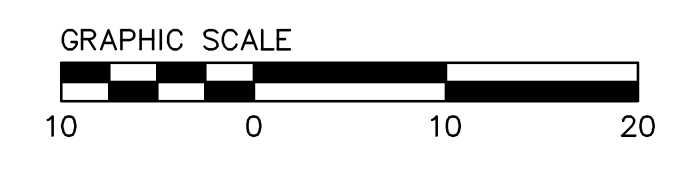
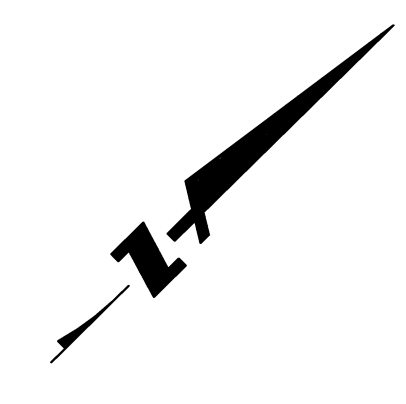
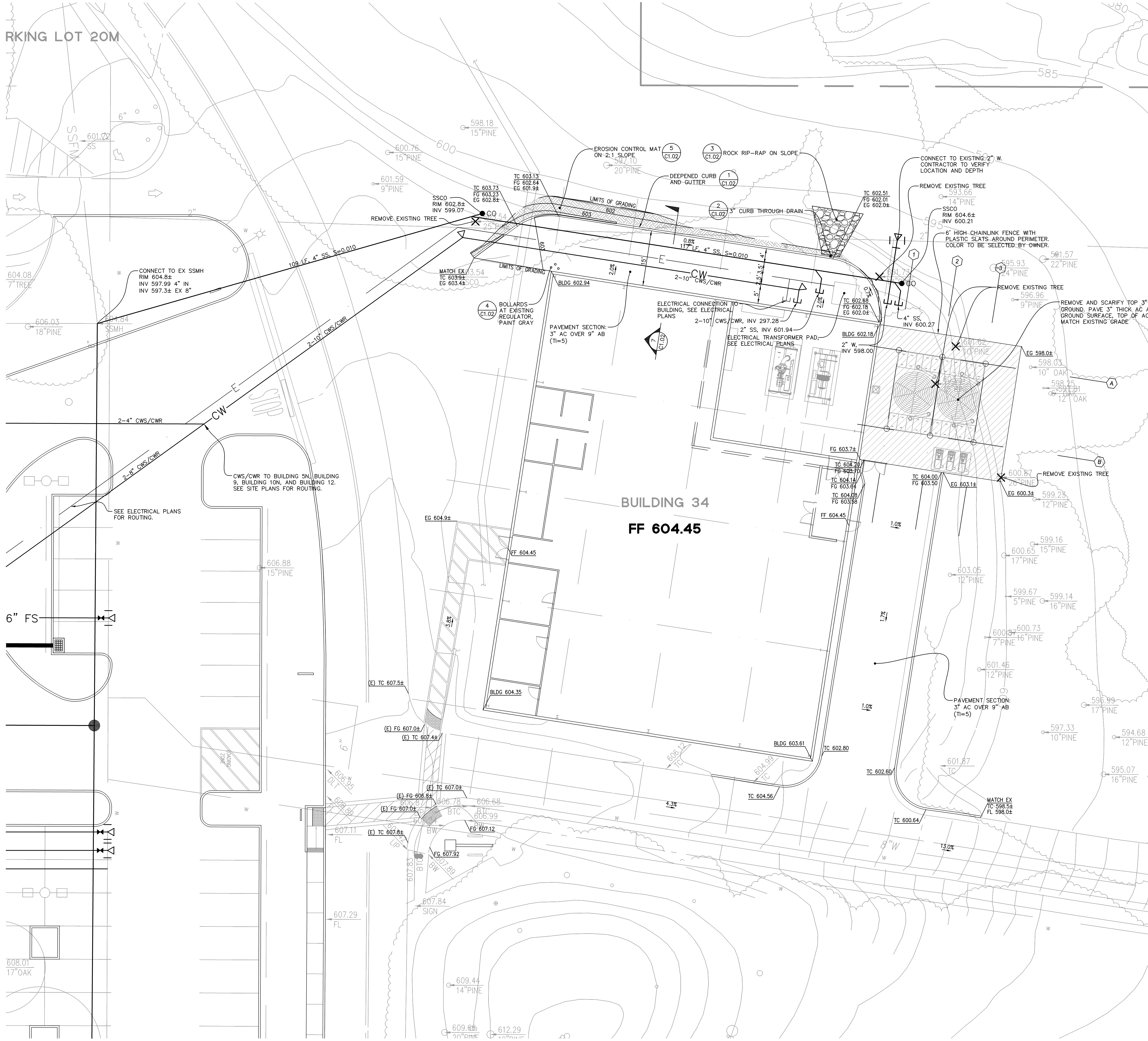




WORKING LOT 20M



**ABBREVIATIONS:**

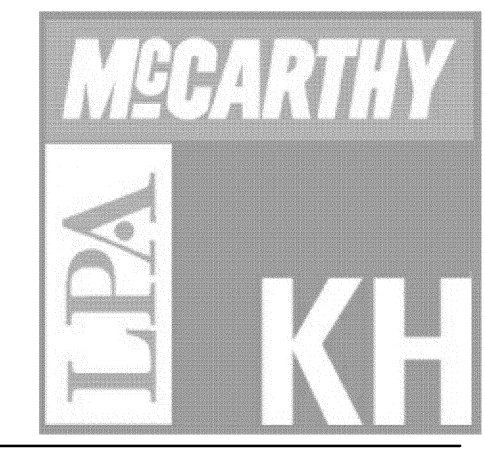
- BLDG BUILDING CORNER
- BW BOTTOM OF WALL
- CW CHILLED WATER
- CWS/CWR CHILLED WATER SERVICE/CHILLED WATER RETURN
- EX (E) EXISTING
- EG EXISTING GRADE
- FF FINISHED FLOOR
- GB GRADE BREAK
- HP HIGH POINT
- INV INVERT
- LP LOW POINT
- POC POINT OF CONNECTION
- SD STORM DRAIN
- TC TOP OF CURB
- TW TOP OF WALL

**LEGEND:**

- EXISTING COMMUNICATION LINE
- EXISTING GAS LINE
- EXISTING HOT WATER SERVICE/HOT WATER RETURN LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING WATER LINE
- EXISTING AREA DRAIN
- EXISTING CATCH BASIN
- EXISTING CLEAN OUT
- EXISTING FIRE HYDRANT
- EXISTING PRESSURE RELIEF VALVE
- EXISTING COMMUNICATION MANHOLE
- EXISTING ELECTRICAL MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STREETLIGHT
- EXISTING WATER VALVE
- PROPOSED CHILLED WATER LINE
- PROPOSED ELECTRICAL LINE
- PROPOSED STORM DRAIN LINE
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED CW STUB
- PROPOSED WATER VALVE
- SLOPE DIRECTION
- LIMITS OF AC PAVEMENT

**NOTES:**

1. PROPOSED CHILLED WATER AND ELECTRICAL LINES CAN SHARE THE SAME TRENCH.



McCarthy Building Companies, Inc.  
343 Sansome Street, 14th Floor  
San Francisco, California 94104  
P 415 | 364-1339  
F 415 | 397-5999



255 SHORELINE DRIVE, SUITE 200  
REDWOOD CITY, CA 94065  
PHONE: (650) 482-6300  
FAX: (650) 482-6399

This and all other project documents and all data, methods and designs incorporated herein are the property of BKF, Inc. (BKF) and cannot be used, copied, reproduced, or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of BKF, Inc. BKF hereby gives notice that any such use without the prior written permission of BKF, Inc. is strictly prohibited. BKF, Inc. is not responsible for any damages or losses, direct or indirect, arising from the use of any information contained herein.

Project documents are the property of BKF, Inc. and are not to be distributed outside of the project site. BKF, Inc. and LPA and KH Consultants make no representation concerning the accuracy of documents and are not responsible for any discrepancies between project documents and the existing conditions.

