # 6, 172 cubic yards.
- 1.4.16 Installed formwork for SCR and Stack foundation # 6.
- 1.4.17 Received and tied rebar for SCR and Stack foundation # 6.
- 1.4.18 Subcontractor Quality Associates: Finished installation of the new 10" fire line and removed old fire line, and capped the dry line.
- 1.4.19 Subcontractor O&G: Installed formwork, rebar for GSU foundation.
- 1.4.20 Assembled GSU transformer foundations equipment pads.
- 1.4.21 Formed & Installed rebar for GSU transformer foundation containment walls.
- 1.4.22 Poured concrete on GSU foundation, GSU transformer foundation containment walls & equipment pads.

## **2.0 PLANNED ACTIVITIES FOR NEXT PERIOD**

### **2.1 ENGINEERING**

- 2.1.1 Issue cable bus arrangement for construction.
- 2.1.2 Upon receipt of equipment information, issue remaining foundations for construction. Please refer to the Action Item List for outstanding information.
- 2.1.3 Issue underground piping plans.



**2.1.4** Issue grounding for construction.

**2.1.5** As equipment information is available, finalize detailed piping design. Deliverables include piping plan drawings, piping details, piping supports, piping support details, piping isometric drawings, and insulation schedules. Please refer to the Action Item List for outstanding information.

## **2.2 PROCUREMENT LOOK AHEAD**

**2.2.1** Continue with Procurement as outlined in the schedule.

## **2.3 FABRICATION / SHOP WORK**

**2.3.1** SB 187: TBV ELIMINATION: Complete installation. Once the brackets are complete we will install the thrust balance system. We are pushing to get this completed by the end of March.

## **2.4 CONSTRUCTION**

**2.4.1** Pour concrete for Stack & SCR Foundation # 6 & 7.

**2.4.2** Set on foundations Turbine Base, Generator Base, Generator and Roof skids for CTG # 6 & 7

**2.4.3** Install formwork, rebar and pour concrete for Fin fan lube oil, Sprint, Water injection, Auxiliary skids for CTG # 6

**2.4.4** Subcontractor O&G: Install GSU foundation drainage as per RFI # 15. Patch tie holes for GSU transformer foundation

## **3.0 PROCUREMENT STATUS**

**3.1** The following POs have been issued.

**3.2** Disconnect Switch 115K 3 Pole, single throw vertical break (PES135229) – Expected Delivery 03/08/17

**3.3** Transformer 25000KVa 13.8tp 480V (PES135054) – Expected Delivery 3/15/2017

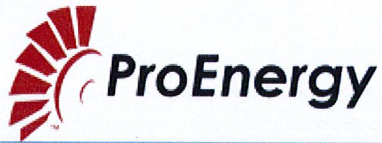
**3.4** Filtration System (PES 134750) – Expected Delivery 03/21/2017

**3.5** Aux Transformer Switch (PES135836) – Expected Delivery 03/21/2017

**3.6** Fin Fan (PES132451) Expected Delivery - 3/27/2017

**3.7** 4000AMP Switchgear Lineup (PES 135024) – Expected Delivery 03/28/17





- 3.8** H-Frame (PES133549) Expected Delivery - 4/14/2017
- 3.9** CEM System in single shelter (NO<sub>x</sub>, O<sub>2</sub>, CO, NH<sub>3</sub>) – (PES134525) –  
Expected Delivery 4/17/17
- 3.10** SCR (PES131003) Expected Delivery – 6/1/2017



### 4.0 DELIVERY STATUS

	IFB	PO	RTS	Shipping	Critical @ Site Date	Notes
GSU 1 & Bushings		17-Oct	7-Jun		21-Jun	
480V SWGR 1	14-Dec	18-Jan	21-Apr		14-Aug	3-4 wks dwgs, 8-10 wks RTS
480V SWGR 2	14-Dec	18-Jan	21-Apr		18-Aug	3-4 wks dwgs, 8-10 wks RTS
480V Aux XFMR 1	14-Dec	19-Jan	27-Apr		28-Jun	4 wks dwgs, 8-10 weeks, eng apvd 1/19
480V Aux XFMR 2	14-Dec	19-Jan	27-Apr		20-Jul	4 wks dwgs, 8-10 weeks, eng apvd 1/19
13.8kV SWGR / GCB	5-Dec		29-Apr		19-Jul	Modify PT's & Hardware ~ 4 weeks
Dead End Structure w/ Disconnect	18-Aug	22-Nov	7-Apr		17-Jul	received approval dwgs from vendor 12/23, modifications made 2/24
PDC Enclosure		Packaging	21-Apr		7-Jul	24V Batteries to Ship - 4/13, PC / HMI Buildout
Gen Protection Panels x 2	26-Jan				9-Aug	Waiting Final Apvl of One-Lines, ~10 weeks
GSU Protection Panel x 1	26-Jan				27-Sep	Waiting Final Apvl of One-Lines, ~10 weeks
Cable Bus	14-Dec				2-Aug	general vendor dwgs apvd by eng, ~10 weeks
CTG 1 Package		Packaging	27-Jun		22-May	
CTG 2 Package		Packaging	27-Jun		25-May	
CT 1		Aero	30-Dec		8-Aug	
CT 2		Aero	30-Dec		8-Aug	
Gen 1		Packaging	24-Feb		29-May	
Gen 2		Packaging	11-Feb		1-Jun	
LO Fin Fan 1		12-Oct	27-Mar		4-Aug	3/27 from 1/19 email
LO Fin Fan 2		12-Oct	27-Mar		4-Aug	3/27 from 1/19 email
WI LP Skid 1		Packaging	30-Dec		21-Aug	
WI LP Skid 2		Packaging	30-Dec		21-Aug	
Aux Skid 1		Packaging	1-Feb		21-Aug	
Aux Skid 2		Packaging	1-Feb		21-Aug	
SPRINT Skid 1		Packaging	3-Feb		21-Aug	
SPRINT Skid 2		Packaging	3-Feb		21-Aug	
Final FG Coalescer 1	12-Dec	10-Jan	22-Mar		5-Sep	9-10 wks (eng apvd 1/9/17)
Final FG Coalescer 2	12-Dec	10-Jan	22-Mar		5-Sep	9-10 wks (eng apvd 1/9/17)
CTG 1 SCR / Stack		29-Aug	1-Jun		2-Aug	9/27 Eng Appvd
CTG 2 SCR / Stack		29-Aug	1-Jun		2-Aug	9/27 Eng Appvd
CEMS	7-Dec	24-Jan	17-Apr	1 day	15-Sep	Client Apvl 1/23, 12-14 wks w/ install (1 week install)
Filter House 1		Packaging	10-May		8-Jun	
Filter House 2		Packaging	10-May		12-Jun	
Fire Protection Cabinet 1		Packaging	2-Dec		27-Sep	
Fire Protection Cabinet 2		Packaging	2-Dec		27-Sep	
CTG 1 Controls			26-May		25-Jul	Need Dongles to Rebuild Drives, 9-10 wks
CTG 1 Rebuild Server / HMI			26-May		21-Jul	3-4 wks after dongles received
CTG 2 Controls			26-May		25-Jul	Need Dongles to Rebuild Drives, 9-10 wks
CTG 2 Rebuild Server / HMI			26-May		21-Jul	3-4 wks after dongles received
BOP Controls					27-Jul	Meeting with client to review interface
Waste Water Tank / Assembly	4-Jan				24-Oct	
Manhole / Lift Station	4-Jan				19-Sep	
CTG Sound Wall	6-Feb				29-Jun	Waiting on Final Design of Wall to Finalize Bids
GSU Sound Wall	6-Feb				9-Aug	Waiting on Final Design of Wall to Finalize Bids



