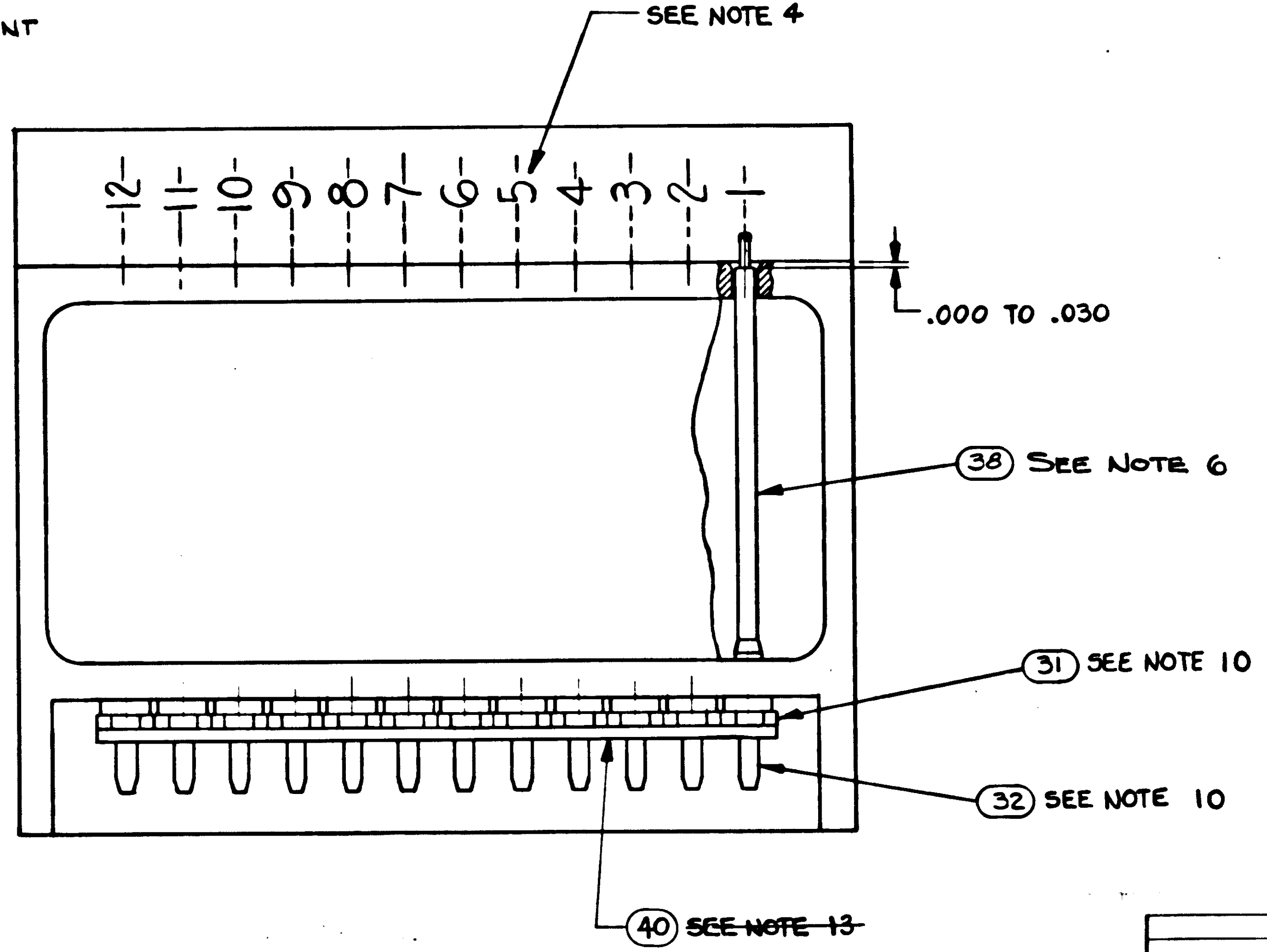


REVISIONS				
SYM	DESCRIPTION	CHG NO.	DATE	APPD
A	REVISED PER TDRR 17351		4/30/51	
B	REVISED PER TDRR 19403		5/2/51	
C	REVISED PER TDRR 9429		5/2/51	
D	REVISED PER TDRR 19507		5/2/51	
E	REVISED PER TDRR 20143		5/2/51	

CONFIGURATION	BOND BETWEEN WAFER AND HEATSINK	TOP OF WAFER	HEATSINK-FOAM CONTACT SURFACE ADJACENT TO HEATSINK EXTER SURFACE
WAFER OR FLAT HEATSINK	100% OF AREA OF EXTERNAL HEATSINK SURFACE BOX OF AREA .25 FROM EXTERNAL HEATSINK SURFACE	100% OF AREA OF EXTERNAL HEATSINK SURFACE	N/A
WAFER AND ADJACENT VERTICAL HEATSINK SURFACE	CORNER FILLET AND VERTICAL SURFACE TO WITHIN .03 ± .03 OF EXTERNAL SURFACE	100% OF AREA .25 FROM EXTERNAL HEATSINK SURFACE	N/A
HEATSINK FOAM CONTACT SURFACE PERIMETER	N/A	N/A	25 MIN WIDTH OR TOTAL AVAILABLE ON 90% OF PERIMETER WITHIN .03 ± .03 OF EXTERNAL SURFACE

- INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED BY MIL-D-70327.
