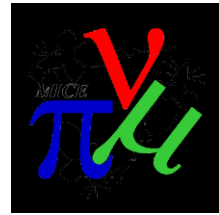


Requirements



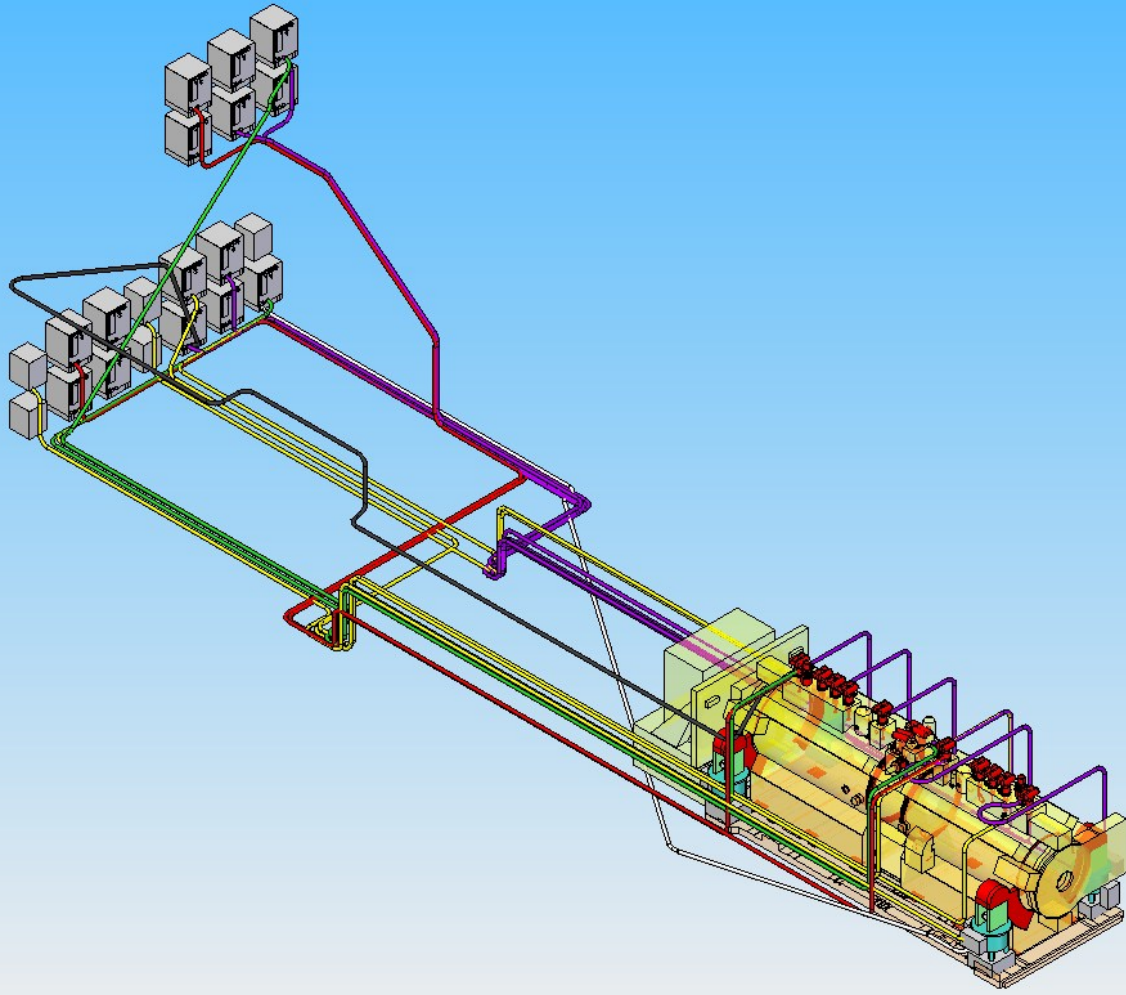
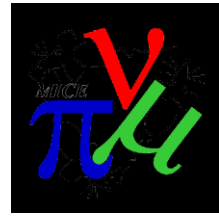
West Wall Mezzanine –Review of Design MICE-NOTE-GEN-xxx

- Hose Length.....
- Compressor Control rack.....
- Load bearing.....
- Personnel Access & Emergency Access.....
- Compressor Services Management.....
- Compressor installation / removal.....
- Distribution Board.....
- Delivery, Assembly and Installation.....
- Crane Access.....
- Thermal Management.....
- Existing Services.....
- Personnel Protection System (PPS).....

Work in progress!



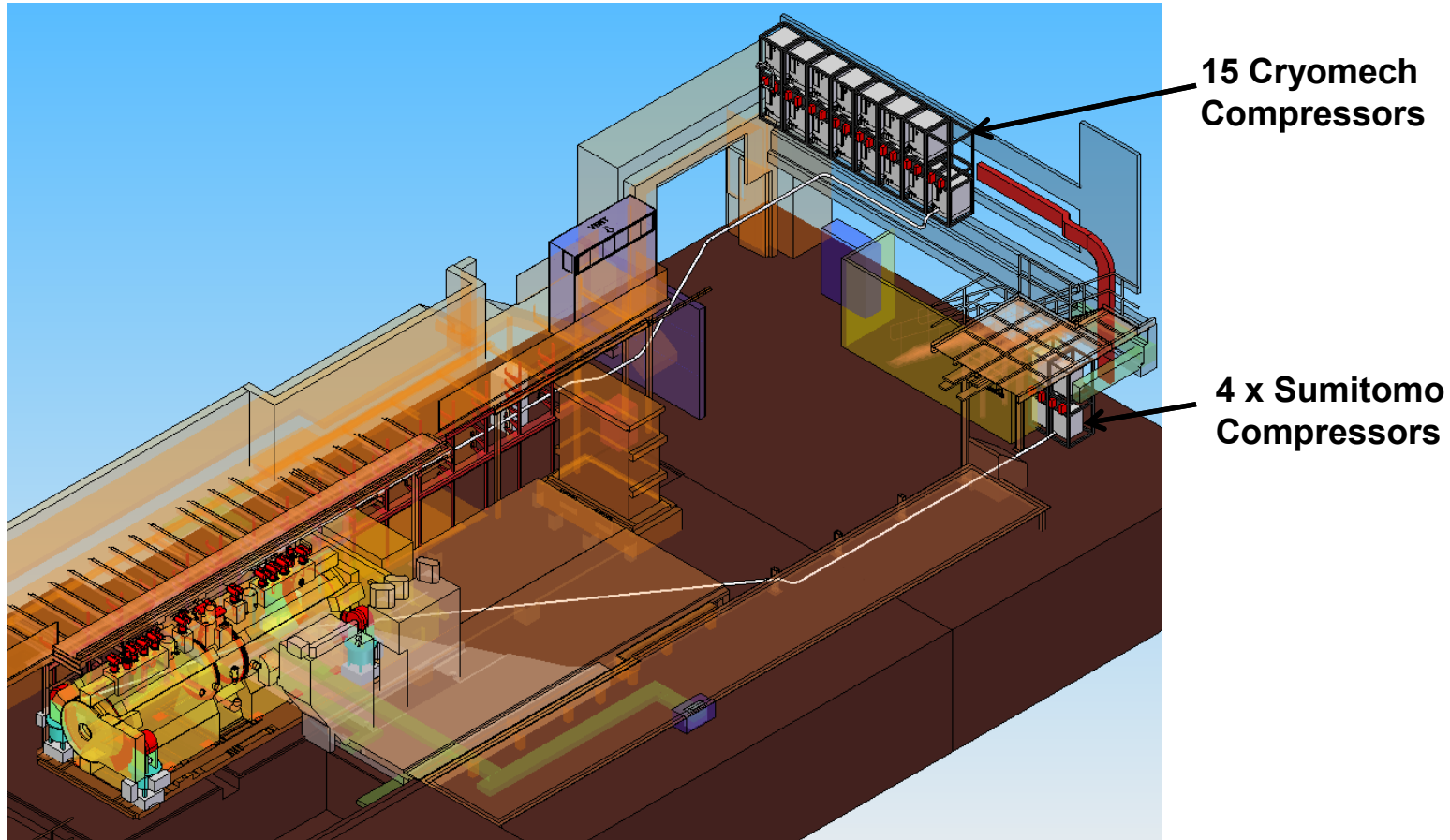
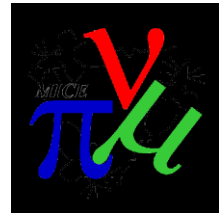
Compressor Line Routing



