

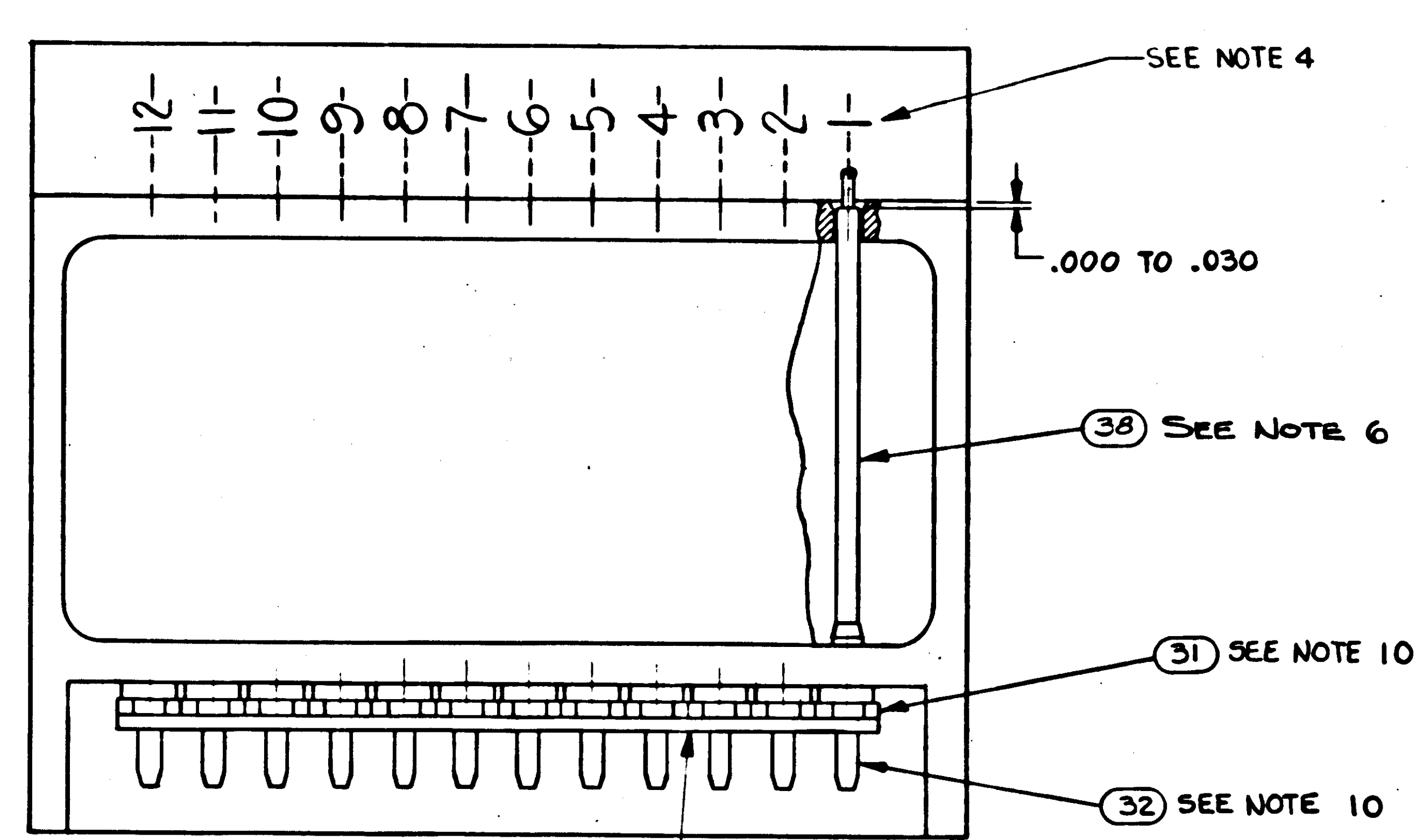
REVISIONS			
REV	DESCRIPTION	DATE	APPD
A	REVISED PER TDRR 17931	10/25/64	GM
B	REVISED PER TDRR 19403	11/10/64	GM
C	REVISED PER TDRR 9429	11/10/64	GM
D	REVISED PER TDRR 19507	11/10/64	GM
E	REVISED PER TDRR 20443	11/10/64	GM
F	REVISED PER TDRR 22949	11/10/64	GM
G	REVISED PER TDRR 23888	11/10/64	GM
H	REVISED PER TDRR 26397	11/10/64	GM

