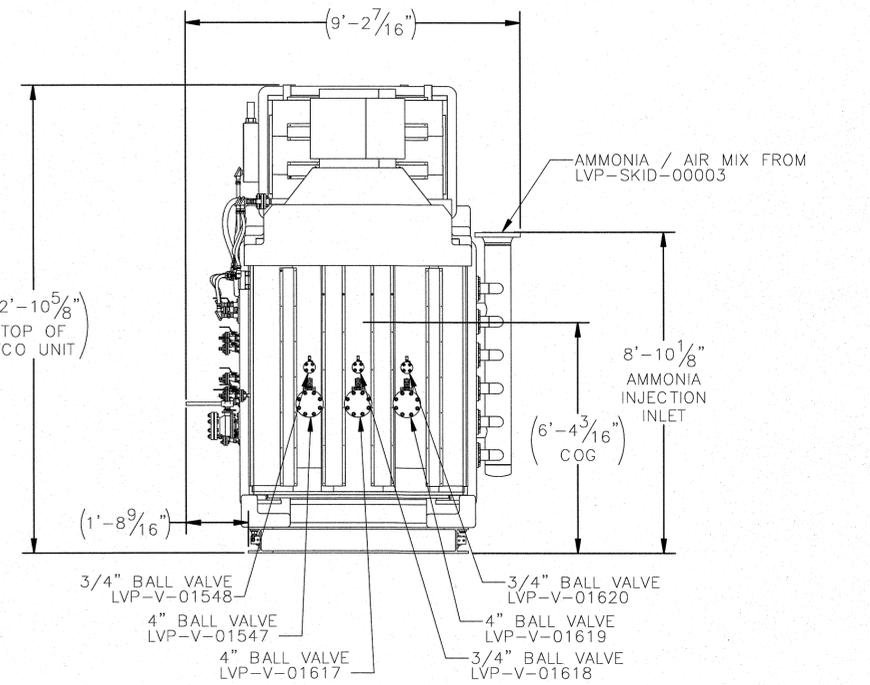
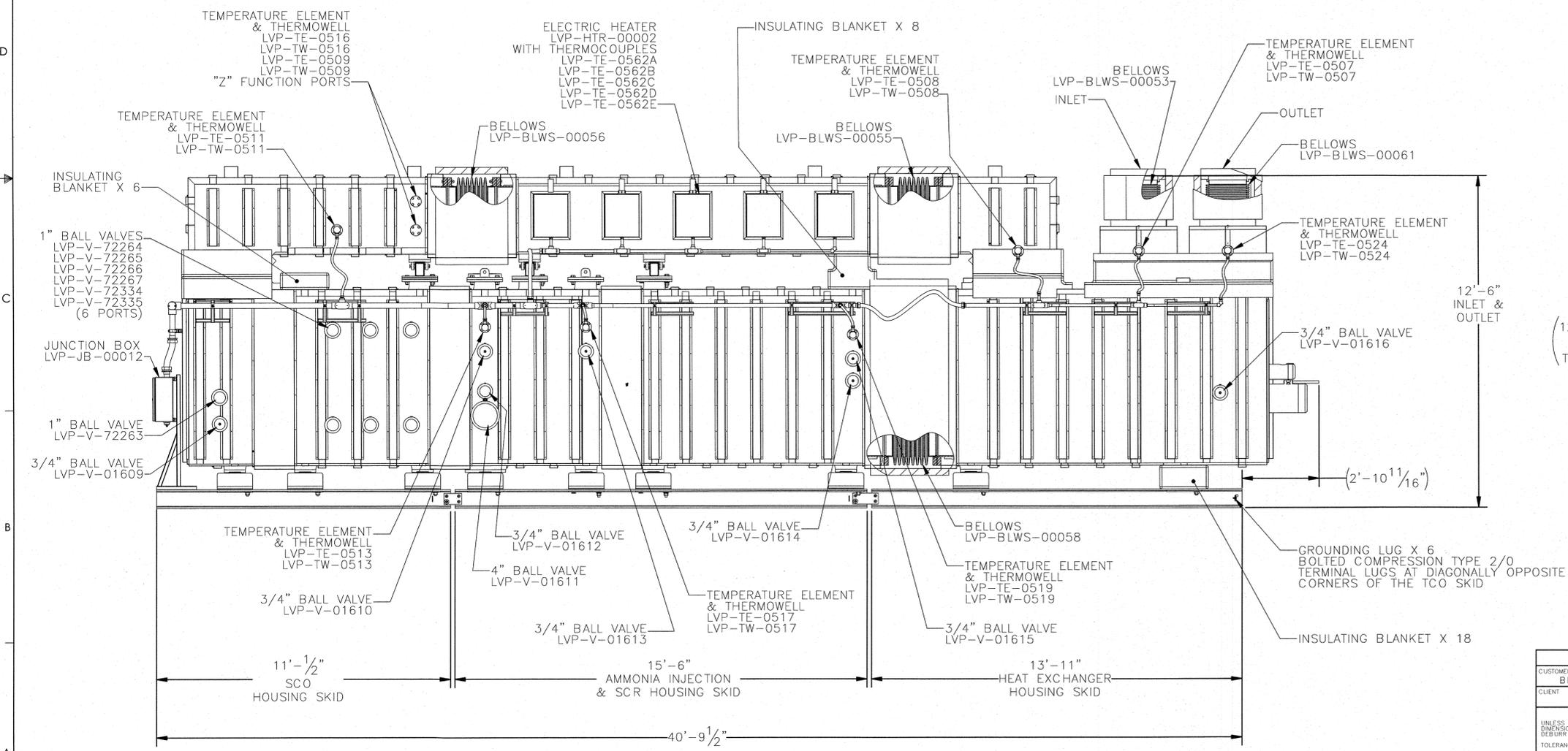