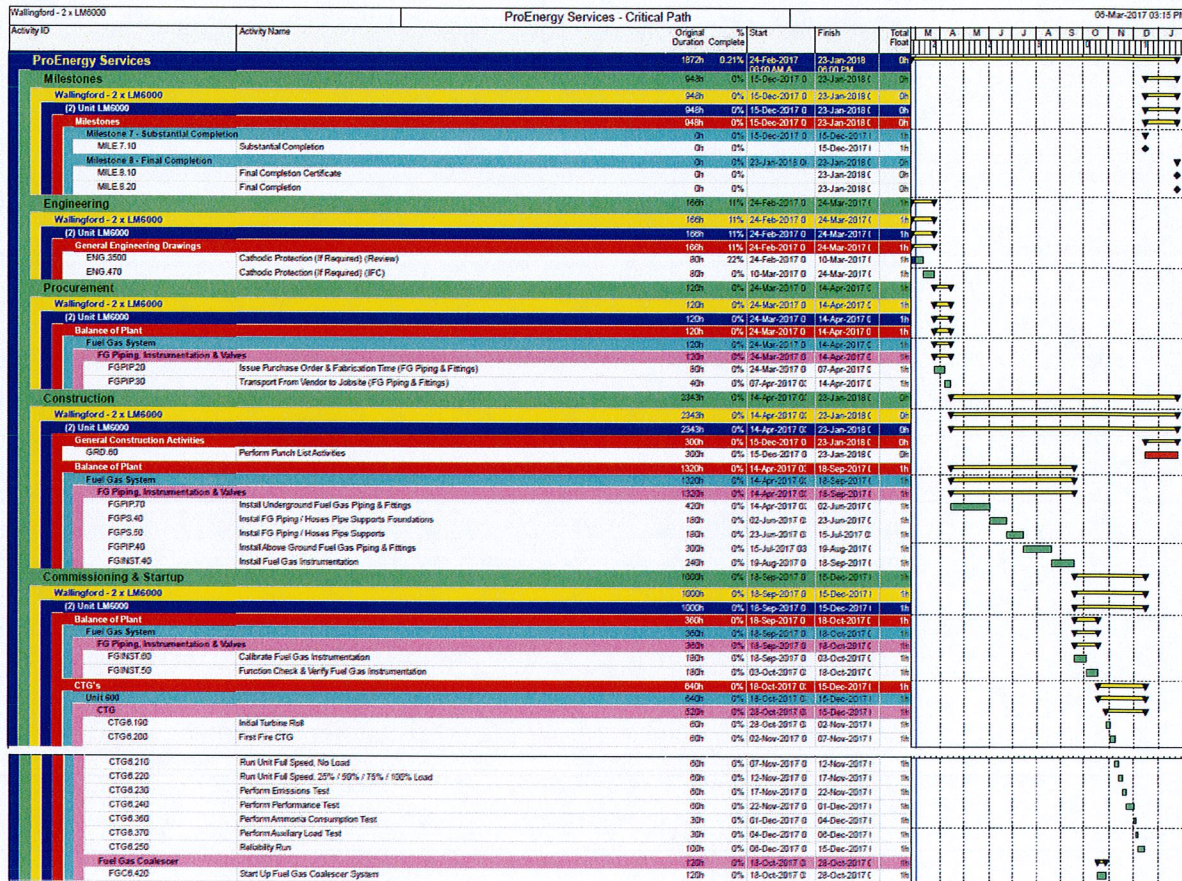
## **5.0 SCHEDULE**

### **5.1 ANALYSIS**

#### **5.1.1 Critical Path Schedule Analysis.**

The current critical path flows through the underground piping systems and followed closely by the electrical cable bus installation. The underground piping and electrical cable bus systems have been floating back and forth for the primary critical path since the beginning of the project. Resolution to the cable bus routing has allowed for design to move forward without any more major concerns. Part of the plan to mitigate this as a critical set of activities is by installing the structural steel for the CTG sound wall and then start installing the cable bus and supports prior to the sound wall panel installation. This will allow for electrical installation to take place and then after complete the sound wall can be finalized. This plan will be finalized once vendors provide lead times on the structural steel. To assist with the underground piping system critical needs, engineering has produced a piping BOM ahead of Isometrics to allow for procurement to go to quote ahead of what was scheduled. The need for cathodic protection and the potential scope of work will be determined once the underground fuel gas piping isometrics are released and vendors review the soils on site.





Following closely behind the critical path are:

- Electrical Cable Bus / Sound Wall Installation
- Generator Protective Relays
- GSU
- PDC
- Auxiliary Transformer foundations
- Electrical Duct Banks
- Piping and Supports
- CTG Filter house Assemblies
- Electrical Cable Installation
- BOP/CTG Controls

All of the above mentioned items are being looked into as far as methods for speedy installation as well as verifying durations once design has been released. Currently off initial review the underground



pipng will be reduced in duration, but after final issue of drawings a review will be done to verify this change.

#### **5.1.2 MILESTONES COMPLETED:**

- 5.1.2.1 Civil IFC Drawings Released was completed 2/2/17.
- 5.1.2.2 Mechanical/Process Engineering IFR Drawings Released was completed on 2/27/17.
- 5.1.2.3 Structural Engineering IFR Drawings Released was completed 2/27/2017.
- 5.1.2.4 CTG # 7 Foundation Complete 2/17/2017.
- 5.1.2.5 CTG # 6 Foundation Complete 2/23/2017.
- 5.1.2.6 GSU Foundation Complete 2/24/2017.

#### **5.1.3 MILESTONE SLIPPAGE:**

##### **4.1.3.2 Electrical Engineering IFR Drawings.**

- All drawings are in process to complete this milestone.
- Final completion is waiting on Heat Trace system design, site lighting design and generator three-line diagram. The three-line diagram will be issued after the one-lines have been approved and issued IFC.
- Slipped by 16 calendar days.

##### **4.1.3.3 Foundation IFC Released.**

- Caused by Auxiliary transformer vendor slipping on issuing drawings by 3 weeks. Working to bring this date in with partial information provided by vendor.
- Slipped by 14 calendar days.

##### **4.1.3.4 Structural IFC Released.**

- Due to the Slippage in the Structural IFR drawings, caused the IFC dates to push out.
- Waiting on vendor drawings for FG Coalescers, CEMS & Ammonia Equipment.
- Slipped by 14 calendar days.



#### 4.1.3.5 Mechanical / Process IFC Drawings Released.

- Above ground piping design taking longer than expected and planned to be completed by 3/17/2017.
- Piping design has pushed out pipe support design linearly.
- Cathodic protection working through plan on methods to protect underground fuel gas piping.
- Slipped by 17 calendar days.