© Copyright 2007

College of San Mateo  
Central Plant (Building 34)  
San Mateo, CA  
Developed for  
College of San Mateo County Community College District

Date	Revisions/Description

Revision	Description	Date

Job No.	27082.20
Date	OCTOBER 2008
Drawn by	MC, MD, JT
Checked by	RH
Scale	1"=10'

**GRADING AND UTILITY PLAN**

**C1.01**



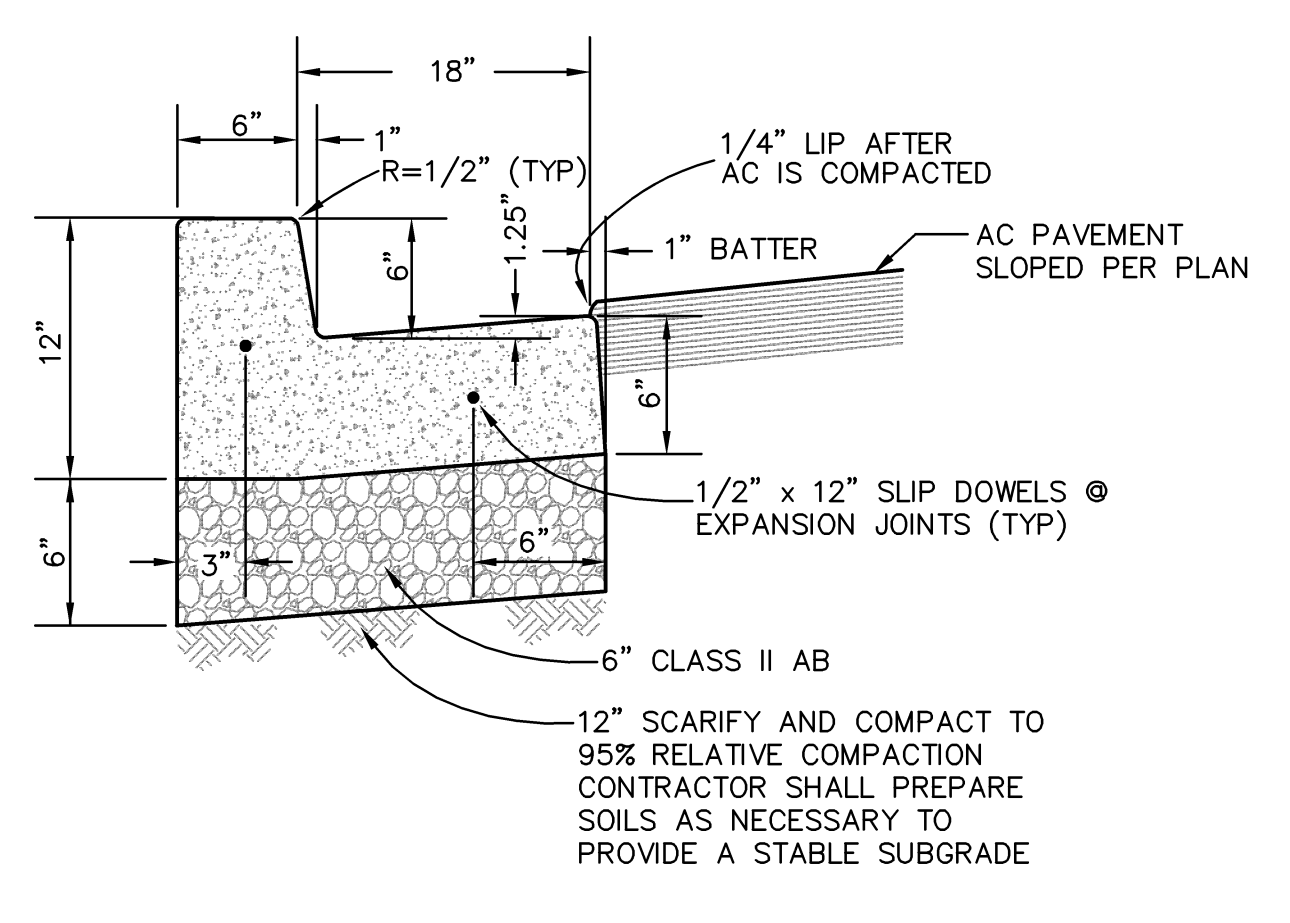


255 SHORELINE DRIVE, SUITE 200  
 REDWOOD CITY, CA 94065  
 PHONE: (650) 482-6300  
 FAX: (650) 482-6399

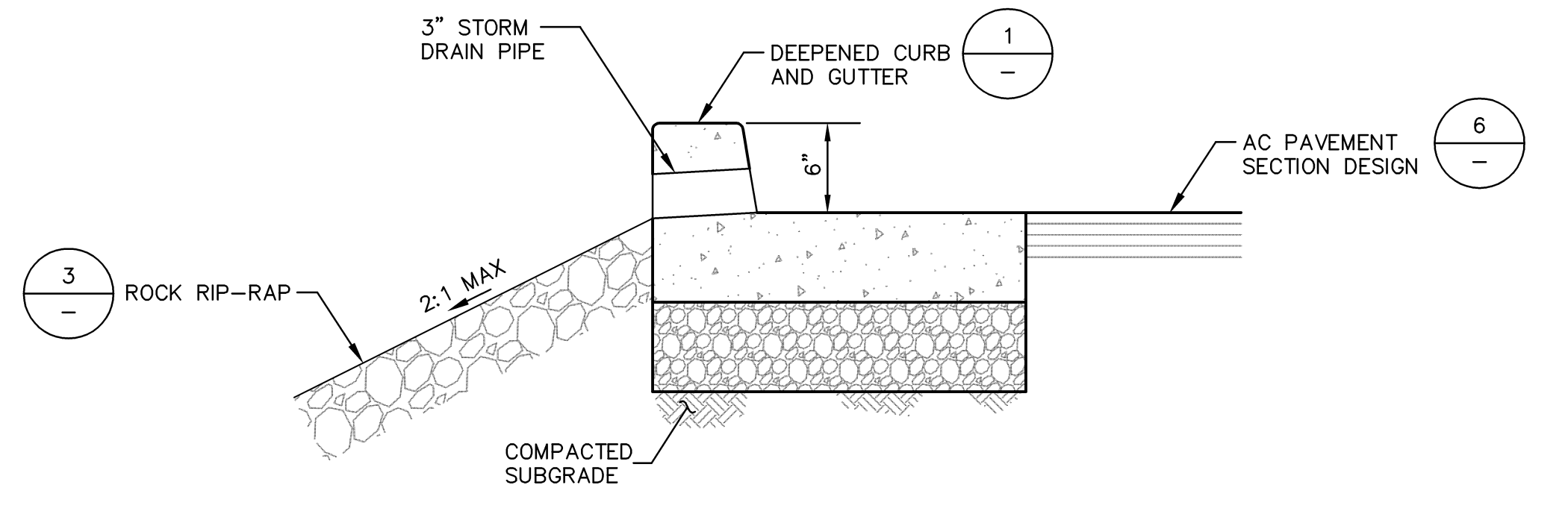
This set of other project documents and all plans, methods and designs incorporated herein are instruments of service. All project documents are the registered property of LPA, KH, (LPA) and cannot be re-used in whole or in part for any project or purpose not intended by the original agreement between LPA and KH. LPA hereby gives limited notice that any such project document, reproduction or modification (written) is not only prohibited but substantially liable at public expense and shall be held harmless and defend LPA and KH. Consistent to the maximum legal extent against all claims, demands, costs or liabilities arising directly or indirectly from project document misuse.

Project documents are the design intent of work and are not a representation of as-built or existing conditions. LPA and KH Consultants make no representation concerning the accuracy of documents and are not responsible for any discrepancies between project documents and the existing conditions.

