

## Tendon Instrumentation List

Labeling	Azimuthal	Vertical	Radial	Transducer	Location	Details	Basic	Modified	Comnts	Calibration
I D	Angle	Elevation	Distance	Designation	Drawing #	Drawing #	Mark #	Mark #		
(name)	(deg)	(in)	(in)							
TL-M-I0-03	241	-46.0	218.0	HBM-C6-100t	D-SN-P-128		V37	V37		PreCal
TL-M-I0-05	253	-46.0	218.0	GK-3000-200-2.0	D-SN-P-128		V31	V31		PreCal
TL-M-J0-02	265	-46.0	218.0	GK-3000-200-2.0	D-SN-P-128		V25	V25		PreCal
TL-M-J0-04	277	-46.0	218.0	GK-3000-200-2.0	D-SN-P-128		V19	V19		PreCal
TL-M-K0-01	289	-46.0	218.0	GK-3000-200-2.0	D-SN-P-128		V13	V13		PreCal
TL-M-K0-03	301	-46.0	218.0	GK-3000-200-2.0	D-SN-P-128		V7	V7		PreCal
TL-M-K0-05	313	-46.0	218.0	GK-3000-200-2.0	D-SN-P-128		V1	V1		PreCal
TL-M-L0-02	325	-46.0	218.0	HBM-C6-100t	D-SN-P-128		V85	V85		PreCal
TL-M-L0-04	337	-46.0	218.0	GK-3000-200-2.0	D-SN-P-128		V79	V79		PreCal
TL-M-A0-01	349	-46.0	218.0	GK-3000-200-2.0	D-SN-P-128		V73	V73		PreCal
TL-C-D3-01	85	44.0	230.0	GK-3000-200-2.0	D-SN-P-128		H4	H4	Hoop	PreCal
TL-C-D3-02	95	41.0	230.0	GK-3000-200-2.0	D-SN-P-128		H4	H4	Load	PreCal
TL-C-D4-01	85	106.0	230.0	GK-3000-200-2.0	D-SN-P-128		H18	H18	Cells	PreCal
TL-C-D4-02	95	103.0	230.0	GK-3000-200-2.0	D-SN-P-128		H18	H18	90 Deg.	PreCal
TL-C-D5-01	85	159.0	230.0	GK-3000-200-2.0	D-SN-P-128		H30	H30		PreCal
TL-C-D5-02	95	156.0	230.0	GK-3000-200-2.0	D-SN-P-128		H30	H30		PreCal
TL-C-D5-03	85	203.0	230.0	GK-3000-200-2.0	D-SN-P-128		H40	H40		PreCal
TL-C-D5-04	95	200.0	230.0	GK-3000-200-2.0	D-SN-P-128		H40	H40		PreCal
TL-C-D6-01	85	230.0	230.0	GK-3000-200-2.0	D-SN-P-128		H46	H46		PreCal
TL-C-D6-02	95	227.0	230.0	GK-3000-200-2.0	D-SN-P-128		H46	H46		PreCal
TL-C-D7-01	85	283.0	230.0	GK-3000-200-2.0	D-SN-P-128		H58	H58		PreCal
TL-C-D7-02	95	280.0	230.0	GK-3000-200-2.0	D-SN-P-128		H58	H58		PreCal
TL-C-D8-01	85	327.0	230.0	HBM-C6-100t	D-SN-P-128		H68	H68		PreCal
TL-C-D8-02	95	324.0	230.0	HBM-C6-100t	D-SN-P-128		H68	H68		PreCal
TL-C-D9-01	85	389.0	230.0	GK-3000-200-2.0	D-SN-P-128		H82	H82		PreCal
TL-C-D9-02	95	386.0	230.0	GK-3000-200-2.0	D-SN-P-128		H82	H82		PreCal
TL-C-D10-01	85	481.0	230.0	GK-3000-200-2.0	D-SN-P-128		H96	H96		PreCal
TL-C-D10-02	95	478.0	230.0	GK-3000-200-2.0	D-SN-P-128		H96	H96		PreCal
TL-C-J3-01	265	75.0	230.0	GK-3000-200-2.0	D-SN-P-128		H11	H11	Hoop	PreCal
TL-C-J3-02	275	72.0	230.0	HBM-C6-100t	D-SN-P-128		H11	H11	Load	PreCal
TL-C-J4-01	265	137.0	230.0	GK-3000-200-2.0	D-SN-P-128		H25	H25	Cells	PreCal
TL-C-J4-02	275	134.0	230.0	GK-3000-200-2.0	D-SN-P-128		H25	H25	270 Deg	PreCal
TL-C-J5-01	265	181.0	230.0	HBM-C6-100t	D-SN-P-128		H35	H35		PreCal
TL-C-J5-02	275	178.0	230.0	HBM-C6-100t	D-SN-P-128		H35	H35		PreCal
TL-C-J6-01	265	261.0	230.0	HBM-C6-100t	D-SN-P-128		H53	H53		PreCal
TL-C-J6-02	275	258.0	230.0	GK-3000-200-2.0	D-SN-P-128		H53	H53		PreCal
TL-C-J7-01	265	305.0	230.0	GK-3000-200-2.0	D-SN-P-128		H63	H63		PreCal
TL-C-J7-02	275	302.0	230.0	GK-3000-200-2.0	D-SN-P-128		H63	H63		PreCal
TL-C-J7-03	265	323.0	230.0	HBM-C6-100t	D-SN-P-128		H67	H67		PreCal
TL-C-J7-04	275	320.0	230.0	HBM-C6-100t	D-SN-P-128		H67	H67		PreCal
TL-C-J8-01	265	358.0	230.0	GK-3000-200-2.0	D-SN-P-128		H75	H75		PreCal
TL-C-J8-02	275	355.0	230.0	GK-3000-200-2.0	D-SN-P-128		H75	H75		PreCal
TL-C-J9-01	265	420.0	230.0	GK-3000-200-2.0	D-SN-P-128		H89	H89		PreCal
TL-C-J9-02	275	417.0	230.0	GK-3000-200-2.0	D-SN-P-128		H89	H89		PreCal
TL-C-J10-01	265	543.0	230.0	GK-3000-200-2.0	D-SN-P-128		H103	H103		PreCal
TL-C-J10-02	275	540.0	230.0	GK-3000-200-2.0	D-SN-P-128		H103	H103		PreCal

NoCal - No calibration was performed on this instrument before or after model testing  
PreCal - Calibration was performed on this instrument prior to model testing only

## Displacement Instrumentation List

Labeling	Azimuthal	Vertical	Radial	Transducer	Location	Details	Initial	Modified	Comnts	Calibration
I D	Angle	Elevation	Distance	Designation	Drawing #	Drawing #	Offset	Mark #		
(name)	(deg)	(in)	(in)							
CP-M-B4-01	30	104.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2	CPOT	PostOK
CP-M-B9-01	30	423.0	211.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5	Vertical	PostOUT
CP-M-C5-01	66	178.0	200.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2	Disp.	PostOK
CP-M-D4-01	90	104.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-M-D7-01	90	304.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-M-D9-01	90	423.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.5	CPOT-2		PostOK
CP-M-D10-01	90	504.0	196.0	PT101-0002-111-1110	D-SN-P-131		+0.5	CPOT-2		PostOK
CP-M-D11-01	90	573.0	150.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOK
CP-M-D12-01	90	619.0	81.0	PT101-0015-111-1110	D-SN-P-131		+1	CPOT-15		PostOK
CP-M-Z4-01	135	104.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-M-Z5-01	135	184.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-M-Z7-01	135	304.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-M-Z10-01	135	504.0	196.0	PT101-0002-111-1110	D-SN-P-131		+0.5	CPOT-2		PostOK
CP-M-Z12-01	135	619.0	81.0	PT101-0015-111-1110	D-SN-P-131		+1	CPOT-15		PostOK
CP-M-G4-01	180	104.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-M-G9-01	180	423.0	211.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOUT
CP-M-I4-01	240	104.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-M-I9-01	240	423.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.5	CPOT-2		PostOK
CP-M-I11-01	240	573.0	150.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOK
CP-M-L4-01	324	104.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-M-L5-01	334	184.0	200.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-M-L7-01	324	304.0	211.0	PT101-0002-111-1110	D-SN-P-131		+1.75	CPOT-2		PostOK
CP-M-L9-01	324	423.0	211.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOK
CP-M-L10-01	324	504.0	196.0	PT101-0002-111-1110	D-SN-P-131		+0.5	CPOT-2		PostOK
CP-M-L11-01	324	573.0	150.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOK
CP-M-L12-01	324	619.0	81.0	PT101-0015-111-1110	D-SN-P-131		+1	CPOT-15		PostOK
CP-R-B2-01	30	10.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2	CPOT	PostOK
CP-R-B3-01	30	56.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2	Radial	PostOK
CP-R-B5-01	30	184.0	211.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10	Disp.	PostOK
CP-R-B7-01	30	304.0	211.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10		PostOK
CP-R-B9-01	30	423.0	211.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOK
CP-R-C5-01	66	178.0	200.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10		PostOK
CP-R-D4-01	90	104.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-D6-01	90	244.0	211.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10		PostOUT
CP-R-D8-01	90	363.0	211.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOK
CP-R-D9-01	90	423.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-D10-01	90	504.0	196.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-D11-01	90	573.0	150.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-D12-01	90	619.0	81.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-E5-01	120	184.0	211.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10		PostOK
CP-R-Z8-01	135	363.0	211.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOK
CP-R-Z10-01	135	504.0	196.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-Z11-01	135	573.0	150.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-Z12-01	135	619.0	81.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-F5-01	150	184.0	211.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10		PostOK
CP-R-G2-01	180	10.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-G3-01	180	56.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-G4-01	180	104.0	211.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOK
CP-R-G7-01	180	304.0	211.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10		PostOK
CP-R-G9-01	180	423.0	211.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOUT
CP-R-H5-01	210	184.0	211.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10		PostOK
CP-R-I2-01	240	10.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-I3-01	240	56.0	211.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-I7-01	240	304.0	211.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10		PreCal
CP-R-I9-01	240	423.0	211.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOK
CP-R-I11-01	240	573.0	150.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK

## Displacement Instrumentation List

Labeling	Azimuthal	Vertical	Radial	Transducer	Location	Details	Initial	Modified	Comnts	Calibration
I D	Angle	Elevation	Distance	Designation	Drawing #	Drawing #	Offset	Mark #		
(name)	(deg)	(in)	(in)							
CP-R-K5-01	300	184.0	211.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10		PostOK
CP-R-L4-01	324	104.0	211.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOK
CP-R-L5-01	334	184.0	200.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10		PostOK
CP-R-L6-01	324	244.0	211.0	PT101-0010-111-1110	D-SN-P-131		+0.5	CPOT-10		PostOK
CP-R-L8-01	324	363.0	211.0	PT101-0005-111-1110	D-SN-P-131		+0.5	CPOT-5		PostOK
CP-R-L10-01	324	504.0	196.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-L11-01	324	573.0	150.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
CP-R-L12-01	324	619.0	81.0	PT101-0002-111-1110	D-SN-P-131		+0.25	CPOT-2		PostOK
DL-M-D0-01	90	-138.0	283.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1	LVDT	PostOK
DL-M-D1-01	90	0.0	283.0	GCD-121-2000-1283	D-SN-P-131		-1.5	LVDT-4	Outside	PostOK
DL-M-Z0-01	135	-138.0	283.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1	Vertical	PostOK
DL-M-Z1-01	135	0.0	283.0	GCD-121-2000-1283	D-SN-P-131		-1.5	LVDT-4	Disp.	PostOUT
DL-M-I0-01	240	-138.0	283.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1		PostOUT
DL-M-I1-01	240	0.0	283.0	GCD-121-2000-1283	D-SN-P-131		-1.5	LVDT-4		PreCal
DL-M-L0-01	324	-138.0	283.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1		PostOUT
DL-M-L1-01	324	0.0	283.0	GCD-121-2000-1283	D-SN-P-131		-1.5	LVDT-4		PostOUT
DL-R-D1-01	90	0.0	211.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1	LVDT	PostOUT
DL-R-D2-01	90	10.0	211.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1	Radial	PostOK
DL-R-D3-01	90	56.0	211.0	GCD-121-2000-1283	D-SN-P-131		-1.5	LVDT-4	Disp.	PostOUT
DL-R-Z1-01	135	0.0	211.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1		PostOUT
DL-R-Z2-01	135	10.0	211.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1		PostOK
DL-R-Z3-01	135	56.0	211.0	GCD-121-2000-1283	D-SN-P-131		-1.5	LVDT-4		PostOUT
DL-R-L1-01	324	0.0	211.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1		PostOK
DL-R-L2-01	324	10.0	211.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1		PostOK
DL-R-L3-01	324	56.0	211.0	GCD-121-2000-1283	D-SN-P-131		-1.5	LVDT-4		PostOUT
DL-M-C5-01	62	178.0	218.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1	LVDT	PostOUT
DL-C-C5-01	62	178.0	218.0	GCD-121-500	D-SN-P-131		-0.3	LVDT-1	Hatch	PostOK
DL-M-L5-01	324	184.0	218.0	GCD-121-2000-1283	D-SN-P-131		-1.5	LVDT-4	Diagonal	PostOK
DL-C-L5-01	324	184.0	218.0	GCD-121-2000-1283	D-SN-P-131		-1.5	LVDT-4	Disp.	PostOUT
DT-M-Z9-01	135	423.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10	Tempos.	PostOUT
DT-M-Z11-01	135	573.0	150.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10	Vertical	PostOUT
DT-M-Z13-01	-	635.0	0.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10	Disp.	PostOUT
DT-R-A5-01	0	184.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10	Tempos.	PostOK
DT-R-D5-01	90	184.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10	Radial	PostOUT
DT-R-D7-01	90	304.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10	Disp.	PostOUT
DT-R-Z4-01	135	104.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10		PostOUT
DT-R-Z5-01	135	184.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10		PostOK
DT-R-Z6-01	135	244.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10		PostOUT
DT-R-Z7-01	135	304.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10		PostOK
DT-R-Z9-01	135	423.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10		PostOK
DT-R-G5-01	180	184.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10		PostOK
DT-R-I5-01	240	184.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10		PostOK
DT-R-J5-01	270	184.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10		PostOK
DT-R-L7-01	324	304.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10		PostOUT
DT-R-L9-01	324	423.0	211.0	LSVD600U01001A0	D-SN-P-131		+1	TEMPO-10		PostOUT
CP-V-B3-01	30	50.0	200.0	PT101-0002-111-1110	N/A		+1	CPOT-2	Instr.	PostOK
CP-V-G3-01	180	50.0	200.0	PT101-0002-111-1110	N/A		+1	CPOT-2	Frame	PostOK
CP-V-Z11-01	-	570.0	0.0	PT101-0002-111-1110	N/A		+1	CPOT-2	Sens.	PostOK
CP-V-A9-01	9	390.0	130.0	PT101-0002-111-1110	N/A		+1	CPOT-2		PostOK
CP-V-D9-01	99	390.0	130.0	PT101-0002-111-1110	N/A		+1	CPOT-2		PostOK
CP-V-G9-01	189	390.0	130.0	PT101-0002-111-1110	N/A		+1	CPOT-2		PostOK
CP-V-J9-01	279	390.0	130.0	PT101-0002-111-1110	N/A		+1	CPOT-2		PostOK

## Displacement Instrumentation List

Labeling	Azimuthal	Vertical	Radial	Transducer	Location	Details	Initial	Modified	Comnts	Calibration
I D	Angle	Elevation	Distance	Designation	Drawing #	Drawing #	Offset	Mark #		
(name)	(deg)	(in)	(in)							
CP-H-G5-01	189	218.0	130.0	PT101-0002-111-1110	N/A		+1	CPOT-2		PostOUT
CP-H-J5-01	279	218.0	130.0	PT101-0002-111-1110	N/A		+1	CPOT-2		PostOK
CP-H-G9-01	189	380.0	130.0	PT101-0002-111-1110	N/A		+1	CPOT-2		PostOK
CP-H-J9-01	279	380.0	130.0	PT101-0002-111-1110	N/A		+1	CPOT-2		PostOK
IT-H-A11-01	0	580.0	10.0	SSY0140	N/A		+0	TILT		PostOUT
IT-H-D11-01	90	580.0	10.0	SSY0140	N/A		+0	TILT		PostOUT

PreCal - Calibration was performed on this instrument prior to model testing only

PostOK - Calibration was performed on this instrument Before and After model testing and remained within tolerance

PostOUT - Calibration was performed on this instrument Before and After model testing and difference was Out-of Tolerance



## Other Instrumentation List

Labeling	Azimuthal	Vertical	Radial	Transducer	Location	Details	Basic	Modified	Comnts	Calibration
I D	Angle	Elevation	Distance	Designation	Drawing #	Drawing #	Mark #	Mark #		
(name)	(deg)	(in)	(in)							
TC-R-D0-01	90	-134.0	48.0	K-24-2-505	D-SN-P-132	N/A	N/A	N/A	(Thermoc.	NoCal
TC-R-D0-02	90	-104.0	48.0	K-24-2-505	D-SN-P-132	N/A	N/A	N/A	embedded	NoCal
TC-R-D0-03	90	-104.0	200.0	K-24-2-505	D-SN-P-132	N/A	N/A	N/A	basemat)	NoCal
TC-R-D0-04	90	-6.0	48.0	CASS-116U-240	D-SN-P-132	N/A	N/A	N/A		NoCal
TC-R-D0-05	90	-36.0	214.0	CASS-116U-240	D-SN-P-132	N/A	N/A	N/A		NoCal
TC-R-Z0-01	135	-36.0	214.0	CASS-116U-240	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-A2-01	0	10.0	218.0	TQSS-116U-180	D-SN-P-132	N/A	N/A	N/A	(Thermoc.	NoCal
TW-R-A4-01	0	104.0	218.0	TQSS-116U-72	D-SN-P-132	N/A	N/A	N/A	embedded	NoCal
TW-R-A5-01	0	184.0	218.0	TQSS-116U-72	D-SN-P-132	N/A	N/A	N/A	cylinder	NoCal
TW-R-A5-02	349	184.0	218.0	TQSS-116U-72	D-SN-P-132	N/A	N/A	N/A	& dome)	NoCal
TW-R-A6-01	0	244.0	218.0	TQSS-116U-72	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-A7-01	0	304.0	218.0	TQSS-116U-72	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-A9-01	0	423.0	218.0	TQSS-116U-72	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-A11-01	0	573.0	158.0	TQSS-116U-240	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-C5-01	44	184.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-C5-02	62	125.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-C5-03	62	230.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-C5-04	80	184.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-D2-01	90	10.0	222.0	TQSS-116U-180	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-D4-01	90	104.0	222.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-D5-01	90	184.0	222.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-D7-01	90	304.0	222.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-D9-01	90	423.0	222.0	TQSS-116U-72	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-D11-01	62	180.0	220.0	TQSS-116U-240	D-SN-P-132	N/A	N/A	N/A	A/L	NoCal
TW-R-Z2-01	135	10.0	218.0	TQSS-116U-180	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-Z4-01	135	104.0	218.0	TQSS-116U-72	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-Z5-01	135	184.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-Z6-01	135	244.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-Z7-01	135	304.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-Z9-01	135	423.0	218.0	TQSS-116U-72	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-Z11-01	135	573.0	158.0	TQSS-116U-240	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-Z13-01	-	640.0	0.0	TQSS-116U-480	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-G5-01	180	184.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-I2-01	240	10.0	218.0	TQSS-116U-180	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-I5-01	240	184.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-I9-01	240	423.0	218.0	TQSS-116U-72	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-I11-01	324	184.0	220.0	TQSS-116U-240	D-SN-P-132	N/A	N/A	N/A	E/H	NoCal
TW-R-K5-01	299	184.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-L2-01	324	10.0	218.0	TQSS-116U-180	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-L4-01	324	79.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-L7-01	324	289.0	218.0	TQSS-116U-96	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-L9-01	324	423.0	218.0	TQSS-116U-72	D-SN-P-132	N/A	N/A	N/A		NoCal
TW-R-L11-01	324	573.0	158.0	TQSS-116U-240	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-A2-01	0	10.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A	(Thermoc.	NoCal
TI-C-A4-01	0	104.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A	attached	NoCal
TI-C-A5-01	0	184.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A	to inside	NoCal
TI-C-A7-01	0	304.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A	liner)	NoCal
TI-C-A9-01	0	423.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal



## Other Instrumentation List

Labeling ID (name)	Azimuthal Angle (deg)	Vertical Elevation (in)	Radial Distance (in)	Transducer Designation	Location Drawing #	Details Drawing #	Basic Mark #	Modified Mark #	Comnts	Calibration
TI-C-A11-01	0	573.0	151.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-C5-01	57	178.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-C5-02	67	178.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-D2-01	90	10.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-D4-01	90	104.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-D5-01	90	184.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-D7-01	90	304.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-D9-01	90	423.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-D11-01	90	573.0	151.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-Z2-01	135	10.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-Z4-01	135	104.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-Z5-01	135	184.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-Z7-01	135	304.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-Z9-01	135	423.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-Z11-01	135	573.0	151.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-Z13-01	-	634.0	0.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-I2-01	240	10.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-I5-01	240	184.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-I9-01	240	423.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-I11-01	240	573.0	151.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-L2-01	324	10.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-L4-01	324	104.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-L5-01	324	184.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-L5-02	314	184.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-L5-03	334	184.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-L7-01	324	304.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-L9-01	324	423.0	211.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
TI-C-L11-01	324	573.0	151.0	SA1-T	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-A3-01	0	40.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A	(RTD	NoCal
RT-M-A5-01	0	170.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A	inside	NoCal
RT-M-A7-01	0	290.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A	air	NoCal
RT-M-A9-01	0	423.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A	Temp.)	NoCal
RT-M-A10-01	0	533.0	120.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-D3-01	90	40.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-D5-01	90	170.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-D7-01	90	290.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-D9-01	90	423.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-D10-01	90	533.0	120.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-Z12-01	-	608.0	0.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-G3-01	180	40.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-G5-01	180	170.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-G7-01	180	290.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-G9-01	180	423.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-G10-01	180	533.0	120.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-J3-01	270	40.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-J5-01	270	170.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-J7-01	270	290.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-M-J9-01	270	423.0	150.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal



## Other Instrumentation List

Labeling I D (name)	Azimuthal Angle (deg)	Vertical Elevation (in)	Radial Distance (in)	Transducer Designation	Location Drawing #	Details Drawing #	Basic Mark #	Modified Mark #	Comnts	Calibration
RT-M-J10-01	270	533.0	120.0	RTD-805	D-SN-P-132	N/A	N/A	N/A		NoCal
RT-R-G0-01	180	-60.0	400.0	RTD-805	D-SN-P-132	N/A	N/A	N/A	Outside	NoCal
PG-R-G4-01	180	96.5	230.0	4040	N/A	N/A	N/A	N/A	(pressure	PostOK
PG-R-G4-02	180	96.5	230.0	4040	N/A	N/A	N/A	N/A	gages)	PostOK
CE-M-Z2-01	135	10.0	214.0	SOFO-500	D-SN-P-125	N/A	684	684	(fiber	NoCal
CE-M-Z2-02	135	10.0	221.0	SOFO-500	D-SN-P-126	N/A	683	683	optic	NoCal
CE-M-A6-01	0	244.0	214.0	SOFO-500	D-SN-P-125	N/A	682	682	concrete	NoCal
CE-C-A6-01	0	244.0	218.0	SOFO-500	D-SN-P-125	N/A	737	737	strain	NoCal
CE-M-A6-02	0	244.0	221.0	SOFO-500	D-SN-P-126	N/A	738	738	gages)	NoCal
CE-C-Z6-01	135	244.0	214.0	SOFO-500	D-SN-P-125	N/A	685	685		NoCal
CE-M-Z6-01	135	244.0	218.0	SOFO-500	D-SN-P-125	N/A	686	686		NoCal
CE-C-Z6-02	135	244.0	221.0	SOFO-500	D-SN-P-126	N/A	687	687		NoCal
CE-M-Z11-01	135	573.0	157.0	SOFO-500	D-SN-P-125	N/A	775	775		NoCal
CE-C-Z11-01	135	573.0	157.0	SOFO-500	D-SN-P-125	N/A	776	776		NoCal
A00	0	423.0	224.0						Acoustic	PreCal
A01	0	304.0	224.0						Sensors	PreCal
A02	0	184.0	224.0						(Ext)	PreCal
A03	0	10.0	224.0							PreCal
A04	0	-79.0	206.0							PreCal
A05	62	423.0	224.0							PreCal
A06	62	304.0	224.0							PreCal
A07	60	10.0	224.0							PreCal
A08	60	-79.0	206.0							PreCal
A09	90	580.0	170.0							PreCal
A10	90	423.0	230.0							PreCal
A11	90	244.0	230.0							PreCal
A12	90	127.0	230.0							PreCal
A13	90	10.0	230.0							PreCal
A14	120	-79.0	206.0							PreCal
A15	150	423.0	224.0							PreCal
A16	150	304.0	224.0							PreCal
A17	150	184.0	224.0							PreCal
A18	150	10.0	224.0							PreCal
A19	180	644.0	0.0							PreCal
A20	180	184.0	224.0							PreCal
A21	180	10.0	224.0							PreCal
A22	180	-79.0	206.0							PreCal
A23	210	423.0	224.0							PreCal
A24	210	304.0	224.0							PreCal
A25	210	184.0	224.0							PreCal
A26	210	10.0	224.0							PreCal
A27	240	-79.0	206.0							PreCal
A28	270	580.0	170.0							PreCal
A29	270	423.0	230.0							PreCal
A30	270	244.0	230.0							PreCal
A31	270	127.0	230.0							PreCal
A32	270	10.0	230.0							PreCal
A33	285	304.0	224.0							PreCal
A34	285	56.0	224.0							PreCal
A35	300	-79.0	206.0							PreCal
A36	318	423.0	224.0							PreCal
A37	324	10.0	224.0							PreCal
A38	15	10.0	211.0						Acoustic	PreCal

## Other Instrumentation List

Labeling	Azimuthal	Vertical	Radial	Transducer	Location	Details	Basic	Modified	Comnts	Calibration
I D	Angle	Elevation	Distance	Designation	Drawing #	Drawing #	Mark #	Mark #		
(name)	(deg)	(in)	(in)							
A39	57.1	196.0	205.0						Sensors	PreCal
A40	62	10.0	211.0						(Int)	PreCal
A41	66.9	196.0	205.0							PreCal
A42	105	10.0	211.0							PreCal
A43	150	244.0	211.0							PreCal
A44	150	10.0	211.0							PreCal
A45	210	244.0	211.0							PreCal
A46	210	10.0	211.0							PreCal
A47	240	10.0	211.0							PreCal
A48	295	10.0	211.0							PreCal
A49	313.7	222.0	200.0							PreCal
A50	313.7	146.0	200.0							PreCal
A51	334.3	222.0	200.0							PreCal
A52	334.3	146.0	200.0							PreCal
A53	330	10.0	211.0							PreCal

NoCal - No calibration was performed on this instrument before or after model testing

PreCal - Calibration was performed on this instrument prior to model testing only

PostOK - Calibration was performed on this instrument Before and After model testing and remained within tolerance


## **Appendix E: PCCV Instrumentation Layout Drawings**



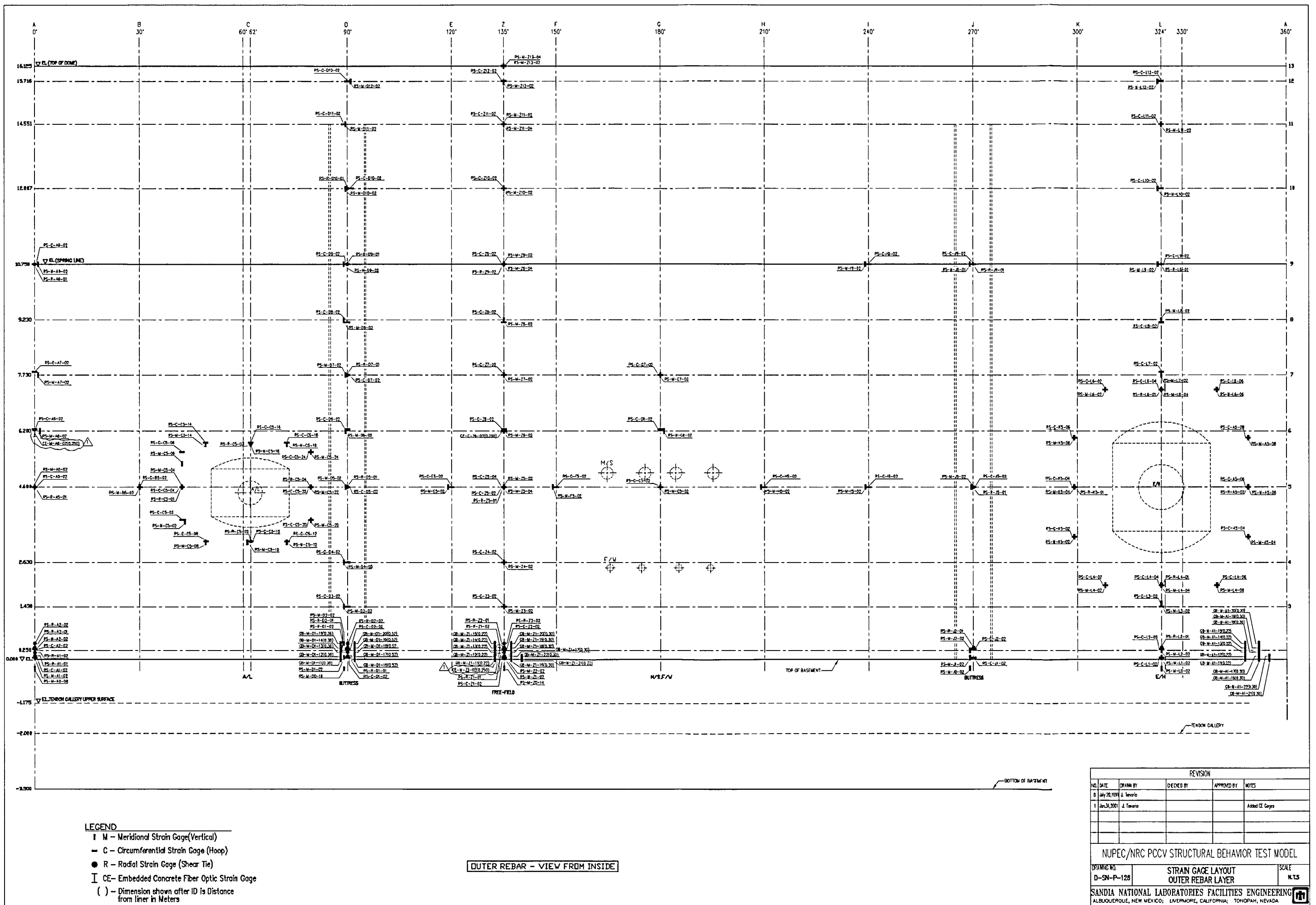
**List of PCCV Instrumentation Layout Drawings**

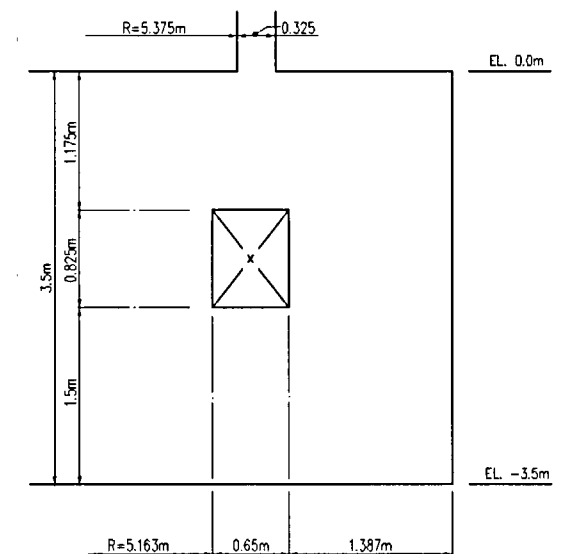
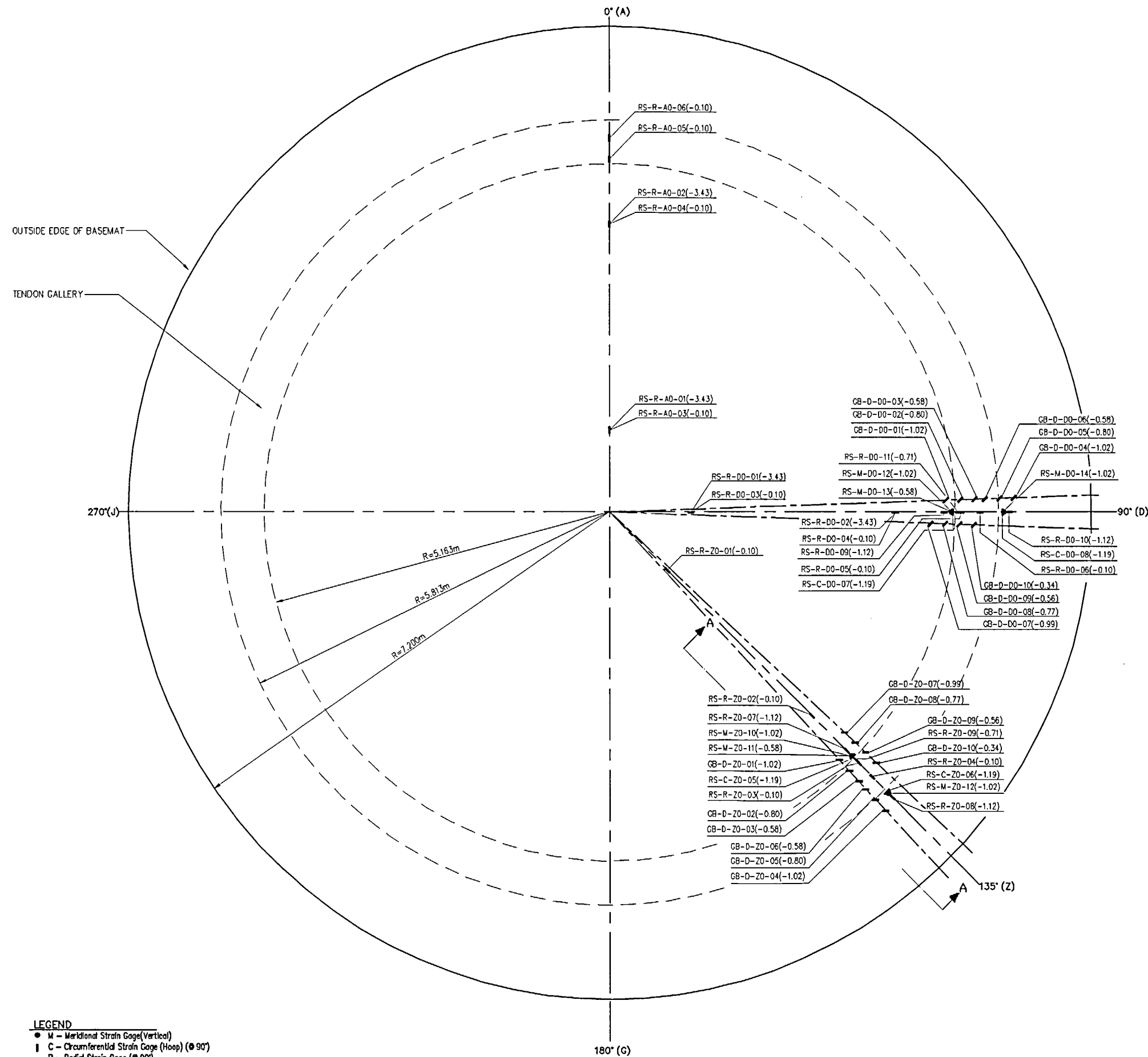
<b>Number</b>	<b>Date</b>	<b>Rev</b>	<b>Description</b>
D-SN-P-125	1/31/2001	1	Strain Gage Layout – Inner Rebar Layer
D-SN-P-126	1/31/2001	1	Strain Gage Layout – Outer Rebar Layers
D-SN-P-127	7/20/1999	0	Strain Gage Layout – Basemat Rebar
D-SN-P-128	1/31/2001	1	Strain Gage Layout – Tendons
D-SN-P-129	1/31/2002	1	Strain Gage Layout – Exterior Liner
D-SN-P-130	1/31/2002	1	Strain Gage Layout – Interior Liner
D-SN-P-131	1/31/2002	1	Displacement Transducer Layout
D-SN-P-132	1/31/2002	0	Temperature Sensor Layout
D-SN-P-133	1/31/2002	0	Displacement Transducer Fixtures
D-SN-P-206	7/20/1999	1	Instrumentation Liner Details – Gauges Installation Details
D-SN-P-207	7/20/1999	1	Instrumentation Liner Details – Basemat Liner Connection
D-SN-P-208	7/20/1999	1	Instrumentation Liner Details – Basemat Liner Connection
D-SN-P-209	7/20/1999	1	Instrumentation Liner Details – Detail a & b
D-SN-P-210	7/20/1999	1	Instrumentation Liner Details – Detail d
D-SN-P-211	7/20/1999	1	Instrumentation Liner Details – Detail e
D-SN-P-212	7/20/1999	1	Instrumentation Liner Details – Detail f
D-SN-P-213	7/20/1999	1	Instrumentation Liner Details – Detail g & h
D-SN-P-214	7/20/1999	1	Instrumentation Liner Details – Detail i & j
D-SN-P-215	7/20/1999	1	Instrumentation Liner Details – Detail k & l
D-SN-P-216	7/20/1999	1	Instrumentation Liner Details – Detail m
D-SN-P-217	7/20/1999	1	Instrumentation Liner Details – Detail n
D-SN-P-218	7/20/1999	0	Interior Liner Gage Layout – Equipment Hatch
D-SN-P-219	1/31/2001	1	Interior Liner Gage Layout – Airlock
D-SN-P-220	36360	0	Interior Liner Gage Layout – Main Steam and Feedwater



NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL		
DRAWING NO. D-SN-P-125	STRAIN GAGE LAYOUT INNER REBAR LAYER	SCALE N.T.S.
SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA		
		







A-A SECTION  
SCALE - 1/24

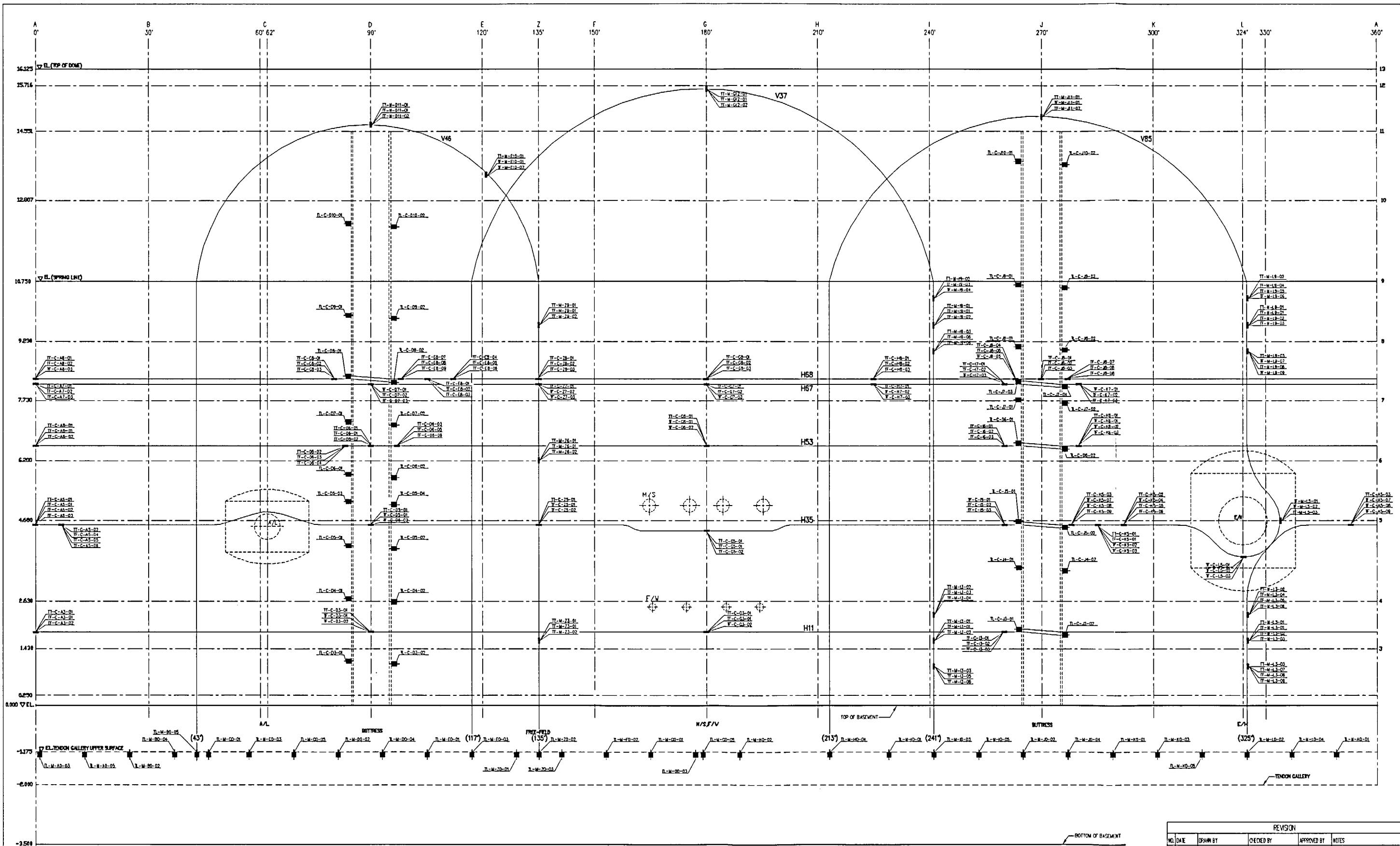
NOTE  
VERTICAL ELEVATION SHOWN IN PARENTHESES ( m ).  
0.0 ELEVATION IS TOP OF BASEMAT

- LEGEND
- M - Meridional Strain Gage (Vertical)
  - C - Circumferential Strain Gage (Hoop) (90°)
  - R - Radial Strain Gage (90°)
  - ✱ D - Diagonal Gage Bar Strain Gage (90°)

BASEMAT REBAR - VIEW FROM ABOVE

REVISION					
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
1	July 20, 1999	J. Tarrero			

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL		
DRAWING NO. D-SN-P-127	STRAIN GAGE LAYOUT BASEMAT REBAR	SCALE 1/24
SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA		



# LEGEND

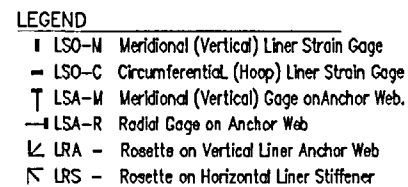
- M - Meridional (Hairpin) Tendon Strain Gage Location
- C - Circumferential (Hoop) Tendon Strain Gage Location
- M - Meridional (Hairpin) Load Cell
- C - Circumferential (Hoop) Load Cell

NOTE: If 3 Locations are close on same tendon: All 3 Tendon Strands are Instrumented. Otherwise, only the #1 strand is instrumented.

## STRAIN GAGES AND LOAD CELLS ON TENDONS - VIEW FROM INSIDE

REVISION				
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY
0	July 20, 1995	J. Tencati		
1	Jan. 3, 2000	J. Tencati		
				Corrected Airship Lines

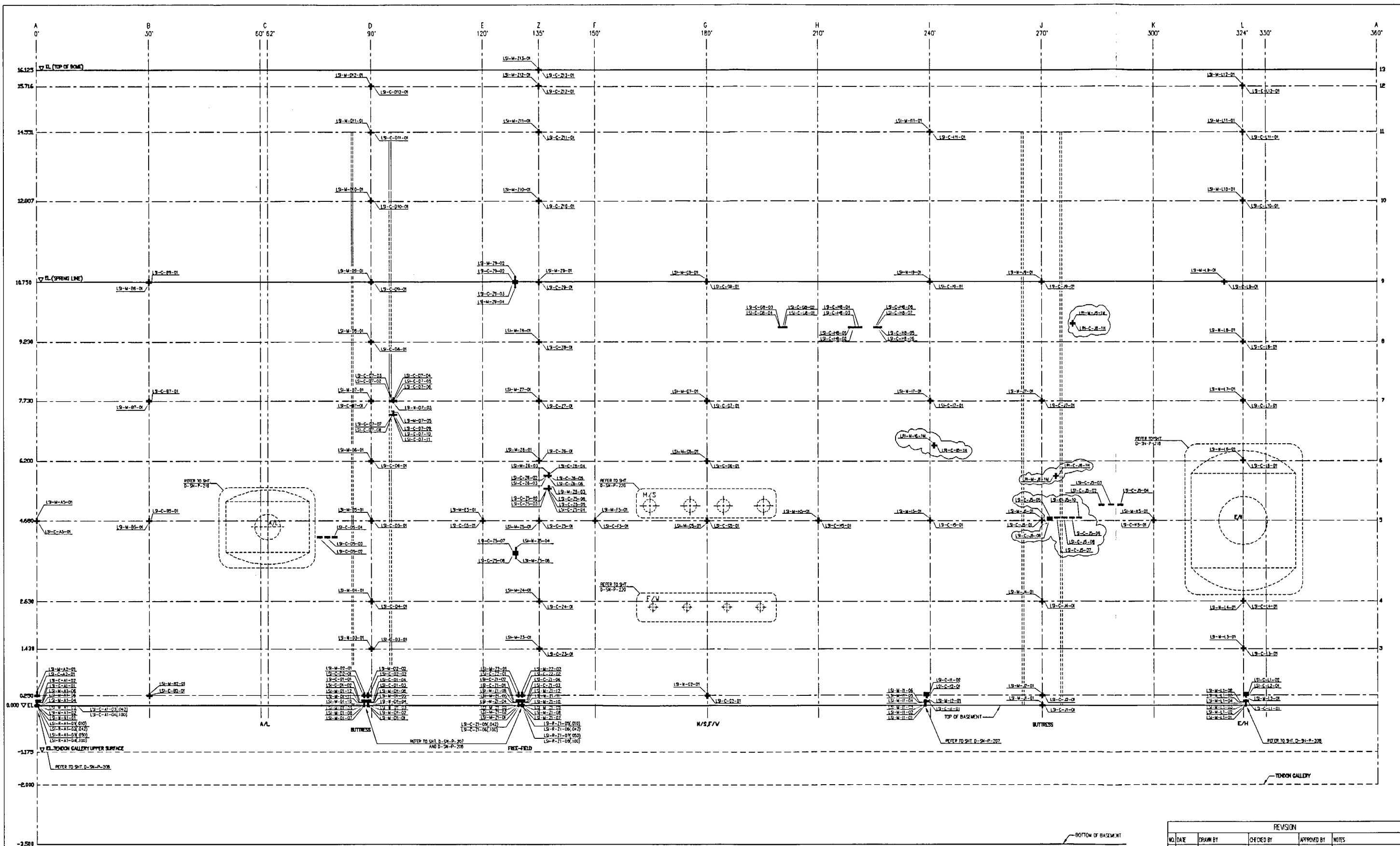
NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL		
DRAWING NO.	STRAIN GAGE LAYOUT	SCALE
D-SN-P-128	TENDONS	N.T.S.
SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING		
ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA		



STRAIN GAGES ON LINER EXTERIOR - VIEW FROM INSIDE

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL

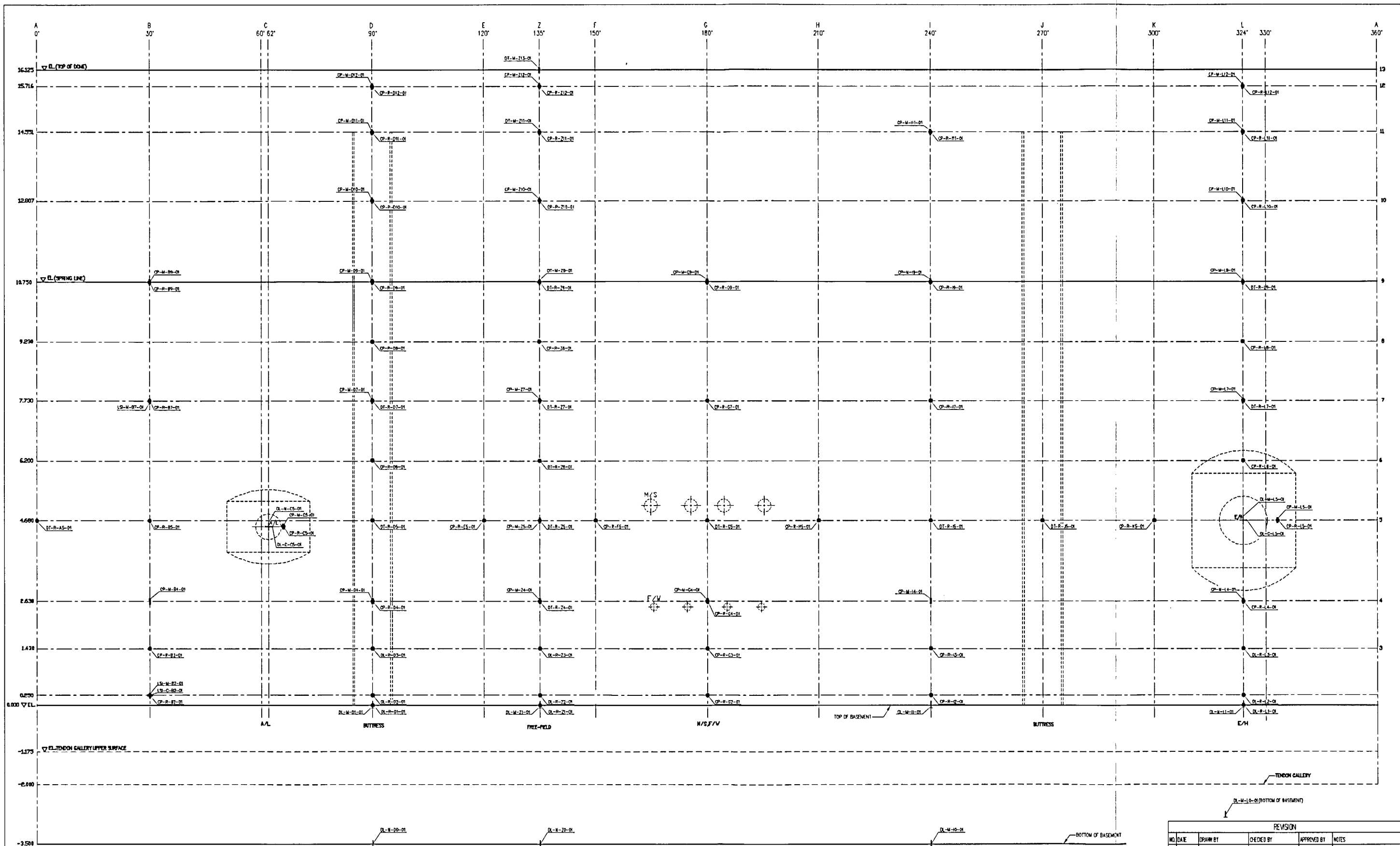
DRAWING NO. D-SN-P-129	STRAIN GAGE LAYOUT EXTERIOR LINER	SCALE N.T.S.
SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA		



- LEGEND**
- M – Meridional Strain Gage (Vertical)
  - C – Circumferential Strain Gage (Hoop)
  - R – Radial Strain Gage (on Basement Liner Only)
  - ( ) – Dimension shown after ID is Distance from Cylinder liner in Meters

STRAIN GAGES ON LINER INTERIOR – VIEW FROM INSIDE

REVISION				
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY
0	July 20, 1998	J. Tomaric		
1	Jan 31, 2000	J. Tomaric		
				Added Gages
NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL DRAWING NO. D-SN-P-130 STRAIN GAGE LAYOUT INTERIOR LINER SCALE: N.T.S. SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA				




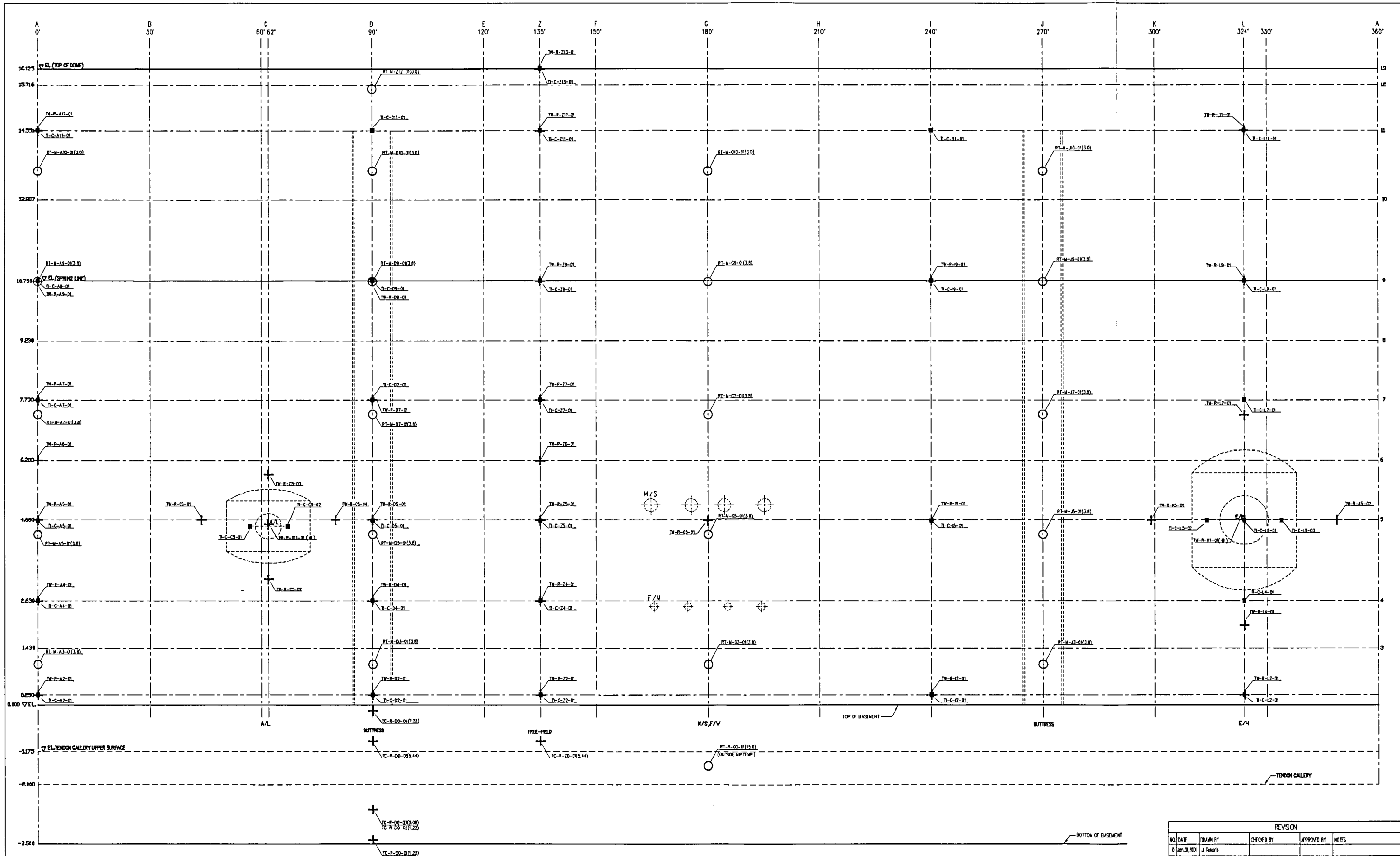
- LEGEND**
- M - Meridional Interior Displacement (Vertical)
  - R - Radial Interior Displacement (Horizontal)
  - ⊥ M - Meridional Exterior displacement (Vertical)
  - + M & C - Meridional and Circumferential Barred Diameters (Vertical & Horizontal)

