



Muon Collaboration

MuCool Test Area

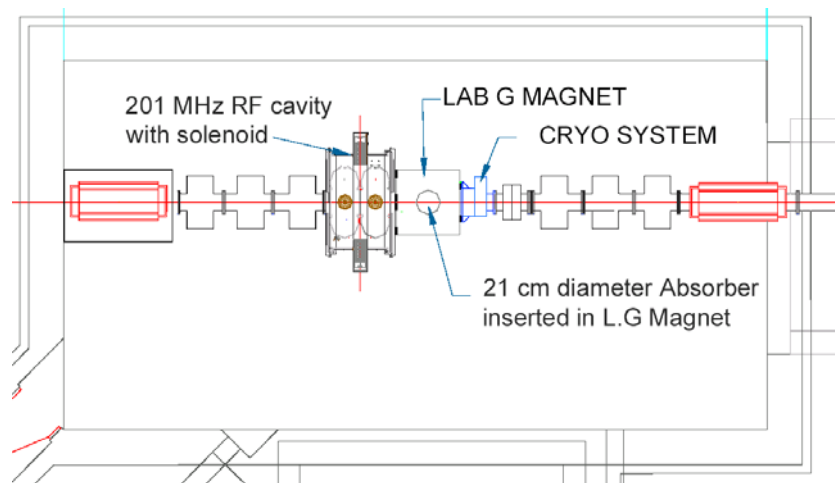
400 MeV High-Intensity Proton Beam line

MuCool Test Area (MTA)



(Artist's conception)

- Facility to test all components of cooling channel (not a test of ionization cooling)
 - ◆ At high beam power
 - ▲ Designed to accommodate full Linac Beam
 - ▲ 1.6×10^{13} p/pulse @15 Hz
 - 2.4×10^{14} p/s
 - ≈ 600 W into 35 cm LH₂ absorber @ 400 MeV
 - ◆ RF power from Linac (201 and 805 MHz test stands)
 - ▲ Waveguides pipe power to MTA

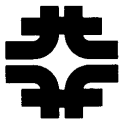


MuCool Test Area (MTA)

- Construction of facility slightly ahead of schedule
- Beneficial occupancy is expected to be in September
- First Use
 - ◆ Convective LH_2 absorber tests
- 201 and 805 MHz RF testing towards end of FY 04
 - ◆ Installation of LH_2 and LHe systems in FY 04 depends on funding
- Beam to area in FY 06



