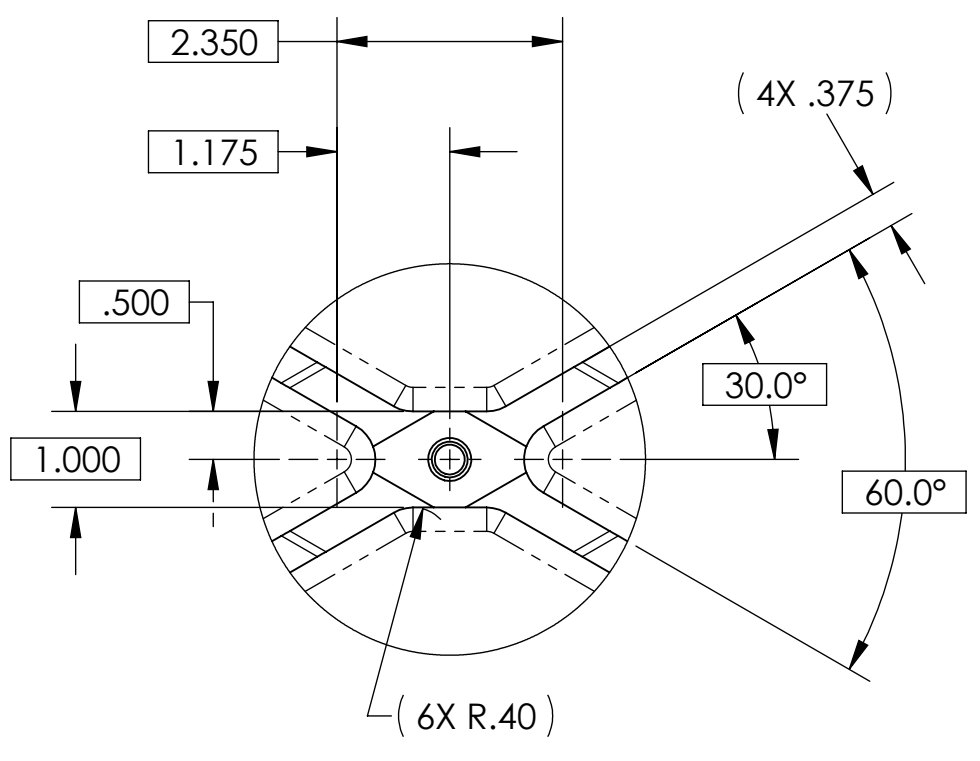
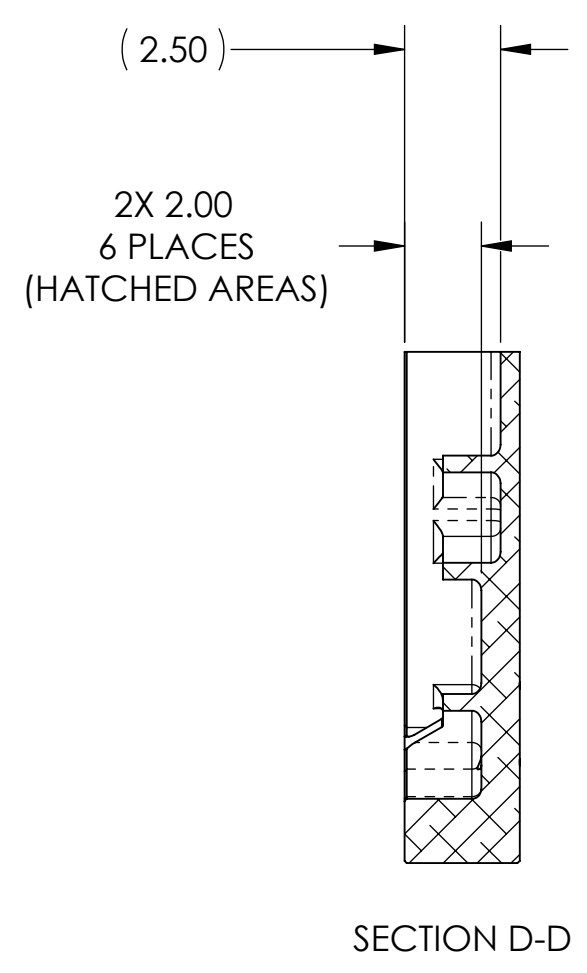