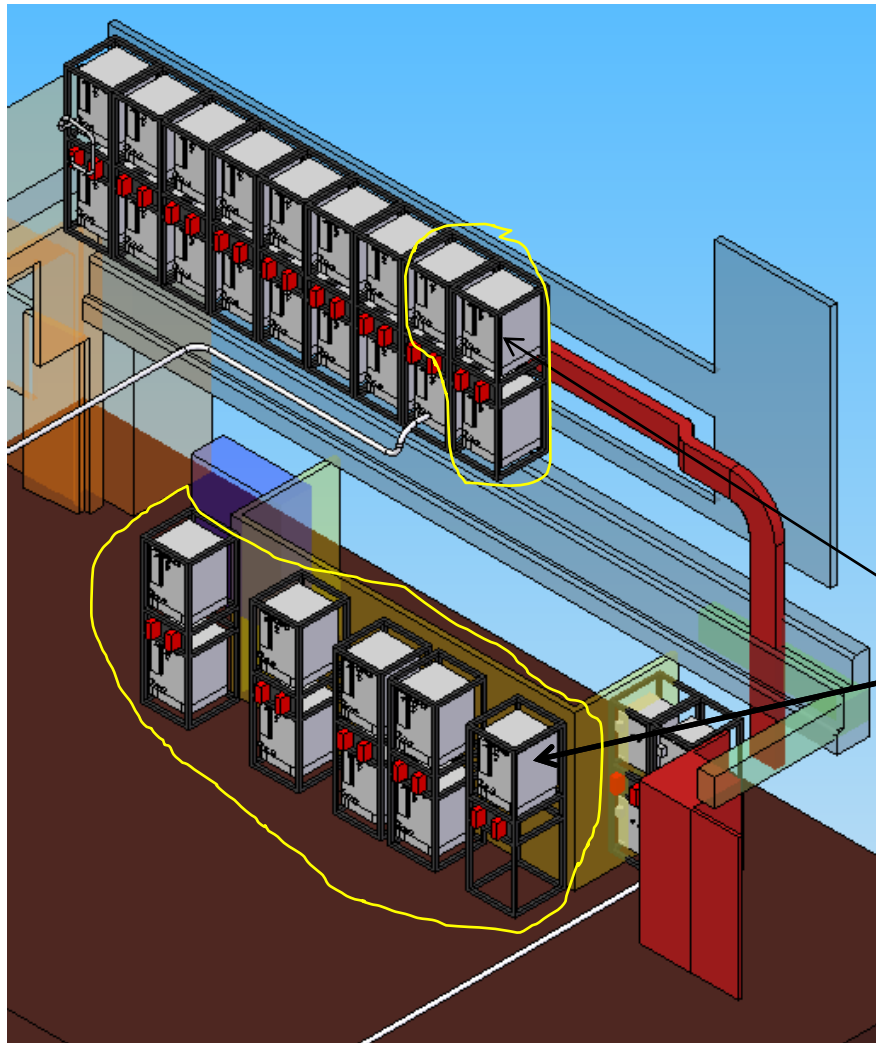
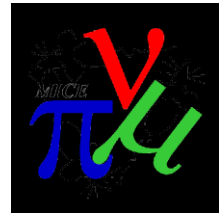
Different Routing Layouts

- ~~• Cryomech 40 m (purple) / Sumitomo 30 m (yellow). Adv = Only 4 x Sumitomos crossing main assembly area. Disadv = 4 x Sumitomos crossing assembly area. Cryomechs at 40 m (30 m max w/o losses). Hoses connected on north side in way of moving platforms (hence alternative red hoses shown).~~
- ~~• Cryomech 35 m (green) / Sumitomo 30 m (yellow). Adv = Cryomech hoses closer to 30 m. Disadv = Most hoses cross assembly area, require false floor.~~
- Cryomech 30 m (black) / Sumitomo 30 m (white). Adv = Cryomech & Sumitomo at preferred length. They are not routed across the assembly area. Disadv = Cryomech hoses will have to form bridge over 'landing' just inside Potterax door. Full West Mezzanine required to move 6 Step IV compressors to south side.

Compressor Positions

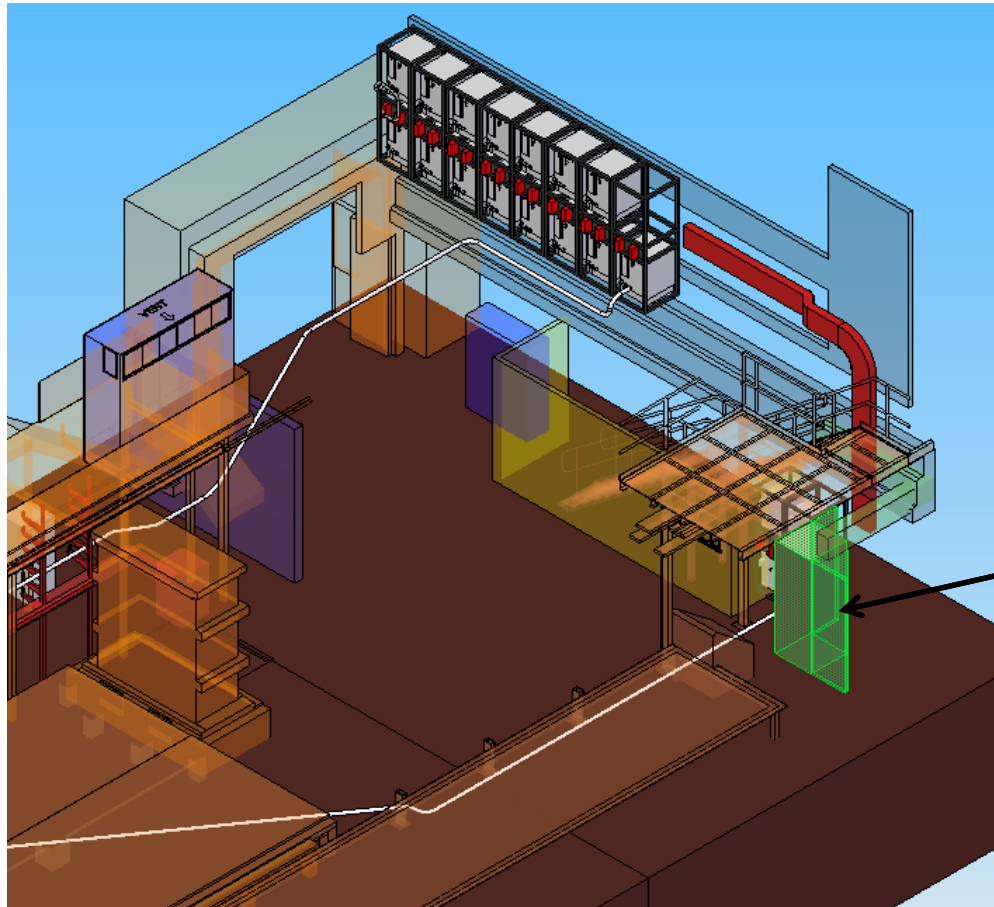
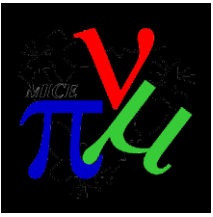


Compressor Positions



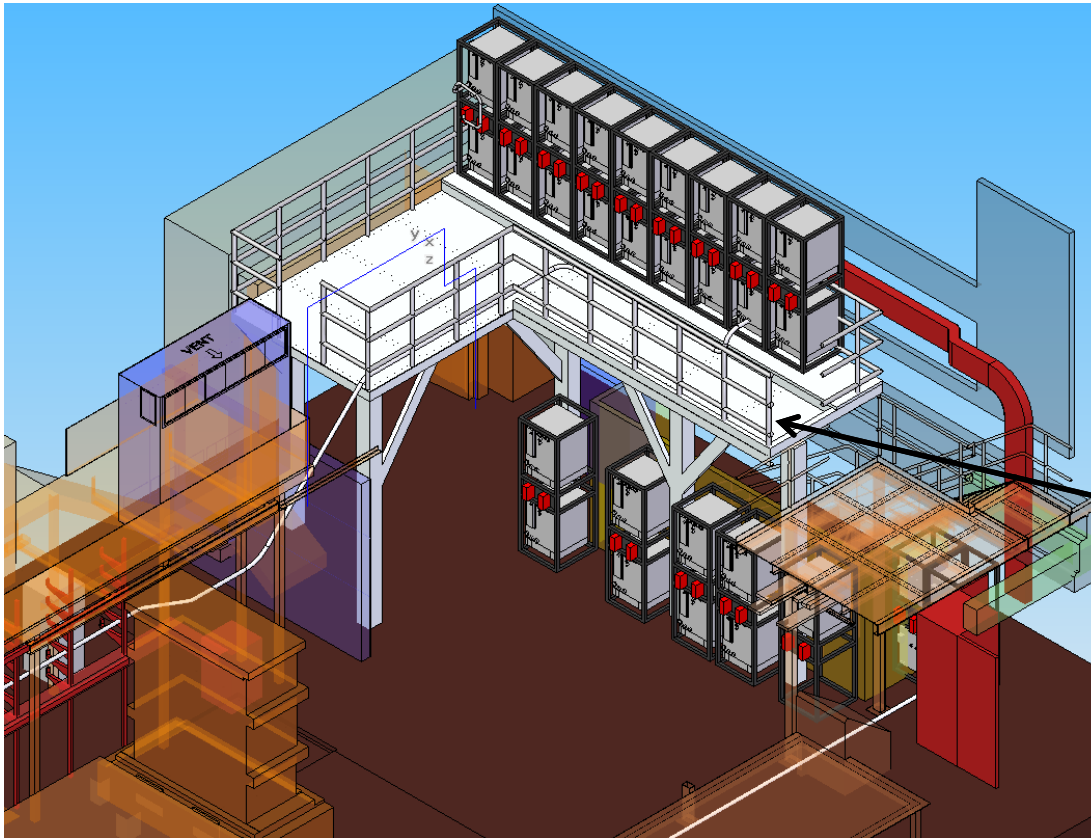
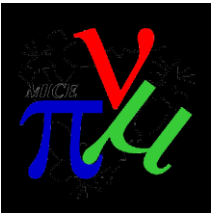
Step V & VI
racks