TABLE I

CONFIGURATION	BOND BETWEEN WAFER AND HEATSINK	TOP OF WAFER	HEATSINK-FOAM CONTACT SURFACE ADJACENT TO HEATSINK EXTERNAL SURFACE
WAFER & FLAT HEATSINK	100% OF AREA TO BE BONDING FROM EXTERNAL HEATSINK SURFACE 80% OF AREA TO BE BONDING FROM EXTERNAL HEATSINK SURFACE	100% OF AREA TO BE BONDING FROM 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 TO BE BONDING 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 TO WITHIN .03 ± .03 OF EXTERNAL EDGE

- 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 ND1002002 (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 MULTI-STAGE TRANSISTOR
 C() BASE
 E() EMITTER
- 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 ND1002136
- TORQUE TO 4 ± 1 IN-LB FOR ASSY OF ITEM 10
- ALL CONNECTIONS TO BE MADE BY WELDING PER ND1002005
- BOND ITEM (40) TO ITEM (31) PER ND1002237.
- COMPONENTS TO BE CEMENTED IN PLACE PER ND 1002009 METHOD J AND CENTRALIZED.
- USE MIL-1-631 TYPE F, FORM U, GRADE C, CLASS I, CATEGORY I, ONE PLACE ONLY. BOND IN PLACE PER ND1002004, 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 ND1002187 TYPE I.

- CLEAN MODULE WHERE POSSIBLE PRIOR TO BONDING OF WAFER BOARDS AND APPLICATION OF COATING MATERIAL BY DEGREASING WITH FREON AND ISO-PROPYL ALCOHOL ADHESIVE AND COATING MATERIAL PER ND1002187 TYPE II. APPLY MATERIAL AND COATING AS INDICATED IN TABLE I.
- EXCEPT FOR MODULE MOUNTING SURFACE. PAINT ALL SURFACES PER ND1002273 USING 1010992 PRIMER AND 1008809-4 PAINT. CONNECTOR PIN BLADES AND INSULATORS TO BE FREE OF PAINT.
- CLEAN MODULE WHERE POSSIBLE BY DEGREASING WITH FREON & ISO-PROPYL ALCOHOL PRIOR TO ENCAPSULATION.
- MOISTUREPROOF PER ND1002292 AS REQUIRED BY ITEM NO. (42) USING INSULATION TAPE IN ACCORDANCE WITH SCD 1008866 AND POLYURETHANE COATING PER SCD 1008867 AFTER PAINTING AND STENCILLING.



QTY	REF	DESCRIPTION	LIST OF PARTS AND MATERIALS
AR	42	SEE NOTE 22	MOISTUREPROOFING
AR	41	1010848-2	WIRE-ELECTRICAL NICKEL
1	40	1008540-12	GASKET, CONNECTOR MINIATURE
AR	39	MIL-1-631	INSULATION, SLEEVING 22 GA
AR	38	1006776-20	INSULATION, SLEEVING
AR	37	1006776-20	WIRE, ELEC
AR	36	1006776-21	INSULATION, SLEEVING
AR	35	1006776-21	WIRE, ELEC
2	34	1006070-5	WASHER-FLAT
2	33	MS20341-4A	NUT-HEX
12	32	1006782-5	CONTACT, WRAPOST MALE MINJAT.
12	31	1006775	INSULATOR, WRAPOST MALE MINJAT
3	30	1008025-2	INSULATOR, BUSHING
AR	29	1006776-22	INSULATION, SLEEVING
2	28	1010270	TRANSISTOR
1	27	1010252-1	TRANSISTOR
1	26	1010326	TRANSFORMER
2	25	1010329-1	TRANSFORMER
2	24	1010278-71	RESISTOR, FIXED
1	23	1010345-1	TRANSISTOR
2	22	MS35338-78	WASHER, LOCK
1	21	1010364-543	RESISTOR, FIXED
1	20	1006750-56	RESISTOR
1	19	1010364-765	RESISTOR, FIXED
1	18	1010363-105	RESISTOR, FIXED
1	17	1010364-579	RESISTOR, FIXED
4	16	1010364-443	RESISTOR, FIXED
1	15	1006750-43	RESISTOR
1	14	1006750-48	RESISTOR
2	13	1010369-97	RESISTOR, FIXED
4	12	1006750-73	RESISTOR
1	11	1006750-60	RESISTOR
1	10	1010353-1	RELAY, ELECTROMAGNETIC
1	9	1010372-22	DIODE, SEMICONDUCTOR DEVICE
4	8	1010392-1	DIODE, SEMICONDUCTOR DEVICE
1	7	1010279-232	CAPACITOR, FIXED
1	6	1010279-228	CAPACITOR, FIXED
1	5	1010264-15	CAPACITOR, FIXED
1	4	1015692	INSULATOR
1	3	1015690	INSULATOR
1	2	1015691	INSULATOR
1	1	1015689	HEATSINK