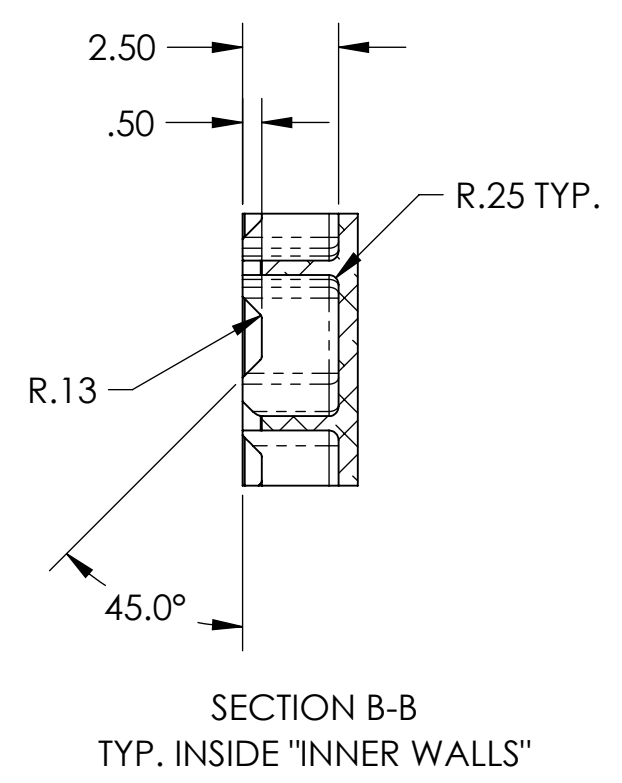
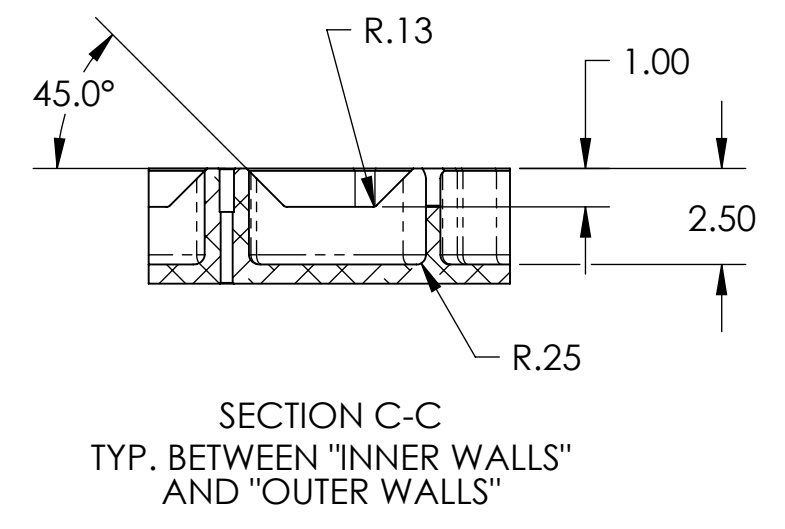
