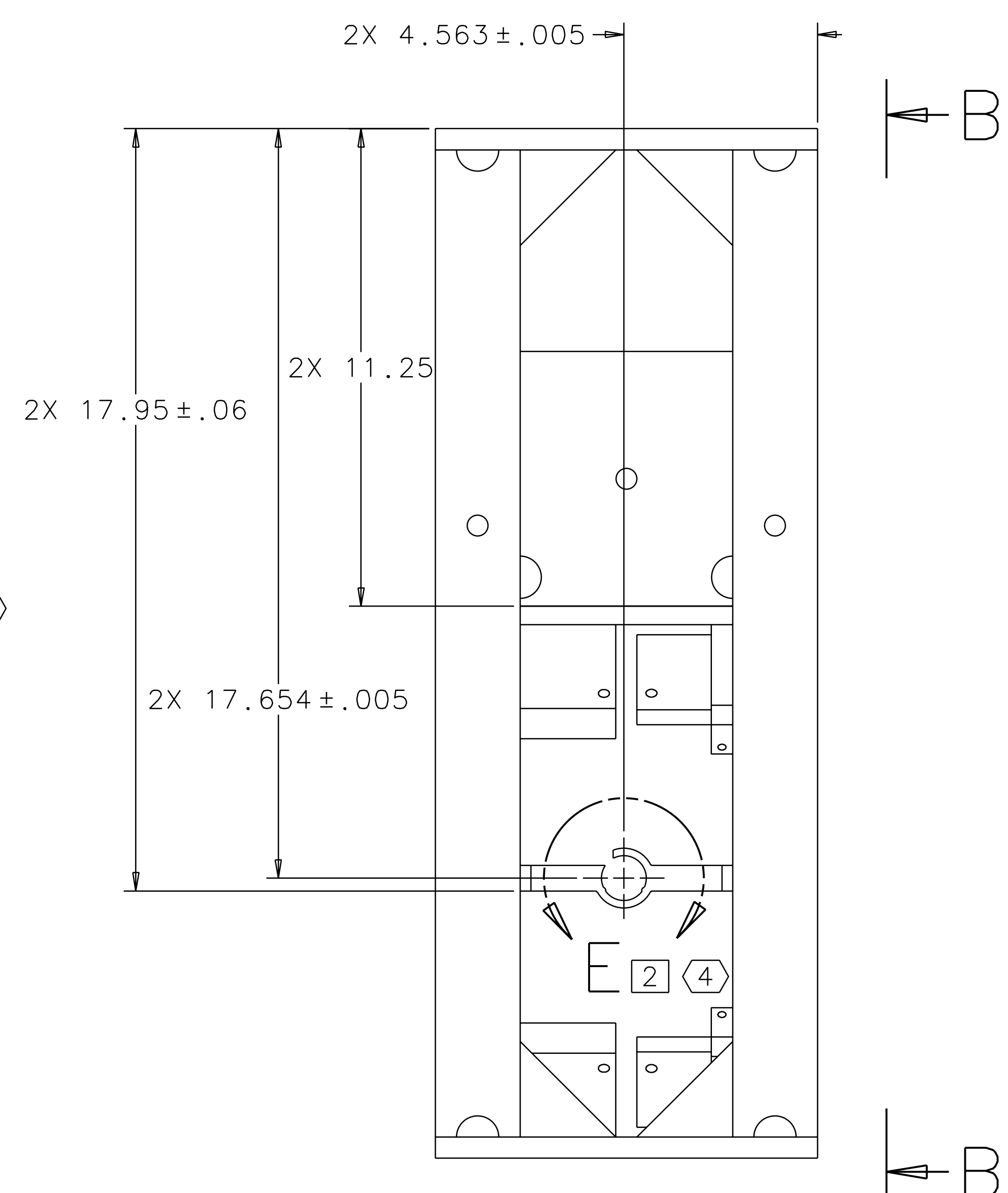
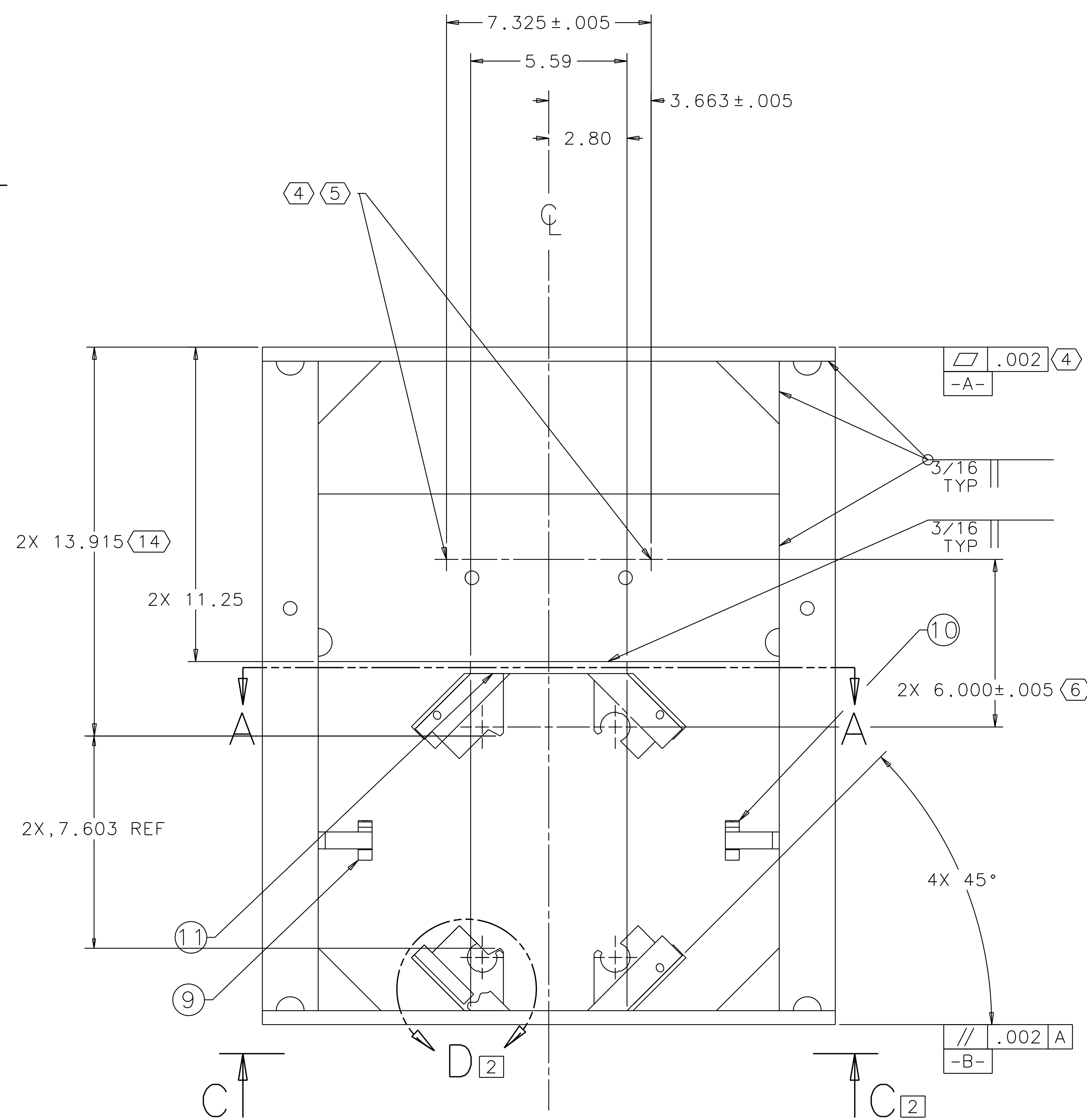