REVISIONS					
REV.	DESCRIPTION	REV BY:	CHK BY:	APPROVED BY:	DATE
A	ADDED NOTES FOR INSULATING BLANKETS AROUND ALL FEET. NOTES FOR GROUNDING LUGS. SHOWN NOTE ON PG. 4. UPDATED SKID TO SHOW BASE FRAMES. UPDATED CONDUIT. UPDATED JUNCTION BOX & ELECTRICAL WORKSPACE. REMOVED LVP-HSE-0003. THIS ASSET FROM END VIEW SHIT. ADDED REFERENCE DIMENSIONS. UPDATED AMMONIA INJECTION MANIFOLD DESIGN & DIMENSIONS. REMOVED NOTES & MADE CATALYST MODULES VISIBLE SHIT. ADDED NOTE 2 SHIT 4	PV	RP	DWP	10/22/2014
B	ADDED COG & RELATED DIMENSIONS. ADDED APPROXIMATE WEIGHT. CORRECTED CATALYST MODULES NOTES (ELEVATION VIEW SHEET 2). UPDATED VIEWS TO REFLECT SUBASSEMBLY DESIGN UPDATES. ADDED NOTE 3 (SHEET 1).	PV	RP	MP	3/3/2015
C	UPDATED ALL DRAWING VIEWS FOR CURRENT DESIGN LAYOUT. REMOVED ADS EMBEDS FROM PLAN VIEWS. ADJUSTED DIMENSIONS ON SECTION A-A. ADDED DIMENSION TO DETAIL.	NS	RP	MP	7/22/2015
D	CHANGED ALL DIMENSIONS TO COLUMN LINES TO BE REFERENCE ON SHEETS 3 & 4.	NS	RP	MP	9/21/2015



Please note that source, special nuclear, and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA) are regulated at the U. S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts that pursuant to AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