- UNLESS OTHERWISE SPECIFIED: WIRING SHALL MEET THE REQUIREMENTS OF ND 1002069.
- ENCAPSULATE MODULE PER ND 1002002 (BLACK POLYURETHANE FOAM) UNLESS OTHERWISE SPECIFIED PERIPHERAL ENCAPSULANT DIMENSIONS MAY EXCEED THE NOMINAL HEATSINK WIDTH AND LENGTH DIMENSIONS BY A MAXIMUM OF .005. WHEN THE HEATSINK OUTLINE EXCEEDS THE ENCAPSULANT OUTLINE, THE MAXIMUM DIMENSION BETWEEN ANY HEATSINK SURFACE AND ITS RESPECTIVE ENCAPSULANT SURFACE SHALL NOT EXCEED .015. REMOVE ALL FLASHING.
- MARK PIN NUMBERS .100 HIGH (WHITE) AND ALL OTHER CHARACTERS .140 HIGH (WHITE) PER ND 1002019 AND SERIALIZE PER ND 1002023. CENTRALIZE AS SHOWN.
- AREA TO BE FREE OF ENCAPSULATING COMPOUND
- USE AS REQUIRED
- ON ITEMS (2), (3) AND (4):
 - 'K' INDICATES CATHODE SIDE OF DIODE
 - FT () INDICATES FEED THRU
 - 'C' INDICATES COLLECTOR LEAD OF TRANSISTOR
 - B = BASE
 - E = EMITTER
 - C = COLLECTOR
 - D = DIODE
 - B = BASE
 - E = EMITTER
 - Multi-stage transistor
- WHITE DOT AND CLEAR WIRING INDICATES LOWER LEVEL WIRING. BLACK DOT AND CROSS-HATCHED WIRING INDICATES UPPER LEVEL WIRING.
- TYPICAL SLEEVING FOR CR1 THRU CR4, R1 THRU R8, R14, R16 AND R18
- MUST MEET REQUIREMENTS OF ND 1002136
- TORQUE TO 4 ± 1 IN-LB FOR ASSY OF ITEM 10
- ALL CONNECTIONS TO BE MADE BY WELDING PER ND 1002005
- BOND ITEM (40) TO ITEM (31) PER ND 1002237.
- COMPONENTS TO BE CEMENTED IN PLACE PER ND 1002009 METHOD H AND CENTRALIZED
- USE MIL-1-631 TYPE F, FORM U, GRADE C, CLASS I, CATEGORY I, ONE PLACE ONLY.
- BOND IN PLACE PER ND 1002004, TYPE I
- PROCURE PER PS 1007041.
- FILL PER ND 1002117
- BOND A .25 MIN WIDE PERIMETER OF THE TOP AND BOTTOM INSULATORS TO THE HEATSINK AND COAT A .25 MIN WIDE PERIMETER ON THE OUTSIDE SURFACE OF THE INSULATORS PER ND 1002137 TYPE F.

