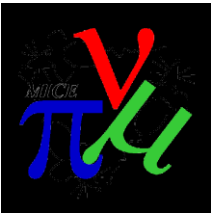


Introduction

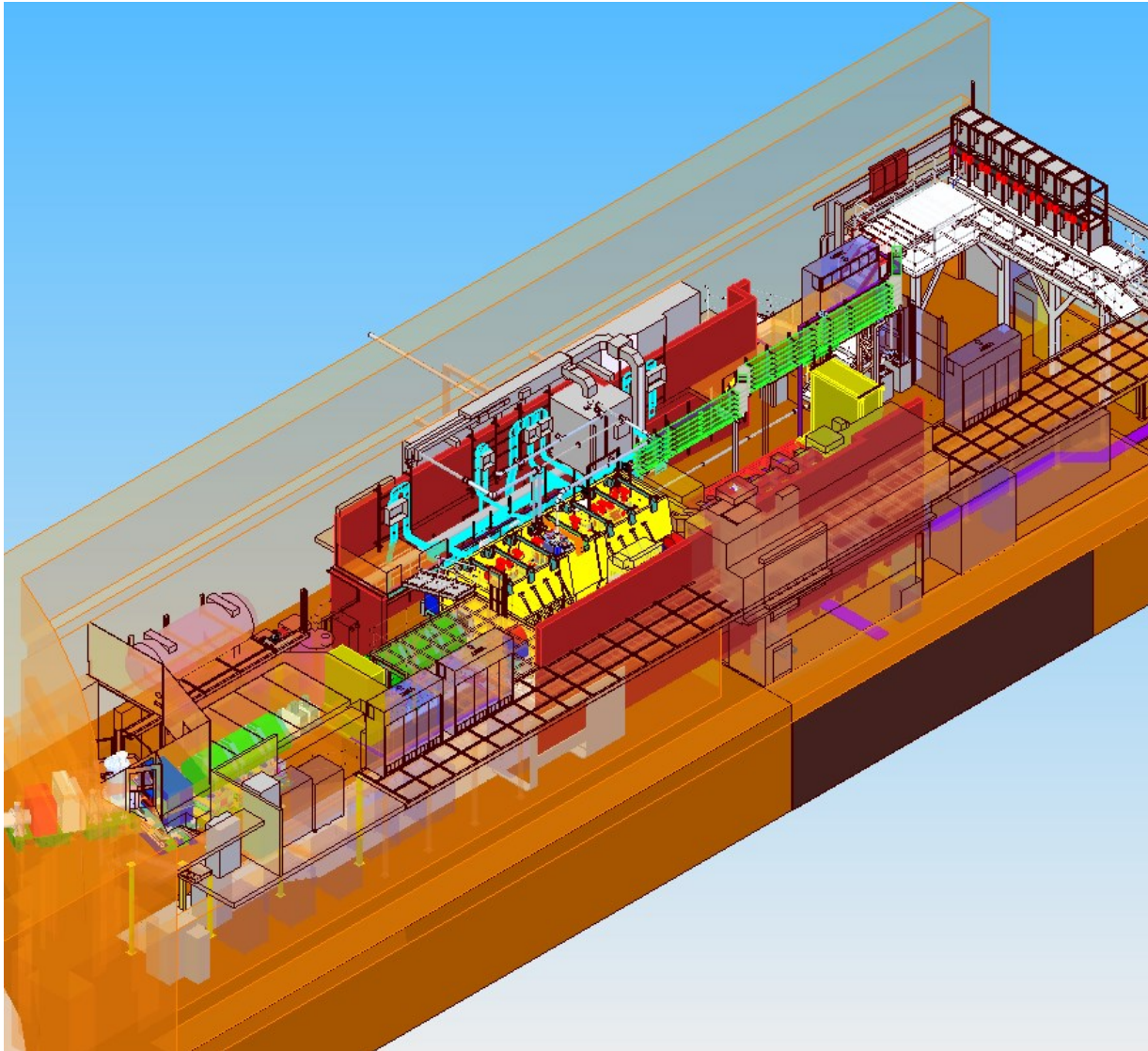
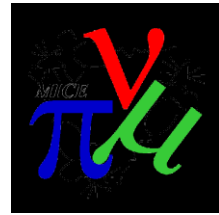


Jason Tarrant – Integration Engineering

- Step IV Removal
- Cooling Demo Preparation
- Cooling Demo Installation



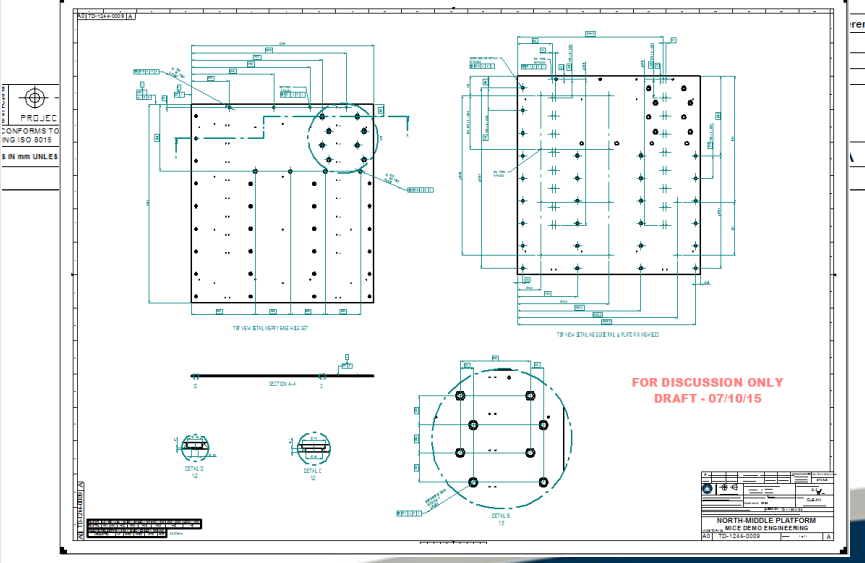
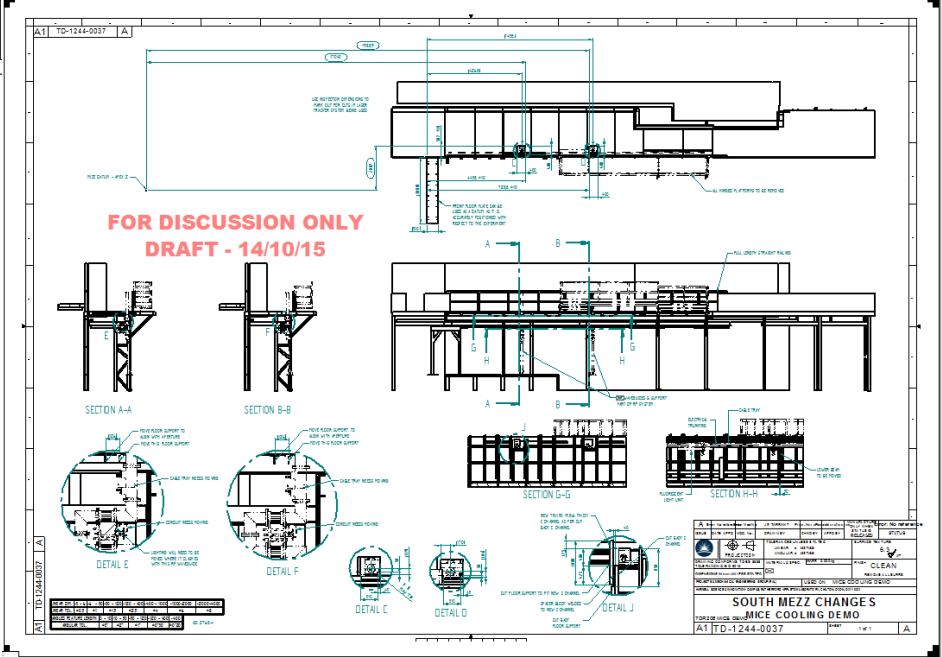
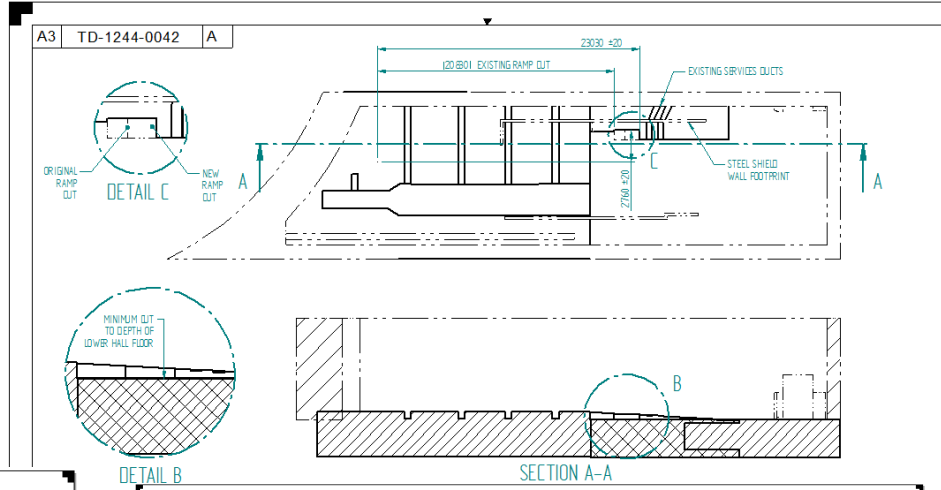
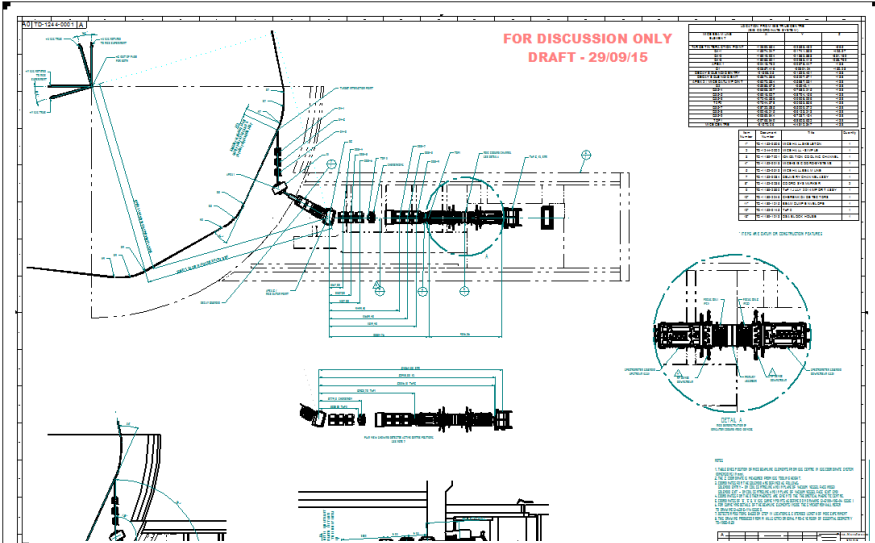
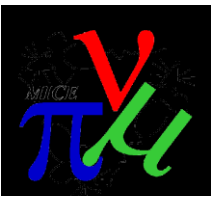
Dismantle Step IV