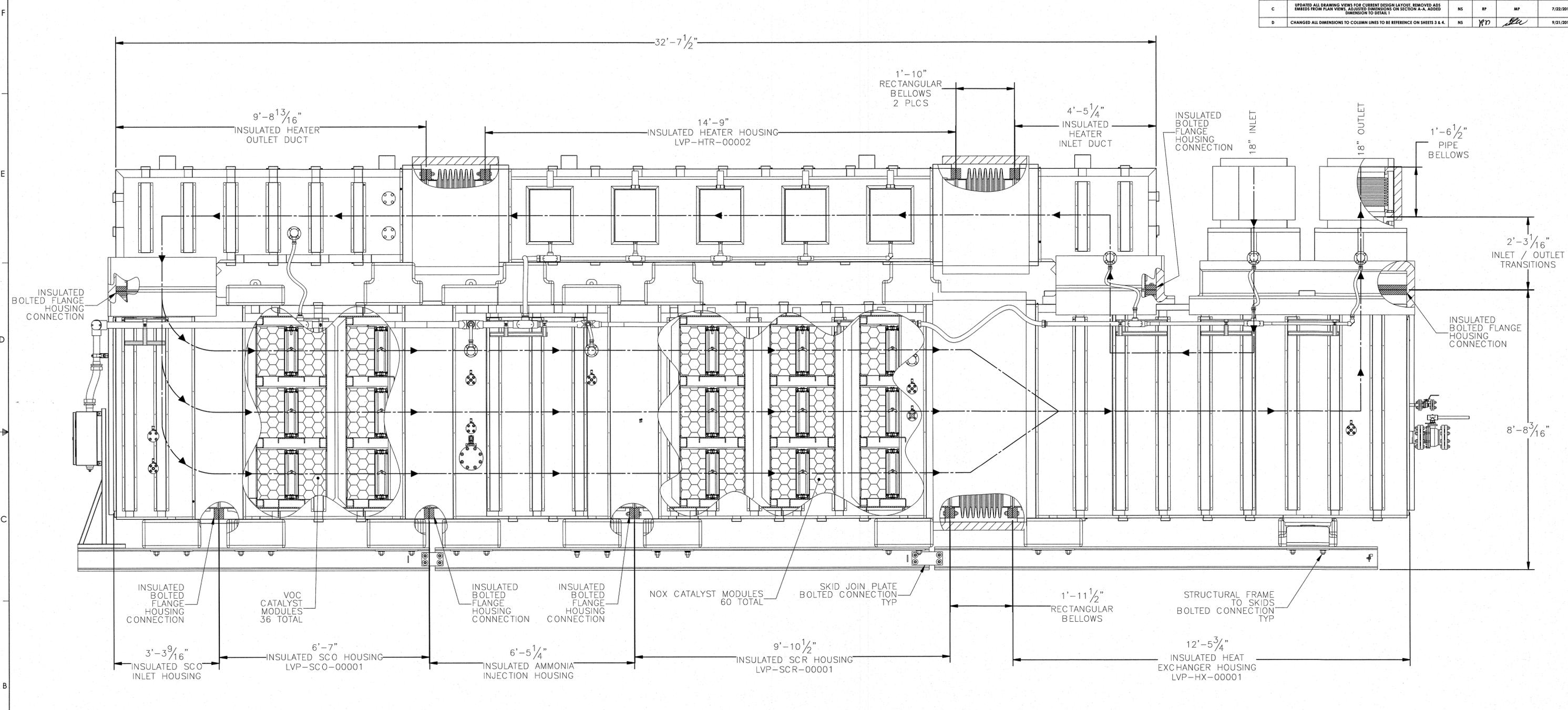


- NOTES:
1. REFERENCE DRAWING 913040-060-001 FOR P&ID
 2. SEE SHIT 4 FOR ADDITIONAL NOTES
 3. SEE 913040-DAT-015 FOR BALL VALVE INSULATION BLANKET TAG NUMBERS

APPROXIMATE WEIGHT: 122665 LBS

PARTS LIST			
CUSTOMER: BECHTEL NATIONAL INC.	CONTRACT NO.: 24590-CD-POC-MBTO-00007	 P.O. BOX 70 Lafayette, CO, 80026 Fax: 303-666-5540 Phone: 303-666-5550	
CLIENT: DOE-ORP	EQUIPMENT NO.: 24590-LAW-MX-LVP-SKID-00002		
PROJECT LOCATION: WASHINGTON STATE, 200 EAST AREA OF THE HANFORD SITE		HANFORD TANK WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP) LAW THERMAL CATALYTIC OXIDIZER	
EQUIPMENT SERVICE: LVP OFFGAS SYSTEM		TCO GENERAL ARRANGEMENT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DEBURR SHARP EDGES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± 1/2 .X ± .2 ± 2° .XX ± .12 .XXX ± .062		APPROVALS	DATE
MATERIAL		DRAWN: NS	2/10/2014
		CHECKED: RP	2/25/2014
		APPROVED: MP	2/25/2014
DO NOT SCALE DRAWING		PRODUCTION ORDER NO.: 913040	SIZE: D
		SCALE: NONE	CATEGORY NO.: 913040-010-001
		REV: D	SHEET 1 of 4