#### 4.1.3.6 Electrical Engineering IFC Drawings.

- Site lighting and receptacle drawings and generator three-line diagram cause of slippage.
  - Waiting on approval of IFR One-Lines for Three-Line Diagram design finalization.
  - Also, it needs to be noted that this drawing was planned to be issued IFC by 3/24 but after reviewing the contract this drawing requires customer approval so the IFR date will be no later than 3/24 and providing time for review the IFC date will be 4/21.
- Slipped 30 calendar days.

#### 4.1.3.7 CTG / GSU Sound Wall.

- The completion has pushed out a total 13 calendar days for the CTG sound wall and 7 calendar days due to not finalizing bids for sound walls. The plan is to install the metal columns that will support the wall panels and cable bus to allow for cable bus routing prior to final install of the sound wall panels.

#### 4.1.3.12 CTG6/7 Rough Set on Foundations.

- This has slipped by 6 calendar days total from last month's schedule due to a change in plans as well as discovering duration extension for shipping permit loads from PES storage to LS Power site.

#### 4.1.3.13 CTG6/7 Major Assembly Milestones.



- This has slipped by 26 calendar days from previous month's schedule update due to accessories needing to be added to the filter house modules which will assist with install at site and reduce field work.

## **5.2 NOTABLE CHANGES:**

- 5.2.1** Due to discovered interface concerns with the H-Frame drawings, changes were addressed and changed and the estimated ready to ship date has moved to 4/7/2017.
- 5.2.2** Removed predecessor GSU4.140 from GSU4.150 to allow GSU containment & pedestal rebar to be installed prior to removing GSU slab forms.
- 5.2.3** Added successor GSU4.260 'Backfill Containment Wall & Compact' to activity GSU4.140 'Remove Forms for Slab'.
- 5.2.4** Added predecessor GSU4.120 with 12 hour lag to GSU.150 to allow for rebar to be installed after 12 hour cure time of GSU concrete pad.
- 5.2.5** Adjusted system valve leads times to match vendor lead times on activities FGVLV.20, AMVLV.20, CAVLV.20, DWVLV.20
- 5.2.6** Adjusted relationship between CTG.STK6.120 'Install Rebar & Anchors' & CTG.STK6.110 'Install Forms for Foundation' from a FS to a SS relationship.
- 5.2.7** Adjusted relationship between CTG6.150 'Remove Forms from Foundation' & CTG.STK6.110 'Install Forms for Foundation' from a FS to a SS relationship.
- 5.2.8** Changed ENG.470 successor from FGPIP.10 to FGPIP.20. Cathodic Protection does not have to be determined prior to getting quotes on piping.
- 5.2.9** Adjusted relationship between ENG.370 'Fuel Gas Piping Isometrics (IFC)' & FGPIP.10 'Issue for Bid & Receive Bids from Vendors (FG Piping & Fittings)' to have a negative lag of 2 weeks. This is because procurement will start quoting piping after the underground Iso's are issued, which is a majority of the piping being installed, and will not hold up for the above ground Iso's to be released.



- 5.2.10** Adjusted relationship between ENG.430 'Instrument Air Piping Isometrics (IFC)' / ENG.440 'Plant Air Piping Isometrics (IFC)' & CAPIP.10 'Issue for Bid & Receive Bids from Vendors (CA Piping & Fittings)' to have a negative lag of 2 weeks. This is because procurement will start quoting piping after the underground Iso's are issued, which is a majority of the piping being installed, and will not hold up for the above ground Iso's to be released.
- 5.2.11** Adjusted relationship between ENG.400 'Demin Water Piping Isometrics (IFC)' & DWPIP.10 'Issue for Bid & Receive Bids from Vendors (DW Piping & Fittings)' to have a negative lag of 2 weeks. This is because procurement will start quoting piping after the underground Iso's are issued, which is a majority of the piping being installed, and will not hold up for the above ground Iso's to be released.
- 5.2.12** Adjusted relationship between ENG.390 'Ammonia Piping Isometrics (IFC)' & AMPIP.10 'Issue for Bid & Receive Bids from Vendors (Ammonia Piping & Fittings)' to have a negative lag of 2 weeks. This is because procurement will start quoting piping after the underground Iso's are issued, which is a majority of the piping being installed, and will not hold up for the above ground Iso's to be released.
- 5.2.13** Typo – Changed all activity names with 'Vender' to 'Vendor'
- 5.2.14** Reduced duration from 6 weeks to 3 weeks on DB.40 'Install Electrical Duct Banks'. This was due to after reviewing with engineering their design progress for electrical routing; there is only a single underground duct bank from the 13.8kV Switchgear to the Auxiliary Transformers.
- 5.2.15** Updated outage activities to represent current plant outage schedule which will start 5/22/2017 to 5/26/2017. Removed activities SUB.20, SUB.30, SUB.40, SUB.50 & SUB.60
- 5.2.16** Increased duration on ENG.2000 'Combustion Turbine Area – Lighting & Receptacle Plan (Review)' to match the current progress.
- 5.2.17** Removed predecessor ENG.1100 from ENG.1230 as primary One-Line was approved and the current One-Line is under review for protection scheme and not electrical structure.
- 5.2.18** Decreased duration of ENG.1130 to match engineering IFC date.



- 5.2.19** Decreased duration of ENG.1110 to match engineering IFC date.
- 5.2.20** Increased duration of ENG.1140, ENG.1240, ENG.1120, ENG.2200, ENG.2220, ENG.2240, ENG.2260 and ENG.2280 due to a delay in vendor shop drawings being issued, the design has been extended.
- 5.2.21** Increased duration of ENG.110 Overall One-Line Diagram to match IFC dates. Waiting on client return of IFR drawings.
- 5.2.22** Removed all activities related to Fogging Skid and Evap Forwarding Pump. There will be no Evap forwarding pump for fogging skid equipment. All the evap system is contained within the inlet filter modules. Activities removed are ENG.1300, ENG.1290, ENG.690, EVAP6.280, EVAP6.290, EVAP6.300, EVAP6.250, EVAP6.103, EVAP6.150, EVAP6.160, EVAP6.170, EVAP6.180, EVAP6.190, EVAP6.210, EVAP6.220, EVAP6.230, EVAP6.240, EVAP6.200, EVAP7.70, EVAP7.110, EVAP7.180, EVAP7.340, EVAP7.220, EVAP7.240, EVAP7.250, EVAP7.260, EVAP7.270, EVAP7.280, EVAP7.300, EVAP7.310, EVAP7.320, EVAP7.330, EVAP7.290
- 5.2.23** Added predecessors ENG.270 & ENG.280 to activity EVAP6.20 'Issue For Bide & Receive Bids From Vendors (Anchor Bolts)'
- 5.2.24** Decreased duration of EVAP6.70 & EVAP7.150 'Issue Purchase Order & Fabrication Time (Anchor Bolts)' as the only foundation will be for pipe supports & no longer a pump/skid foundation are included in the procurement.
- 5.2.25** Added successor SPRT6.150 to CTG6.150 for keep logic after removal of Evap skid activities.
- 5.2.26** Adjusted duration of Pre Pour QA/QC Acceptance and Install Forms for Foundation to be FF+2h as the majority of QA/QC is taking place while finalizing the foundation for pour.
- 5.2.27** Increased duration of transit for permit required equipment from 1 week to 2 weeks. Turbine/Generator Enclosures, Generators & PDC.
- 5.2.28** Removed CTG6.150 successor CTG.STK6.110 to modify foundation installation schedule to match actual plan.
- 5.2.29** Added CTG6.120 successor CTG.STK6.110 to better match foundation installation schedule.



