The LAFS Collaboration is interested in developing software for the LHC without having to send all of the developers to CERN. Both collaborations have plans to use the ROC.

In addition to involvement with the LHC, Fermilab is the host institution for CMS in the U.S. Scientists and engineers at Fermilab have contributed to CMS detector construction, the lab hosts the LHC Physics Center (LPC) for US-CMS, and it is a Tier-1 grid computing center for CMS. With regard to remote operations, the LPC had been planning for many years to establish a remote operations center to be able to provide the space and the tools that are needed for remote monitoring of the quality of the data recorded by CMS. With this plan, a CMS remote operations center was established in 2005 on the 11th floor of Fermilab's Wilson Hall. This remote operations center was used successfully for participation in so-called testbeam activities at CERN, and for the Magnet Test Cosmic Challenges I and II. Construction of the LHC@FNAL ROC began once it was realized that there was an opportunity for accelerator scientists and engineers to work together with CMS experimenters to contribute their combined expertise to the commissioning and operations of LHC and CMS.

III. LOCATION AND LAYOUT

The LHC@FNAL ROC and conference room are located at Fermilab on the first floor of Wilson Hall. Fig. 1 shows a floor plan with the location of the ROC and the conference room at the bottom, center of the figure. The main entrance to Wilson Hall is on the right, a staircase to the main auditorium is on the left, and the Fermilab cafeteria occupies most of the open space to the right of the staircase. By selecting this location for the ROC, the operations center is centrally located and becomes a focal point for LHC and CMS outreach at Fermilab.

The layout of LHC@FNAL is shown in Fig. 2. The ROC is shown on the left. The layout of four consoles is shown, along with screen and projector locations. The wall closest to "CONSOLE 3" was painted with special screen paint and is also used as a projection surface. Four of the projectors are assigned to consoles (one projector per console), and are labeled "PROJ1" through "PROJ4." The fifth projector (labeled "PROJ5") points towards a rear projection screen shown at the top of the figure. This screen, which is referred to as the "Public Display," is used for outreach and has a wide viewing angle so that the display is easily visible from many locations on the first floor. A round table at the center of the room provides additional seating as well as power and network connections for laptop computers.

The LHC@FNAL construction project included installation of a videoconferencing system in the conference room, which is shown on the right side of Fig. 2. A large window was installed between the ROC and the conference room, which is shown on the right side of Fig. 2. A large window was installed between the ROC and the conference room, which is shown on the right side of Fig. 2.