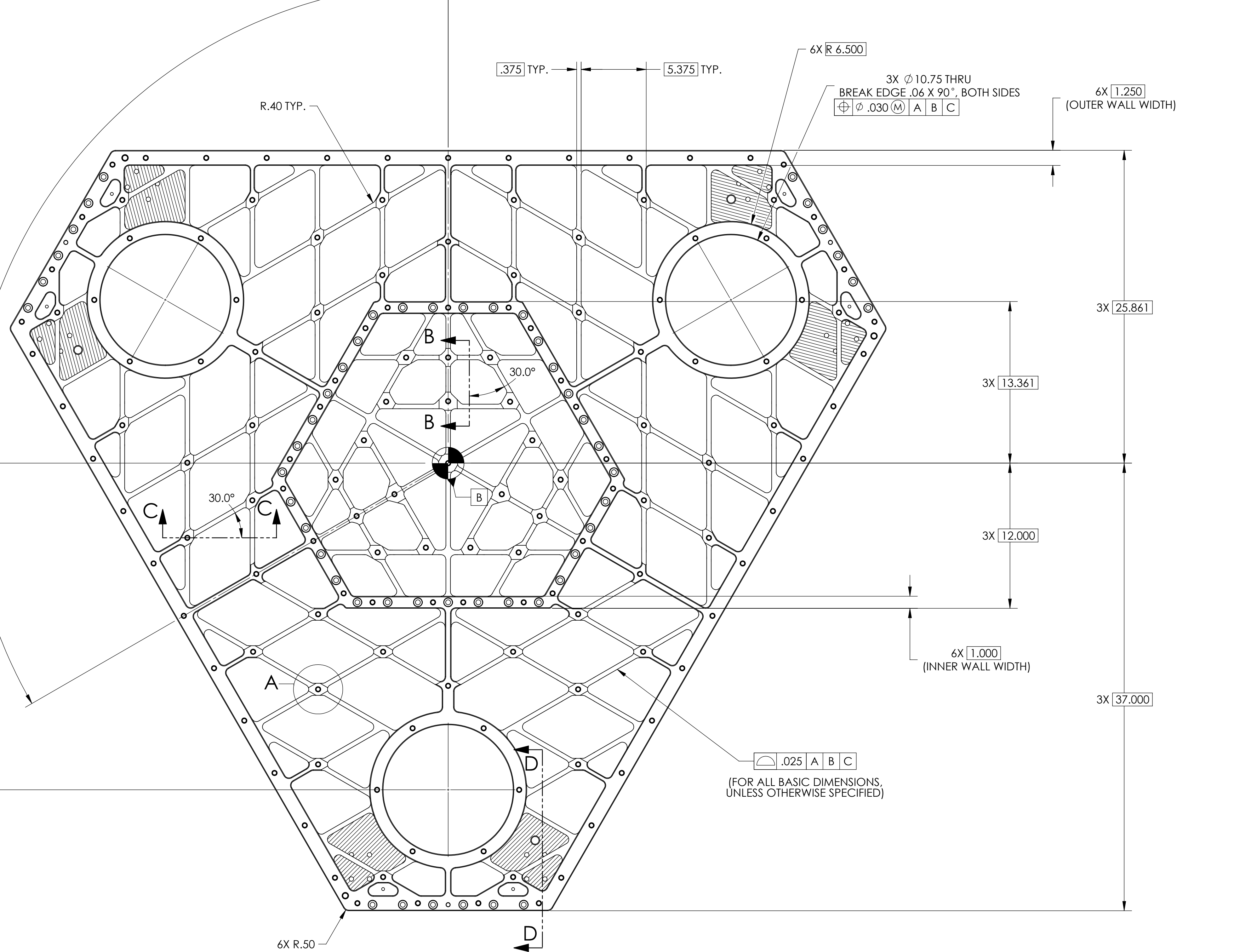
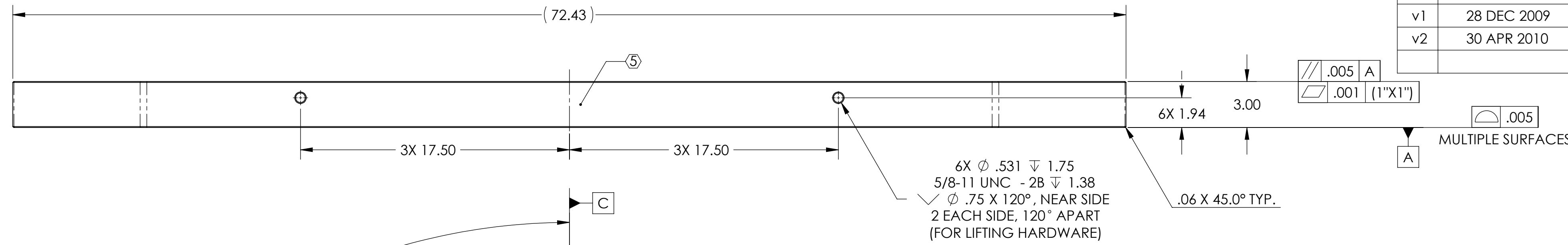