- 5.2.30** Due to the improved schedule for installing SCR/Stack 6 foundation, reduced durations for SCR/Stack 7 foundation to mirror. Reduced duration of CTG.STK7.10, CTG.STK7.20, CTG.STK7.30 and increased duration of CTG.STK7.40
- 5.2.31** Modified logic between CTG.STK7.30 & CTG.STK7.40 from FS to FF to match installation order.
- 5.2.32** Edited activity names for drawings that do/don't require customer review. ENG.2000, ENG.2760, ENG.2800, ENG.2820
- 5.2.33** Reduced duration of activity ENG.2000 for customer review period.
- 5.2.34** Removed activities PROC.SP.10, PROC.SP.20, PROC.SP.30, SP.10, SP.20, SP.30, SP.40, SP.50 and SP.60 due to no sewer piping modifications in PES scope.
- 5.2.35** Increased duration of WWTK.170 for waste water tank fabrication time.
- 5.2.36** Add predecessor SUB.10 'Plant Outage' to HFRM.120 'Commission & Test H Frame & Disconnect'
- 5.2.37** Adjusted Constraint of DEL.90 'Function Commissioning & Test Plan' from 2/04/2017 to 3/27/2017
- 5.2.38** Added start on or after constraints to TENCL6.20, GENCL6.20, GEN6.20, RFS6.20, TENCL7.20, GENCL7.20 & GEN7.20 to show scheduled arrival at site dates.
- 5.2.39** Adjusted logic between Turbine Enclosures, Generator Enclosures, Generators & Roof Skids to SS with positive lag to allow for rough install within 3 days for both units.
- 5.2.40** Added predecessor, with FF logic, MHLS.30 'Transport From Vendor to Jobsite (Manhole / Liftstation)' to MHLS.40 'Excavate & Backfill/Compact for Manhole / Lift Station Installation' to drive start of excavation so when arrived can immediately install Manhole / Lift Station.
- 5.2.41** Added predecessor CTG6.150 to FP6.80 as foundation won't be excavated for until CTG forms are removed
- 5.2.42** Added predecessor CTG7.150 to FP7.70 as foundation won't be excavated for until CTG forms are removed
- 5.2.43** Remove predecessor ENG.280 from AM7.50 due to construction change in logic



- 5.2.44** Remove predecessor ENG.280 from FGC6.20 due to construction change in logic
- 5.2.45** Remove predecessor ENG.280 from FGC7.20 due to construction change in logic
- 5.2.46** Remove predecessor ENG.280 from LO6.40 due to construction change in logic
- 5.2.47** Remove predecessor ENG.280 from LO7.50 due to construction change in logic
- 5.2.48** Remove predecessor ENG.3180 from AM7.50 due to construction change in logic
- 5.2.49** Remove predecessor ENG.3180 from LO7.50 due to construction change in logic
- 5.2.50** Remove predecessor ENG.3180 from EVAP6.30 due to construction change in logic
- 5.2.51** Remove predecessor ENG.3180 from EVAP7.50 due to construction change in logic
- 5.2.52** Remove predecessor ENG.3180 from FGC6.20 due to construction change in logic
- 5.2.53** Remove predecessor ENG.3180 from FGC7.20 due to construction change in logic
- 5.2.54** Remove predecessor ENG.3180 from LO6.40 due to construction change in logic
- 5.2.55** Remove predecessor ENG.3180 from LO7.50 due to construction change in logic
- 5.2.56** Added predecessor CTG.STK7.80 to SPRT6.150 per new construction plan
- 5.2.57** Added predecessor CTG.STK7.80 to FP6.80 per new construction plan
- 5.2.58** Removed predecessor SPRT6.180 from LPWI6.150 and added predecessor SPRT6.150 with SS relationship per updated construction plan.
- 5.2.59** Removed predecessor LPWI6.180 from AUX6.110 and added predecessor LPWI6.150 with SS relationship per updated construction plan.
- 5.2.60** Removed predecessor AUX6.130 from LO6.150 and added predecessor AUX6.110 with SS relationship per updated construction plan.



- 5.2.61** Removed predecessor LO6.130 from LO6.150 and added predecessor LO6.130 to LO6.180 per updated construction plan.
- 5.2.62** Removed predecessor LO6.180 from FGC6.180 and added predecessor LO6.150 with SS relationship per updated construction plan.
- 5.2.63** Removed predecessor FGC6.160 from FGC6.180 and added predecessor FGC6.160 to FGC6.210 per updated construction plan.
- 5.2.64** Removed predecessor FGC6.150 from FGC6.180 and added predecessor FGC6.150 to FGC6.210 per updated construction plan.
- 5.2.65** Added predecessor CTGSW.40 to PDC.100 with SS relationship with 6 day lag to allow for piles of CTG sound wall to be installed prior to installing of PDC foundation
- 5.2.66** Removed predecessor FGC6.210 from CEMS6.130 and added predecessor RFS7.30 per updated construction plan
- 5.2.67** Removed predecessor CEMS6.150 from CEMS7.130 and added predecessor CEMS6.130 with SS relationship per updated construction plan
- 5.2.68** Removed predecessor CEMS7.150 from FGC7.220 and added predecessor CEMS7.130 with SS relationship per updated construction plan
- 5.2.69** Removed predecessor FGC7.240 from LO7.220 and added predecessor FGC7.220 with SS relationship per updated construction plan
- 5.2.70** Removed predecessor LO7.250 from AUX7.210 and added predecessor LO7.220 with SS relationship per updated construction plan
- 5.2.71** Removed predecessor AUX7.240 from LPWI7.210 and added predecessor AUX7.210 with SS relationship per updated construction plan
- 5.2.72** Removed predecessor LPWI7.240 from SPRT7.210 and added predecessor LPWI7.210 with SS relationship per updated construction plan
- 5.2.73** Added predecessor SPRT7.210 to FP7.70 with SS relationship per updated construction plan

### **5.3 OVERVIEW**

- 5.3.1** Schedule attached.



**6.0 QUALITY**

- 6.1** Performed vendor inspection on rebar for CTG # 6 & 7 foundations
- 6.2** Performed reinforcement steel inventory/accountability for foundation of CTG # 6 & 7
- 6.3** Prior to concrete placement, proceeded to perform one last review on the reinforcement steel /anchor bolt installation for CTG # 7
- 6.4** 3 day breaks for concrete foundation CTG # 7 Set #1 3450 psi; Set #2 3980 psi; Set #3 3990 psi all sets over 70% strength.
- 6.5** Subcontractor O & G: placing concrete in the GSU foundation, preliminary inspection performed no deficiencies noted during inspection. Pre pour card completed by sub-contractor.
- 6.6** Prior to concrete placement, proceeded to perform one last review on the reinforcement steel /anchor bolt installation for CTG # 6
- 6.7** Performed audit on vendor Inspection on the Concrete Technician, all task found to be in compliance with standards, codes and plans.
- 6.8** Subcontractor O&G: poured concrete on the equipment pad and the containment walls on the foundation perimeter. Placement in accordance with standards.
- 6.9** Subcontractor O&G: 3 day break was 2100 not sufficient strength to strip forms O&G will return for 5 day break and to strip forms if sufficient strength is achieved.
- 6.10** 4-day break for CTG # 6. Set # 1 4220 and set #2 4020. All set over 70% of 4500 psi.
- 6.11** 7 day break for CTG # 7 Set # 1 3770, set # 2 4430 and set # 3 4180

**7.0 SAFETY**

- 7.1** Daily safety audits performed on PES Crafts and subcontractors working on job site. No major issues to report.
- 7.2** Provide safety orientations to new personnel and new contractors coming to the job site as per PES EHS Manual.