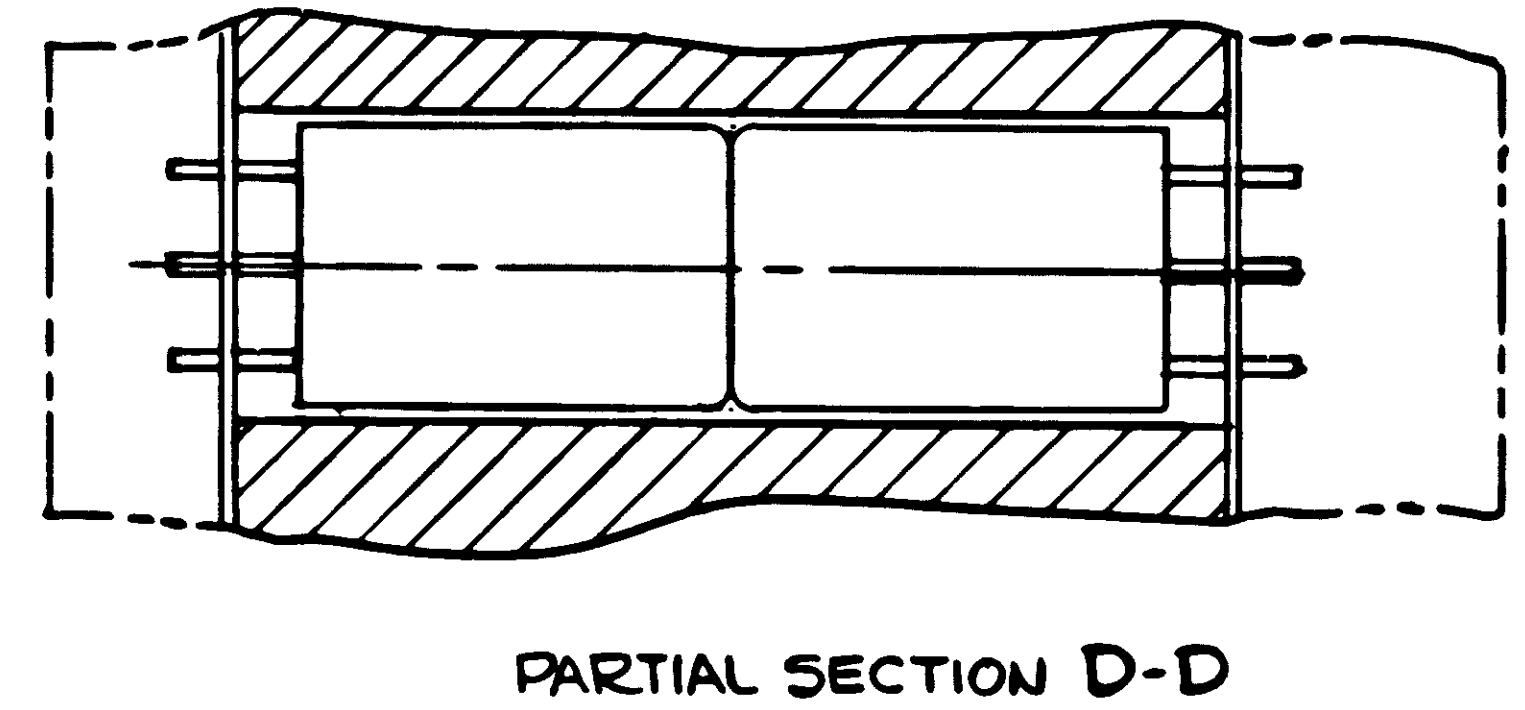
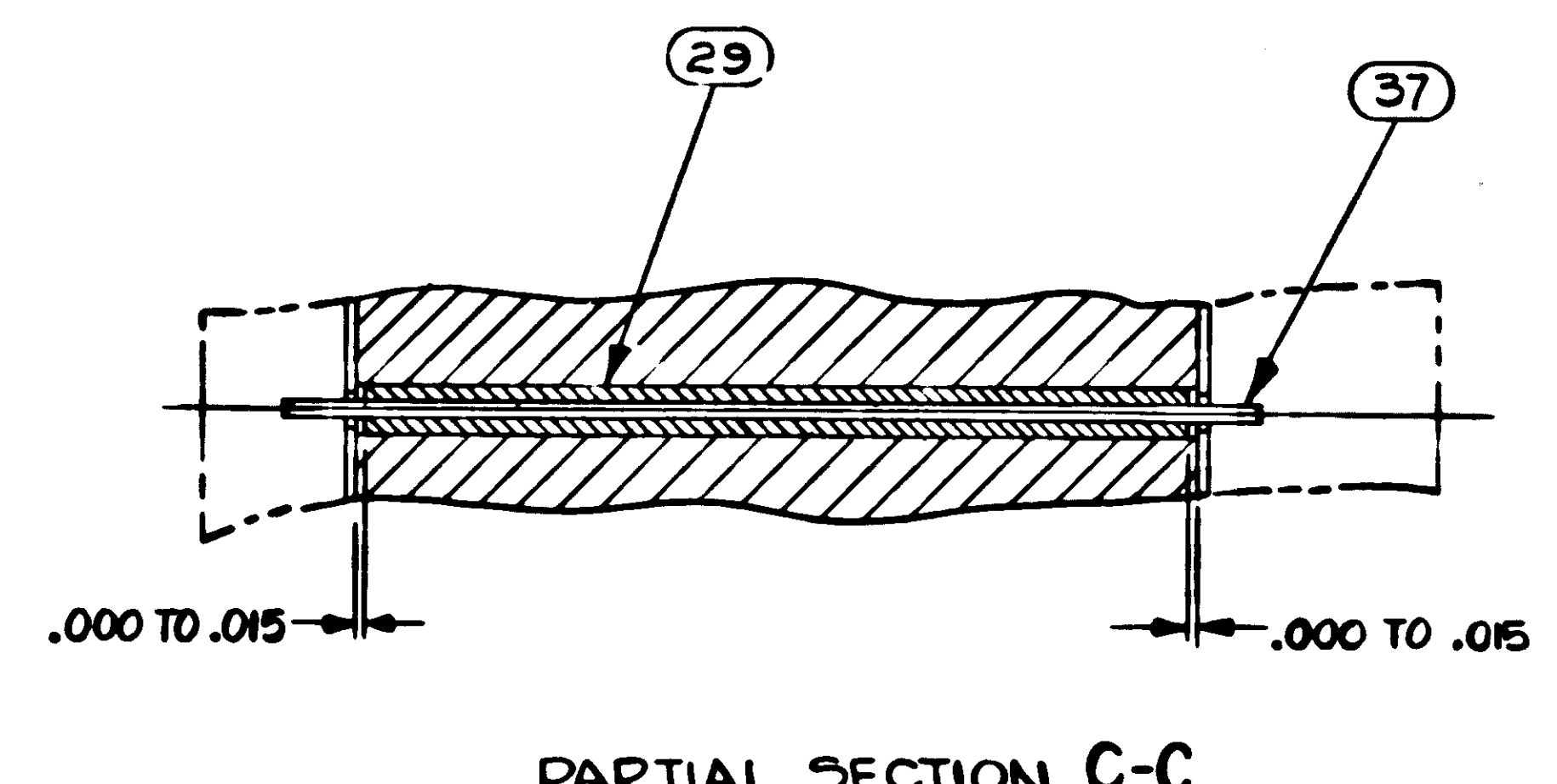