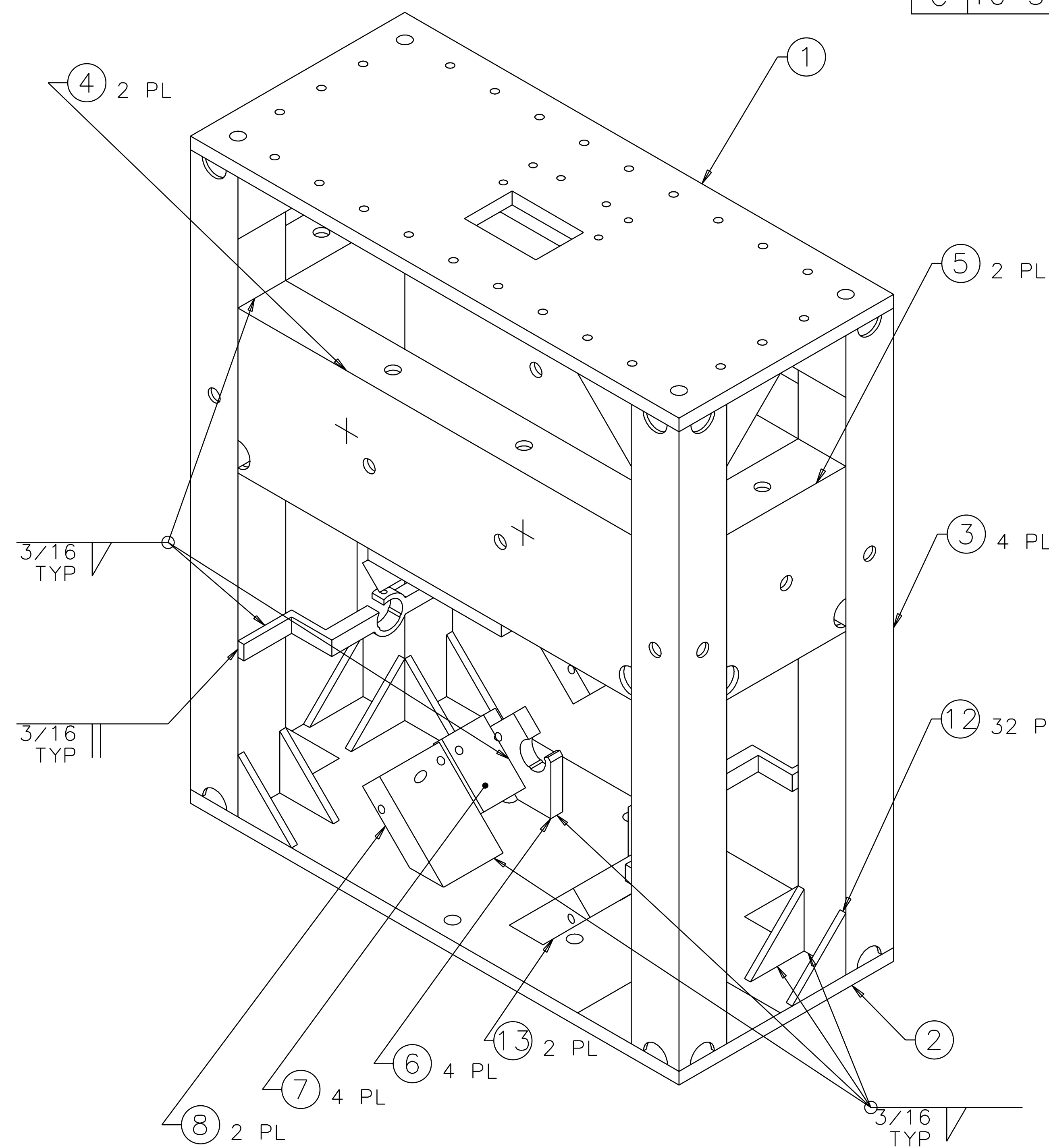
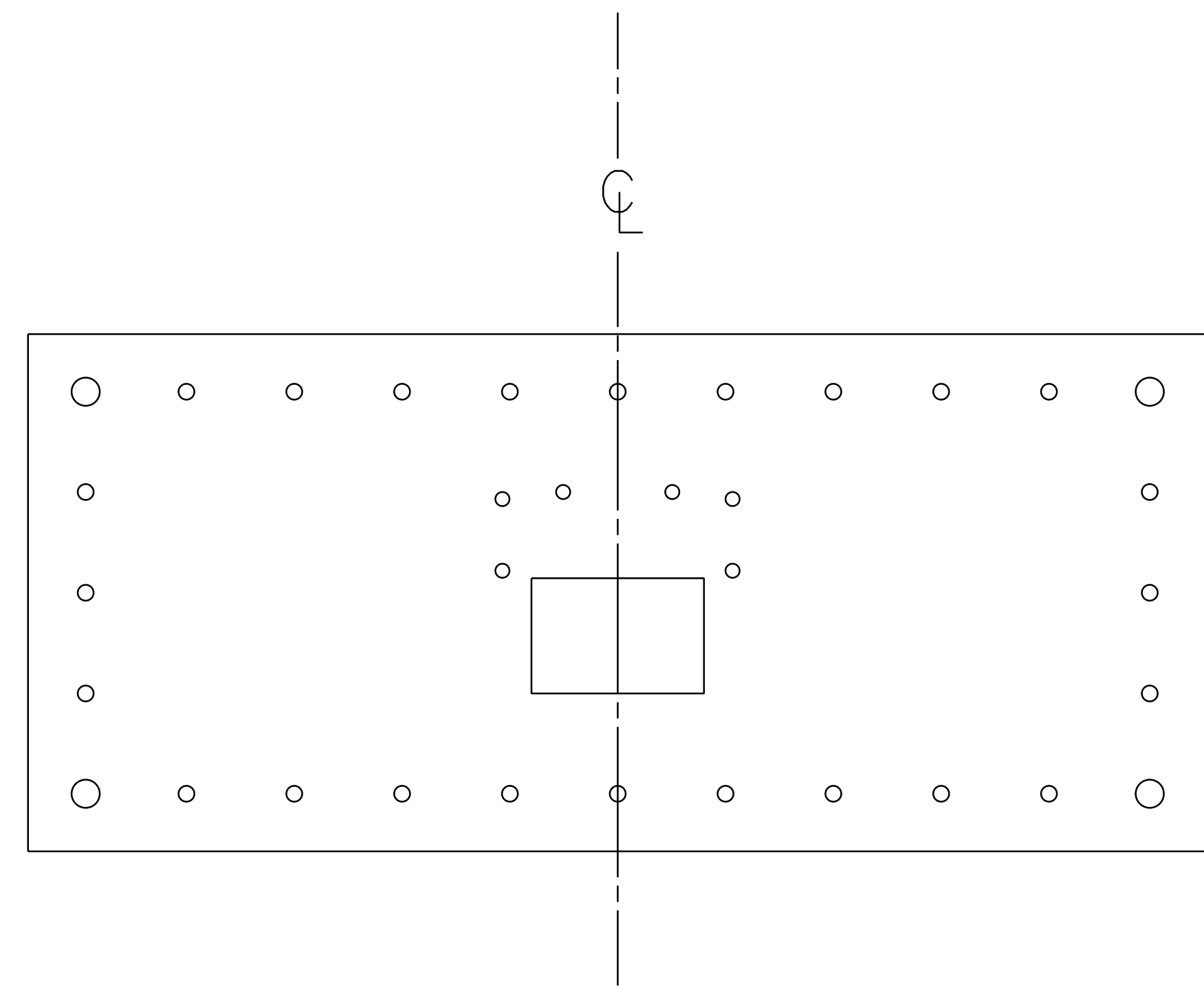