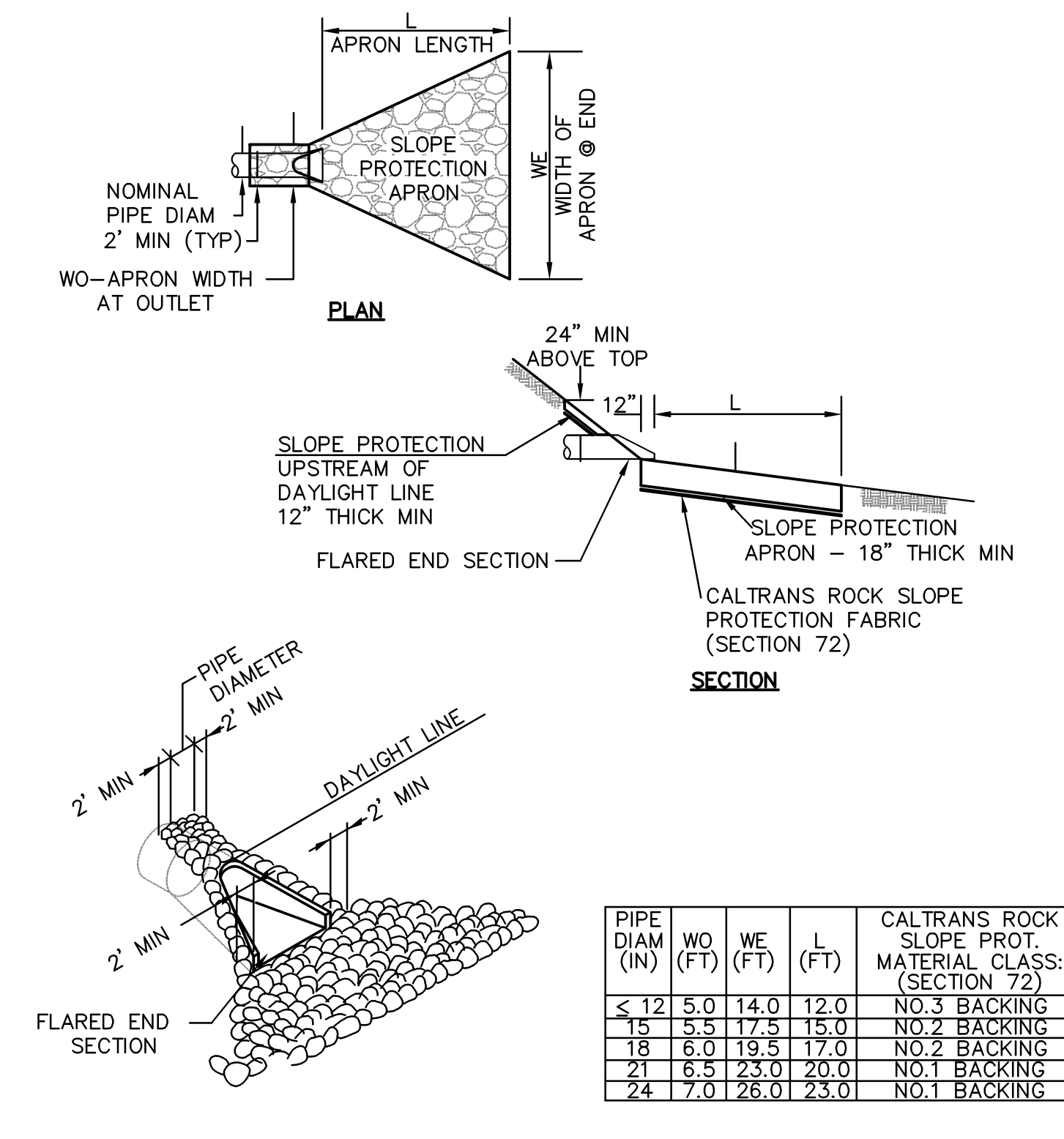
© Copyright 2007



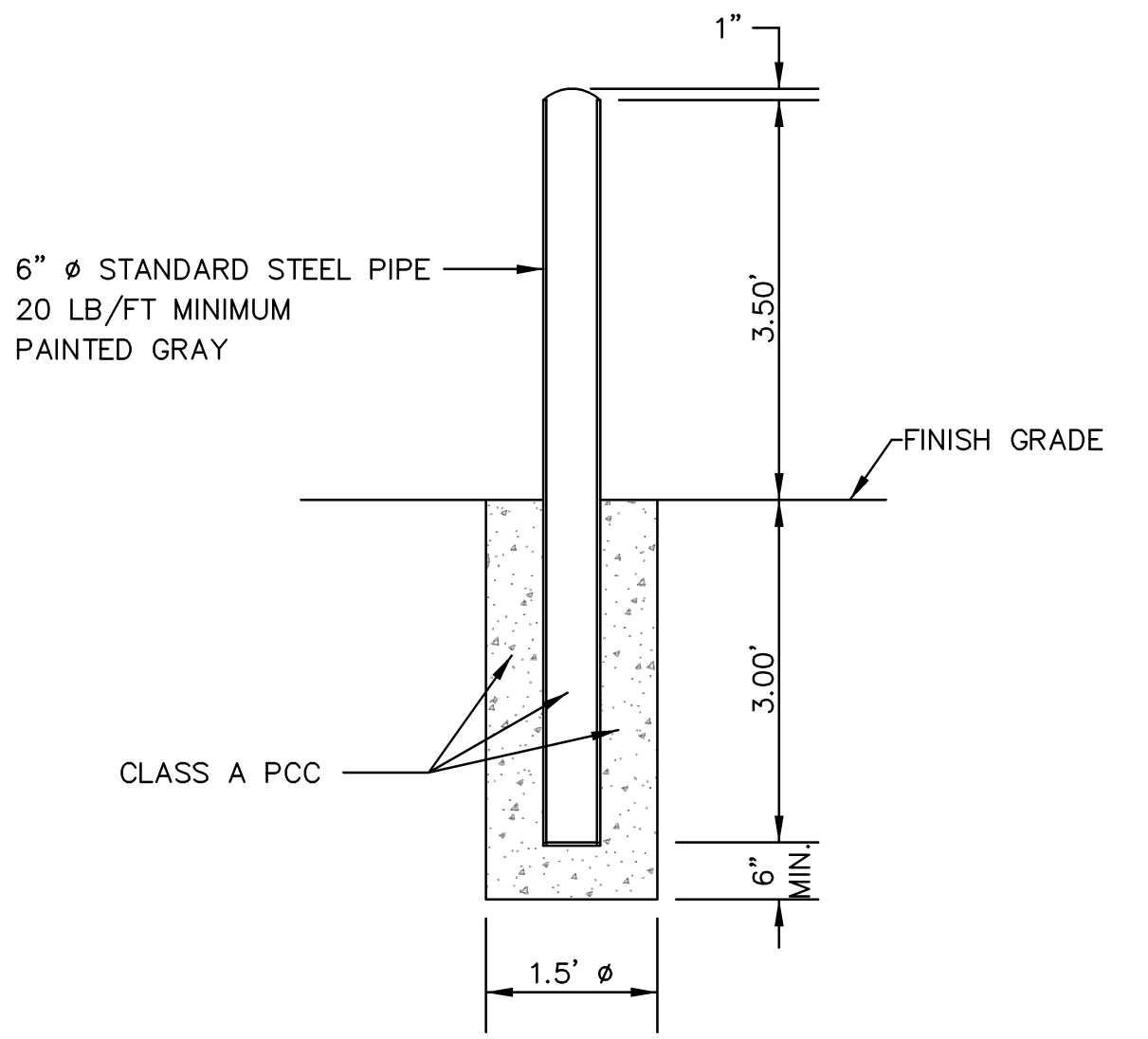
**1**  
 DEEPENED CURB & GUTTER  
 NTS



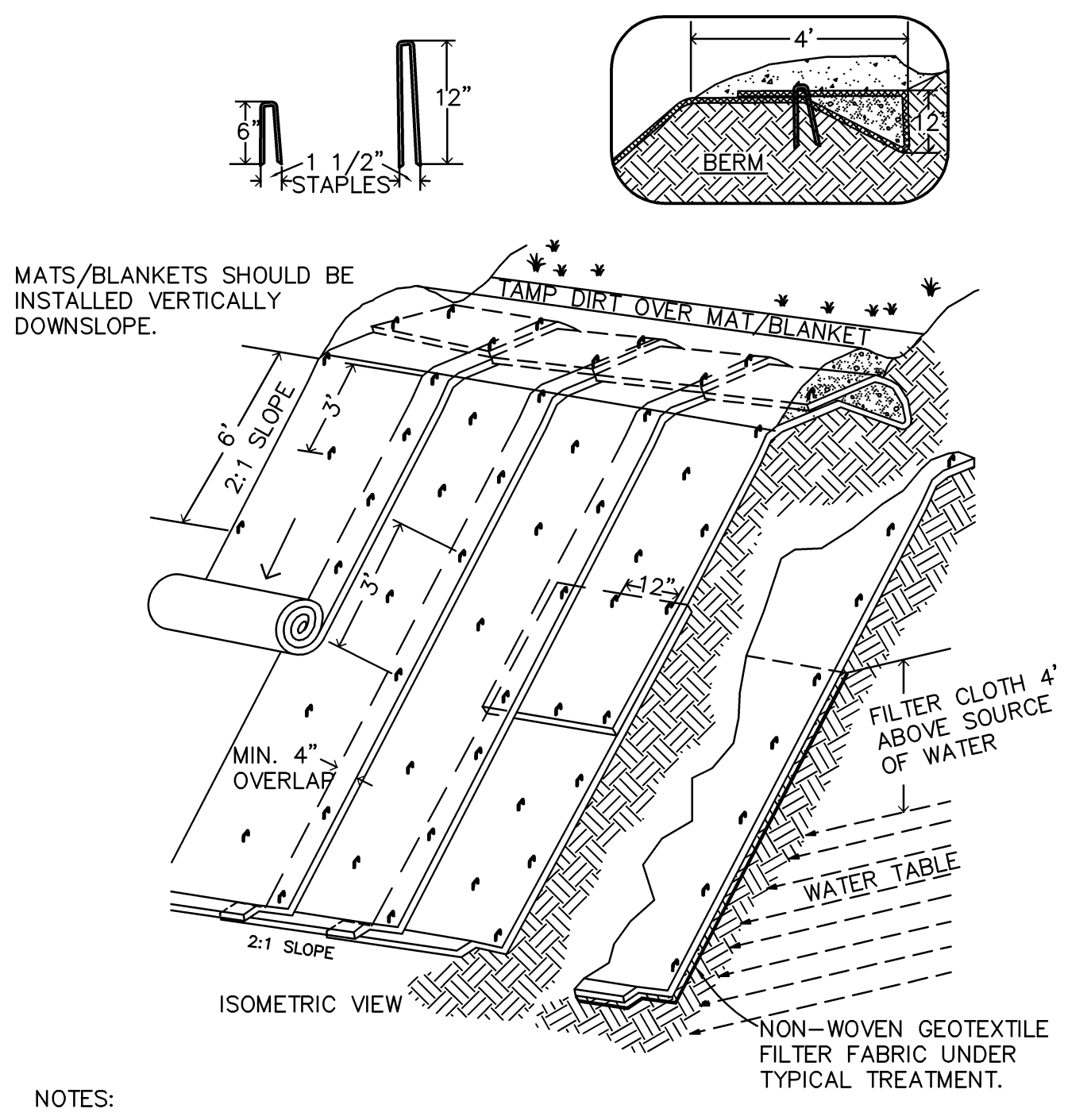
**2**  
 CURB THROUGH DRAIN  
 NTS



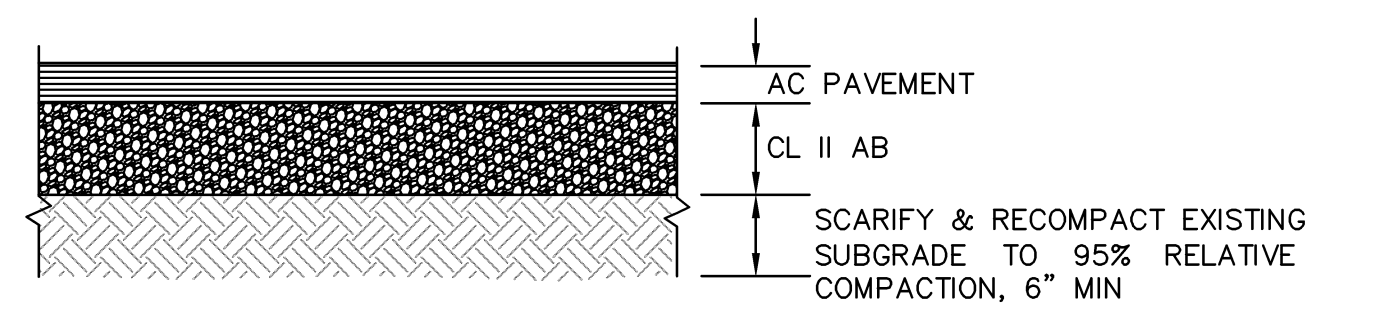
**3**  
 ROCK RIP-RAP  
 NTS



**4**  
 BOLLARD  
 NTS



**5**  
 EROSION CONTROL MAT  
 NTS



**AC PAVEMENT SECTION DESIGN—SOIL SUBGRADE CONDITION ONLY**

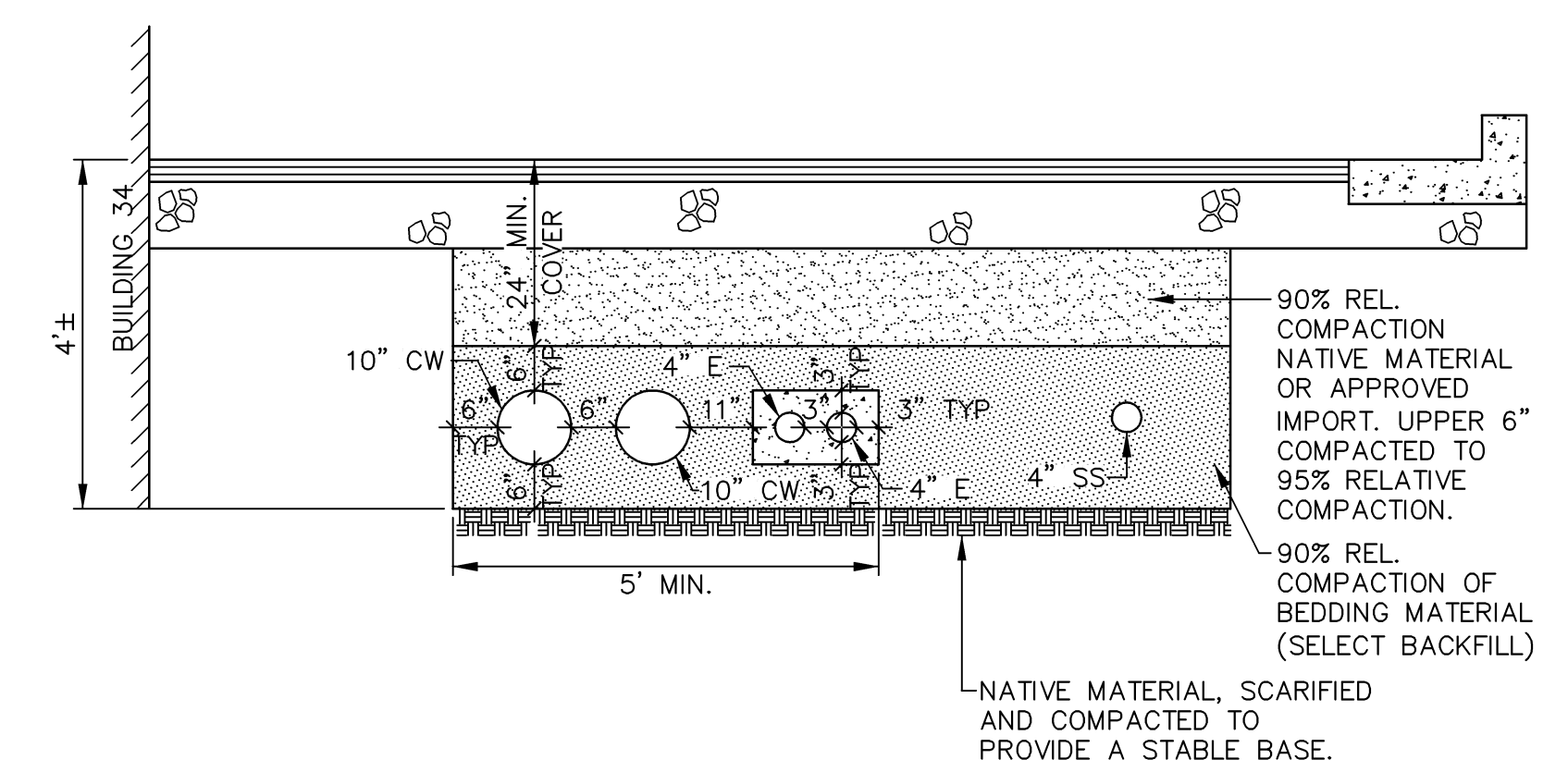
LOCATION	AC	AB	TI	R*
ROADWAYS, PARKING STALLS & PARKING LOT DRIVE AISLES	3	9	4	10

**AC PAVEMENT SECTION DESIGN—BEDROCK SUBGRADE CONDITION ONLY**

LOCATION	AC	AB	TI	R*
ROADWAYS, PARKING STALLS & PARKING LOT DRIVE AISLES	3	4	4	40

- NOTES:
- THIS SECTION TO BE USED IN LOCATIONS WHERE NEW PAVEMENT SECTIONS ARE REQUIRED.
  - SCARIFY TOP 6" OF SUBGRADE AND COMPACT TO 95% RELATIVE COMPACTION.
  - R VALUE=10 IS AN ASSUMED VALUE FOR PAVEMENT SUPPORTED ON SOILS. IF BEDROCK IS ENCOUNTERED AS SUBGRADE AS DETERMINED BY THE ENGINEER, AN R VALUE OF 40 MAY BE ASSUMED.

**6**  
 AC PAVEMENT SECTION DESIGN  
 NTS



**7**  
 TRENCH SECTION  
 NTS

College of San Mateo  
 Central Plant (Building 34)

San Mateo, CA  
 Developed for  
 College of San Mateo County Community College District

Date	Revision/Description	Date	Revision/Description
		10/31/08	

Job No.	27082.20
Date	OCTOBER 2008
Drawn by	MG, MD, JT
Checked by	RH
Scale	AS SHOWN

**CONSTRUCTION DETAILS**



This set of drawings shall be read in conjunction with the following documents:  
1. Construction Manual, 11th Edition, published by the American Institute of Architects, Inc. (AIA) and the National Institute of Building Sciences (NIBS).  