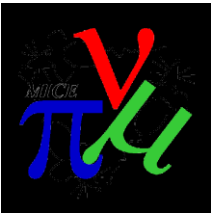
Step IV Disassembly

- End of Step IV Running
- ToF, KL, EMR Removal & Store
- Tracker Cryo Rem&Stor
- Power & Control Rem&Stor
- Vacuum Rem&Stor
- Compressor Hose Removal & Mgt
- North Mezz Access Rem&Stor
- PRY Downstrm Rem&Stor
- SSD Rem&Stor
- FC Rem& Stor
- Moving Bases Rem&Stor
- H2 System Rem&Stor

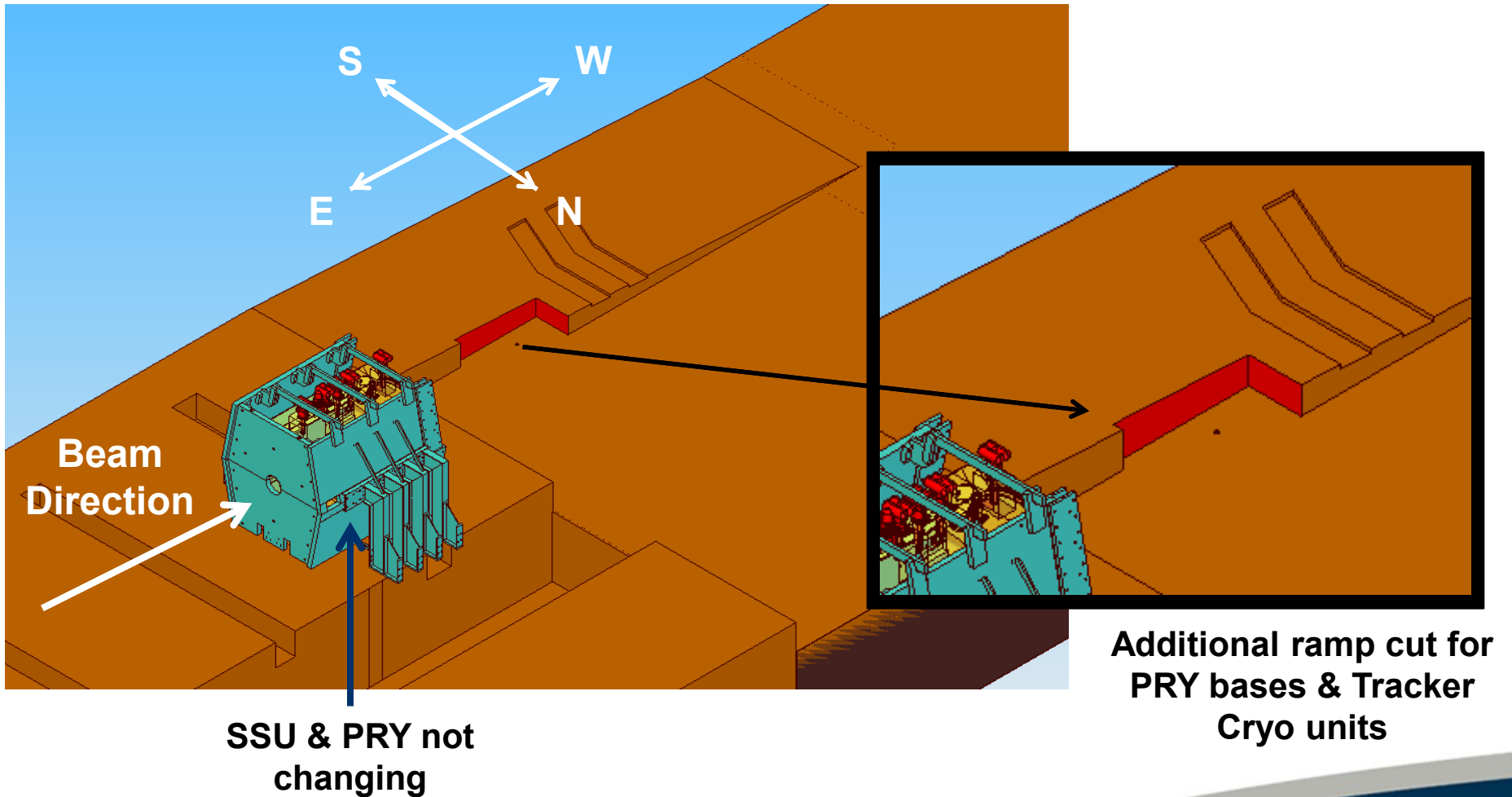
Design



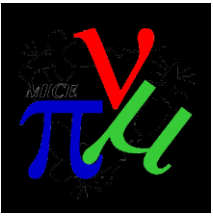
Preparation



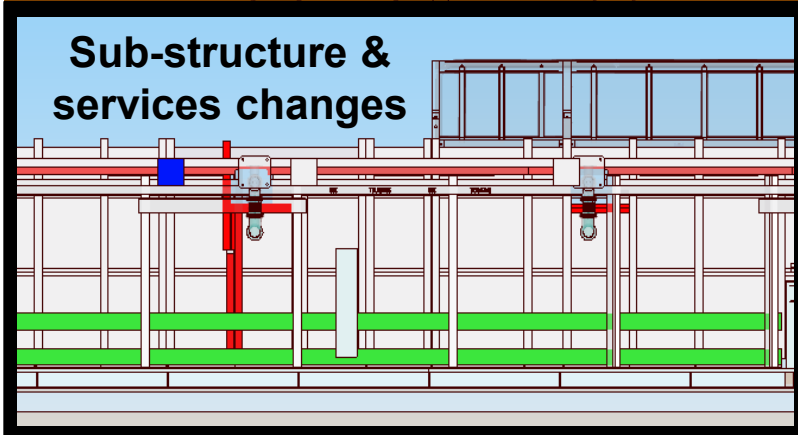
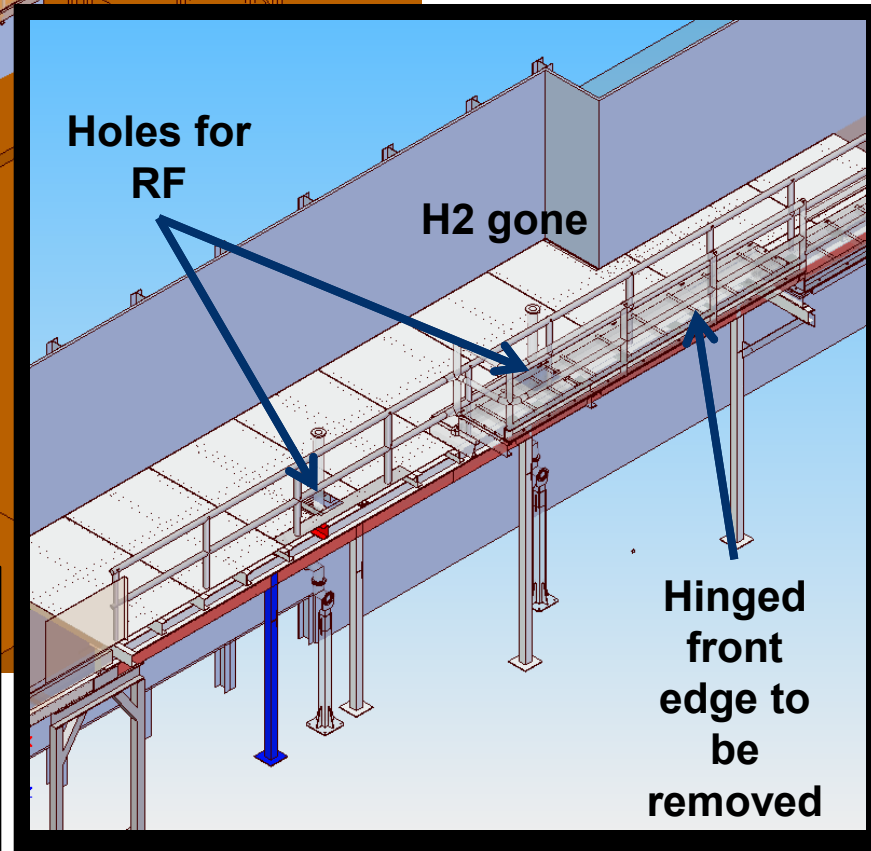
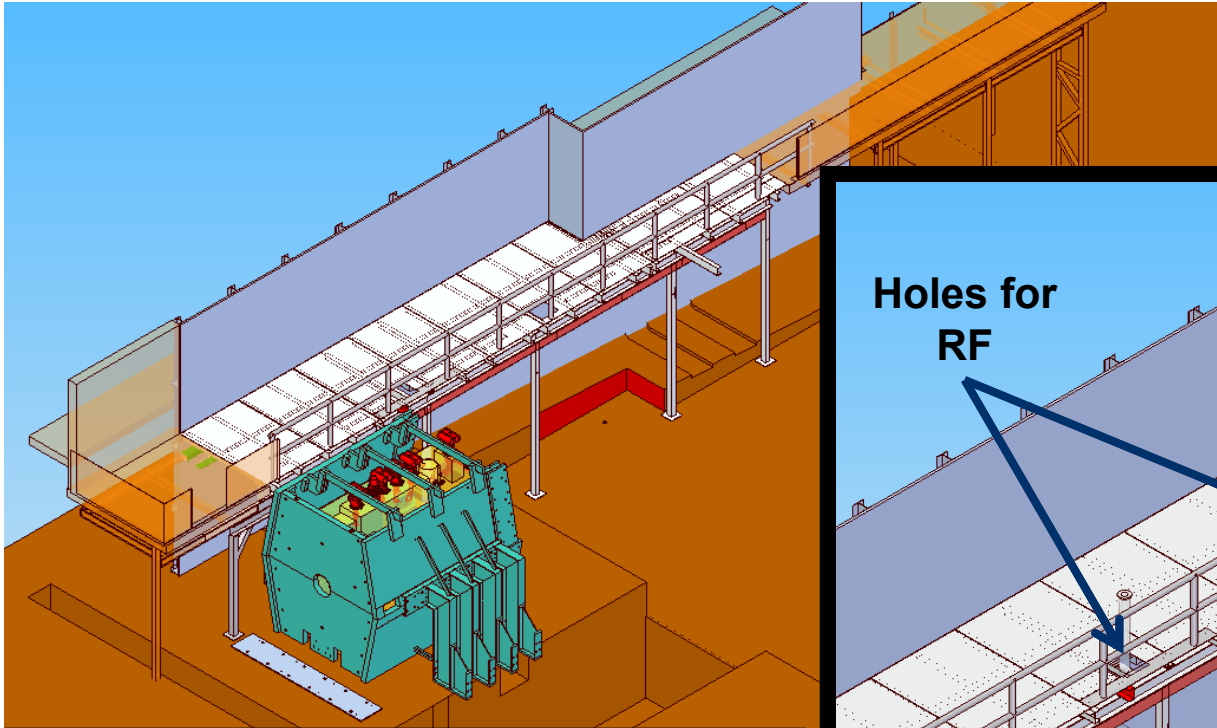
- Concrete ramp cutting



