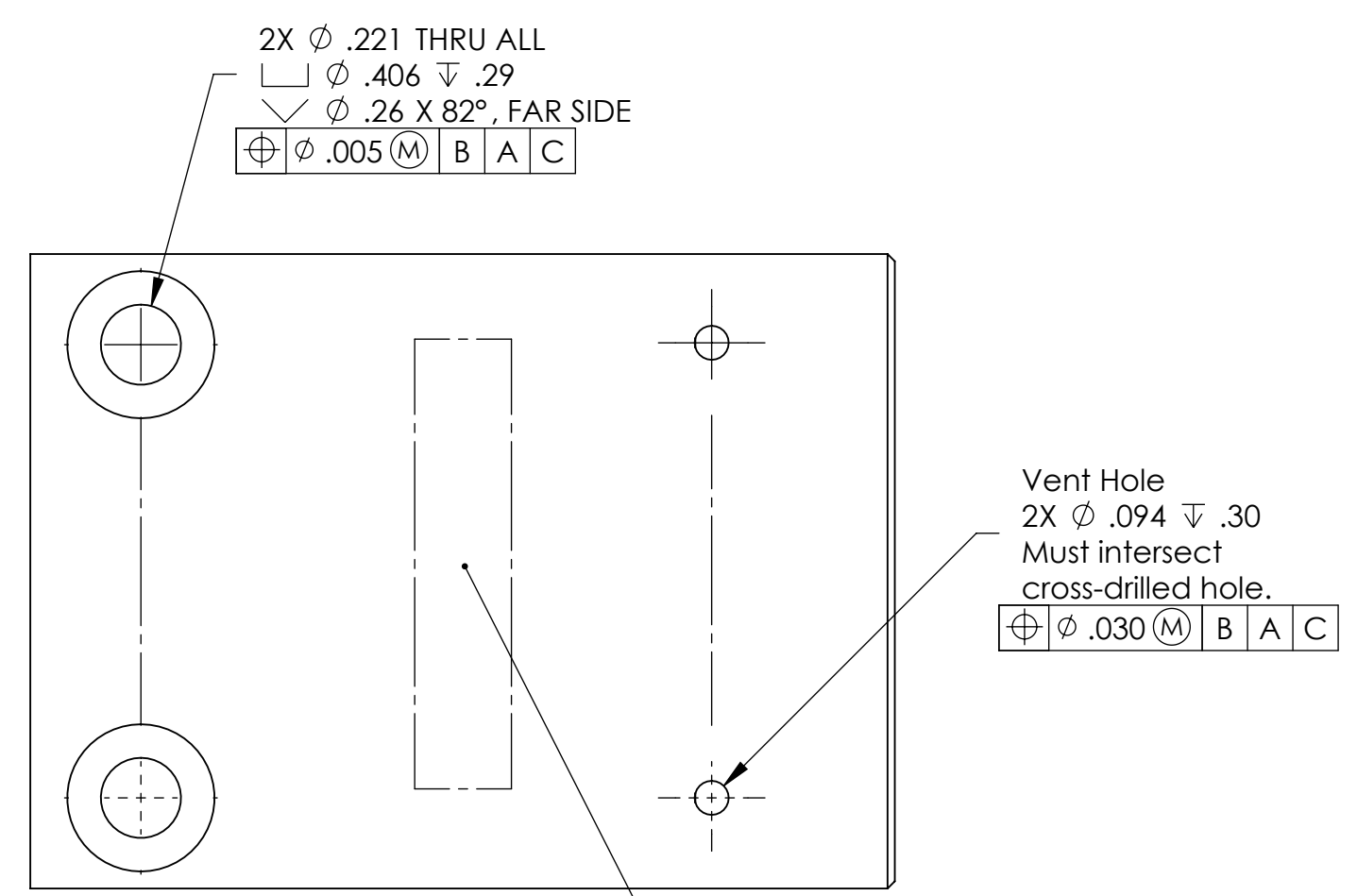
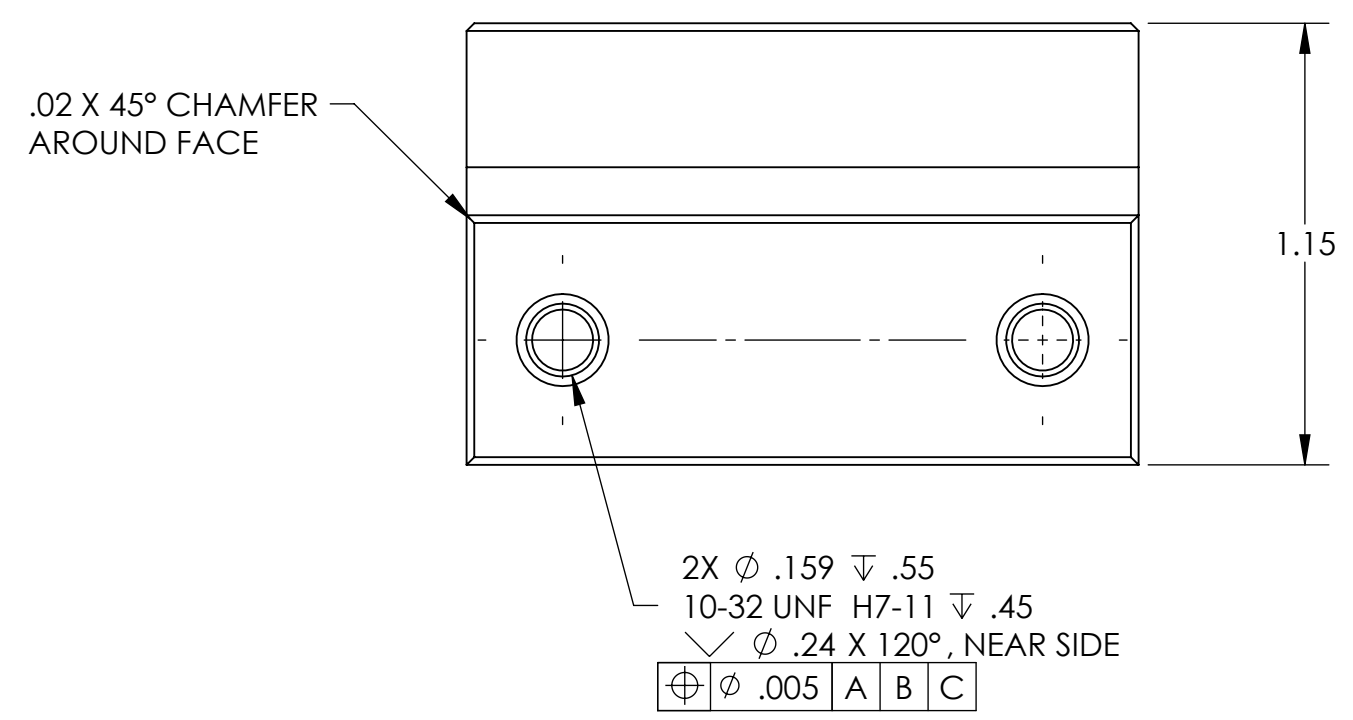
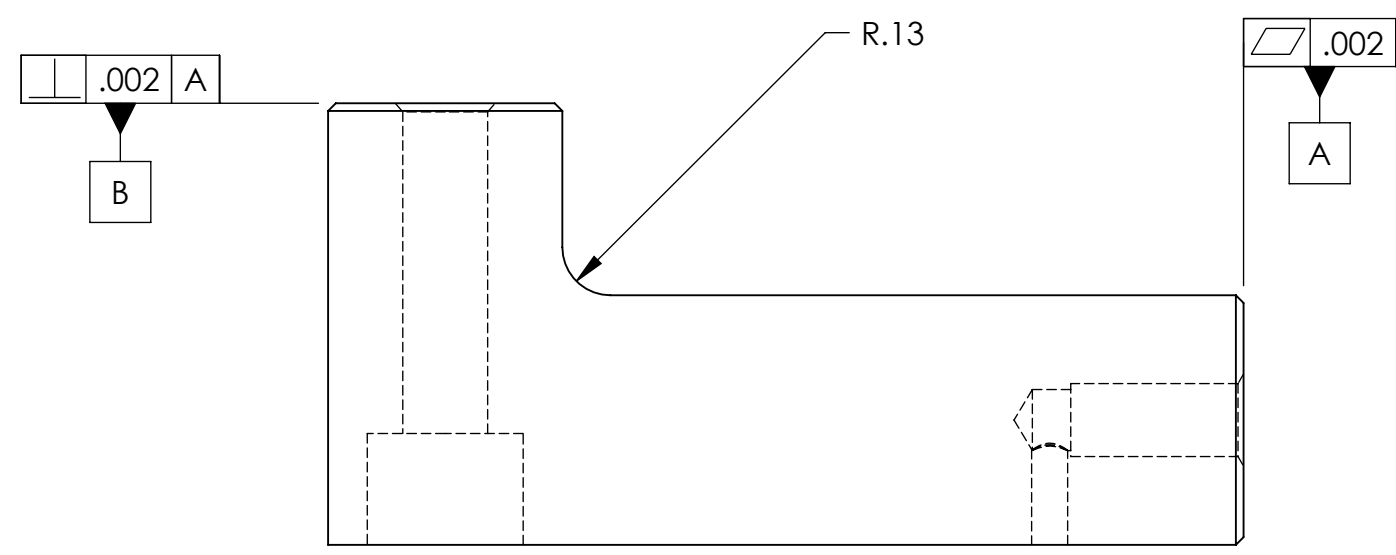
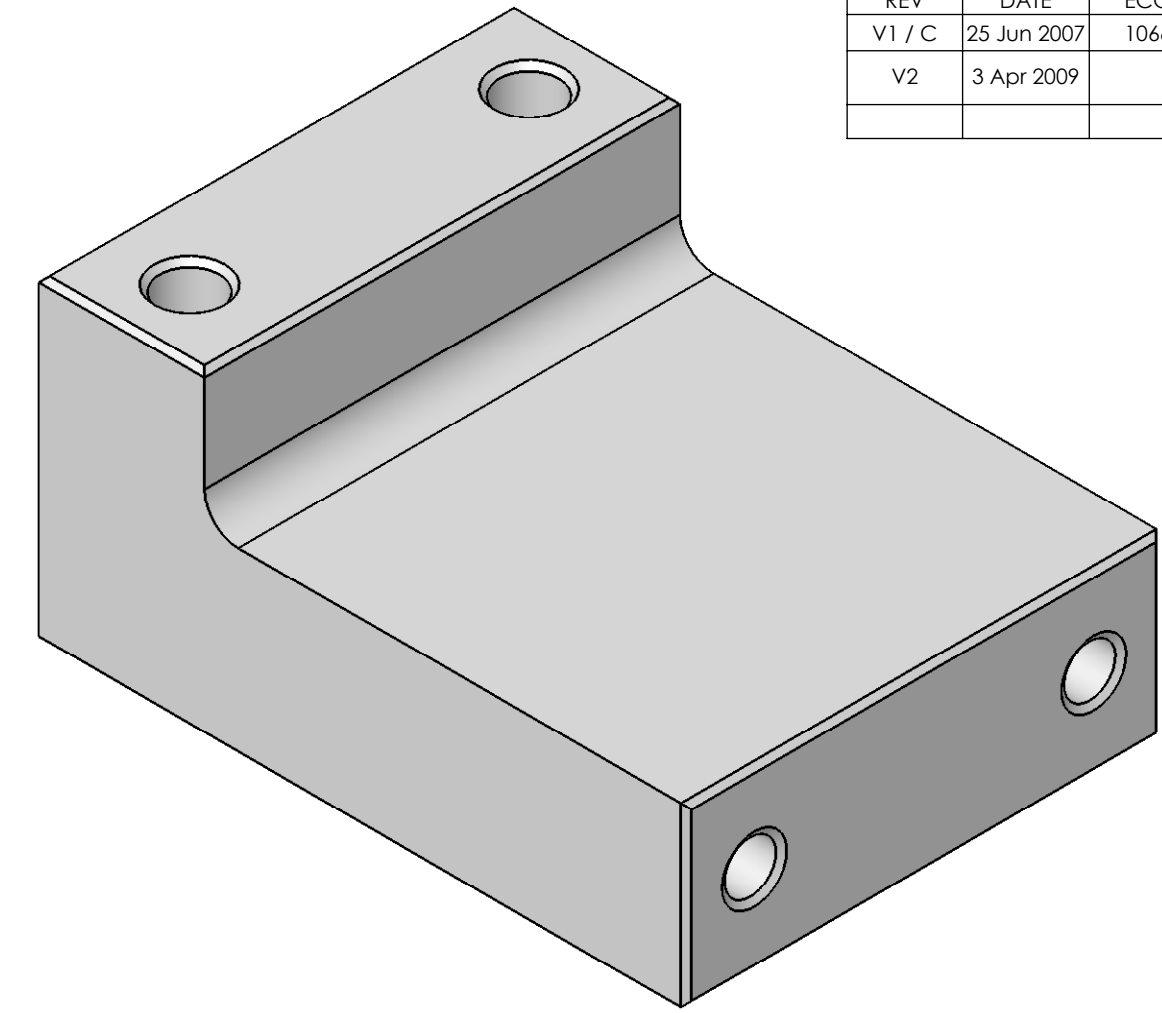
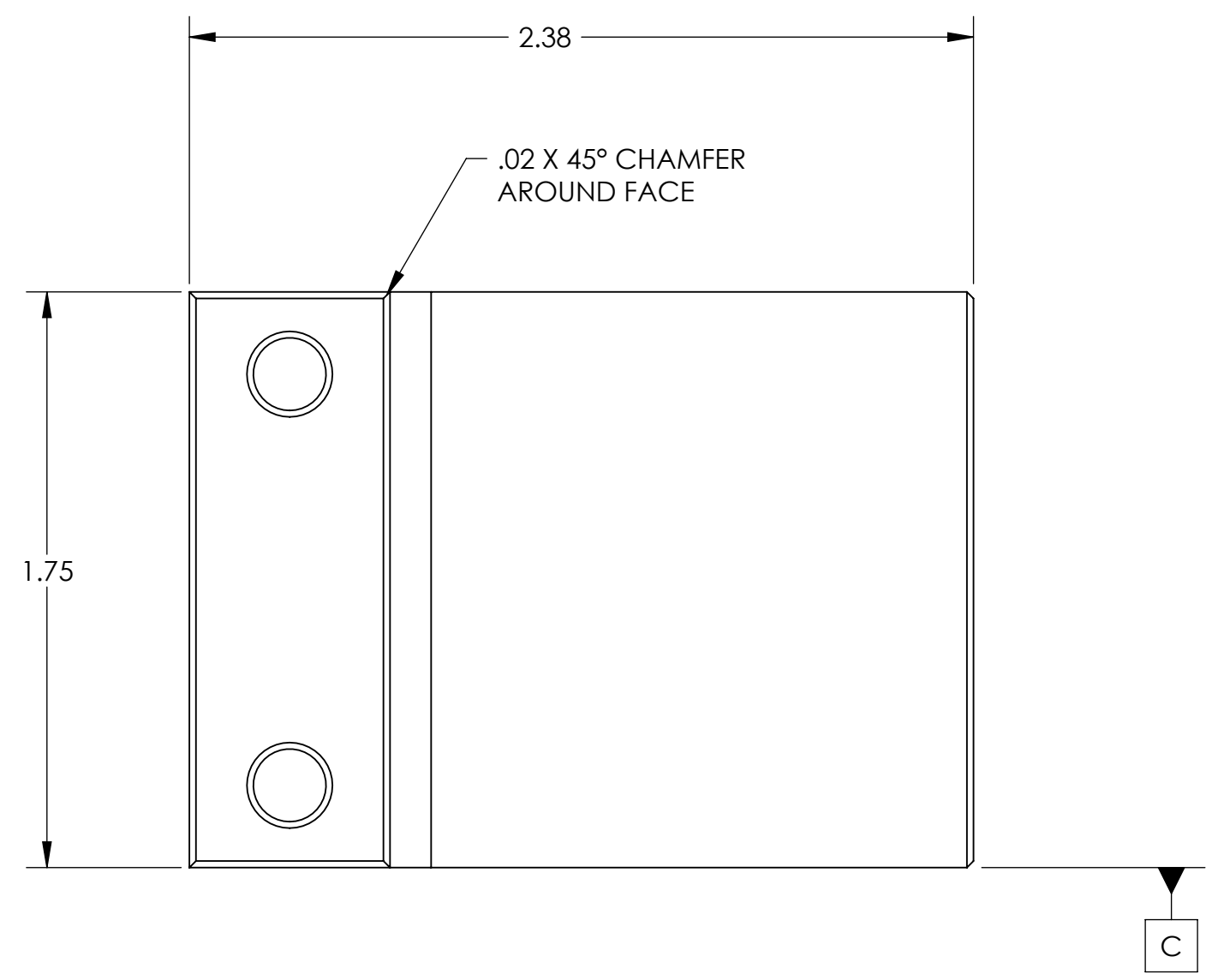


| REVISION HISTORY |             |      |            |  |
|------------------|-------------|------|------------|--|
| REV              | DATE        | ECO  | APPROVAL   | DESCRIPTION  |
| V1 / C           | 25 Jun 2007 | 1066 | D. Senders | Release for Enhanced LIGO.                             |
| V2               | 3 Apr 2009  |      | A. Stein   | Release for Advanced LIGO. Added chamfers and c/sinks. |



MACHINING NOTES:

- 1) MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. ABRASIVE REMOVAL TECHNIQUES (OTHER THAN DRESSED BLANCHARD GRINDING) ARE NOT ACCEPTABLE.