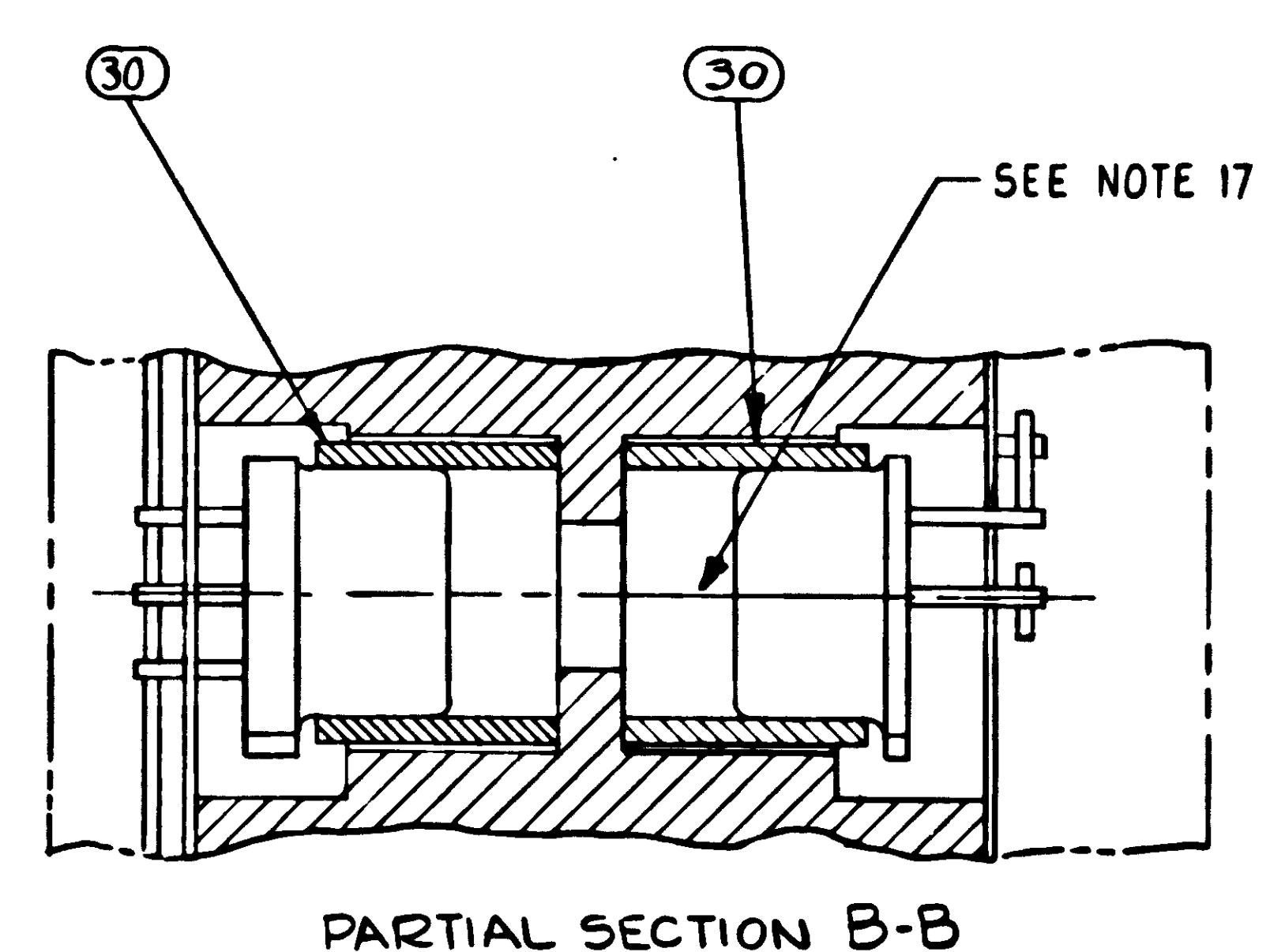
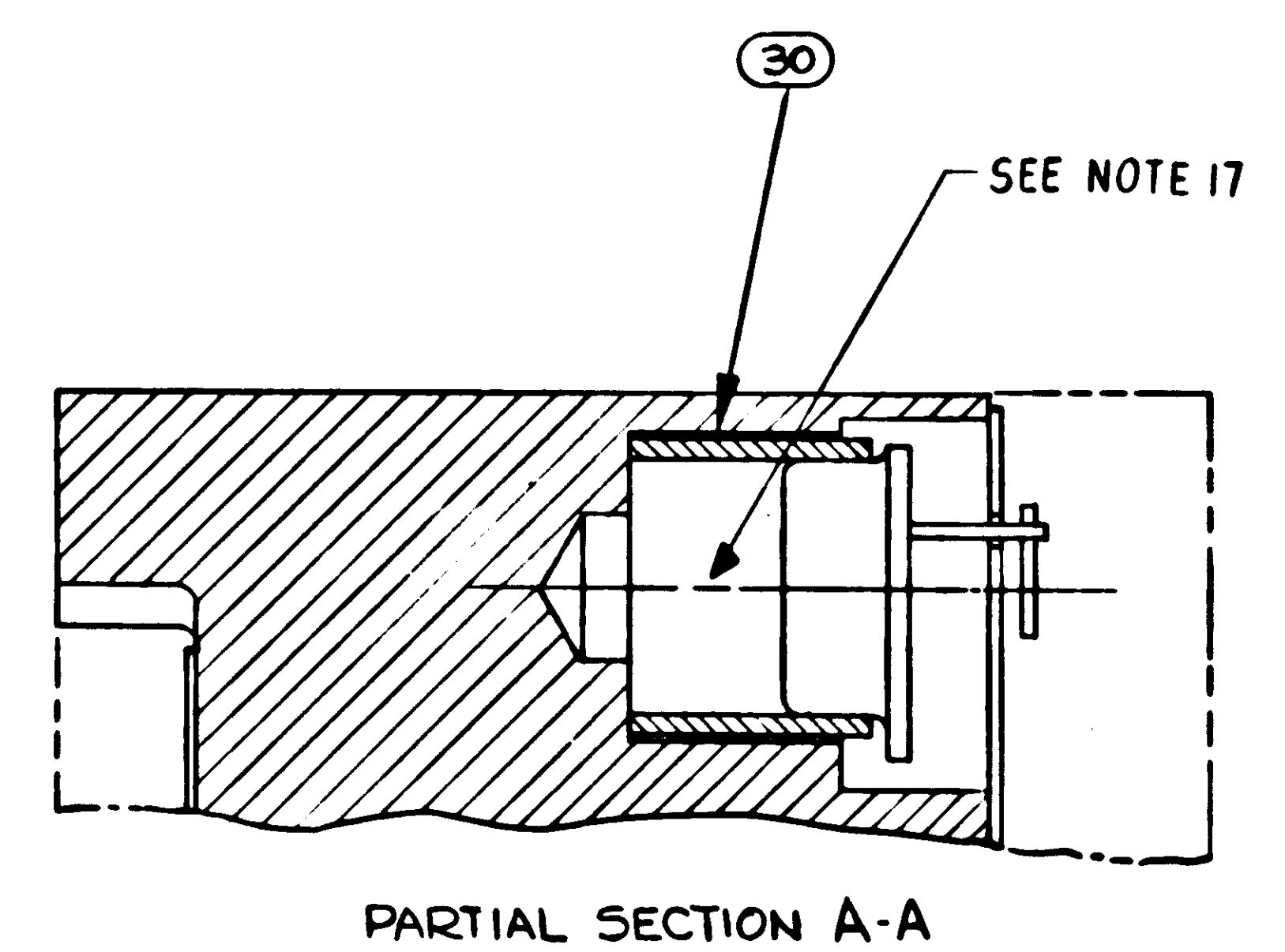
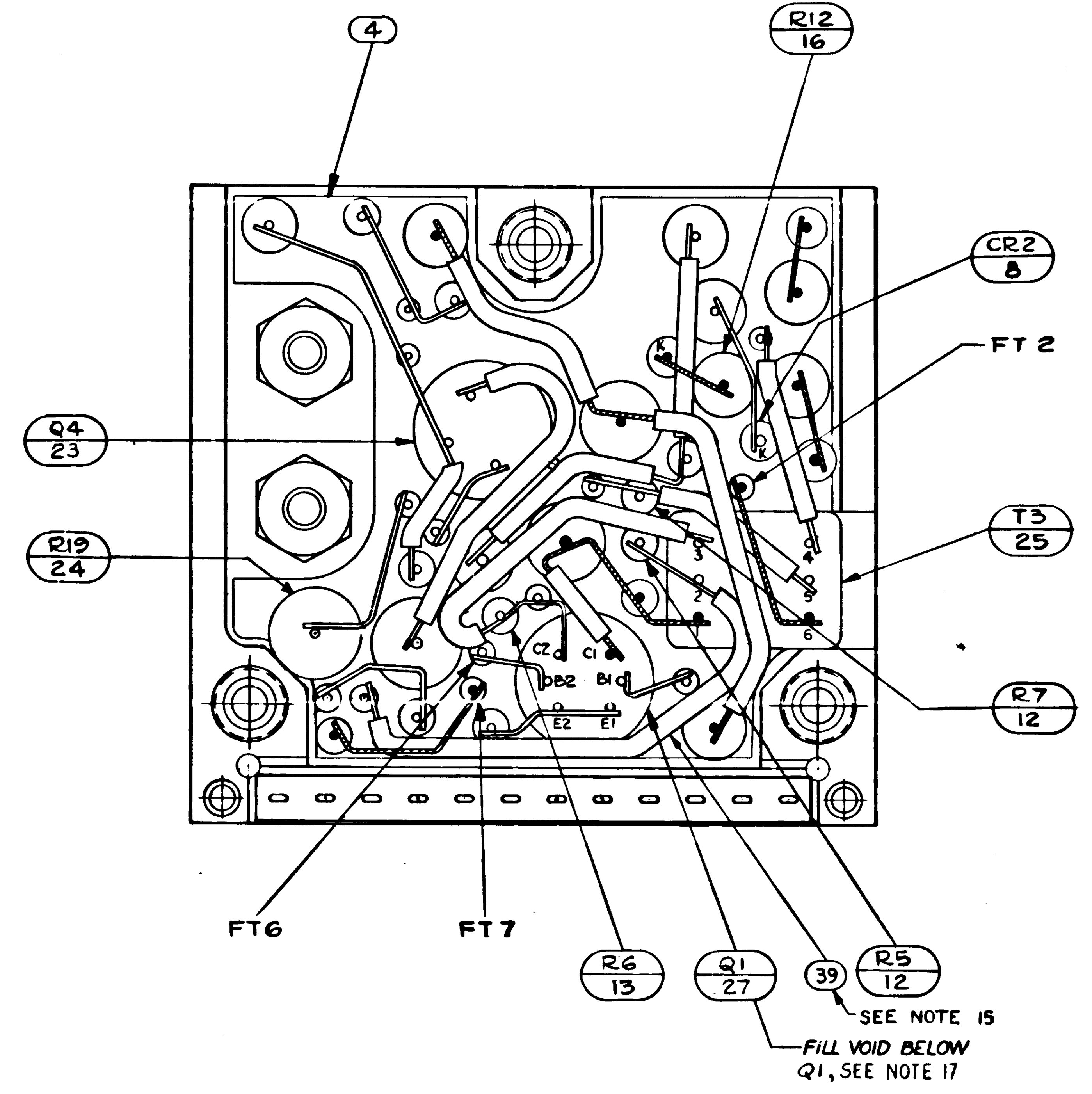
