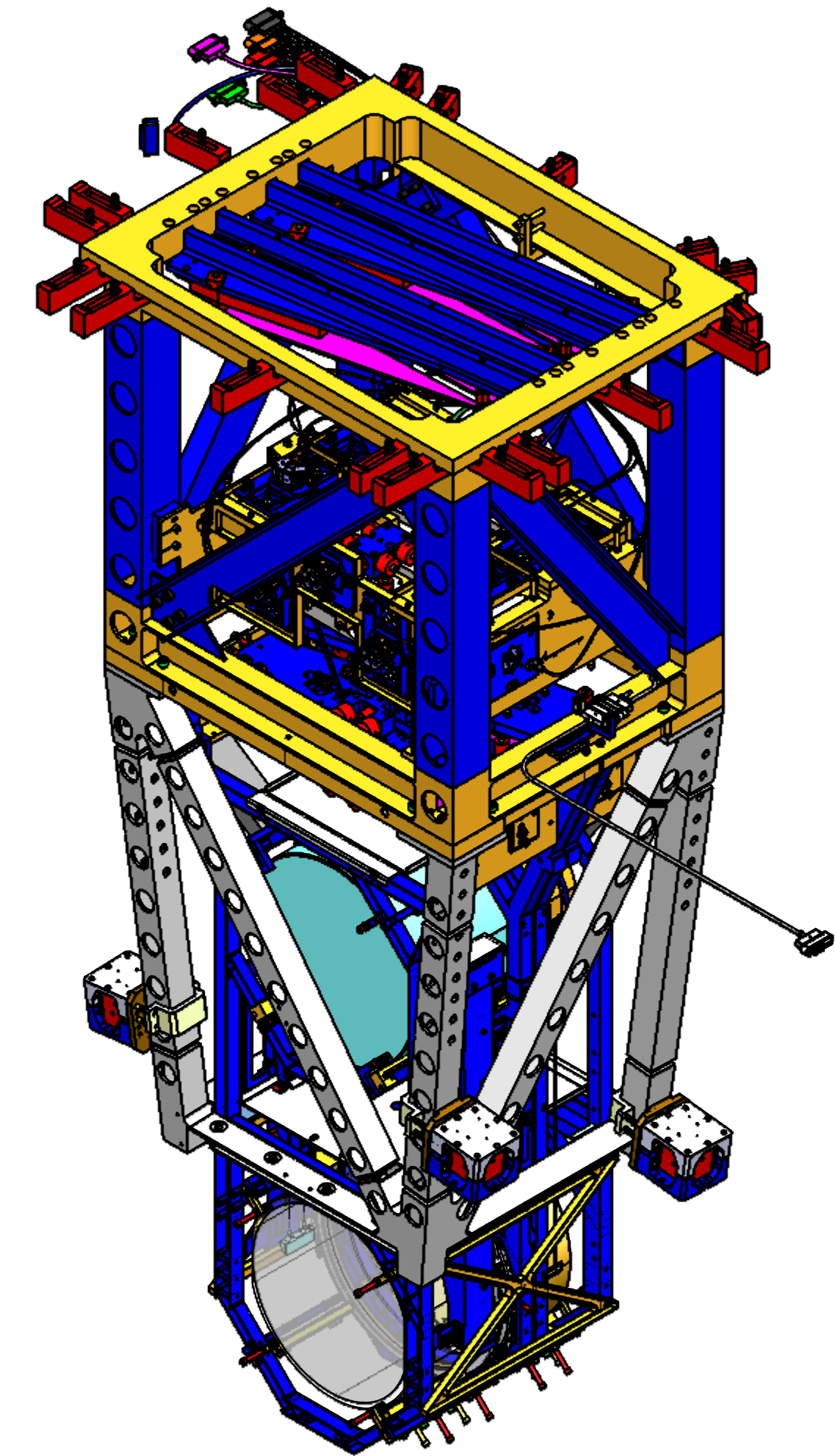
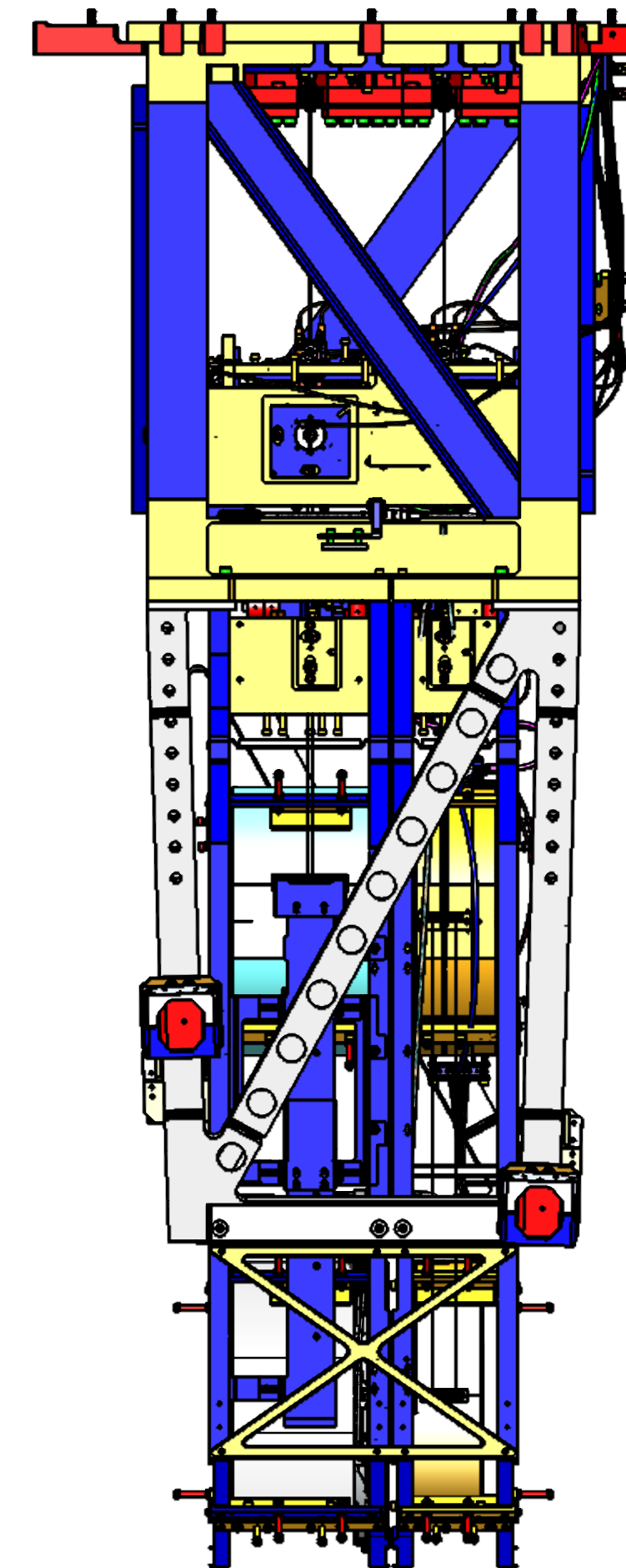
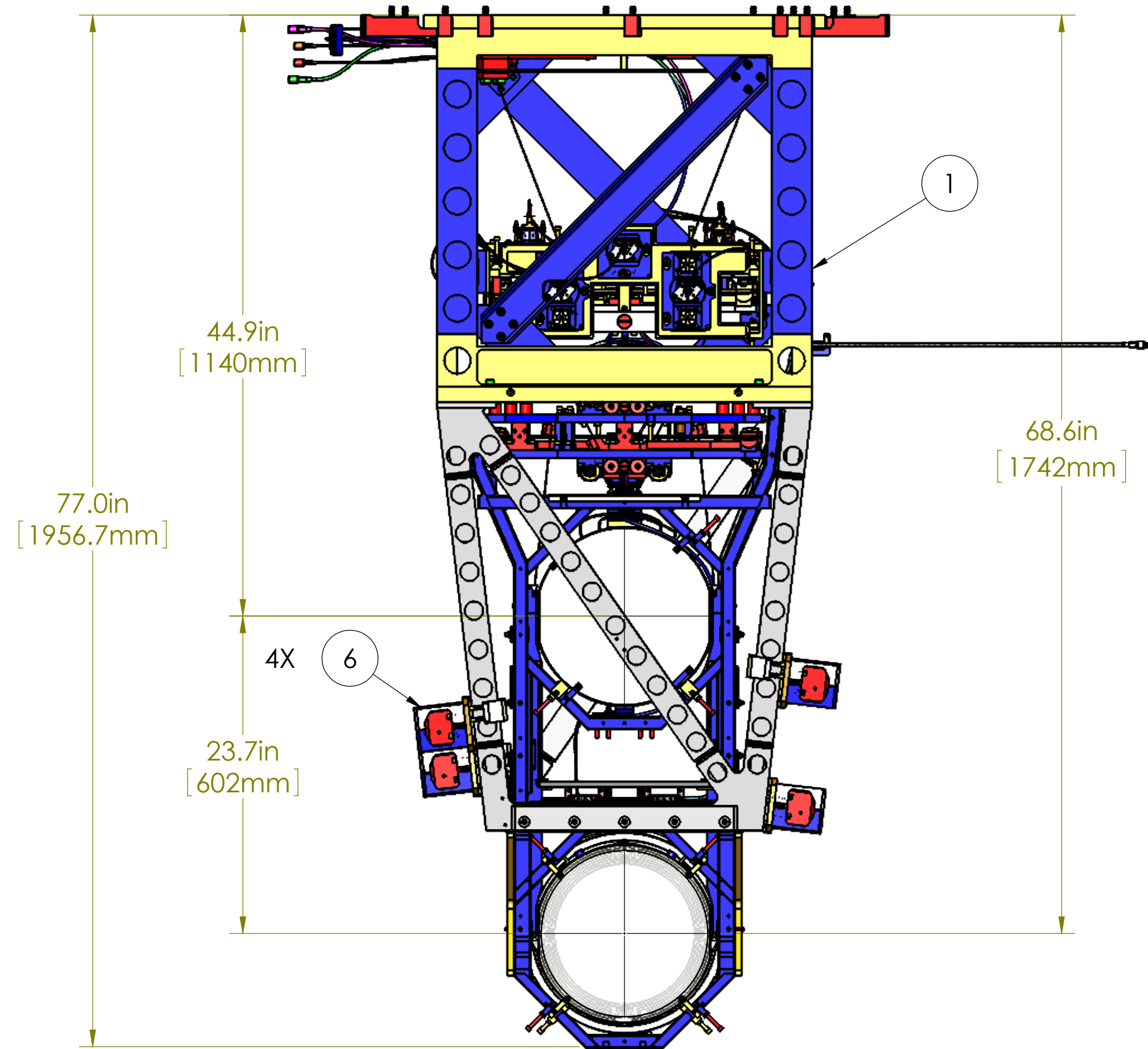
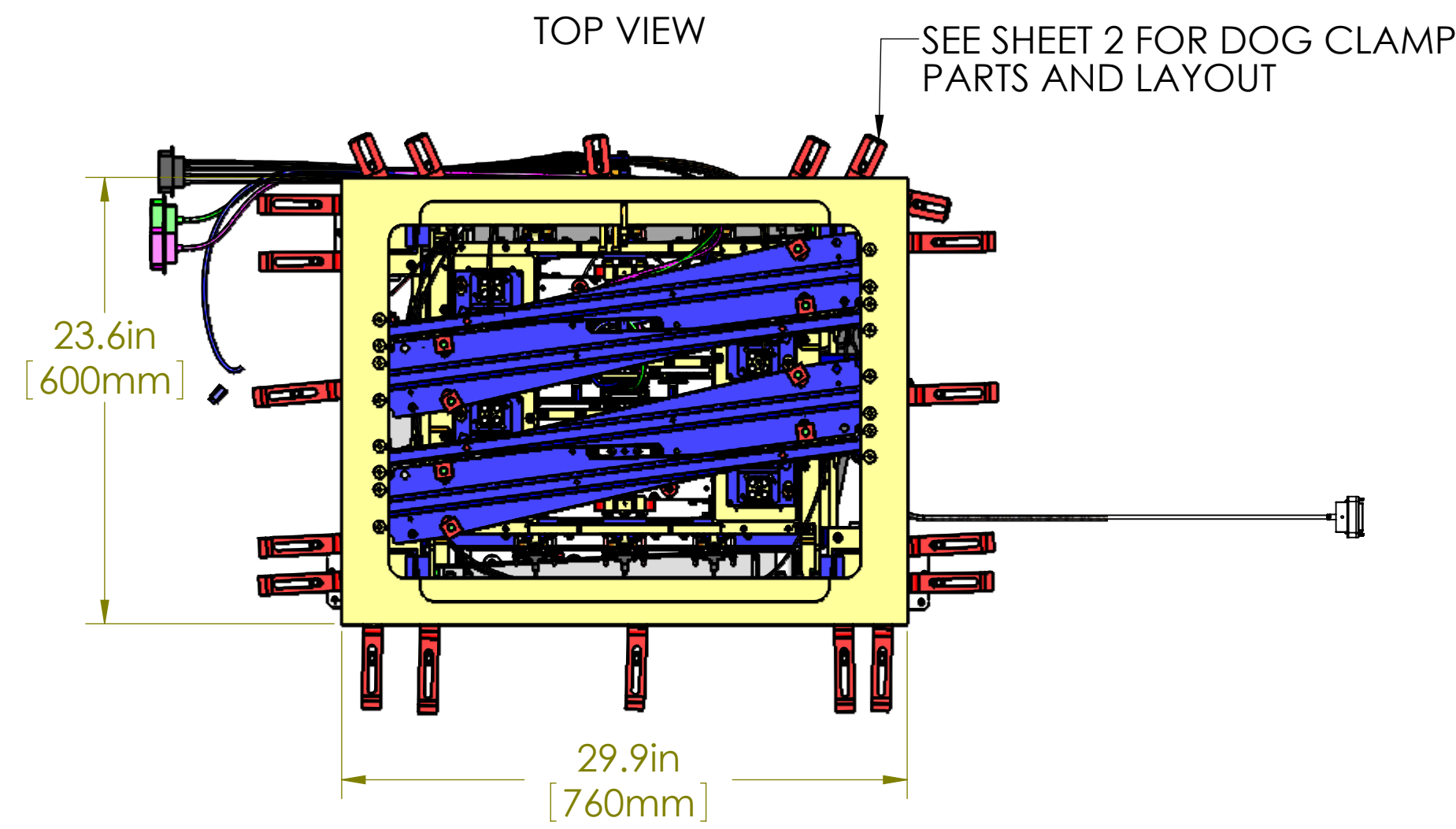


| REV. | DATE | DCN # | DRAWING TREE # |
|------|-------------|-------|----------------|
| v5 | 21 NOV 2011 | - | - |
| v6 | 12 DEC 2011 | - | - |
| v7 | 28 JUN 2012 | - | - |



ISO VIEW

LOCAL COORDINATES - REFERENCE

| Xmm | Ymm | Zmm | Yaw |
|-------|--------|-------|------|
| 200.0 | -472.3 | -80.0 | 0.0° |

SEE PAGE 4 FOR CS DEFINITION

| NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED) | |
|--|-----------|
| DIMENSIONS ARE IN INCHES | |
| TOLERANCES: .XX ± .03 .XXX ± .010 | |
| ANGULAR ± .5° | |
| MATERIAL | FINISH |
| SEE BOM | N/A μinch |