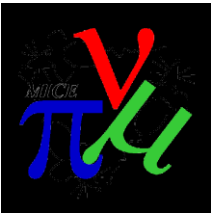
Preparation



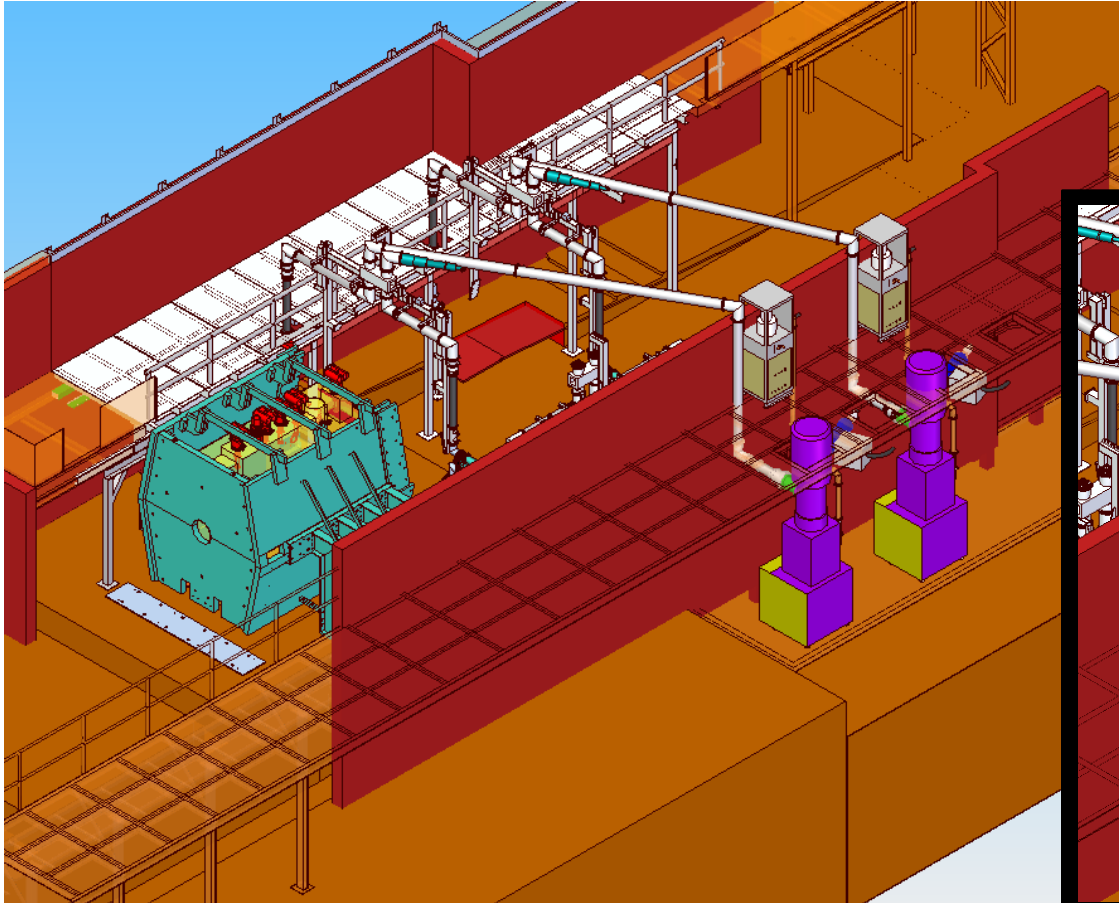
- South Mezzanine Changes



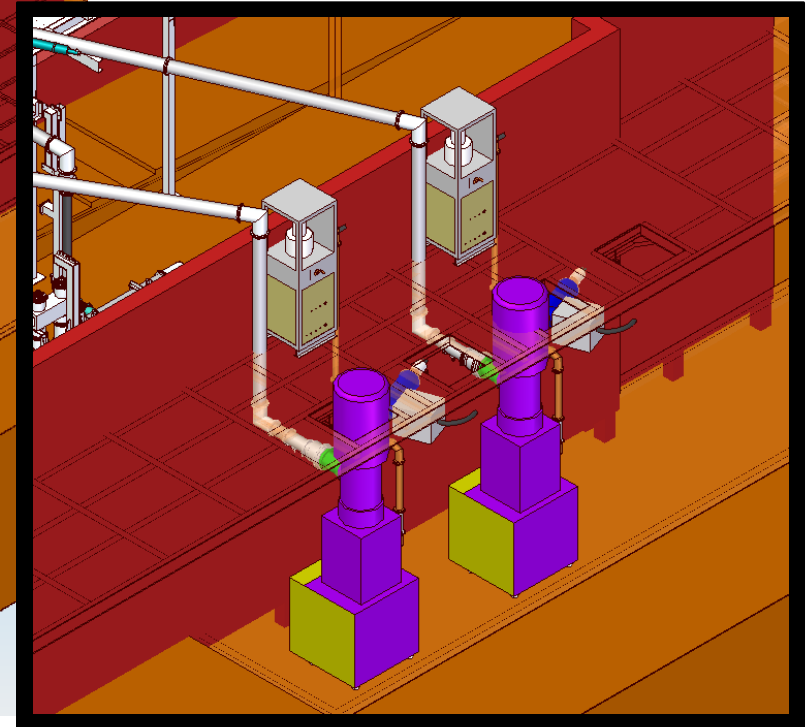
Preparation



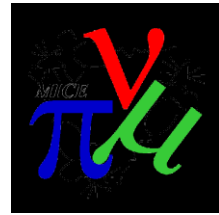
- North Mezzanine



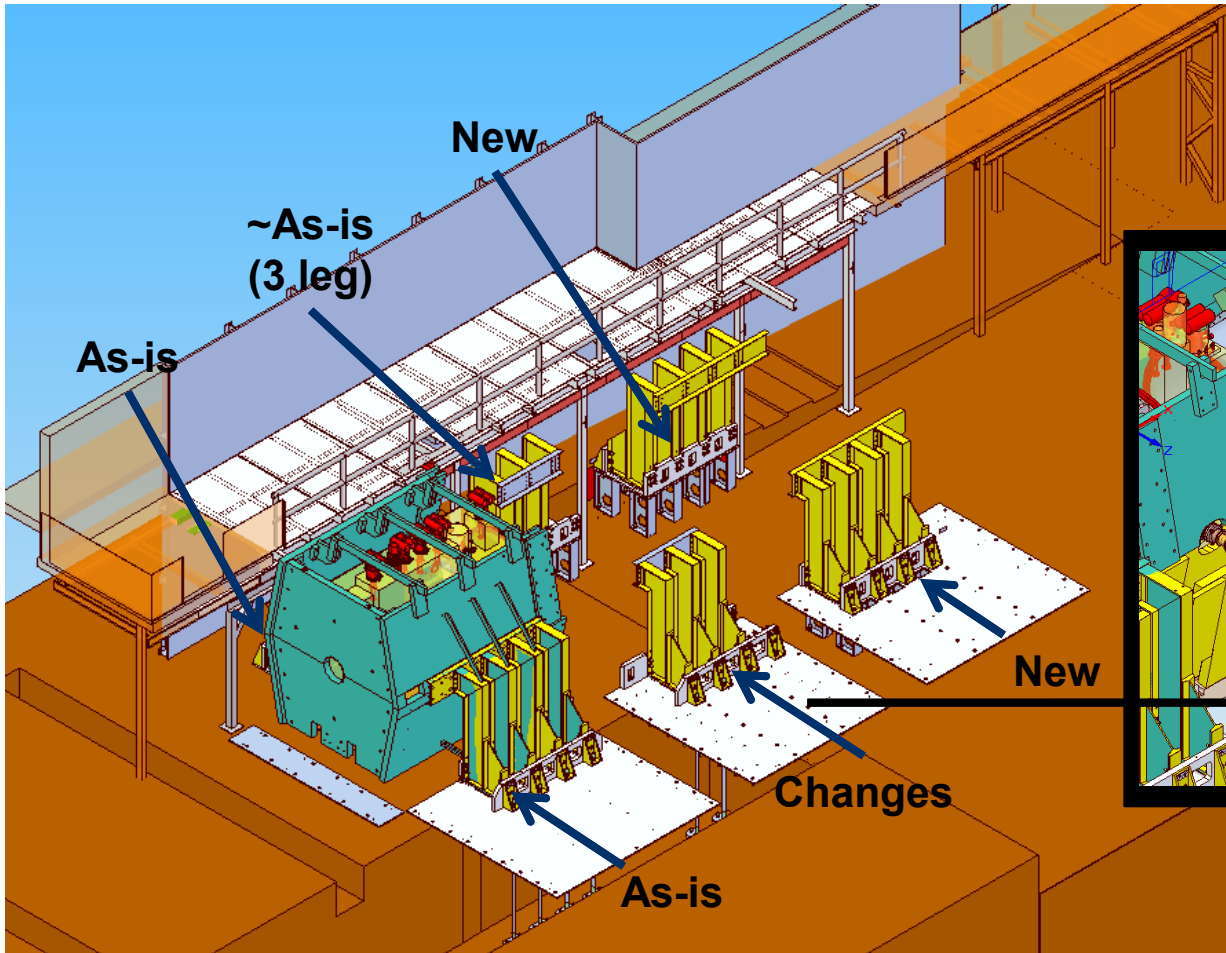
**Modifications for
RF Amplifiers &
Waveguides**



