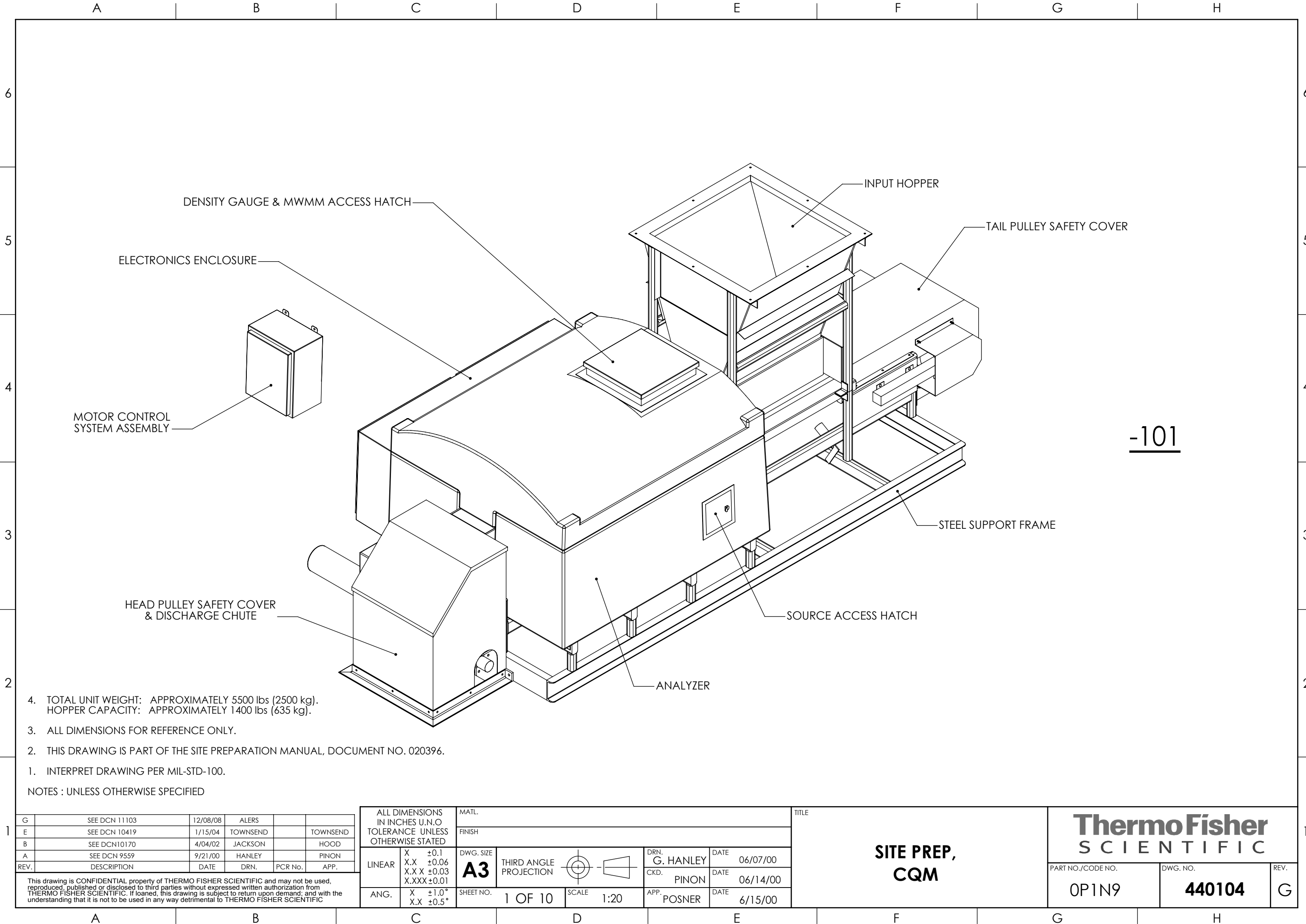
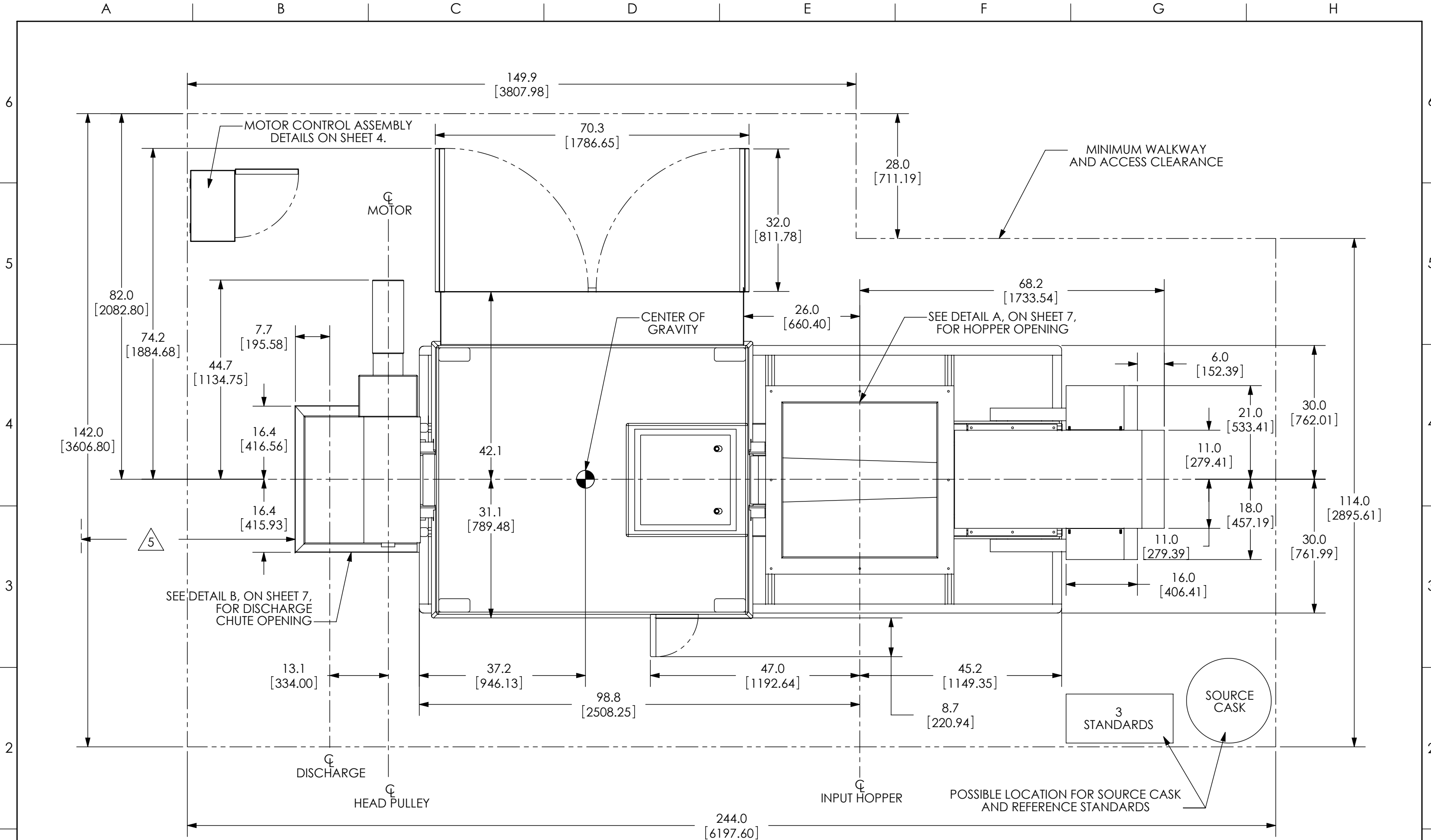