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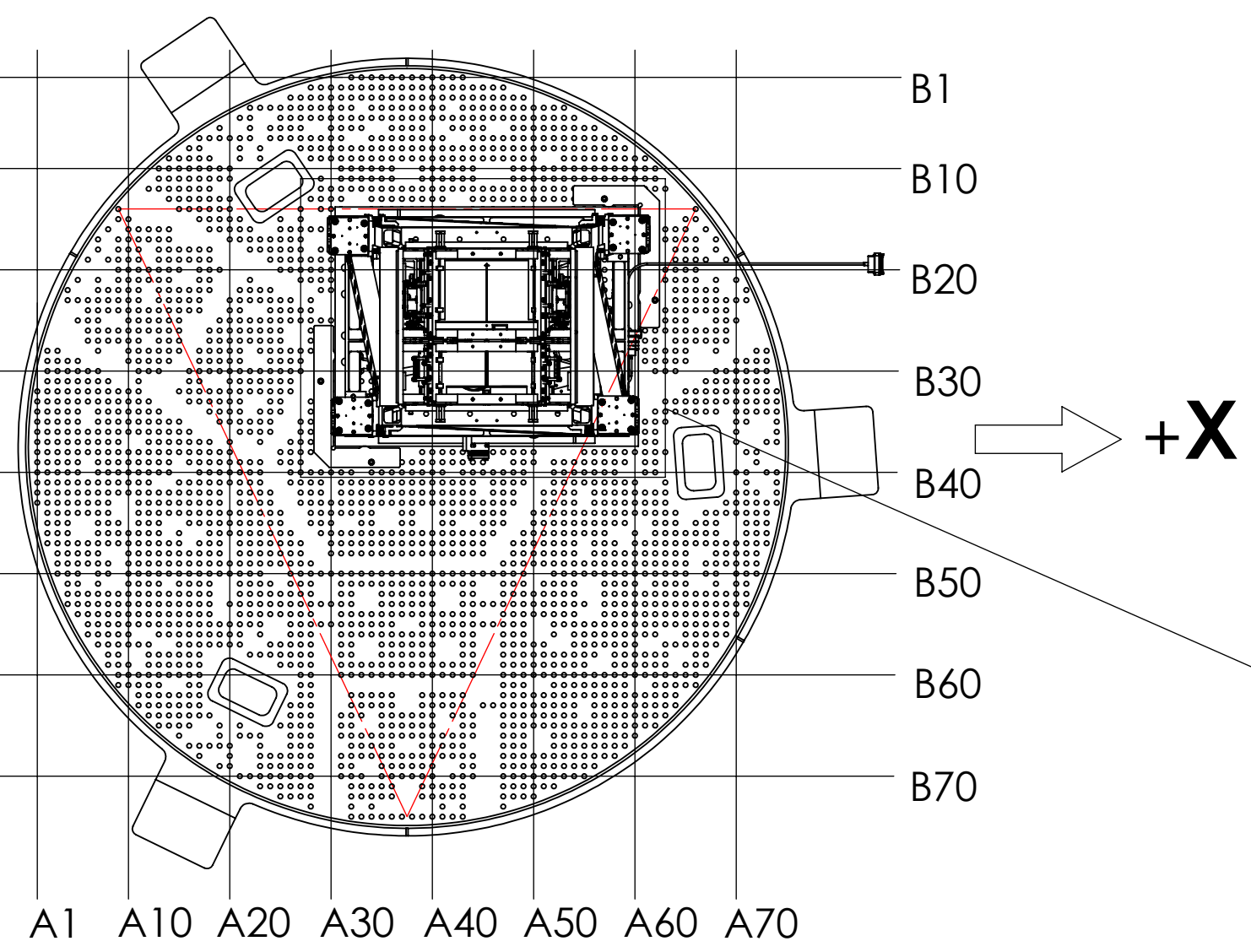
SYSTEM: ADVANCED LIGO SUB-SYSTEM: SUS

NEXT ASSY: D0900512

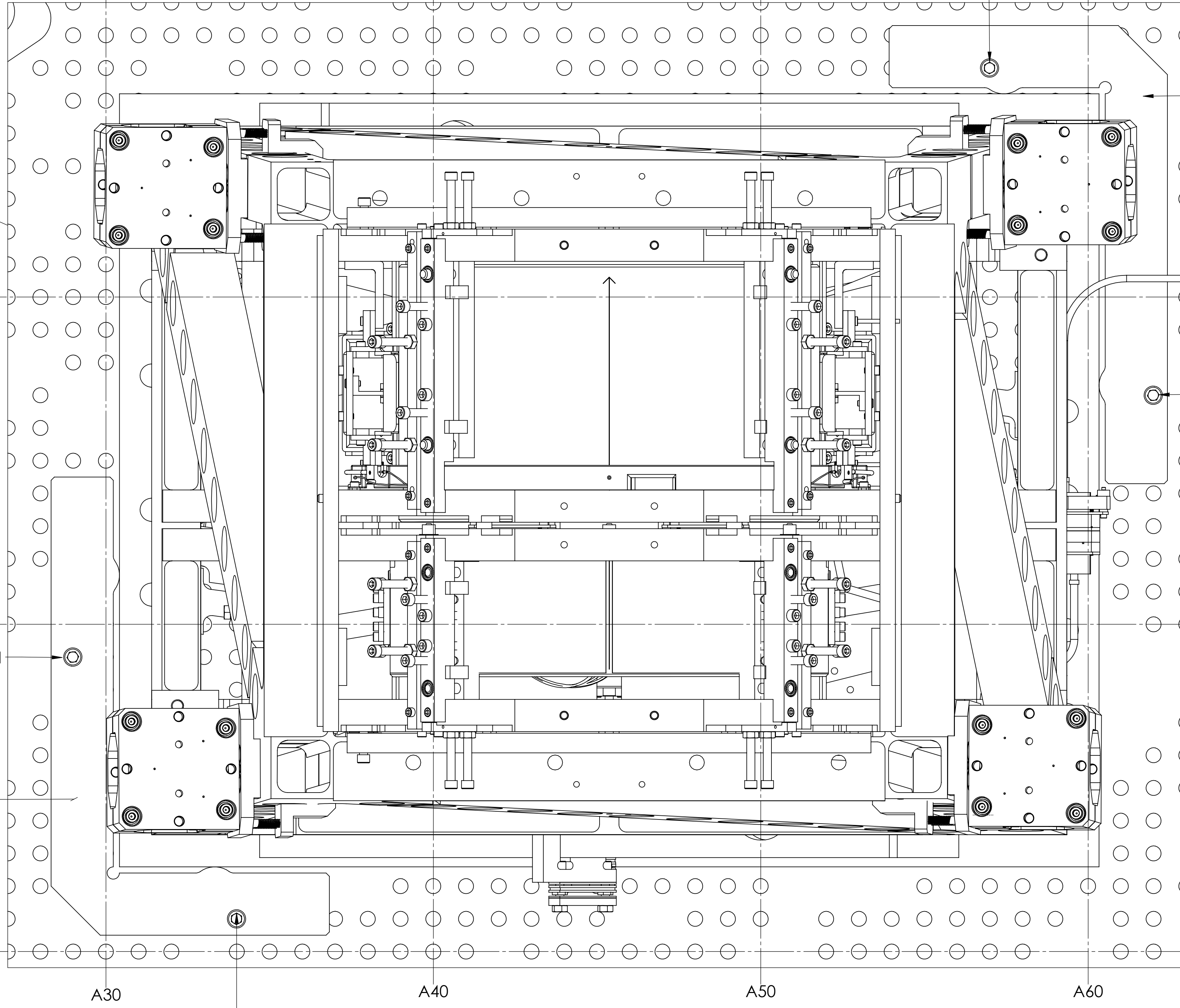
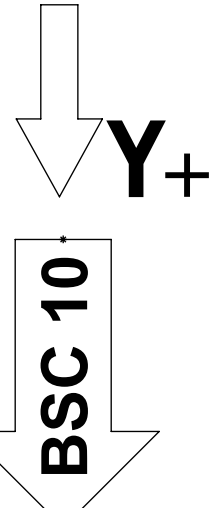
| PART NAME | | PARTS LIST | | PART NAME | |
|--|-----------|--------------|------------|--|--------------|
| AdvLIGO SUS BSC6-H2, XYZ Local CS for ETMY | | | | AdvLIGO SUS BSC6-H2, XYZ Local CS for ETMY | |
| DESIGNER | J.ODELL | 9 Aug. 2009 | SIZE | DWG. NO. | REV. |
| DRAFTER | M.HILLARD | 30 June 2011 | D | D0900515 | v7 |
| CHECKER | E.CHAVEZ | 30 June 2011 | SCALE: 1:8 | PROJECTION: | SHEET 1 OF 9 |
| APPROVAL | C.TORRIE | 30 June 2011 | | | |

| ITEM NO. | PART NUMBER | DESCRIPTION | MATERIAL | QTY. |
|----------|---------------|---|-------------|------|
| 6 | D1002424 | VIBRATION ABSORBER ASSEMBLY | N/A | 4 |
| 5 | 3AJ1.500-12CL | 3/8-16 X 1.50 12PT BOLT | 450 SSSL | 20 |
| 4 | D1100785-620 | duplicate do not use | NITRONIC 60 | 20 |
| 3 | D1003190 | ALIGO QUAD SHORTER DOG CLAMP | 304 SSSL | 6 |
| 2 | D070056 | ALIGO, SUS, QUAD N-PTYPE, QUAD DOG CLAMP | 304 SSSL | 14 |
| 1 | D0901346-03 | ALIGO SUS QUAD ITM SUS ASSY TOP LEVEL TD-1084-090 | N/A | 1 |


D:\090515_Adm\LIGO_SUS_BSC6-H2_XYZ_Local_CS_for_ETMY.PART_PDM_REV.X-278.DRAWING_PDM_REV.X-012



ISI TABLE
UNDERSIDE VIEW
(LOOKING UP)



SCREW HOLE: A57, B13

 D1101050-7
LABELED 'BSC6-B'

B20

SCREW HOLE: A62, B23

B30

SCREW HOLE: A29, B31

 D1101050-5
LABELED 'BSC6-A'

B40

A30


A40



A50

A60

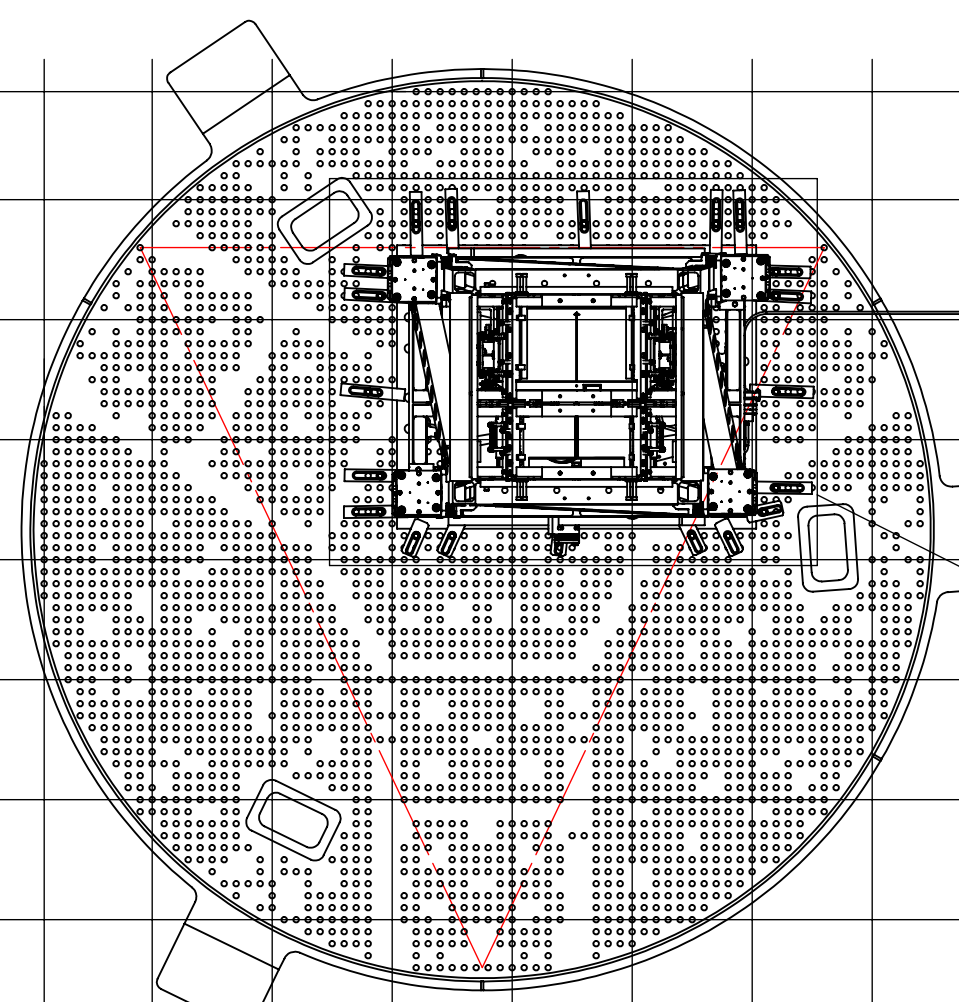
SCREW HOLE: A34, B39

DETAIL A
SCALE 1 : 2

3. REFER TO D1101271 FOR OPTICAL TABLE HOLE TABULATION CONVENTION.
 2. REFER TO G1000125 FOR ISI NAMING CONVENTION AND ORIENTATION CONVENTION.
-  USE ONLY ONE (1) ALIGNMENT TOOL. REMOVE AFTER ETMY IS CLAMPED TO ISI TABLE.

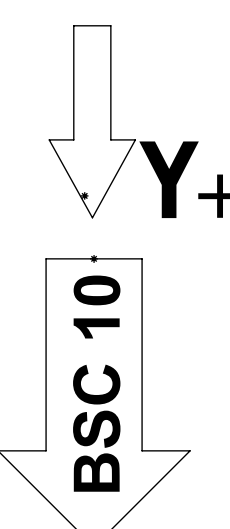
| | |
|---|---|
|  CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY | |
| SIZE DWG. NO. | REV. |
| D D0900515 | v7 |
| SCALE: 1:5 | PROJECTION:  |
| SHEET 2 OF 9 | |

D:\0900515_A04\LIGO_S116_BSC6-H2_XYZ Locs CS for ETMY_PART.PDM REV: X-278_DRAWING_PDM_REV: X-012



A1 A10 A20 A30 A40 A50 A60 A70

ISI TABLE
UNDERSIDE VIEW
(LOOKING UP)