REVISIONS					
REV.	DESCRIPTION	REV BY:	CHKD BY:	APPROVED BY:	DATE
A	ADDED NOTES FOR INSULATING BLANKETS AROUND ALL FEET. NOTES FOR GROUNDING UG. SHM NOTE ON PG. 4. UPDATED SHI 3 TO SHOW BASE FRAME. UPDATED CONDUIT. UPDATED PUNCTION BOX & ELECTRICAL WORKSPACE. REMOVED LVP-HOSE-0002 FROM END VIEW SHI 1. ADDED REFERENCE DIMENSIONS. UPDATED AMMONIA INJECTION MANIFOLD DESIGN & DIMENSIONS. REMOVED NOTES & MADE CATALYST MODULES VISIBLE SHI 2. ADDED NOTE 2 SHI 4.	PV	BP	DWP	10/22/2014
B	ADDED COG & RELATED DIMENSIONS. ADDED APPROXIMATE WEIGHT. CORRECTED CATALYST MODULES NOTES (ELEVATION VIEW SHEET 2). UPDATED VIEWS TO REFLECT SUBASSEMBLY DESIGN UPDATES. ADDED NOTE 3 (SHEET 1).	PV	BP	MP	3/3/2015
C	UPDATED ALL DRAWING VIEWS FOR CURRENT DESIGN LAYOUT. REMOVED ADS EMBEES FROM PLAN VIEW. ADJUSTED DIMENSIONS ON SECTION A-A. ADDED DIMENSION TO DETAIL 1.	NS	BP	MP	7/22/2015
D	CHANGED ALL DIMENSIONS TO COLUMN LINES TO BE REFERENCE ON SHEETS 3 & 4.	NS	YD	MP	9/21/2015



ELEVATION VIEW

Please note that source, special nuclear, and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA) are regulated at the U. S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts that pursuant to AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

CUSTOMER		CONTRACT NO.		PARTS LIST	
BECHTEL NATIONAL INC.		24590-CD-POC-MBT0-00007			
CLIENT		EQUIPMENT NO.			
DOE-ORP		24590-LAW-MX-LVP-SKID-00002			
PROJECT LOCATION		WASHINGTON STATE, 200 EAST AREA OF THE HANFORD SITE			
EQUIPMENT SERVICE		LVP OFFGAS SYSTEM			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DEBURR SHARP EDGES		APPROVALS		DATE	
TOLERANCES ARE:		DRAWN		2/10/2014	
FRACTIONS: ± 1/2		CHECKED		2/25/2014	
DECIMALS: .X ± .2		APPROVED		2/25/2014	
ANGLES: .XX ± .12					
:XXX ± .062					
MATERIAL		DO NOT SCALE DRAWING			
		SCALE		NONE	
		CATEGORY NO.			
		SHEET 2 OF 4			