4. TOTAL UNIT WEIGHT: APPROXIMATELY 5500 lbs (2500 kg).
HOPPER CAPACITY: APPROXIMATELY 1400 lbs (635 kg).
3. ALL DIMENSIONS FOR REFERENCE ONLY.
2. THIS DRAWING IS PART OF THE SITE PREPARATION MANUAL, DOCUMENT NO. 020396.
1. INTERPRET DRAWING PER MIL-STD-100.

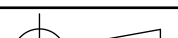
NOTES : UNLESS OTHERWISE SPECIFIED

G	SEE DCN 11103	12/08/08	ALERS			ALL DIMENSIONS IN INCHES U.N.O TOLERANCE UNLESS OTHERWISE STATED	MATL.				TITLE				ThermoFisher SCIENTIFIC SITE PREP, CQM PART NO./CODE NO. 0P1N9 DWG. NO. 440104 REV. G			
E	SEE DCN 10419	1/15/04	TOWNSEND		TOWNSEND		FINISH											
B	SEE DCN10170	4/04/02	JACKSON		HOOD		LINEAR	X ±0.1 X.X ±0.06 X.X X ±0.03 X.XXX ±0.01	DWG. SIZE A3	THIRD ANGLE PROJECTION		DRN. G. HANLEY	DATE 06/07/00					
A	SEE DCN 9559	9/21/00	HANLEY		PINON							PINON	DATE 06/14/00					
REV.	DESCRIPTION	DATE	DRN.	PCR No.	APP.													
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						ANG.	X ±1.0° X.X ±0.5°	SHEET NO.	1 OF 10		SCALE	1:20	APP.	POSNER	DATE	6/15/00		