NOTES CONTINUED:

- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE-DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.25" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.
EXAMPLE DXXXXXX-VY, TYPE-XX, S/N XXX.
- 6. THIS DRAWING IS MINIMALLY DIMENSIONED. USE CAD MODEL TO EVALUATE FULL DIMENSIONAL DETAIL. UNLESS OTHERWISE SPECIFIED, THE MODEL TAKES PRECEDENCE OVER THE DRAWING WHEREVER THERE ARE DISCREPANCIES.
- 7. UNLESS OTHERWISE SPECIFIED, ALL SURFACES MUST SATISFY .025 PROFILE TOLERANCE WITH RESPECT TO DATUMS A, B, AND C.
- 8. APPROXIMATE WEIGHT = 332 LB.
- 9. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
- 10. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
- 11. A TAPPED HOLE PITCH DIAMETER LIMIT OF H11 APPLIES TO ALL TAPPED HOLES, EXCLUDING THREADED INSERTS AND HOLES LABELED "FOR LIFTING HARDWARE."

| REV. | DATE | DCN # | DRAWING TREE # |
|------|-------------|----------|----------------|
| v1 | 28 DEC 2009 | E0900496 | E1000025 |
| v2 | 30 APR 2010 | E1000129 | E1000025 |



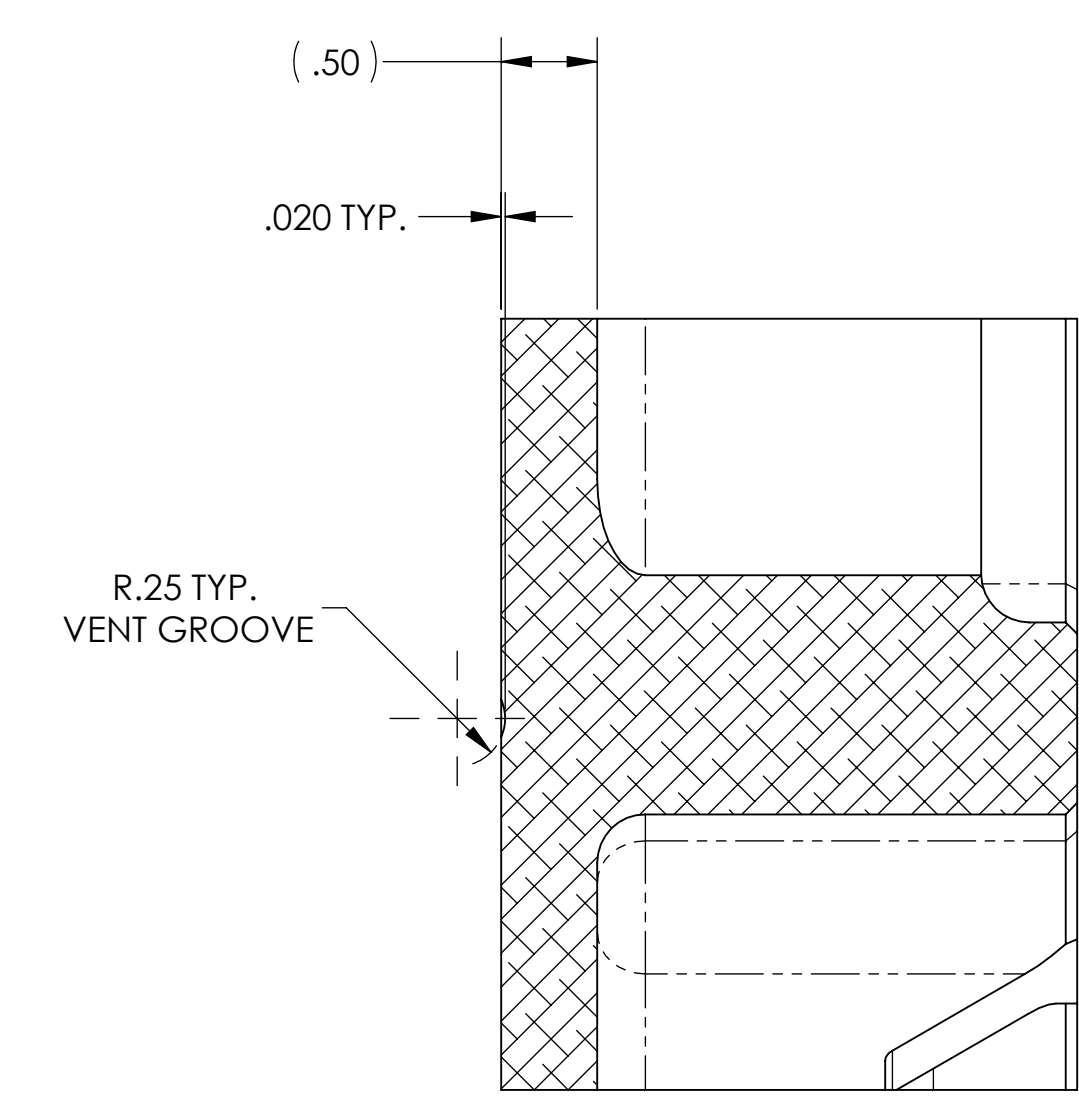
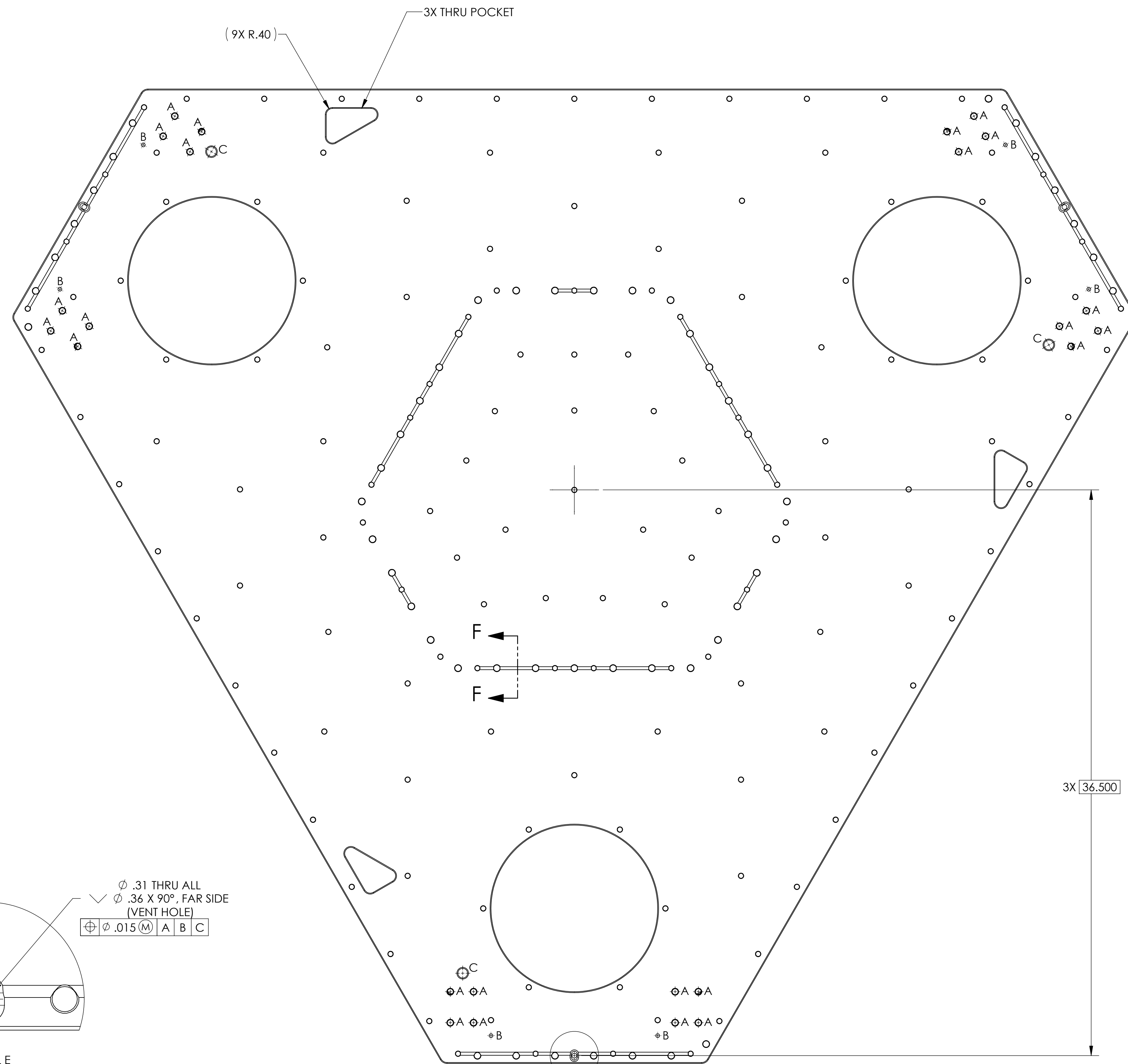
| NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED) | |
|--|------------|
| 1. INTERPRET DRAWING PER ASME Y14.5-1994. | |
| 2. REMOVE ALL SHARP EDGES, R.02 MIN. | |
| 3. DO NOT SCALE FROM DRAWING. | |
| 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE. | |
| MATERIAL | 6061-T6 Al |
| FINISH | 63 μinch |
| DIMENSIONS ARE IN INCHES | |
| TOLERANCES: .XX ± .015 .XXX ± .005 | |
| ANGULAR ± .5° | |

