

Memorandum

January 5, 2016

To: V. Lebedev, PIP-II Project Scientist

From: S. Dixon, PIP-II APM Civil Construction

Subject: 07DEC15 Technical Board Follow Up
PIP-II
FESS/Engineering Project No. 4-2-1

This memorandum contains the action items for the conventional construction discussed at the 07DEC15 Technical Board meeting:

Item 1: Future Linac Extension

The layout and location of the Linac are chosen to accommodate a future Linac tunnel extension of 200 meters (655 feet). A portion of this extension will be constructed with the base design to allow for subsequent construction to occur while the Linac is operating.

Item 2: Future Beamline to Muon Campus

The design of the Transport Line shall accommodate a beamline to the Muon Campus. This future beamline will cross the existing Main Ring enclosure in close proximity to the Transfer Line enclosure. During the design phase, this crossing will be investigated to limit the amount of underground construction.

Item 3: Main Ring Crossing Strategy

Based on the feedback from the Technical Board meeting, the design of the Transport Line should assume that the Linac-to-Booster Transport Line axis at the crossing with Tevatron tunnel should be eight (8) feet above the existing floor of the Main Ring enclosure; so that the lowest equipment in the line would be at 7 feet. This will allow for a clear path of travel for egress purposes in the Main Ring. The floor of the enclosure is at elevation 722.5', the existing Main Ring beamline is at 725.5' and the Transport Line at the crossing is assumed to be at least 730.5'. During design, additional investigation of equipment movement, operational concerns and exiting will be investigated.

Item 4: Depth of Linac

The design depth of the Linac is currently assumed to be at the same elevation as the Booster and Tevatron encloses. During subsequent design, the impact on raising this elevation will be investigated.

Item 5: Beamline Support

During design, the impact of utilizing the walls and ceiling to support the beamline components in vicinity of crossing will be investigated.

Please contact me at x8501 with questions.

Cc: Tech Board Members
A.Vivoli
Project File 4-2-1