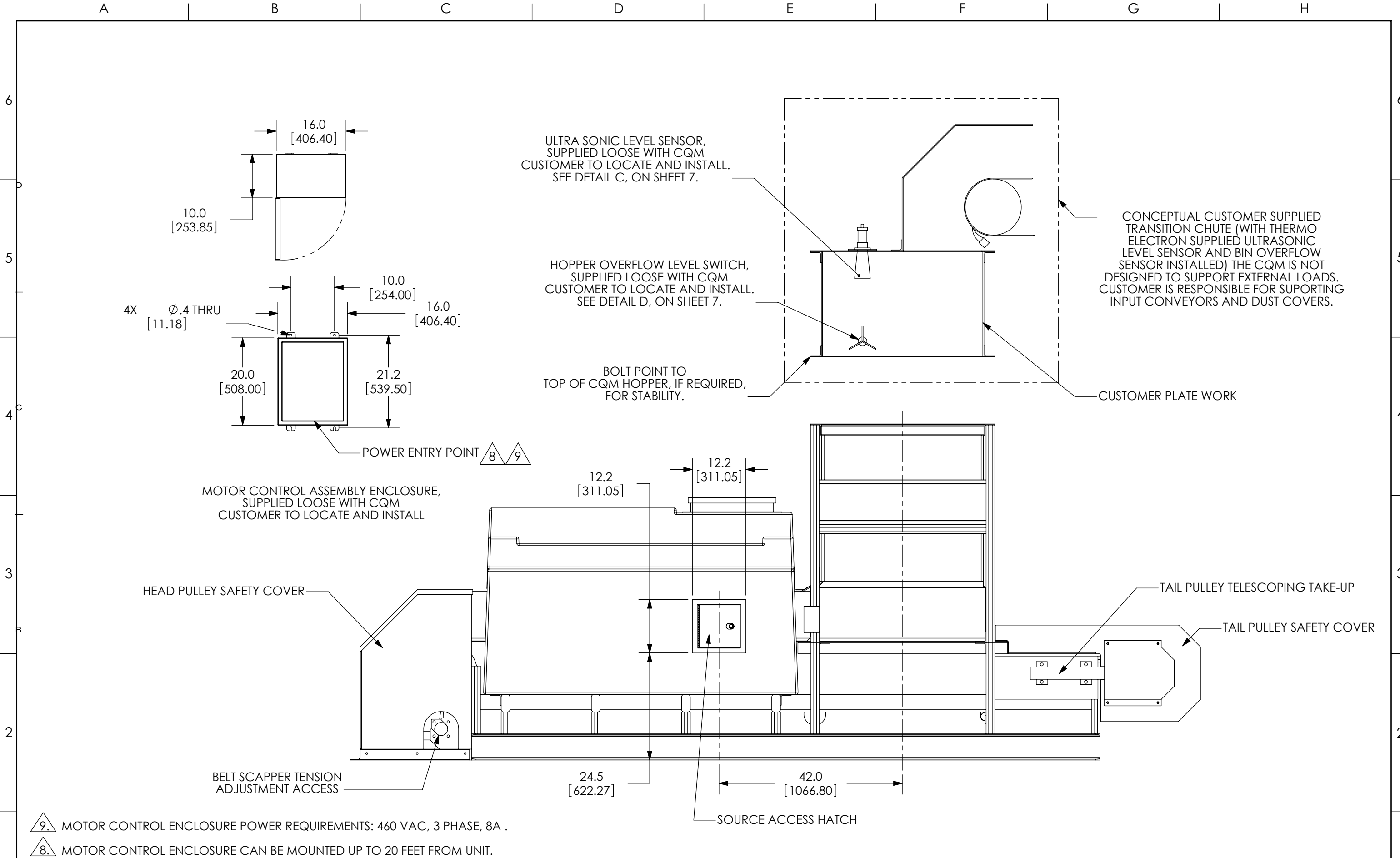


5. PROVIDE 5 FEET OF CLEARANCE FOR PERIODIC REPLACEMENT OF TUNNEL WEAR LINERS

NOTES: (CONTINUES FROM SHEET 1)

ALL DIMENSIONS IN INCHES U.N.O TOLERANCE UNLESS OTHERWISE STATED			MATL.			TITLE			ThermoFisher SCIENTIFIC		
			FINISH								
LINEAR	X	±0.1	DWG. SIZE A3	THIRD ANGLE PROJECTION		DRN.	DATE	06/07/00	PART NO./CODE NO. 0P1N9	DWG. NO. 440104	REV. G
	X.X	±0.06				G. HANLEY	DATE				
ANG.	X	±1.0°	SHEET NO. 2 OF 10	SCALE 1:20	APP.	POSNER	DATE	6/15/00			
	X.X	±0.5°									

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- 9. MOTOR CONTROL ENCLOSURE POWER REQUIREMENTS: 460 VAC, 3 PHASE, 8A .
- 8. MOTOR CONTROL ENCLOSURE CAN BE MOUNTED UP TO 20 FEET FROM UNIT.

