

DUNE-SP

Technical Integration

- C-to-C ICDs
 - Drawings, New and Updated
- Top/Bottom FC Mechanical Interface, examined

April 2nd, 2020

KDZ

Consortium to Consortium ICD (mostly a repeat)

- Two ~~Four~~ full weeks remain between now and the TC submission date.
- When the technical leads are satisfied with their edits, upload the document to EDMS and notify Terri and Kyle.
 - In Word, if you use the Review/Track Changes feature as a tool for editing, please finish and [accept/reject] the changes prior to completion. The same is true for comments left in the margins... these should be cleaned up
- Terri and Kyle will perform a checking step and pass along our collective comments to technical leads.
- At that point we have completed the editing and checking and are confident that the reviewers will be prepared to make an assessment.

Current Status

SCHEDULE TO COMPLETE CONSORTIUM TO CONSORTIUM INTERFACE CONTROL DOCUMENTS				
Not Done Yet	→	Uploaded	→	Checking Complete
Monday February 17 to Friday February 21				
Target Completion:				
2145150 COM and HV		We met briefly at CERN. This interface is not significant and should be non controversial.		
Monday February 24 to Friday February 28				
Target Completion:				
2088706 TPC CE and HV		Met at CERN. Feedback sent Mar. 18		
2088713 TPC CE and DAQ/SC		A parallel session was held at CERN. Feedback sent Mar.24		
2145159 COM and CAL/CI		Met at CERN. Converging week ending April 3rd		
2145145 APA and COM		Talked to Alberto on the phone about tackling this one when I'm at FNAL. Not a significant ICD		
Monday March 2 to Friday March 6				
Target Completion:				
2145146 PDS and COM		Sent out a reminder. DW says its almost done. Projected April 7		
2145158 APA and DAQ/SC		Sent email. Giovanna acknowledged that this interface is not significant. AM confirmed.		
2145142 HV and CAL/CI		Uploaded. Feedback sent Mar. 25		
Monday March 9 to Friday March 13				
Target Completion:				
2088741 CAL/CI and DAQ/SC		Parallel session at CERN. Meeting set for Mar. 19. Converging over email.		
2088738 APA and HV		Uploaded. Feedback sent Mar. 27		
2088735 PDS and APA		Met at CERN and at least one phone call. Projected upload Mar. 25. Mech drawings in decent shape		
Monday March 16 to Friday March 20				
Target Completion:				
2088736 APA and TPC CE		Met at CERN. Mech drawings in decent shape. Draft to AM and CT on Mar.11. AM is reviewing now		
2088720 PDS and TPC CE		Met at CERN. Uploaded. Feedback sent Mar. 27. Mech drawings are okay.		
Monday March 23 to Friday March 27				
Target Completion:				
2145147 TPC CE and COM		Met at CERN. The interface here is very significant. Projected upload April 2		
2088726 PDS and DAQ/SC		Several two group calls have taken place. Projected upload week ending on April 10.		
Monday March 30 to Friday April 3				
Target Completion:				
2088721 PDS and HV		Uploaded. Feedback sent Mar. 27. A couple of mechanical discrepancies need attention		
2145138 TPC CE and CAL/CI		Met at CERN. Uploaded. Feedback sent Mar. 27		
2145151 COM and DAQ/SC		Met at CERN with good discussion. Clear that this is a significant interface. AT is working on it		
Monday April 6 to Friday April 10				
Target Completion:				
2145136 APA and CAL/CI		Temp sensor integration is a primary focus. Version sent over email		
2145137 PDS and CAL/CI		Met at CERN. PD does not want laser fibers on their flange. Things are converging, check back at the end of this week		
2145154 HV and DAQ/SC		Met at CERN. Not controversial		
Monday April 13 to Friday April 17				

