SBN Quarterly Report – August 2015

1. Draft Design for the SBND Light Detection System (Richard Van de Water)

Figure 1 shows the draft design for the SBND Light Detection System (LDS). The design includes 96 8" phototubes (48 phototubes per flange) coated with TPB and 432 light guide bars dip-coated in TPB and read-out by 3 SiPMs per end. The phototubes will produce approximately 27 photoelectrons/MeV, while the light guide bars will produce about 12 photoelectrons/MeV, corresponding to a total of 39 photoelectrons/MeV. All together, there are 960 channels of electronics. The LDS will be mounted behind the SBND anode planes, and the signals will exit through 6 feed-throughs mounted on 14" flanges, as shown in Figure 2.

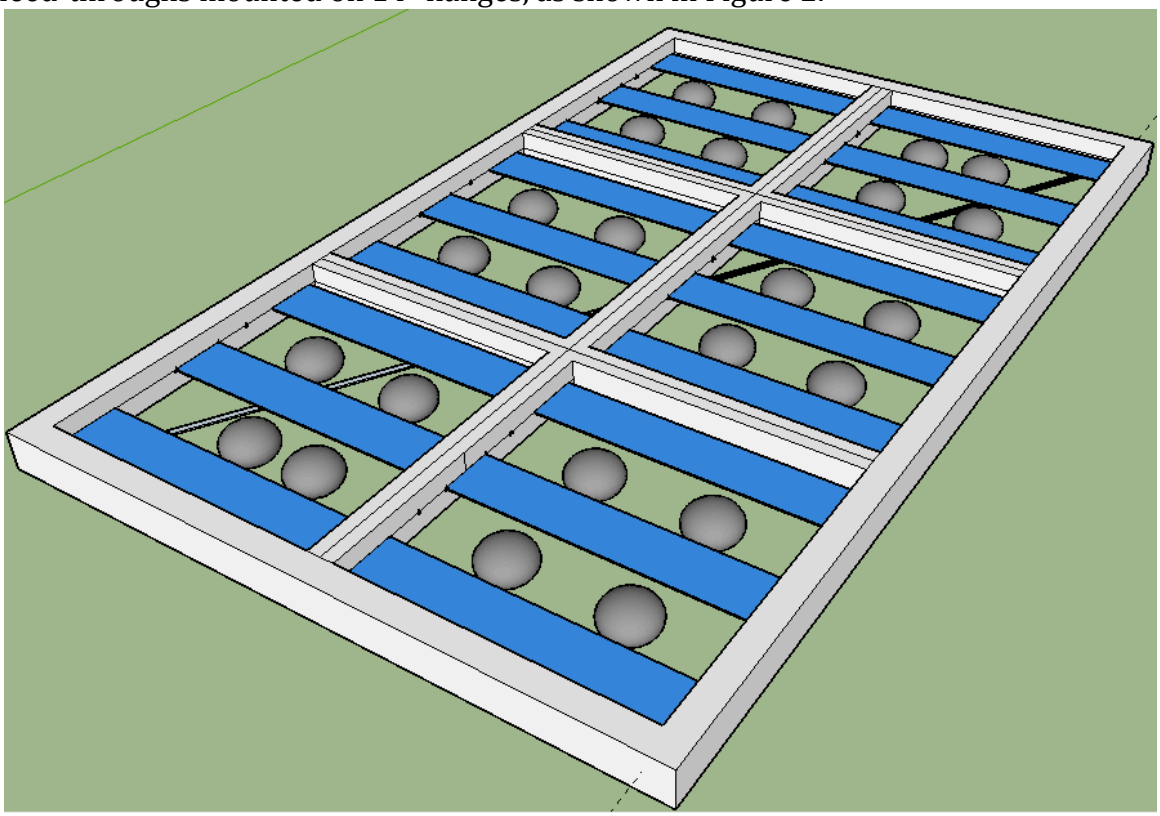

Figure 1: The draft design for the SBND Photon Detection System (PDS).

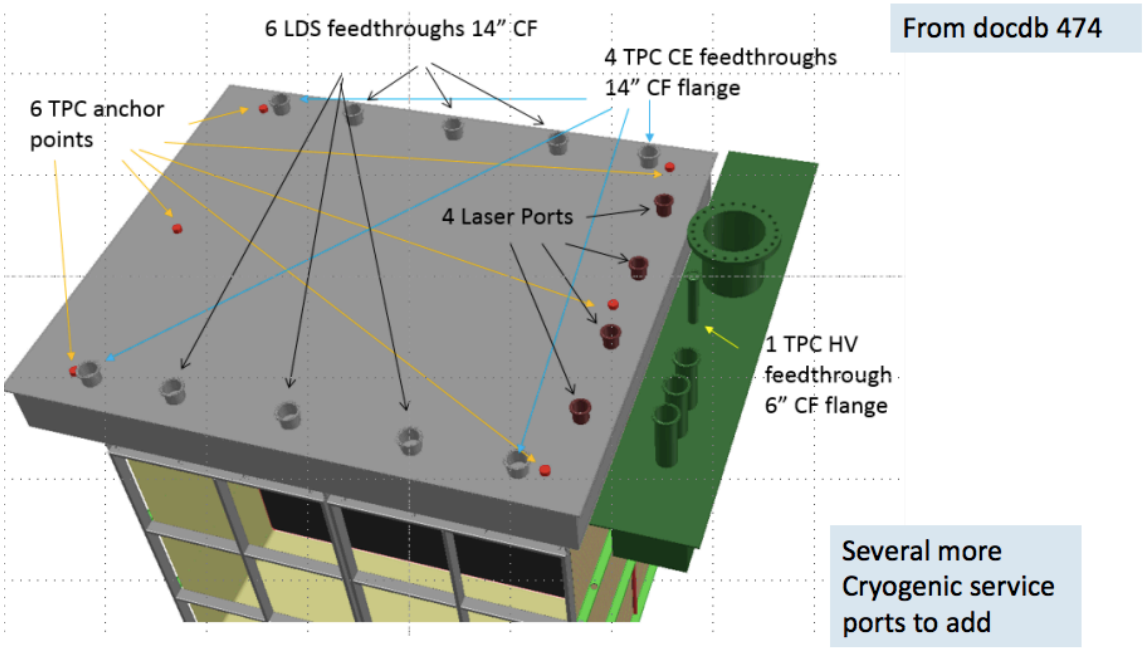

Figure 2: The LDS signals will exit through 6 feed-throughs mounted on 14" flanges

2. MicroBooNE DAQ Readiness (Wes Ketchum)

Data taking has begun with both TPC and PMT streams at 2Hz (triggered mode only). The TPC stream is uncompressed, while the PMT stream only enables the beam gate discriminator. Also, the Run Configuration database is running, the Run control is working and being tested, the Online monitor is running, and the Laser DAQ is ready to be tested. Overall, there is a working DAQ version with both TPC and PMT streams for MicroBooNE operation at high voltage.