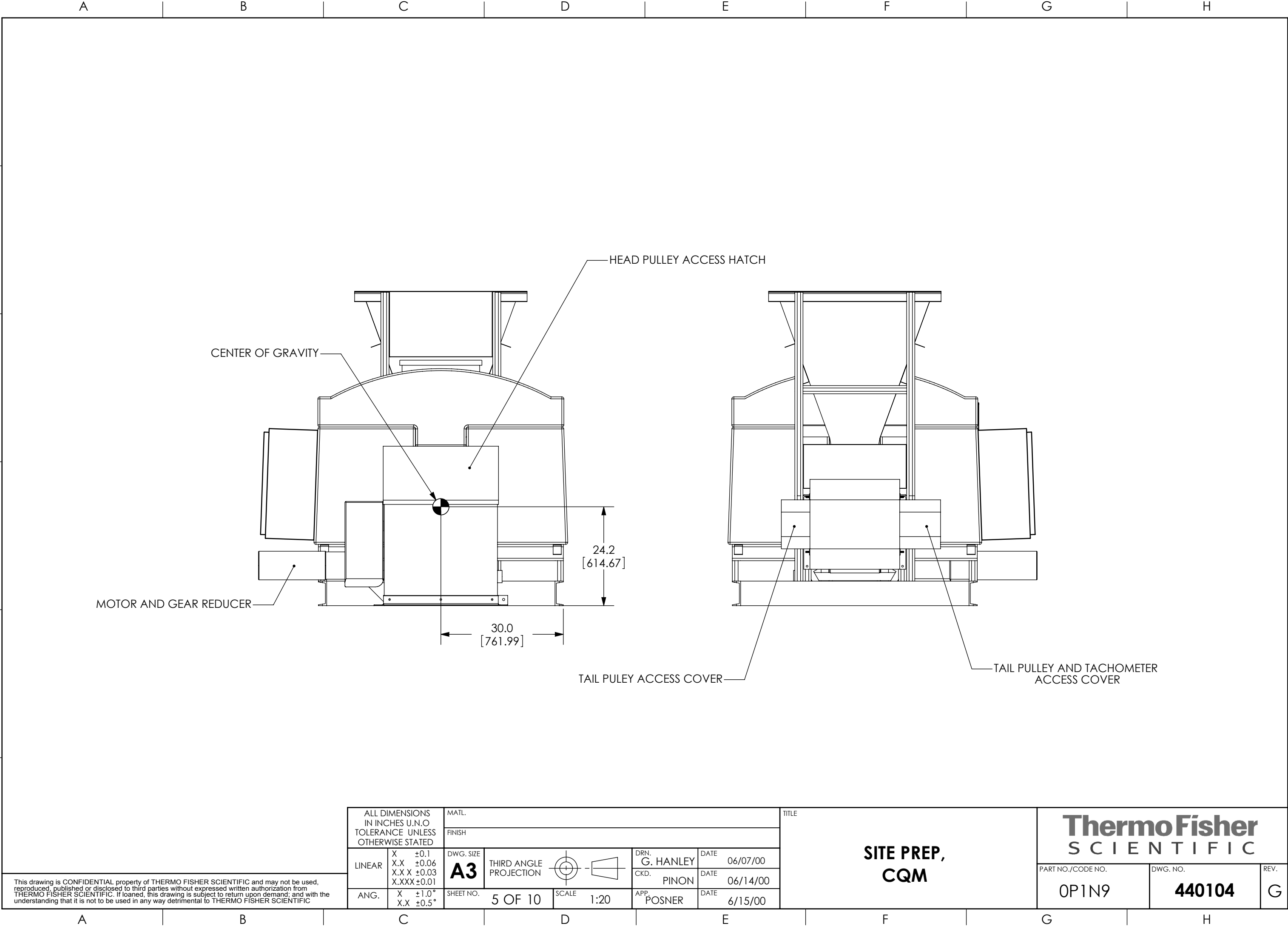
NOTES: (CONTINUED FROM SHEET 3)

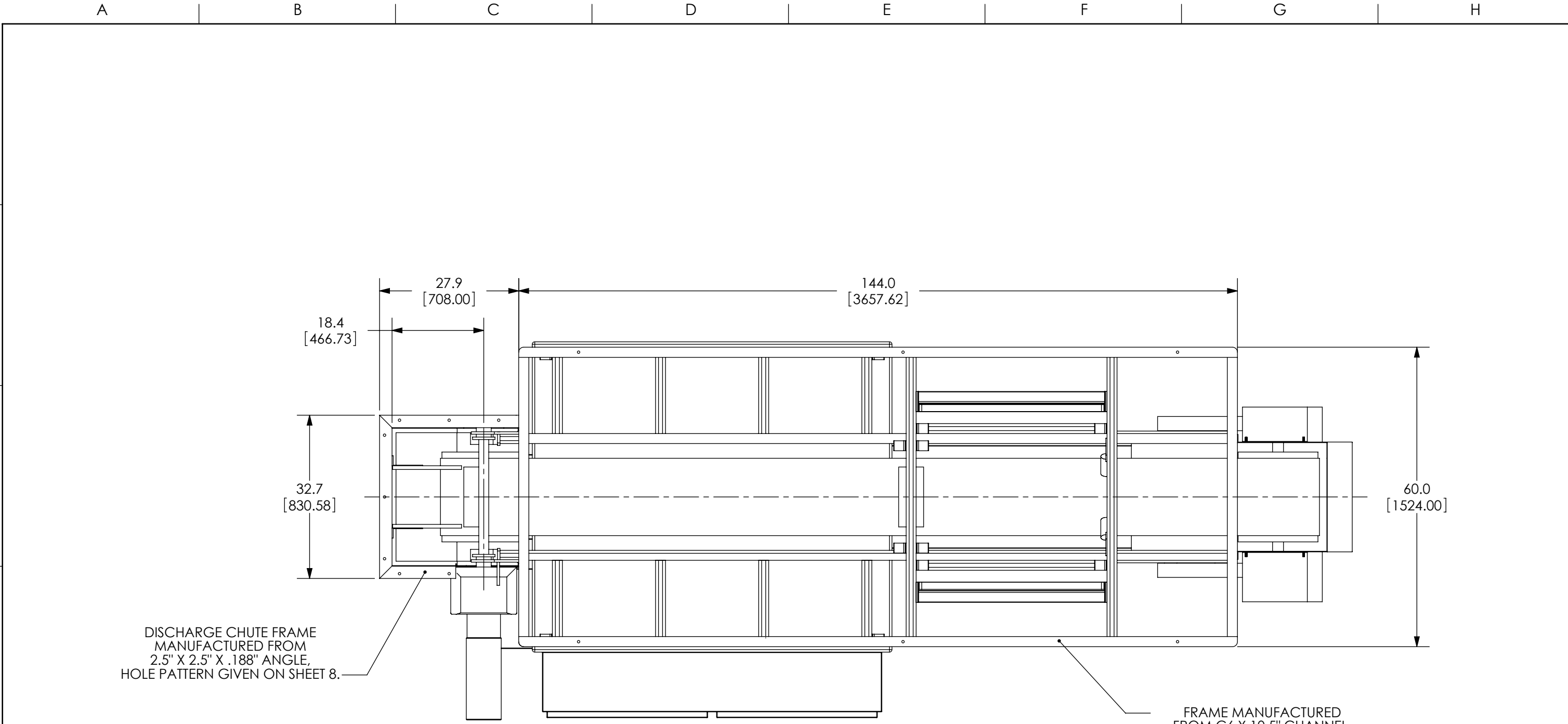
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ALL DIMENSIONS IN INCHES U.N.O TOLERANCE UNLESS OTHERWISE STATED		MATL.		FINISH	
LINEAR	X ±0.1	DWG. SIZE A3	THIRD ANGLE PROJECTION	DRN. G. HANLEY	DATE 06/07/00
	X.X ±0.06				
	X.X.X ±0.03				
ANG.	X ±1.0°	SHEET NO. 4 OF 10	SCALE 1:20	APP. POSNER	DATE 06/15/00
	X.X ±0.5°				