Compressor Control Rack



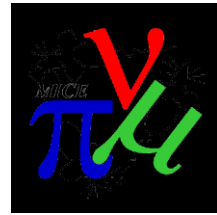
Compressor
Rack

Basic Mezzanine Platform

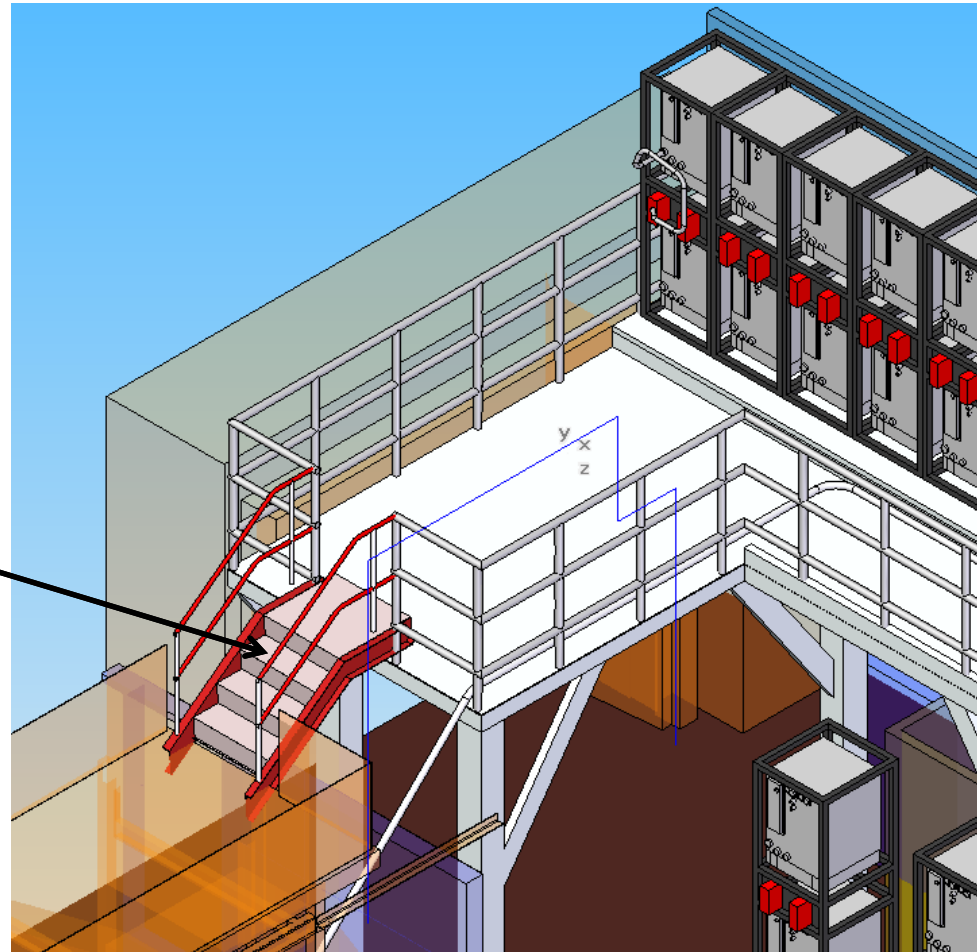


West Wall
Mezzanine

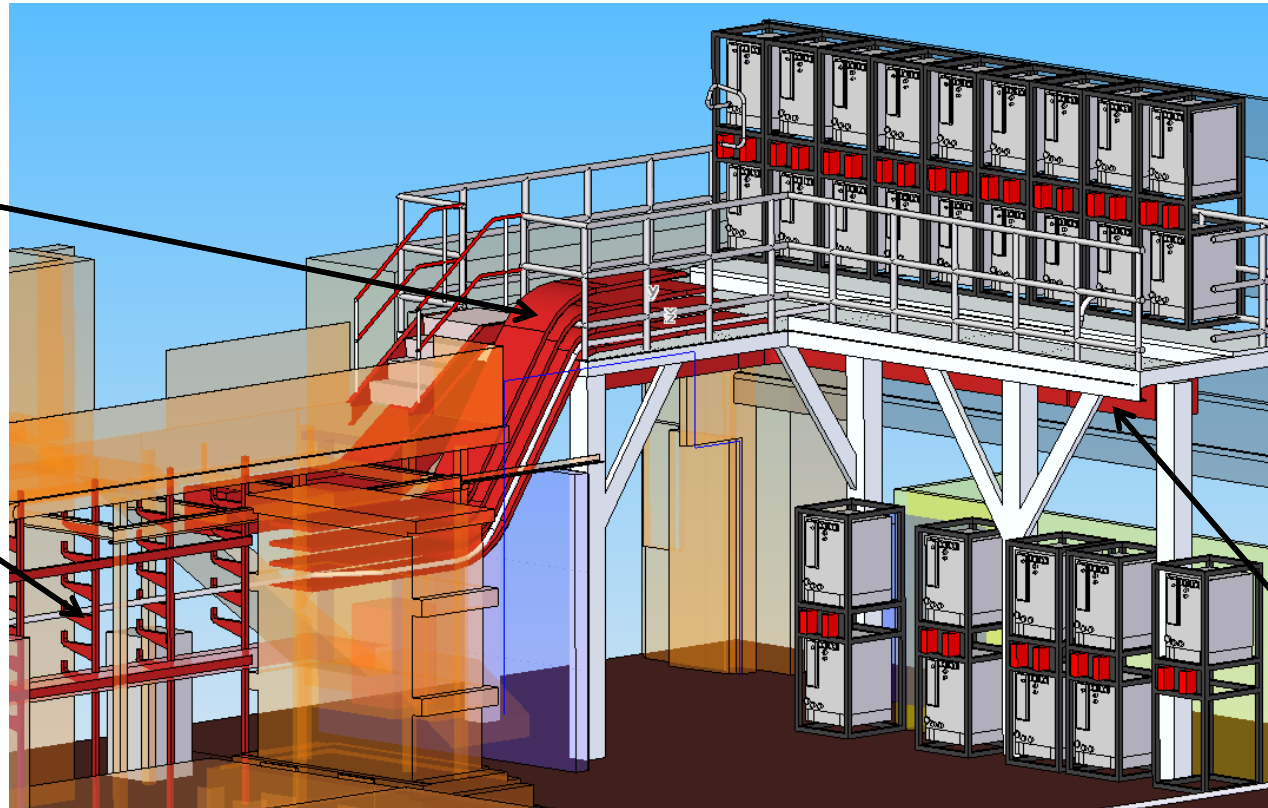
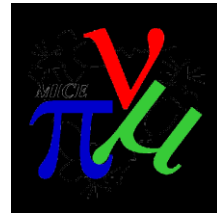
Link to South Mezzanine



West Mezz to
South Mezz
Link



Compressor Hose & Cable Management

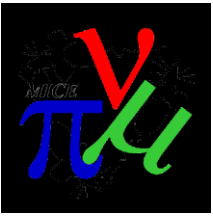


Cable trays for compressor hoses & power cables from first floor compressors

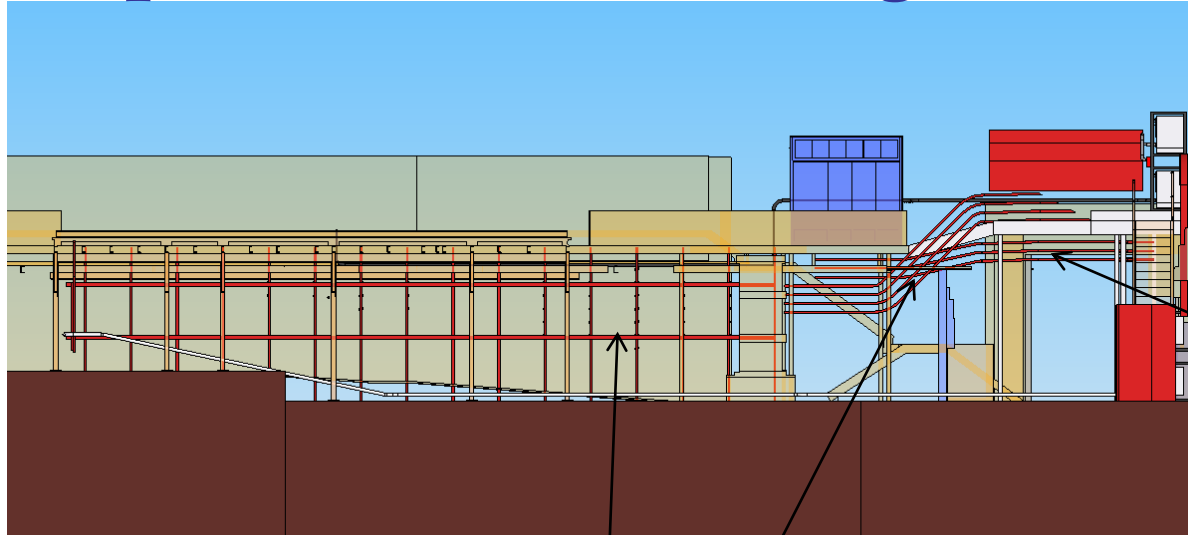
Hose and cable tidy along south mezzanine corridor