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON

FRACTIONS DECIMALS ANGLES
 ± .XX ± .005 ± °

1007541
 NEXT ASSY USED ON APPLICATION APPLICABLE DASH NO.

DO NOT SCALE THIS DRAWING

MATERIAL

THE ASSEMBLY PART NUMBER IS THE DRAWING NUMBER AND THE DASH NUMBER THAT APPLIES

CONTRACT NAS 9-497

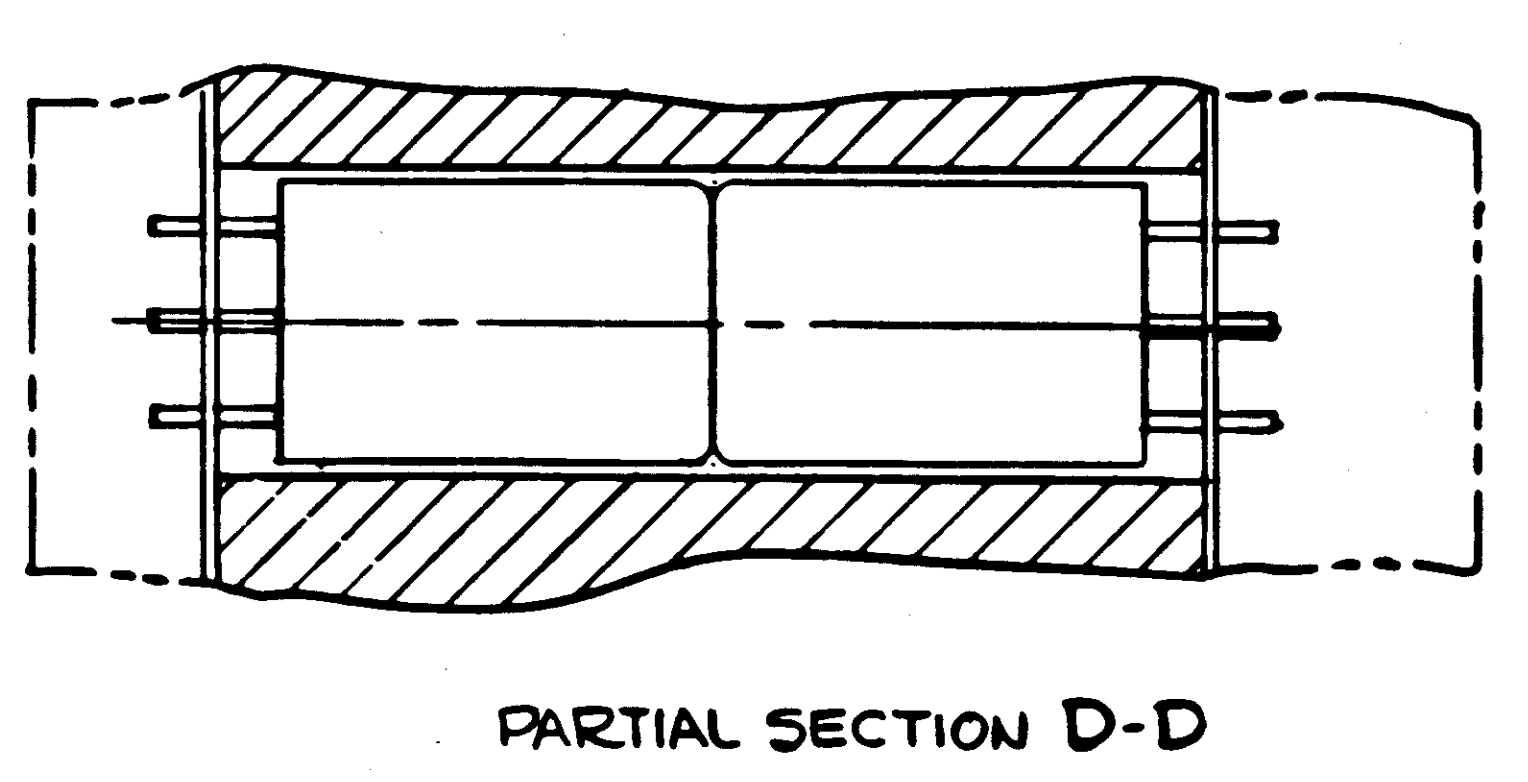
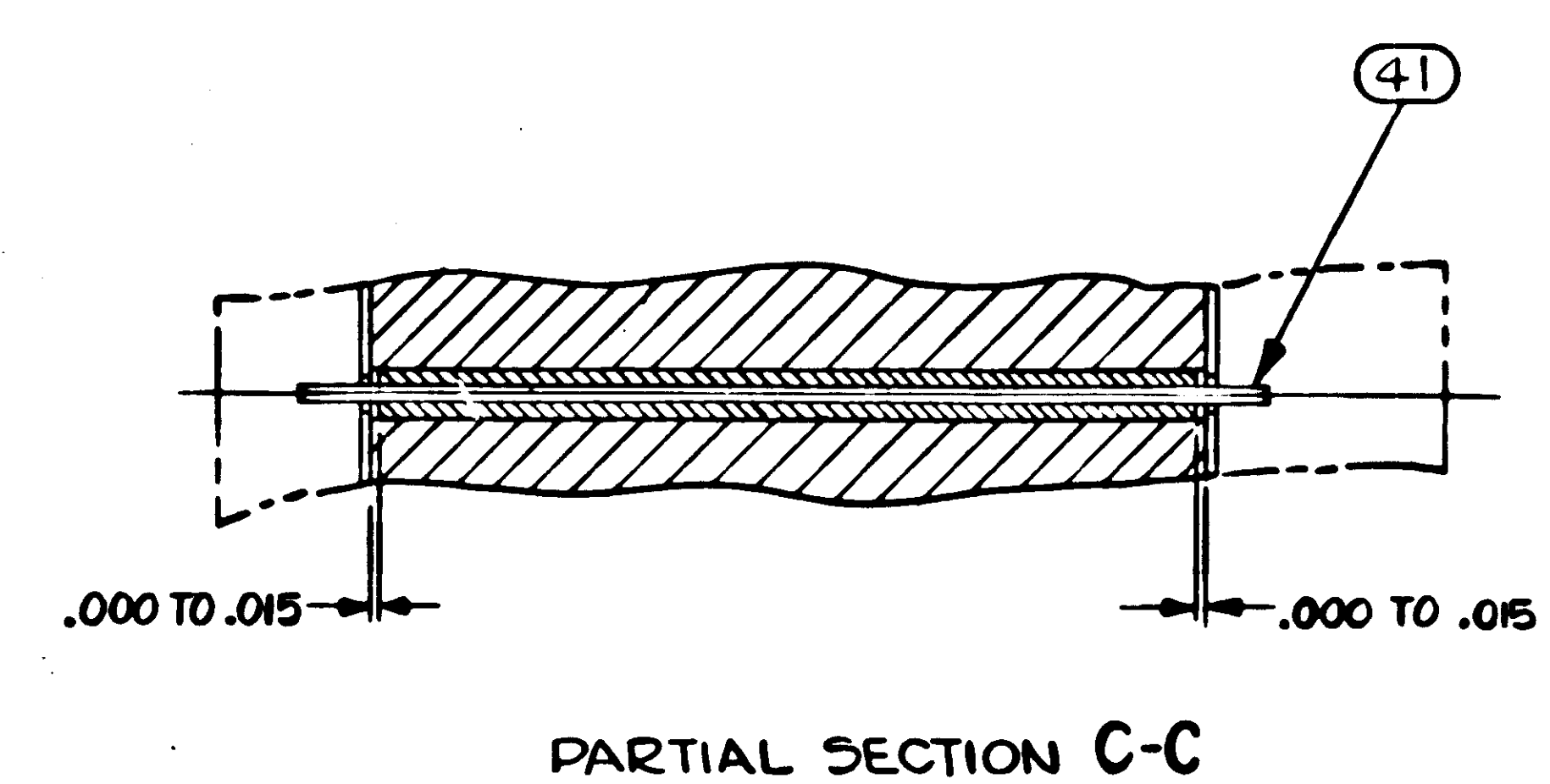