TITLE	
SITE PREP, CQM	

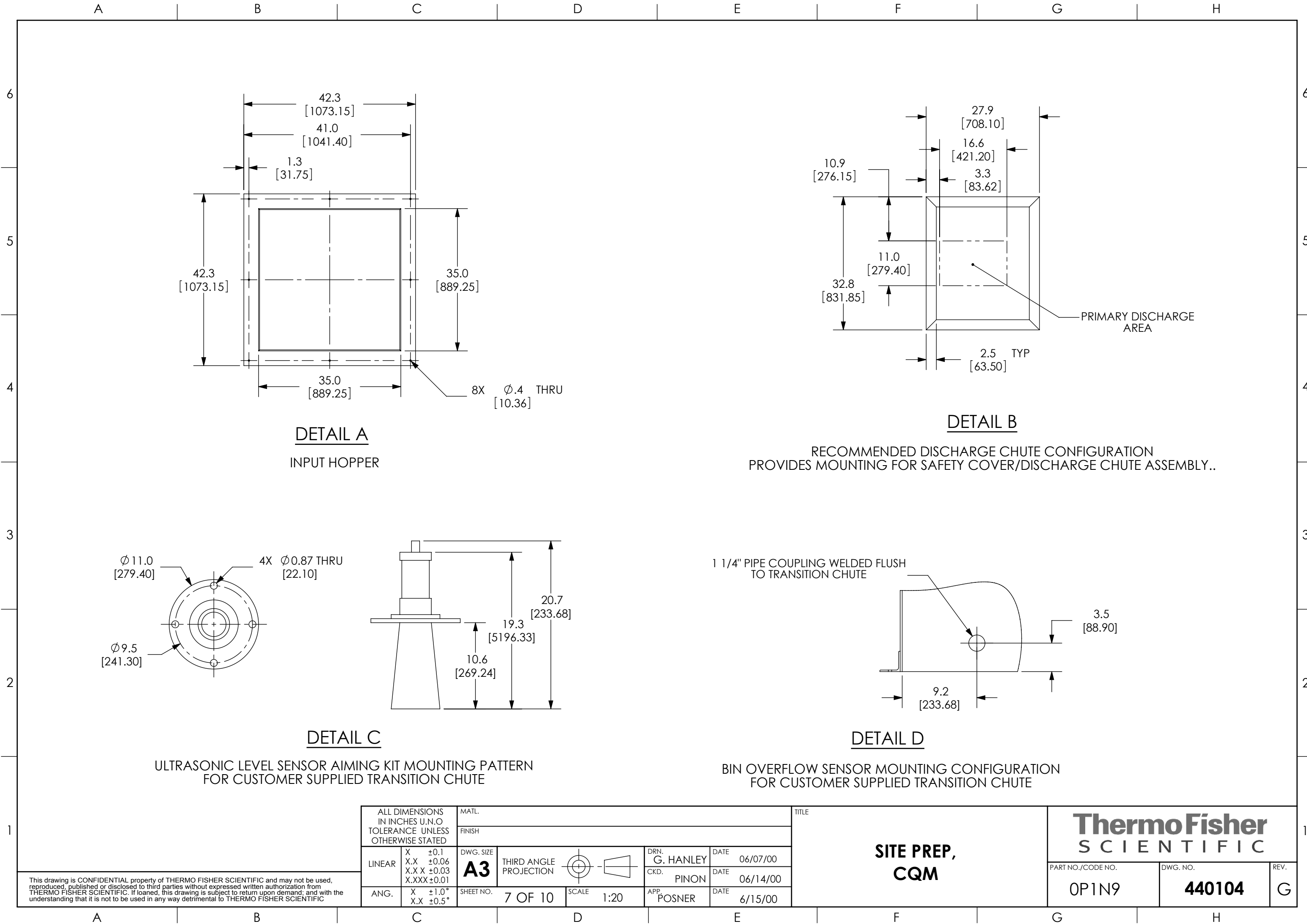
ThermoFisher SCIENTIFIC		
PART NO./CODE NO.	DWG. NO.	REV.
0P1N9	440104	G