SCREW HOLE: A29, B16

SCREW HOLE: A29, B18

SCREW HOLE: A28, B26

SCREW HOLE: A29, B33

SCREW HOLE: A29, B36

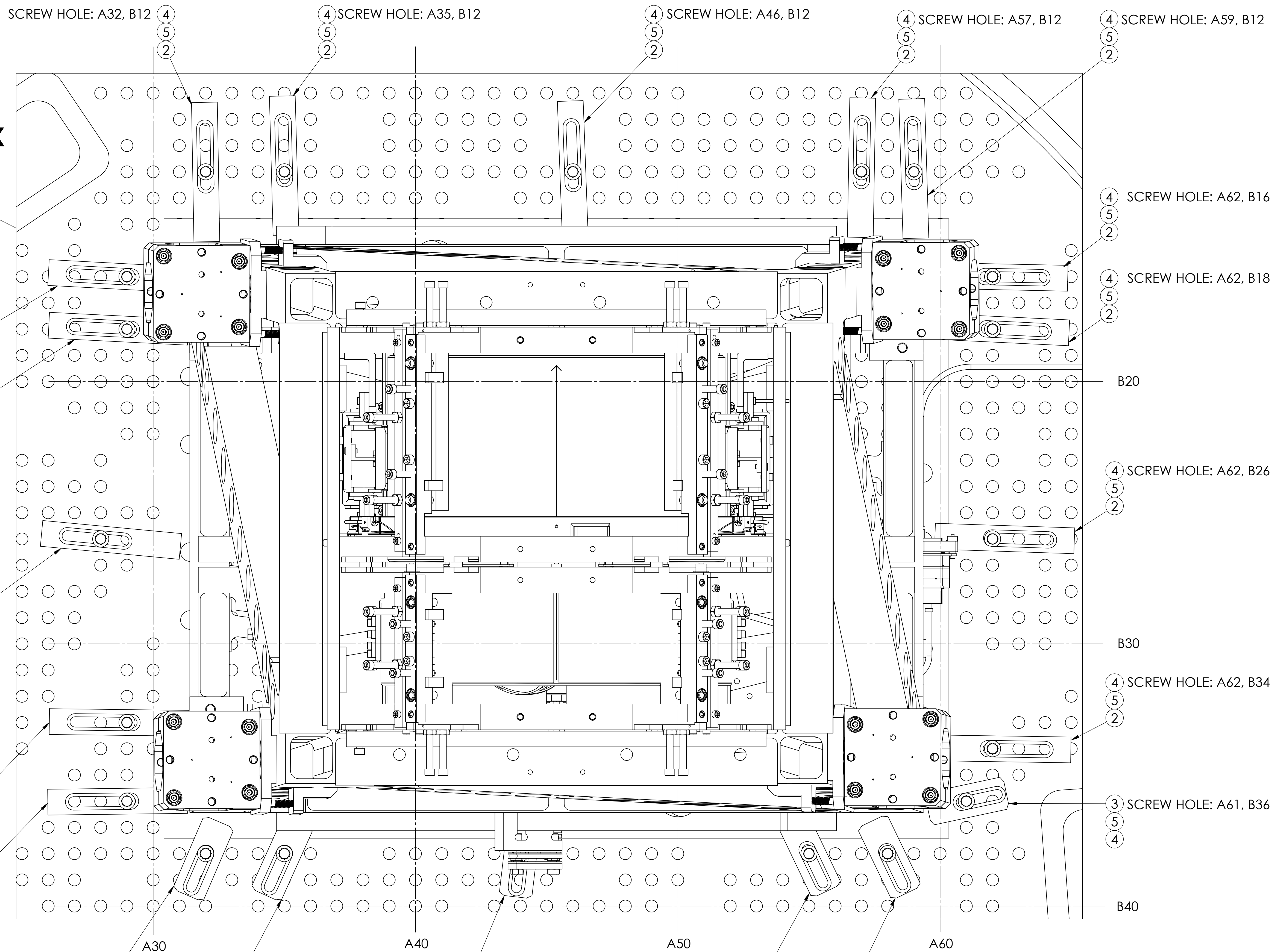
SCREW HOLE: A32, B38

SCREW HOLE: A35, B38

SCREW HOLE: A44, B38

SCREW HOLE: A55, B38

SCREW HOLE: A58, B38



SCREW HOLE: A32, B12

SCREW HOLE: A35, B12

SCREW HOLE: A46, B12

SCREW HOLE: A57, B12

SCREW HOLE: A59, B12

SCREW HOLE: A62, B16

SCREW HOLE: A62, B18

SCREW HOLE: A62, B26

SCREW HOLE: A62, B34

SCREW HOLE: A61, B36

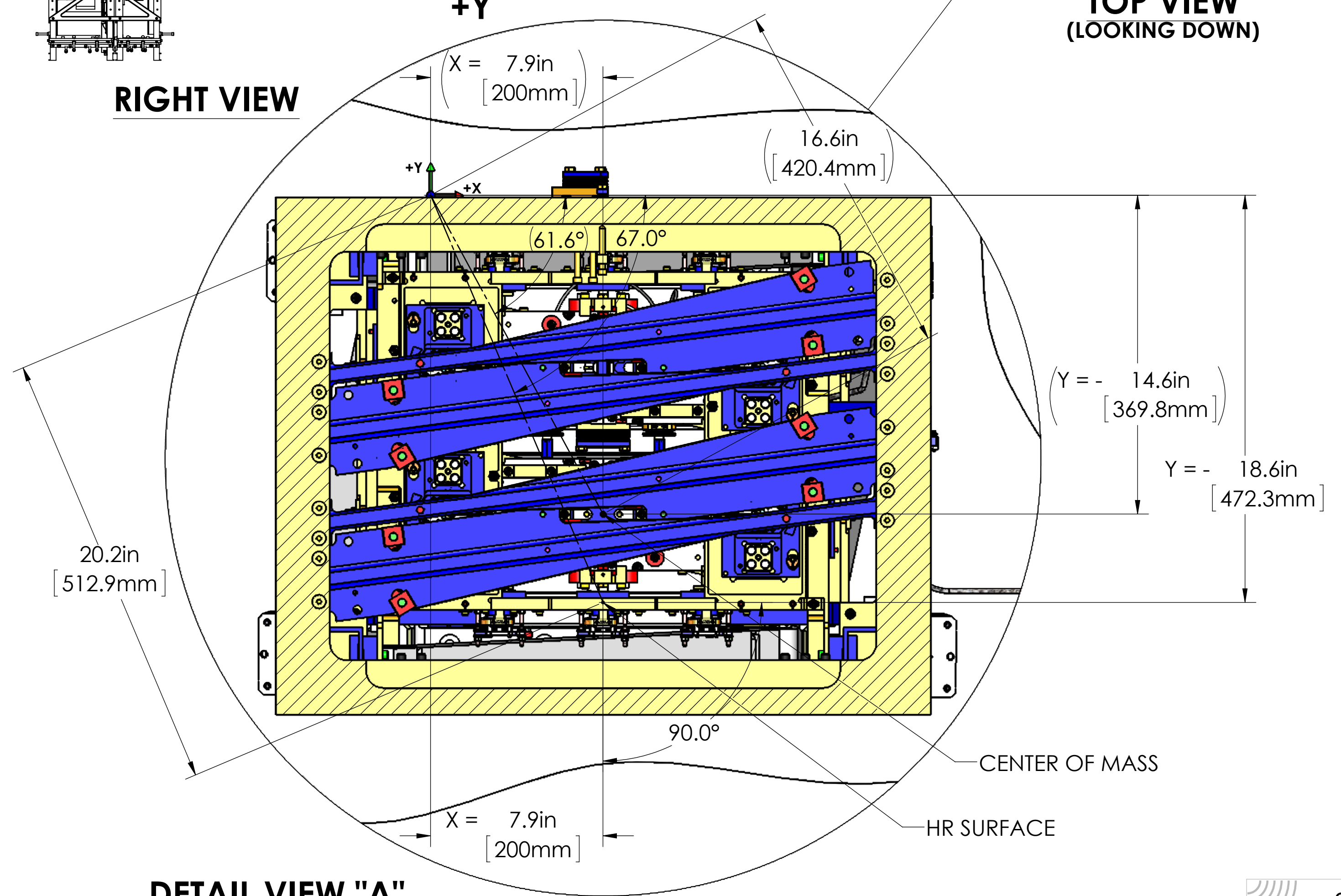
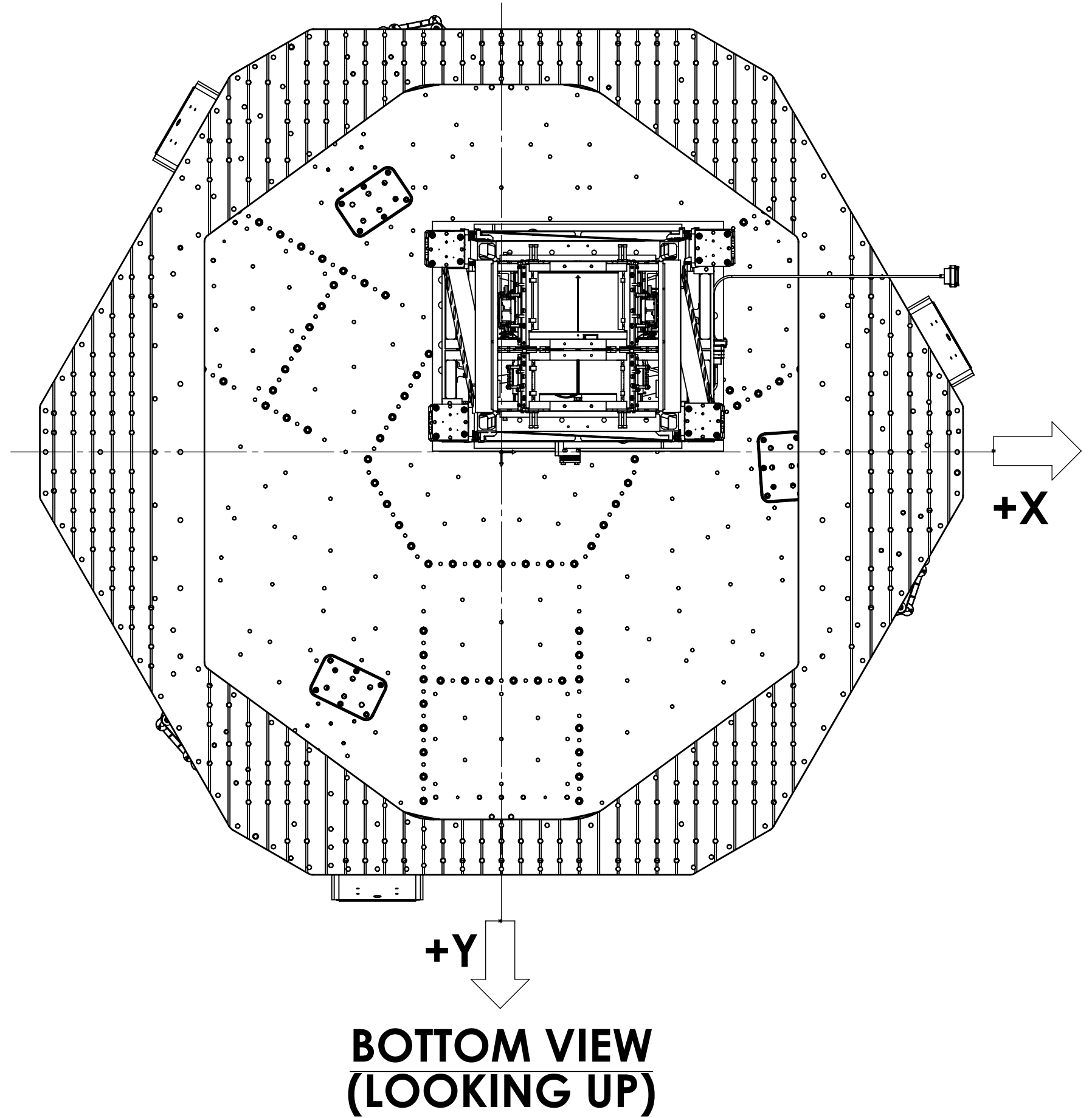
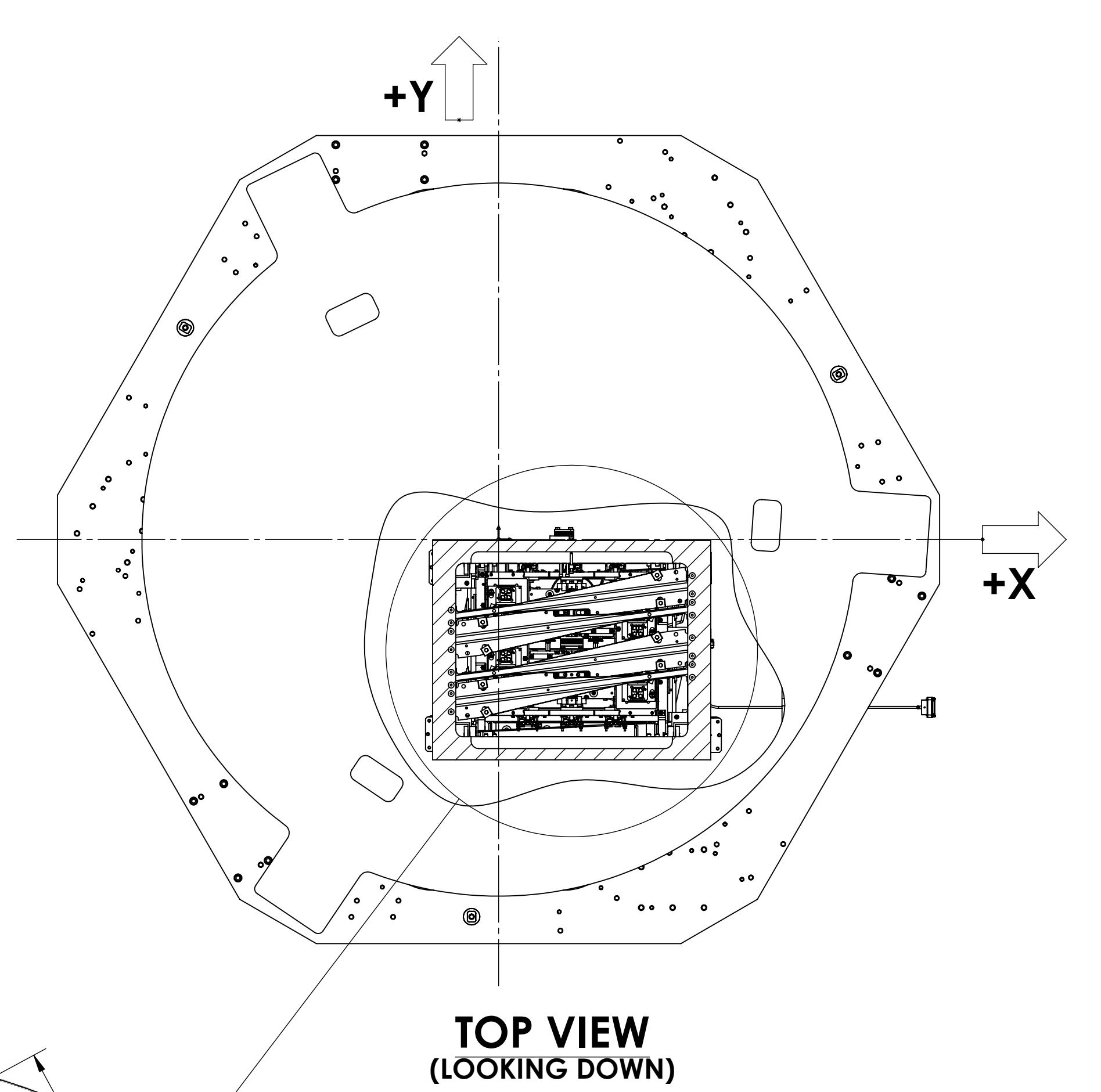
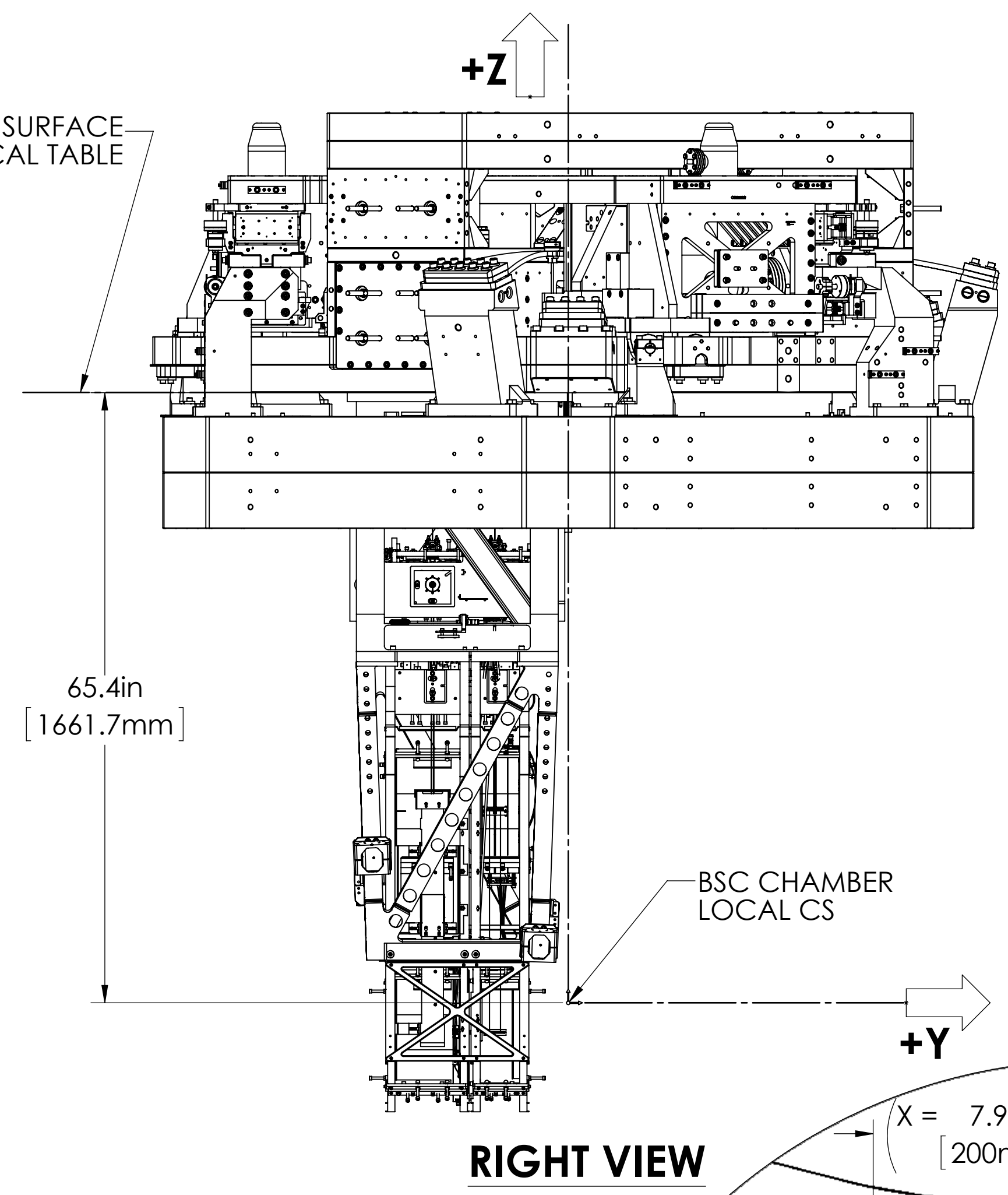
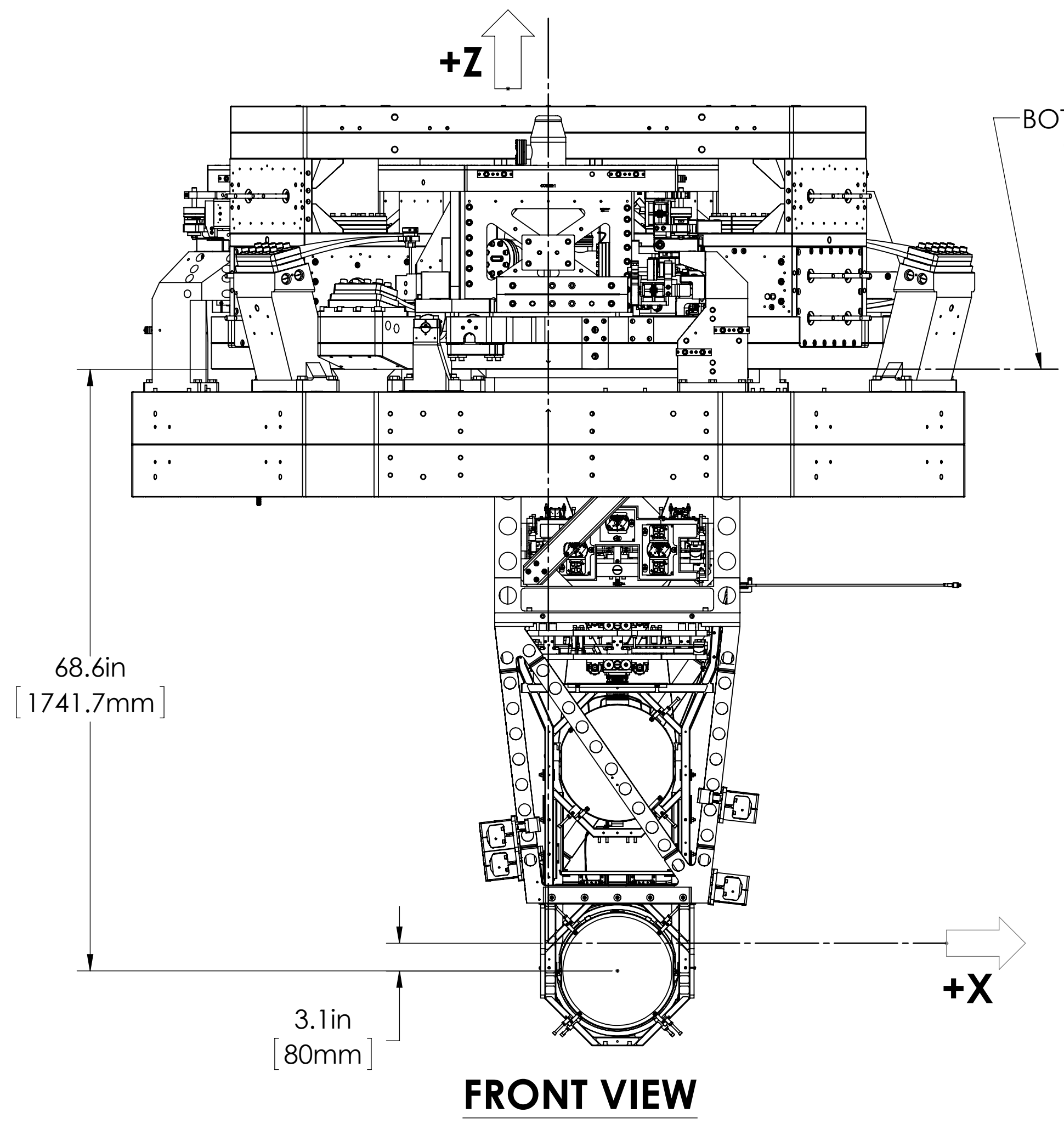
DETAIL B
SCALE 1:2