REV	DATE	DRAWN BY	CHECKED	DCC	DCN/DESCRIPTION
A	8-17-98	C. Conley	D. Coyne		E980078-00/INITIAL RELEASE
B	8-23-98	C. Conley			E980230-00
C	10-5-98	J. Romie			E980255-00

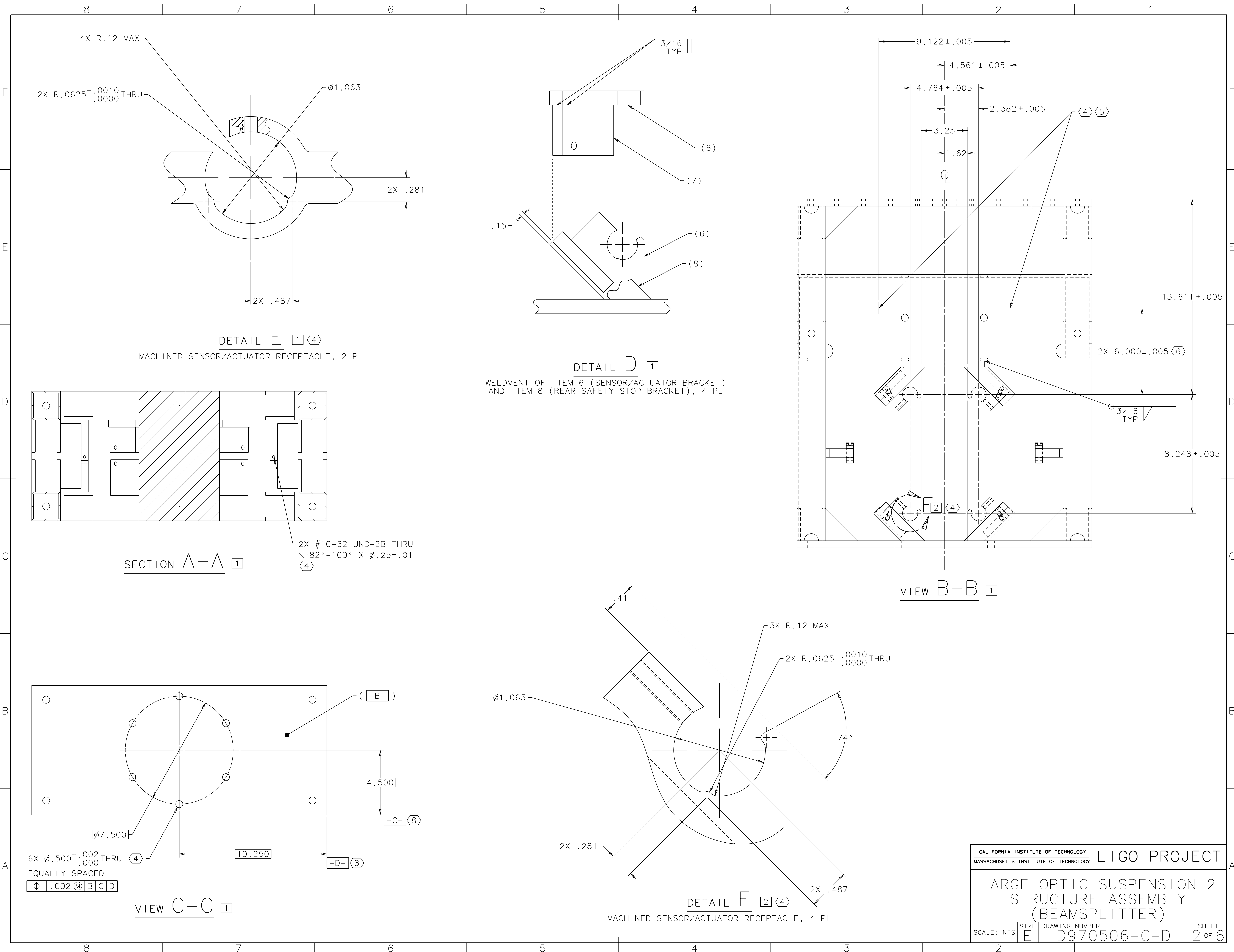
NOTES: (UNLESS OTHERWISE SPECIFIED)