Cable trays for compressor hoses & power cables from ground floor compressors

Compressor Hose Management

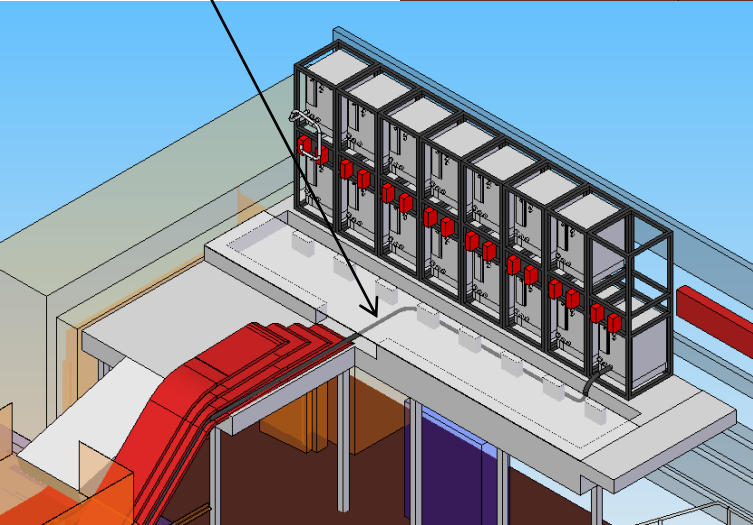


Compressors
Hose
Management



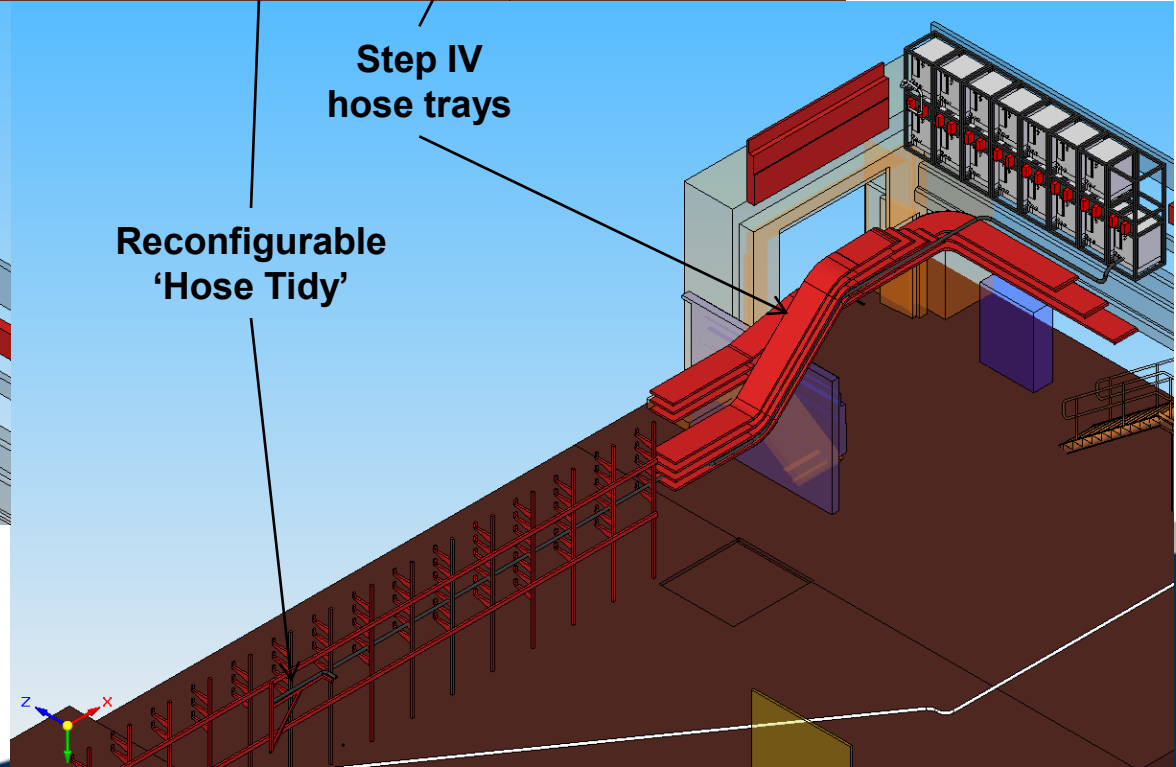
Step V & VI
hose trays

Hose Under
Mezz Floor

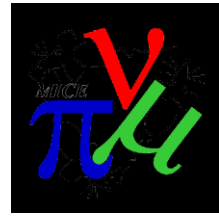


Step IV
hose trays

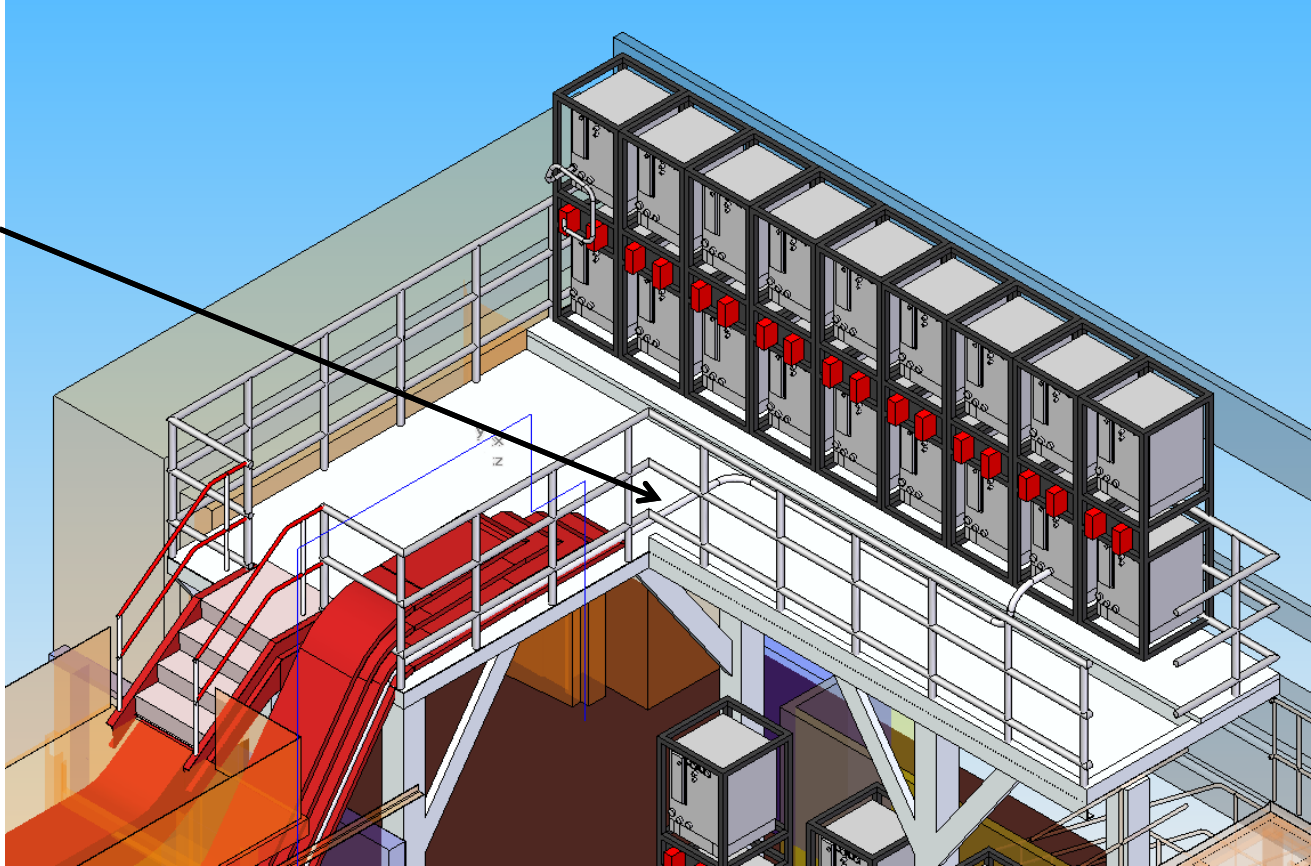
Reconfigurable
'Hose Tidy'



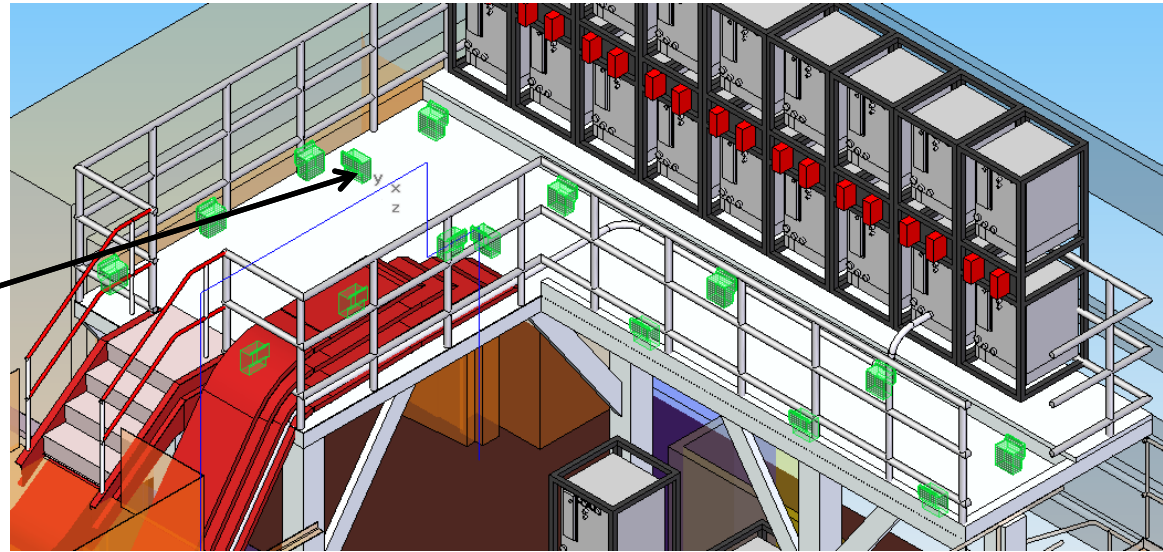
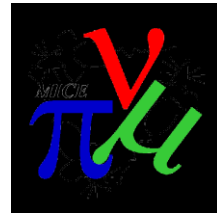
Exposed Hoses & Cables!