TIGHTEN ALL SCREWS TO
A TORQUE OF 300 IN/LB

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| | |
|---------------|-------------|
| SIZE DWG. NO. | REV. |
| D D0900515 | v7 |
| SCALE: 1:5 | PROJECTION: |
| SHEET 3 OF 9 | |

D:\D0900515\A01\LIGO_S16_BSC-HZ.XYZ Local CS for ETIMX.PART PDM REV: X-278.DRAWING PDM REV: X-012



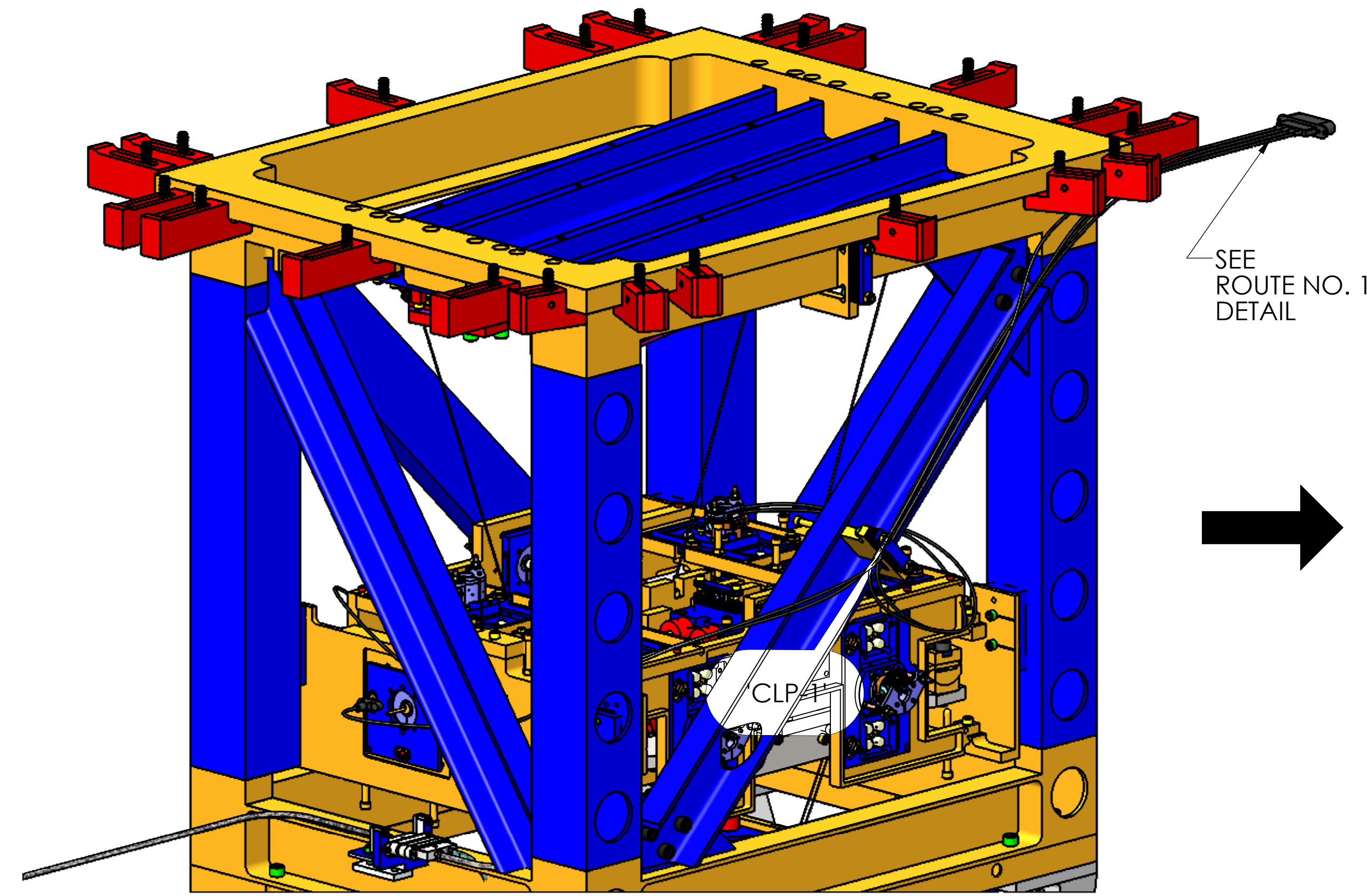
DETAIL VIEW "A"
 DIMENSIONS IN PARENTHESIS
 (REFERENCE DIMENSIONS)
 ARE FROM CENTER OF MASS

DDP00515-ASU-LIGO-SUB-BSC-HPZ.XYZ LOCAL CS FOR EIMV, PART PDM REV. X-278, DRAWING PDM REV. X-012

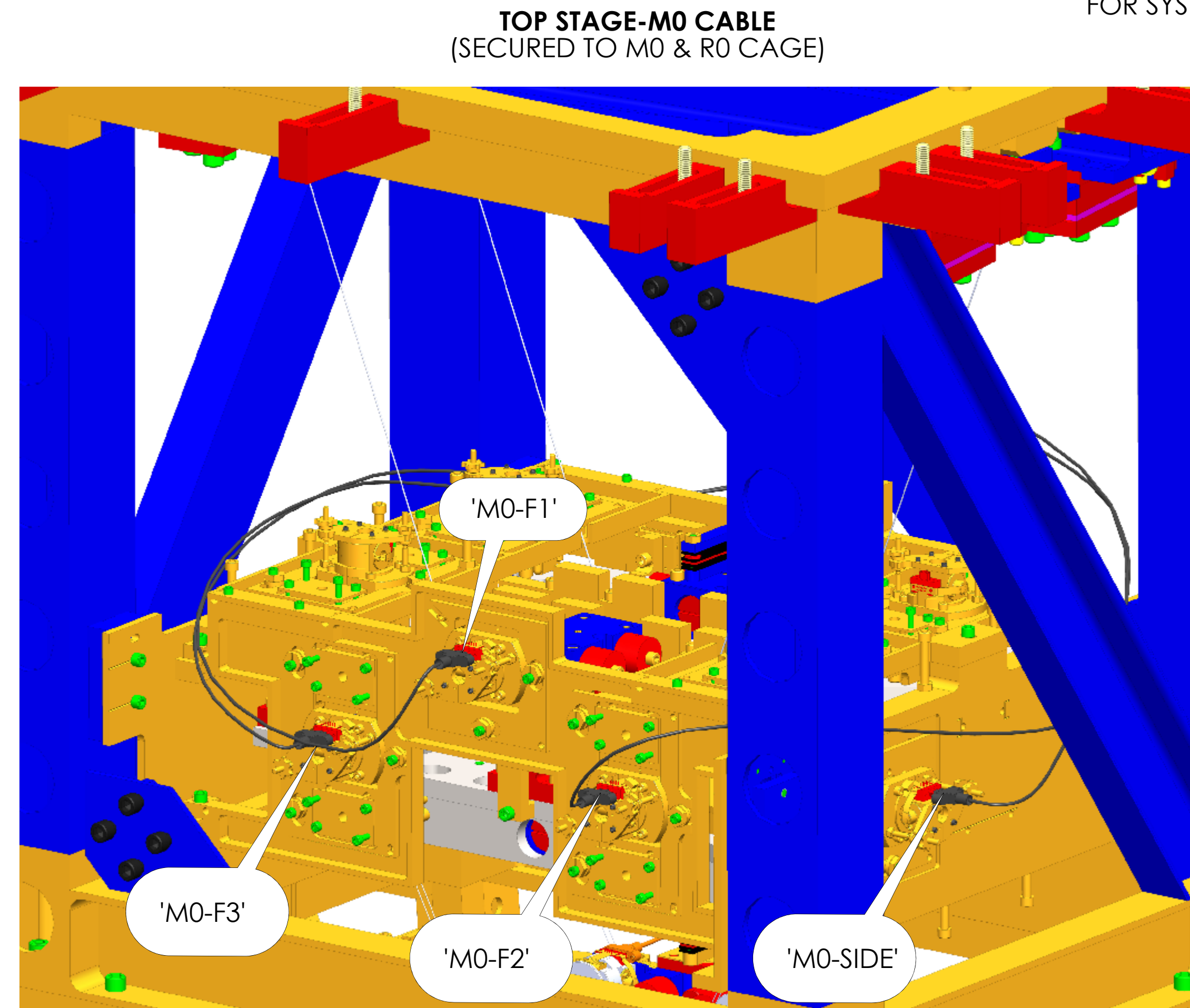
CABLE ROUTING SPECS.: TOP STAGE BOSEM

SEE T1 100327 FOR QUAD CABLING PICASSO

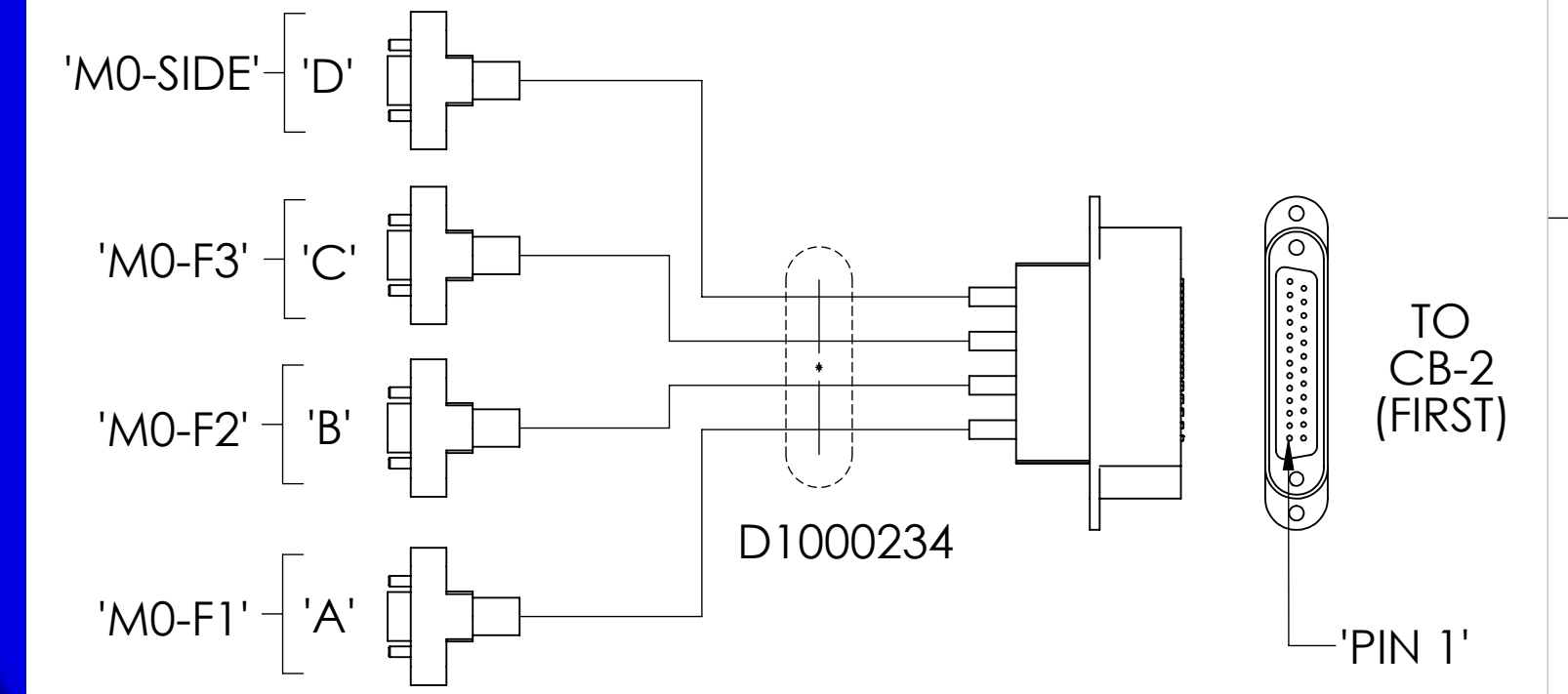
FOR SYSTEM CABLING DIAGRAM, CABLE BRACKET LOCATION/ORIENTATION WRT CHAMBER, SEE D1 101478



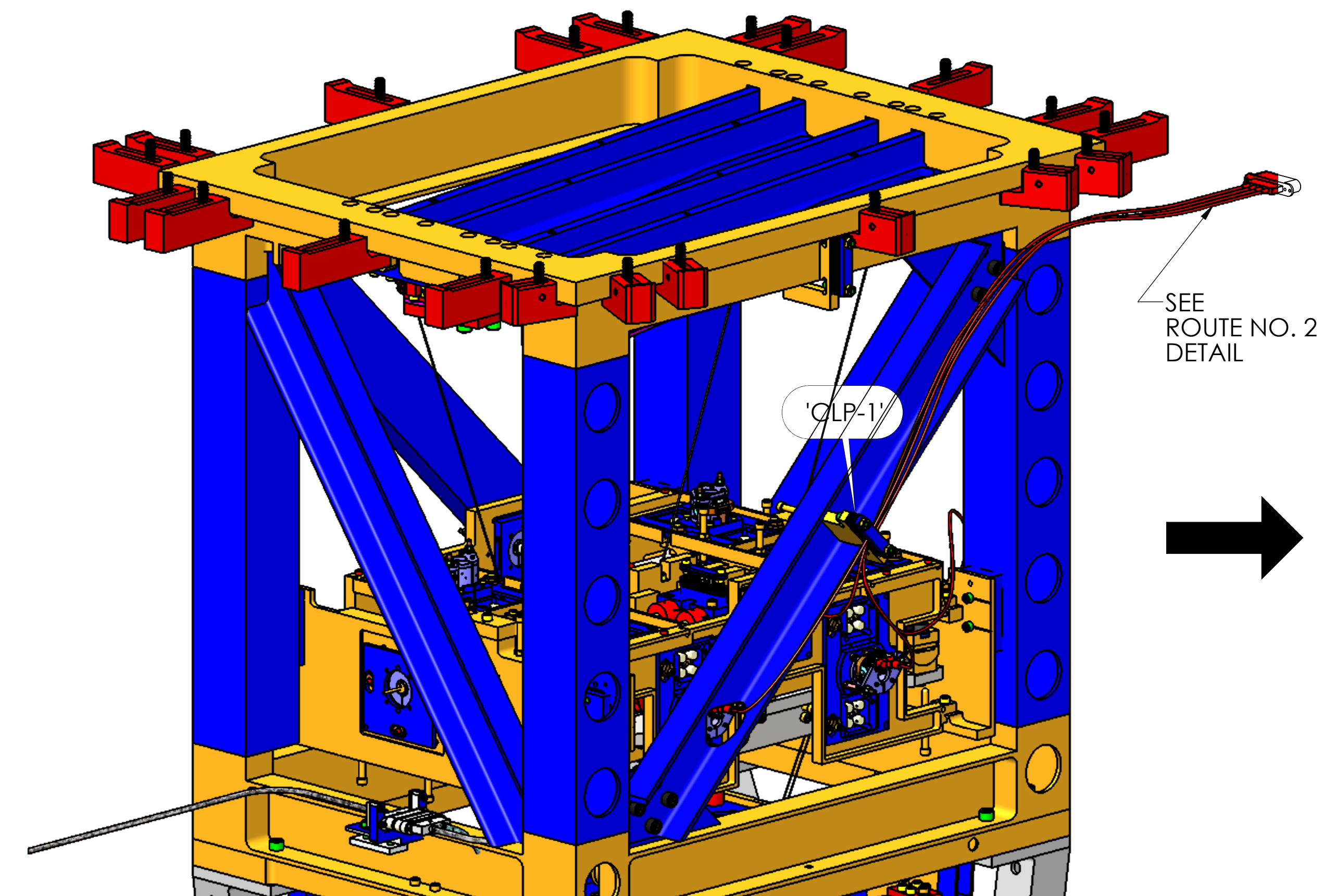
ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS



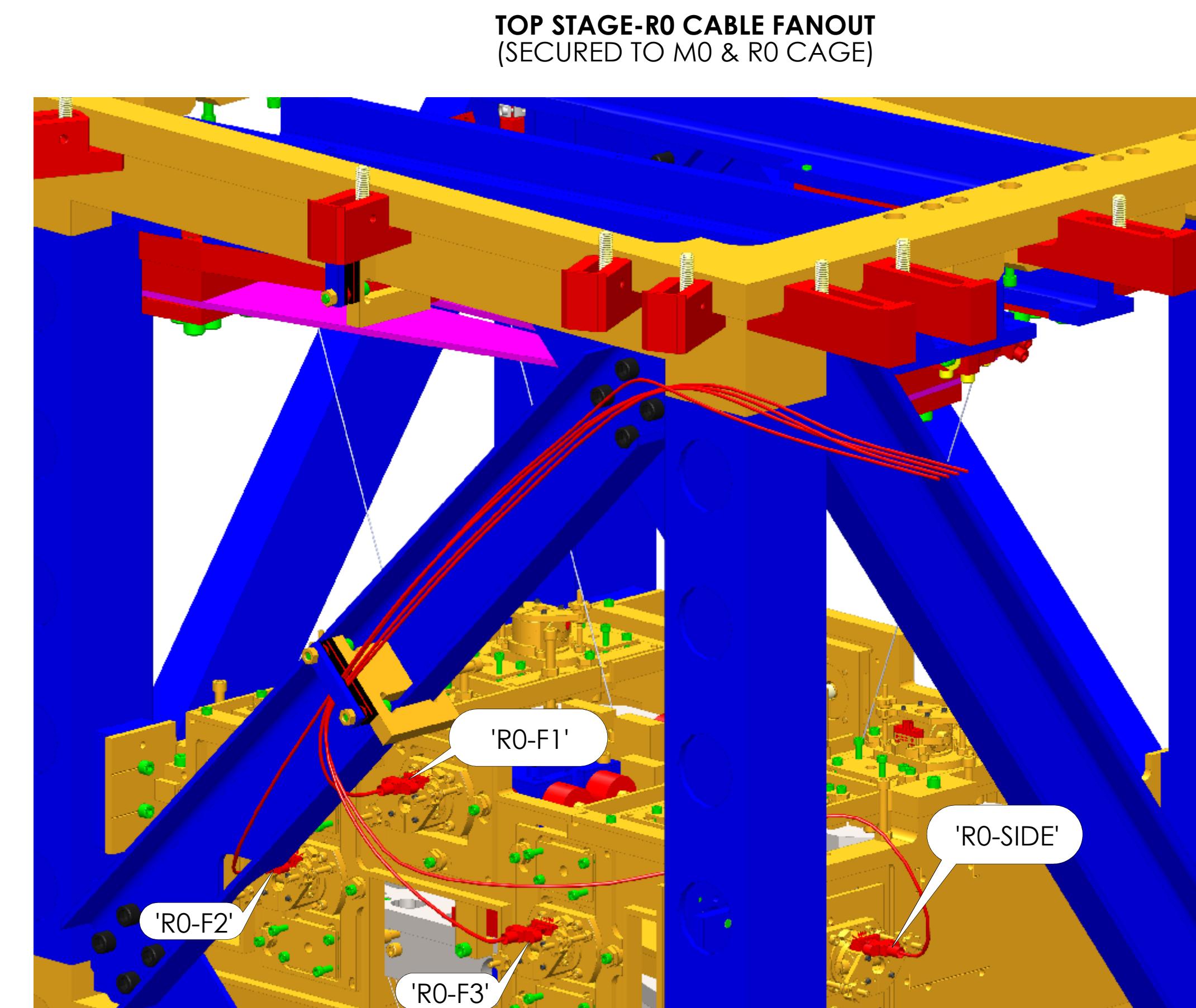
ISO VIEW-REAR



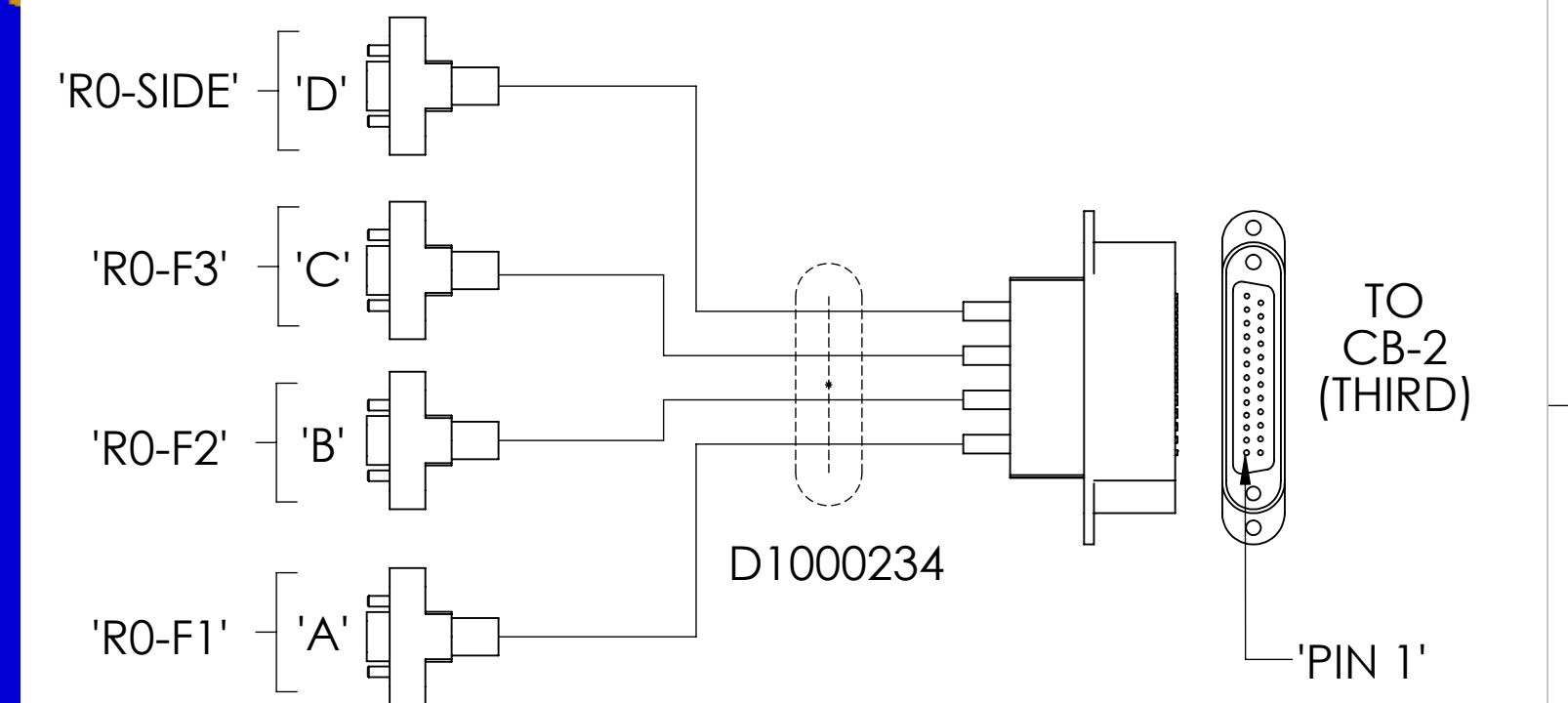
ROUTE NO. 1
(PARTIAL ROUTE-SEE D1 101478, FOR COMPLETE ROUTE)



ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS



ISO VIEW-FRONT



ROUTE NO. 2
(PARTIAL ROUTE-SEE D1 101478, FOR COMPLETE ROUTE)

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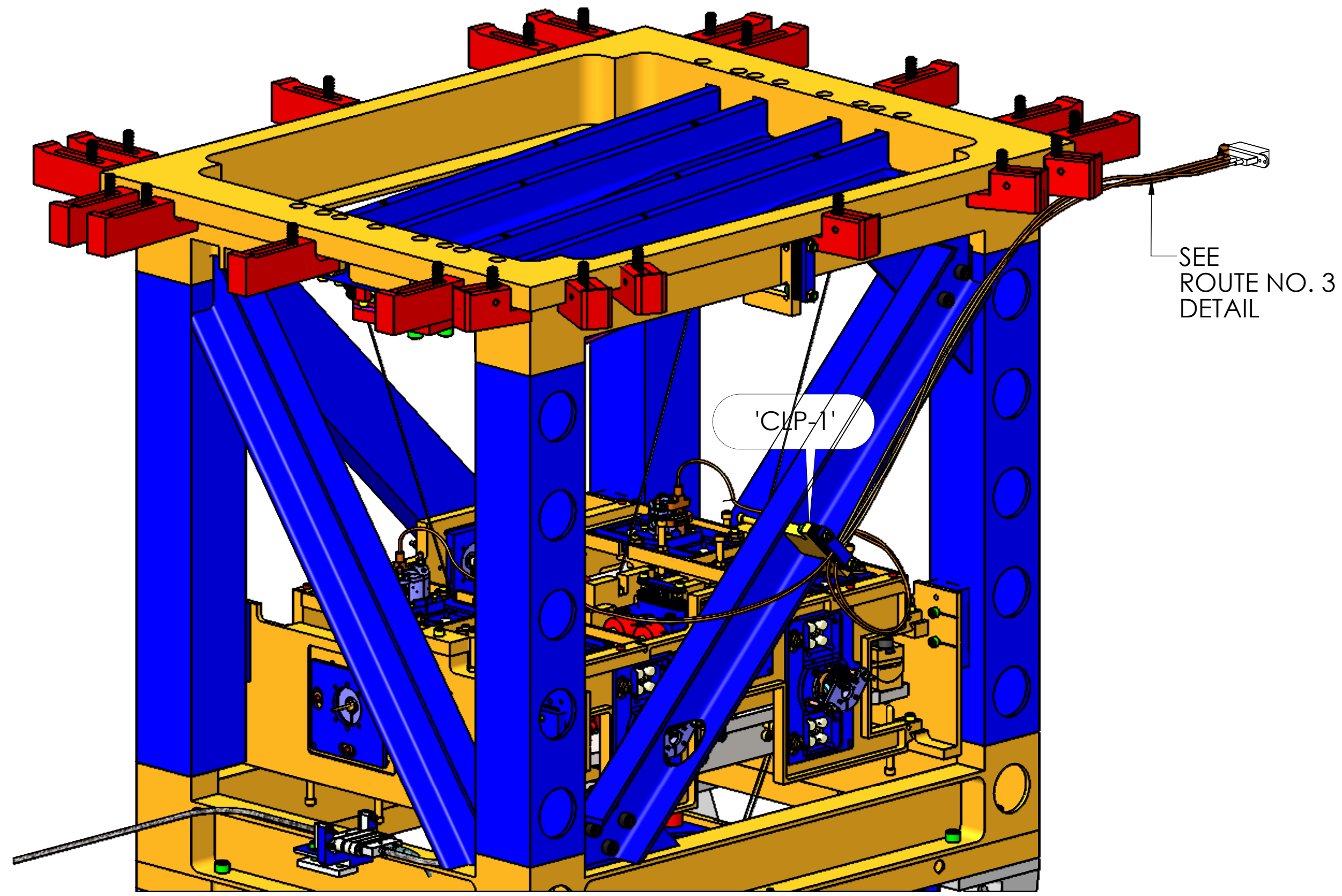
| | | |
|-------------|-------------|--------------|
| SIZE | DWG. NO. | REV. |
| D | D0900515 | v7 |
| SCALE: 1:16 | PROJECTION: | SHEET 5 OF 9 |

