**7/13/2016 LBNF Beamline Muon Systems – 2016 shutdown work meeting**

Fermilab: Alberto M., Jim H., Mike A., Cory C., Salman T.

Phone: Eric Z., Alysia M., Zach L., Chuck L., Jeremy L.

Agenda: <https://indico.fnal.gov/conferenceDisplay.py?confId=12522>

Action items highlighted in yellow

1. The dates in schedule look OK, except that the Solid State (Diamond) Detector schedule might slip but these are relative easy to install and can be installed during a regular downtime.
2. Shutdown work for SMD currently planned for last week in October (Oct 24 -28, 2016)
3. Stopped Muon Detectors (SMD):
	1. Jan B.: *The shield material weighs about 500 lbs but is in 6 subassemblies with the maximum weight of 90 lbs (the four walls). The top and bottom subassemblies weigh 70 lbs each. The unistrut support structure weighs about 90 lbs. I imagine that we will put the support structure into the alcove in the desired location and then add the shielding subassemblies and the detector.*
	2. Installation labor to come from Colorado, no Fermi labor in schedule at this point
	3. Need to prepare detailed technical note on SMD design, installation, and operation (in preparation for the readiness review) – Zach agreed to prepare this document
		1. Include detailed step by step installation procedure
		2. Hazard Analysis – MSDS on scintillator fluid (which is flammable) etc.
		3. Possible need for secondary containment of SMD assembly
4. Cable needs:
	1. Alysia to determine exact cable requirements for shutdown (# and type of cables, including any spares) and send out email with this info.
		1. Most likely just need RG58 red & black, ~100-150ft per cable
		2. 12 hrs installation labor in current schedule plus $500 M&S (between SMD and SSD), the M&S is expected to cover cable costs, but will need to change labor hrs to M&S to cover electrician costs (Salman to look into this with Bob O’S.)
		3. Determine cost for all the connectors - Alysia
	2. T&M Electricians needed for 1 day for cable pulls, ~$2,000 in M&S
	3. Would be good to do all cable installs at this time including any spares since we will have the T&M electricians for the day (to avoid future electrician costs)