WBS 1.6 - Experiment Infrastructure: LArTF GPP Project Status

Dixon Bogert

Prepared for the

MicroBooNE Collaboration Meeting 11/02/12

LArTF Construction Progress

- Whittaker has made good progress since my last slide presentation prepared for the July Collaboration Meeting. As the following slides will show, the 24' basic structure has been completed with the exception of roofing, and exterior masonry has begun. Utility installation is making good progress; duct banks and ICW piping to the building are complete. The natural gas tie in and piping remains to be done, and 13.8 kV feeder cables must be pulled and tied in to existing feeder lines.
- Whittaker has generally been on schedule with the work since July, but in September an unfortunate delay was introduced with the omission of one small but critical piece of pre-cast concrete. This omission was the result of a miscommunication of information between the pre-cast manufacturer and the A/E that designed the LArTF. It took about four weeks to design a "work-around" correction, manufacture the piece, and deliver and install it. This has delayed roofing the loading dock and the main cylinder, with subsequent other delays and impacts. My personal analysis is that there had been no float prior to this problem, and that it is now quite possible that if winter weather is not very favorable, Whittaker will NOT be able to achieve the March 15, 2013 beneficial occupancy date (now only four months away and counting!!!)

LArTF Construction Progress

- It is worth noting the following caveat: To date, the vast majority of the work, which is now approaching 60% of the total dollarized effort, has been self performed by Whittaker. This includes the excavation and the concrete forming and placing. There is now a fairly complete (when the roofs are finished!) but completely hollow structure. No electrical conduits, fixtures, or wiring has been installed, no fire protection piping, and no HVAC ducts or equipment has been installed. All of this remaining work will be performed by Whittaker's subcontractors, and Whittaker now switches from self performance to being a supervising broker that must manage, schedule and push the various subcontractors to complete the work, a substantial amount of which must now be accomplished in parallel (i.e. working together in sometimes awkward or difficult to access spaces.)
- Whittaker is capable of doing this subcontractor management, but it will be demanding on them.
- Post beneficial planning has continued, and the LArTF staff has continued to work with the rest of the project to adapt, support, and provide requested information to permit pre-planning and pre-assembly of cryogenics and electrical work to proceed.

The parapet wall has been poured 8/8/12

The platform for roof beams built 8/8/12

Starting to form the roof beams 8/8/12

ReBar in place for roof beam 8/13/12

Roof beams formed 8/14/12

Placing concrete in roof beams 8/15/12

Footings for the Electronics Room 8/20/12

Footings for the Exterior Stair Room 8/20/12

Footings for the Exterior Stair Room 8/30/12

Removing the Roof Beam Forming Support 8/30/12

Footings for the Loading Dock 9/6/12

Footings for the Loading Dock 9/12/12

Loading Dock Floor 9/19/12

Setting Precast Pieces 9/19/12 and 9/20/12

Precast Walls Set; Missing Spandrel Piece 9/21/12

Controls Duct Bank 9/25/12

13.8kV Duct Bank to Switch Pad 9/25/12

Overview 10/9/12

Dewar Supports 10/15/12

Looking Up the Cylinder to Roof Beams 10/15/12

Interior of Electronics Room 10/29/12

Missing Spandrel Piece Installed 10/29/12

Interior of Cylinder; Stair Bases 10/29/12

Overview 10/29/12