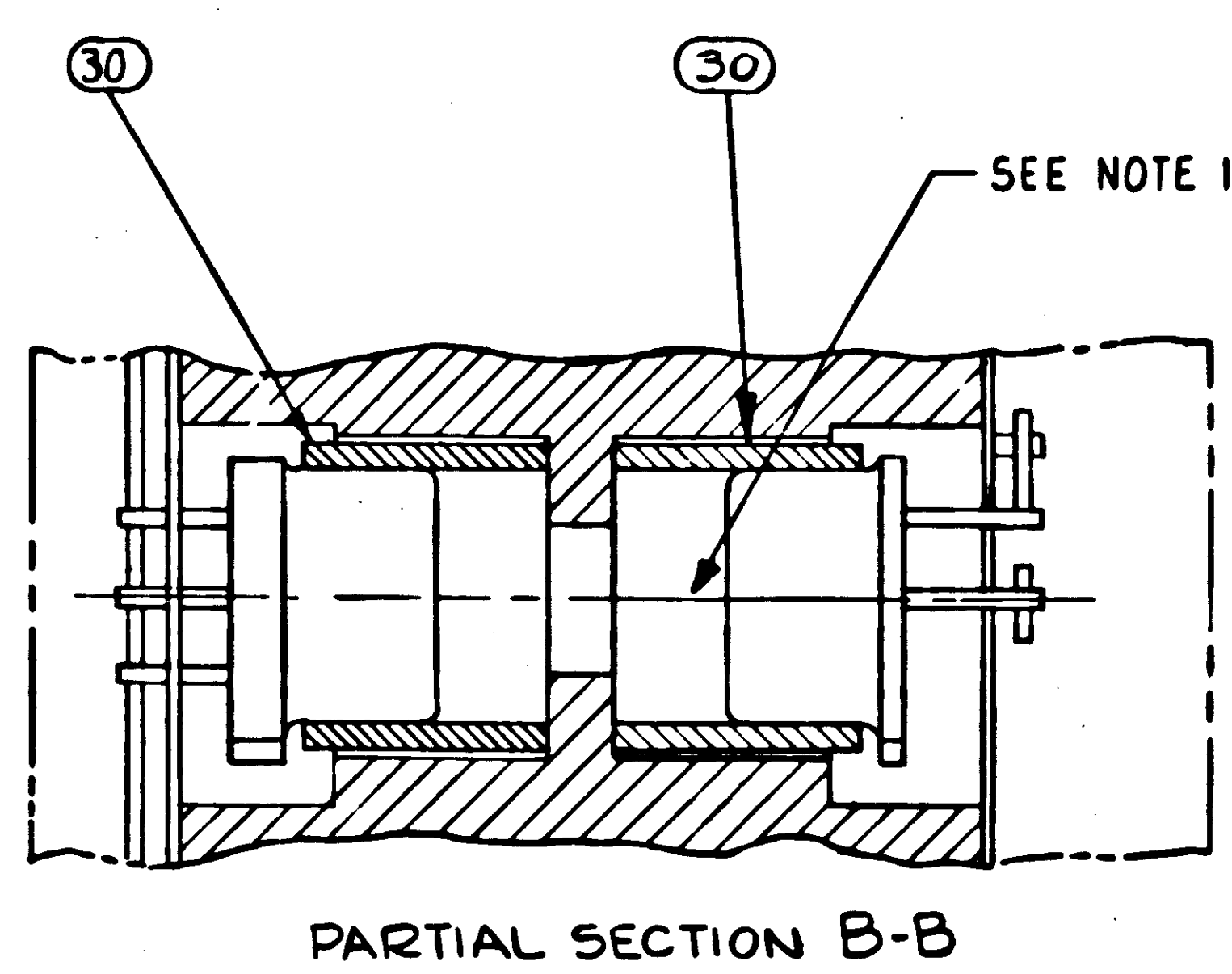
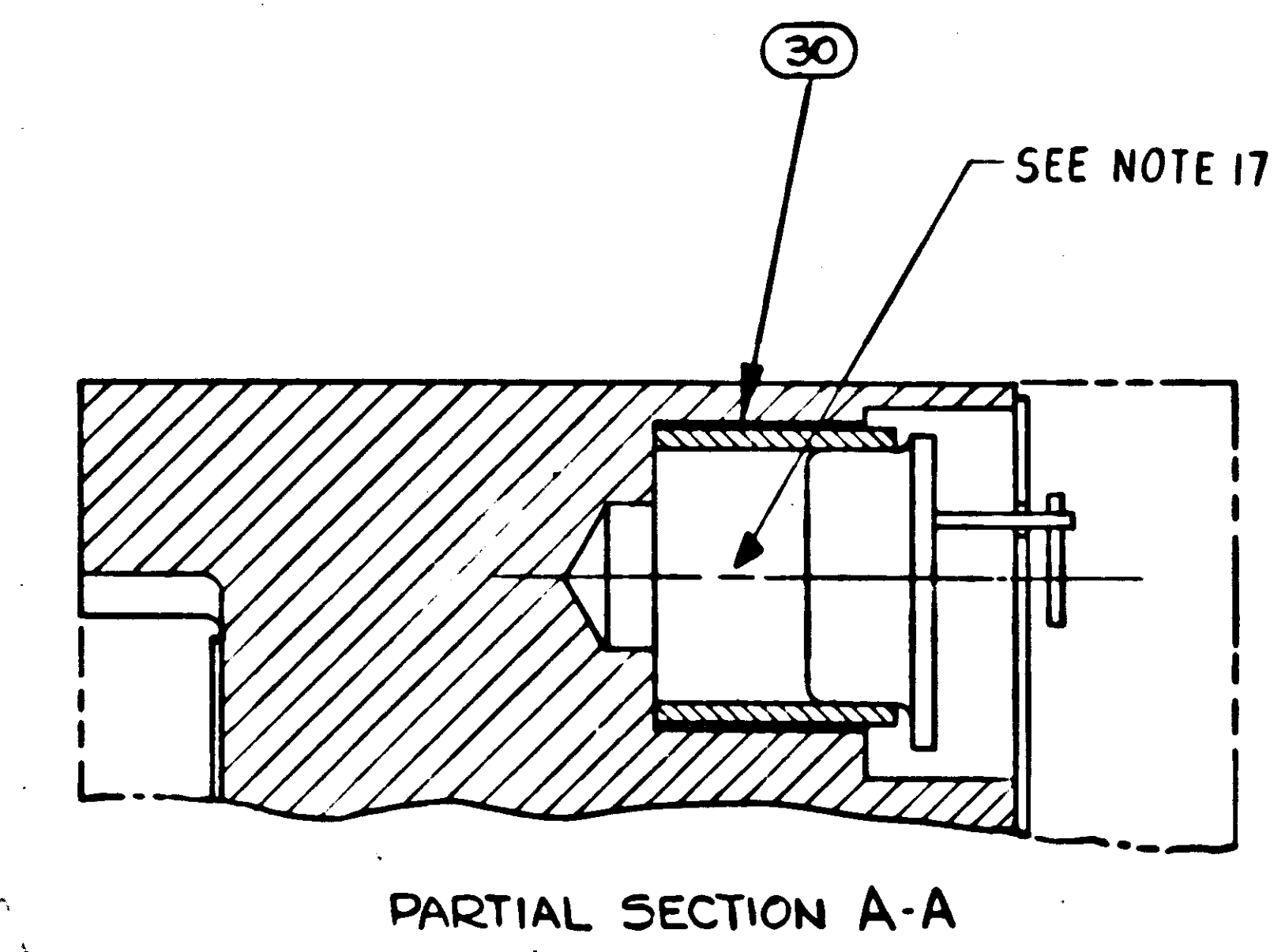
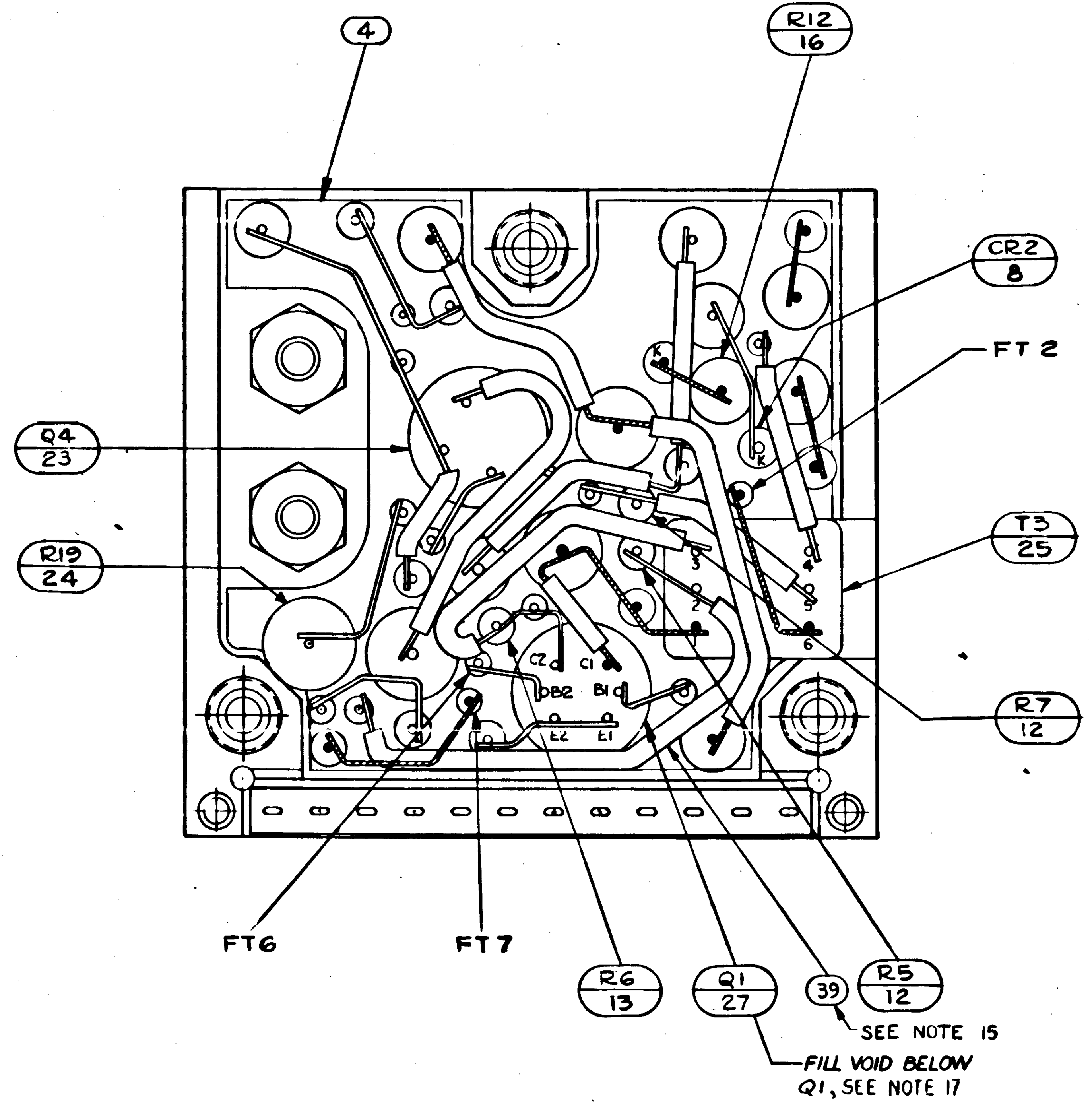