2. Specification for Structural Steel Buildings, published by the American Institute of Steel Construction, Inc. (AISC).  
3. Specification for Structural Aluminum Alloys, published by the Aluminum Association.  
4. Specification for Reinforcing Steel Bars, published by the American Institute of Steel Construction, Inc. (AISC).  
5. Specification for Concrete and Masonry Construction, published by the American Institute of Steel Construction, Inc. (AISC).  
6. Specification for Wood Decking, published by the American Institute of Steel Construction, Inc. (AISC).  
7. Specification for Glass and Glazing, published by the American Institute of Steel Construction, Inc. (AISC).  
8. Specification for Acoustical Treatment, published by the American Institute of Steel Construction, Inc. (AISC).  
9. Specification for Mechanical, Electrical and Plumbing (MEP) Equipment, published by the American Institute of Steel Construction, Inc. (AISC).  
10. Specification for Fire Protection, published by the American Institute of Steel Construction, Inc. (AISC).  
11. Specification for Safety, published by the American Institute of Steel Construction, Inc. (AISC).  
12. Specification for Environmental, published by the American Institute of Steel Construction, Inc. (AISC).  
13. Specification for Accessibility, published by the American Institute of Steel Construction, Inc. (AISC).  
14. Specification for Energy Efficiency, published by the American Institute of Steel Construction, Inc. (AISC).  
15. Specification for Sustainability, published by the American Institute of Steel Construction, Inc. (AISC).

