EMC Readout & Lightpulser Fibers movement on backward barrel of detector

View of backward barrel east looking up from the hall floor:
The LST HV cables needed to use the top of the two existing cable ways on the Backward side of the Detector. The EMC readout fibers and the lightpulser fibers were populating that space and needed to be moved to the bottom of the two cableways.

This picture was taken after the movement had been accomplished with the readout/lightpulser fibers and the LV cables now populating the lower cableway.
EMC fiber movement

- In addition, the 90° cableway elbow around to the middle east platform was removed and replaced with a more gentle 45° piece to minimize the bend of the fibers.
On the middle east platform, the cableways needed to be modified to allow us to drop down the lightpulser and readout fibers to the lower cableway.

The top of the bottom cableway was cut out (black outline).

Originally the lightpulser and readout fibers were laying in the top cable way pictured above (yellow arrow).
Currently this bottom cableway has a cover installed so all the fibers and cables on the side are covered.
The readout and lightpulser fibers on the backward west upper side were moved by the LST installation folks without our help into the same configuration, upper to lower cableway.

The 90° bend, which can be seen in the right hand picture was not replaced on this side of the detector.
EMC fiber movement

- We ran a test run with a lightpulser only trigger mask to see if the fiber or lightpulser connections were damaged by the movement. Since the forward barrel and 1/2 the endcap are uncabled they do not show up here.

- From the noisy channels plot only 1 ADB was not responding (BB 2-8 ADB 3). We didn’t attempt any power cycling to bring it back to life.

- I think what is seen here is the effect of moving the fibers has not damaged their connections to the electronics.
**EMC fiber movement**

- The readout fibers and lightpulser fibers on the backward barrel were moved to accommodate the LST LV cables.
- Martin, Jong, Tim, and Andy moved the fibers on backward east, while the LST crew moved the west fibers.
- The connections were tested and it was observed that the movement did not cause us to lose connections with the electronics.
- The cables are now covered again on the sides of the detector and should be safe from tampering.