- INTERPRET DRAWING PER ANSI Y14.5M-1982.
- BREAK ALL SHARP EDGES.
- SPECIFICATIONS FOR THE CONSTRUCTION OF THIS ASSEMBLY ARE DETAILED IN THE "LARGE OPTIC SUSPENSION STRUCTURAL FABRICATION SPECIFICATION" (LIGO E970038).
- NOTED FEATURES TO BE MACHINED AFTER ANNEALING.
- SIZE OF CROSSHAIR MARKS TO BE APPROXIMATELY AS SHOWN. ETCH OR SCRIBE ON FACE OF STRUCTURE AFTER ANNEALING. MAXIMUM WIDTH .01, MAXIMUM DEPTH .02.
- APPLY CROSSHAIRS AFTER ANNEALING. SEE VIEW B-B FOR LOCATIONS AND MACHINING DETAILS OF FEATURES ON ITEMS 6 (SENSOR/ACTUATOR BRACKET), FROM WHICH CROSSHAIRS ARE VERTICALLY LOCATED.
- WHEREVER APPLICABLE, PARTS AND FEATURES ARE LOCATED RELATIVE TO ITEM 1 (TOP PLATE).
- SIDE FACE OF ITEM 2 (BOTTOM PLATE).
- REFERENCE TO SIDE FACE OF ITEM 1 (TOP PLATE).
- TOOLING BALL TO BE MOUNTED ON DRILLING FIXTURE TO NOTED RELATIVE DIMENSIONS.
- GUSSET THICKNESSES ARE NOT TO SCALE IN DRAWING VIEWS.
- RELIEF SLOTS ON ITEMS 6 THROUGH 11 NOT SHOWN.
- INTERFACE BETWEEN ITEMS 4 (STIFFENER) AND 11 (ADAPTER PLATE): NOMINAL PIECE PART DIMENSIONS MAY NEED TO BE MODIFIED TO ASSURE FULL PENETRATION WELD AND FLUSH ALIGNMENT $\pm .05$, OF ADAPTER PLATE TO STIFFENERS.
- ITEM 6 (SENSOR/ACTUATOR BRACKET) IS SHOWN IN THE UNMACHINED CONDITION FOR LOCATING DIMENSION.
- TO MEET THE DIMENSIONAL REQUIREMENTS, AN INTERMEDIARY STRESS RELIEF STEP MAY BE ADDED AFTER WELDING THE TOP PLATE, BOTTOM PLATE, FOUR STIFFENERS, GUSSETS AND ADAPTER PLATE TOGETHER.