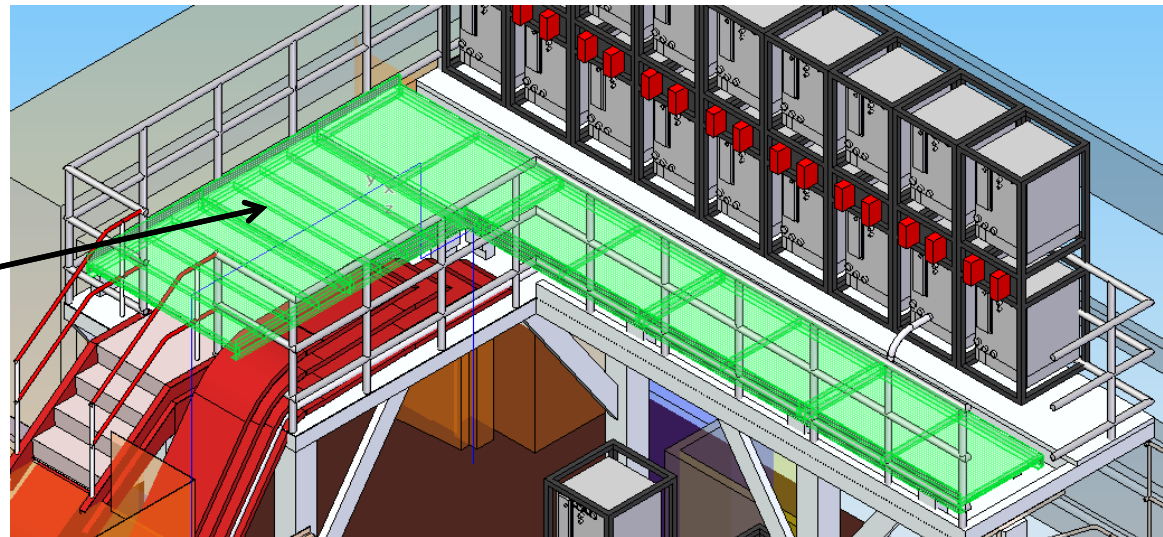
Hoses & cables routed across the personnel access floor!



Walkway

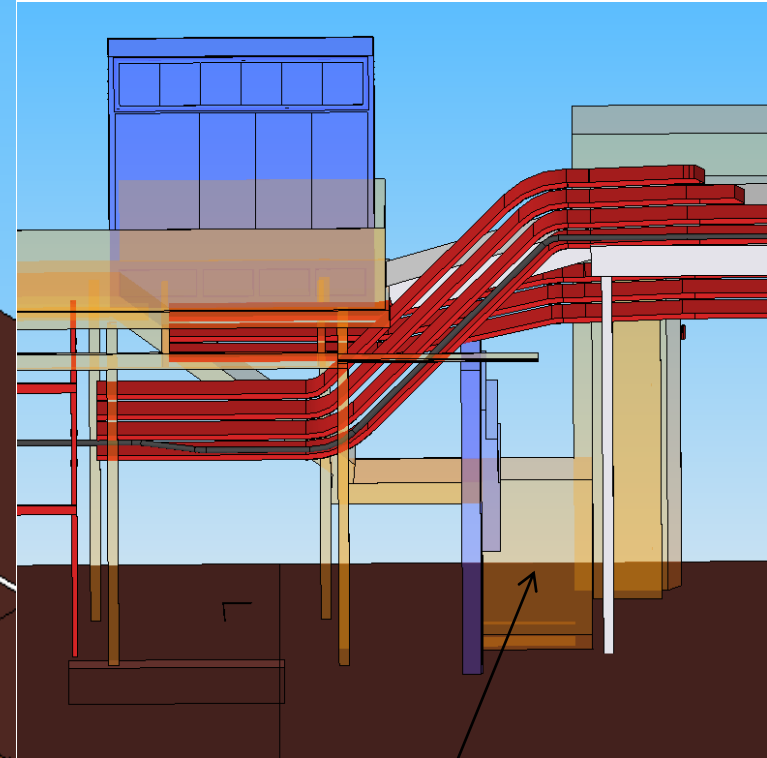
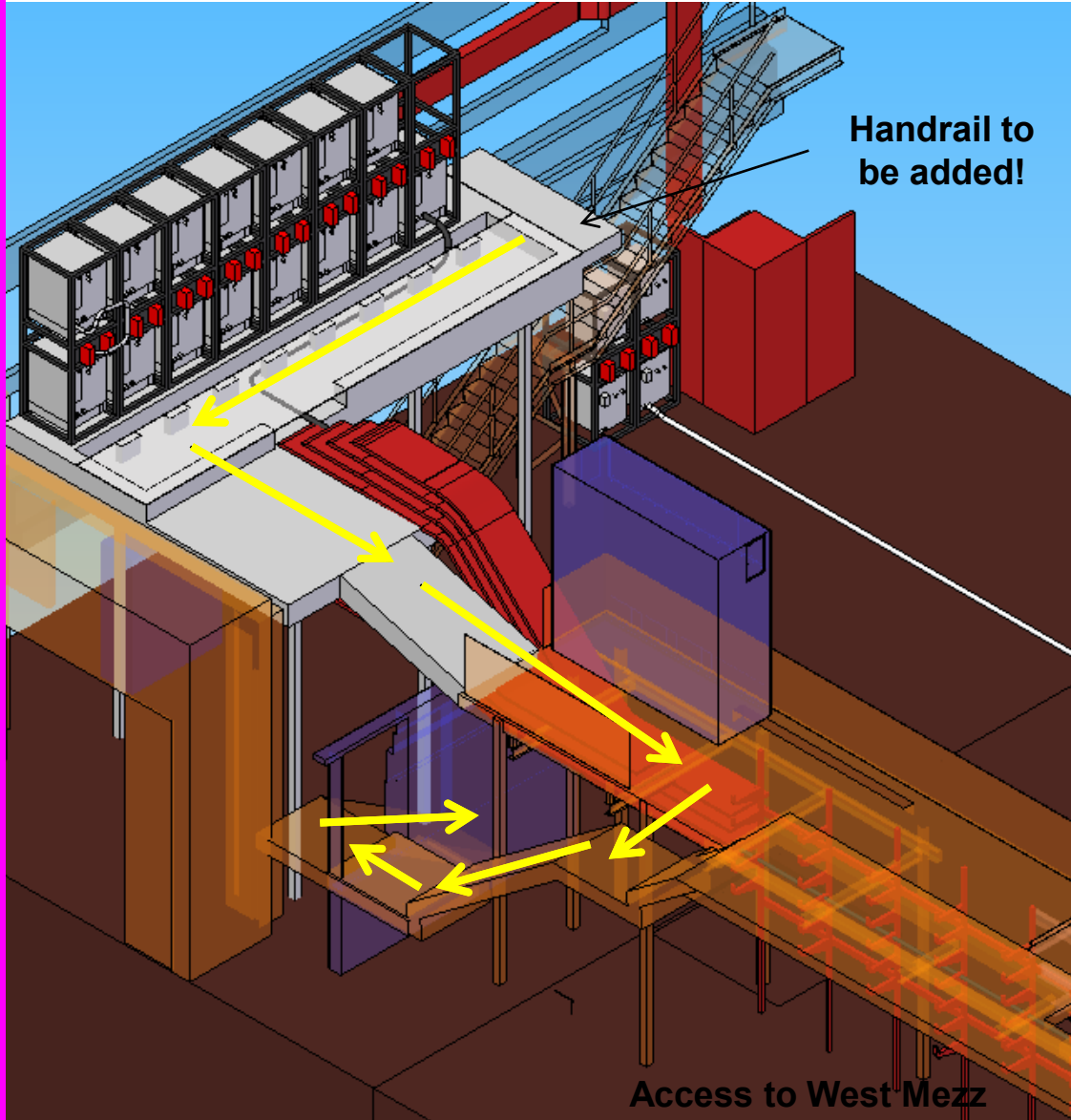
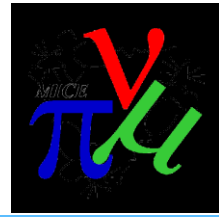