DISPLACEMENT TRANSDUCERS (INTERNAL & EXTERNAL) - VIEW FROM INSIDE

REVISION					
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
0	July 20, 1999	A. Tenebris			
1	Jan. 31, 2001	A. Tenebris			Corrected Asbuilt Lines

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL					
DRAWING NO.		DISPLACEMENT TRANSDUCER			SCALE
D-SN-P-131		LAYOUT			N.T.S.
SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING					
ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA					





# LEGEND


- + TC, TW - Thermocouple (Embedded in Concrete)
- TI - Thermocouple (Inside Liner Surface)
- RT - RTD (Inside Air)
- ( ) Dimension show after I.D. is distance From Centerline in Meters
- ⊙ On Barrel Displacement Hardware

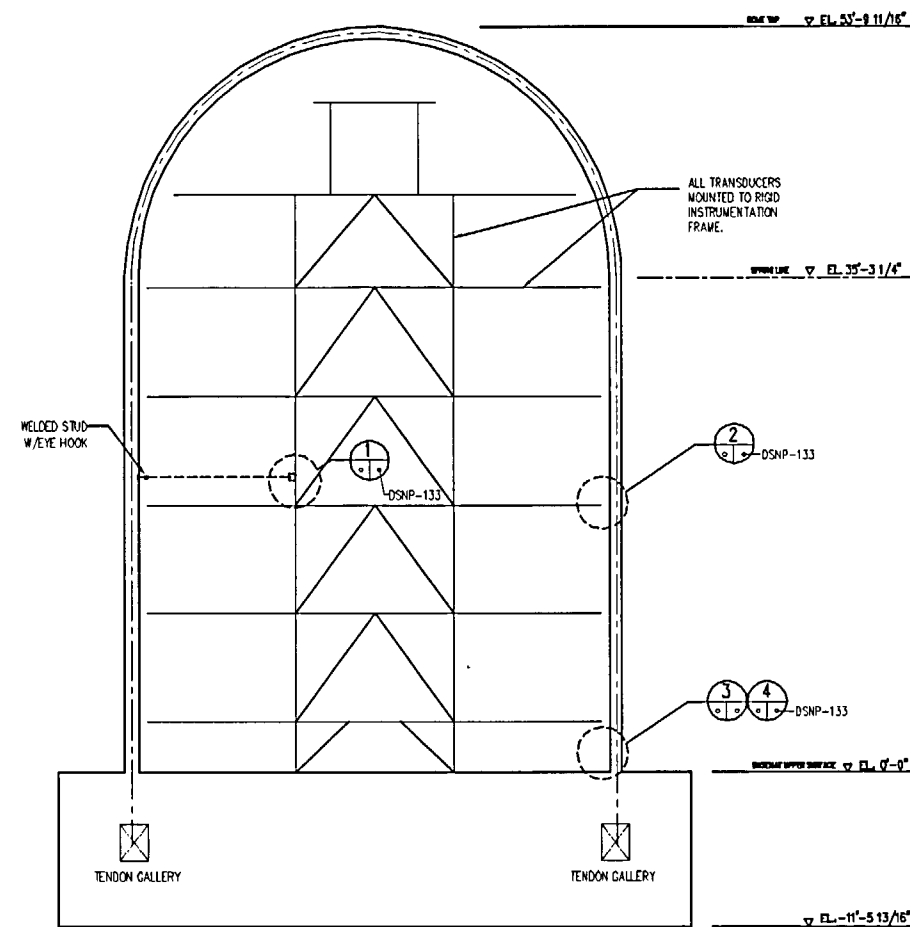
## TEMPERATURE SENSORS - VIEW FROM INSIDE

REVISION					
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
0	Jan. 31, 2010	J. Tabor			

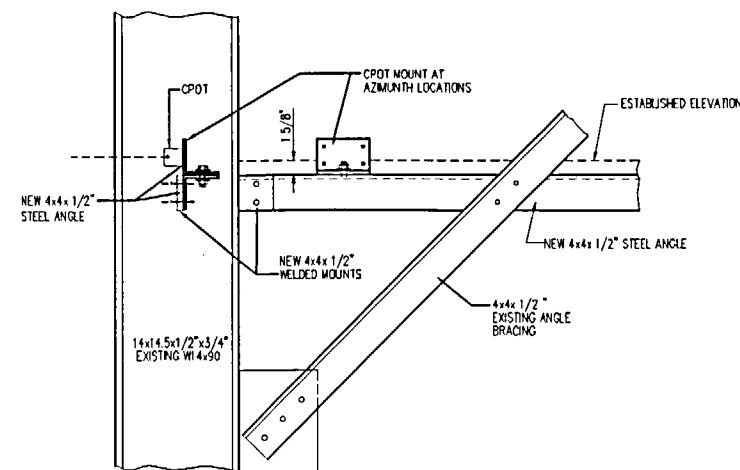
NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL					
DRAWING NO.		TEMPERATURE SENSOR LAYOUT			SCALE
D-SN-P-132					N.T.S.

SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING					
ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA					

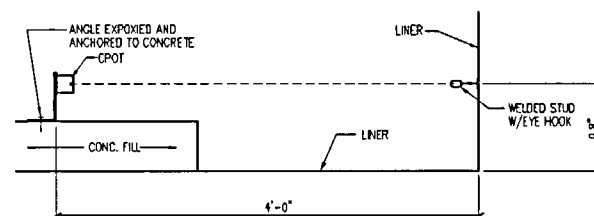




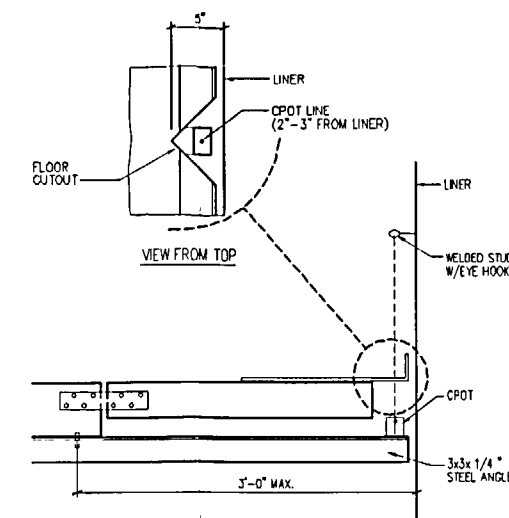
**A PCCV ELEVATION**  
DSNP-133



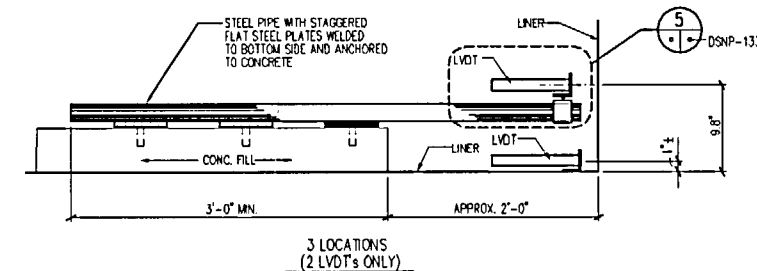
**1 TYPICAL RADIAL CPOT MOUNTING**  
DSNP-133



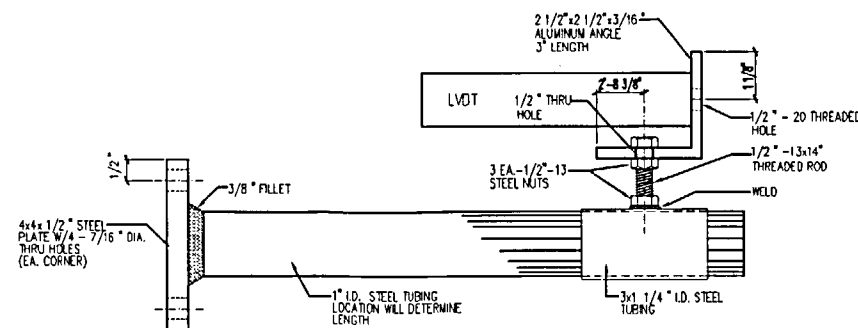
**3 CPOT MOUNTED ON BASEMAT**  
DSNP-133



**2 TYPICAL VERTICAL CPOT MOUNTING**  
DSNP-133



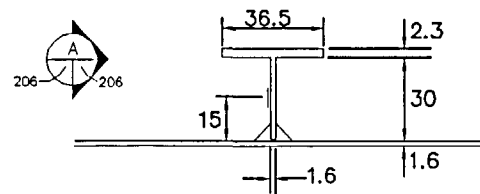
**4 LVDT's MOUNTED ON BASEMAT**  
DSNP-133



**5 RADIAL LVDT MOUNTING HARDWARE**  
DSNP-133

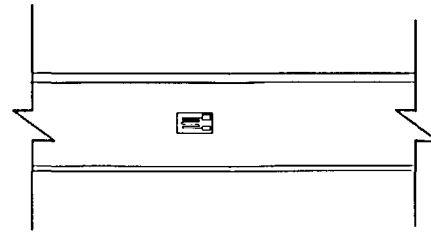
REVISION					
NO.	DATE	DRWN BY	CHECKED BY	APPROVED BY	NOTES
1	Jan 31, 2001	A. Teneja			
NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL DRAWING NO. D-SN-P-133 DISPLACEMENT TRANSDUCER FIXTURES SCALE 1/1 SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA					





1 TYPICAL ANCHOR WEB GAUGE

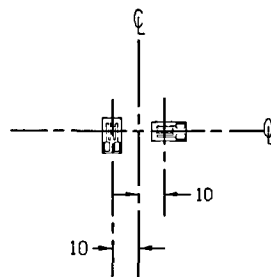
ZCD1002Ai  
ZCD1007Ai  
ZCD1008Ai  
ZCD1009Ai  
200  
201  
202  
203  
204



A SIDE VIEW

206

ANCHOR GAGE LOCATIONS			
LABELING ID (name)	AZIMUTHAL ANGLE (deg)	VERTICAL ELEVATION (in)	LINER MARK #
LSA-M-D3-01	90	53.1	1-3B
LSA-M-D5-01	90	194.9	3-4C
LSA-M-D7-01	90	301.2	4-3B
LSA-M-D9-01	90	411.4	5-4B
LSA-M-Z3-01	129	53.1	1-4B
LSA-M-Z5-01	128	194.9	3-5C
LSA-M-Z7-01	138	301.2	4-5B
LSA-M-Z9-01	129	411.4	5-6B
LSA-M-J5-01	268	194.9	3-9C
LSA-M-L3-01	325	53.1	1-11B
LSA-M-L7-01	325	301.2	4-10B
LSA-M-L9-01	325	411.4	5-13B



2 TYPICAL VERTICAL AND HOOP GAUGE

ZCD1002Ai  
ZCD1007Ai  
ZCD1008Ai  
ZCD1009Ai  
200  
201  
202  
203  
204

FREE FIELD LINER GAGE LOCATIONS		
LABELING ID (name)	AZIMUTHAL ANGLE (deg)	VERTICAL ELEVATION (in)
LSI-C-A2-01	0	9.8
LSI-M-A2-01	0	9.8
LSI-C-A5-01	0	184.3
LSI-M-A5-01	0	184.3
LSI-C-B2-01	30	9.8
LSI-M-B2-01	30	9.8
LSI-C-B5-01	30	184.3
LSI-M-B5-01	30	184.3
LSI-C-B7-01	30	304.3
LSI-M-B7-01	30	304.3
LSI-C-B9-01	30	423.2
LSI-M-B9-01	30	423.2
LSI-C-C6-01	62	184.3
LSI-M-C6-01	62	184.3
LSI-C-D2-01	88.9	9.8
LSI-M-D2-01	88.9	9.8
LSI-C-D2-02	89.6	9.8
LSI-M-D2-02	89.6	9.8
LSI-C-D3-01	90	56.3
LSI-M-D3-01	90	56.3
LSI-C-D4-01	90	103.5
LSI-M-D4-01	90	103.5
LSI-C-D5-01	90	184.3
LSI-M-D5-01	90	184.3
LSI-C-D6-01	90	244.1
LSI-M-D6-01	90	244.1
LSI-C-D7-01	90	304.3
LSI-M-D7-01	90	304.3
LSI-C-D8-01	90	363.4
LSI-M-D8-01	90	363.4
LSI-C-D9-01	90	423.2
LSI-M-D9-01	90	423.2
LSI-C-D10-01	90	504.2
LSI-M-D10-01	90	504.2
LSI-C-D11-01	90	572.9
LSI-M-D11-01	90	572.9
LSI-C-D12-01	90	618.7
LSI-M-D12-01	90	618.7
LSI-C-E5-01	120	184.3
LSI-M-E5-01	120	184.3
LSI-C-Z2-01	129.5	9.8
LSI-M-Z2-01	129.5	9.8
LSI-C-Z2-02	130.4	9.8
LSI-M-Z2-02	130.4	9.8
LSI-C-Z3-01	135	56.3
LSI-M-Z3-01	135	56.3
LSI-C-Z4-01	135	103.5
LSI-M-Z4-01	135	103.5
LSI-C-Z5-01	135	184.3
LSI-M-Z5-01	135	184.3
LSI-C-Z6-01	135	244.1
LSI-M-Z6-01	135	244.1
LSI-C-Z7-01	135	304.3
LSI-M-Z7-01	135	304.3
LSI-C-Z8-01	135	363.4
LSI-M-Z8-01	135	363.4
LSI-C-Z9-01	135	423.2
LSI-M-Z9-01	135	423.2
LSI-C-Z10-01	135	504.2
LSI-M-Z10-01	135	504.2
LSI-C-Z11-01	135	572.9
LSI-M-Z11-01	135	572.9
LSI-C-Z12-01	135	618.7
LSI-M-Z12-01	135	618.7
LSI-C-Z13-01	135	634.8
LSI-M-Z13-01	135	634.8
LSI-C-F5-01	150	184.3
LSI-M-F5-01	150	184.3
LSI-C-G2-01	180	9.8
LSI-M-G2-01	180	9.8
LSI-C-G5-01	180	184.3
LSI-M-G5-01	180	184.3
LSI-C-G6-01	180	244.1
LSI-M-G6-01	180	244.1
LSI-C-G7-01	180	304.3
LSI-M-G7-01	180	304.3
LSI-C-G9-01	180	423.2
LSI-M-G9-01	180	423.2
LSI-C-H5-01	210	184.3
LSI-M-H5-01	210	184.3
LSI-C-I2-01	239.4	9.8
LSI-M-I2-01	239.4	9.8
LSI-C-I5-01	240	184.3
LSI-M-I5-01	240	184.3
LSI-C-I7-01	240	304.3
LSI-M-I7-01	240	304.3
LSI-C-I9-01	240	423.2
LSI-M-I9-01	240	423.2
LSI-C-I11-01	240	572.9
LSI-M-I11-01	240	572.9
LSI-C-J1-01	270	0.0
LSI-M-J1-01	270	0.0
LSI-C-J2-01	270	9.8
LSI-M-J2-01	270	9.8
LSI-C-J4-01	270	103.5
LSI-M-J4-01	270	103.5
LSI-C-J5-01	270	184.3
LSI-M-J5-01	270	184.3
LSI-C-J7-01	270	304.3
LSI-M-J7-01	270	304.3
LSI-C-J9-01	270	423.2
LSI-M-J9-01	270	423.2

HOOP ONLY GAGES		
LABELING ID (name)	AZIMUTHAL ANGLE (deg)	VERTICAL ELEVATION (in)
LSI-C-D5-02	76.8	168
LSI-C-D5-03	78.4	168
LSI-C-D5-04	80	168
LSI-C-J5-02	286	200
LSI-C-J5-03	288.5	200
LSI-C-J5-04	291	200

# NOTE:

ANCHOR WEB GAUGE LOCATIONS SHOWN ON DRAWINGS ZCD1002Ai, ZCD1007Ai, ZCD1008Ai, AND ZCD1009Ai

ALL DIMENSIONS SHOWN IN MM

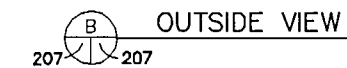
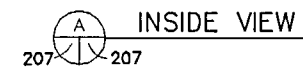
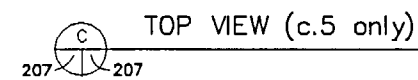
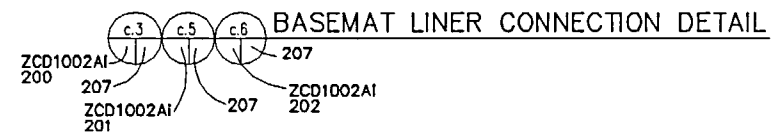
ASSURE GAUGES PLACED 300MM FROM EDGE OR ANY FUTURE WELDING LOCATIONS. AND 100MM AWAY FROM DISCONTINUITYS.