QTY	RECD	FSOM NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	ITEM NO
2			D970546-2	BRACKET, SAFETY STOP, FRONT		13
32				GUSSET, 2.25 x 2.25 x 45°, .12 THK (11)	304 STAINLESS STEEL	12
1			D970549	ADAPTER PLATE		11
1			D970570	BRACKET, SENSOR/ACTUATOR, RIGHT SIDE		10
1			D970548	BRACKET, SENSOR/ACTUATOR, LEFT SIDE		9
2			D970546-1	BRACKET, SAFETY STOP, FRONT		8
4			D970547	BRACKET, SAFETY STOP, REAR		7
4			D970545	BRACKET, SENSOR/ACTUATOR		6
2			D970544	SIDE STIFFENER		5
2			D970543	FRONT STIFFENER		4
4			D960504	LEG		3
1			D970542	BOTTOM PLATE		2
1			D970541	TOP PLATE		1

DRWN	C. Conley	DATE	8-17-98	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
CHKD				I-Deas CAD file: D970506_B.dwg dcc file: D970506-B.pdf			
ENGR				TITLE			
APPD				LARGE OPTIC SUSPENSION 2 STRUCTURE ASSEMBLY (BEAMSPLITTER)			
UNLESS OTHERWISE SPECIFIED: DIMENSION UNITS ARE inches [mm] TOLERANCES ARE: X.XXX: ± 0.01 X.XX: ± 0.03 X.X: ± 0.1				SCALE: NTS	SIZE	DRAWING NUMBER	SHEET
NEXT ASSEMBLY: D970505				E	D970506-C-D	1	of 6