**8.0 ISSUES/ACTION – None to Report****9.0 CHANGE MANAGEMENT**

- 9.1** Working on a change order associated with the new design requirements for the CTG sound wall. The original design was based on the existing wall which is not up to code. The redesigned sound walls will require larger drilled piers and anchor bolts. Once the new sound wall design is issued the cost data will be collected. The change order will be issued after comparing the costs of the new design with the old design.



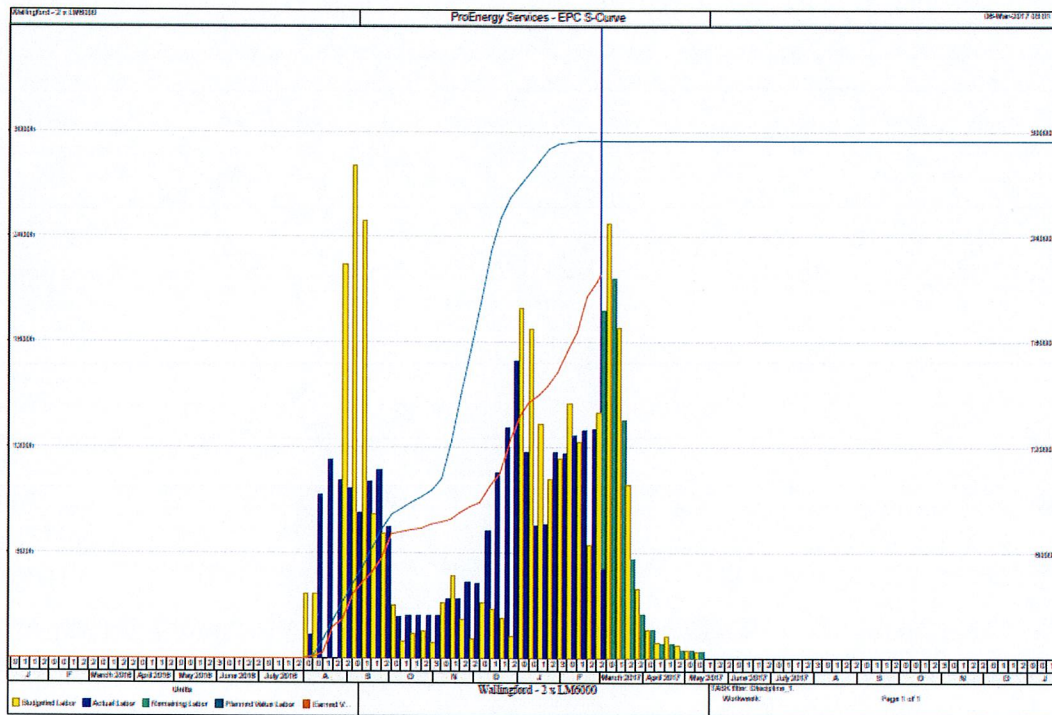
### 10.0 DRAWING LIST

10.1 Schedule shows key drawing dates.

### 11.0 ANALYTICAL

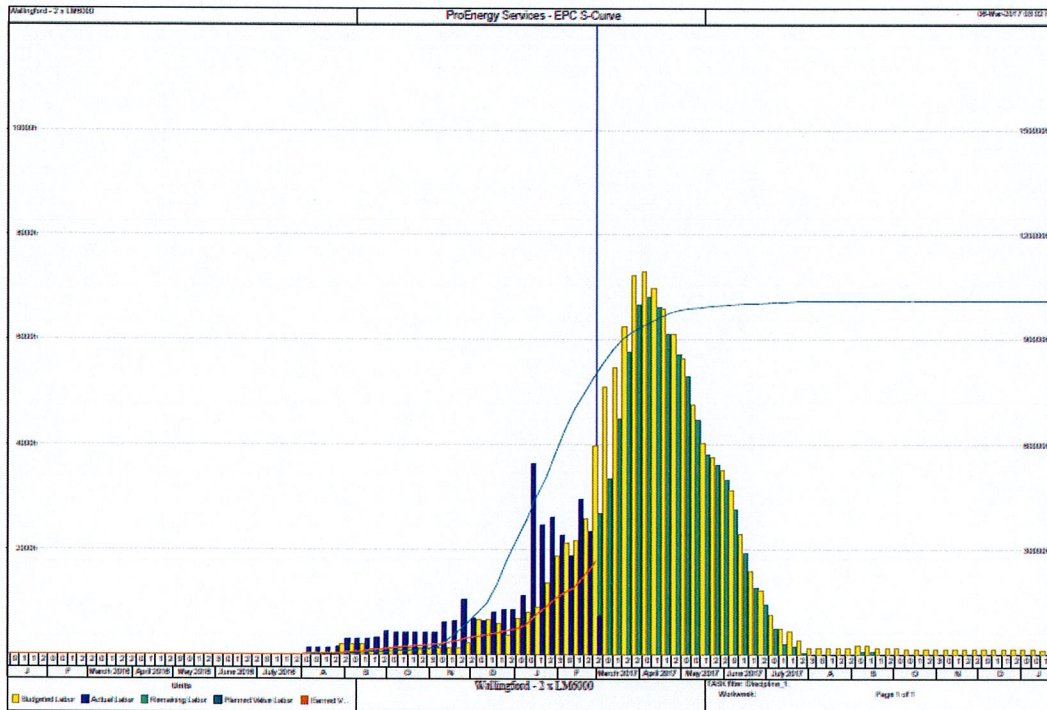
11.1 See attached progress curves.