| | |
|---|---------------|
| CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY | |
| SYSTEM | ADVANCED LIGO |
| SUB-SYSTEM | SEI |
| NEXT ASSY | D0901181 |

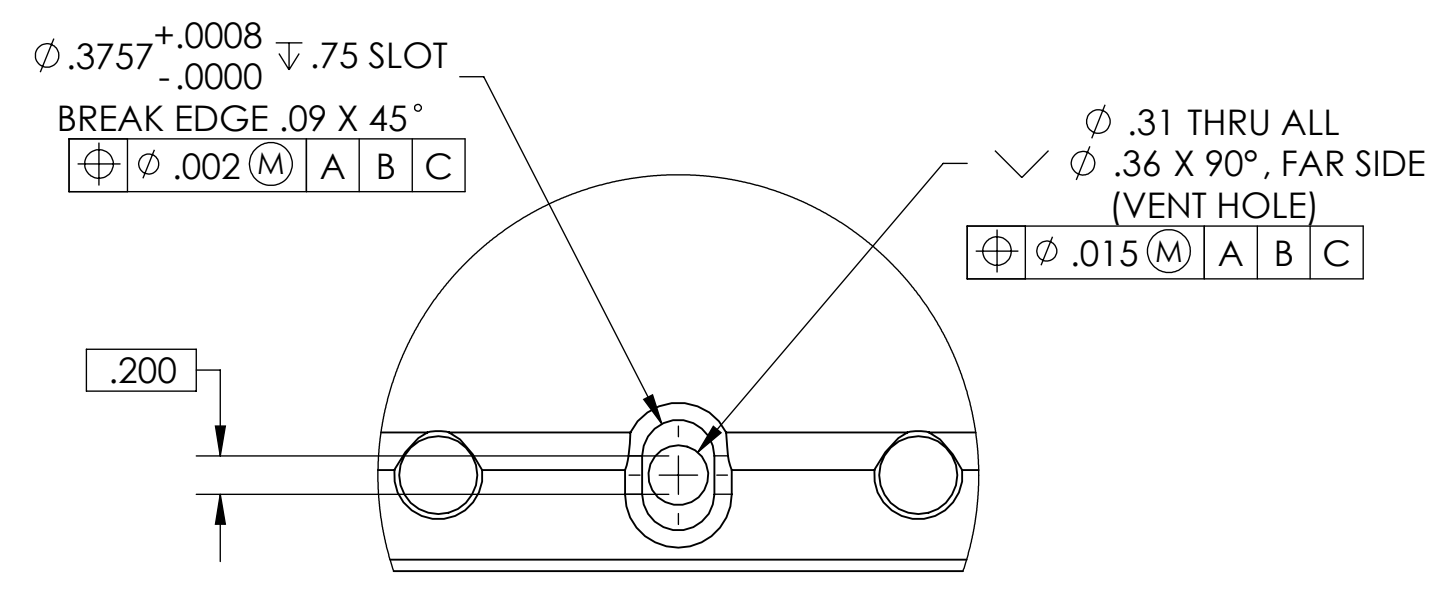
| PART NAME | | | | DESIGNER | | DATE | | SIZE | | DWG. NO. | | REV. | |
|--|--|--|--|------------|--|--------------|--|-------|--|----------|--|------------|--|
| Keel Plate, Down-Facing, aLIGO BSC ISI | | | | A.STEIN | | 28 Dec. 2009 | | D | | D0901518 | | v2 | |
| DRAFTER | | | | M.HILLARD | | 28 Dec. 2009 | | SCALE | | 1:5 | | PROJECTION | |
| CHECKER | | | | F.MATCHARD | | 28 Dec. 2009 | | SHEET | | 1 OF 3 | | APPROVAL | |
| APPROVAL | | | | K.MASON | | 28 Dec. 2009 | | SCALE | | 1:5 | | PROJECTION | |

D0901518_Keel_Plate_Down-Facing-BSC.dwg PART PDM REV. X-042 DRAWING PDM REV. X-015

| TAG | SIZE | QUANTITY | TOLERANCE |
|-----|---|----------|--|
| A | $\phi .313 \nabla 1.50$ $3/8-16 \text{ UNC } \nabla 1.13$ $\phi .45 \times 120^\circ, \text{ NEAR SIDE}$ | 24 | $\oplus \phi .010 \text{ A B C}$ NOTE 11 |
| B | $\phi .25 \text{ THRU ALL}$ | 6 | $\oplus \phi .030 \text{ A B C}$ VENT HOLE |
| C | $\phi .531 \text{ THRU}$ $5/8-11 \text{ UNC } - 2\text{B THRU}$ $\phi .75 \times 120^\circ, \text{ NEAR SIDE}$ $\phi .75 \times 120^\circ, \text{ FAR SIDE}$ | 3 | $\oplus \phi .030 \text{ A B C}$ FOR LIFTING HARDWARE |



SECTION F-F
SCALE 1 : 1
TYP. VENT GROOVE SECTION
(MULTIPLE PLACES)