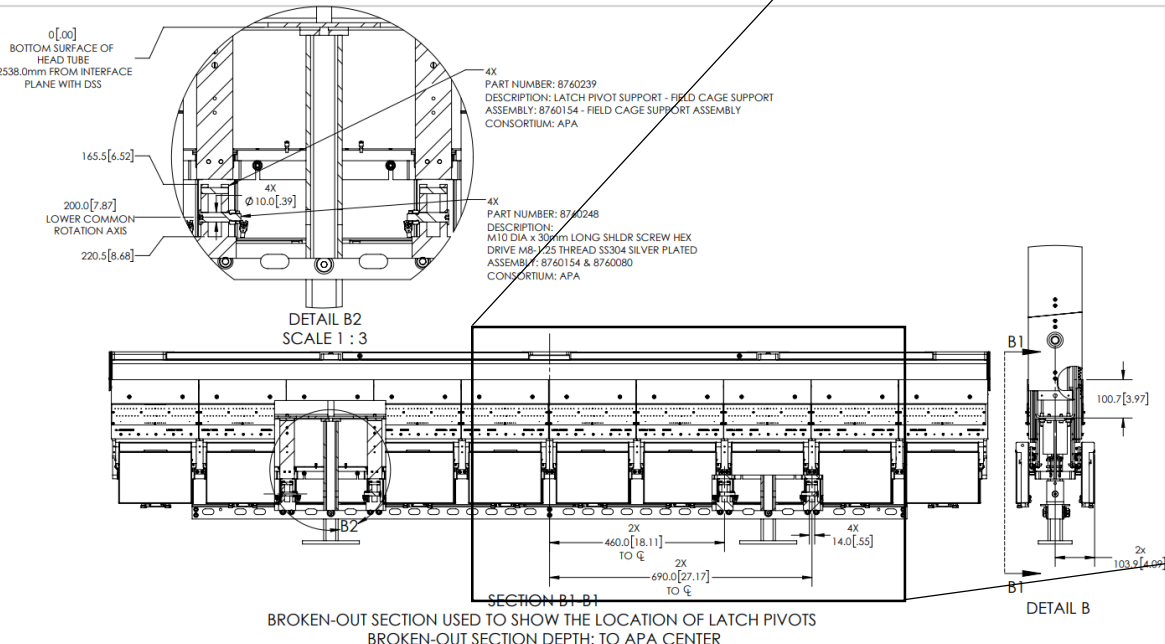
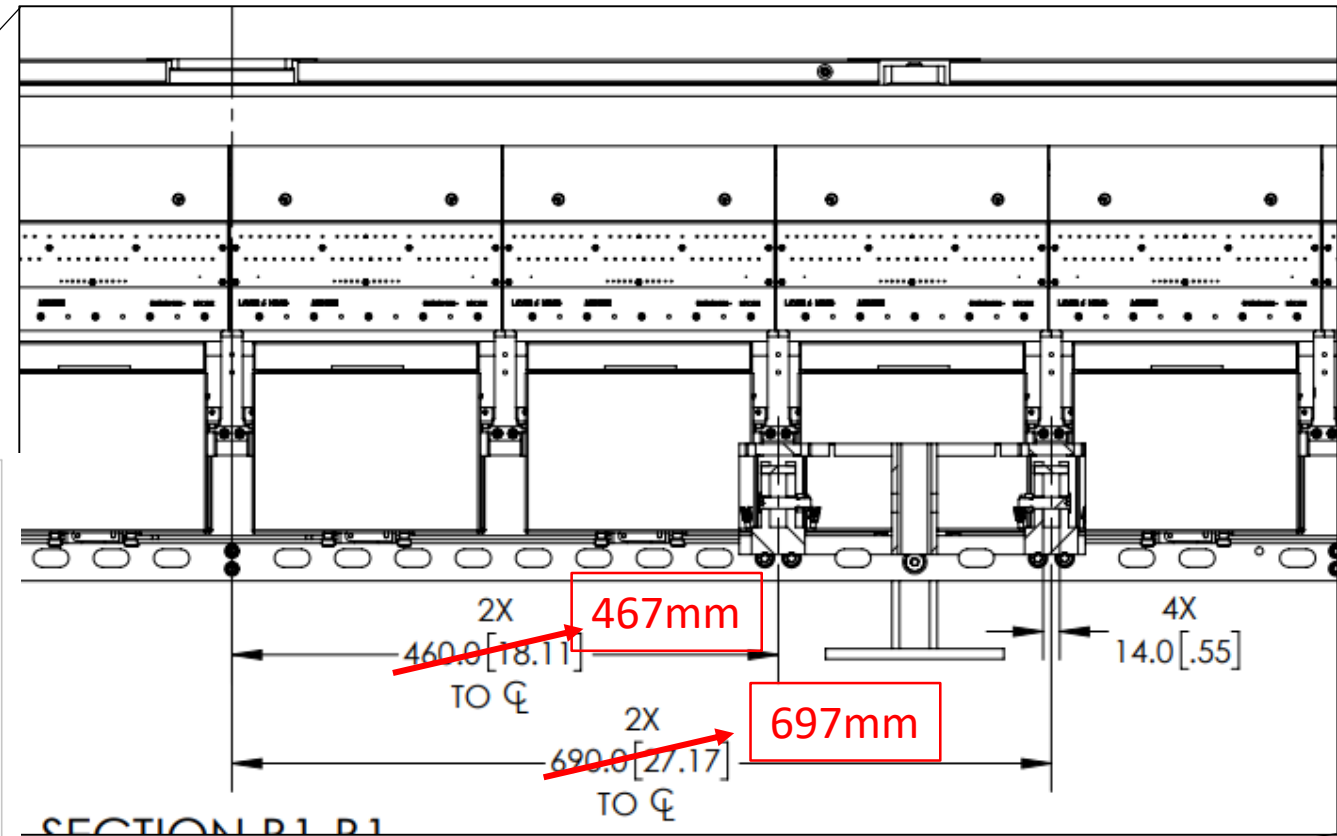
Drawings, New and Updated