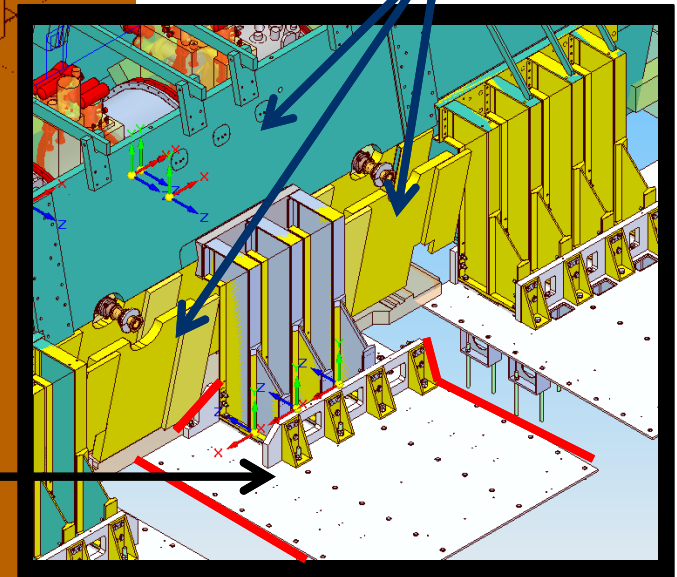
Preparation



- PRY Bases

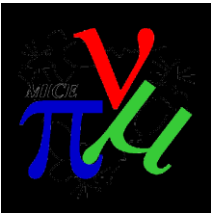


Removal of these panels for RF access

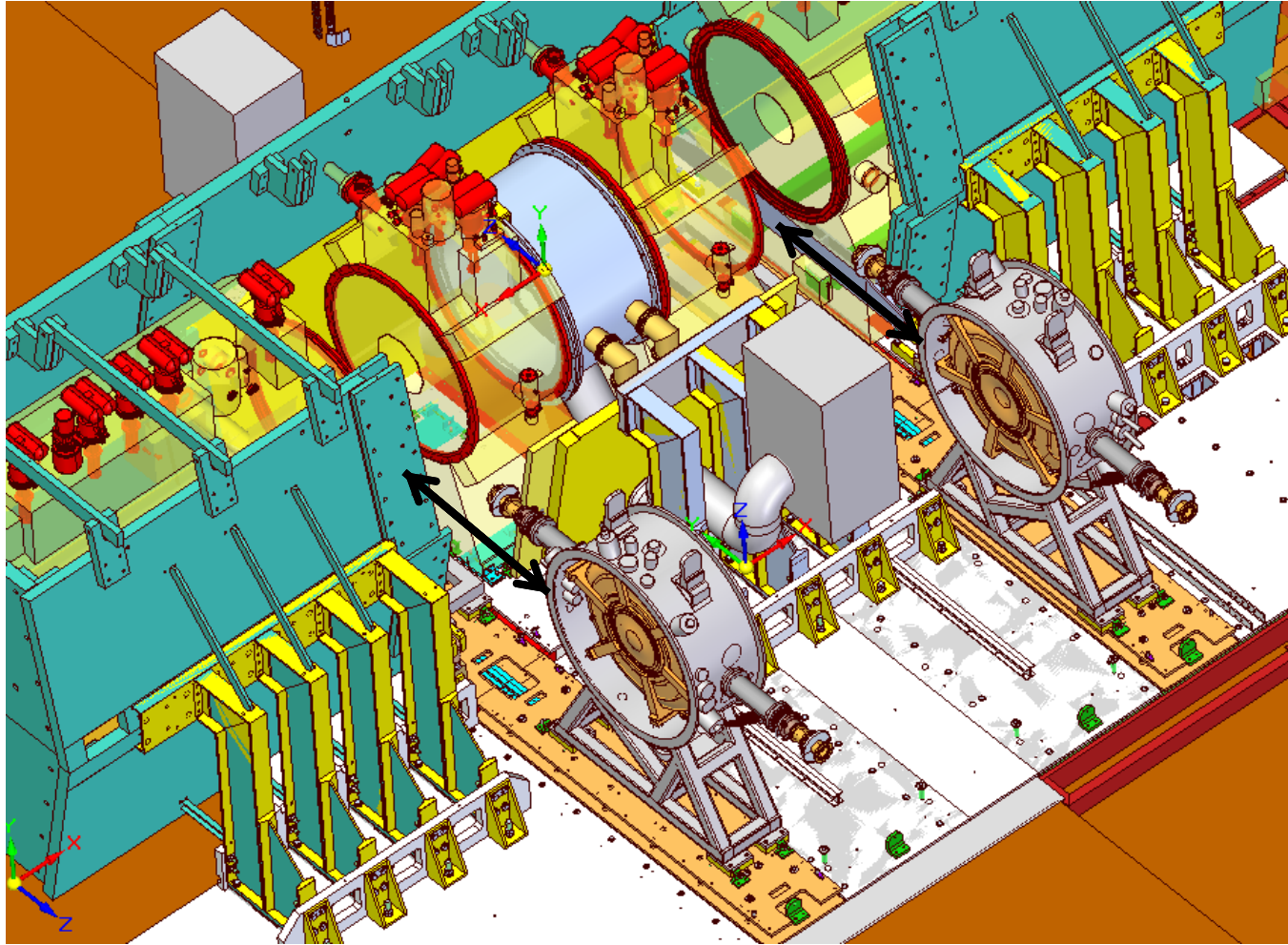


3 leg + trimming of current parts

Preparation

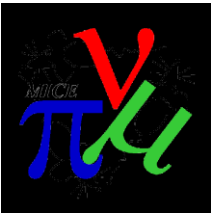


- Partial Return Yoke (PRY) – RF Access

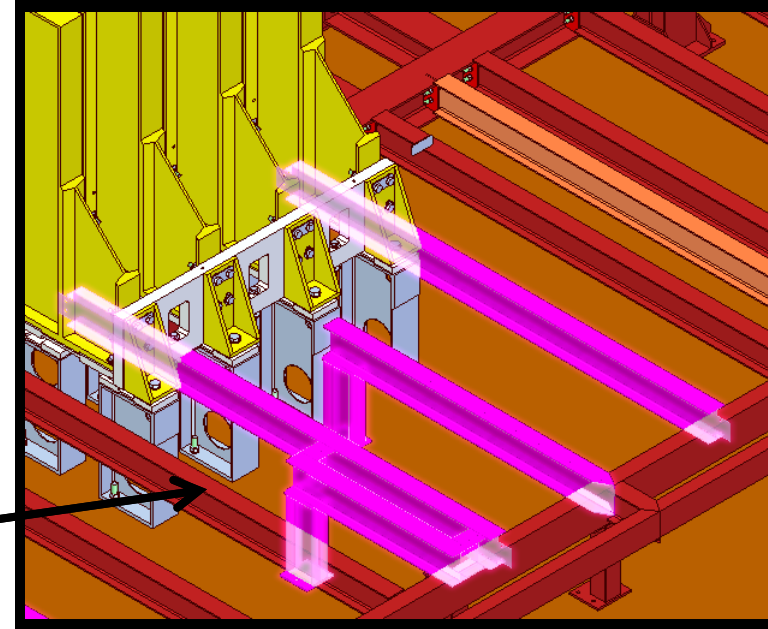
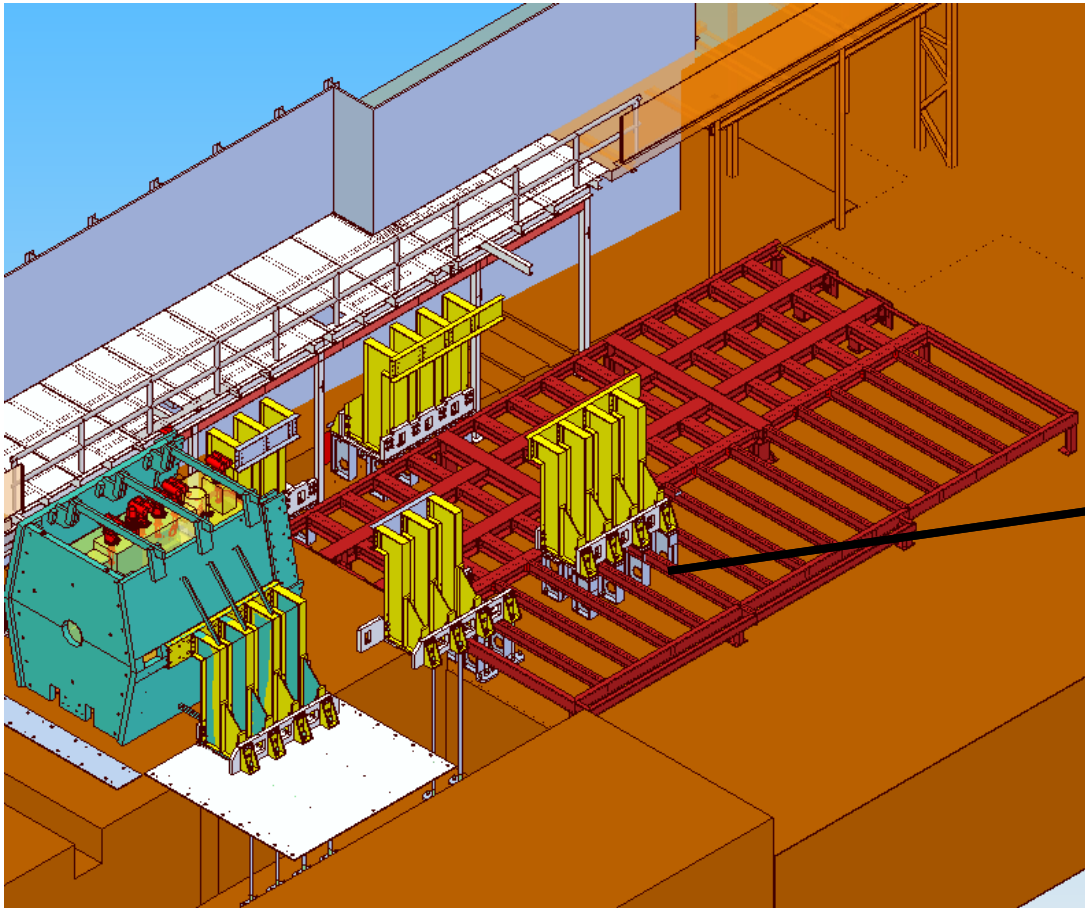