24590-CD-POC-MBT0-00007-01-00353 00E

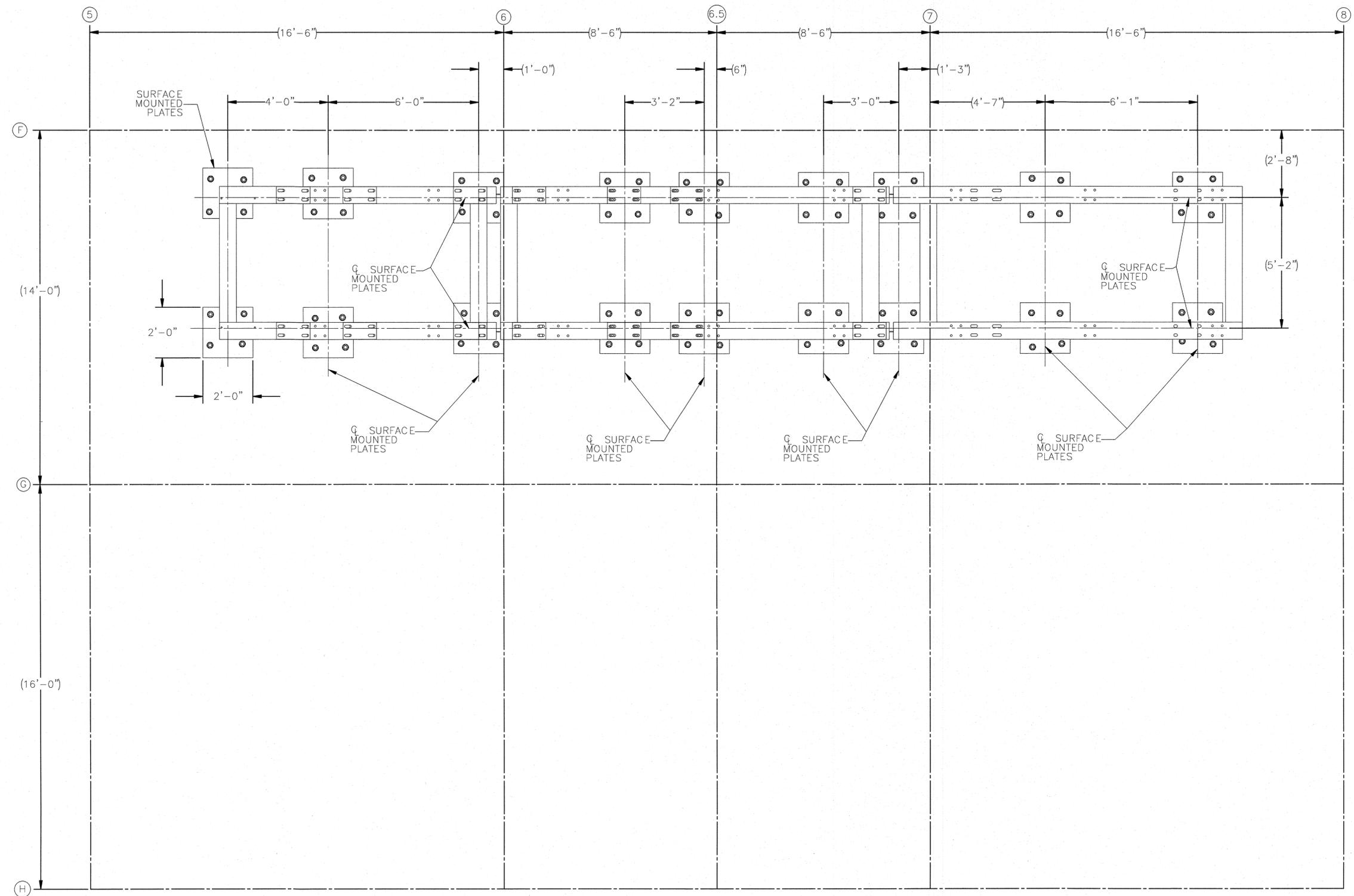


HANFORD TANK WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP)
LAW THERMAL CATALYTIC OXIDIZER

TCO GENERAL ARRANGEMENT

PRODUCTION ORDER NO.	SIZE	DWG. NO.	REV.
913040	D	913040-010-001	D

REVISIONS					
REV.	DESCRIPTION	REV BY:	CHKD BY:	APPROVED BY:	DATE
A	ADDED NOTES FOR INSULATING BLANKETS AROUND ALL FEET. NOTES FOR GROUNDING LUG. SHIM NOTE ON PG. 4. UPDATED SHIT 3 TO SHOW BASE FRAMES. UPDATED CONDITE. UPDATED JUNCTION BOX & ELECTRICAL WORKSPACE. REMOVED LVP-HOSE-00035 THRU -00037 FROM END VIEW SHIT 1. ADDED REFERENCE DIMENSIONS. UPDATED AMMONIA INJECTION MANIFOLD DESIGN & DIMENSIONS. REMOVED NOTES & MADE CATALYST MODULES VISIBLE SHIT 2. ADDED NOTE 2 SHIT 4	PV	RP	DWP	10/22/2014
B	ADDED COG & RELATED DIMENSIONS. ADDED APPROXIMATE WEIGHT. CORRECTED CATALYST MODULES NOTES (ELEVATION VIEW SHEET 2). UPDATED VIEWS TO REFLECT SUBASSEMBLY DESIGN UPDATES. ADDED NOTE 3 (SHEET 1)	PV	RP	MP	3/13/2015
C	UPDATED ALL DRAWING VIEWS FOR CURRENT DESIGN LAYOUT. REMOVED ADS EMBEDS FROM PLAN VIEWS. ADJUSTED DIMENSIONS ON SECTION A-A. ADDED DIMENSION TO DETAIL 1	NS	RP	MP	7/22/2015
D	CHANGED ALL DIMENSIONS TO COLUMN LINES TO BE REFERENCE ON SHEETS 3 & 4.	NS	RP	MP	9/21/2015