Status as of May 20



Friday MuCool Meeting

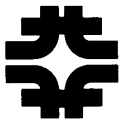


MUCOOL Test Facility Status Report

Milorad Popovic

Project Manager

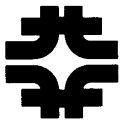
May-03



MuCool Site, 2-May-03



M. Popovic

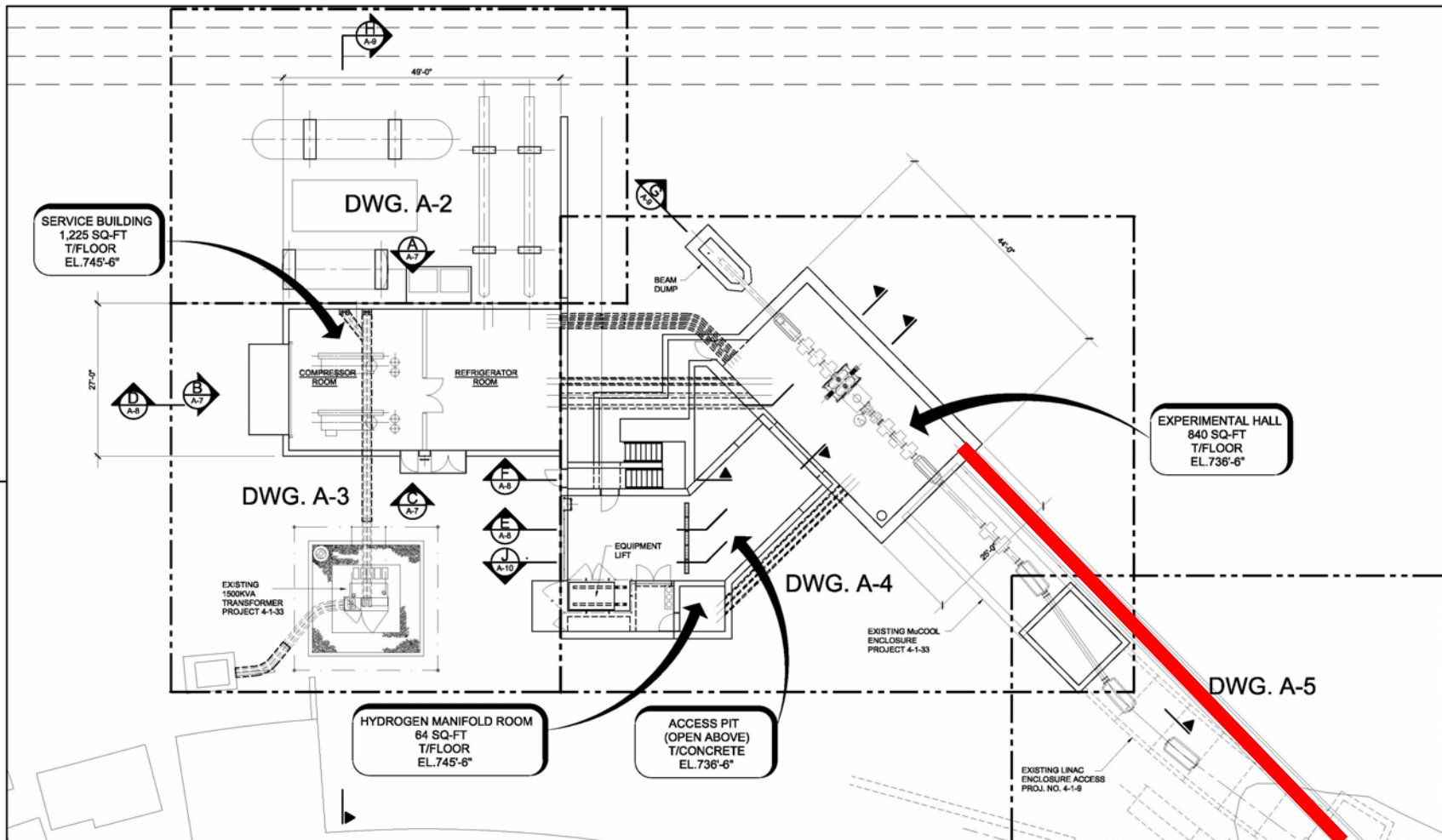


RF Trench

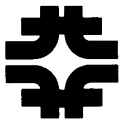




MuCool Site Plan, as May-03

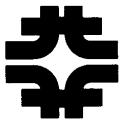


<table border="1"> <tr><th>REV.</th><th>DATE</th><th>DESCRIPTIONS</th><th>REVISIONS</th></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>		REV.	DATE	DESCRIPTIONS	REVISIONS																					<table border="1"> <tr><th>DESIGNED</th><td> </td></tr> <tr><th>DRAWN</th><td>R. Alber</td></tr> <tr><th>CHECKED</th><td> </td></tr> <tr><th>APPROVED</th><td> </td></tr> <tr><th>SUBMITTED</th><td> </td></tr> </table>		DESIGNED		DRAWN	R. Alber	CHECKED		APPROVED		SUBMITTED		<table border="1"> <tr><th>NAME</th><td> </td></tr> <tr><th>DATE</th><td> </td></tr> </table>		NAME		DATE				<p>SCALE:</p>		<p>FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY</p> <p>MuCOOL ENCLOSURE OVERALL ARCHITECTURAL PLAN</p>	
REV.	DATE	DESCRIPTIONS	REVISIONS																																														
DESIGNED																																																	
DRAWN	R. Alber																																																
CHECKED																																																	
APPROVED																																																	
SUBMITTED																																																	
NAME																																																	
DATE																																																	
						DRAWING NO. 4-1-35		REV. A-1																																									