RF devices
removed on
moving
platforms

Preparation

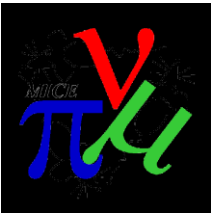


- False Floor & Sub Structure

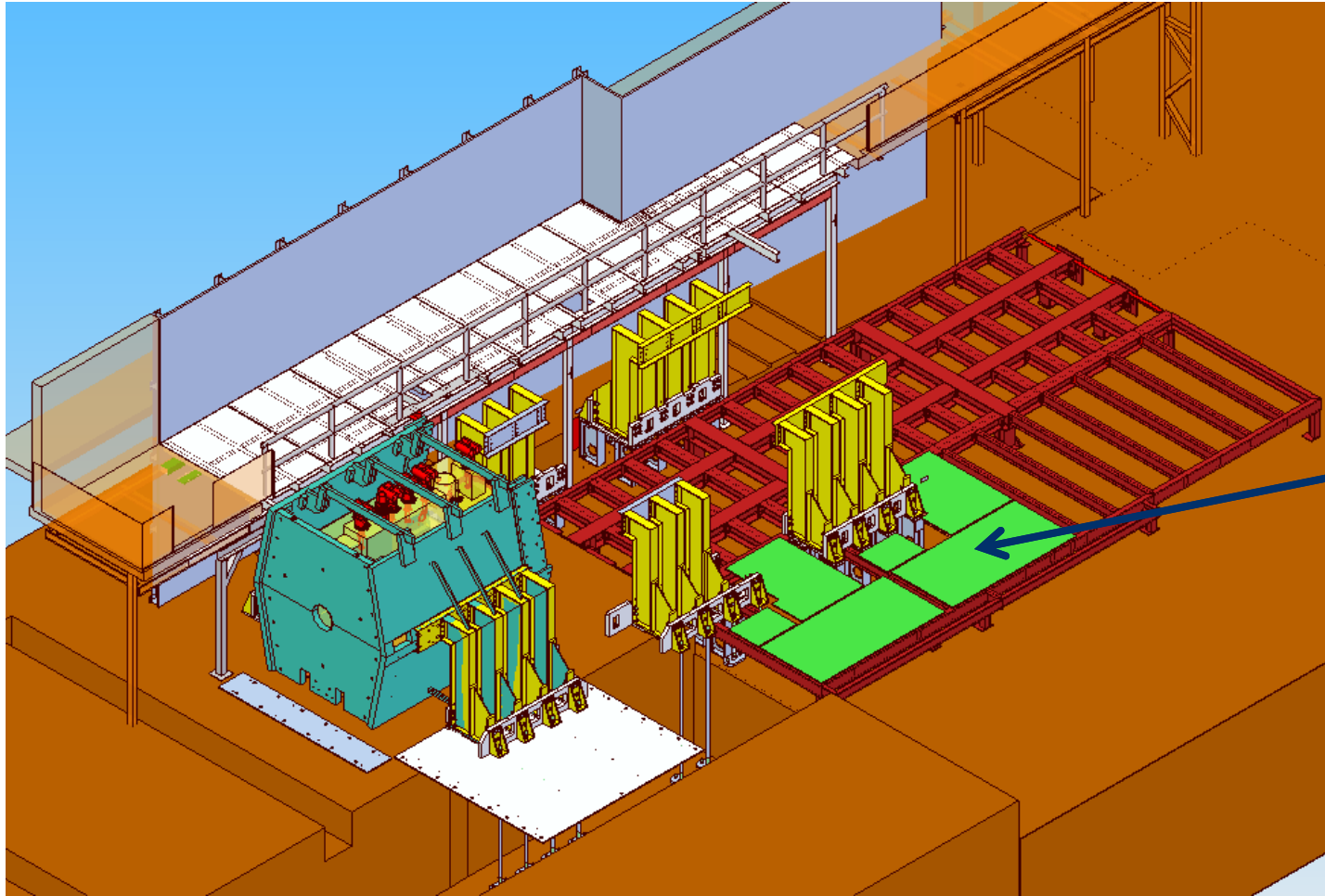


**Sub floor supports
to be changed for
compatibility with
PRY interfaces
(& current underlying
services in this area)**

Preparation

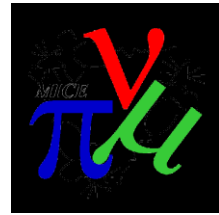


- False Floor & Sub Structure

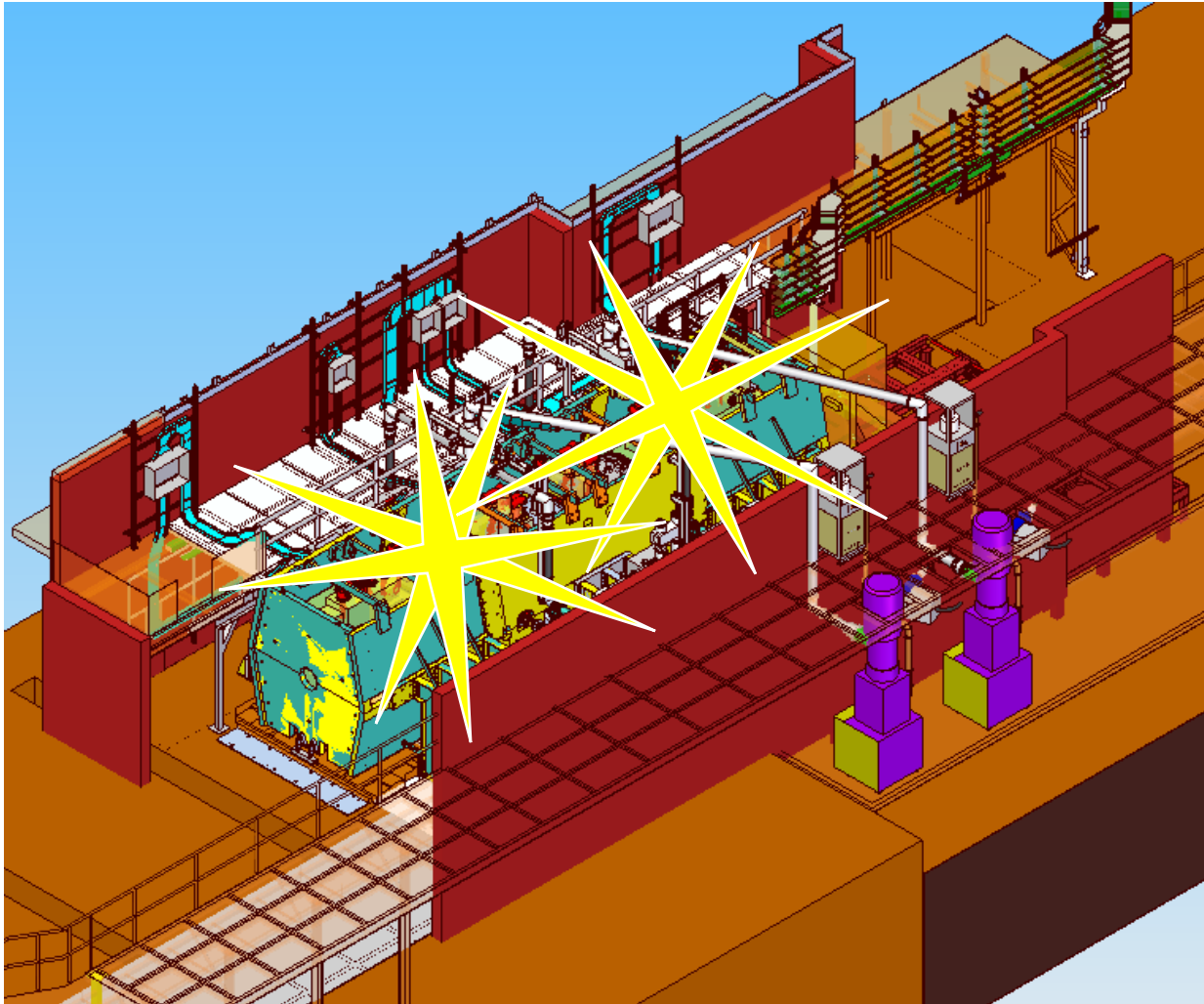


Sub floor plates,
levelled & fixed

Preparation

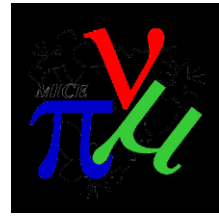


- RF – X-Ray Shielding Review & Actions

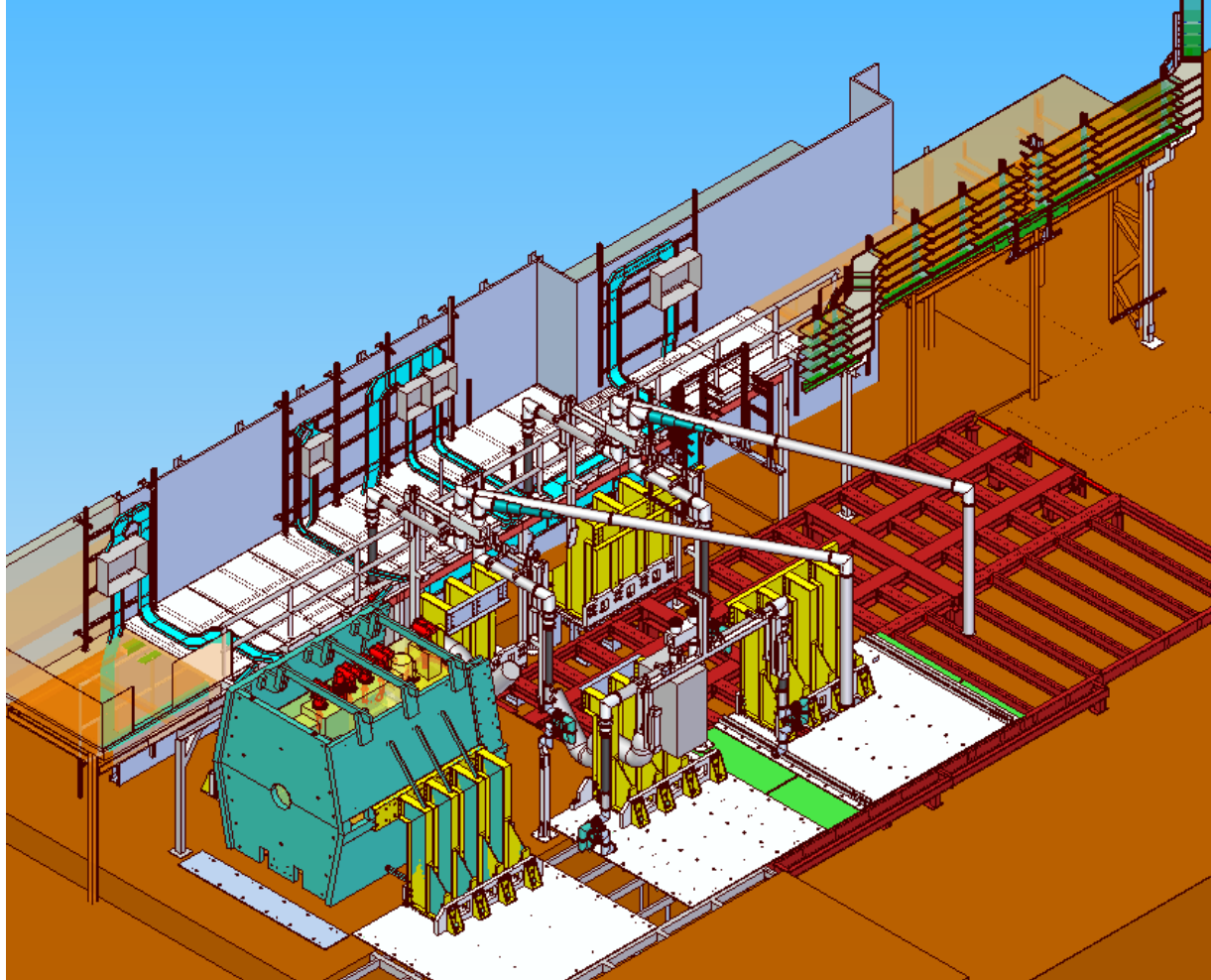


MICE-ISIS
RF Working Group:
M Keelan, T Stanley,
K Ronald, A Moss...
= Review of x-ray
shielding requirements
- Document
- Design
- Agree etc.

Preparation



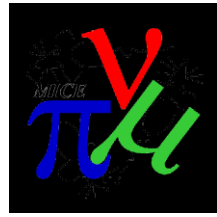
- Services management fixings



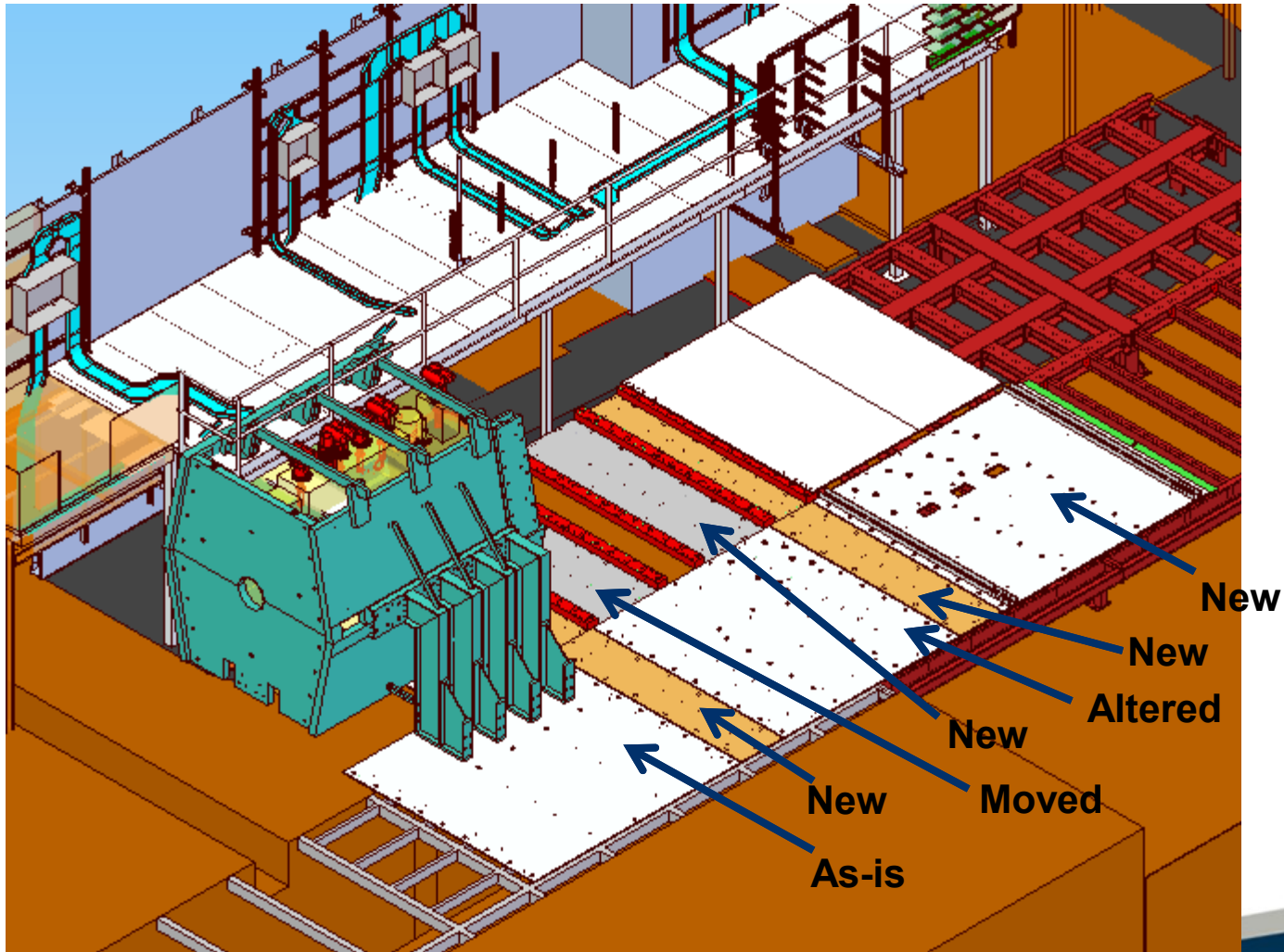
Preparations for services management for:

- Magnet power & instrumentation (DL)
- Compressor hoses (P Barclay)
- RF Waveguides (A Muir)
- Vacuum (M Tucker, P Barclay)
- Etc...