11.1.1 Engineering.



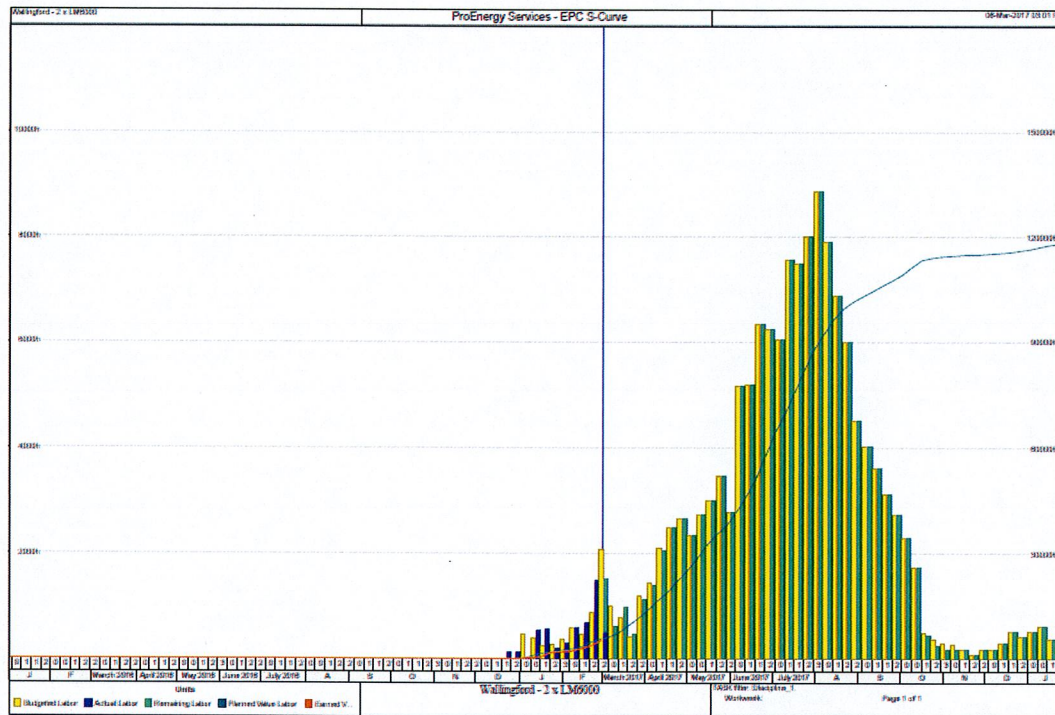


### 11.1.2 Procurement.



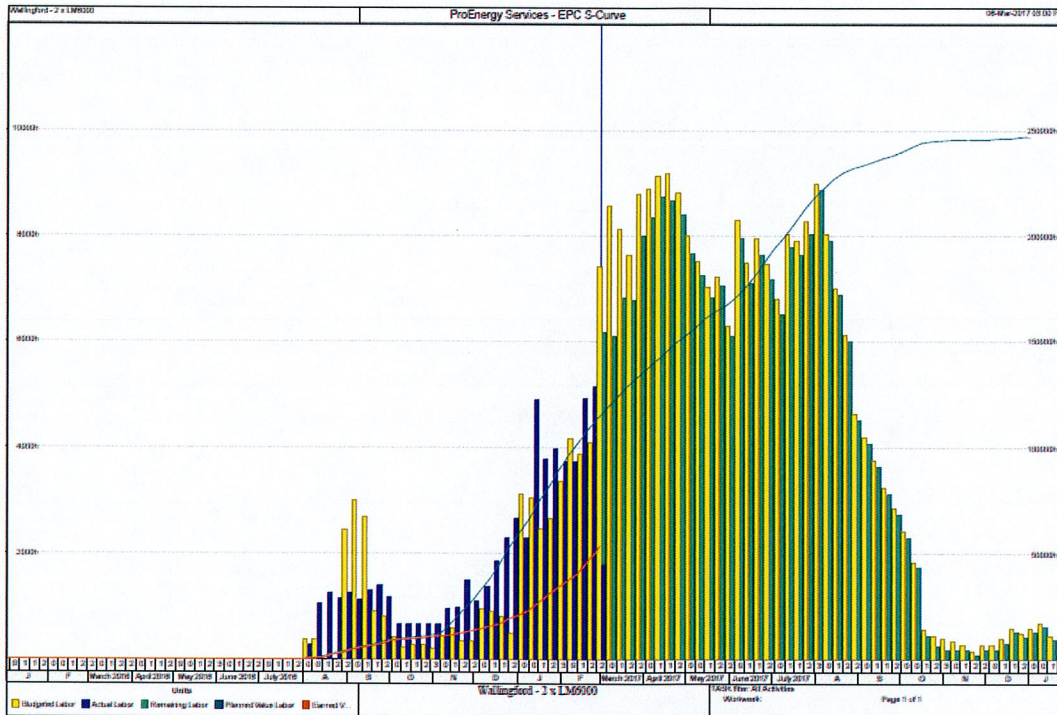


### 11.1.3 Construction.





### 11.1.4 EPC.



### 11.1.5 Concrete

Concrete			
Foundations	Flow Fill	Concrete	Total c/y
GT Generators	172	344	516
Exhaust Stack/SCR	145	0	145
Electrical / Control Building	0	0	0
GSU Transformers 13.8kV delta x 13.8kV / 230 kV wye	30	100	130
Fin fan lube oil, Sprint, Water Injection, CTG removal pad, CO2 rack, Auxiliary skids	0	0	0
<b>Total cubic yards intalled</b>	<b>347</b>	<b>444</b>	<b>791</b>



**12.0 LABOR STATISTICS.****12.1** . ProEnergy Services Safety Information for Wallingford Project

	<b>2017 February</b>	<b>Project Total</b>
Employees	29	29
Hours worked	5419	7752.5
Lost Workdays		
Incident Rate	0	0
Total Recordable Incident Rate	0	0
DART (Days away, restricted, transferred)	0	0

**13.0 PERMIT STATUS.****13.1** ProEnergy received Connecticut Major Contractor license.**13.1.1** Storm Water received October 3.**13.1.2** D&M approval received on September 29.**13.1.3** None required for Change Order 2 work.