Walkway
support pads



Walkway
sections

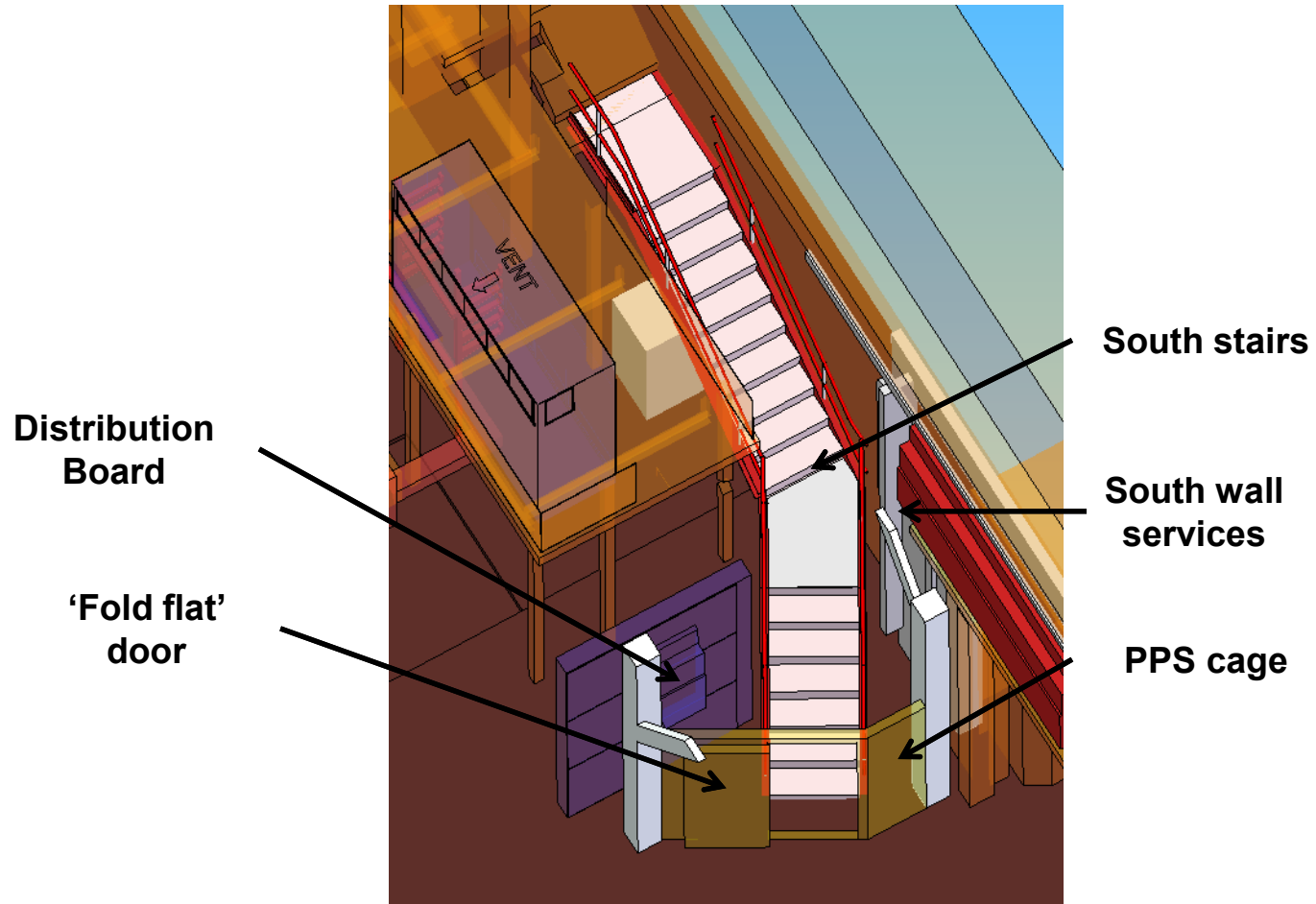
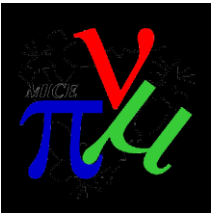
South Mezz Stairs Modification



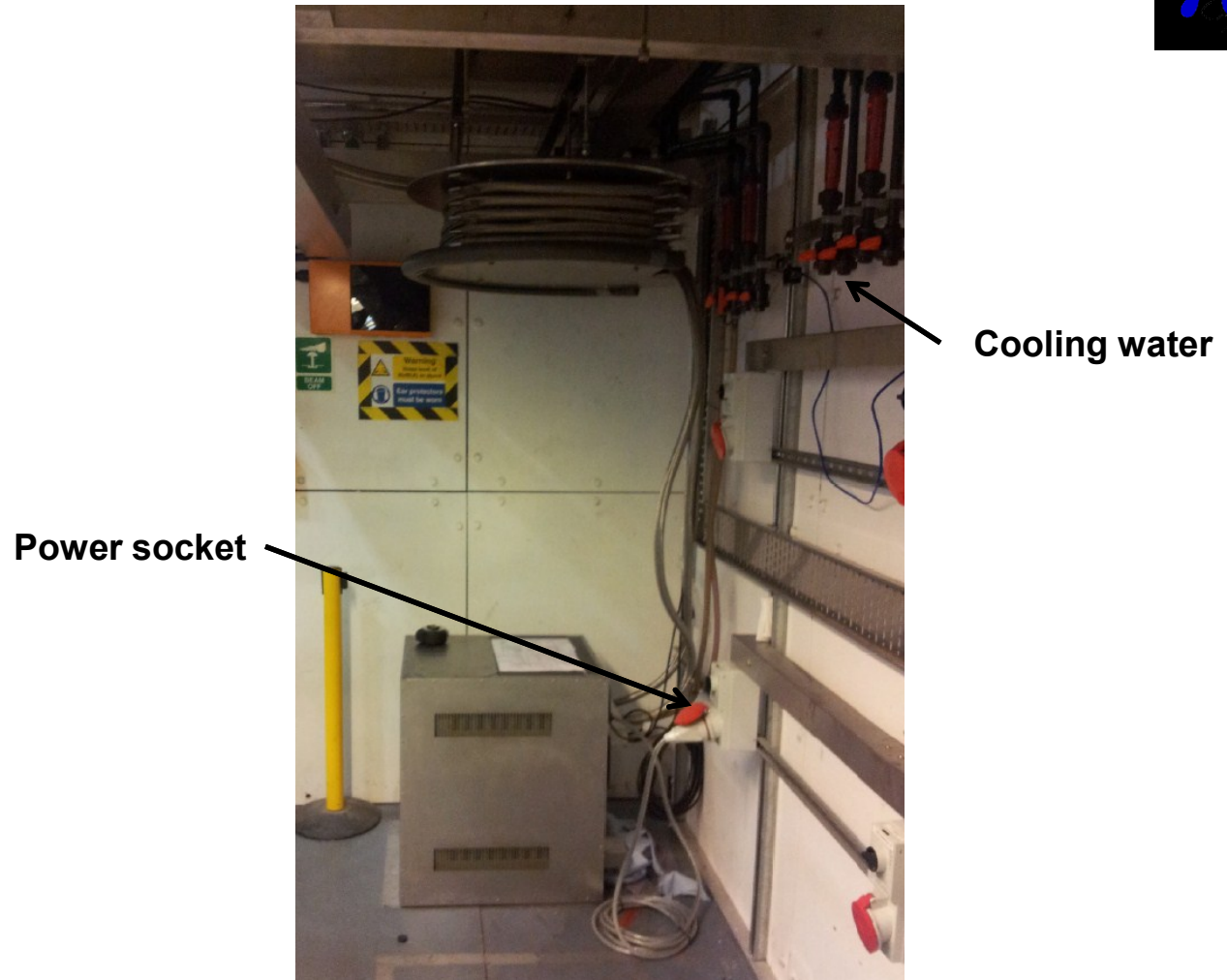
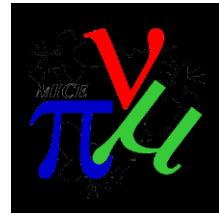
Reconfigure Stairs
(gives headroom for
cable trays)

Safe & easy access & egress from
mezzanine

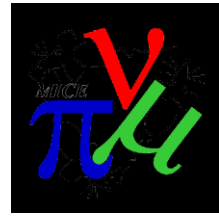
South Mezz Stairs & PPS



Compressor Input Services



Compressor Input Services



West wall mezzanine will be at this level between the existing services

Existing west wall services

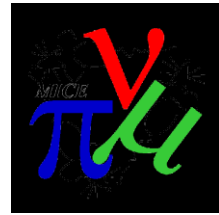


Fire alarm system

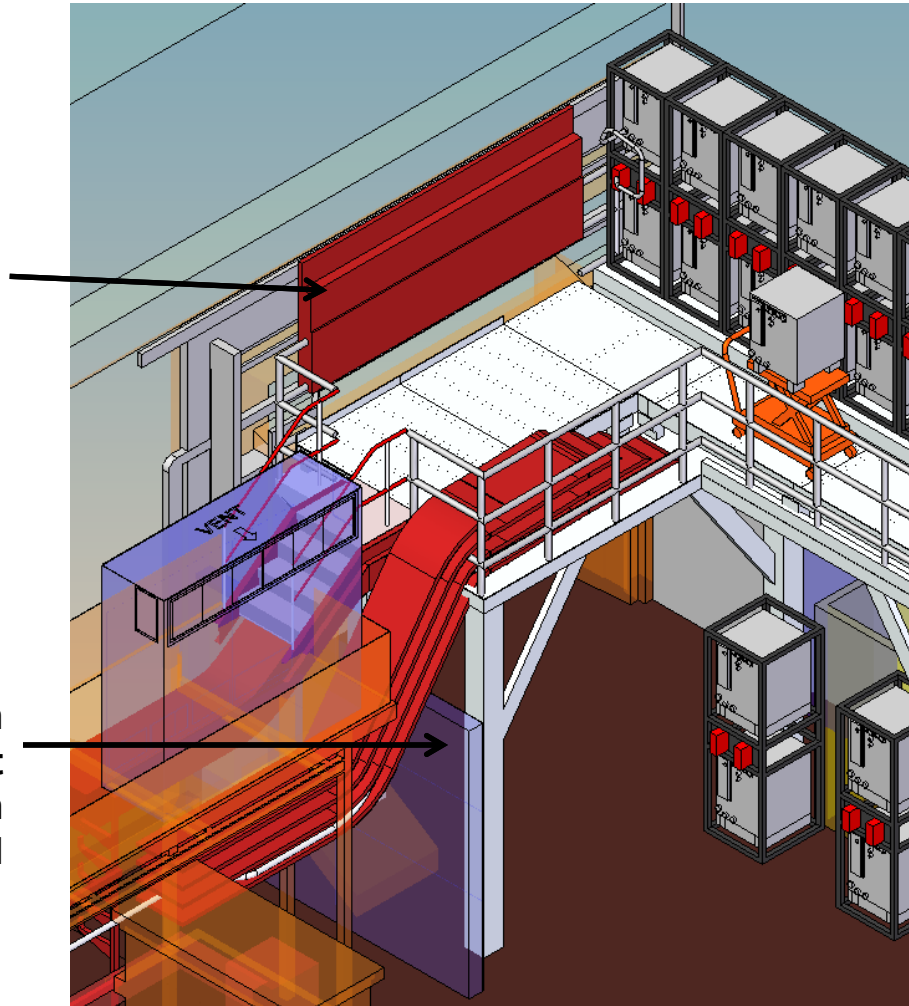
Services to be moved or bridged by the west mezzanine