- 2) ALL MACHINING FLUIDS MUST BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE, AND SILICONE, SUCH AS CINCINNATI MILACRON CIMTECH 410.
- 3) THOROUGHLY CLEAN PART TO REMOVE ALL OIL, GREASE, DIRT, AND CHIPS.
- 4) WHERE INDICATED, MECHANICALLY SCRIBE, STAMP, OR ENGRAVE THE FOLLOWING INFORMATION AS SHOWN BELOW: **PART NUMBER-REVISION** (AND **TYPE** IF INDICATED), FOLLOWED ON THE NEXT LINE WITH A UNIQUE 3-DIGIT **SERIAL NUMBER** STARTING AT 001 FOR THE FIRST PART AND INCREMENTING THEREAFTER. USE 0.38" TALL CHARACTERS UNLESS PART SIZE DICTATES SMALLER.

POST-MACHINING NOTES:

P1) CLEAN TO LIGO STANDARDS, CLASS A.

|                                  |  |           |   |  |                               |
|----------------------------------|--|-----------|---|--|-------------------------------|
| APPROVALS                        |  | DATE      | UNLESS OTHERWISE SPECIFIED:<br>DIMENSIONS ARE IN INCHES<br>DECIMAL TOLERANCES:<br>.XX ±.015 .XXX ±.005<br>ANG TOL: ± 1" SURFACE ROUGHNESS:<br>REMOVE ALL SHARP EDGES.<br>LEAVE .005 X 45° MIN CHAMFER,<br>OR .005 MIN RADIUS. | ORIGINAL DESIGN BY:<br><b>High Precision Devices</b>   | MODIFIED BY:<br>              |
| ENGINEERING (HPD):<br>D. Senders |  | 5/22/2007 |   | 1448 Valtec Lane, Suite C, Boulder, Colorado 80301<br>Phone: (303) 447-2558 Fax: (303) 447-2548 Web Site: www.hpd-online.com |                               |
| QUALITY (HPD):<br>C. Danaher     |  | 5/22/2007 | THIS PRINT & THE EMBEDDED CAD MODEL ARE THE DOCUMENTATION OF RECORD. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS IN THE MODEL ARE BASIC, WITH TOLERANCES GIVEN BY:   | DESCRIPTION:<br><b>Sensor Head Bracket, Vert</b>   |                               |
| MATERIAL: <b>6061-T6 Al</b>      |  |           | ⊕ .010 A B C  | P/N: <b>D071175</b>  | CONFIG: -                     |
| FINISH: <b>None</b>              |  |           |   | CAD FILE NAME: D071175_Sensor_Head_Bracket-Vert  |                               |
| MASS: <b>0.3 lbs</b>             |  |           |   | PROJECT: HAM ISI, Advanced LIGO  |                               |
|                                  |  |           |   | SIZE: <b>C</b>   | SCALE: <b>2:1</b>             |
|                                  |  |           |   | DRAWN BY: <b>Dave Senders (HPD)</b>  | REV: <b>V2</b>                |
|                                  |  |           |   | SHEET <b>1</b> OF <b>1</b>   | DATE PRINTED: <b>4/3/2009</b> |