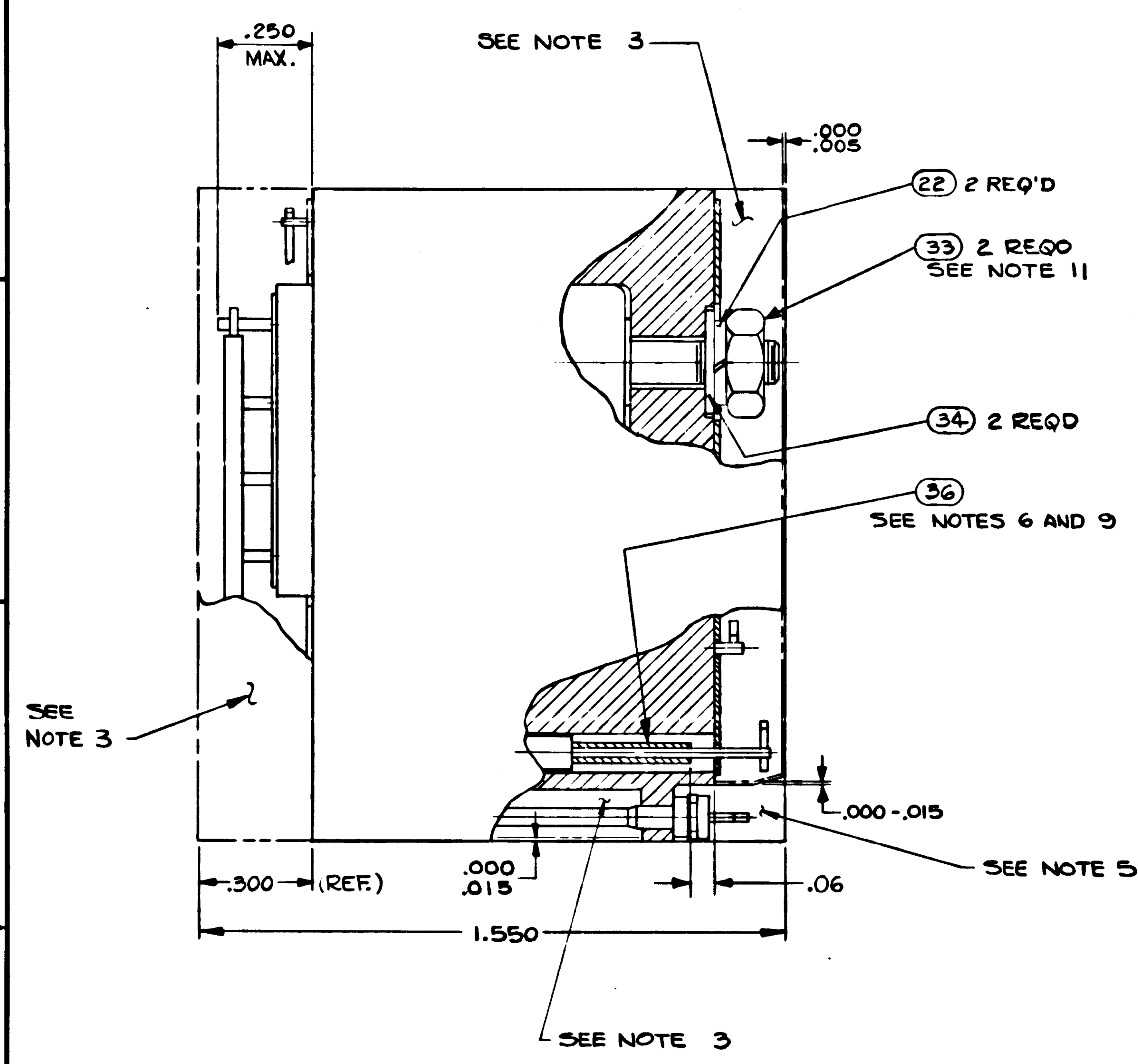
- CLEAN MODULE WHERE POSSIBLE PRIOR TO BONDING OF WAFER BOARDS AND APPLICATION OF COATING MATERIAL BY DEGREASING WITH FREON AND 150-PROPYL ALCOHOL. ADHESIVE AND COATING MATERIAL PER ND 1002107 TYPE II. APPLY MATERIAL AND COATING AS INDICATED IN TABLE I.