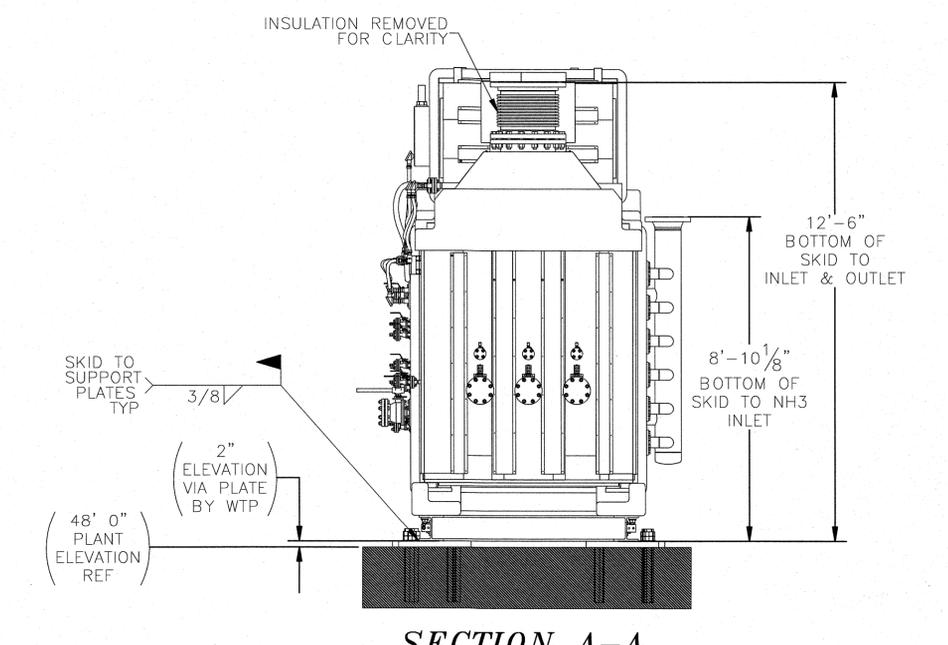
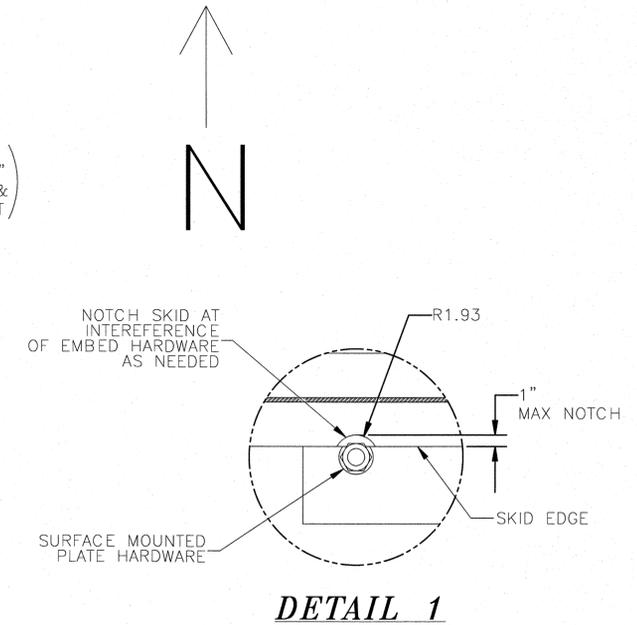
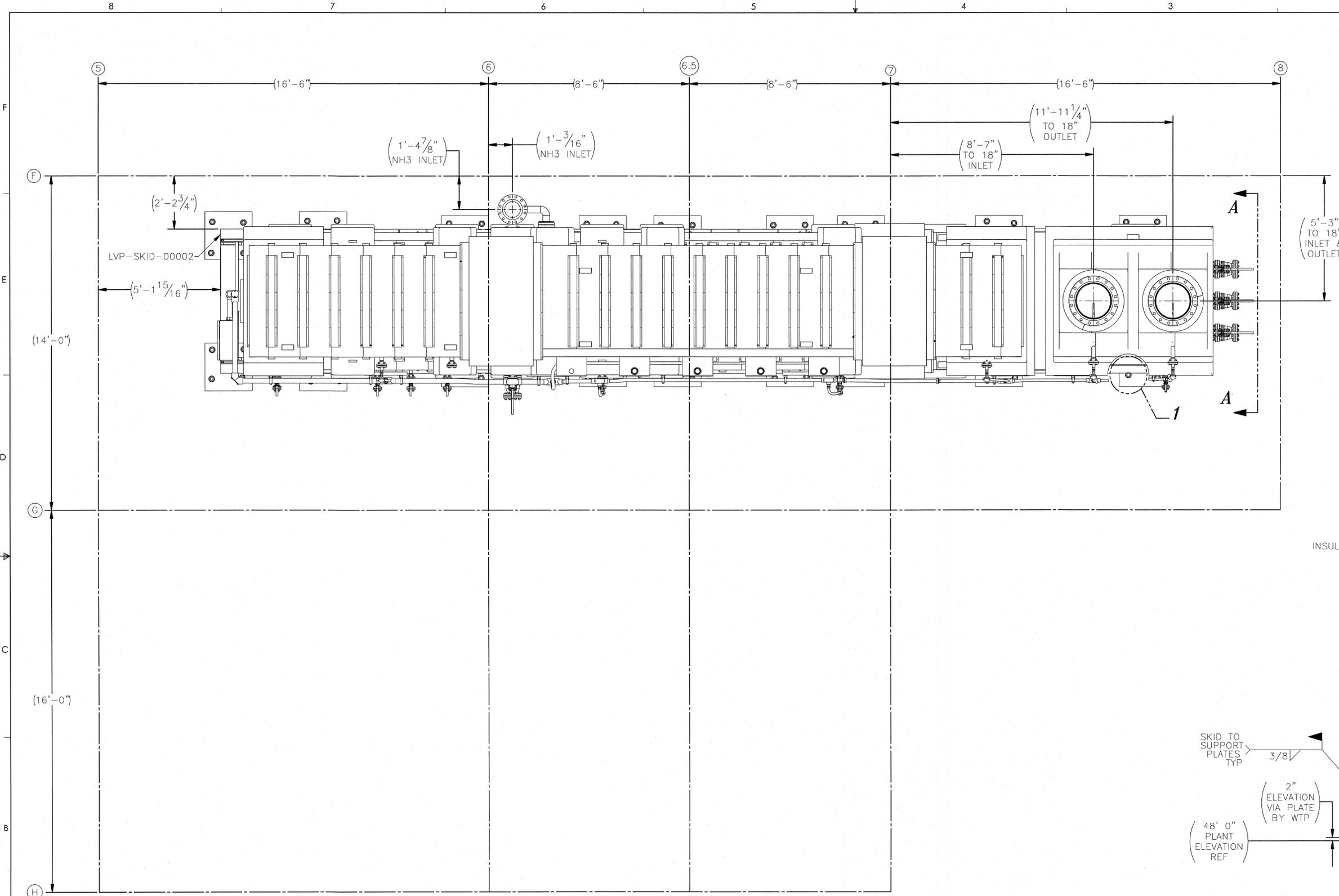