REVISION				
NO	DATE	DRAWN BY	CHECKED BY	APPROVED BY
0	May 15, 1997	T. Martinez		
1	July 20, 1999	J. Tenorio		
				Removed Gages

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL

DRAWING NO.	INSTRUMENTATION LINER DETAILS	SCALE
D-SN-P-206	GAUGES INSTALLATION DETAILS	1/1

SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING  
ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA



INSTRUMENTATION ID #			
Detail #	c.5	c.3	c.6
Azimuth	131	90	240
Elevation	0		0
Liner #	1-4C	1-3C	1-8C
Instr. #			
①	LSI-C-Z1-03	LSI-C-D1-03	LSI-C-I1-01
②	LSI-C-Z1-04	LSI-C-D1-04	LSI-C-I1-02
③	LSI-M-Z1-07	LSI-M-D1-07	LSI-M-I1-01
④	LSI-M-Z1-08	LSI-M-D1-08	LSI-M-I1-02
⑤	LSI-M-Z1-09	LSI-M-D1-09	LSI-M-I1-03
⑥	LSI-M-Z1-10	LSI-M-D1-10	LSI-M-I1-04
⑦	LSI-M-Z1-11	LSI-M-D1-11	LSI-M-I1-05
⑧	LSI-M-Z1-12	LSI-M-D1-12	LSI-M-I1-06
⑨	LSO-M-Z1-05	LSO-M-D1-05	LSO-M-I1-01
⑩	LSO-M-Z1-06	LSO-M-D1-06	LSO-M-I1-02
⑪	LSO-M-Z1-07	LSO-M-D1-07	LSO-M-I1-03
⑫	LSO-M-Z1-08	LSO-M-D1-08	LSO-M-I1-04
⑬	LRA-R-Z1-1r	LRA-R-D1-1r	LRA-R-I1-1r
⑭	LRA-R-Z1-1d	LRA-R-D1-1d	LRA-R-I1-1d
⑮	LRA-R-Z1-1m	LRA-R-D1-1m	LRA-R-I1-1m
⑯	LRA-R-Z1-2r	LRA-R-D1-2r	LRA-R-I1-2r
⑰	LRA-R-Z1-2d	LRA-R-D1-2d	LRA-R-I1-2d
⑱	LRA-R-Z1-2m	LRA-R-D1-2m	LRA-R-I1-2m
⑲	LSI-C-Z1-05	n/a	n/a
⑳	LSI-C-Z1-06	n/a	n/a
㉑	LSI-R-Z1-05	n/a	n/a
㉒	LSI-R-Z1-06	n/a	n/a
㉓	LSI-R-Z1-07	n/a	n/a
㉔	LSI-R-Z1-08	n/a	n/a

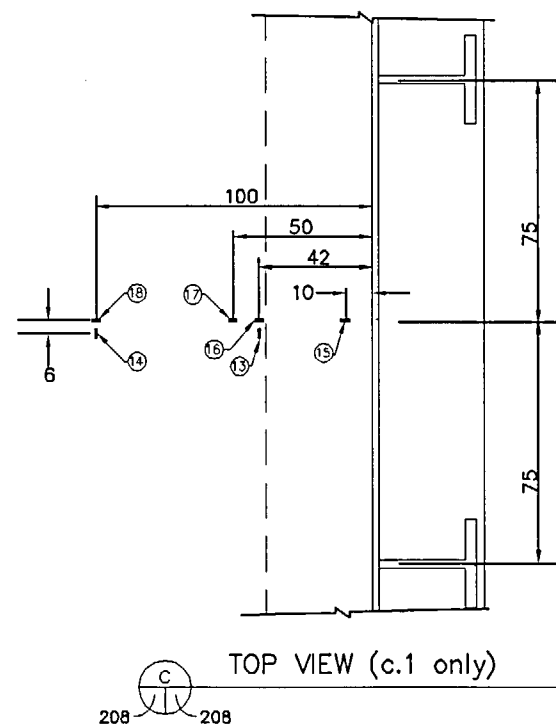
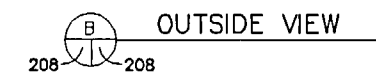
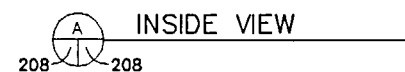
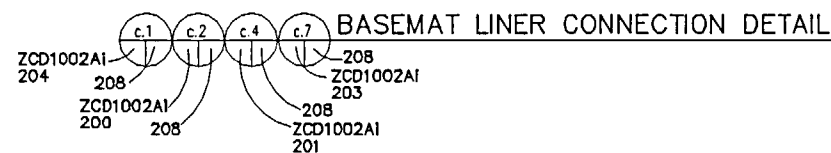
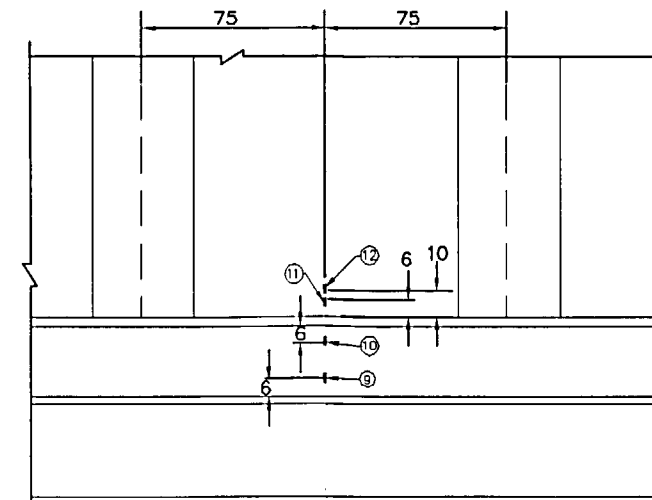
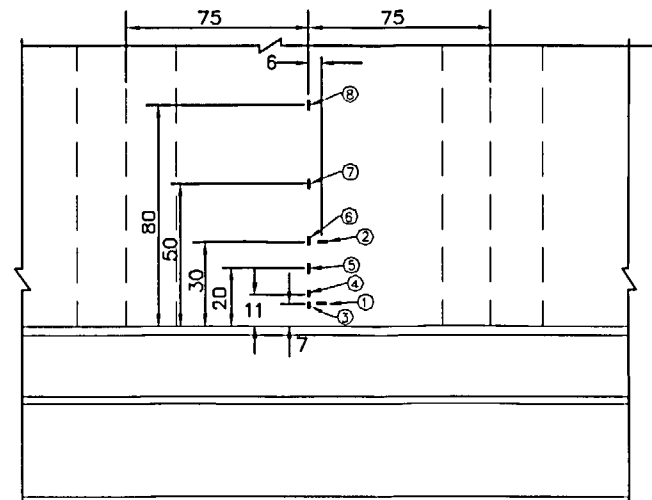
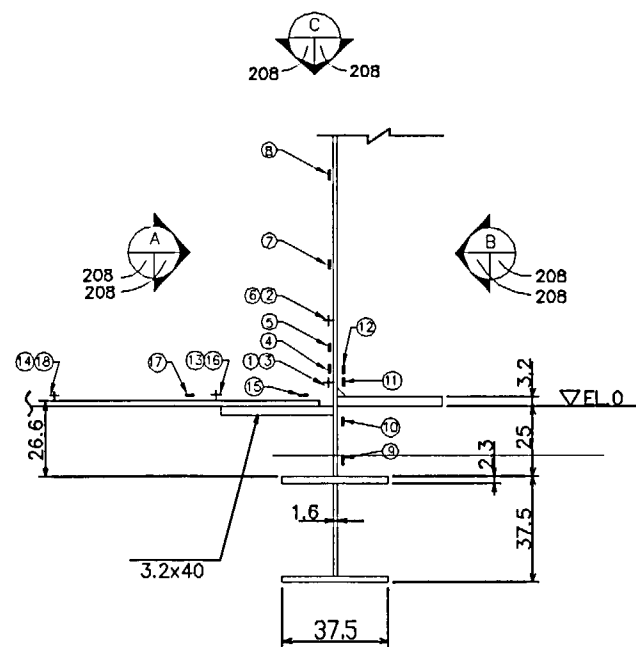
NOTE:  
ALL DIMENSIONS SHOWN IN MM

REVISION					
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
0	May 15, 1997	T. Martinez			
1	July 20, 1999	J. Tenorio			Drawing No.'s

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL

DRAWING NO. D-SN-P-207	INSTRUMENTATION LINER DETAILS BASEMAT LINER CONNECTION • ANCHOR	SCALE 1/1
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**SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING**  
ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA

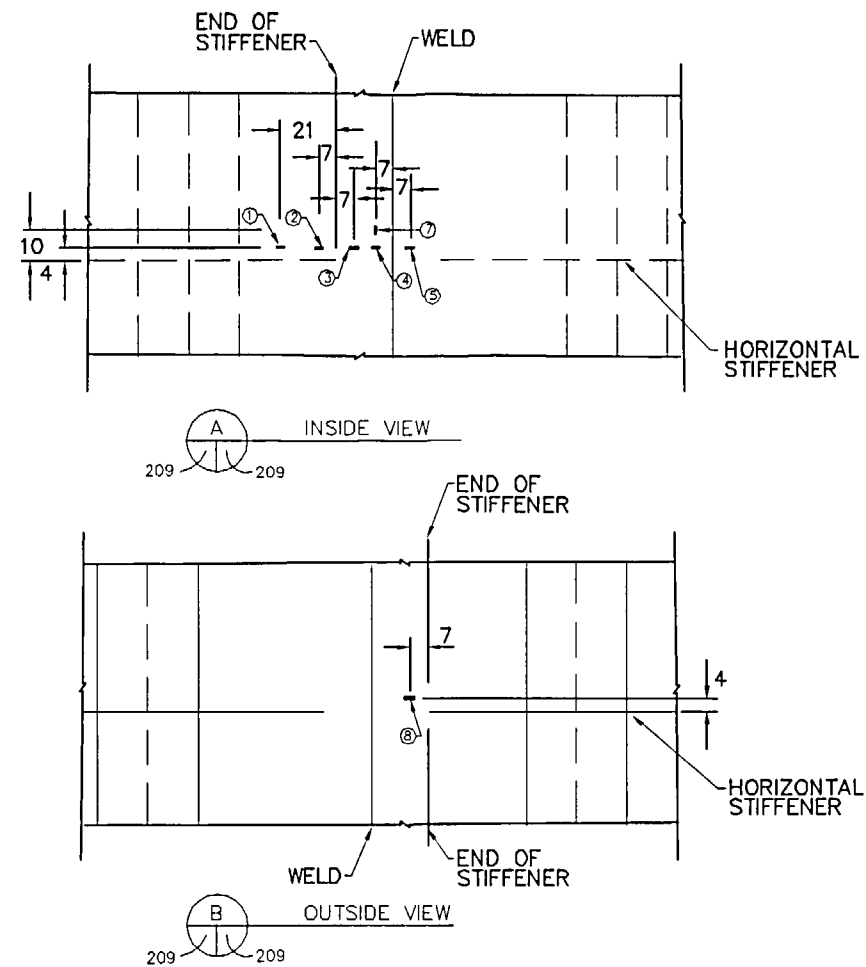


INSTRUMENTATION ID #				
Detail #	c.1	c.2	c.4	c.7
Azimuth	0	89	130	324
Elevation	0	0	0	0
Liner #	1-12C	1-3C	1-4C	1-11C
Instr. #				
①	LSI-C-A1-01	LSI-C-D1-01	LSI-C-Z1-01	LSI-C-L1-01
②	LSI-C-A1-02	LSI-C-D1-02	LSI-C-Z1-02	LSI-C-L1-02
③	LSI-M-A1-01	LSI-M-D1-01	LSI-M-Z1-01	LSI-M-L1-01
④	LSI-M-A1-02	LSI-M-D1-02	LSI-M-Z1-02	LSI-M-L1-02
⑤	LSI-M-A1-03	LSI-M-D1-03	LSI-M-Z1-03	LSI-M-L1-03
⑥	LSI-M-A1-04	LSI-M-D1-04	LSI-M-Z1-04	LSI-M-L1-04
⑦	LSI-M-A1-05	LSI-M-D1-05	LSI-M-Z1-05	LSI-M-L1-05
⑧	LSI-M-A1-06	LSI-M-D1-06	LSI-M-Z1-06	LSI-M-L1-06
⑨	LSO-M-A1-01	LSO-M-D1-01	LSO-M-Z1-01	LSO-M-L1-01
⑩	LSO-M-A1-02	LSO-M-D1-02	LSO-M-Z1-02	LSO-M-L1-02
⑪	LSO-M-A1-03	LSO-M-D1-03	LSO-M-Z1-03	LSO-M-L1-03
⑫	LSO-M-A1-04	LSO-M-D1-04	LSO-M-Z1-04	LSO-M-L1-04
⑬	LSI-C-A1-03	n/a	n/a	n/a
⑭	LSI-C-A1-04	n/a	n/a	n/a
⑮	LSI-R-A1-01	n/a	n/a	n/a
⑯	LSI-R-A1-02	n/a	n/a	n/a
⑰	LSI-R-A1-03	n/a	n/a	n/a
⑱	LSI-R-A1-04	n/a	n/a	n/a

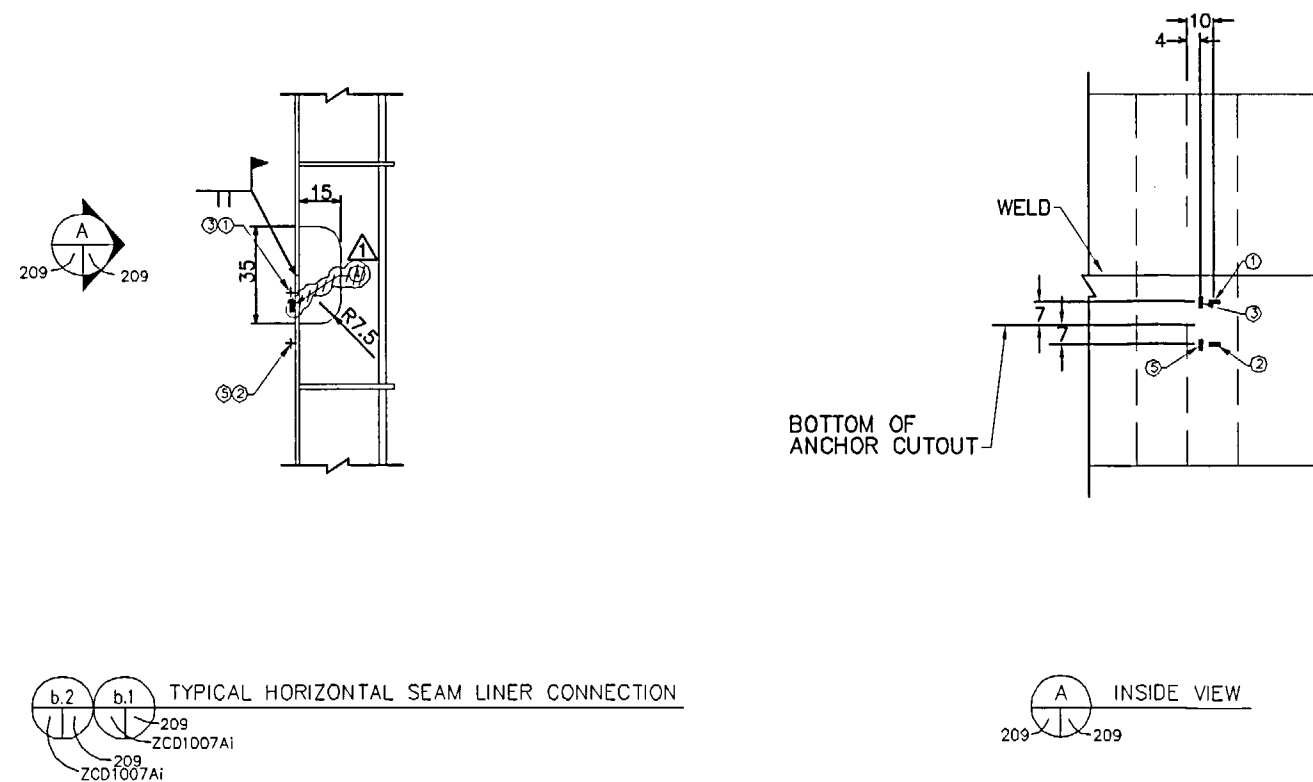
NOTE:  
ALL DIMENSIONS SHOWN IN MM

REVISION					
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
0	May 15, 1997	T. Martinez			
1	July 20, 1999	J. Tenorio			Drawing No.'s

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL				
DRAWING NO.	INSTRUMENTATION LINER DETAILS			SCALE
D-SN-P-208	BASEMAT LINER CONNECTION			1/1
SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING				
ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA				




INSTRUMENTATION ID #					
Detail #	a.1	a.2	a.3	a.4	a.5
Azimuth	2	137	137	95	95
Elevation	7750	5487	5831	7750	7400
Line #	4-1B	3-6B	3-6B	4-3B	4-3B
Instr. #					
①	LSI-C-A7-01	LSI-C-Z5-02	LSI-C-Z6-02	LSI-C-D7-02	LSI-C-D7-07
②	LSI-C-A7-02	LSI-C-Z5-03	LSI-C-Z6-03	LSI-C-D7-03	LSI-C-D7-08
③	LSI-C-A7-03	LSI-C-Z5-04	LSI-C-Z6-04	LSI-C-D7-04	LSI-C-D7-09
④	LSI-C-A7-04	LSI-C-Z5-05	LSI-C-Z6-05	LSI-C-D7-05	LSI-C-D7-10
⑤	LSI-C-A7-05	LSI-C-Z5-06	LSI-C-Z6-06	LSI-C-D7-06	LSI-C-D7-11
⑥	LSI-M-A7-01	LSI-M-Z5-02	LSI-M-Z6-02	LSI-M-D7-02	LSI-M-D7-04
⑦	LSI-M-A7-02	LSI-M-Z5-03	LSI-M-Z6-03	LSI-M-D7-03	LSI-M-D7-05
⑧	LSO-C-A7-01	LSO-C-Z5-01	LSO-C-Z6-01	LSO-C-D7-01	LSO-C-D7-02
⑨	LSR-R-A7-1r	LSR-R-Z5-1r	n/a	LSR-R-D7-1r	n/a
⑩	LSR-R-A7-1d	LSR-R-Z5-1d	n/a	LSR-R-D7-1d	n/a
⑪	LSR-R-A7-1h	LSR-R-Z5-1h	n/a	LSR-R-D7-1h	n/a