Current West Wall Services

Distribution Boards

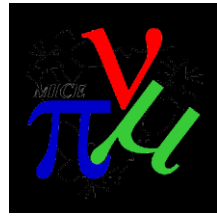


Distribution Boards

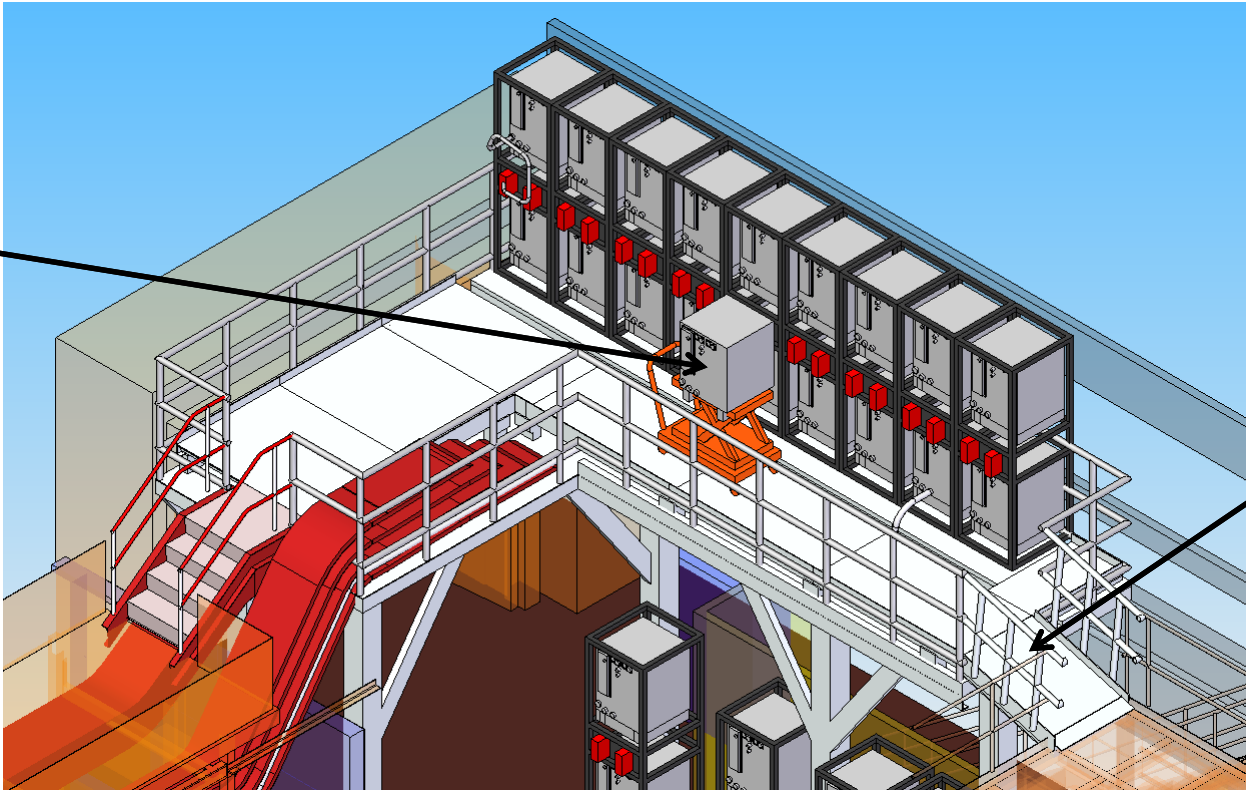


Move from current position on this end wall

Compressor Handling

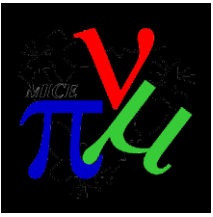


Compressor
on a scissor
jack trolley

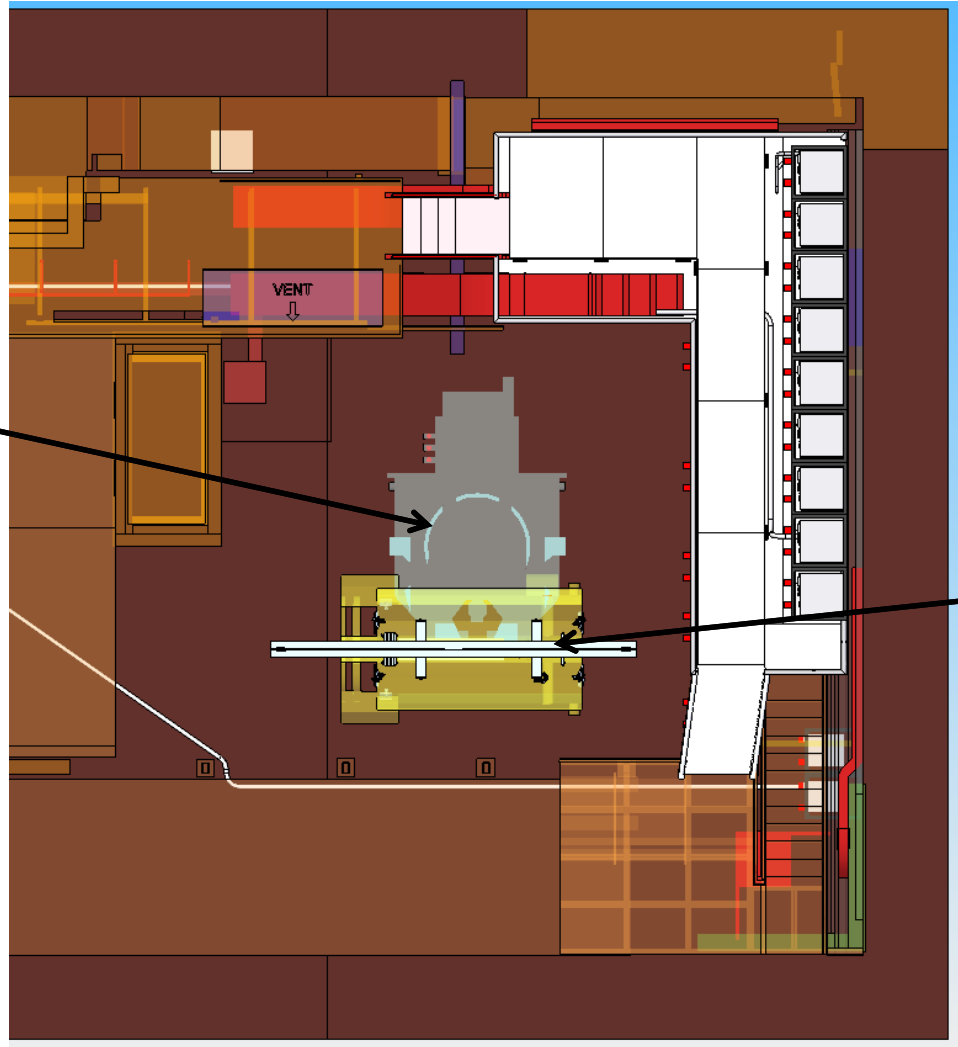


Ramp to north
mezzanine

Delivery & Assembly Area

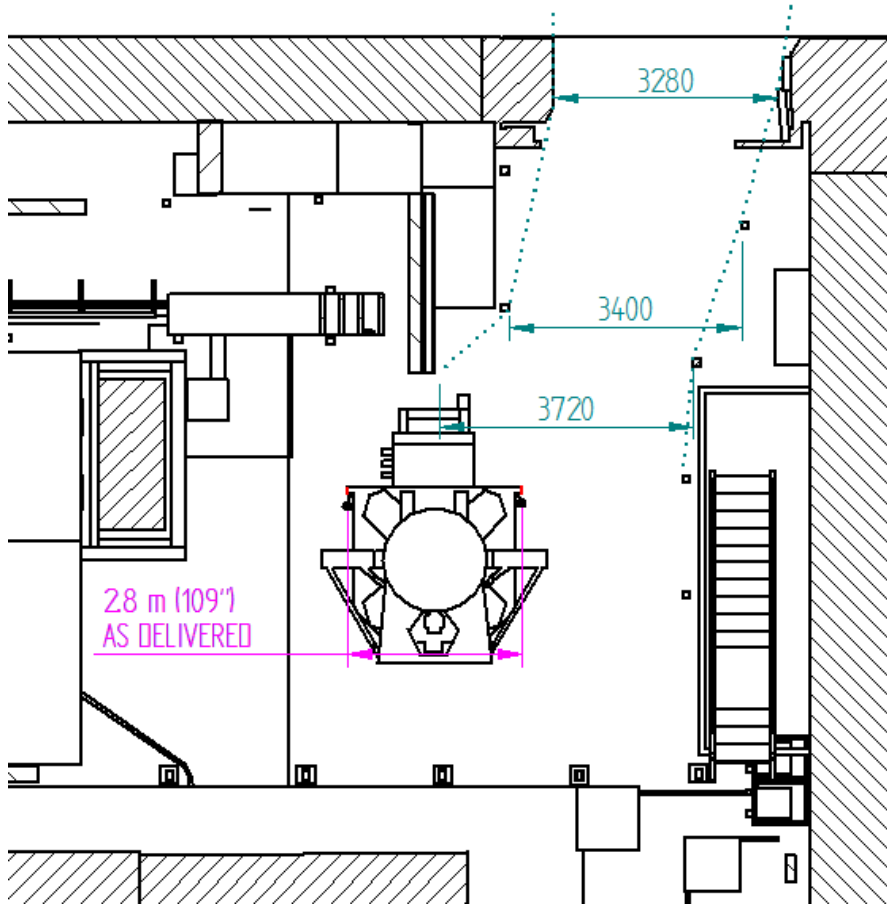
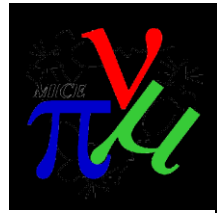


RFCC
as delivered
(laid down &
no RF
couplings)

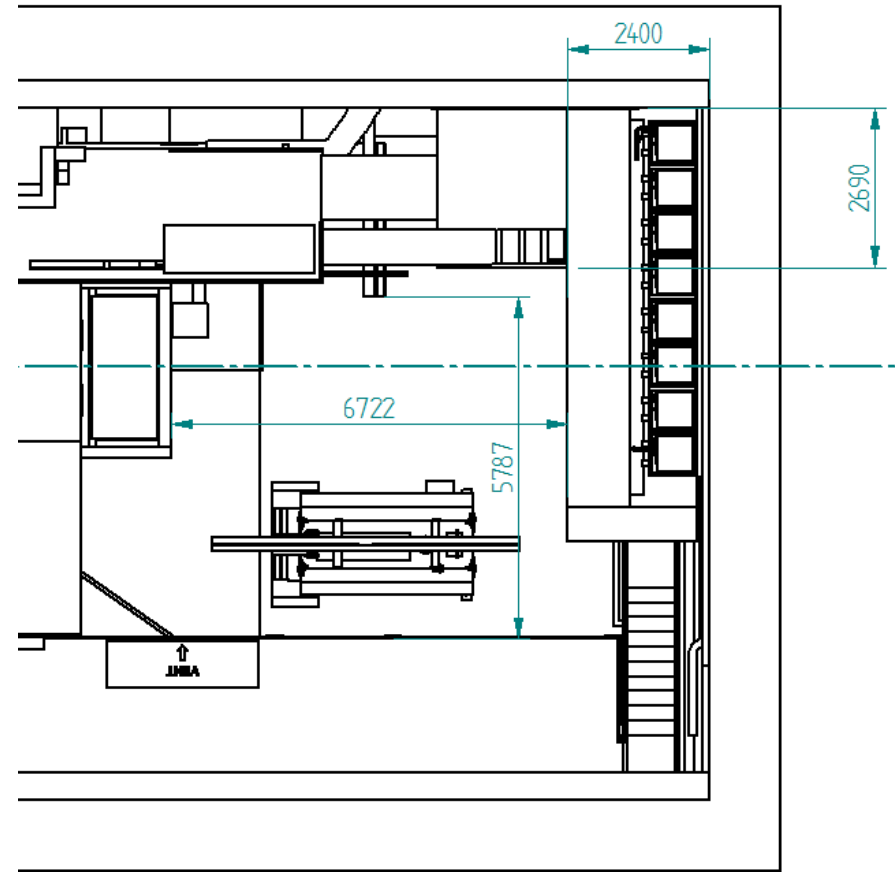


SS in lifting
position with
tandem lifting
frame

Delivery & Assembly Area

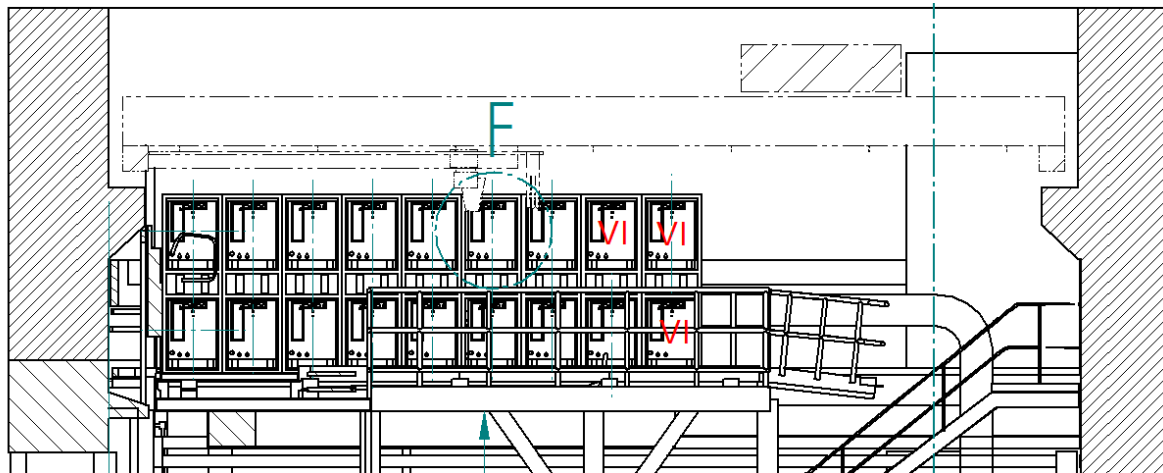
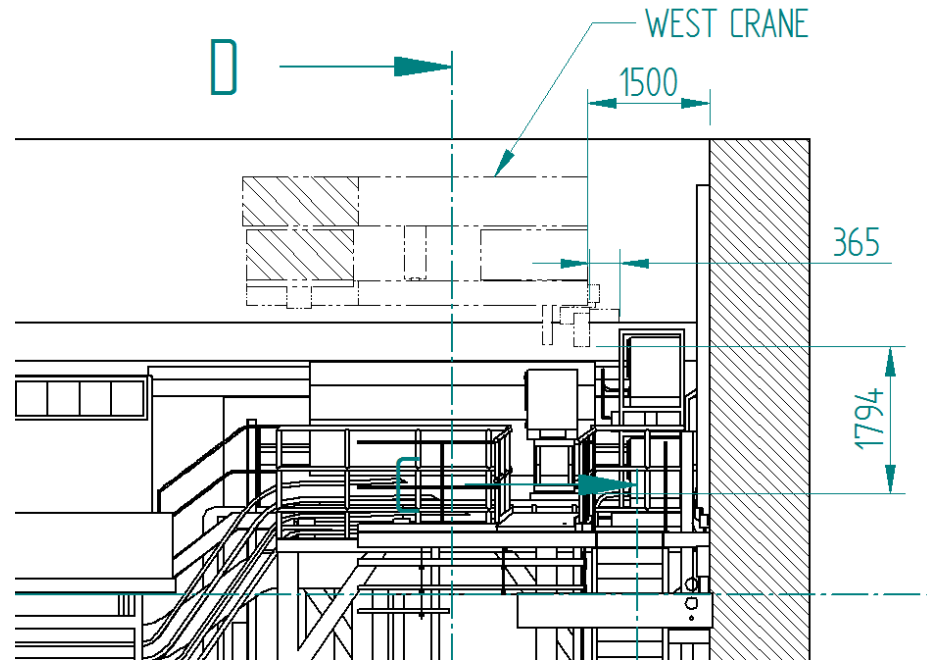
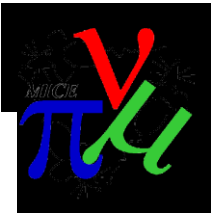


RFCC

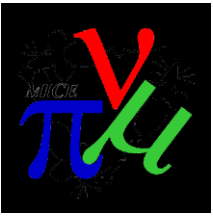


SS

West Crane



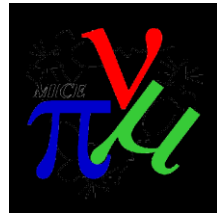
To Do



To Investigate

- Ensure magnetic field is low enough not to affect compressors in west wall position
- Can all cold heads / compressors accept an extra few metres of line temporarily, i.e. when devices pulled off-line on moving platforms (non operational – keep cold e.g. <50 °K)

Mechanical Work



● Installation

- Reconfigure South Mezz stairs & PPS
- Install west mezzanine platform
- Install services from south mezzanine including distribution board
- Reroute water feeds
- Modify PPS cage and area under North Mezz stairs for Sumitomos
- Install services management & compressor supports
- Fit compressors
- Run hoses & power to devices as required