#### 14.0 PHOTOS

**CTG # 7 Excavation Complete**



**Installing forms for CTG # 7**



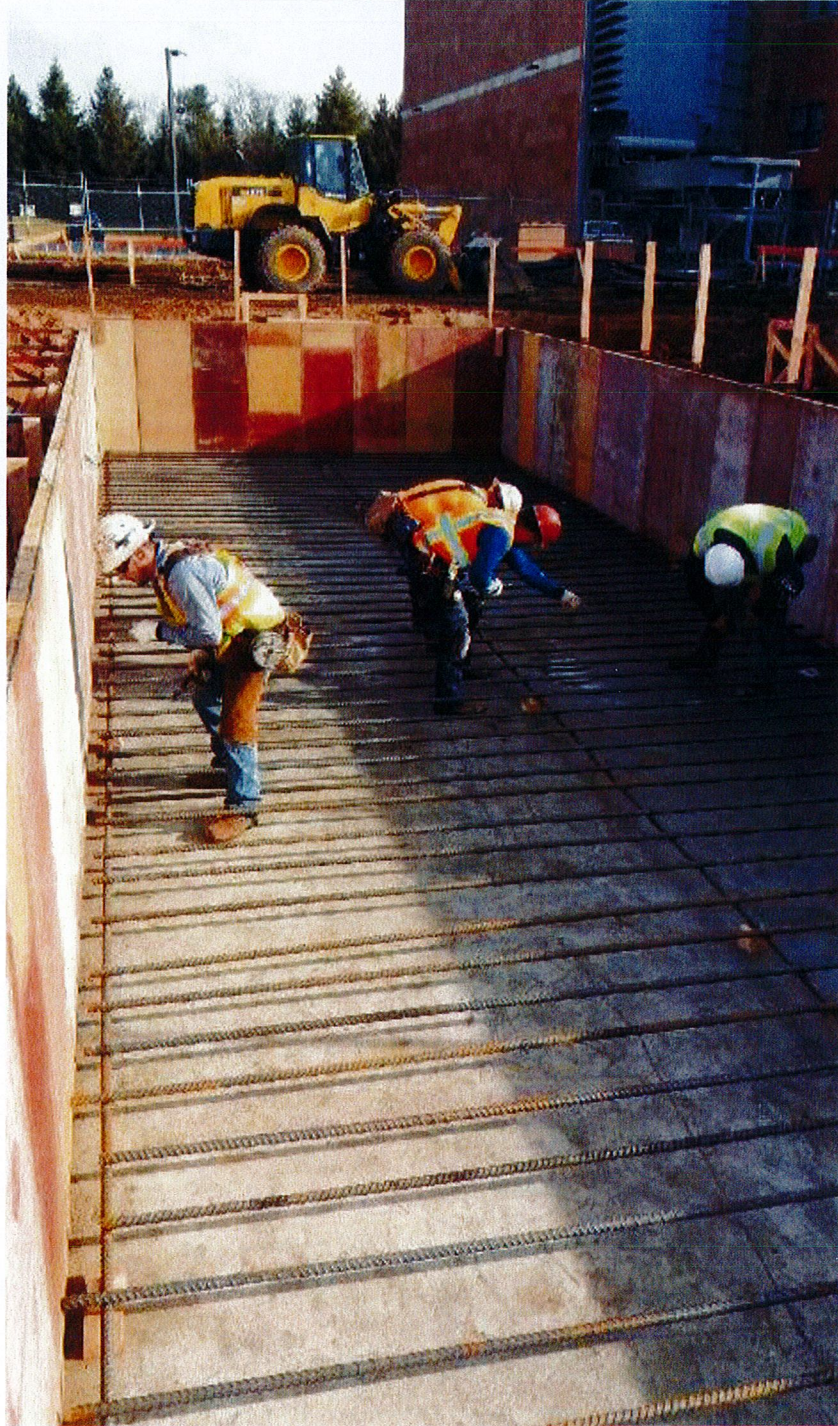


Installing Forms for CTG # 7





Installing Rebar for CTG # 7





CTG # 7 After Feb 9<sup>th</sup> Snow Storm

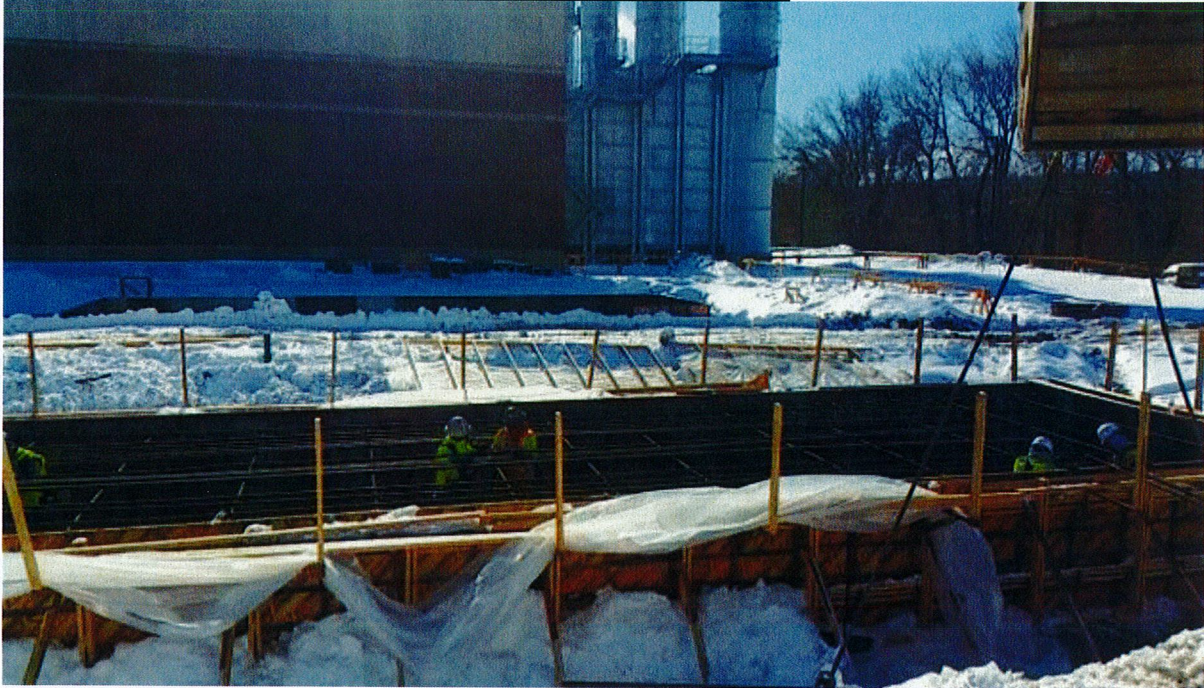


Installing Rebar for CTG # 7





Installing Rebar for CTG # 7



Installing Rebar for CTG # 7





**Setting Anchor Bolts for CTG # 7**



**Building Hooch for CTG # 7**





Hooch Complete for CTG # 7



Pouring Concrete for CTG # 7





**Pouring Concrete for CTG # 7**



**Pouring Concrete for CTG # 7**





Stripping Forms for CTG # 7



Stripped Forms for CTG # 7





**Finished Excavating and Hauled Soil from CTG # 6**



**Pouring Flowable Fill CTG # 6**

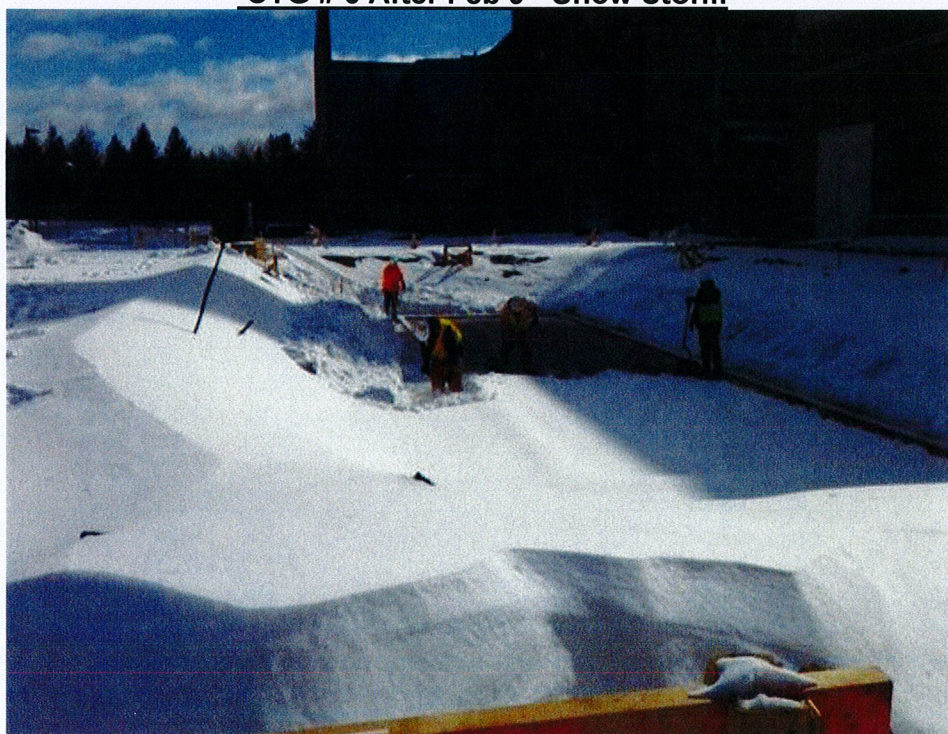




**Completed Pouring Flowable Fill CTG # 6**



**CTG # 6 After Feb 9<sup>th</sup> Snow Storm**





Installing Forms for CTG # 6



Installing Rebar for CTG # 6

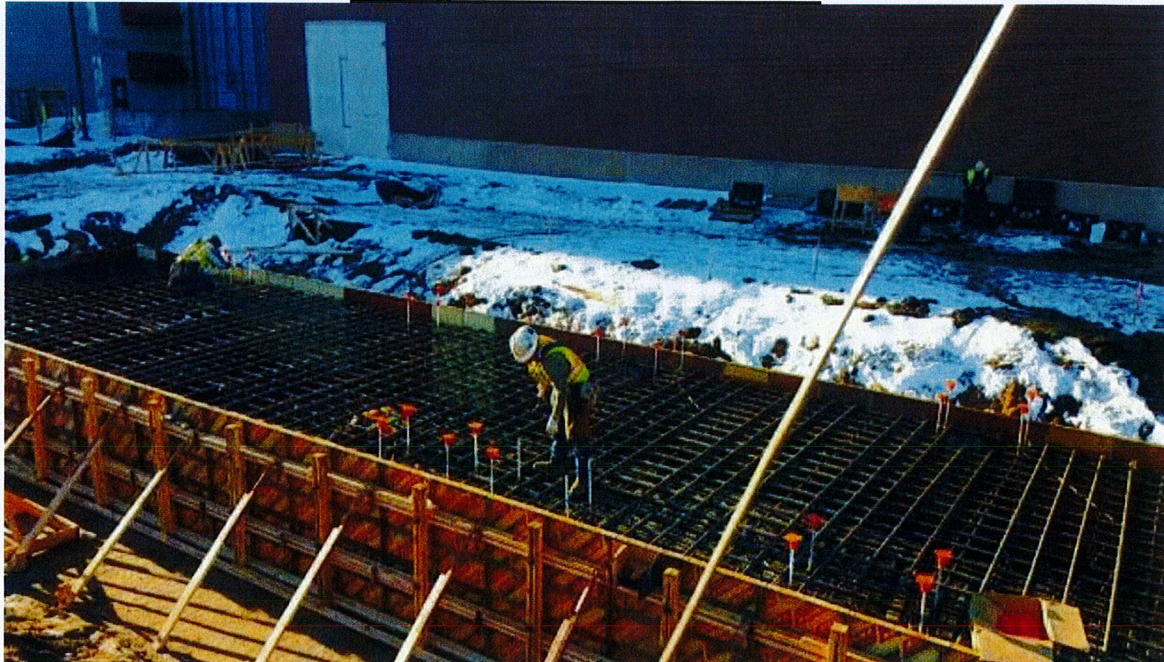




Setting Anchor Bolts for CTG # 6



Setting Anchor Bolts for CTG # 6





**CTG # 6 Ready to Pour Concrete**



**Pouring CTG # 6 Concrete**





Pouring Concrete for CTG # 6



Pouring Concrete for CTG # 6





**Poured Concrete for CTG # 6**



**Excavated and hauled soil for Stack & SCR foundation # 6**





**Pouring Flowable Fill for #6 SCR & Stack Foundation**



**Pouring Flowable Fill for #6 SCR & Stack Foundation**





**Pouring Flowable Fill for #6 SCR & Stack Foundation**



**Poured Flowable Fill For #6 SCR/Stack & CTG # 6 Foundation Cover and Heaters  
Installed**