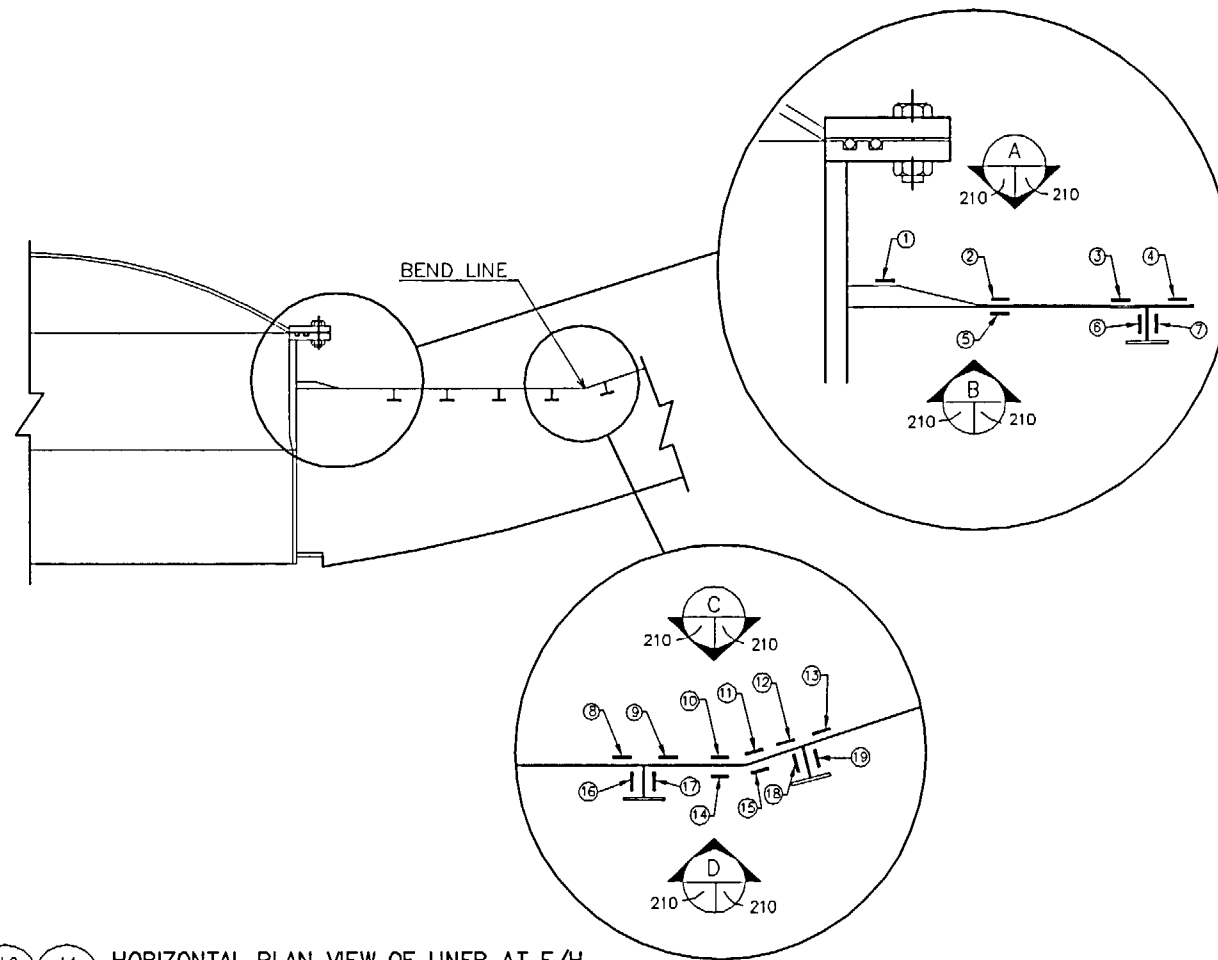


INSTRUMENTATION ID #			
Detail #	b.1	b.2	b.3
Azimuth	130	130	220
Elevation	10750	3869	7012
Liner #	5-6B	2-4B	5-9A
Instr. #			
①	LS9-C-29-02	LSI-C-25-07	LSI-C-J7-02
②	LS9-C-29-03	LSI-C-25-08	LSI-C-J7-03
③	LS9-M-29-02	LSI-M-25-04	LSI-M-J7-02
④	<del>LS9-M-29-03</del>	<del>LSI-M-25-06</del>	<del>LSI-M-J7-03</del>
⑤	LS9-M-29-04	LSI-M-25-06	LSI-M-J7-04

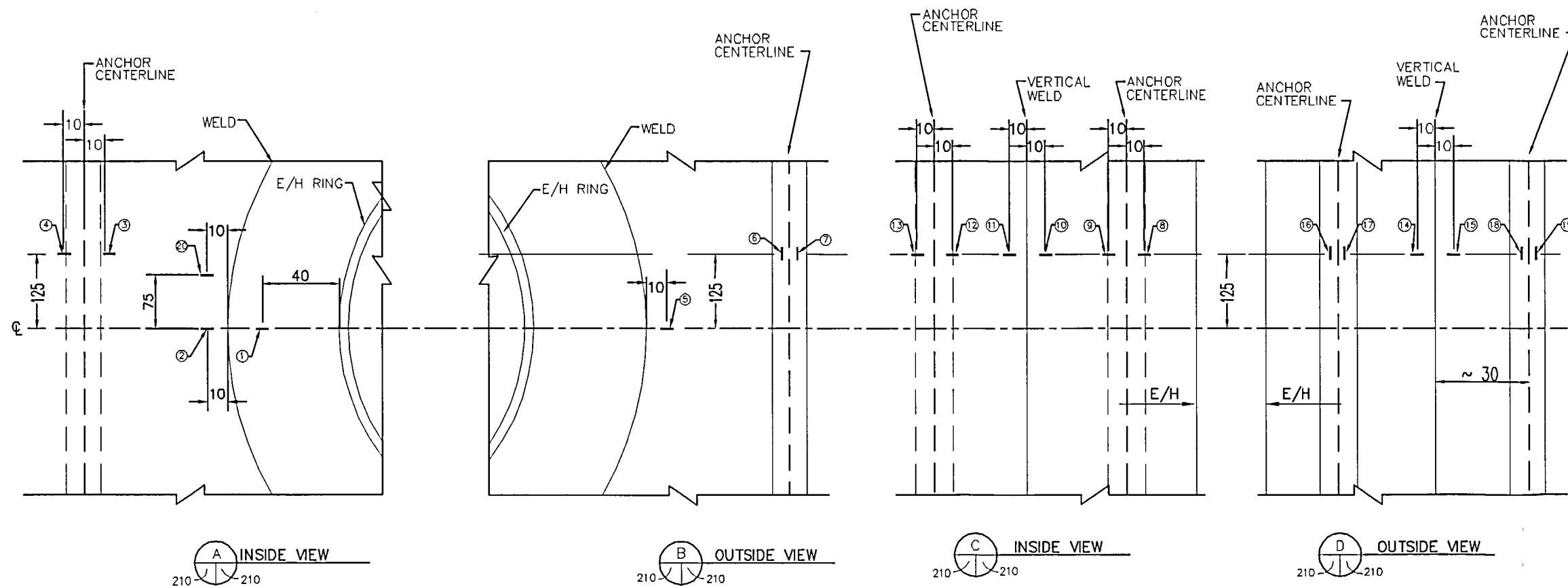
REVISION					
NO	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
0	Feb 4/1958	T. Martinez			
1	July 20/1999	J.Tenorio			Removed Gages

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL					
DRAWING NO. D-SN-P-209		INSTRUMENTATION LINER DETAILS DETAIL a & b			SCALE 1/1
SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA					






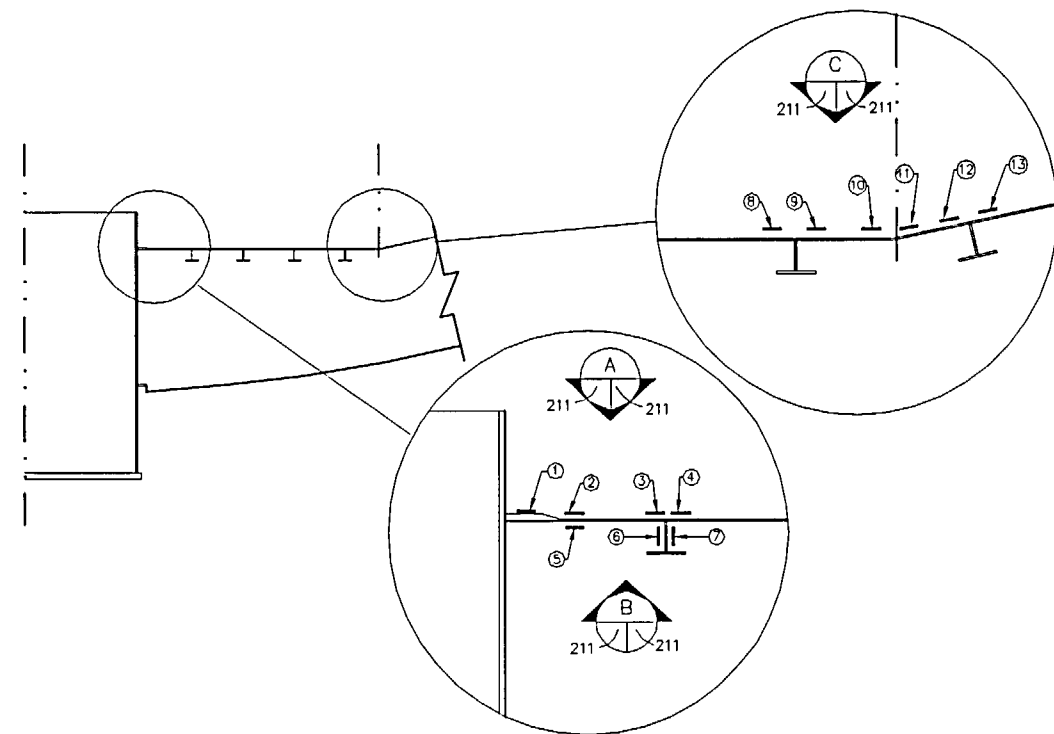
HORIZONTAL PLAN VIEW OF LINER AT E/H  
ZCD1010A1 210 ZCD1010A1 210



INSTRUMENTATION ID #		
Detail #	d.1	d.2
Azimuth	310	340
Elevation	4800	4800
Liner #	3-11D	3-11E
Instr. #		
①	LSI-C-K5-02	LSI-C-A5-02
②	LSI-C-K5-03	LSI-C-A5-03
③	LSI-C-K5-04	LSI-C-A5-04
④	LSI-C-K5-05	LSI-C-A5-05
⑤	LSO-C-K5-01	LSO-C-A5-01
⑥	LSA-R-K5-01	LSA-R-A5-01
⑦	LSA-R-K5-02	LSA-R-A5-02
⑧	LSI-C-K5-06	LSI-C-A5-06
⑨	LSI-C-K5-07	LSI-C-A5-07
⑩	LSI-C-K5-08	LSI-C-A5-08
⑪	LSI-C-K5-09	LSI-C-A5-09
⑫	LSI-C-K5-10	LSI-C-A5-10
⑬	LSI-C-K5-11	LSI-C-A5-11
⑭	LSO-C-K5-02	LSO-C-A5-02
⑮	LSO-C-K5-03	LSO-C-A5-03
⑯	LSA-R-K5-03	LSA-R-A5-03
⑰	LSA-R-K5-04	LSA-R-A5-04
⑱	LSA-R-K5-05	LSA-R-A5-05
⑲	LSA-R-K5-06	LSA-R-A5-06
⑳	LSI-C-K5-15	LSI-C-A5-15

NOTE: CENTER LSA GAUGES ON ANCHOR WEB ORIENTED IN RADIAL DIRECTION (HORIZONTAL)

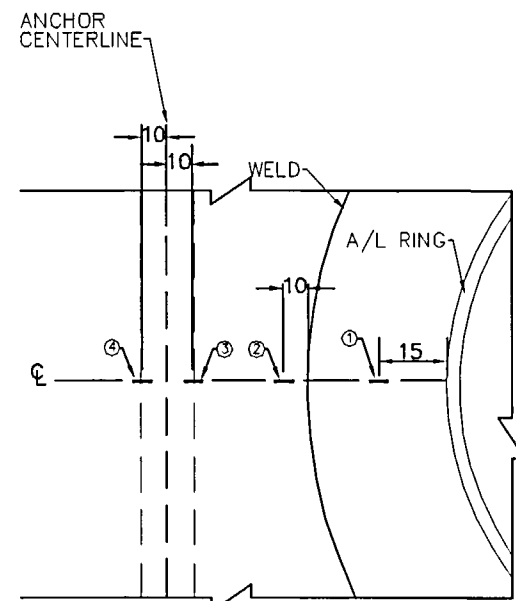
REVISION					
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
0	Feb 4, 1998	T. Martinez			
1	July 20, 1999	J. Tenorio			Moved Gages
NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL					
DRAWING NO. D-SN-P-210		INSTRUMENTED LINER DETAILS DETAIL d			SCALE 1/1
SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING					
ALBUQUERQUE, NEW MEXICO;		LIVERMORE, CALIFORNIA;		TONOPAH, NEVADA	
					



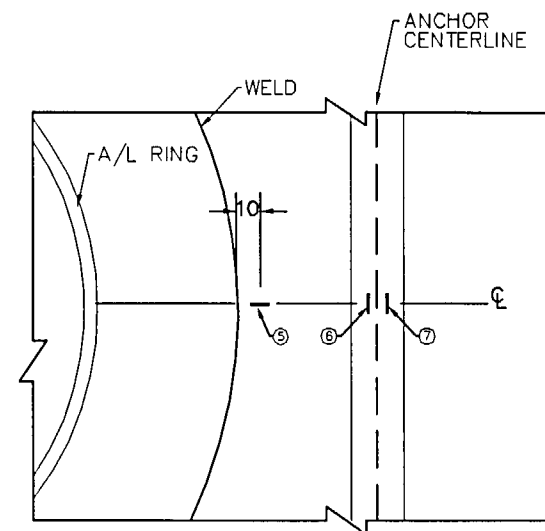
HORIZONTAL PLAN VIEW OF LINER AT A/L  
ZCD1011AI e.2 e.1 211 ZCD1011AI 211

INSTRUMENTATION ID #		
Detail #	e.1	e.2
Azimuth	58	70
Elevation	4525	4525
Liner #	2-2A	2-2A
Instr. #		
①	LSI-C-C5-02	LSI-C-C5-12
②	LSI-C-C5-03	LSI-C-C5-13
③	LSI-C-C5-04	LSI-C-C5-14
④	LSI-C-C5-05	LSI-C-C5-15
⑤	LSO-C-C5-01	LSO-C-C5-02
⑥	LSA-R-C5-01	LSA-R-C5-03
⑦	LSA-R-C5-02	LSA-R-C5-04
⑧	LSI-C-C5-06	LSI-C-C5-16
⑨	LSI-C-C5-07	LSI-C-C5-17
⑩	LSI-C-C5-08	LSI-C-C5-18
⑪	LSI-C-C5-09	LSI-C-C5-19
⑫	LSI-C-C5-10	LSI-C-C5-20
⑬	LSI-C-C5-11	LSI-C-C5-21

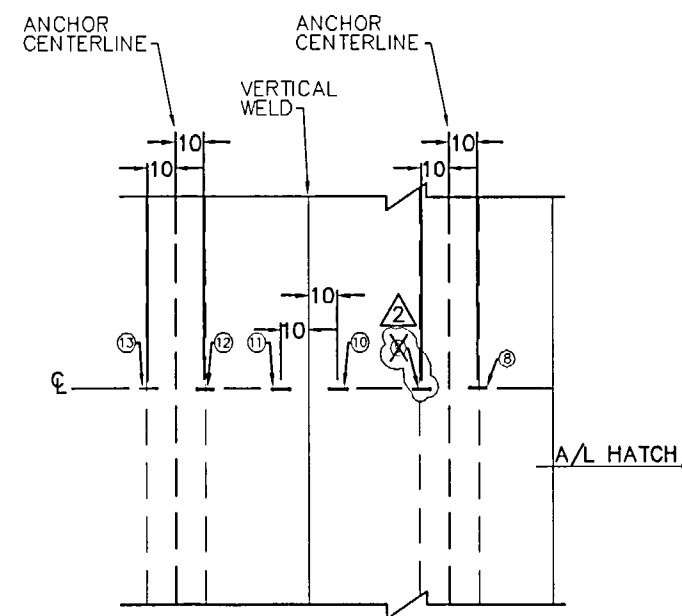
NOTE: CENTER LSA GAUGES ON ANCHOR WEB ORIENTED IN RADIAL DIRECTION. (HORIZONTAL)



A INSIDE VIEW  
211 211



B OUTSIDE VIEW  
211 211




C INSIDE VIEW  
211 211

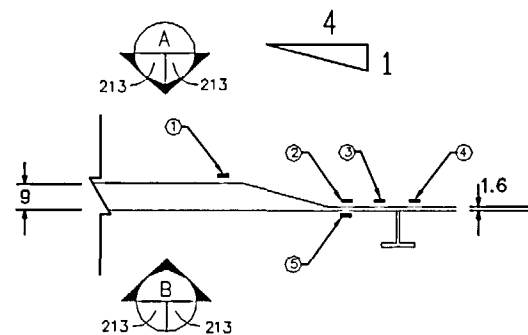
REVISION					
NO	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
0	Feb 4, 1998	T. Martinez			
1	July 20, 1999	J. Tenorio			Removed Gages
2	Jan 3, 2001	J. Tenorio			Addnl Gages Removed

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL					
DRAWING NO.		INSTRUMENTED LINER DETAILS			SCALE
D-SN-P-211		DETAIL e			1/1

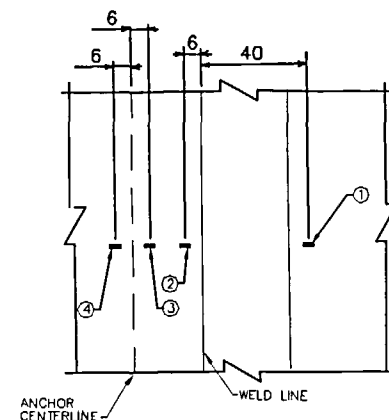
SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING					
ALBUQUERQUE, NEW MEXICO:		LIVERMORE, CALIFORNIA:		TONOPAH, NEVADA	