DETAIL E 1 4
MACHINED SENSOR/ACTUATOR RECEPTACLE, 2 PL

DETAIL D 1
WELDMENT OF ITEM 6 (SENSOR/ACTUATOR BRACKET)
AND ITEM 8 (REAR SAFETY STOP BRACKET), 4 PL

SECTION A-A 1

VIEW B-B 1

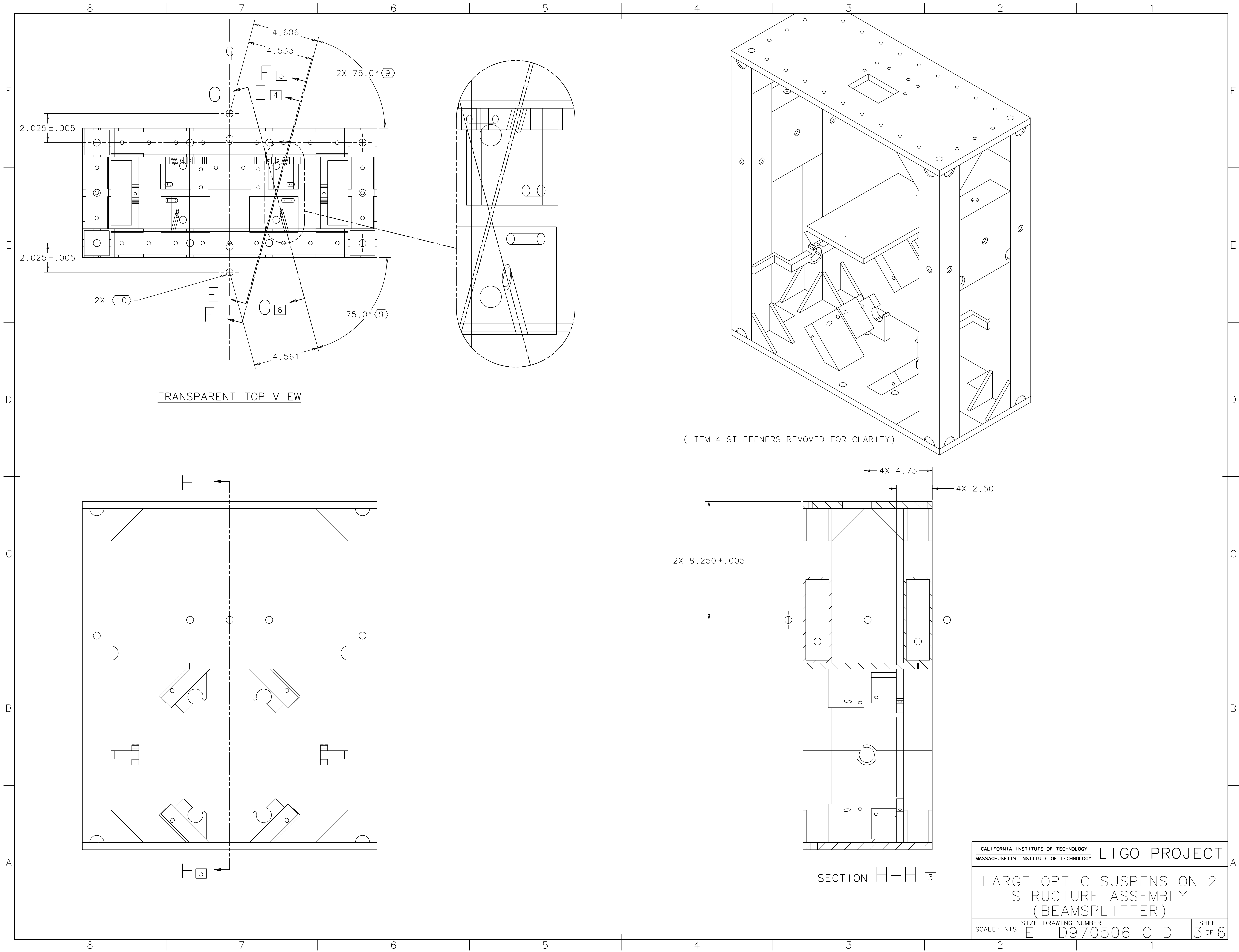
VIEW C-C 1

DETAIL F 2 4
MACHINED SENSOR/ACTUATOR RECEPTACLE, 4 PL

2X #10-32 UNC-2B THRU
∠82°-100° X ϕ .25±.01
4

6X ϕ .500 $^{+.002}_{-.000}$ THRU
EQUALLY SPACED
 ϕ .002 M B C D

CALIFORNIA INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
MASSACHUSETTS INSTITUTE OF TECHNOLOGY			
LARGE OPTIC SUSPENSION 2 STRUCTURE ASSEMBLY (BEAMSPLITTER)			
SCALE: NTS	SIZE E	DRAWING NUMBER D970506-C-D	SHEET 2 OF 6