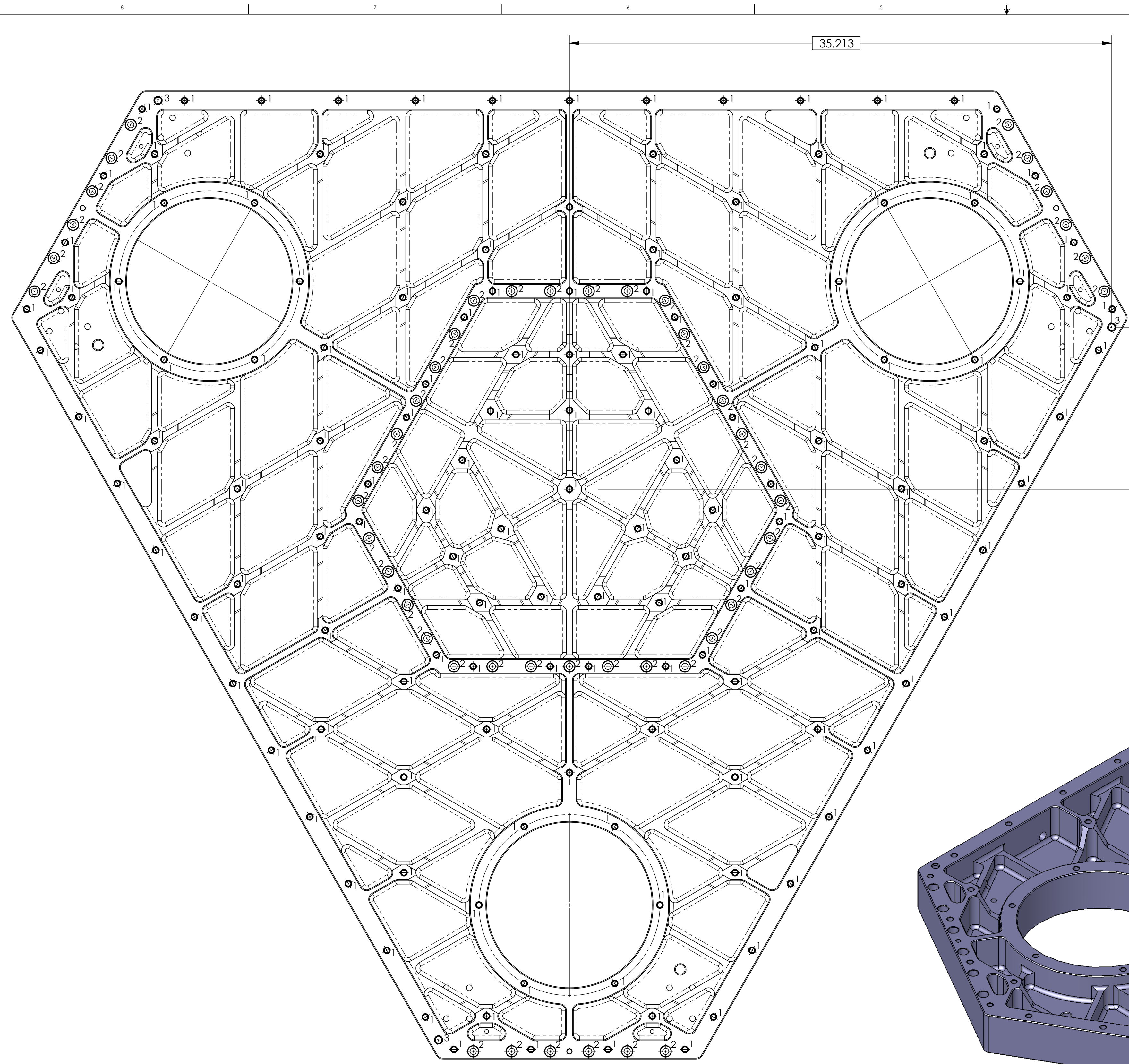


DETAIL E
SCALE 1 : 1
TYP. PIN SLOT DETAIL
(3 PLACES)