D:\0900515_Adm\LIGO_SLS_BSC-HZ_XYZ Locs CS for ETIMX.PART.PDM.REV.X-278.DRAWING.PDM.REV.X-012

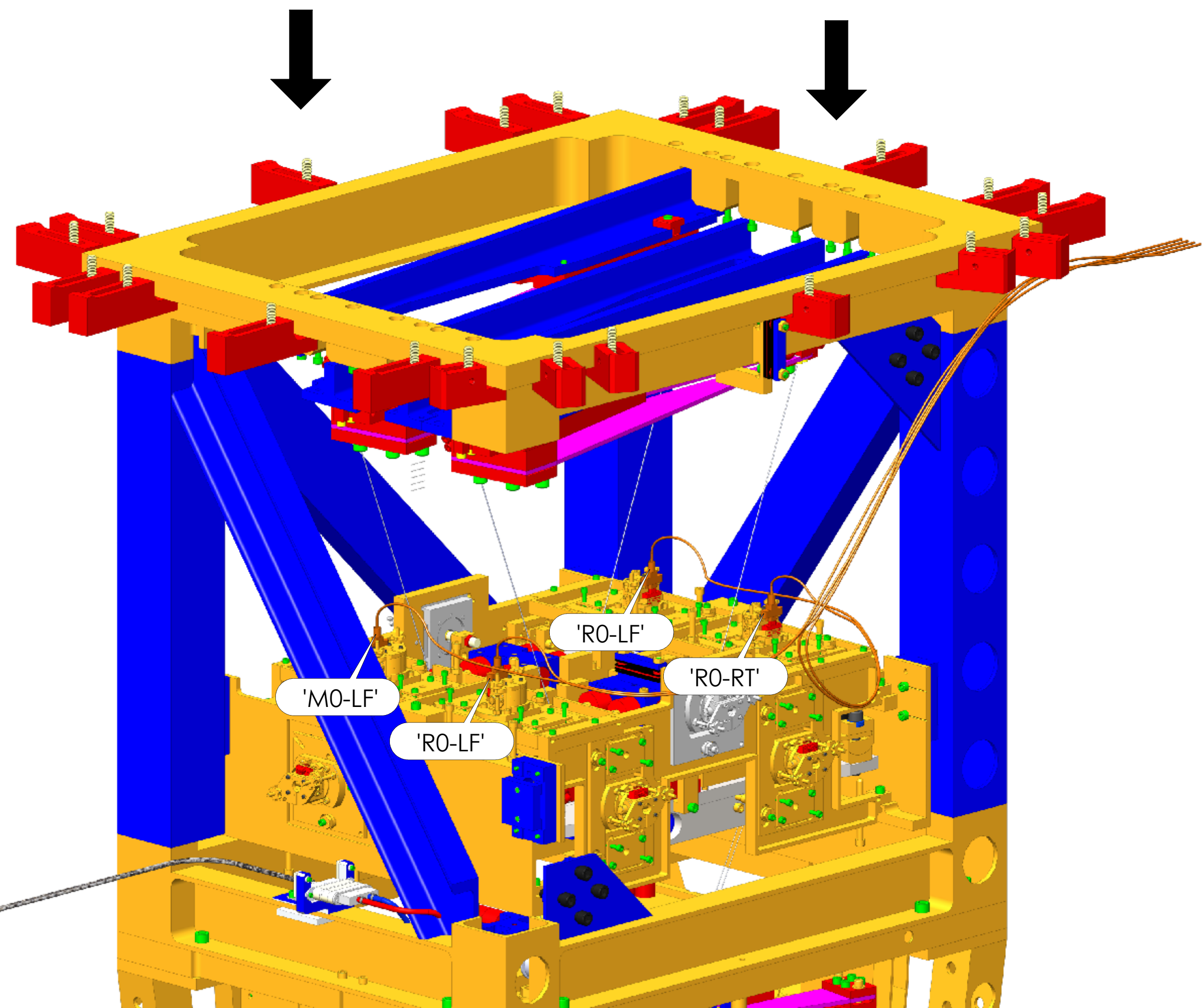
CABLE ROUTING SPECS.: TOP STAGE BOSEM

SEE T1100327 FOR QUAD CABLING PICASSO

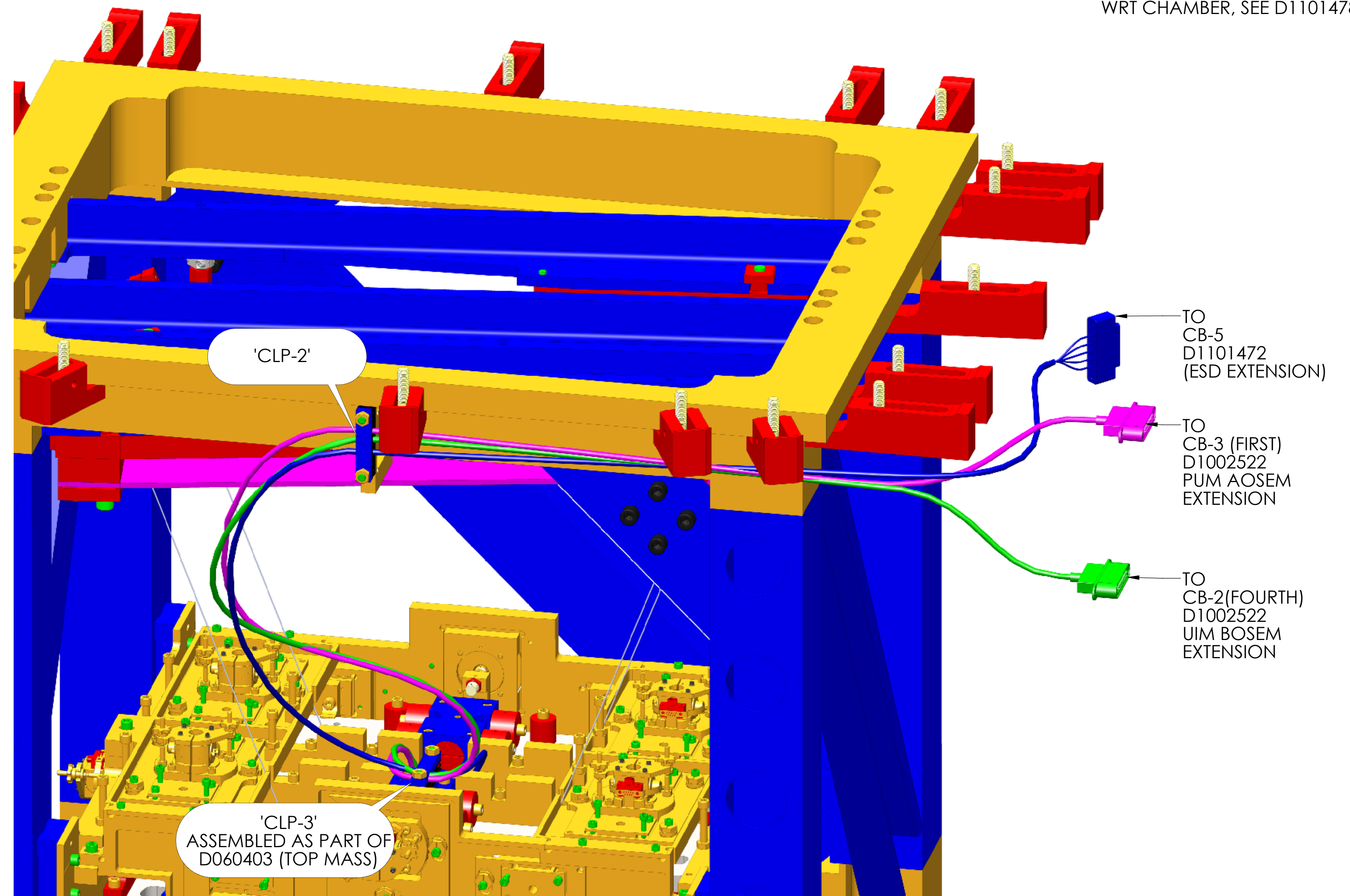
FOR SYSTEM CABLING DIAGRAM, CABLE BRACKET LOCATION/ORIENTATION WRT CHAMBER, SEE D1101478



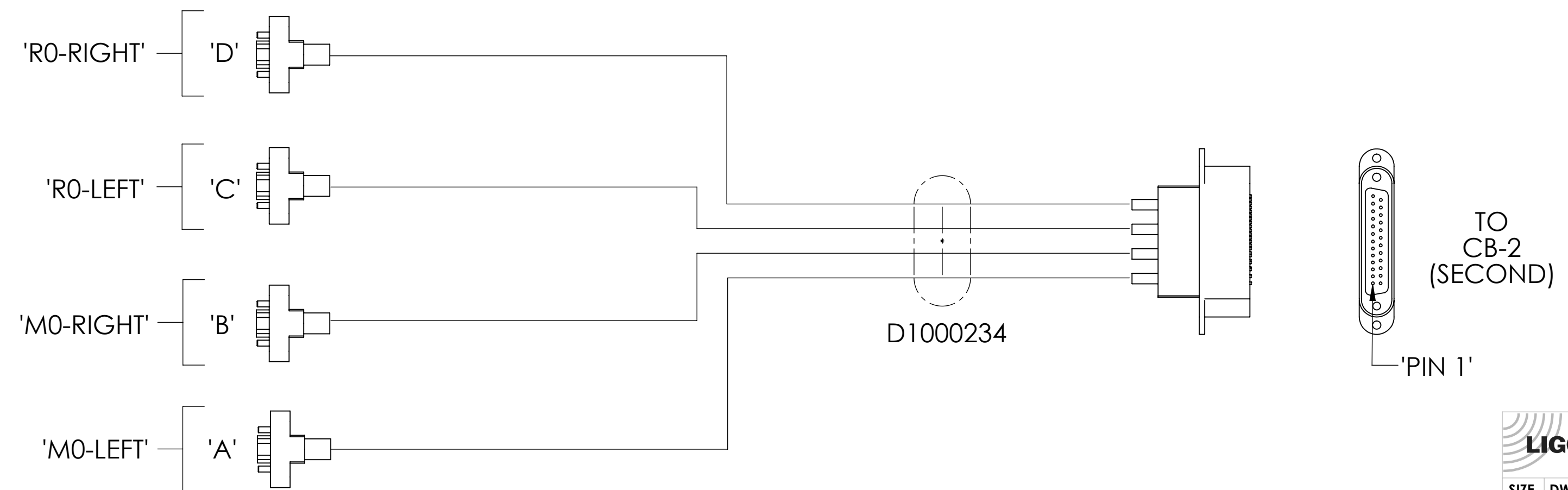
ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS



TOP STAGE, M0 / RO CABLE



SEGMENT 'A': ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS

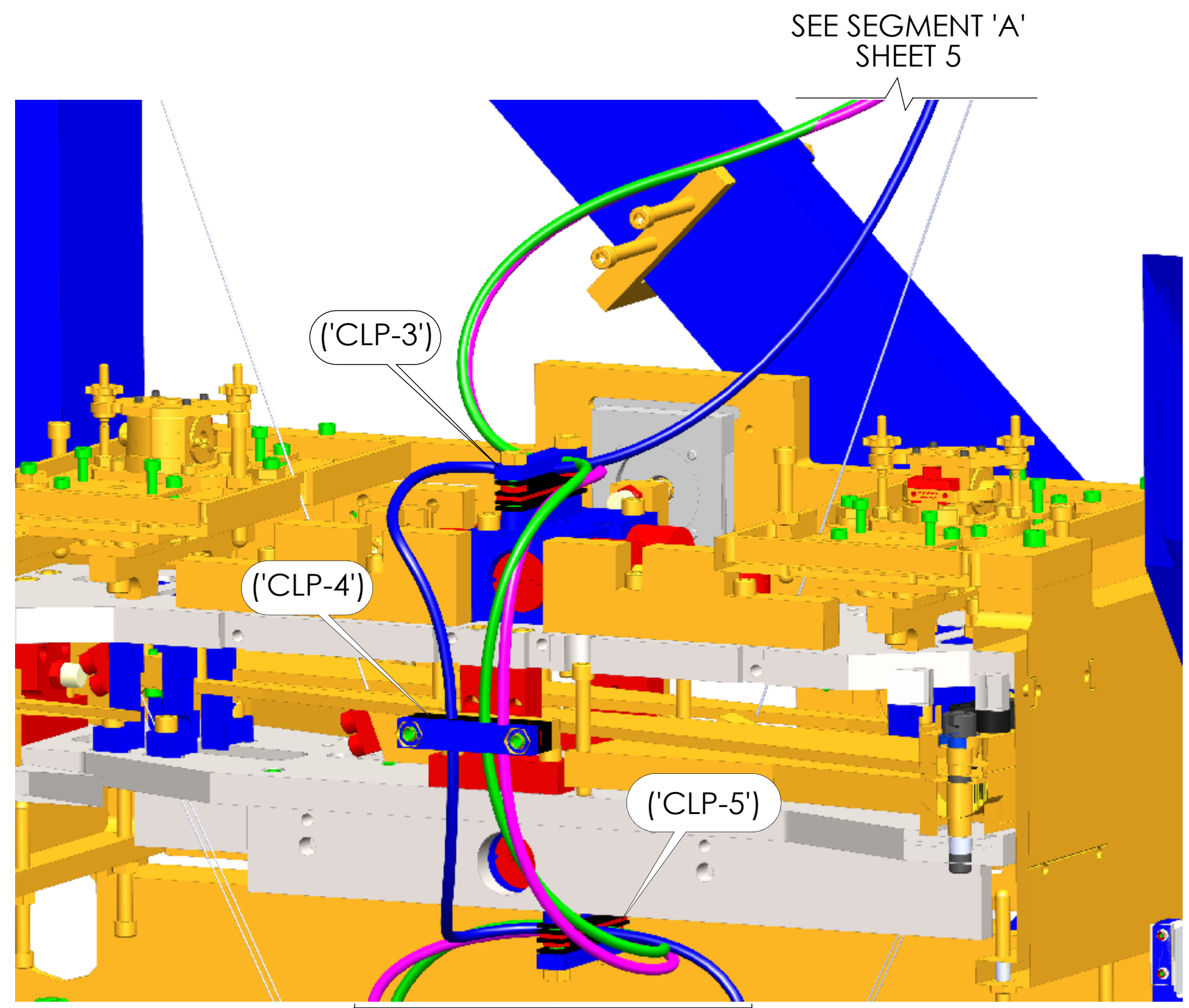
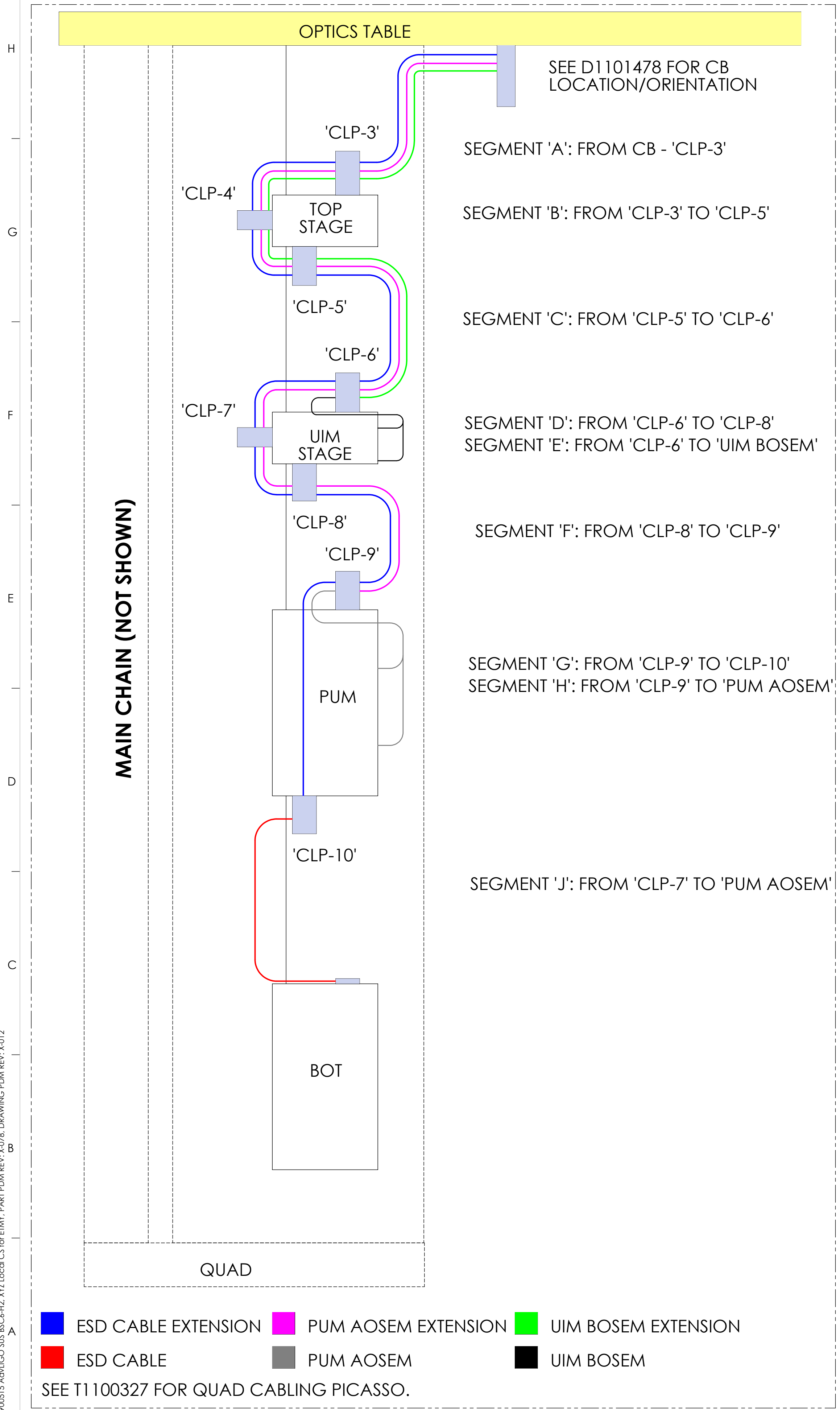


ROUTE NO. 3 DETAIL
(PARTIAL ROUTE-SEE D1101478, FOR COMPLETE ROUTE)

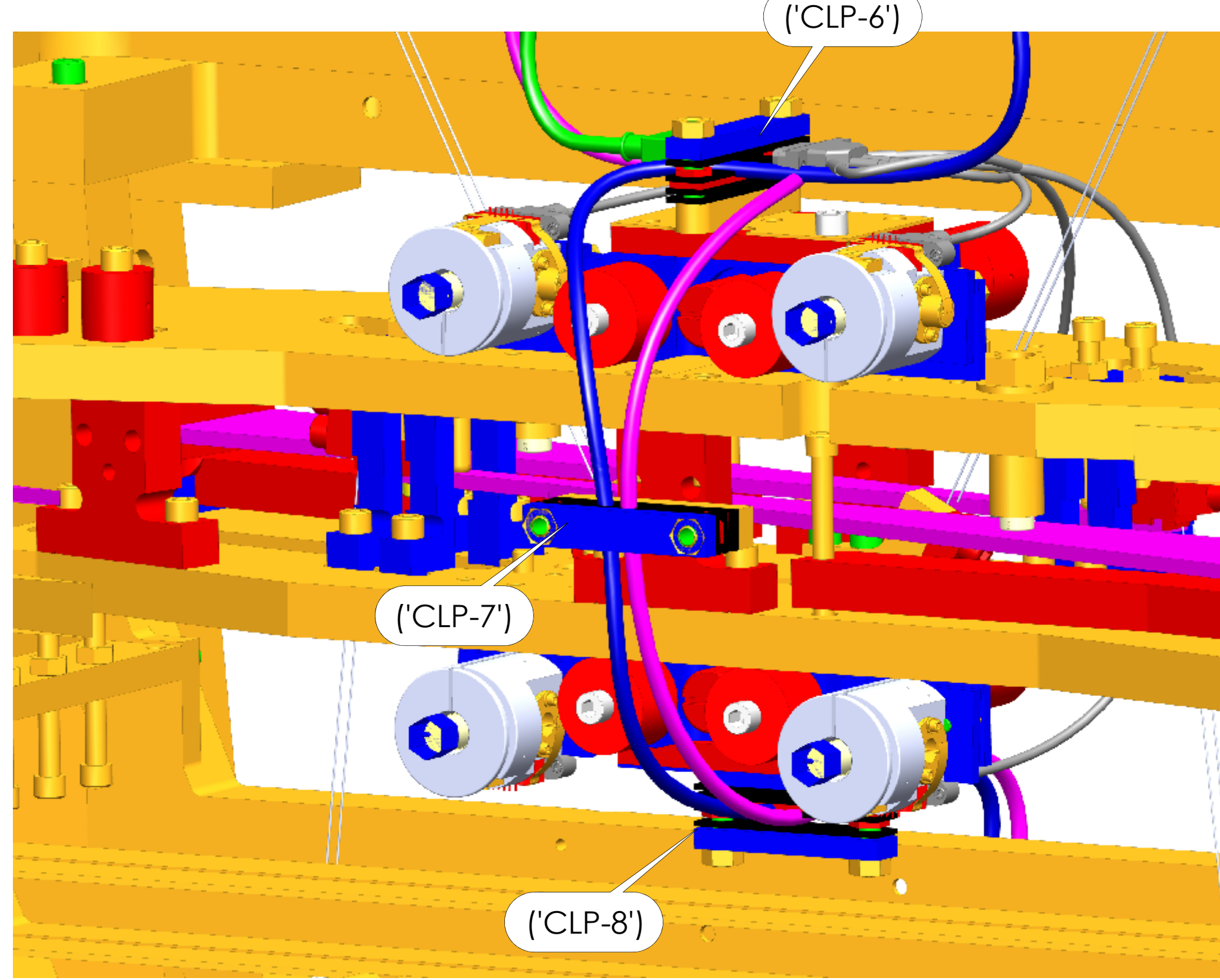
| | |
|---|-------------|
| LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY | |
| SIZE DWG. NO. | REV. |
| D D0900515 | v7 |
| SCALE: 1:16 | PROJECTION: |
| SHEET 6 OF 9 | |