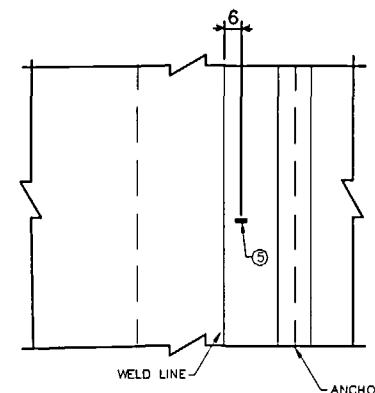




q.1 q.2 q.3  
ZCD1014Ai 205 213 213 213 ZCD1014Ai 205  
HORIZONTAL PLAN VIEW OF CRANE BRACKET THICKENED PLATE

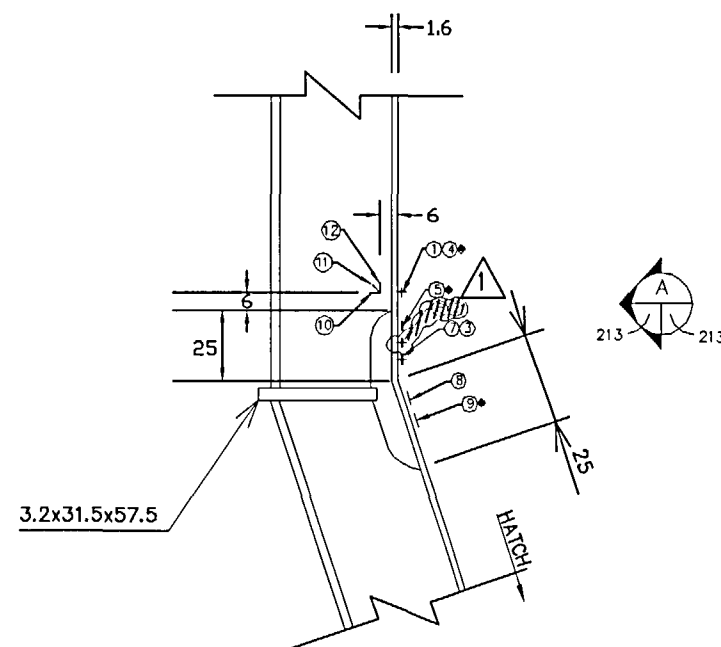


A  
213 213  
INSIDE VIEW

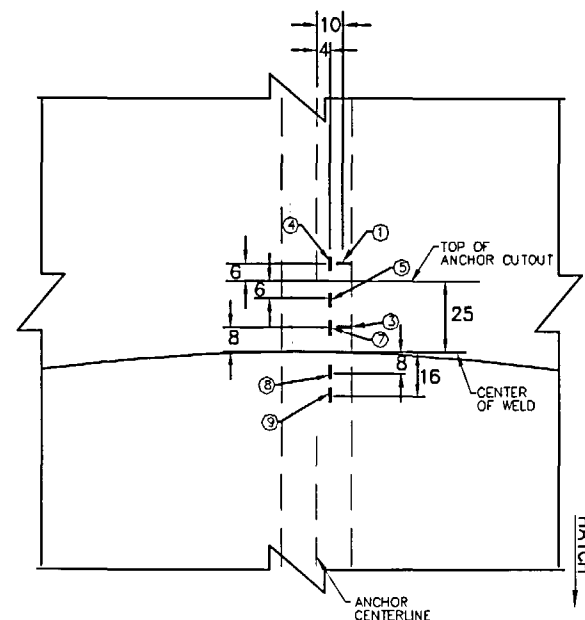


B  
213 213  
OUTSIDE VIEW

INSTRUMENTATION ID #			
Detail #	g.1	g.2	g.3
Azimuth	200	220	225
Elevation	9600	9600	9600
Liner #	5-9A	5-9E	5-9F
Instr. #			
①	LSI-C-G8-01	LSI-C-H8-01	LSI-C-H8-05
②	LSI-C-G8-02	LSI-C-H8-02	LSI-C-H8-06
③	LSI-C-G8-03	LSI-C-H8-03	LSI-C-H8-07
④	LSI-C-G8-04	LSI-C-H8-04	LSI-C-H8-08
⑤	LSO-C-G8-01	LSO-C-H8-01	LSO-C-H8-02



h.4 h.3 h.2 h.1  
ZCD1011Ai 213 213 213 213 ZCD1010Ai  
VERTICAL LINER DETAIL NEAR E/H AND A/L



A  
213 213  
INSIDE VIEW

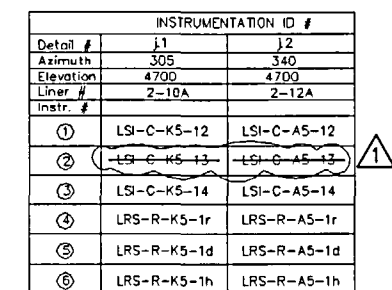
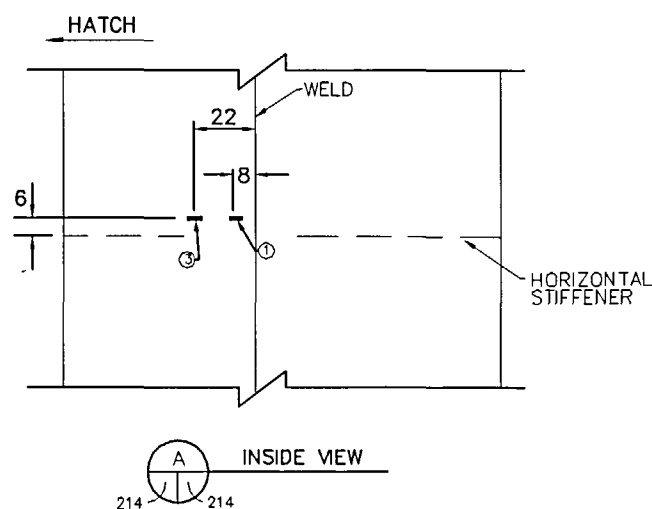
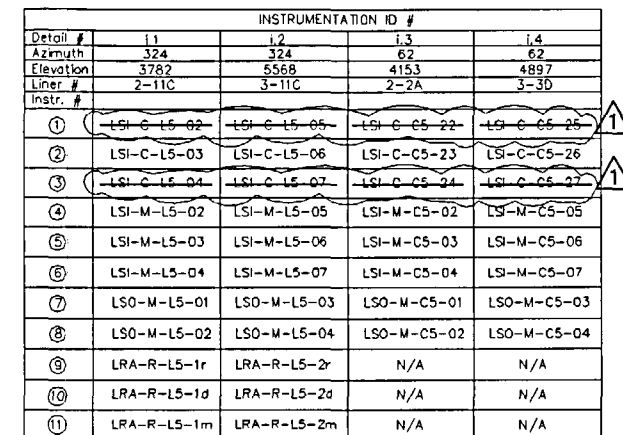
INSTRUMENTATION ID #				
Detail #	h.1	h.2	h.3	h.4
Azimuth	324	324	62	62
Elevation	2446	6904	3575	5475
Liner #	2-11D/2-11E	3-11B/3-11A	2-2B/2-2C	3-3D/3-3C
Instr. #				
①	LSI-C-L4-02	LSI-C-L6-02	LSI-C-C4-01	LSI-C-C6-01
②	LSI-C-L4-03	LSI-C-L6-03	LSI-C-C4-02	LSI-C-C6-02
③	LSI-C-L4-04	LSI-C-L6-04	LSI-C-C4-03	LSI-C-C6-03
④	LSI-M-L4-02	LSI-M-L6-02	LSI-M-C4-01	LSI-M-C6-01
⑤	LSI-M-L4-03	LSI-M-L6-03	LSI-M-C4-02	LSI-M-C6-02
⑥	LSI-M-L4-04	LSI-M-L6-04	LSI-M-C4-03	LSI-M-C6-03
⑦	LSI-M-L4-05	LSI-M-L6-05	LSI-M-C4-04	LSI-M-C6-04
⑧	LSI-M-L4-06	LSI-M-L6-06	LSI-M-C4-05	LSI-M-C6-05
⑨	LSI-M-L4-07	LSI-M-L6-07	LSI-M-C4-06	LSI-M-C6-06
⑩	LRA-R-L4-1r	LRA-R-L6-1r	LRA-R-C4-1r	LRA-R-C6-1r
⑪	LRA-R-L4-1d	LRA-R-L6-1d	LRA-R-C4-1d	LRA-R-C6-1d
⑫	LRA-R-L4-1m	LRA-R-L6-1m	LRA-R-C4-1m	LRA-R-C6-1m

① = BELOW E/H ONLY

REVISION					
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
0	Feb 4, 1998	T. Martinez			
1	July 20, 1999	J. Tenorio			Gages Removed

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL					
DRAWING NO.		INSTRUMENTED LINER DETAILS			SCALE
0-SN-P-213		DETAIL g & h			1/1
SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING					
ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA					

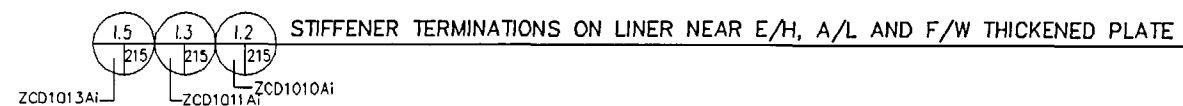
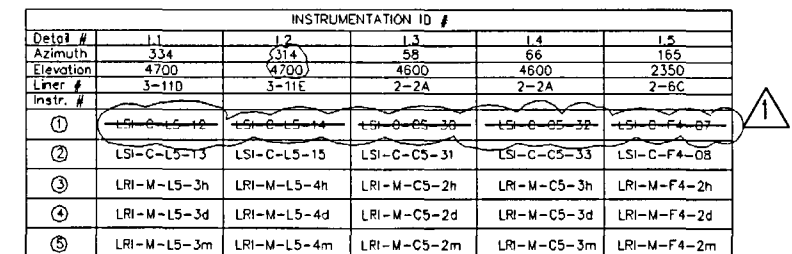
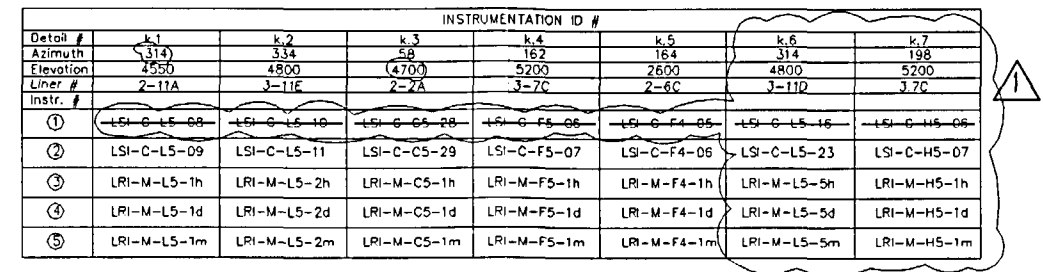




REVISION					
NO	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
0	FEB 4, 1996	T. Martinez			
1	JUN 20, 1995	J. Tenorio			Removed Gages

DRAWING NO. D-SN-P-214	INSTRUMENTED LINER DETAILS DETAIL i & i	SCALE 1/1
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**SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING**  
ALBUQUERQUE, NEW MEXICO: LIVERMORE, CALIFORNIA; TONOPAH, NEVADA

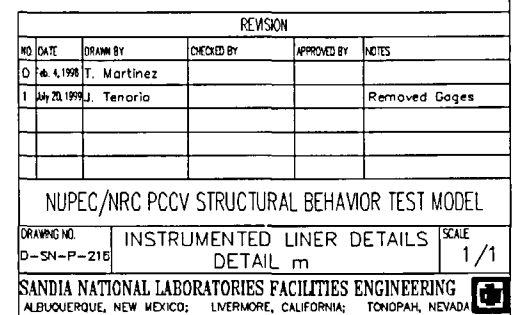
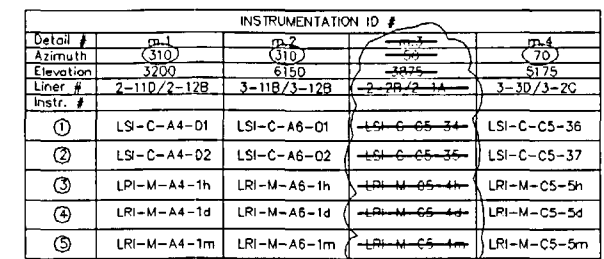


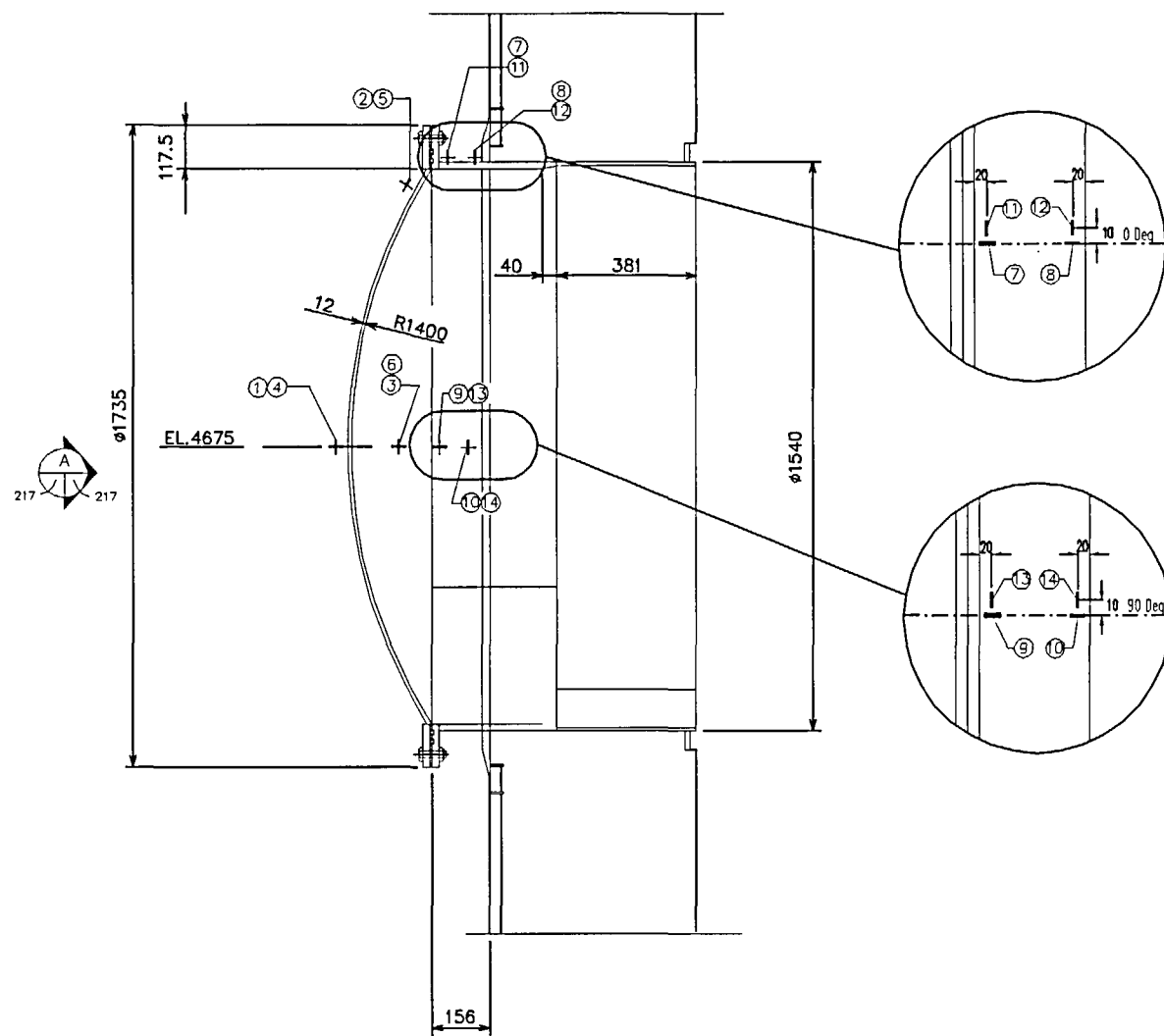
REVISION					
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
D	Feb 4, 1998	T. Martinez			
I	July 20, 1998	J. Tenorio			Modified Gages

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL

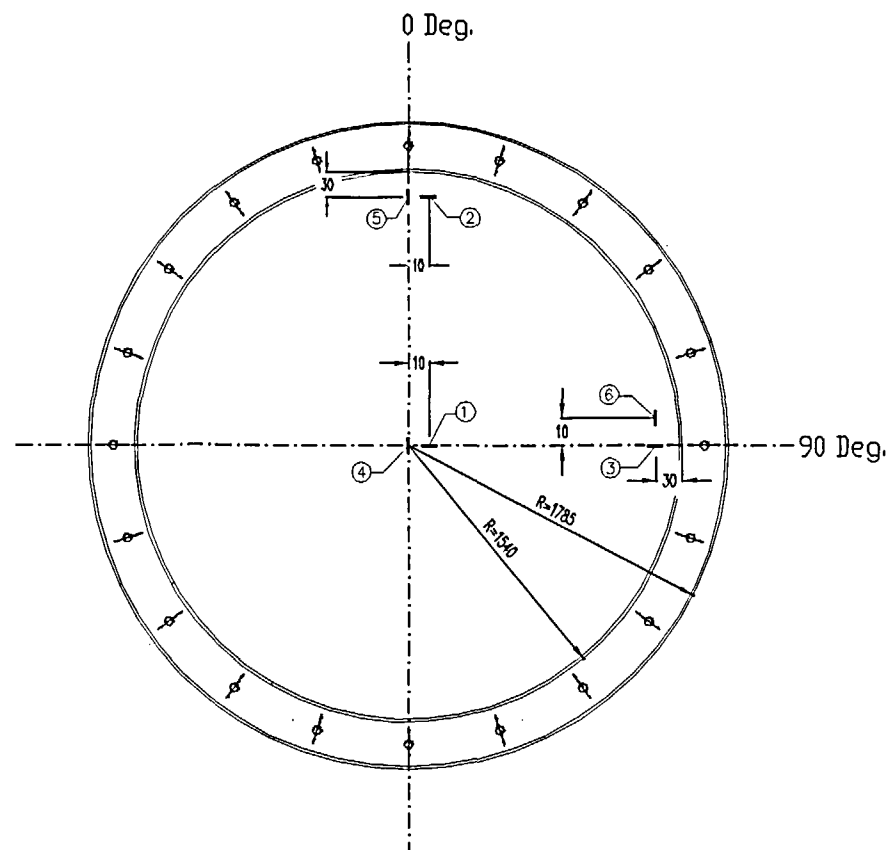
DRAWING NO. D-SN-P-215	INSTRUMENTED LINER DETAILS DETAIL k & l	SCALE 1/1
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**SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING**  
ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA

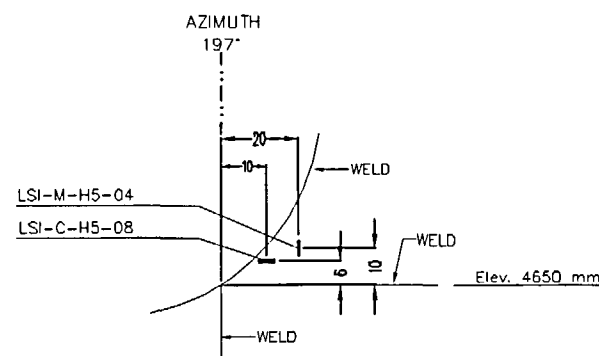




E/H DETAIL  
ZCD1010A1-217



INSIDE VIEW  
ZCD1010A1-217

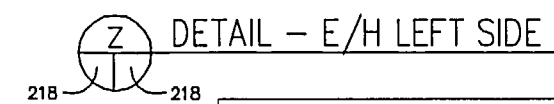
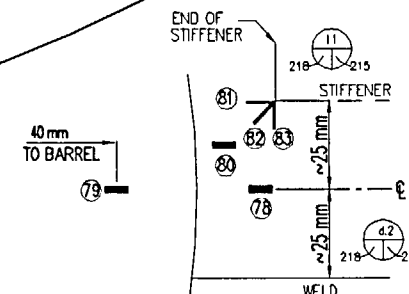
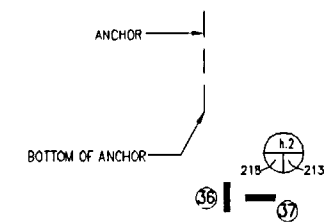


M/S CORNER WELD DETAIL (INSIDE VIEW)  
ZCD1010A1-217

INSTRUMENTATION ID #				
Instr. #	Detail #	Azimuth	Elevation (mm)	Radial Dist. (mm)
①	LSI-C-L5-16	324	4675	4850
②	LSI-C-L5-17	324	5460	4930
③	LSI-C-L5-18	333	4675	4930
④	LSI-M-L5-08	324	4675	4850
⑤	LSI-M-L5-09	324	5460	4930
⑥	LSI-M-L5-10	333	4675	4930
⑦	LSI-M-L5-11	324	5460	4980
⑧	LSI-M-L5-12	324	5460	5030
⑨	LSI-M-L5-13	333	4675	4980
⑩	LSI-M-L5-14	333	4675	5030
⑪	LSI-C-L5-19	324	5460	4980
⑫	LSI-C-L5-20	324	5460	5030
⑬	LSI-C-L5-21	333	4675	4980
⑭	LSI-C-L5-22	333	4675	5030

