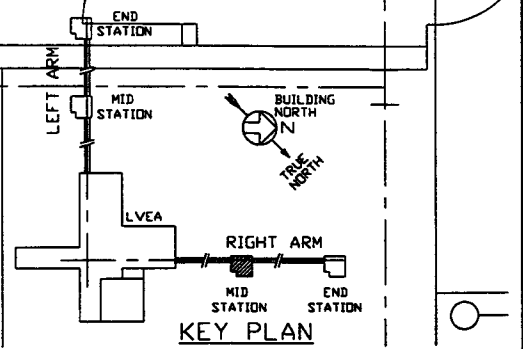


- NOTES:**
1. SEE SPEC. V049-2-021 FOR INSTALLATION/ COMMISSIONING INFORMATION.
  2. FOR TUBING/ PIPE SUPPORT REQUIREMENTS, SEE SPEC. V049-2-021, SECTION 10.



DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION
V049-0-016	P & ID RIGHT MID STATION		
V049-0-006	P & ID 80K CRYOPUMP		
V049-5-004	EQUIPMENT ARRANGEMENT RIGHT MID STATION		
1101103	LIGO VACUUM EQUIPMENT MID STATION		

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 FRACTIONAL ±  
 ANGULAR/ROUND 40°-30' REND 42°  
 TWO PLACE DECIMAL ± IN  
 THREE PLACE DECIMAL ± .005  
 FINISHED SURFACE RING  
 BREAK CORNERS IN  
 OUT.  
 REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING

USED ON:

NEXT ASS'Y:

REV	DESCRIPTION	CHKD	DRWN	DATE	DESN
3	REISSUED FOR CONSTRUCTION AS NOTED				
2	ISSUED FOR CONSTRUCTION				
1	ISSUED FOR FDR UPDATE & BID				
0	ISSUED FOR FDR				

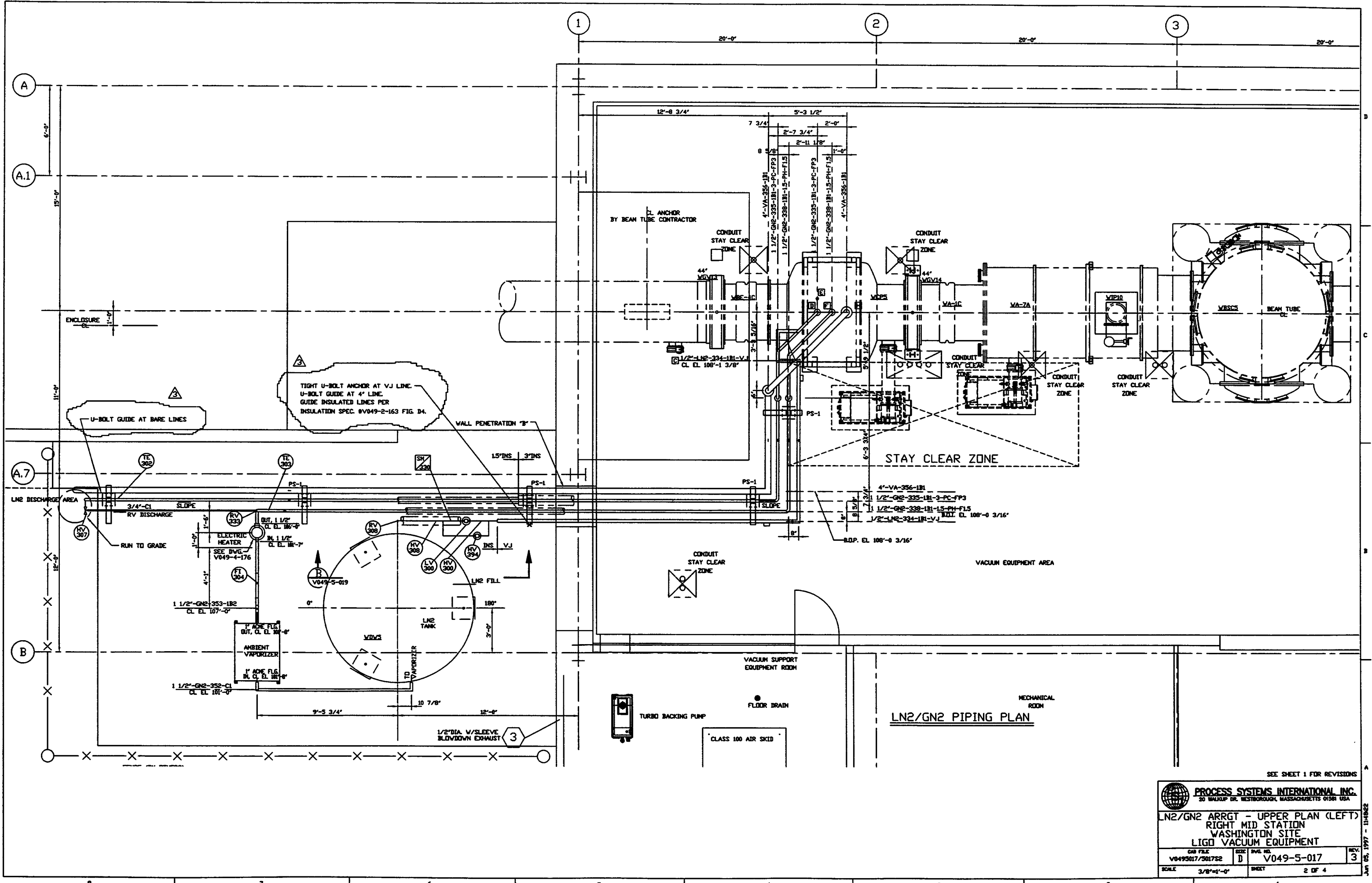
**PROCESS SYSTEMS INTERNATIONAL INC.**  
 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA

VAC/UTIL PIPE ARRGT - LOWER PLAN  
 RIGHT MID STATION  
 WASHINGTON SITE  
 LIGO VACUUM EQUIPMENT

CAD FILE: V0495017/5017S1  
 SIZE: D  
 DWG. NO.: V049-5-017  
 REV: 3

SCALE: 3/8"=1'-0"  
 SHEET: 1 OF 4

LIGO-D961177-03-V

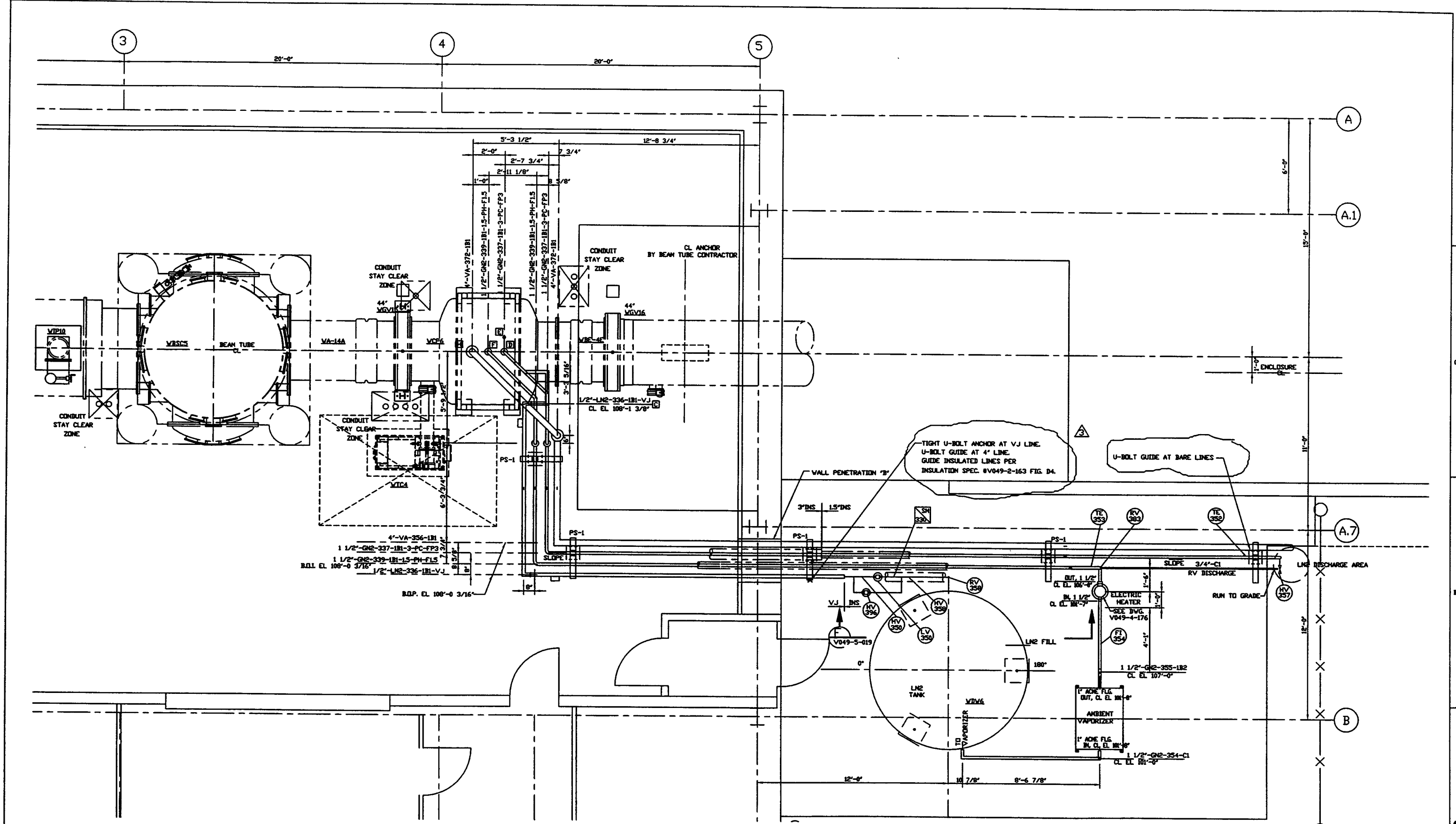


**LN2/GN2 PIPING PLAN**

SEE SHEET 1 FOR REVISIONS

<b>PROCESS SYSTEMS INTERNATIONAL, INC.</b> 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
<b>LN2/GN2 ARRGT - UPPER PLAN (LEFT)</b> <b>RIGHT MID STATION</b> <b>WASHINGTON SITE</b> <b>LIGO VACUUM EQUIPMENT</b>			
CIB FILE V0495017/501752	SIZE D	DWG. NO. V049-5-017	REV. 3
SCALE 3/8"=1'-0"		SHEET 2 OF 4	