- EXCEPT FOR HELICOIL MOUNTING SURFACE, PAINT ALL SURFACES PER ND 1002110 TYPE II, AFTER ENCAPSULATION. USING BLACK PAINT PER 1010279-4. CURE AT 140° F FOR EIGHT HOURS. CONNECTOR PIN BLADES & INSULATORS TO BE FREE FROM PAINT.
- CLEAN MODULE WHERE POSSIBLE BY DEGREASING WITH FREON & 150-PROPYL ALCOHOL PRIOR TO ENCAPSULATION.



QTY	DEF	REF	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION
			100023	SCHEMATIC
			1009524	SCHEMATIC
1	AR	AR	40 1008540-12	GASKET, CONNECTOR MINATURE
1	AR	AR	39 MIL-1-631	INSULATION, SLEEVING 22 GA
1	AR	AR	38 1006776-20	INSULATION, SLEEVING
1	AR	AR	37 1006777-8	WIRE, ELEC.
1	AR	AR	36 1006776-21	INSULATION, SLEEVING
1	AR	AR	35 1006777-1	WIRE, ELEC.
2	2	2	34 1006070-5	WASHER - FLAT
2	2	2	33 MS20341-4A	NUT - HEX
12	12	12	32 1006782-5	CONTACT, WRAPOST MALE MINAT.
12	12	12	31 1006775	INSULATOR, WRAPOST MALE MINAT.
3	3	3	30 1008025-2	INSULATOR, BUSHING
29	AR	AR	29 1006776-22	INSULATION, SLEEVING
2	2	2	28 1010270	TRANSISTOR
1	1	1	27 1010252-1	TRANSISTOR
1	1	1	26 1010326	TRANSFORMER
2	2	2	25 1010329-1	TRANSFORMER
2	2	2	24 1010278-7	RESISTOR, FIXED
1	1	1	23 1010345-7	TRANSISTOR
2	2	2	22 MS35338-78	WASHER, LOCK
1	1	1	21 1010364-543	RESISTOR, FIXED
1	1	1	20 1006750-56	RESISTOR
1	1	1	19 1010364-765	RESISTOR, FIXED
1	1	1	18 1010369-105	RESISTOR, FIXED
1	1	1	17 1010364-579	RESISTOR, FIXED
4	4	4	16 1010364-443	RESISTOR, FIXED
1	1	1	15 1006750-43	RESISTOR
1	1	1	14 1006750-48	RESISTOR
2	2	2	13 1010369-97	RESISTOR, FIXED
4	4	3	12 1006750-73	RESISTOR
1	1	2	11 1006750-80	RESISTOR
1	1	1	10 1010353-1	RELAY, ELECTROMAGNETIC
1	1	1	9 1010372-22	DIODE, SEMICONDUCTOR DEVICE
4	4	4	8 1010392-1	DIODE, SEMICONDUCTOR DEVICE
1	1	1	7 1010279-222	CAPACITOR, FIXED
1	1	1	6 1010279-228	CAPACITOR, FIXED
1	1	1	5 1010264-15	CAPACITOR, FIXED
1	1	1	4 1015692	INSULATOR
1	1	1	3 1015690	INSULATOR
1	1	1	2 1015691	INSULATOR
1	1	1	1 1015689	HEATSINK

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES	INSTRUMENTATION LAB	SPACECRAFT CENTER HOUSTON, TEXAS
± .005	1007541	GIMBAL COARSE ALIGN AMPLIFIER MODULE ASSY
± .002	1007541	80230 E 1007541
DO NOT SCALE THIS DRAWING	APPROVAL	SCALE 5:1
NASA APPROVAL	CONTRACT NA53-497	SHEET 1 OF 2

REVISIONS				
SYM	ZONE	DESCRIPTION	CHG NO	DATE
A		REVISED PER TDDR 17331		10/25/64
B		REVISED PER TDDR 19403		11/12/64
C		REVISED PER TDDR 19409		11/12/64
D		REVISION STATUS CHG PER TDDR 281		11/12/64
E		REVISION STATUS CHG PER TDDR 281		11/12/64



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES OR FRACTIONS DECIMALS ANGLES + - - - - DO NOT SCALE THIS DRAWING MATERIAL	INSTRUMENTATION LAB DATE 10/25/64	MANNED SPACECRAFT CENTER HOUSTON, TEXAS GIMBAL COARSE ALIGN AMPLIFIER MODULE ASSY
	DRAWN <i>Chapel</i> CHECKED <i>W. Marshall</i> APPROVAL <i>W. Marshall</i>	
NASA APPROVAL <i>W. Marshall</i>	CODE IDENT NO. 80230	SIZE E
CONTRACT NAS 9-497	SCALE 5:1	1007541

1007541