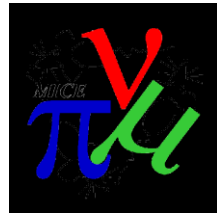
Preparation



- Moving Platform Baseplates (G Stokes, N Collomb)



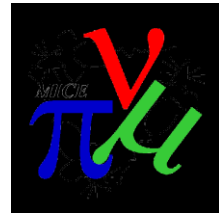
Preparation



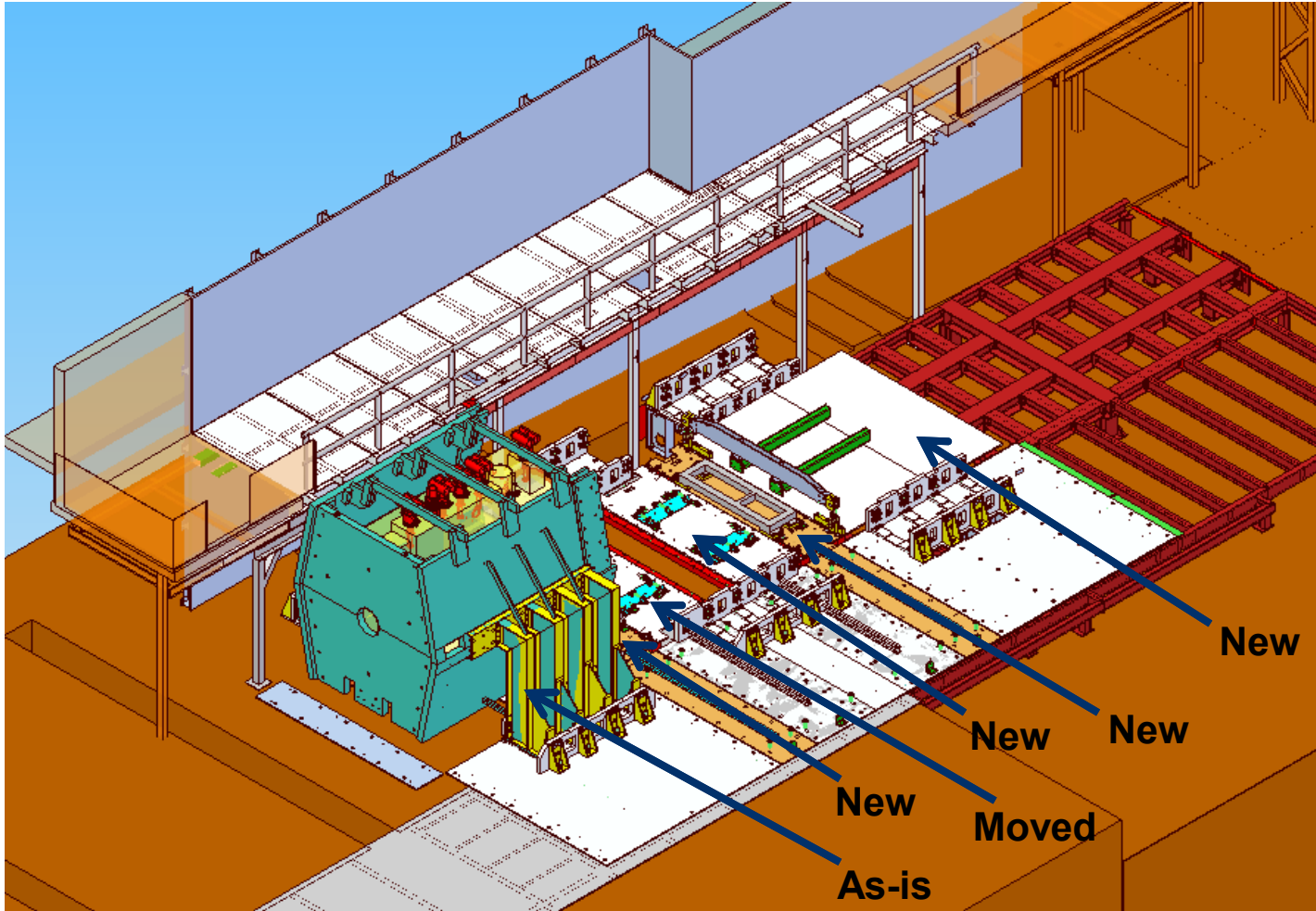
- Deep Clean



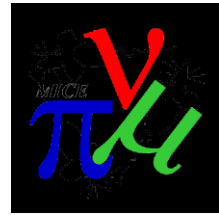
Installation



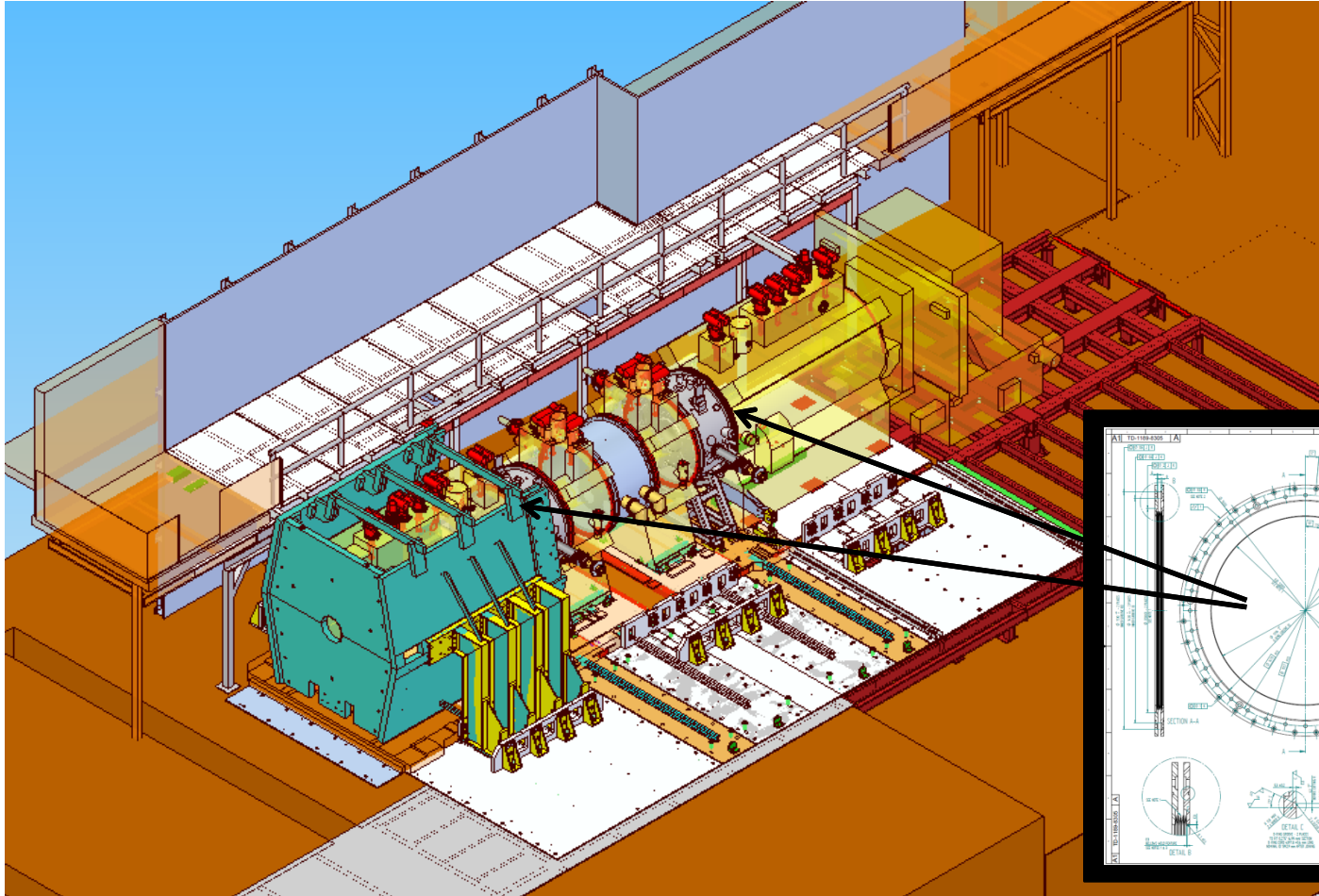
- Moving Platform Install (G Stokes, N Collomb)



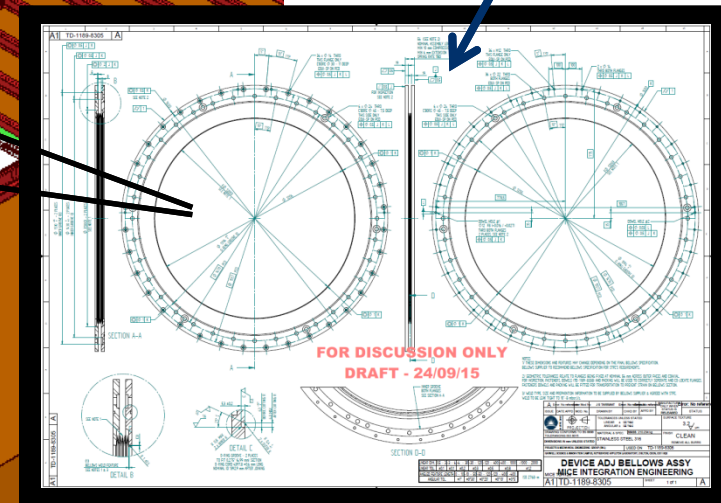
Installation



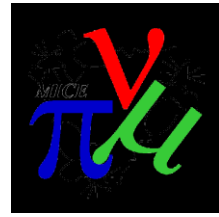
- MICE Cooling Demo Experiment



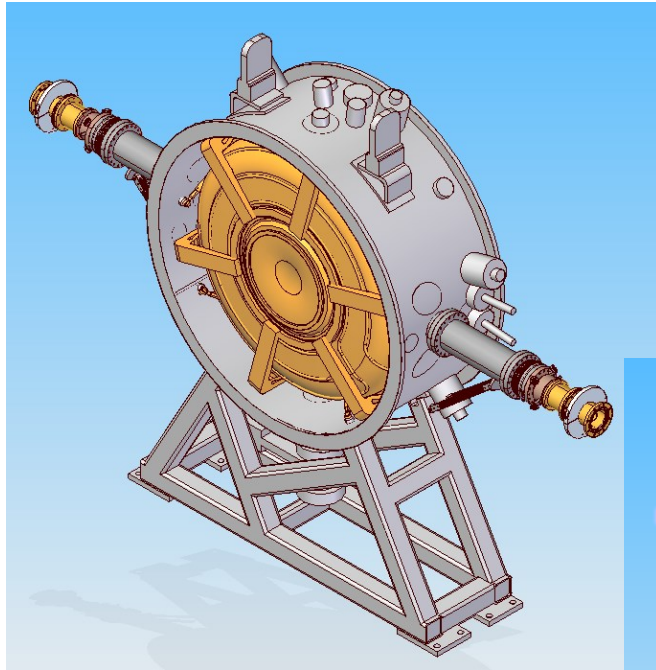
Compensating bellows?