Please note that source, special nuclear, and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA) are regulated at the U. S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts that pursuant to AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

**EMBED LOCATIONS/ROOM LAYOUT
PLAN VIEW**
 (REF BNI DWG 24590-LAW-DB-S13T-00135)
 (REF BNI DWG 24590-LAW-DD-S13T-00306)
 (REF BNI DWG 24590-LAW-DD-S13T-00313)
 (REF BNI DWG 24590-BOF-DD-S13T-00001)

PARTS LIST					
CUSTOMER BECHTEL NATIONAL INC.	CONTRACT NO. 24590-CD-POC-MBTO-00007	 P.O. BOX 70 Lafayette, CO. 80026 Fax: 303-666-5550 Phone: 303-666-5550			
CLIENT DOE-ORP	EQUIPMENT NO. 24590-LAW-MX-LVP-SKID-00002				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DEBURR SHARP EDGES		PROJECT LOCATION WASHINGTON STATE, 200 EAST AREA OF THE HANFORD SITE	HANFORD TANK WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP)		
TOLERANCES ARE:		EQUIPMENT SERVICE LVP OFFGAS SYSTEM	LAW THERMAL CATALYTIC OXIDIZER		
FRACTIONS $\pm \frac{1}{2}$	DECIMALS .X $\pm .2$.XX $\pm .12$.XXX $\pm .062$	ANGLES $\pm 2^\circ$	APPROVALS	DATE	PRODUCTION ORDER NO. 913040
MATERIAL			CHECKED RP	2/25/2014	SIZE D
			APPROVED MP	2/25/2014	DWG. NO. 913040-010-001
DO NOT SCALE DRAWING			SCALE NONE	CATEGORY NO.	REV. D
				SHEET 3 of 4	