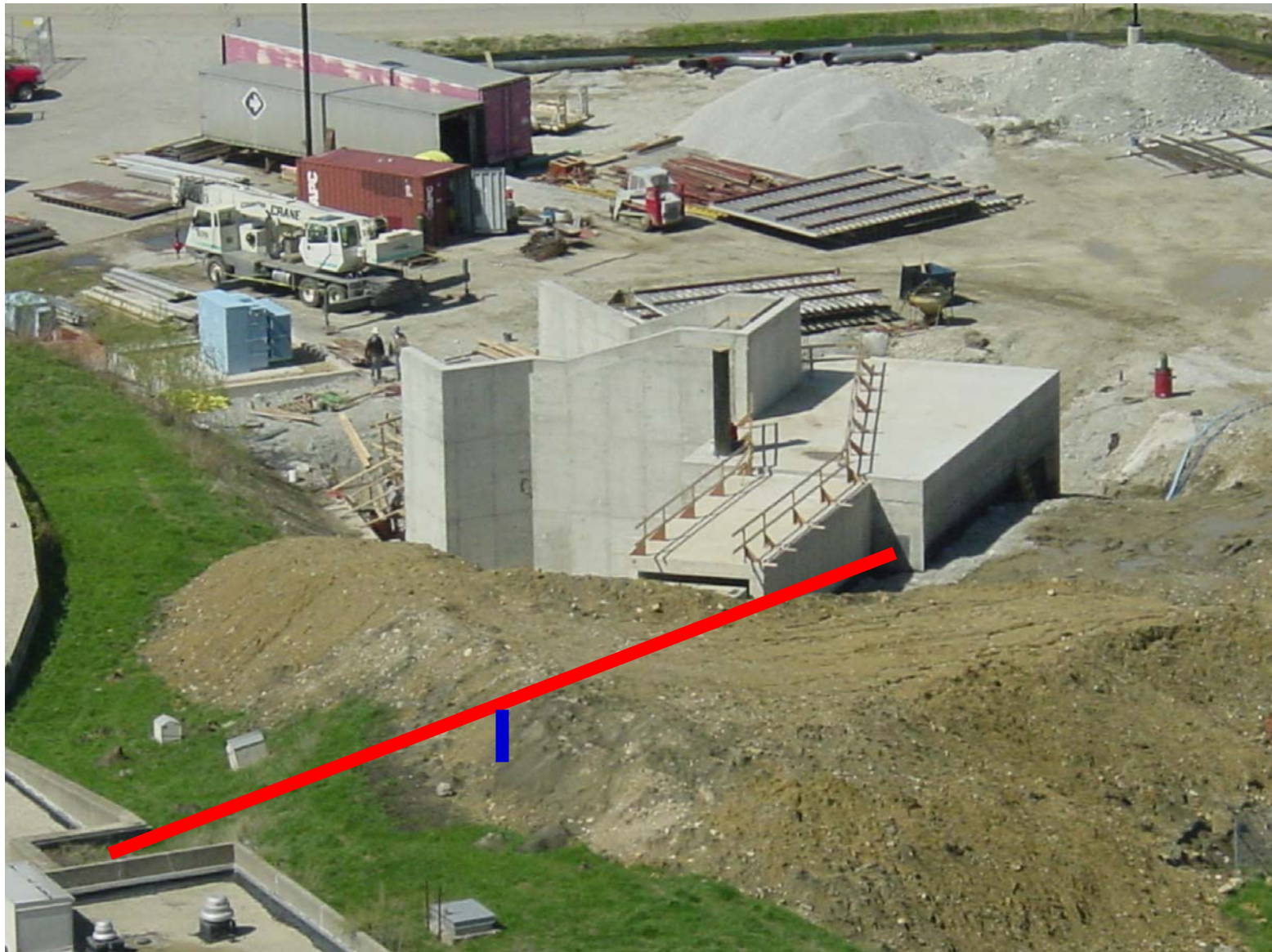


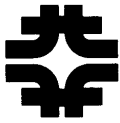
RF Trench & Linac



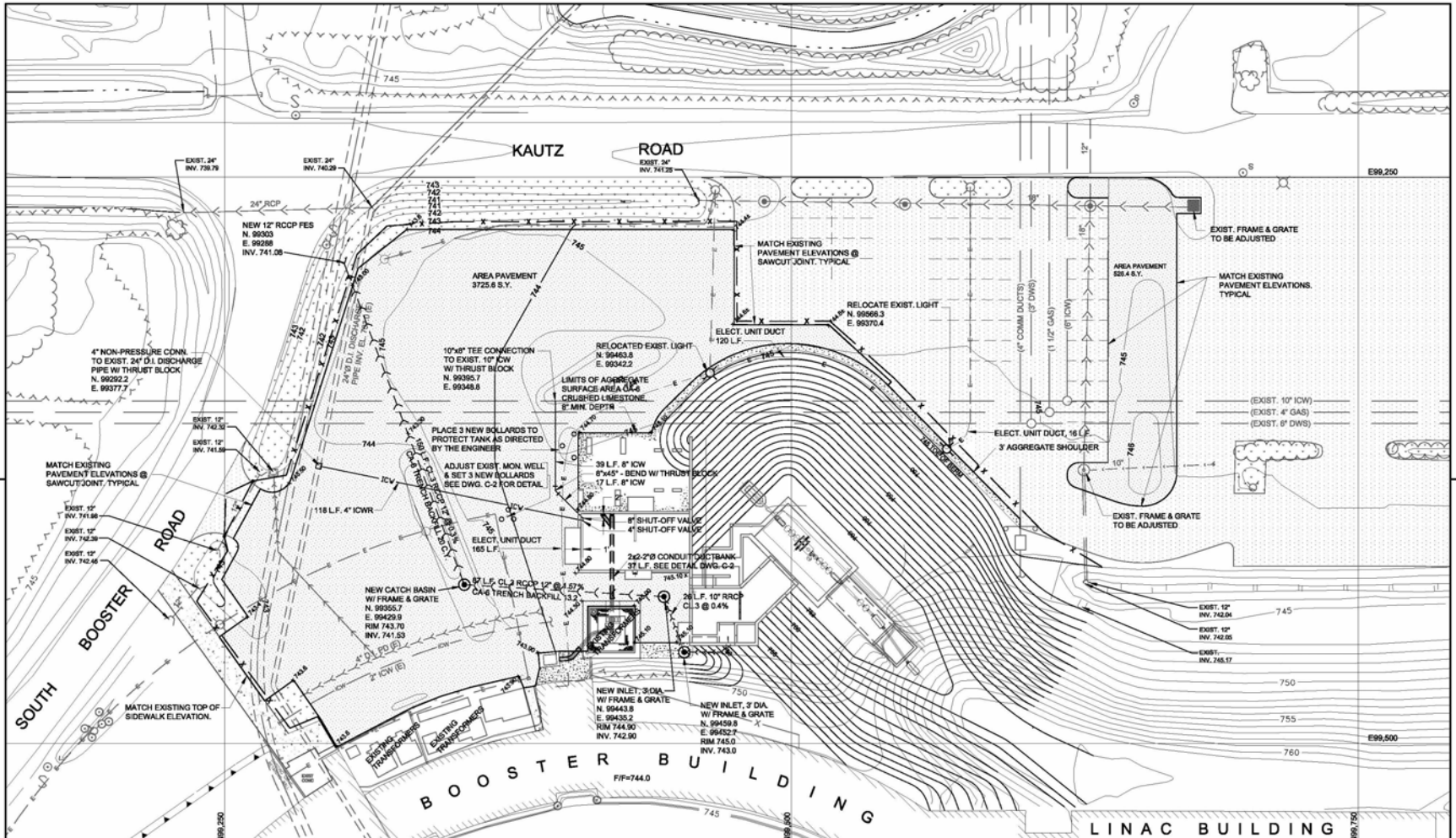


RF Trench & Linac Berm

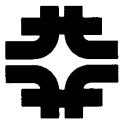




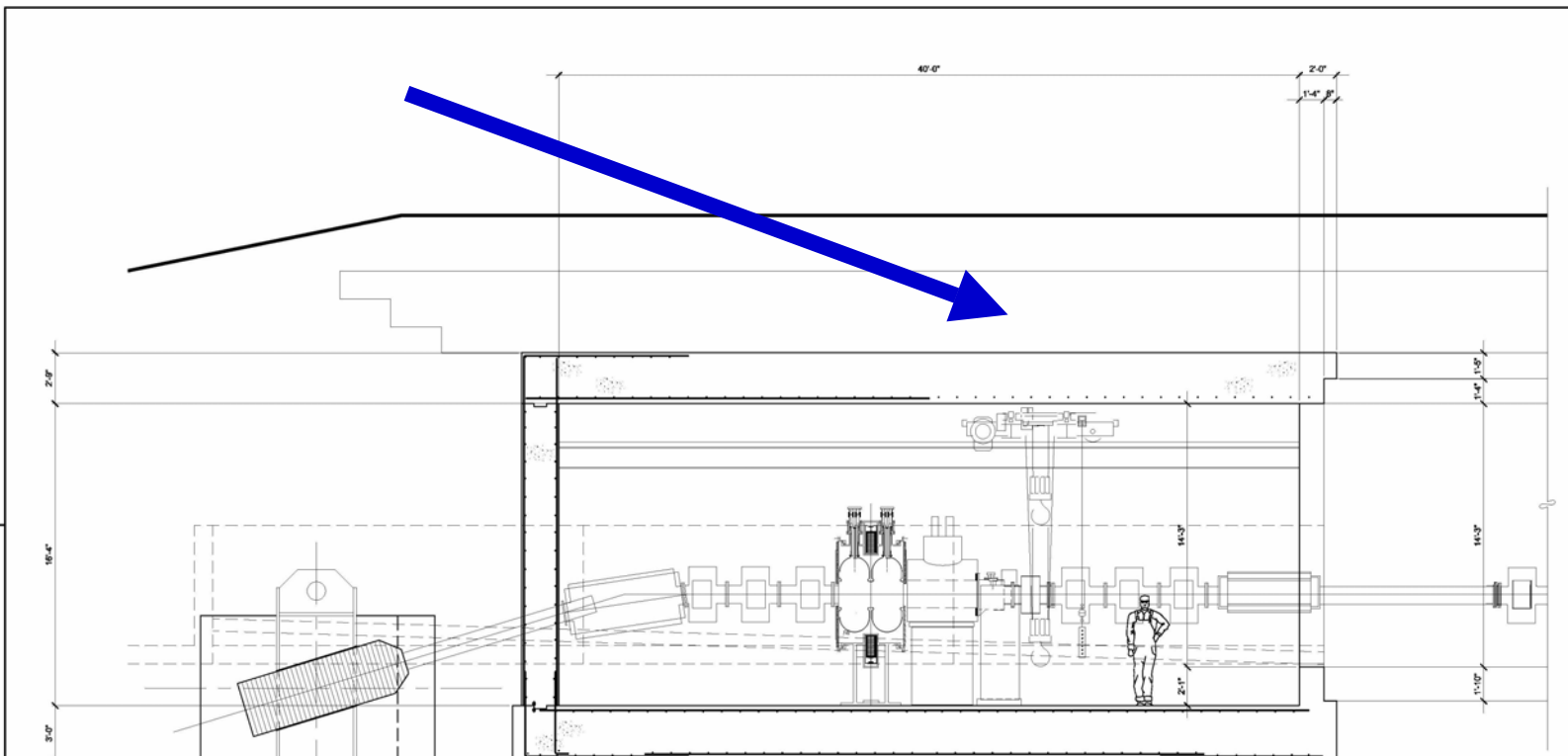
MuCool Site, Roads, Utilities, Berm...



<table border="1"> <tr><td>DESIGNED</td><td></td></tr> <tr><td>DRAWN</td><td>R. ALBER</td></tr> <tr><td>CHECKED</td><td></td></tr> <tr><td>APPROVED</td><td></td></tr> <tr><td>SUBMITTED</td><td></td></tr> </table>		