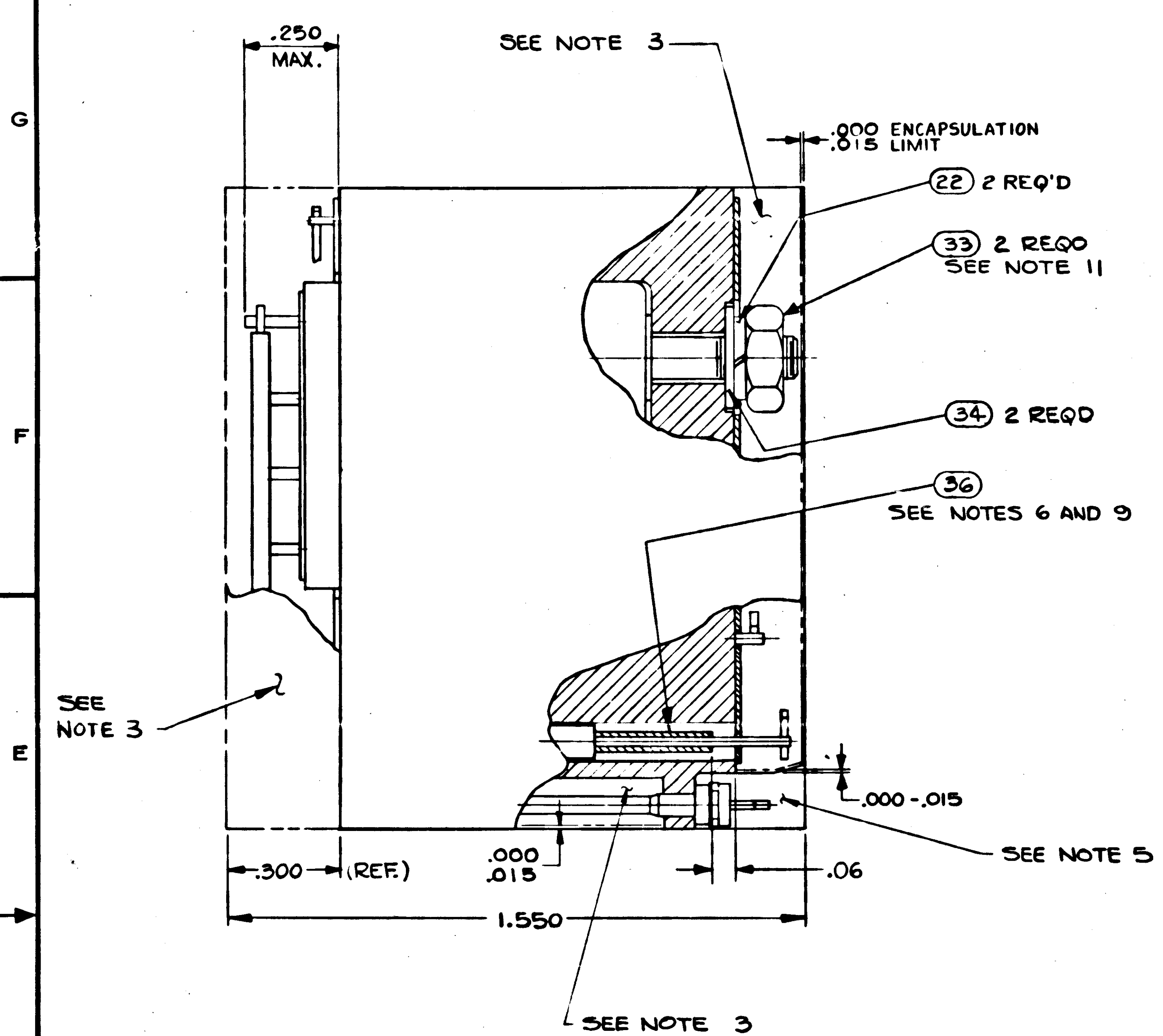
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 APPROVAL: [Signature]