REVISIONS					
REV.	DESCRIPTION	REV BY:	CHEK BY:	APPROVED BY:	DATE
A	ADDED NOTES FOR INSULATING BLANKETS AROUND ALL FEET. NOTES FOR GROUNDED LUG. SHIM NOTE ON PG. 4. UPDATED SHIT 3 TO SHOW BASE FRAMES. UPDATED CONDUIT. UPDATED JUNCTION BOX & ELECTRICAL WORKSPACE. REMOVED LVP-HOSE-00022 THRU -00037 FROM END VIEW SHIT 1. ADDED REFERENCE DIMENSIONS. UPDATED AMMONIA INJECTION MANIFOLD DESIGN & DIMENSIONS. REMOVED NOTES & MADE CATALYST MODULES VISIBLE SHIT 2. ADDED NOTE 2 SHIT 4	PV	RP	DWP	10/22/2014
B	ADDED COG & RELATED DIMENSIONS. ADDED APPROXIMATE WEIGHT. CORRECTED CATALYST MODULE NOTES (ELEVATION VIEW SHEET 2). UPDATED VIEWS TO REFLECT SUBASSEMBLY DESIGN UPDATES. ADDED NOTE 3 (SHEET 1)	PV	RP	MP	3/3/2015
C	UPDATED ALL DRAWING VIEWS FOR CURRENT DESIGN LAYOUT. REMOVED ADS EMBEDS FROM PLAN VIEWS. ADJUSTED DIMENSIONS ON SECTION A-A. ADDED DIMENSION TO DETAIL 1	NS	RP	MP	7/22/2015
D	CHANGED ALL DIMENSIONS TO COLUMN LINES TO BE REFERENCE ON SHEETS 3 & 4.	NS	RP	MP	9/21/2015



**TCO UNIT LAYOUT ON EMBEDS
PLAN VIEW**
(REF BNI DWG 24590-LAW-P1-P23T-00052)
(REF BNI DWG 24590-LAW-DD-S13T-00306)

- NOTES:
- LEVEL AND PLUMB LAW TCO. SHIM UNDER THE LAW SUPPORT FRAME AS REQUIRED. WTP CONSTRUCTION TO USE WTP PROVIDED QUALITY LEVEL Q CARBON SHIM STOCK
 - REMOVE PAINT AS NECESSARY TO ACHIEVE FIELD WELD OF SKID TO SURFACE MOUNTED PLATES

Please note that source, special nuclear, and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA) are regulated at the U. S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts that pursuant to AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

PARTS LIST		APPROVALS		DATE	
CUSTOMER	BECHTEL NATIONAL INC.	CONTRACT NO.	24590-CD-POC-MBTO-00007	DRAWN	NS
CLIENT	DOE-ORP	EQUIPMENT NO.	24590-LAW-MX-LVP-SKID-00002	CHECKED	RP
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DEBURR SHARP EDGES		PROJECT LOCATION	WASHINGTON STATE, 200 EAST AREA OF THE HANFORD SITE	APPROVED	MP
TOLERANCES ARE:		EQUIPMENT SERVICE	LVP OFFGAS SYSTEM	DO NOT SCALE DRAWING	
FRACTIONS	DECIMALS	ANGLES		SCALE	NONE
± 1/2	.X ± .2 .XX ± .12 .XXX ± .062	± 2°		CATEGORY NO.	
MATERIAL		HANFORD TANK WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP)		SIZE	D
		LAW THERMAL CATALYTIC OXIDIZER		UWG. NO.	913040-010-001
		TCO GENERAL ARRANGEMENT		REV.	D
		PRODUCTION ORDER NO.	913040	SCALE	NONE
		DO NOT SCALE DRAWING		SHEET 4 of 4	

24590-CD-POC-MBTO-00007-01-00353 00E