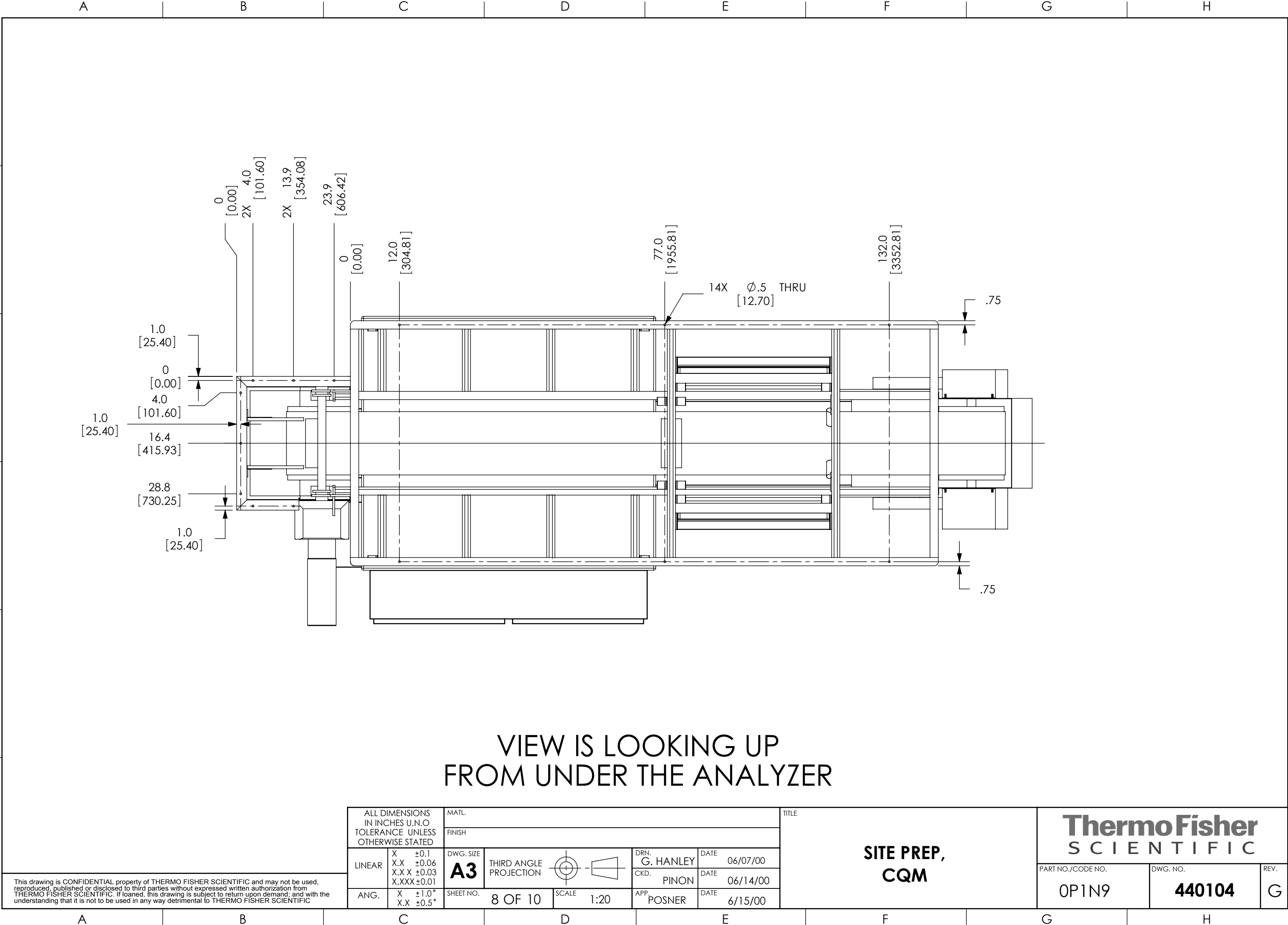


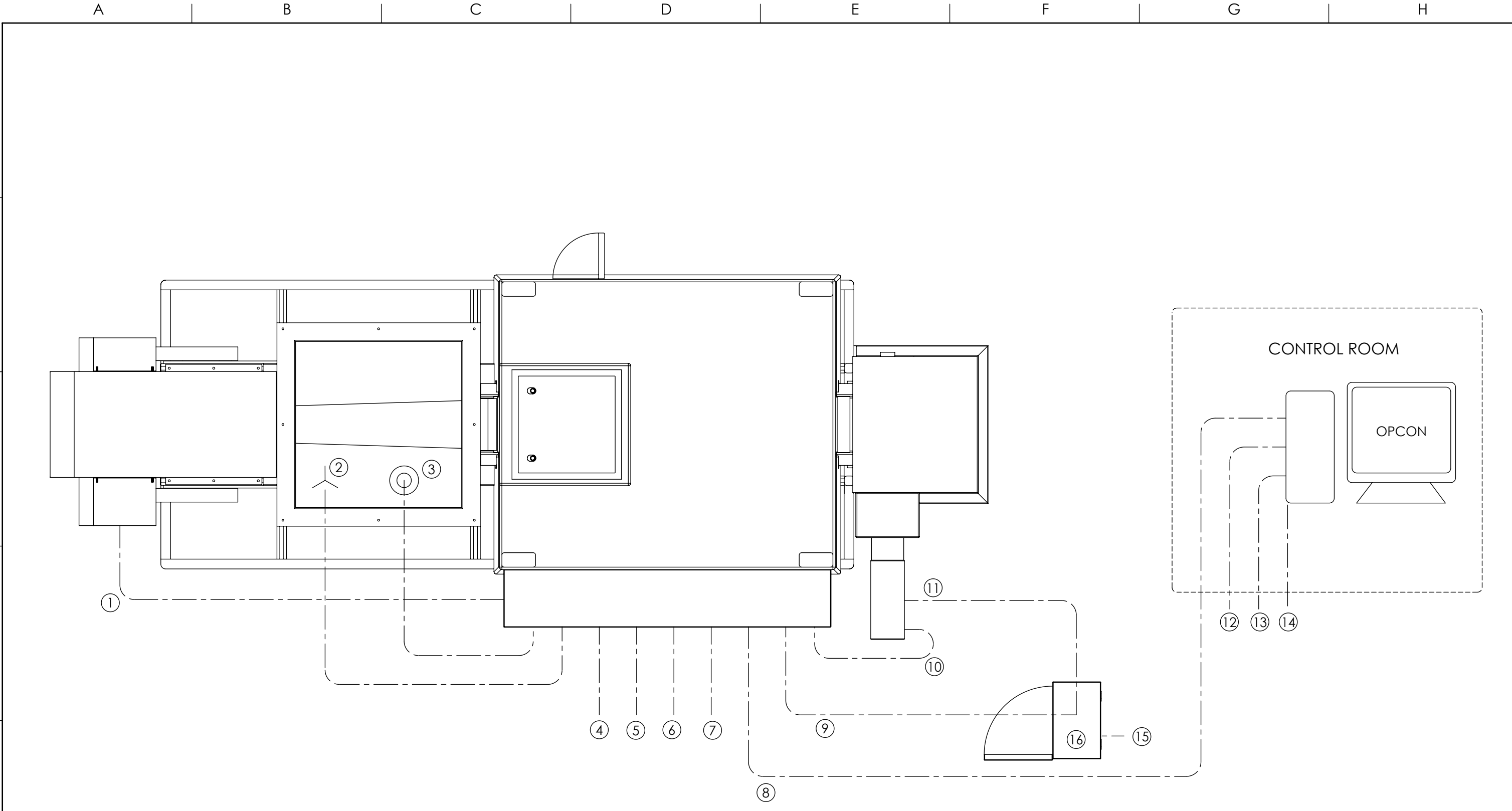


VIEW IS LOOKING UP
FROM UNDER THE ANALYZER

	ALL DIMENSIONS IN INCHES U.N.O TOLERANCE UNLESS OTHERWISE STATED	MATL.					TITLE	ThermoFisher SCIENTIFIC				
		FINISH										
		LINEAR	X ±0.1 X.X ±0.06 X.X X ±0.03 X.XXX ±0.01	DWG. SIZE A3	THIRD ANGLE PROJECTION						DRN. G. HANLEY	DATE 06/07/00
			ANG.	X ±1.0° X.X ±0.5°	SHEET NO. 6 OF 10	SCALE 1:20					APP. POSNER	DATE 6/15/00
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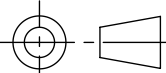






DESCRIPTION OF FIELD CONNECTIONS ARE ON SHEET 10

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			FINISH								
	LINEAR	X ±0.1 X.X ±0.06 X.X X ±0.03 X.XXX ±0.01	DWG. SIZE A3	THIRD ANGLE PROJECTION 						DRN. G. HANLEY	DATE 06/07/00
										CKD. PINON	DATE 06/14/00
	ANG.	X ±1.0° X.X ±0.5°	SHEET NO. 9 OF 10	SCALE 1:20	APP. POSNER	DATE 6/15/00	PART NO./CODE NO. OP1N9		DWG. NO. 440104	REV. G	