- 8760458 HVS to CAL/CI: LASER PERISCOPE ACCOMODATIONS
 - [2145142](#)
 - [2145138](#)
- 8760450 APA AND SHV
 - [2088736](#)
- 8760455 APA AND HV END WALL
 - Sent out for internal review on email
- 8760305 MOUNTING FOR TPC CE CABLES, LOWER
 - [2088736](#)
- 8760459 APA AND CAL/CI PE LASER FIBER ACCOMODATIONS
 - Working on it, not sent out yet

Top/Bottom FC Mechanical Interface

- It recently came to my attention that a change to the APA and HVS mechanical interface, at the top and bottom field cage, was proposed.
- Are there implications elsewhere?
- In the following slides, I've marked up drawings to demonstrate my understanding of what is being proposed.
- **To be taken offline**

EDMS 2088738, 8760307, SHEET 3



MATL:	PART FINISH:	ASME Y14.5-2009 APPLIES	DESIGN: KQZ
PROJECT: DUNE		UNLESS NOTED	CHK'D:
INTERFACE DRAWING		APPROV:	
APA & HV INTERFACE		DRAWING: B	SCALE: 1:7.5
USE OR:		SHEET: 3 OF 4	DWG NO: 8760307

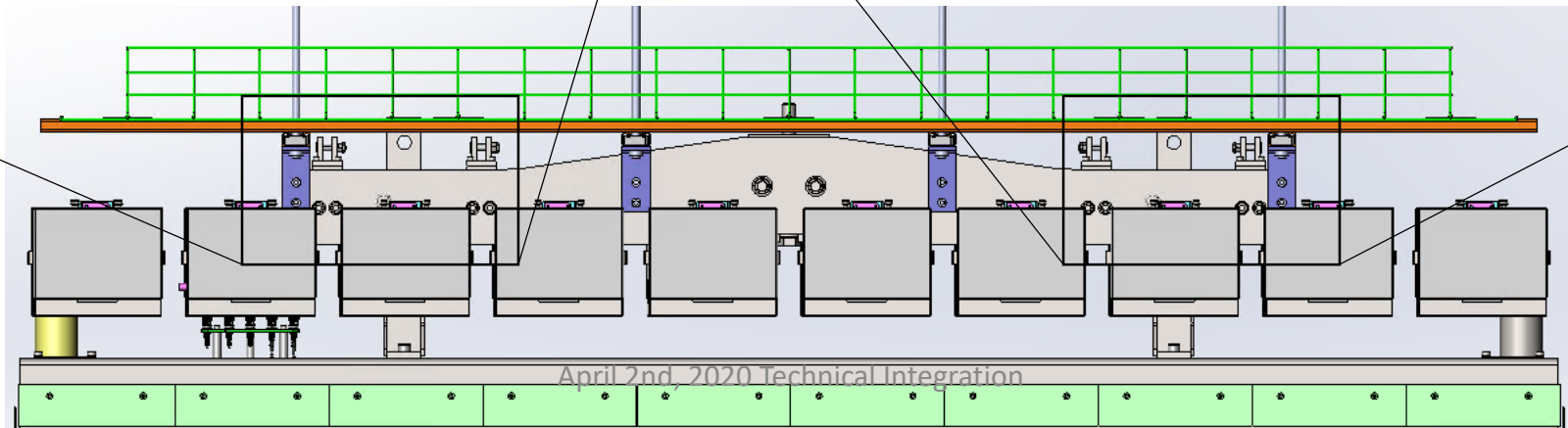
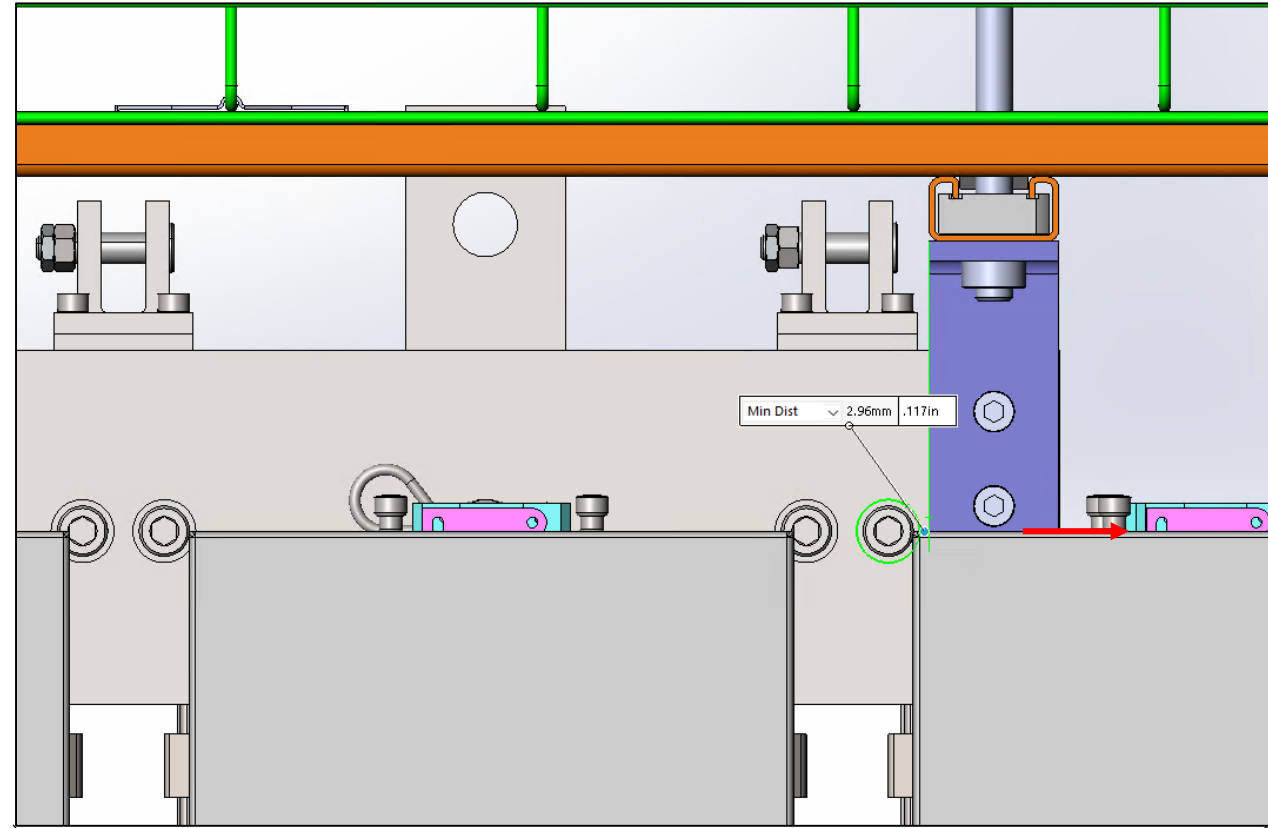
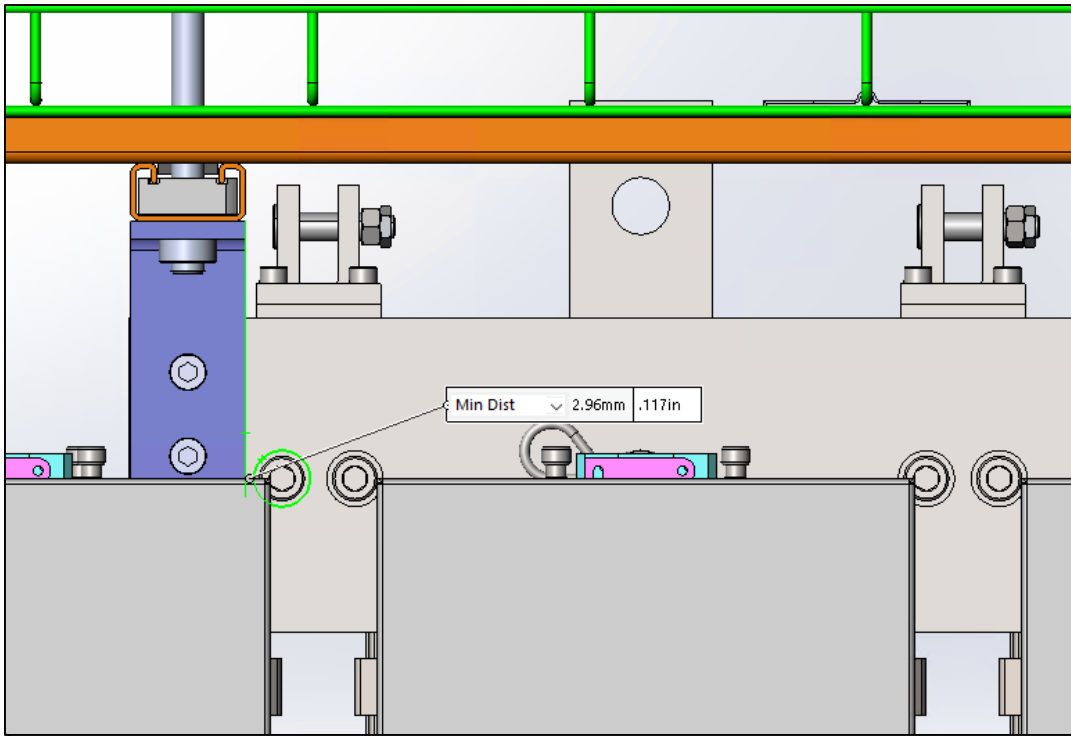
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(608) 877-2200