Developed for  
College of San Mateo County Community College District

**College of San Mateo  
Central Plant (Building 34)**

San Mateo, CA

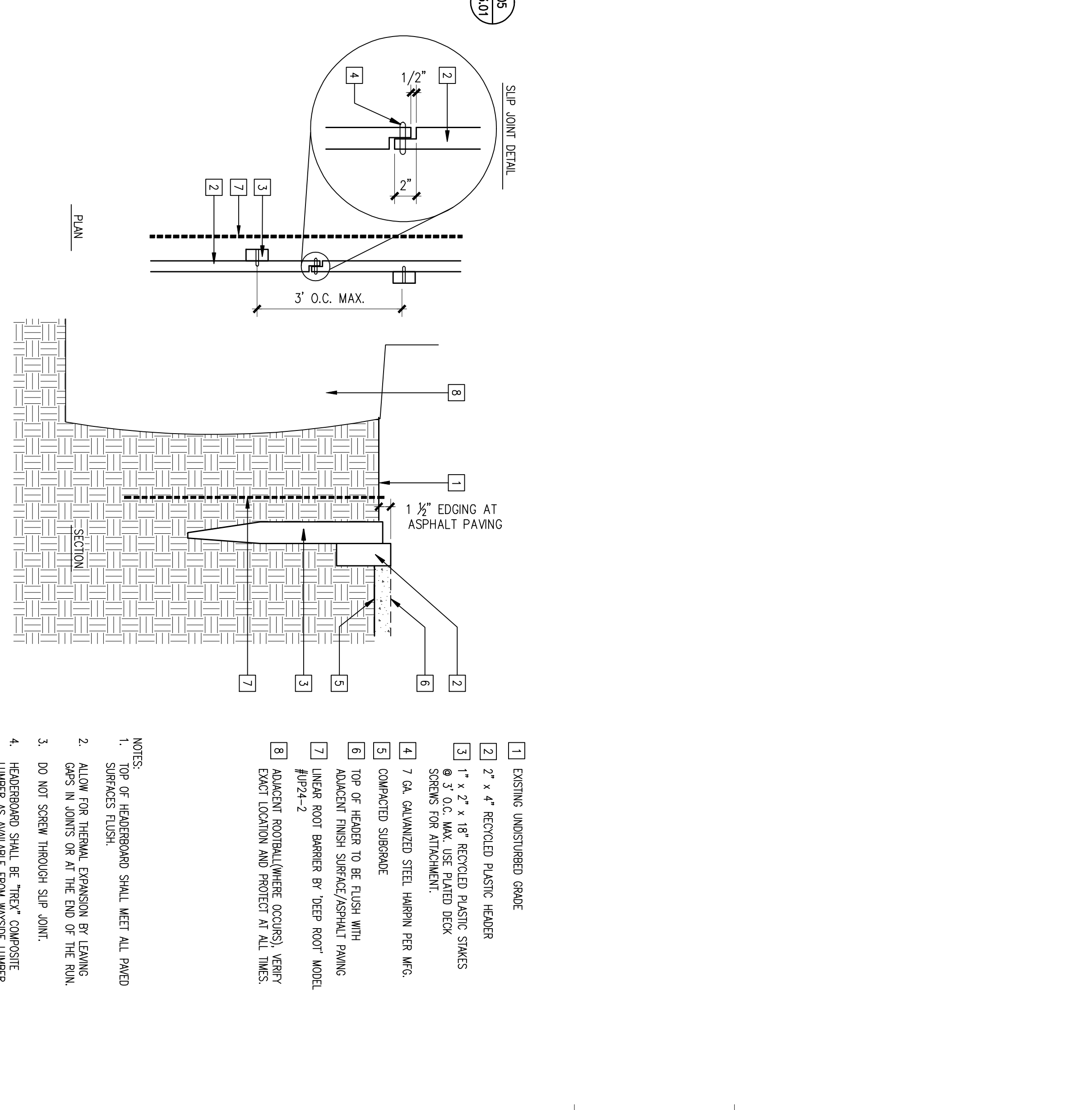
Developed for  
College of San Mateo County Community College District

Revision	Description	Date
06/22/08	100% Schematic Design	
08/01/08	100% Design Design	
09/10/08	100% Construction Documents	
02/06/09	REVISIONS PER CDD	

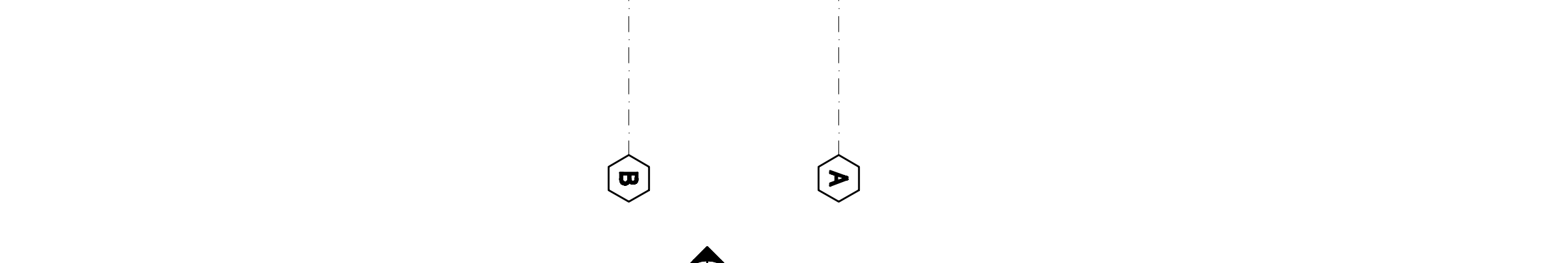
Revision	Description	Date
06/22/08	100% Schematic Design	
08/01/08	100% Design Design	
09/10/08	100% Construction Documents	
02/06/09	REVISIONS PER CDD	

Job No. 2798230  
Date APRIL 2008  
Drawn by  
Checked by  
Scale 1/8" = 1'-0"