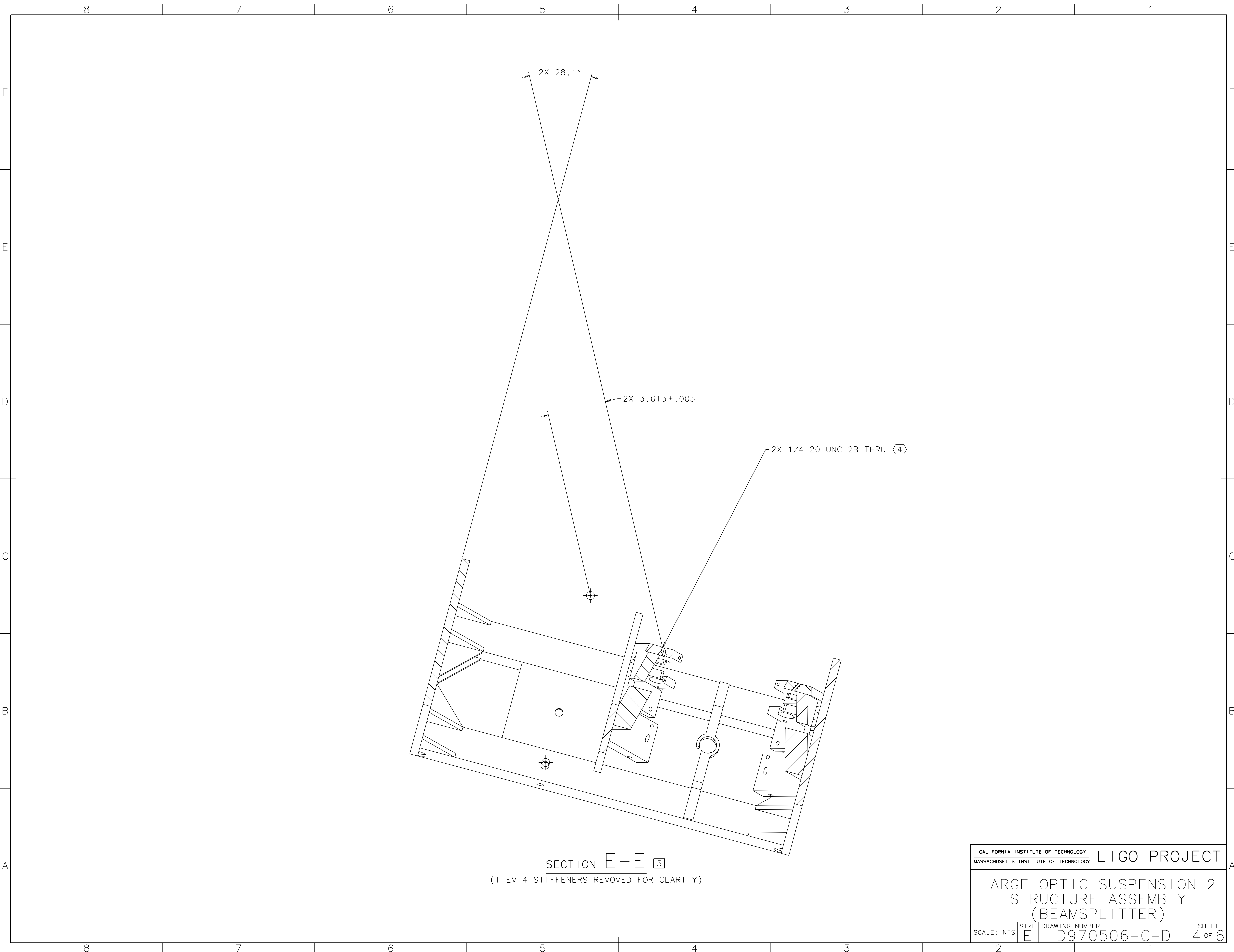


TRANSPARENT TOP VIEW

(ITEM 4 STIFFENERS REMOVED FOR CLARITY)

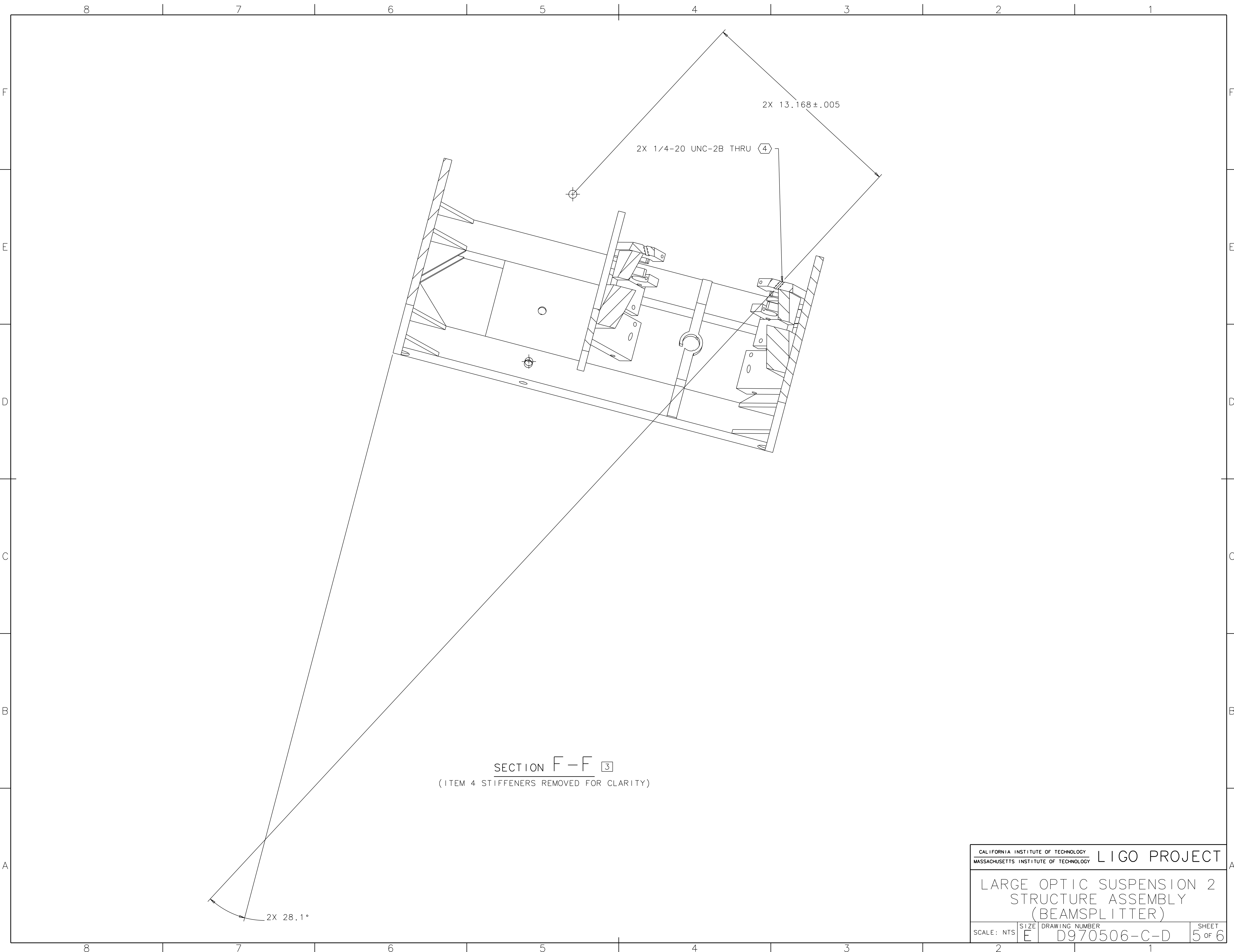
SECTION H-H 3

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
LARGE OPTIC SUSPENSION 2 STRUCTURE ASSEMBLY (BEAMSPLITTER)			
SCALE: NTS	SIZE E	DRAWING NUMBER D970506-C-D	SHEET 3 OF 6