	A	B	C	D	E	F	G	H				
FIELD CONNECTIONS												
1	TACHOMETER- INSTRUMENT SUPPLIED BY THERMO ELECTRON. WIRING SUPPLIED AND INSTALLED BY THERMO ELECTRON.			9 COMMUNICATION FROM MOTOR DRIVE TO ANALYZER- WIRING SUPPLIED BY THERMO ELECTRON. SUPPLIED CABLE LENGTH IS 20 FEET. INSTALLATION IS THE RESPONSIBILITY OF THE CUSTOMER								
2	HOPPER FULL SENSOR- INSTRUMENT SUPPLIED BY THERMO ELECTRON. WIRING AND INSTALLATION ARE THE RESPONSIBILITY OF THE CUSTOMER. CONNECT TOP N/O WIRE TO TB1 - 2, CONNECT CQM WIRE TO TB1 - 49. (TB1 IS LOCATED IN IFORMATION PROCESSING MODULE) SIGNAL CLOSES IF HOPPER IS FULL. SIGNAL READ AS "HOPPER I/P HIGH" ON CUSTOMER INTERFACES, TB3 - 3 AND TB3 - 4. (TB3 IS LOCATED IN THE INFORMATION PROCESSING MODULE) SEE CQM ANALYZER MANUAL, 020391, FOR INSTALLATION INSTRUCTIONS.			10 OPTIONAL WIRING (5HP OPTION ONLY)- WIRING SUPPLIED AND INSTALLED BY THERMO ELECTRON.								
3	ULTRA SONIC LEVEL SENSOR- INSTRUMENT AND WIRING SUPPLIED BY THERMO ELECTRON INSTALLATION ARE THE RESPONSIBILITY OF THE CUSTOMER. SENSOR MUST BE INSTALLED AT LEAST 18" ABOVE TOP OF INPUT HOPPER. SEE CQM ANALYZER MANUAL, 020391, PGS 2-5 AND 2-6 FOR DETAILS.			11 POWER WIRING BETWEEN MOTOR DRIVE AND MOTOR- WIRING SUPPLIED AND INSTALLED BY THERMO ELECTRON. SUPPLIED CABLE LENGTH IS 20 FEET. INSTALLATION IS THE RESPONSIBILITY OF THE CUSTOMER								
4	DIGITAL CONTROL SIGNALS (INPUT)- WIRING AND INSTALLATION ARE THE RESPONSIBILITY OF THE CUSTOMER. 2 INPUTS - "EXIT CHUTE PLUGGED" AND "EXIT BELT RUNNING". "EXIT CHUTE PLUGGED" IS 24VDC. DRY CONTACTS ARE WIRED TO TB3 - 7 AND TB3 - 8. "EXIT BELT RUNNING" IS 24VDC. DRY CONTACTS ARE WIRED TO TB3 -9 AND TB3 -10.			12 COMPUTER POWER (SMC-NT)- 120 VAC +/- 10%, 50/60 HZ +/- 5% SINGLE PHASE, 5 AMP OR 230 VAC +/- 10%, 50/60 HZ +/- 5% SINGLE PHASE, 5 AMP INSTALLATION IS THE RESPONSIBILITY OF THE CUSTOMER								
5	DIGITAL CONTROL SIGNALS (OUTPUT)- WIRING AND INSTALLATION ARE THE RESPONSIBILITY OF THE CUSTOMER. THERE ARE 3 OUTPUTS - "ANALYZER READY", "INPUT HOPPER OVERFLOW", AND "CQM MOTOR ON". THE 5 - 30VDC, DRY CONTACTS OR 110VAC, DRY CONTACTS ARE WIRED AS FOLLOWS; "ANALYZER READY" CONNECTS TO TB3 - 5 AND TB3 - 6. "INPUT HOPPER OVERFLOW" (I/P HOPPER HIGH) CONNECTS TO TB3 - 3 AND TB3 - 4. "CQM MOTOR ON"CONNECTS TO TB3 - 1 AND TB3 - 2.			13 INDEPENDENT PHONE LINE (MODEM)- WIRING AND INSTALLATION ARE THE RESPONSIBLITY OF THE CUSTOMER. NO PBX, BYPASS OPERATOR.								
6	ANALOG CONTROL INPUTS (OPTIONAL)- WIRING AND INSTALLATION ARE THE RESPONSIBILITY OF THE CUSTOMER. 2 INPUTS - "PLANT TPH" AND "PLANT BELT SPEED". 4 - 20 mA INPUTS USE SHEILDED, TWISTED PAIRS OF AWG - 24 WIRES.			14 OPTIONAL PLC OPC LINK- WIRING AND INSTALLATION ARE THE RESPONSIBLITY OF THE CUSTOMER.								
7	ANALYZER POWER- 230VAC +/- 10%, 50/60 HZ +/- 5% TWO PHASE PLUS NEUTRAL, 5 AMP. POWER MUST BE ROUTED THROUGH THE BOTTOM, RIGHT SIDE OF THE ELECTRONICS CABINET. THE 220VAC LINE SHOULD PROTECTED WITH A 5 AMP CIRCUIT BREAKER AND BE ROUTED THROUGH AN ISOLATED TRANSFORMER BEFORE THE CABINET. CONDUIT AND GROUND WIRE SHOULD BE PROPERLY CONNECTED TO THE INFORMATION PROCESSING MODULE. WIRING AND INSTALLATION ARE THE RESPONSIBILITY OF THE CUSTOMER.			15 POWER FOR MOTOR- 460 VAC +/- 10%, 50/60 HZ +/- 5% THREE PHASE, 10 AMP.								
8	COMMUNICATION FROM ANALYZER TO SMC (CUSTOMER OPTION CAN BE FIBER OPTIC OR SERIAL)- FIBER OPTIC - 62.5 / 125 MICROMETER MULTIMODE GRADED INDEX TERMINATED WITH ST CONNECTORS. A MINIMUM OF 2 FIBERS ARE REQUIRED, FOR DATA IN EACH DIRECTION. THE CABLE SHOULD HAVE A LINE ATTENUATION OF 3dB/KM AT THE 850 NANOMETER WAVELENGTH. MAX CABLE RUN DISTANCE IS 3000 METERS. RS 422 - USE BELDEN 8104 (MAX CABLE LENGTH IS 2000 M)OR EQUIVALENT. CABLE WILL CONSIST OF 2 OR MORE SHIELDED, TWISTED PAIRS OF AWG-24 OR LARGER WIRES. THIS DATA WIRE IS NOT TO BE RUN INSIDE CONDUIT WITH ANY POWER CABLE OF ANY VOLTAGE. WIRING AND INSTALLATION ARE THE RESPONSIBILITY OF THE CUSTOMER.			16 MOTOR DRIVE ASSEMBLY CABINET- INSTALLATION IS THE RESPONSIBILITY OF THE CUSTOMER.								
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						FINISH						
				LINEAR	X ±0.1 X.X ±0.06 X.X X ±0.03 X.XXX ±0.01	DWG. SIZE A3	THIRD ANGLE PROJECTION		DRN. G. HANLEY			DATE 06/07/00
					ANG.	X ±1.0° X.X ±0.5°	SHEET NO. 100F 10	SCALE 1:20	CKD. PINON			DATE 06/14/00
								APP. POSNER	DATE 6/15/00			
						SITE PREP, CQM		PART NO./CODE NO. 0P1N9		DWG. NO. 440104	REV. G	
A	B	C	D	E	F	G	H					