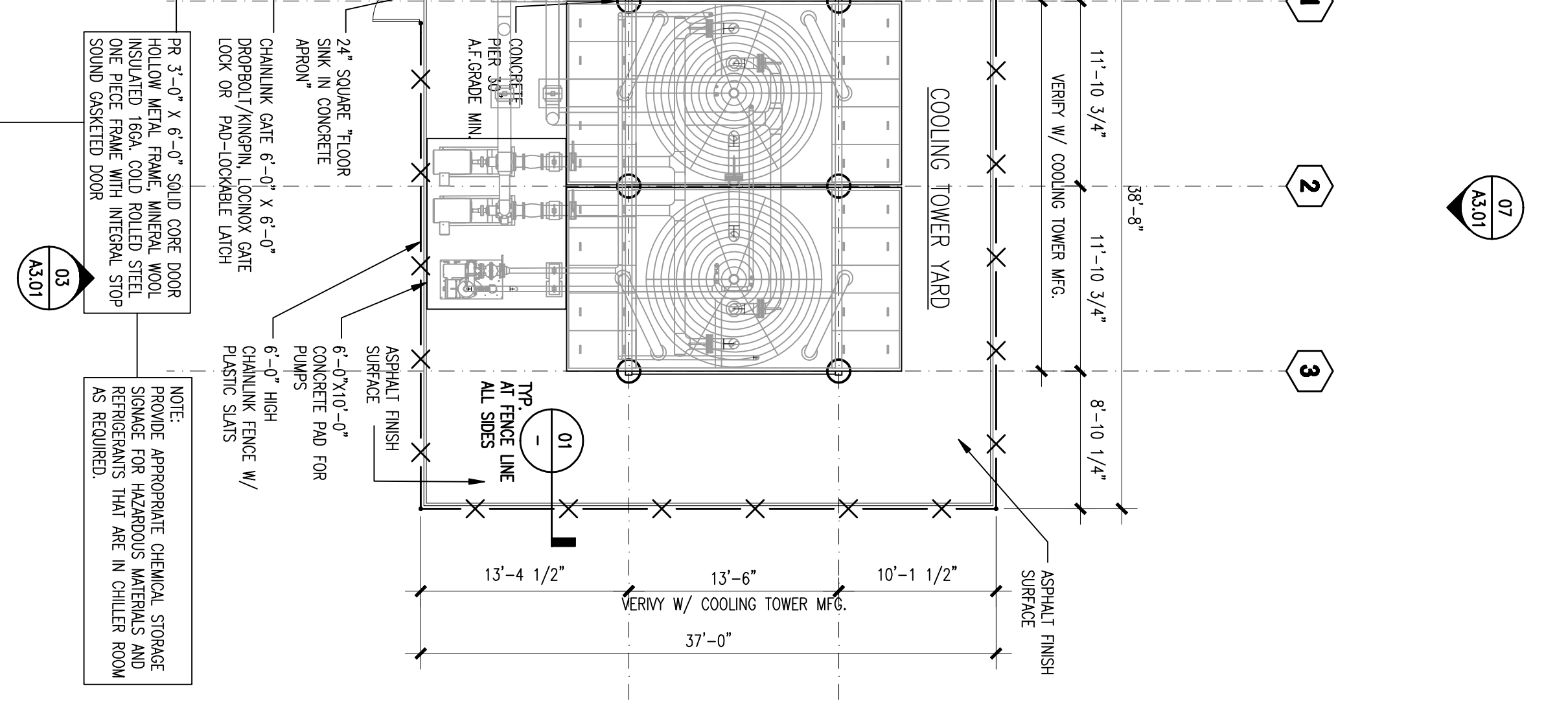
**FLOOR PLAN**  
**A2.01**



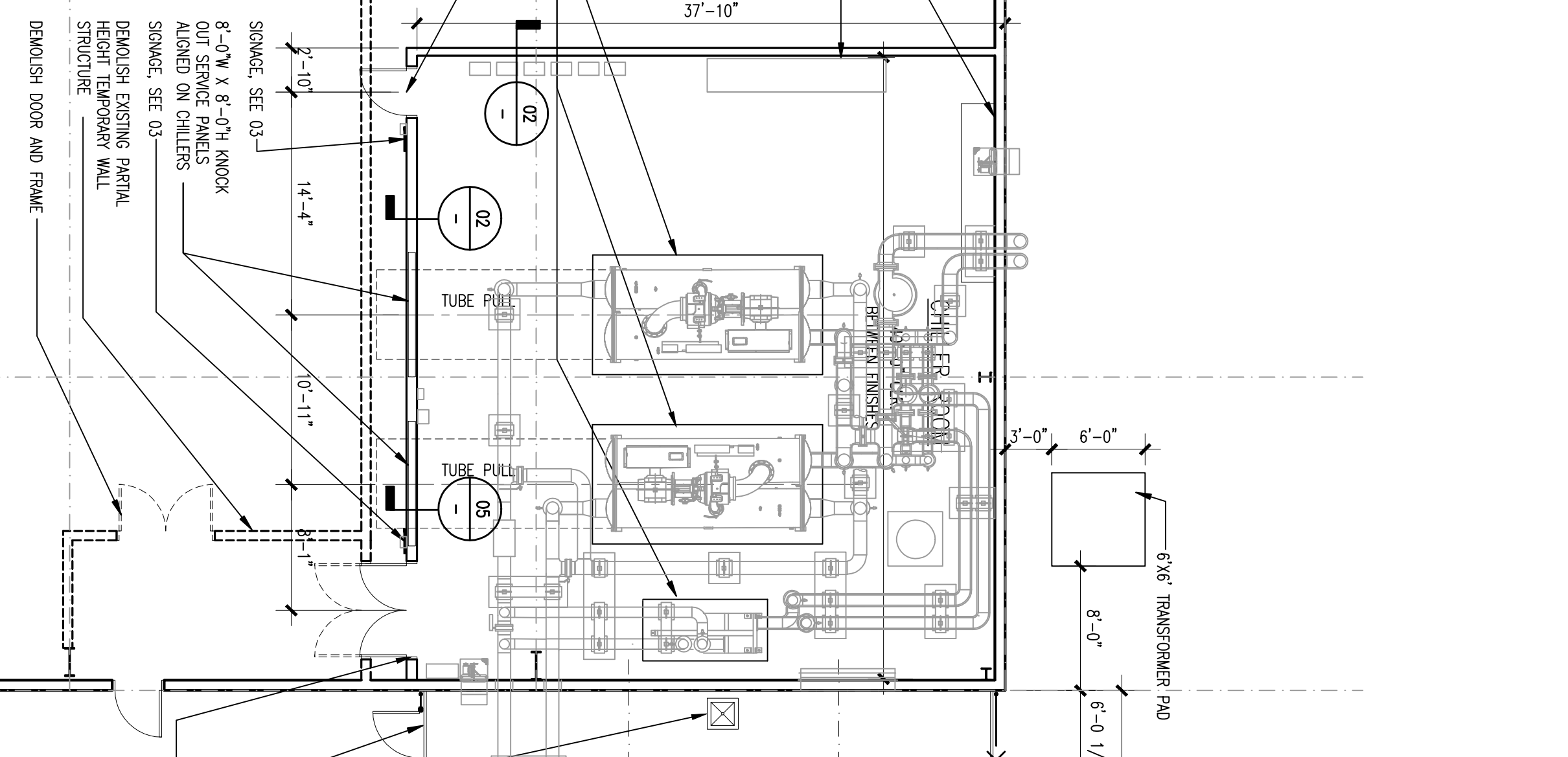
**RECYCLED PLASTIC HEADER BOARD**  
1/2" = 1'-0"  
DWG#111 01



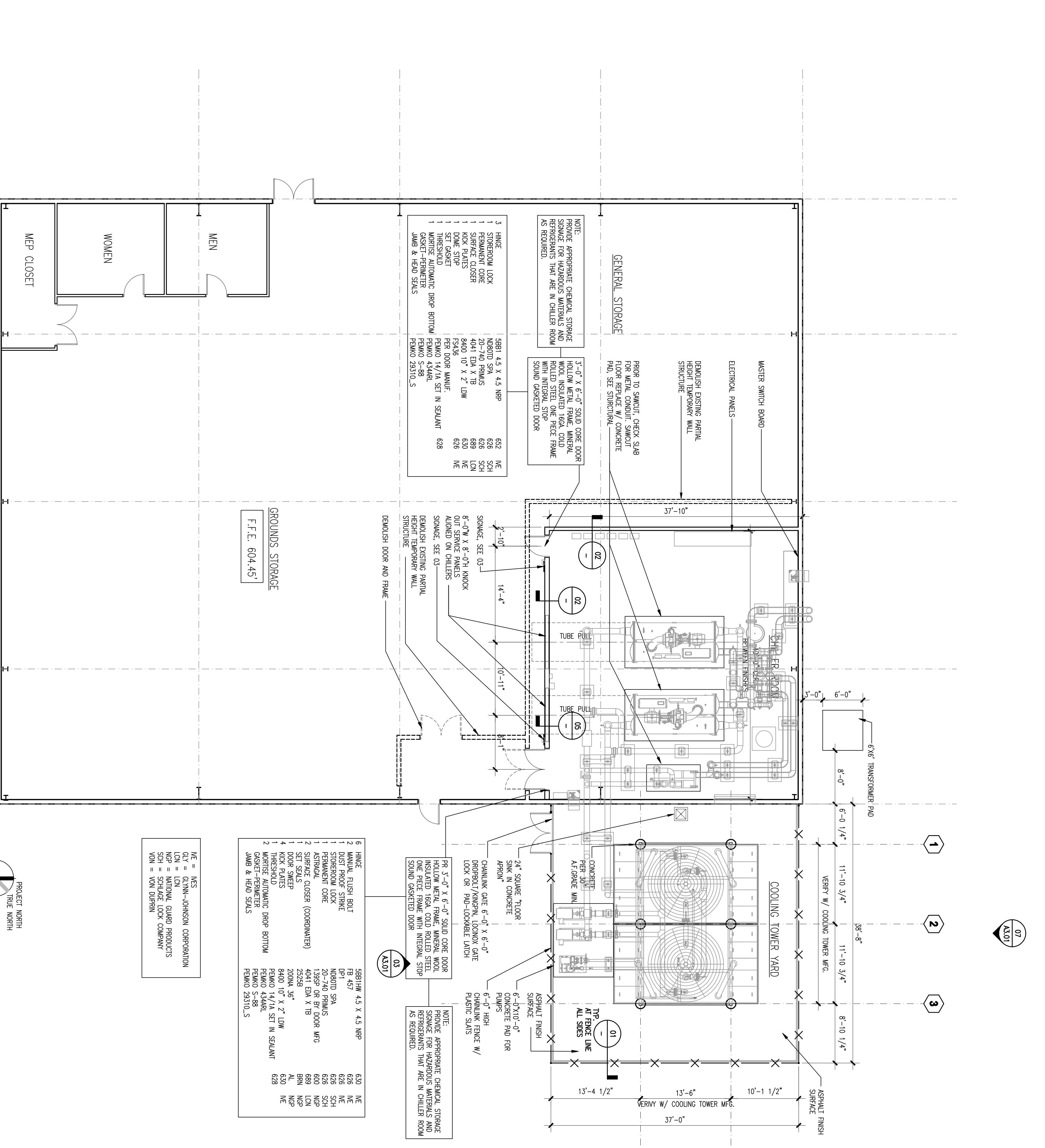
**SOUND RATED WALLS**  
1/2" = 1'-0"  
DWG#111 02



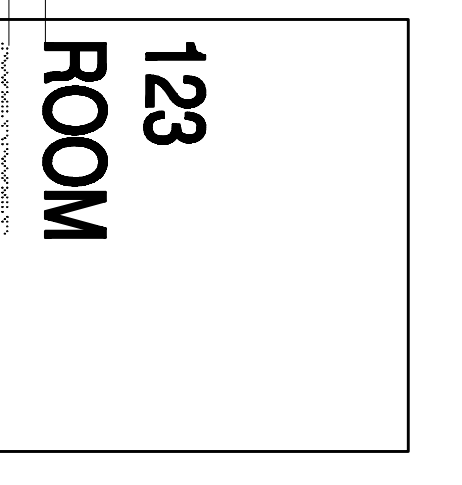
**Knock Out Service Panels**  
3/8" = 1'-0"  
DWG#111 03



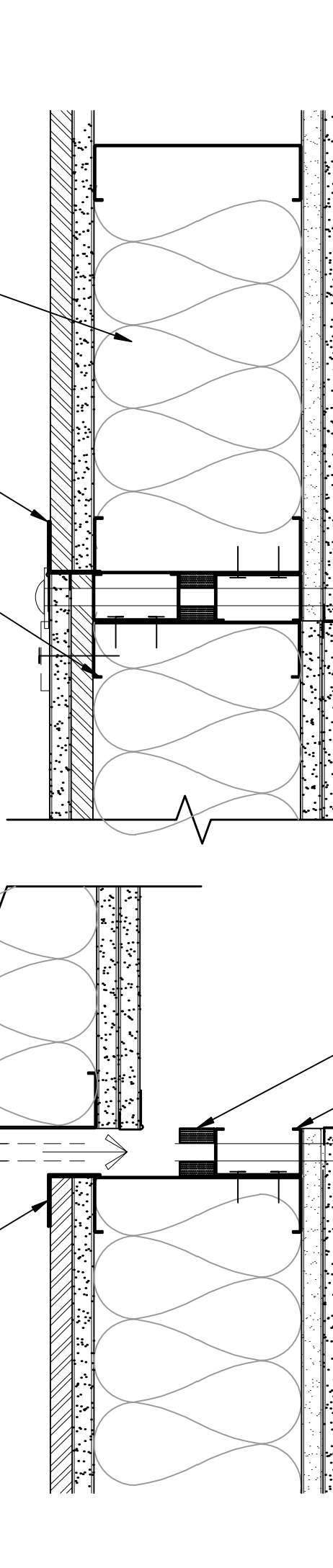
**Rated/Non-Rated Partition**  
3/8" = 1'-0"  
DWG#111 04