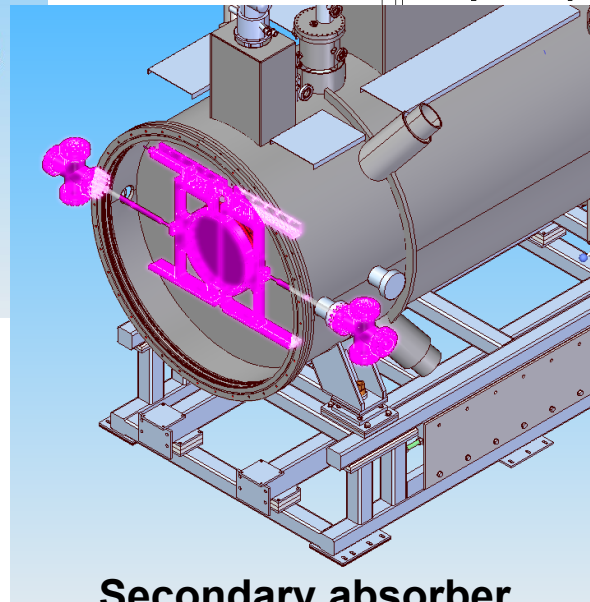
Installation



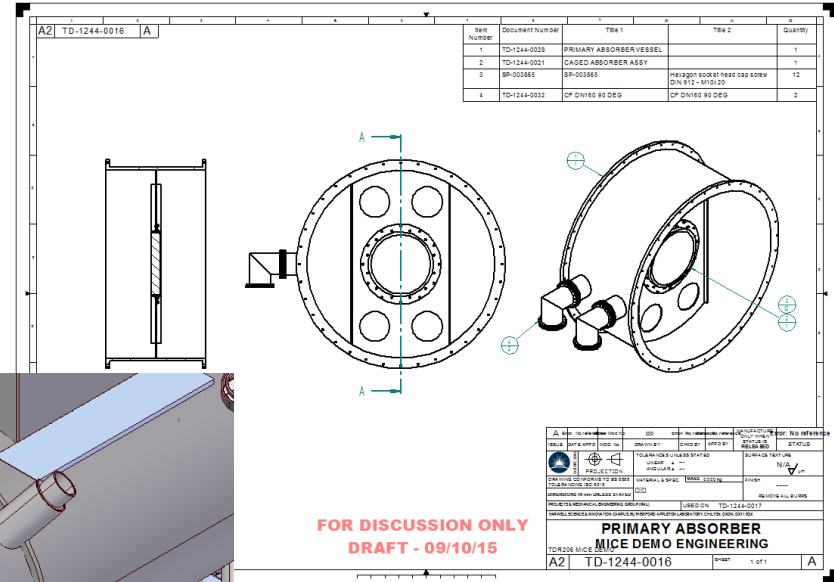
- MICE Cooling Demo Experiment – New devices & components



**RF Device
(A DeMello, T Loew)**



**Secondary absorber
(N Collomb)**

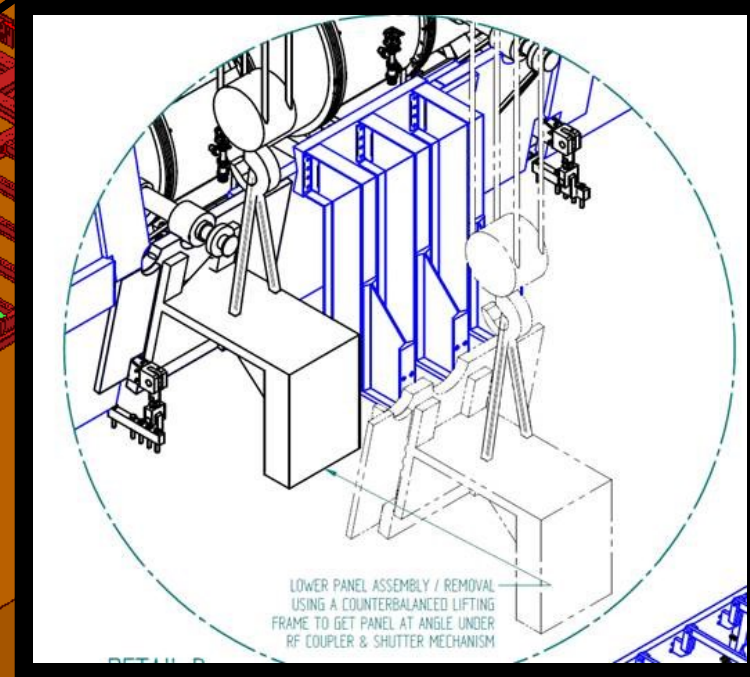
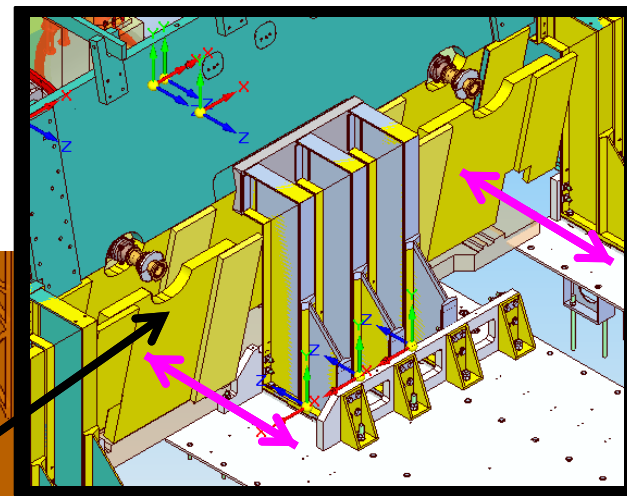


**Primary
Absorber**

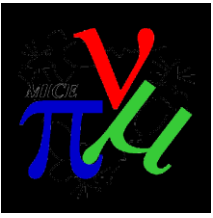


Installation

- Partial Return Yoke (PRY) – H Witte, S Plate



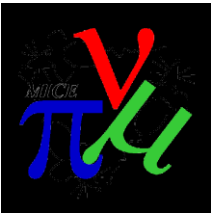
Installation



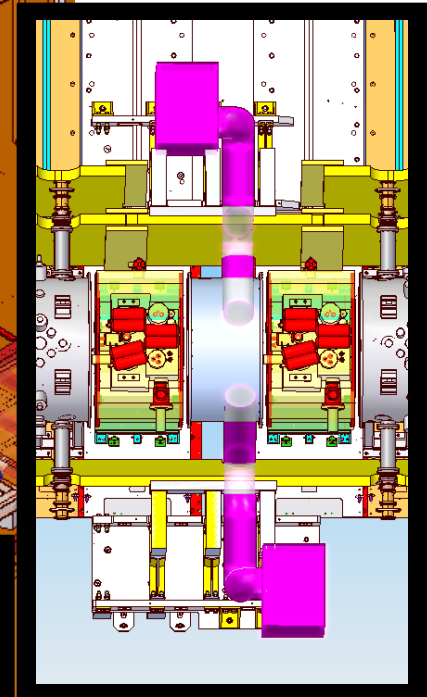
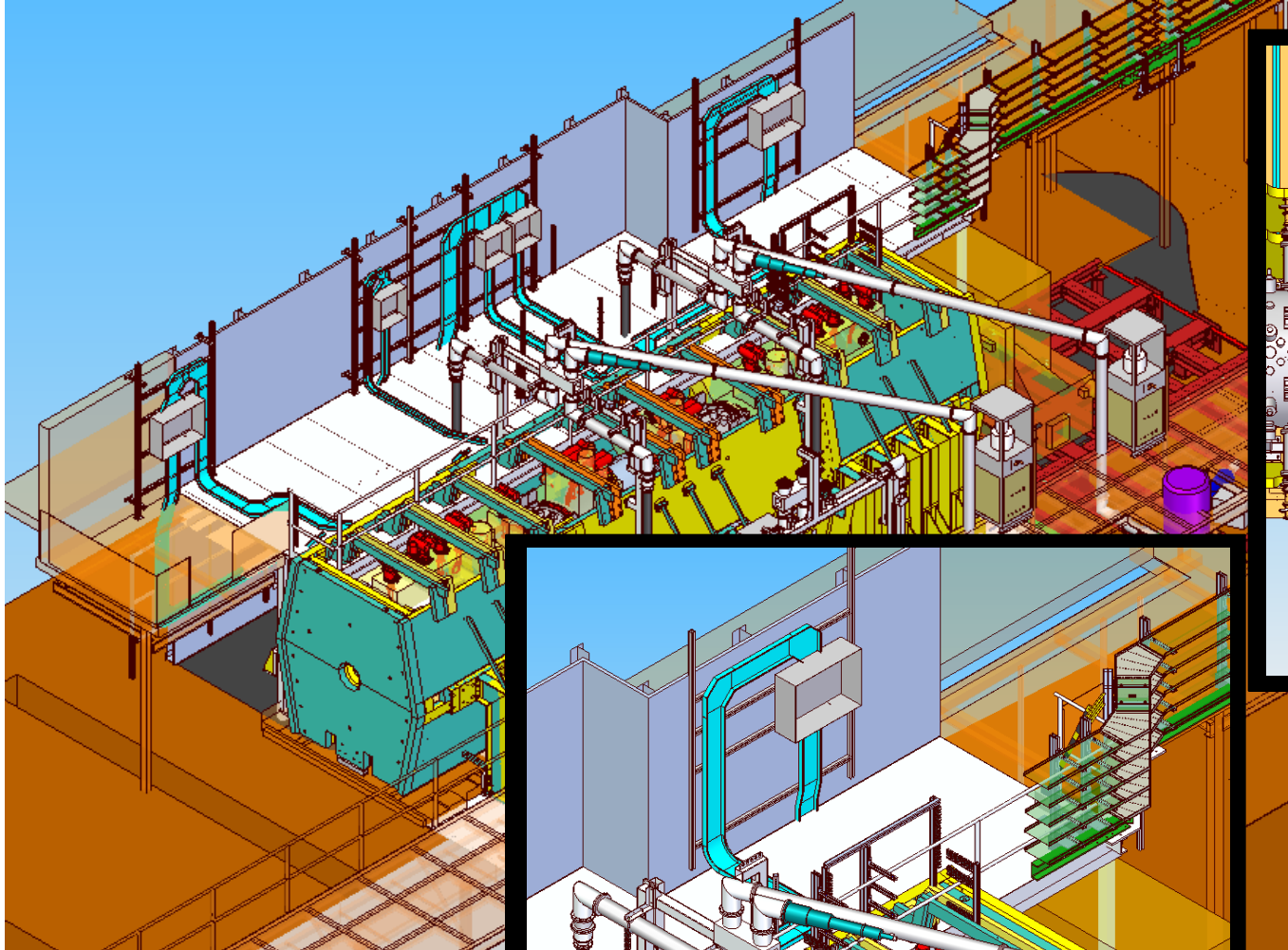
- RF System