**Poured Flowable Fill for #6 Stack & SCR Foundation**



**Installing Forms for #6 Stack & SCR Foundation**

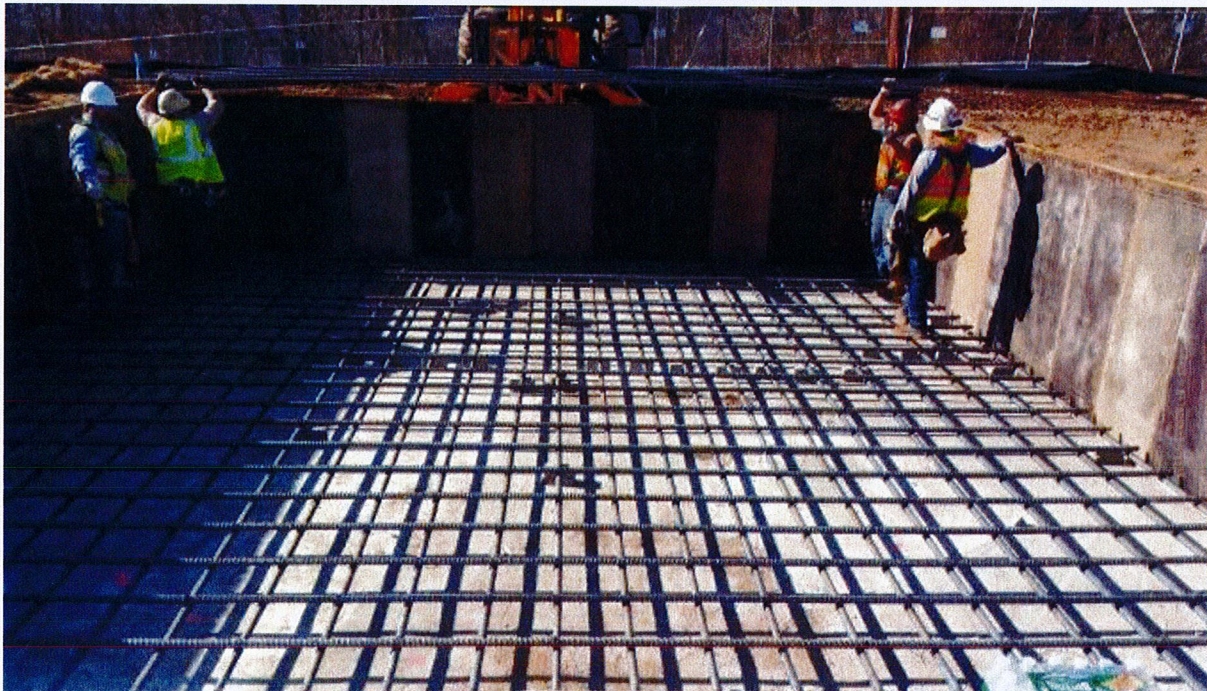




**Installing Rebar for #6 Stack & SCR Foundation**



**Installing Rebar for #6 Stack & SCR Foundation**





**Stripping Forms from Stack & SCR foundation # 6**



**Installing Rebar for #6 Stack & SCR Foundation**





**Installing Anchor Bolts for #6 SCR & Stack & Foundation**



**Installing Anchor Bolts for #6 SCR & Stack & Foundation**





**Installing Anchor Bolts for #6 SCR & Stack & Foundation**



**Installed anchor bolts for Stack & SCR foundation # 6**





Excavation of the GSU Foundation



Installing forms for the GSU Foundation





**Installed Forms, Conduit & Rebar for GSU Foundation**



**Installed Forms, Conduit & Rebar for GSU Foundation**





Installed Forms, Conduit & Rebar for GSU Foundation





Installed Forms, Conduit & Rebar for GSU Foundation





**Pouring Concrete for GSU Foundation**



**Installed Rebar & Poured Concrete for GSU Pad**





### Poured Concrete for GSU Pad



### Installing the New Fire Line





Installing the New Fire Line



Installing the New Fire Line





Installing the New Fire Line



View of Construction Site after Feb 9<sup>th</sup> Snow Storm