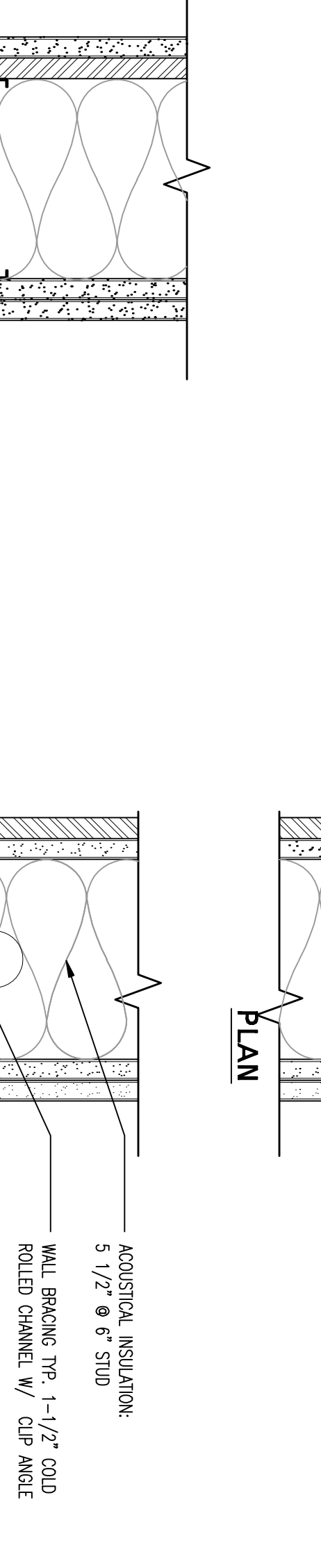
**FLOOR PLAN**  
04



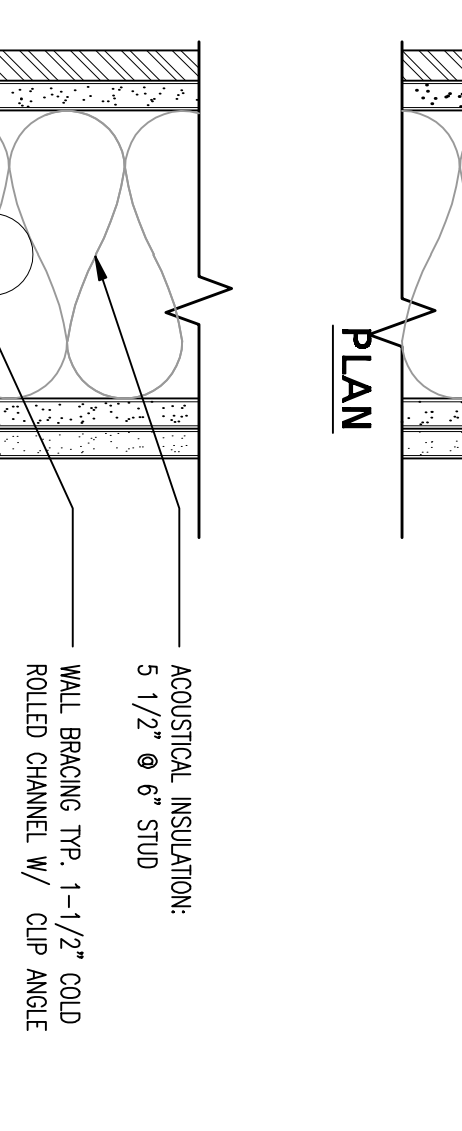
**ROOM IDENTIFICATION SIGN**  
6" = 1'-1"  
06