Installation



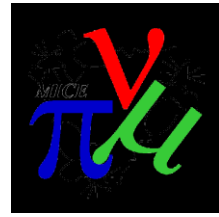
- ...& other Services



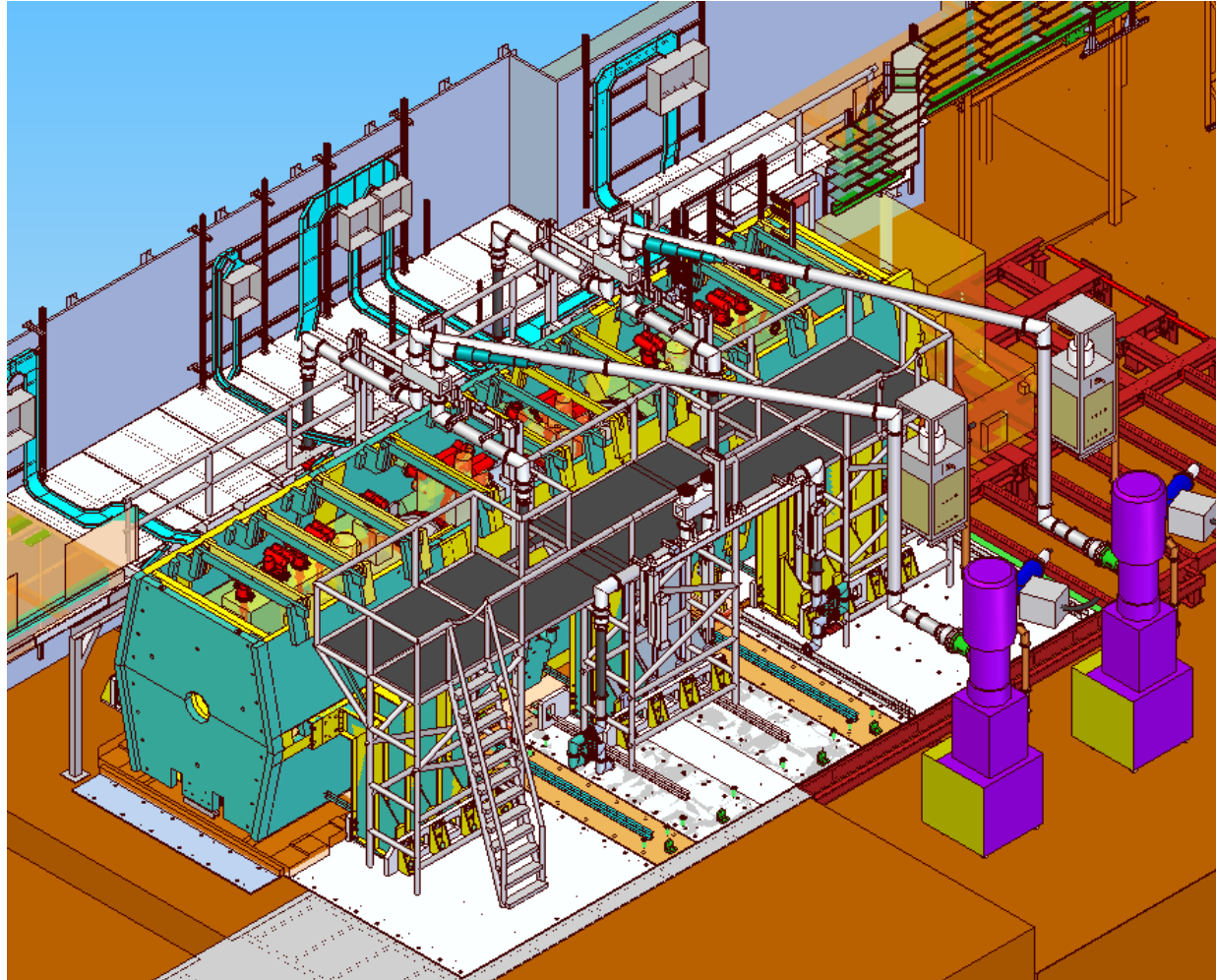
Vacuum

**Magnet cables,
compressors hoses etc.**

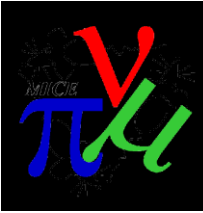
Installation



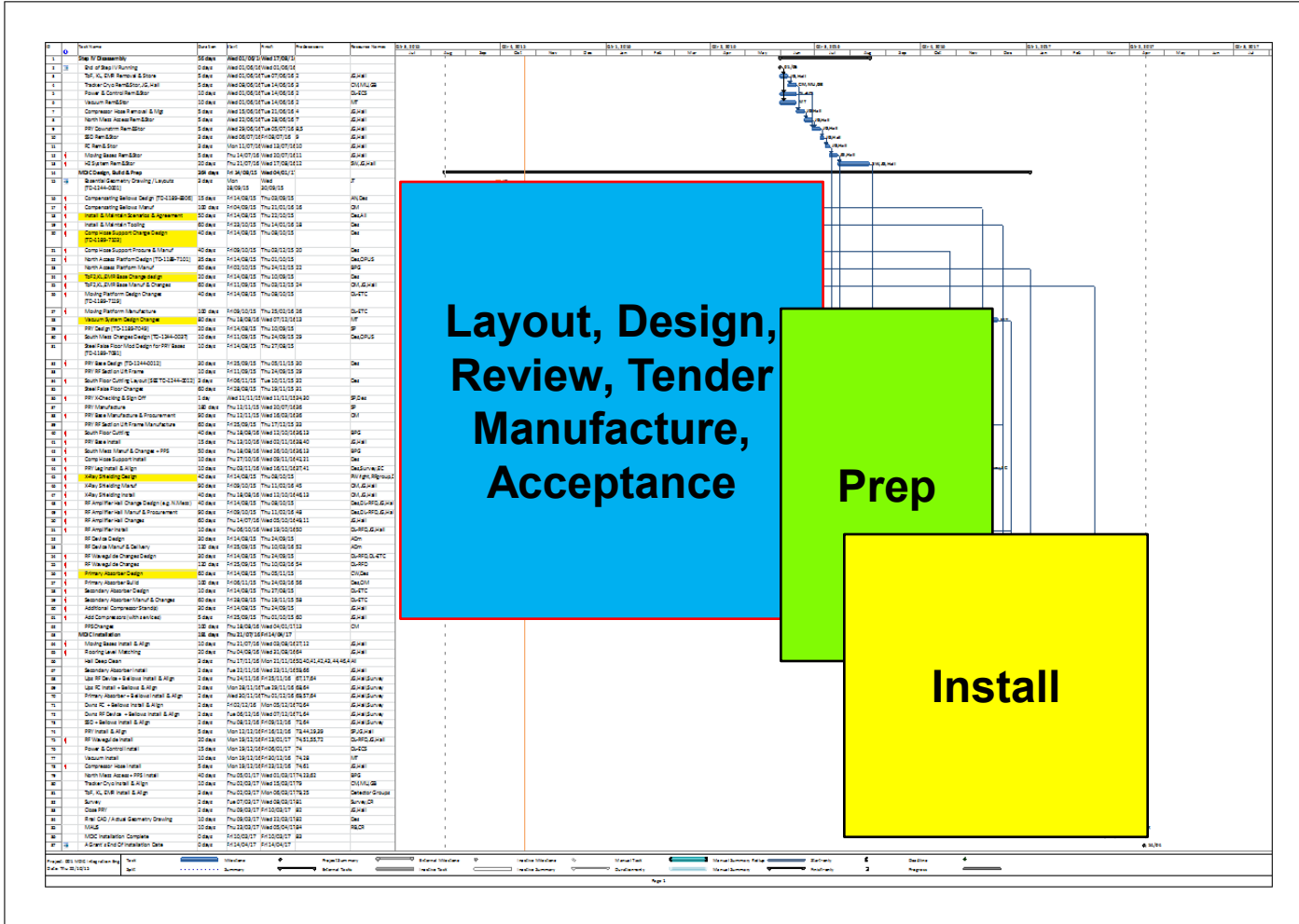
- PRY North Side Access Platform



Schedule



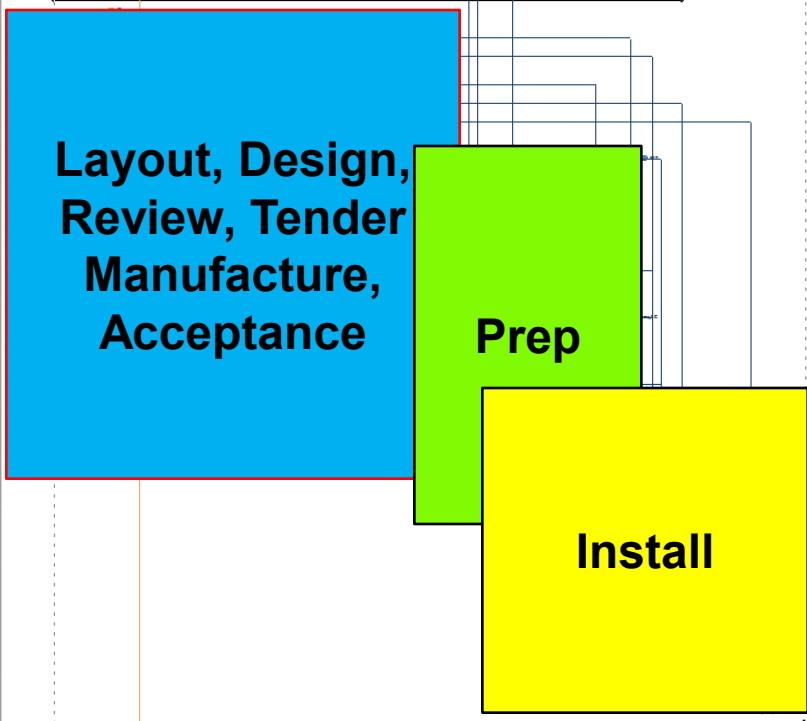
- Schedule



Longer Lead Items e.g.

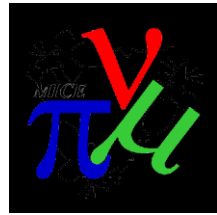
Primary Absorber Vessel (not standard m/c contractor = longer tender?)

PRY Bases (large no. of components ready to go from mid - 2016)



Integration Engineering – Working Schedule

Conclusion



- Engineering changes from Step IV to Cooling Demo
 - Majority of engineering changes based on existing Step IV systems e.g.:
 - Most services, PRY, PRY interfaces, Moving platforms ...
 - 'New' work mostly related to RF system, e.g.:
 - RF devices, RF waveguide routing, Amplifiers, X-Ray shielding...
 - A lot of work already gone into Cooling Demo engineering concepts & designs
 - All of the above 'owned' and design progressing well (most near or in detailing)
 - System interactions being managed (Integration Engineering)
 - Long lead items being identified for more immediate work, e.g.
 - Absorber vessel (outstanding vacuum interactions)
 - PRY interfaces (outstanding vacuum interactions & RF access)