D:\0900515_Adm\LGO_SIB_BSC-HZ_XYZ Locs CS for ETM\PART PDM REV X-278 DRAWING PDM REV X-012

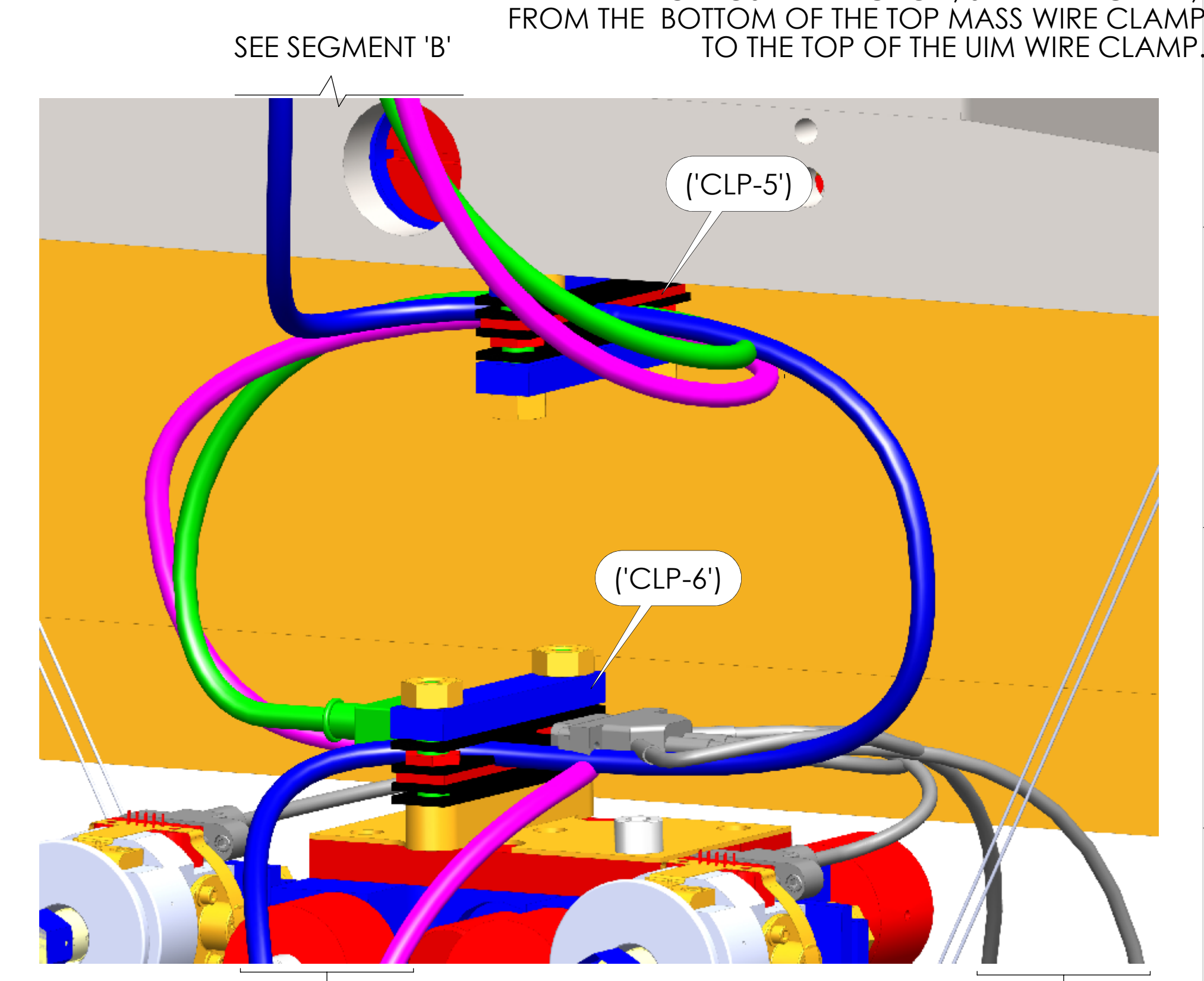
CABLE ROUTING SPECS.: CABLING (UP REACTION CHAIN)



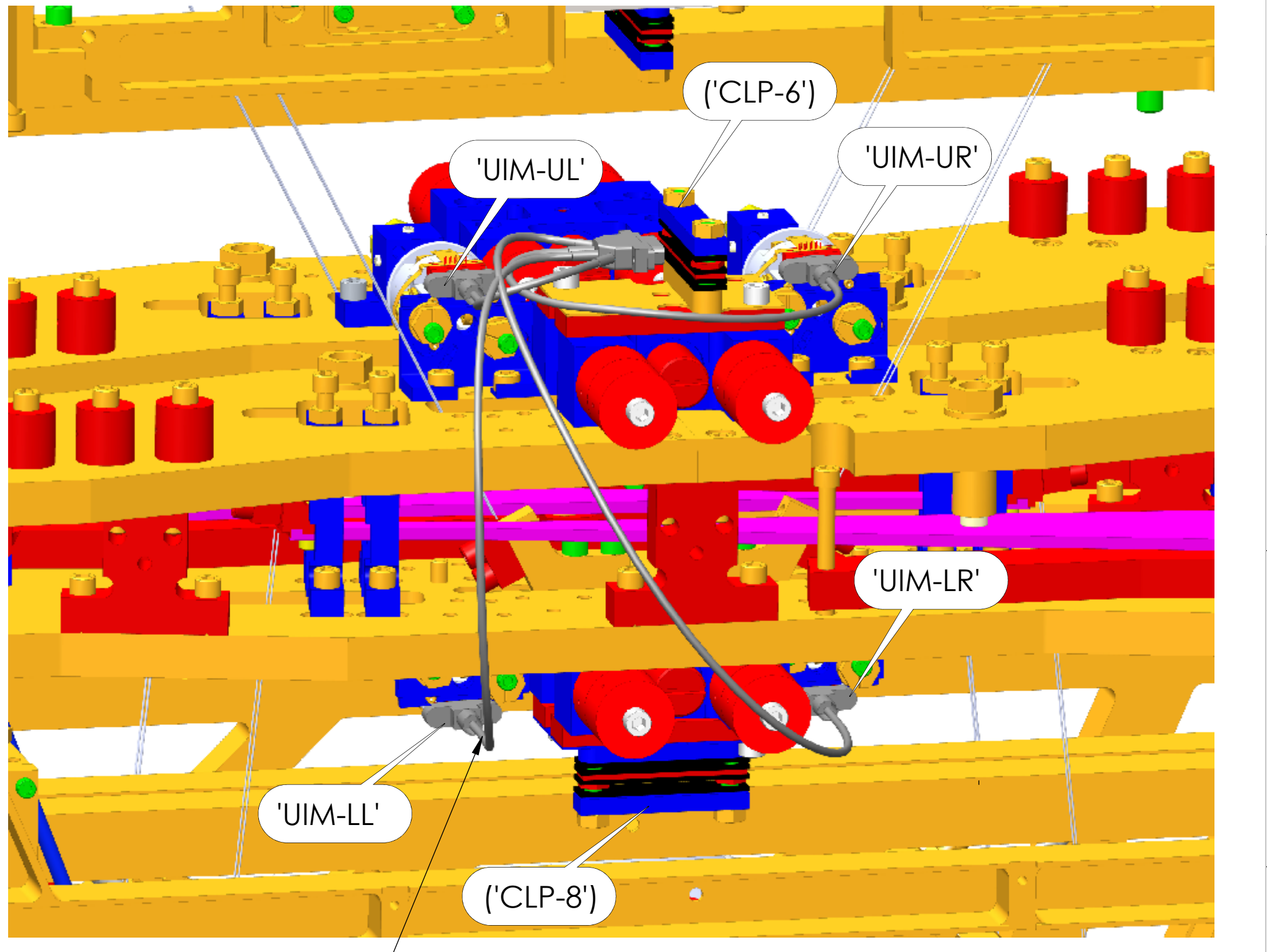
SEGMENT 'B': FROM 'CLP-3' TO 'CLP-5'
 AS VIEW BEHIND RE CHAIN
 CLP-3, CLP-4 AND CLP-5 ARE BOTH ASSEMBLED AT D060403 LEVEL
 (ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)



SEGMENT 'D': FROM 'CLP-5' TO 'CLP-6'
 AS VIEW BEHIND RE CHAIN
 CLP-5 AND CLP-6 ARE BOTH ASSEMBLED AT D1101129 LEVEL
 (ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)



SEGMENT 'C': FROM 'CLP-5' TO 'CLP-6'
 AS VIEW BEHIND RE CHAIN
 CLP-6 ASSEMBLED AT D1101129 LEVEL
 (ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)

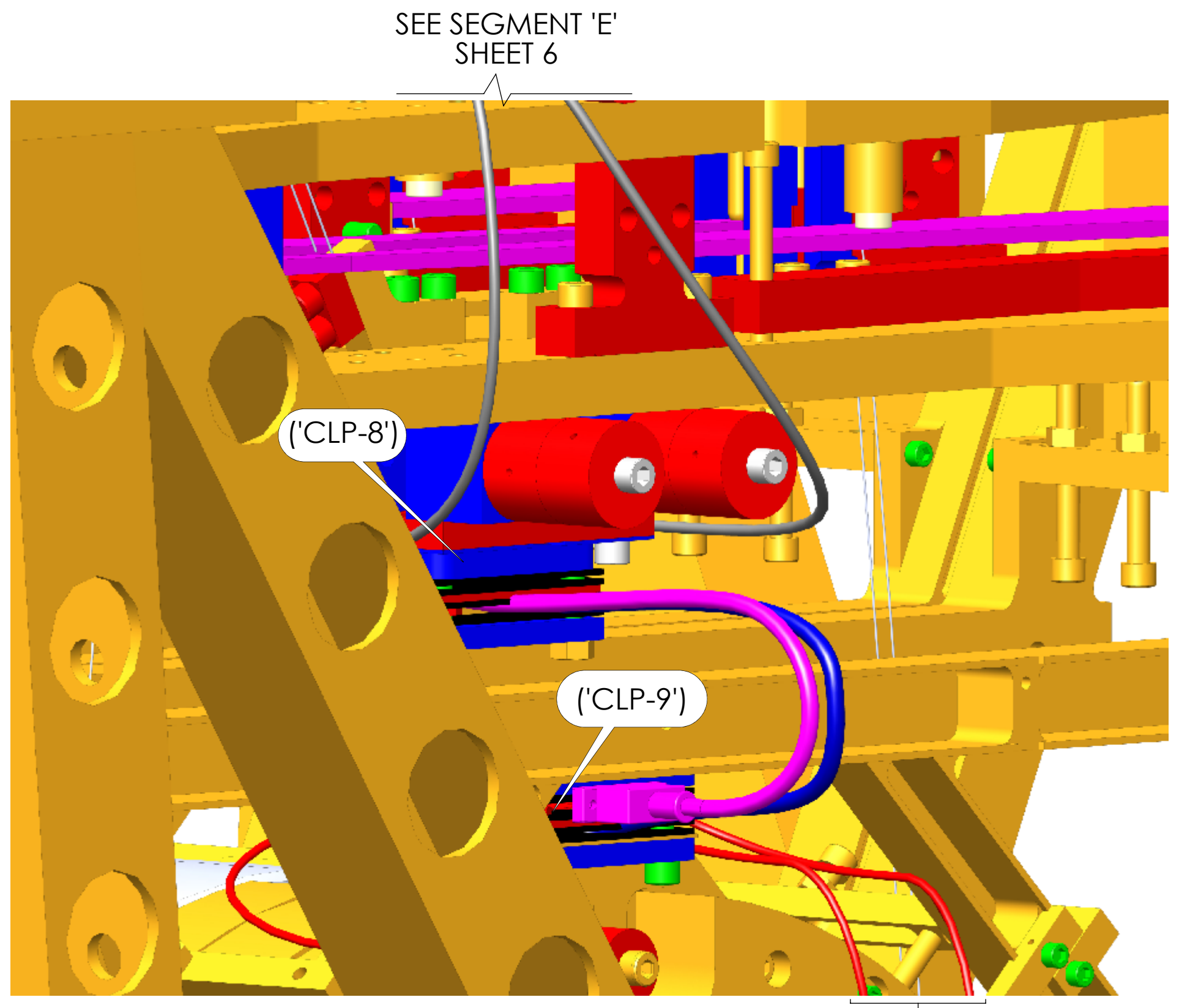
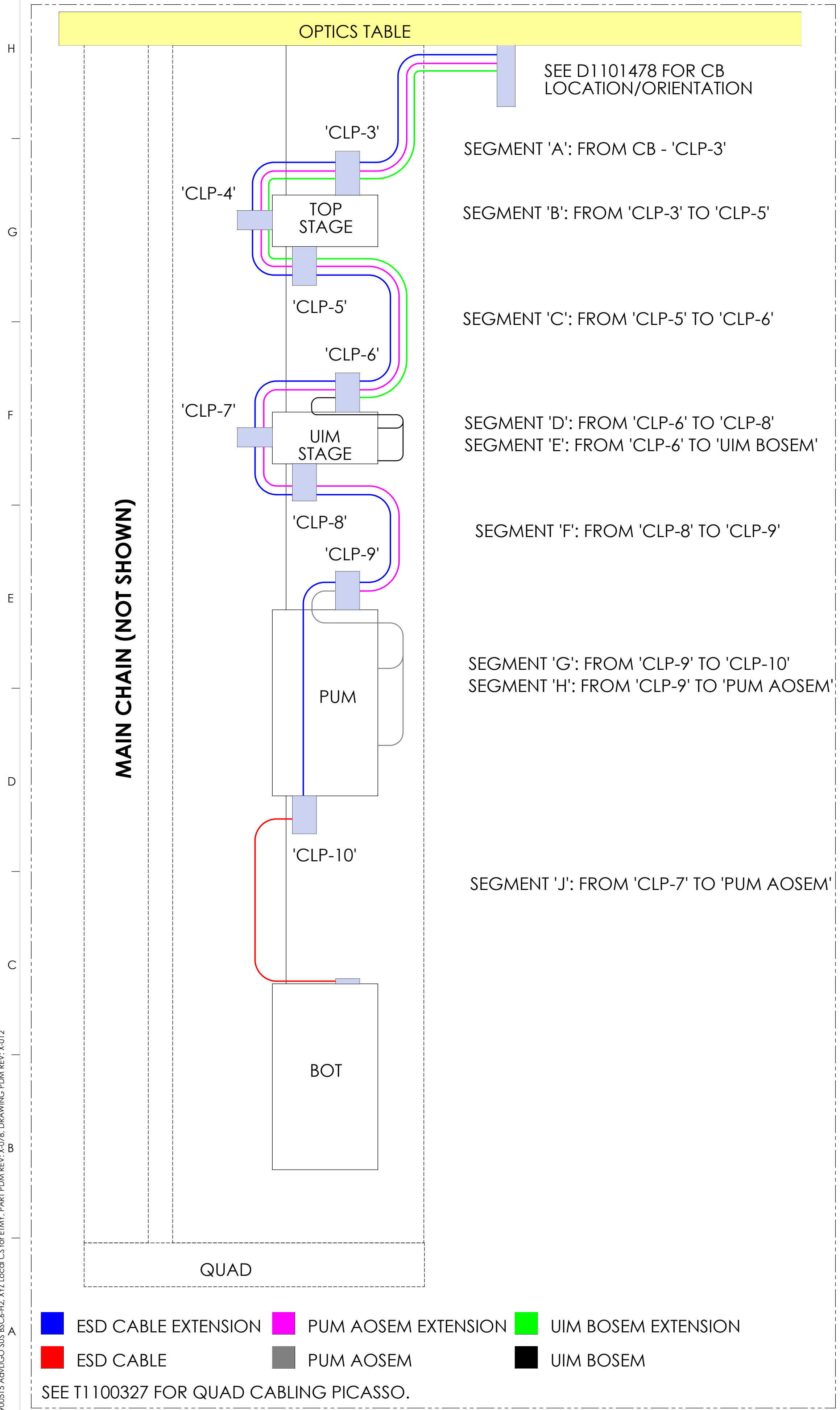