REVISION				
NO.	DATE	DRAWN BY	CHECKED BY	NOTES
0	10/1/99	J. Tenorio		
1	10/1/99	J. Tenorio		Add Detail D.1

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL  
DRAWING NO. INSTRUMENTATION LINER DETAILS SCALE 1/6  
D-SN-P-217 DETAIL - n  
SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING  
ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA

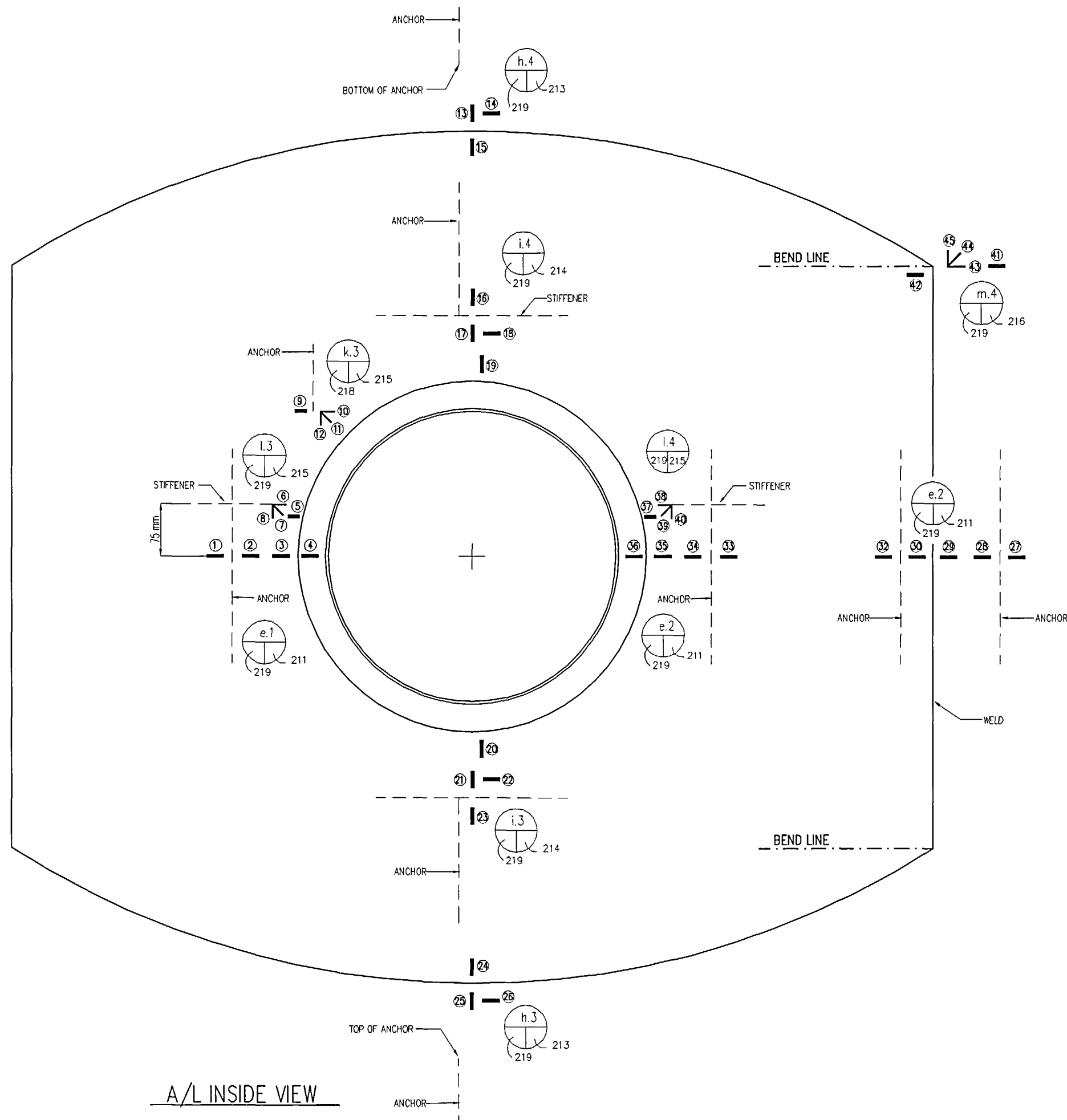


REVISION					
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
	O July 20, 1980	J. Tengrio			

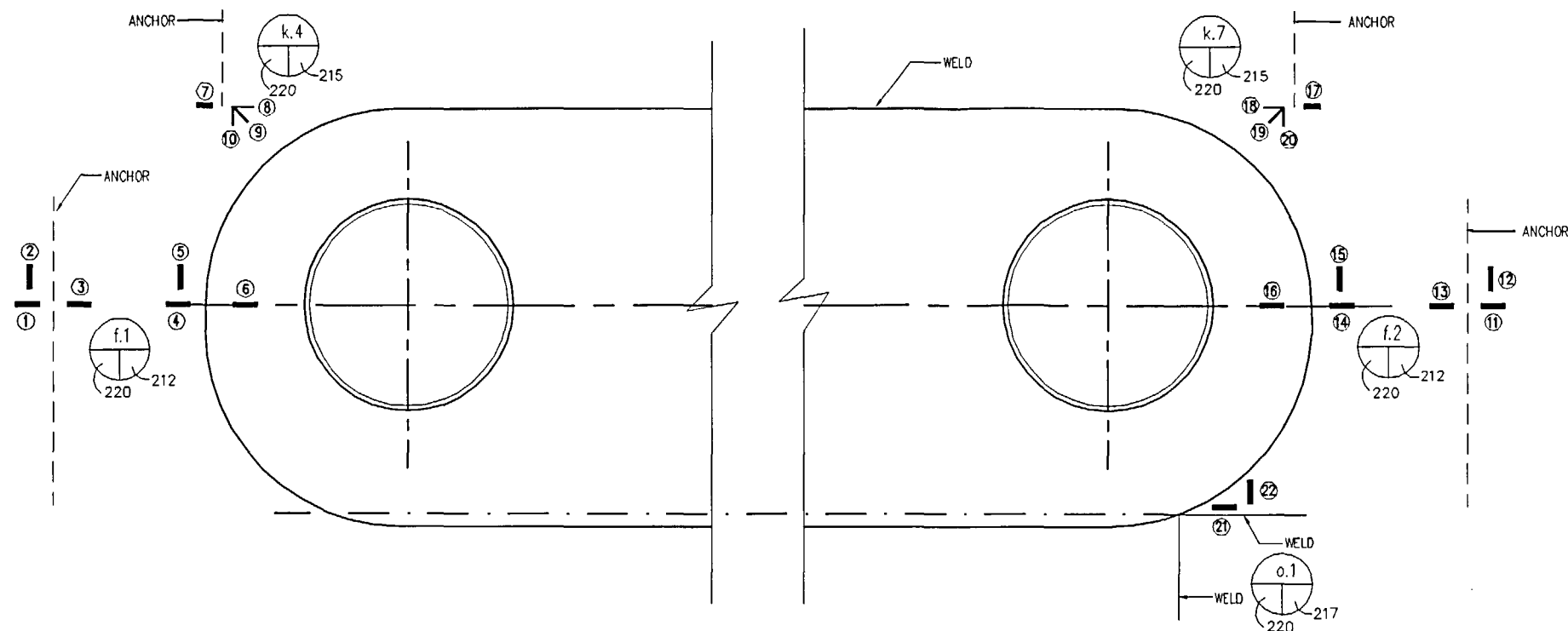
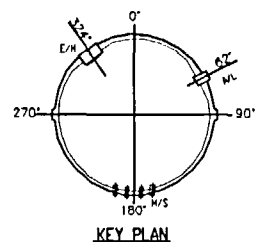
NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL					
DRAWING NO. D-SN-P-21B		INTERIOR LINER GAGE LAYOUT  E/H			SCALE NO SCALE

SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING  
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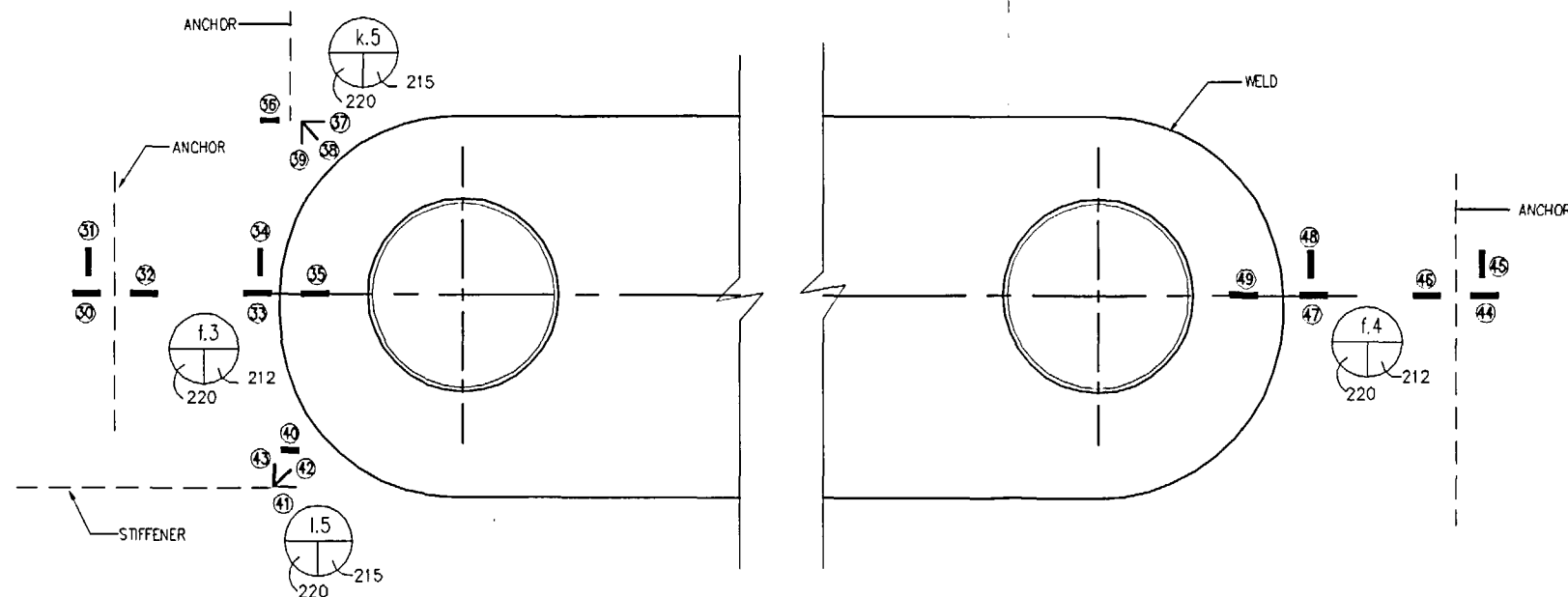


REVISION					
NO	DATE	DRAWN BY	CHECKED BY	APPROVED BY	NOTES
0	July 29, 1999	J. Tenorio			
1	Jan. 31, 2001	J. Tenorio			Remove Cage 31

**SANDIA NATIONAL LABORATORIES FACILITIES ENGINEERING**  
ALBUQUERQUE, NEW MEXICO; LIVERMORE, CALIFORNIA; TONOPAH, NEVADA



M/S - INSIDE VIEW



F/W - INSIDE VIEW

INSTRUMENTATION GAGES		
Instr. #	Labeling	Details
	I.D.	Drawing #
	(Name)	D-SN-P-
(1)	LSI-C-F5-05	212/(f.1)
(2)	LSI-M-F5-03	212/(f.1)
(3)	LSI-C-F5-04	212/(f.1)
(4)	LSI-C-F5-03	212/(f.1)
(5)	LSI-M-F5-02	212/(f.1)
(6)	LSI-C-F5-02	212/(f.1)
(7)	LSI-C-F5-07	215/(k.4)
(8)	LRI-M-F5-1h	215/(k.4)
(9)	LRI-M-F5-1d	215/(k.4)
(10)	LRI-M-F5-1m	215/(k.4)
(11)	LSI-C-H5-05	212/(f.2)
(12)	LSI-M-H5-03	212/(f.2)
(13)	LSI-C-H5-04	212/(f.2)
(14)	LSI-C-H5-03	212/(f.2)
(15)	LSI-M-H5-02	212/(f.2)
(16)	LSI-C-H5-02	212/(f.2)
(17)	LSI-C-H5-07	215/(k.7)
(18)	LRI-M-H5-1h	215/(k.7)
(19)	LRI-M-H5-1d	215/(k.7)
(20)	LRI-M-H5-1m	215/(k.7)
(21)	LSI-C-H5-08	217/(o.1)
(22)	LSI-M-H5-04	217/(o.1)

INSTRUMENTATION GAGES		
Instr. #	Labeling	Details
	I.D.	Drawing #
	(Name)	D-SN-P-
(30)	LSI-C-F4-04	212/(f.3)
(31)	LSI-M-F4-02	212/(f.3)
(32)	LSI-C-F4-03	212/(f.3)
(33)	LSI-C-F4-02	212/(f.3)
(34)	LSI-M-F4-01	212/(f.3)
(35)	LSI-C-F4-01	212/(f.3)
(36)	LSI-C-F4-06	215/(k.5)
(37)	LRI-M-F4-1h	215/(k.5)
(38)	LRI-M-F4-1d	215/(k.5)
(39)	LRI-M-F4-1m	215/(k.5)
(40)	LSI-C-F4-08	215/(L5)
(41)	LRI-M-F4-2h	215/(L5)
(42)	LRI-M-F4-2d	215/(L5)
(43)	LRI-M-F4-2m	215/(L5)
(44)	LSI-C-H4-04	212/(f.4)
(45)	LSI-M-H4-02	212/(f.4)
(46)	LSI-C-H4-03	212/(f.4)
(47)	LSI-C-H4-02	212/(f.4)
(48)	LSI-M-H4-01	212/(f.4)
(49)	LSI-C-H4-01	212/(f.4)

REVISION				
NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY
0	July 20, 1998	J. Tenorio		

NUPEC/NRC PCCV STRUCTURAL BEHAVIOR TEST MODEL

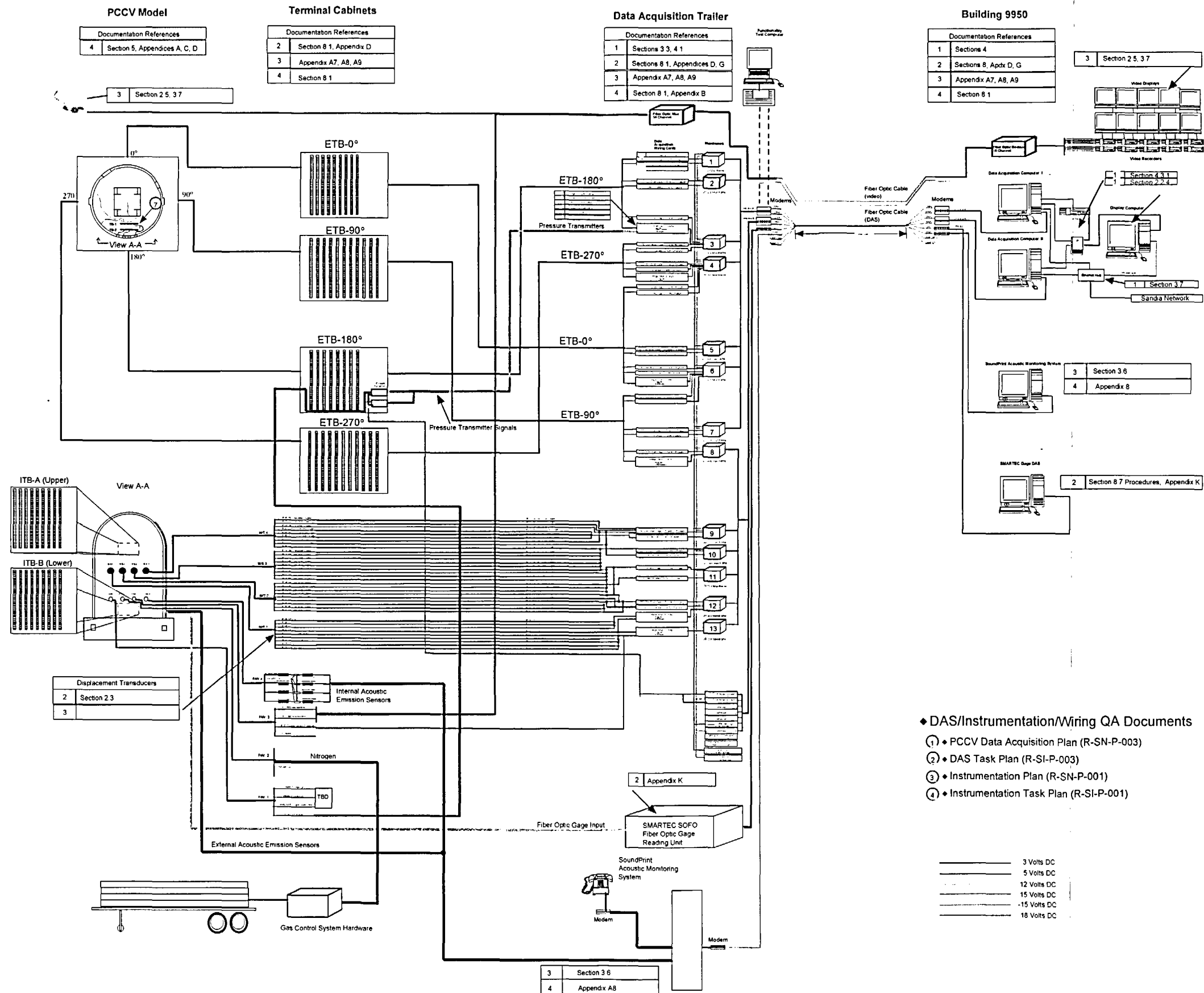
DRAWING NO. D-SN-P-220 INTERIOR LINER GAGE LAYOUT M/S AND F/W SCALE NO SCALE

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**Appendix F: Prestressed Concrete Containment Vessel Data Acquisition  
System/Instrumentation Schematic**







◆ DAS/Instrumentation/Wiring QA Documents

- ① ◆ PCCV Data Acquisition Plan (R-SN-P-003)
- ② ◆ DAS Task Plan (R-SI-P-003)
- ③ ◆ Instrumentation Plan (R-SN-P-001)
- ④ ◆ Instrumentation Task Plan (R-SI-P-001)