2nd, 2020 Technical Integration

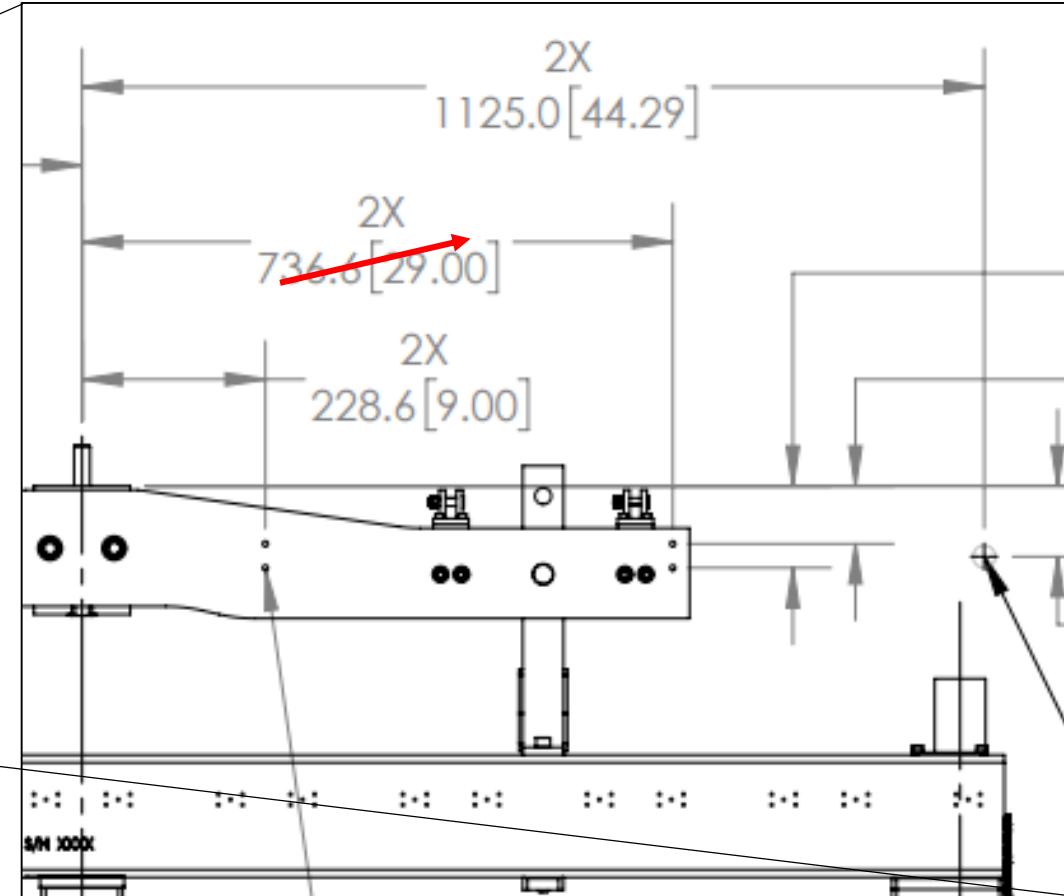
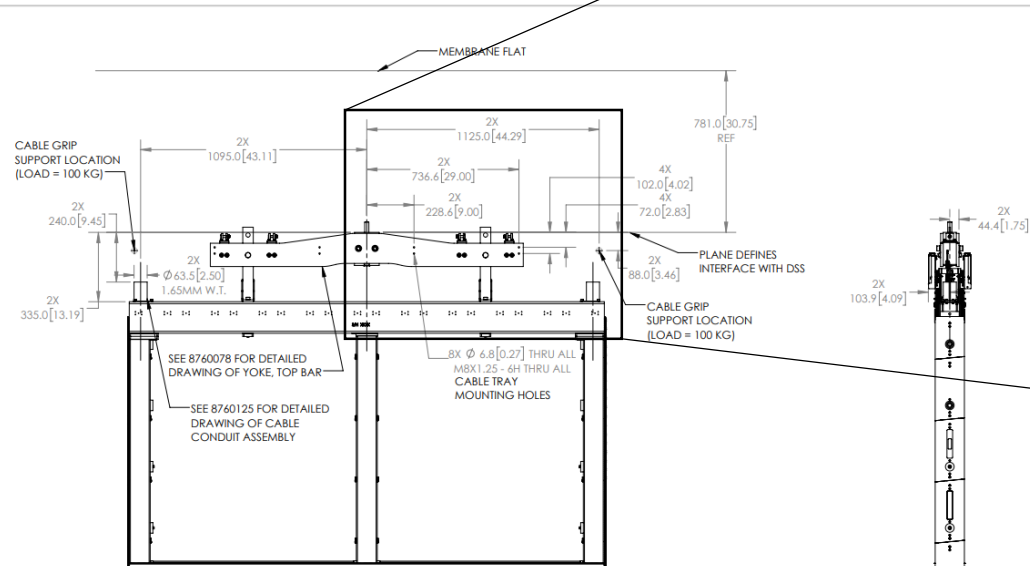
8760307

DESIGNED WITH SUBPLOT

Images from Model Space




EDMS 2088736, 8760300, SHEET 1



NOTE: THIS DRAWING IN THIRD ANGLE PROJECTION

MATL:	PART FINISH:
PROJECT:	DUNE
ASSEMBLY:	INTERFACE DRAWING
DESCRIPTION:	MOUNTING FOR CE CABLES, UPPER
DATE:	08/01/20

ASME Y14.5-2009 APPLIES	DRAWN:	KDZ
UNLESS NOTED OTHERWISE	CHECKED:	
2 PLACE: #0.1	DRAWING:	B
3 PLACE: #0.2	SIZE:	
4 PLACE: #0.4	SCALE:	1:15
ANGULAR: # 0.5 DEGREES	SHEET:	1 OF 1


PHYSICAL SCIENCES LABORATORY
UNIVERSITY OF WISCONSIN
 April 27th 2020 Technical Integration
 8760300
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]

PSL/YOUNG/DUNE INTERFACE/8760300

Images from Model Space

- The model shows 10.1mm of minimum clearance to a CE box
- After moving the pivots this will shrink by 7mm