SEE SHEET 8, ROUTE NO. 4 UIM BOSEM-DETAIL

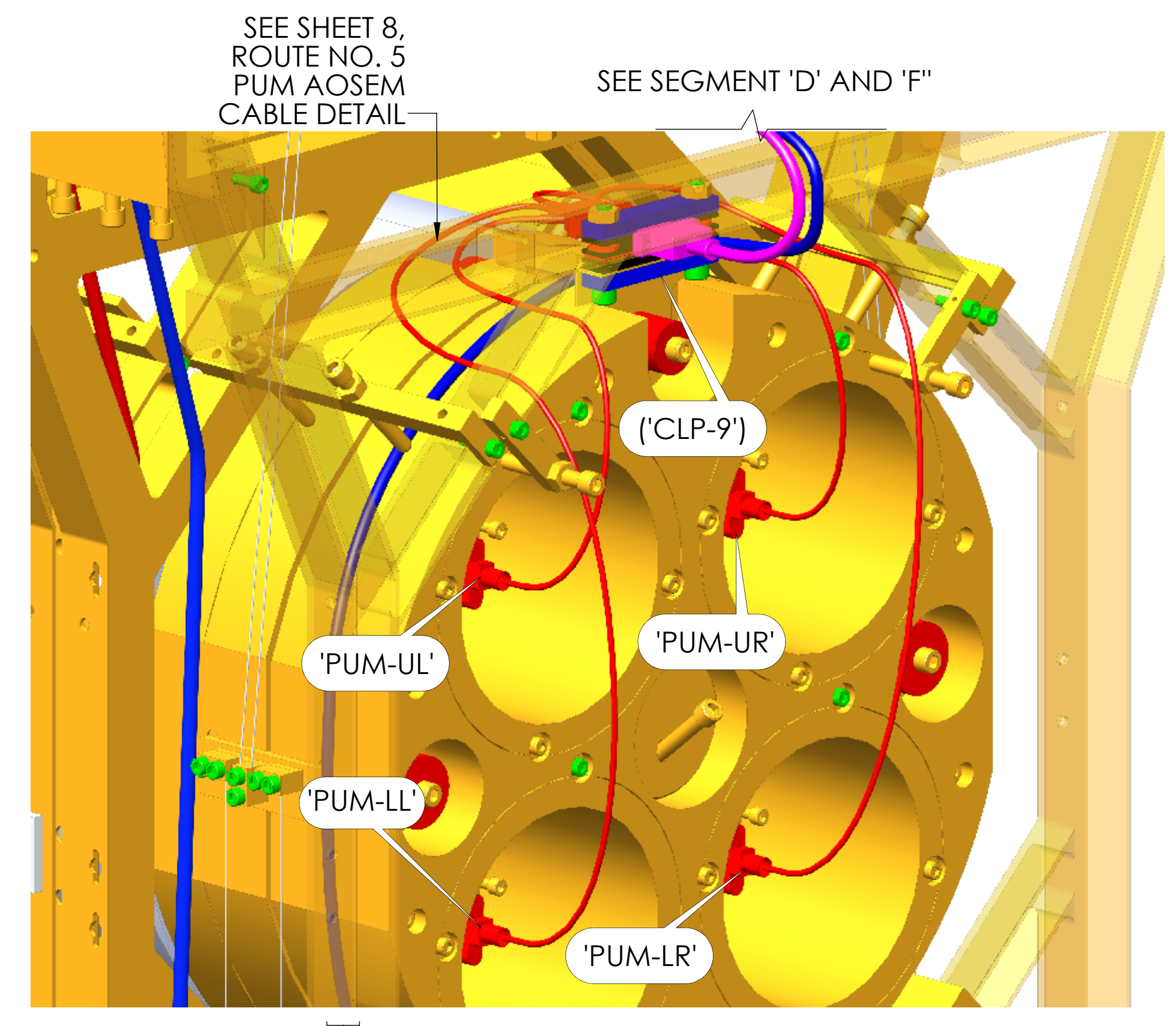
SEGMENT 'E': FROM 'CLP-6' TO UIM BOSEM

NOTE: ROUTE CABLES BETWEEN UIM AND TOP MASS IN OPPOSITE DIRECTION; SYMMETRICALLY, FROM THE BOTTOM OF THE TOP MASS WIRE CLAMP TO THE TOP OF THE UIM WIRE CLAMP.

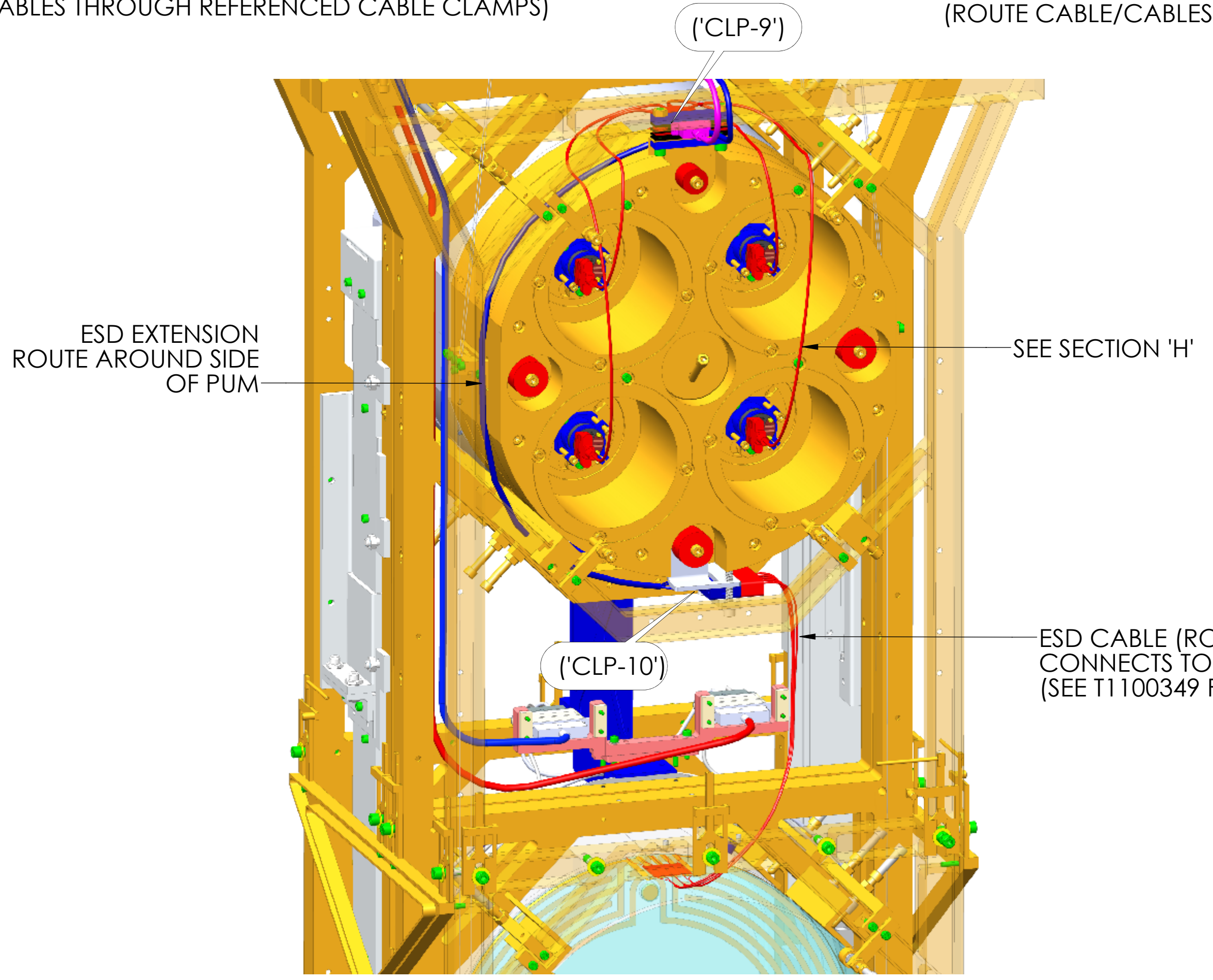
CABLE ROUTING SPECS.: CABLING (UP REACTION CHAIN)



SEGMENT 'F': FROM 'CLP-8' TO 'CLP-9'
CLP-9 ARE BOTH ASSEMBLED AT D060341 LEVEL
(ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)



SEGMENT 'H': FROM 'CLP-9' TO 'PUM AOSEM'
CLP-96 ASSEMBLED AT D060341 LEVEL
(ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)



SEGMENT 'J': FROM 'CLP-5' TO 'CLP-6'
CLP-9 AND CLP-10 ARE BOTH ASSEMBLED AT D060341 LEVEL
(ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)

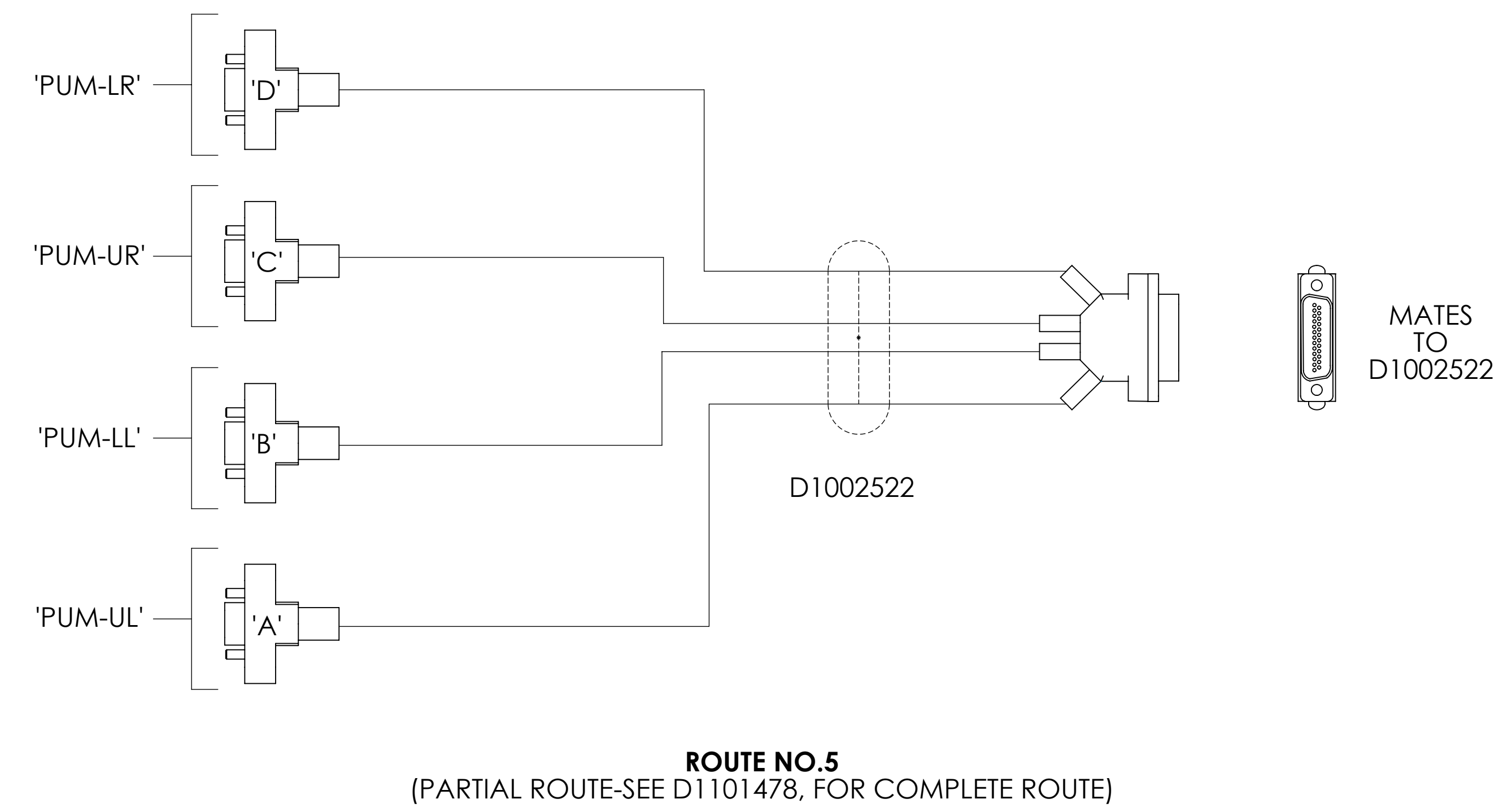
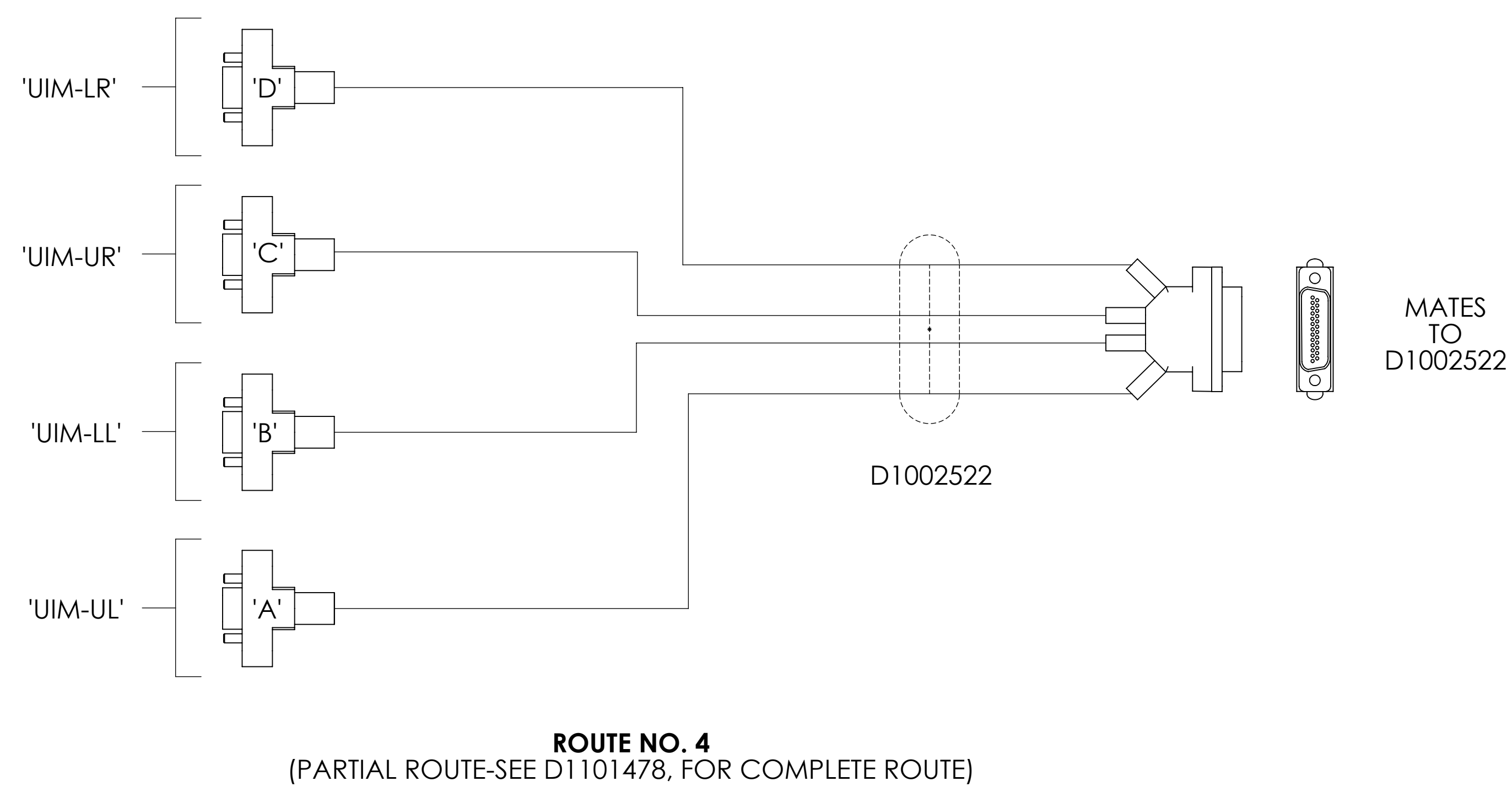


TABLE 1: BSC6 ETMY CABLING SPECIFICATIONS, FROM/TO DES.

| ROUTE NO. | FROM (OSEM POSITION) | TO CABLE EXTENSION | TO CB FLOOR DES. | QP LEG DES. | CABLE PART NO. | NOM. CABLE LENGTH (IN) | NOM. CABLE LENGTH (IN) (EXTENSION) |
|-----------|----------------------|--------------------|------------------|-------------|----------------|------------------------|------------------------------------|
| 1 | M0-F1 | N/A | CB-2 (FIRST) | A | D1000234 | 88 | N/A |
| | M0-F2 | | | B | | | |
| | M0-F3 | | | C | | | |
| | M0-SIDE | | | D | | | |
| 2 | R0-F1 | N/A | CB-2 (THIRD) | A | D1000234 | 88 | N/A |
| | R0-F2 | | | B | | | |
| | R0-F3 | | | C | | | |
| | R0-SIDE | | | D | | | |
| 3 | M0-LEFT | N/A | CB-2 (SECOND) | A | D1000234 | 88 | N/A |
| | M0-RIGHT | | | B | | | |
| | R0-LEFT | | | C | | | |
| | R0-RIGHT | | | D | | | |
| 4 | UIM-UL | D1002522 | CB-2 (FOURTH) | A | D1002523 | 12 | 121 |
| | UIM-LL | | | B | | | |
| | UIM-UR | | | C | | | |
| | UIM-LR | | | D | | | |
| 5 | PUM-UL | D1002522 | CB-3 (FIRST) | A | D1002524 | 17 | 156 |
| | PUM-LL | | | B | | | |
| | PUM-UR | | | C | | | |
| | PUM-LL | | | D | | | |
| 6 | D1002225 | D1101472 | CB-5 | N/A | N/A | N/A | 175 |

DDP00515-ADM-LIGO-SUB-BSC-ETMY.XYZ Locs C3 for ETMY, PART PDM REV. X-278, DRAWING PDM REV. X-012