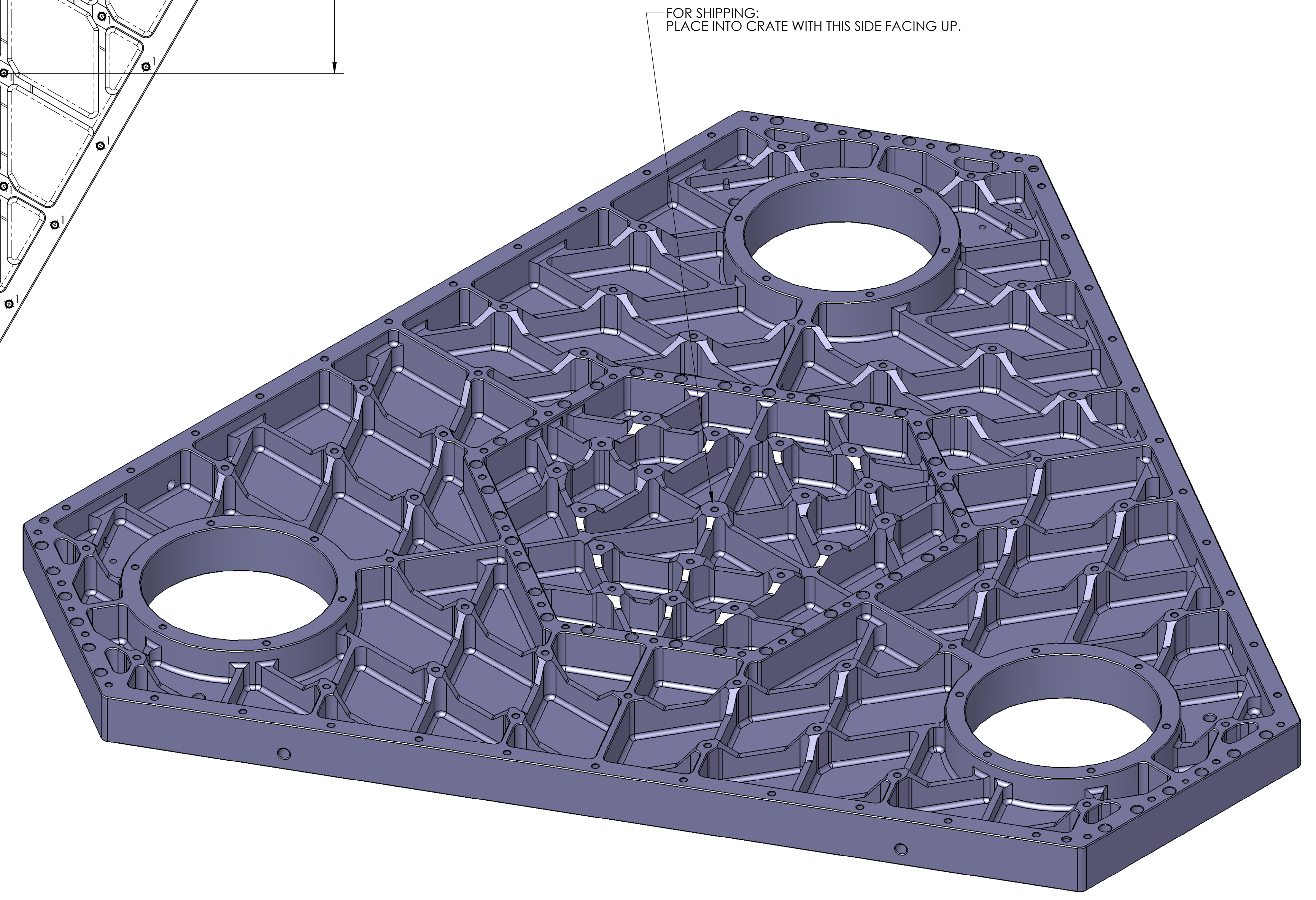
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

| | | |
|------------|-------------|--------------|
| SIZE | DWG. NO. | REV. |
| D | D0901518 | v2 |
| SCALE: 1:4 | PROJECTION: | SHEET 2 OF 3 |

DDP01518_Keel_Plate_Down_Facing_BSC_BI_PART_PDM_REV_X042_DRAWING_PDM_REV_X015



| TAG | SIZE | QUANTITY | TOLERANCE |
|-----|--|----------|--|
| 1 | $\varnothing .313$ THRU ALL $3/8-16$ UNC $\nabla 1.13$ $\checkmark \varnothing .45 \times 120^\circ$, NEAR SIDE $\checkmark \varnothing .36 \times 90^\circ$, FAR SIDE | 145 | $\oplus \varnothing .010$ A B C NOTE 11 |
| 2 | $\varnothing .406$ THRU ALL $\varnothing .688$ $\nabla 1.75$ $\checkmark \varnothing .75 \times 90^\circ$, NEAR SIDE $\checkmark \varnothing .46 \times 90^\circ$, FAR SIDE | 51 | $\oplus \varnothing .010$ (M) A B C |
| 3 | $\varnothing .5000^{+.0000}$ $\nabla .75$ $\varnothing .502^{+.001}$ $\nabla .15$ $\checkmark \varnothing .55 \times 90^\circ$, NEAR SIDE $\varnothing .41$ THRU (VENT) $\checkmark \varnothing .46 \times 90^\circ$, FAR SIDE | 3 | $\oplus \varnothing .002$ (M) A B C |



LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

| | | |
|------------|-------------|--------------|
| SIZE | DWG. NO. | REV. |
| D | D0901518 | v2 |
| SCALE: 1:4 | PROJECTION: | SHEET 3 OF 3 |

D0901518_Keel_Plate_Down_Facing-BSC_BI_PART_PDM_REV_X-042_DRAWING_PDM_REV_X-015