SECTION E-E 3
 (ITEM 4 STIFFENERS REMOVED FOR CLARITY)

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
LARGE OPTIC SUSPENSION 2 STRUCTURE ASSEMBLY (BEAMSPLITTER)			
SCALE: NTS	SIZE E	DRAWING NUMBER D970506-C-D	SHEET 4 OF 6



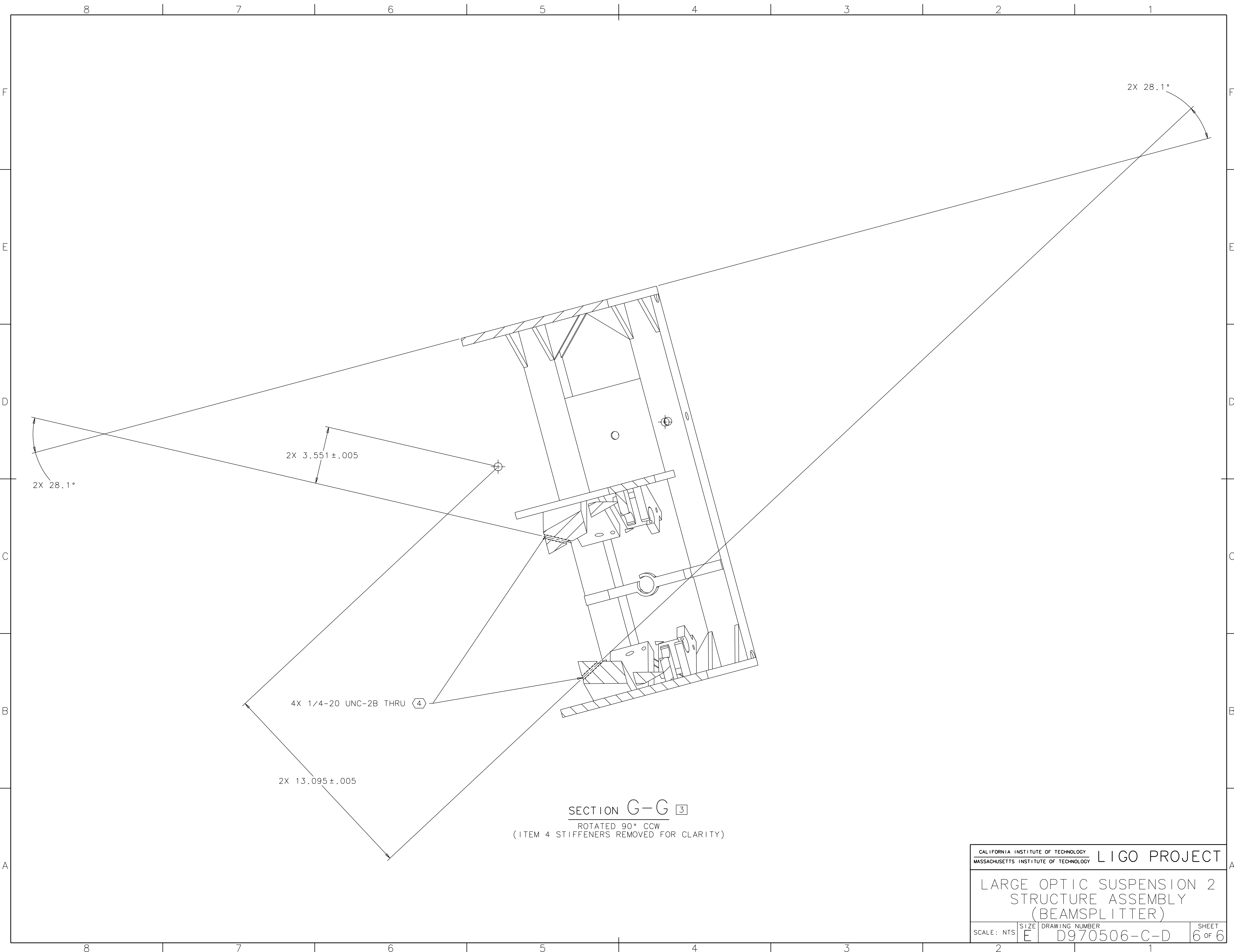
SECTION F-F 3
 (ITEM 4 STIFFENERS REMOVED FOR CLARITY)

2X 13.168 ± .005

2X 1/4-20 UNC-2B THRU 4

2X 28.1°

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
LARGE OPTIC SUSPENSION 2 STRUCTURE ASSEMBLY (BEAMSPLITTER)			
SCALE: NTS	SIZE E	DRAWING NUMBER D970506-C-D	SHEET 5 OF 6



CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
LARGE OPTIC SUSPENSION 2 STRUCTURE ASSEMBLY (BEAMSPLITTER)			
SCALE: NTS	SIZE E	DRAWING NUMBER D970506-C-D	SHEET 6 OF 6