DESIGNED		DRAWN	R. ALBER	CHECKED		APPROVED		SUBMITTED		<table border="1"> <tr><td>NAME</td><td></td></tr> <tr><td>DATE</td><td></td></tr> </table>	NAME		DATE			<p>SCALE:</p> <p>1" = 20'-0"</p>	<p>FERMI NATIONAL ACCELERATOR LABORATORY</p> <p>UNITED STATES DEPARTMENT OF ENERGY</p> <p>MuCOOL ENCLOSURE</p> <p>PROPOSED SITE PLAN</p> <p>DRAWING NO. 4-1-35 C-1 REV.</p>
DESIGNED																			
DRAWN	R. ALBER																		
CHECKED																			
APPROVED																			
SUBMITTED																			
NAME																			
DATE																			
REV.	DATE	DESCRIPTIONS	REVISIONS																



Shielding Steel



SECTION

SCALE: 1/8"=1'-0"



REV.	DATE	DESCRIPTIONS REVISIONS

DESIGNED	NAME	DATE
DRAWN	R. Alber	
CHECKED		
APPROVED		
SUBMITTED		

SCALE:



FERMI NATIONAL ACCELERATOR LABORATORY

UNITED STATES DEPARTMENT OF ENERGY



MuCOOL ENCLOSURE
STRUCTURAL SECTIONS & DETAILS

DRAWING NO. **4-1-35**

SC-13

REV.



Shielding Steel