MANUFACTURED BY
 SPACECRAFT CENTER
 HOUSTON, TEXAS

GIMBAL COARSE ALIGN AMPLIFIER MODULE ASSY

CODE IDENT NO 80230 E
 SIZE 1007541
 SCALE 2:1
 SHEET 1 OF 2

REVISIONS				
SYMBOL	DESCRIPTION	CHG NO.	DATE	APPD.
Δ	REVISED PER TDRR 17331	65	2/28/65	GM
B	REVISED PER TDRR 19403	65	2/28/65	GM
C	REVISED PER TDRR 19429	65	3/2/65	GM
D	REVISION STATUS CHG PER TDRR 19507	65	3/2/65	GM
E	REVISION STATUS CHANGE	65	3/2/65	GM
F	REVISED PER TDRR 22949	65	3/2/65	GM
G	REVISED PER TDRR 23886	65	3/2/65	GM
H	REVISION STATUS CHANGED	65	3/2/65	GM



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES OR FRACTIONS DECIMALS ANGLES + - + - + - DO NOT SCALE THIS DRAWING	INSTRUMENTATION LAB HOUSTON TEXAS	MANNED SPACECRAFT CENTER HOUSTON TEXAS
	DRAWN: <i>Legal</i> DATE: <i>11/20/64</i> CHECKED: <i>Legal</i> DATE: <i>12/1/64</i> APPROVAL: <i>Legal</i>	GIMBAL COARSE ALIGN AMPLIFIER MODULE ASSY
MATERIAL:	NASA APPROVAL: <i>Legal</i> DT APPROVAL: <i>Legal</i>	CODE IDENT NO: 80230 SCALE: 5:1
CONTRACT NAS 9-497	MT APPROVAL: <i>Legal</i>	SHEET 2 OF 2

1007541