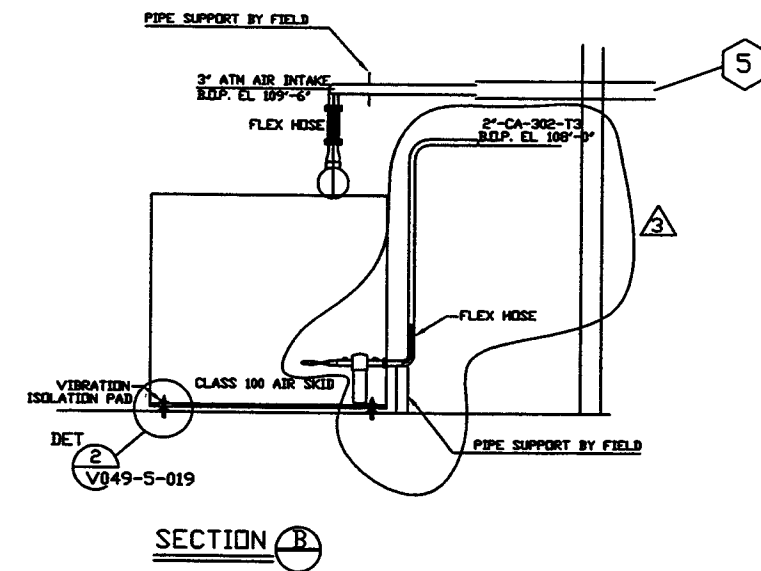
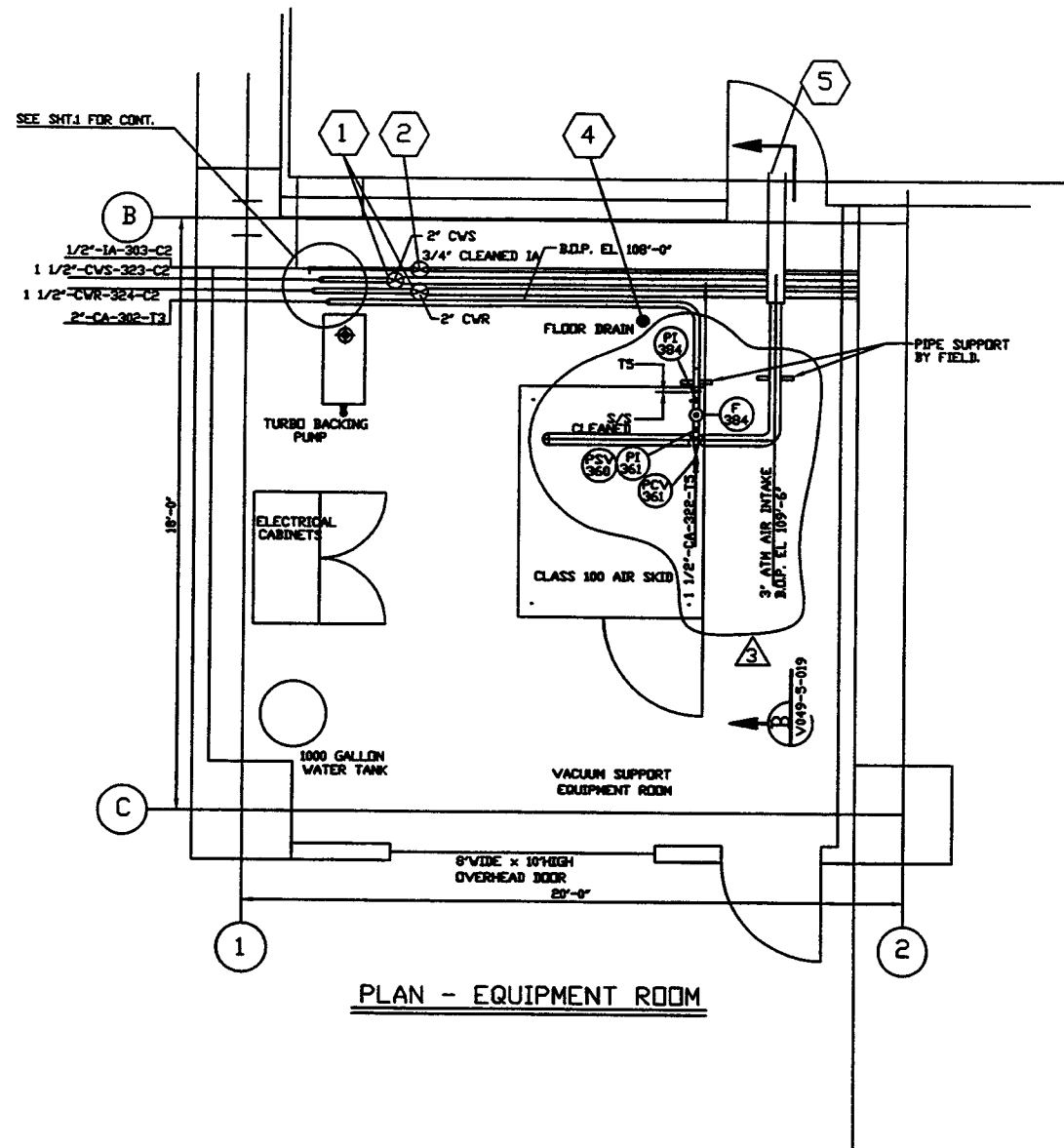
05-1997 - 11482E



SEE SHEET 1 FOR REVISIONS

<b>PROCESS SYSTEMS INTERNATIONAL, INC.</b> 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
<b>LN2/GN2 ARRGT - UPPER PLAN(RIGHT)</b> <b>RIGHT MID STATION</b> <b>WASHINGTON SITE</b> <b>LIGO VACUUM EQUIPMENT</b>			
DWG FILE V0495017/5017S3	SIZE D	P&ID NO. V049-5-017	REV 3
SCALE 3/8"=1'-0"		SHEET 3 OF 4	

Feb 22, 1997 - 0810305



SEE SHEET 1 FOR REVISIONS

<b>PROCESS SYSTEMS INTERNATIONAL INC.</b> 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
<b>PIPING ARRGT PLAN - EQUIPMENT RM</b> <b>RIGHT MID STATION</b> <b>WASHINGTON SITE</b> <b>LIGO VACUUM EQUIPMENT</b>			
DES FILE V0495017/501754	SIZE D	DWG NO. V049-5-017	REV. 3
SCALE 3/8"=1'-0"	SHEET 4 OF 4		

Feb 22, 1997 - 09:14:02