**Knock Out Service Panels**  
3/8" = 1'-0"  
05

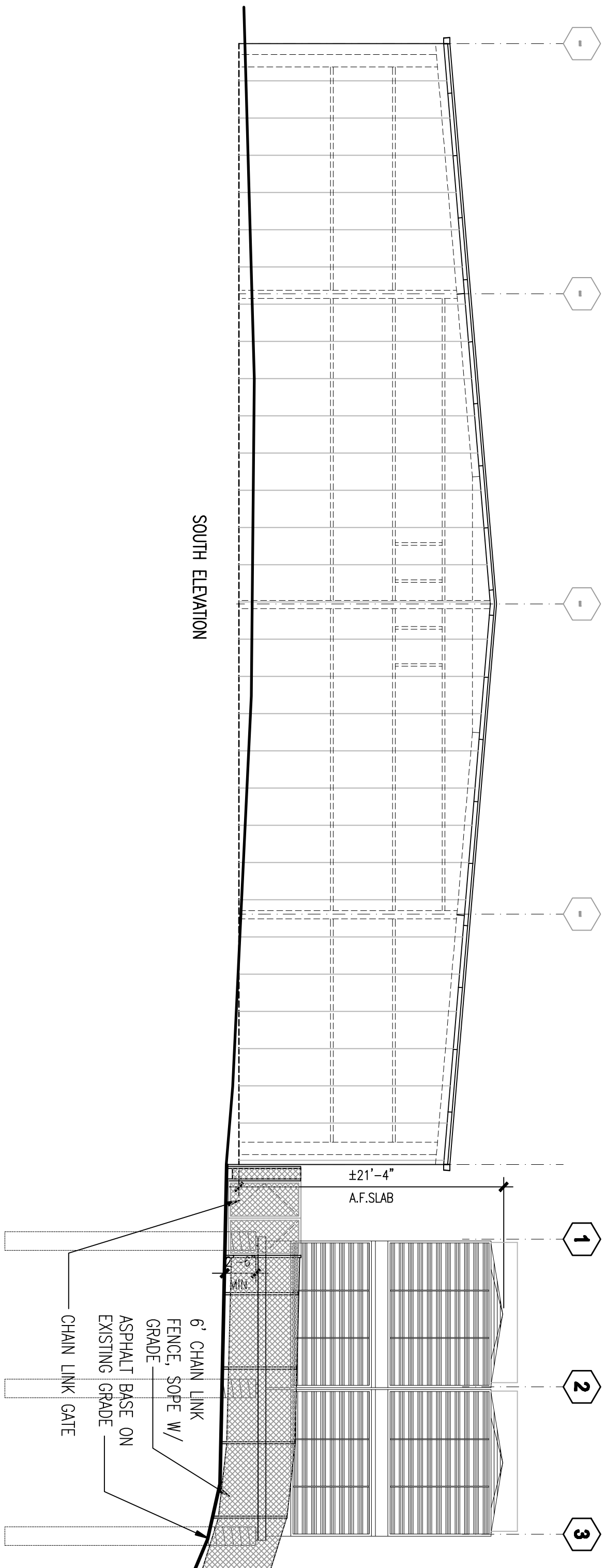


**Knock Out Service Panels**  
3/8" = 1'-0"  
03

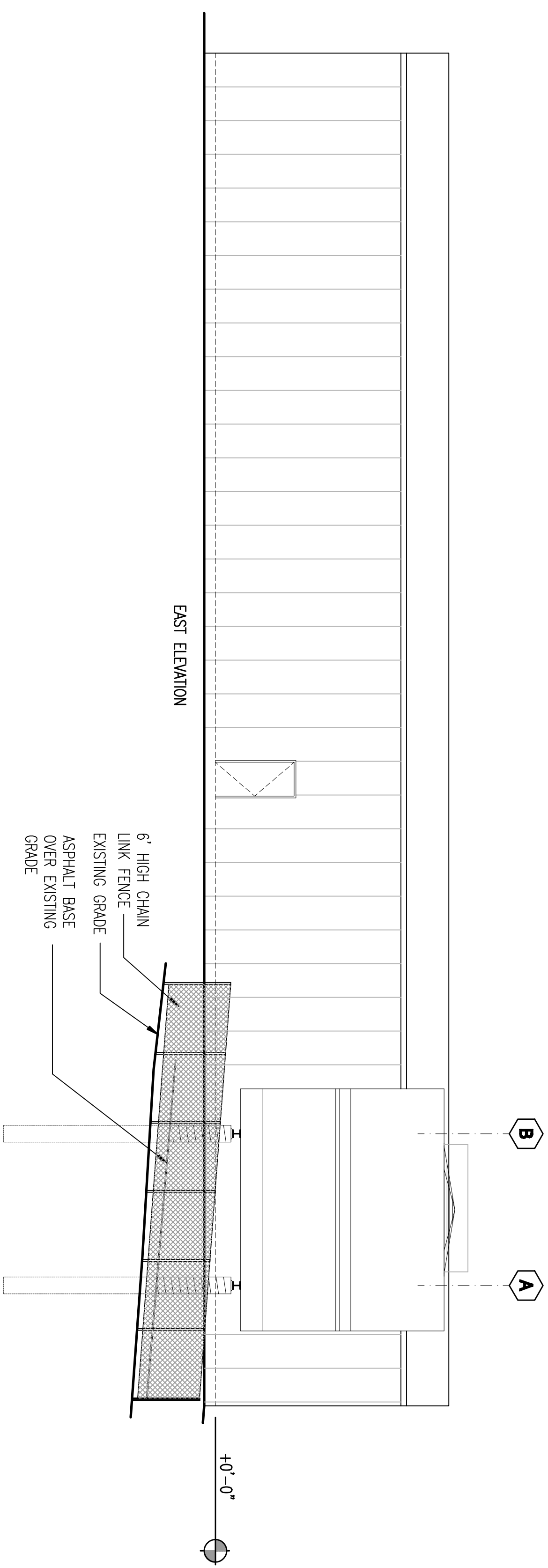


**Rated/Non-Rated Partition**  
3/8" = 1'-0"  
02

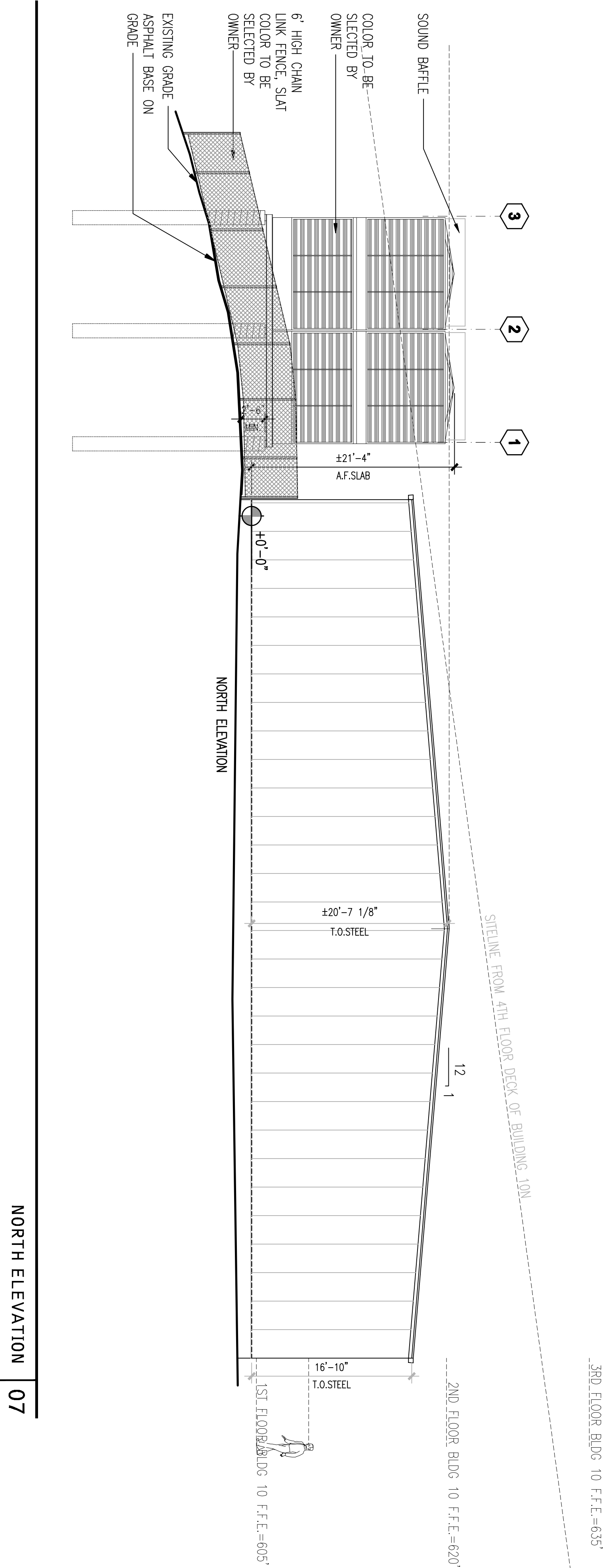




SOUTH ELEVATION | 03



EAST ELEVATION | 05



NORTH ELEVATION | 07

This set of architectural drawings was prepared by LPA and McCarthy Building Corp. and is the property of McCarthy Building Corp. It is to be used only for the project and site identified herein. No part of this set of drawings is to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of McCarthy Building Corp. or LPA. The user of these drawings agrees to indemnify and hold LPA and McCarthy Building Corp. harmless from and against all claims, damages, and expenses, including reasonable attorneys' fees, arising from or resulting from the use of these drawings. The user of these drawings also agrees to hold LPA and McCarthy Building Corp. harmless from and against all claims, damages, and expenses, including reasonable attorneys' fees, arising from or resulting from the use of these drawings. LPA and McCarthy Building Corp. shall not be responsible for any errors or omissions in these drawings, or for any consequences arising therefrom. LPA and McCarthy Building Corp. shall not be responsible for any delays or interruptions in the construction of the project. LPA and McCarthy Building Corp. shall not be responsible for any changes or modifications to these drawings. LPA and McCarthy Building Corp. shall not be responsible for any claims, damages, and expenses, including reasonable attorneys' fees, arising from or resulting from the use of these drawings. LPA and McCarthy Building Corp. shall not be responsible for any claims, damages, and expenses, including reasonable attorneys' fees, arising from or resulting from the use of these drawings.

08/29/2008

**College of San Mateo  
Central Plant (Building 34)**

San Mateo, CA

Revision Description	Date
100% Schematic Design	08/22/08
100% Design Design	09/05/08
100% Construction Documents	10/31/08
REVISIONS PER CPD	02/06/09

Revision Description	Date

Job No.	2
Date	OCTOBER
Drawn By	
Checked By	
Scale	1/8"

**EXTERIOR  
ELEVATIONS**

**A3.01**



**GENERAL**

- REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS. MORE STRINGENT REQUIREMENT CONTROLS WHERE INFORMATION SHOWN ON DRAWINGS AND IN SPECIFICATIONS ARE IN CONFLICT.
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE, 2007 EDITION.
- DETAILS OF THE CONSTRUCTION NOT FULLY SHOWN OR NOTED ON THE DRAWINGS NOR CALLED FOR IN THE SPECIFICATIONS SHALL BE OF THE SAME SIZE AND CHARACTER AS FOR SIMILAR CONDITIONS WHICH ARE SHOWN AND NOTED.
- THE WORD "TYPICAL" SHALL MEAN THAT THE INDICATED INFORMATION SHALL BE APPLIED TO ALL SIMILAR CONDITIONS WHETHER OR NOT THE INFORMATION IS SPECIFICALLY REFERENCED, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT JOB SITE. THE CONTRACTOR SHALL COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, CIVIL, LANDSCAPE, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS BEFORE COMMENCING WITH THE WORK AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES REQUIRING CLARIFICATION OR REVISION. DO NOT SCALE DRAWINGS.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY AND PRESERVATION OF THE BUILDING AND CONTENTS DURING CONSTRUCTION, AND SHALL BE SOLELY RESPONSIBLE FOR PROVIDING A SAFE PLACE TO WORK. THE CONTRACTOR SHALL EXECUTE WORK TO ENSURE SAFETY OF PERSONS AND PROPERTY AGAINST DAMAGE BY FALLING DEBRIS AND OTHER HAZARDS IN CONNECTION WITH THIS WORK, AND SHALL PROVIDE ADEQUATE SHORING AND BRACING DURING ALL DEMOLITION AND CONSTRUCTION.

**DESIGN BASIS**

THE DESIGN IS IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE, 2007 EDITION AND PROVIDES FOR THE FOLLOWING LOADS:

**EQUIPMENT LOAD**

COOLING TOWERS	67.4 KIPS (2 UNITS COMBINED)
----------------	------------------------------

**SNOW LOADS**

GROUND SNOW LOAD (Pg)	0 PSF
-----------------------	-------

**WIND LOADS**

BASIC WIND SPEED = 85 mph
EXPOSURE CATEGORY = C
Iw = 1.0

**SEISMIC LOADS**

V (NORTH-SOUTH) =	0.69 W
V (EAST-WEST) =	0.69 W
Ip =	1.00
Ss = 2.100	
S1 = 1.153	
SOIL TYPE = Sb	
Sds = 1.410	
Ss1 = 0.768	
ap = 1.0	
Rp = 1.25	

**SPECIAL INSPECTION**

THE SPECIAL INSPECTION REQUIREMENTS OF CHAPTER 17 OF THE CALIFORNIA BUILDING CODE APPLY TO THE FOLLOWING:

- STEEL CONSTRUCTION
- CONCRETE CONSTRUCTION

**GEOTECHNICAL INFORMATION**

- THE OWNER'S GEOTECHNICAL ENGINEER, CORNERSTONE EARTH GROUP, HAS PREPARED AN INVESTIGATION REPORT FOR USE ON THIS PROJECT, TITLED: "GEOTECHNICAL INVESTIGATION, COLLEGE OF SAN MATEO BUILDING 34 CONDENSER," DATED MAY 2, 2008.
- THE CONTRACTOR SHALL REVIEW AND UNDERSTAND THE INFORMATION CONTAINED IN THE REPORT, BUT SHALL NOT ASSUME THAT SUCH INFORMATION IS SUFFICIENT FOR THE CONTRACTOR'S PURPOSES.
- THE CONTRACTOR SHALL BE FAMILIAR WITH THE GEOTECHNICAL CONDITIONS AT THE PROJECT SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN GEOTECHNICAL STUDIES AND INFORMATION NECESSARY TO COMPLETE THE WORK.
- THE CONTRACTOR SHALL OBTAIN THE SERVICES OF AN INDEPENDENT GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA TO ANALYZE AVAILABLE INFORMATION AND TO MAKE ADDITIONAL INVESTIGATIONS AS NECESSARY TO COMPLETE THE WORK.

**FOUNDATIONS**

- FOUNDATIONS SHALL BEAR ON APPROVED NATIVE SUBGRADE OR COMPACTED SOIL.
- SLAB ON GRADE SHALL BEAR ON NON-EXPANSIVE FILL PLACED ABOVE NATIVE SUBGRADE OR COMPACTED FILL. REFER TO GEOTECHNICAL REPORT FOR COMPLETE REQUIREMENTS.
- COMPACTED NATURAL SOIL, FILL, AND BACKFILL IS TO BE UNIFORMLY COMPACTED WITH APPROVED COMPACTION EQUIPMENT. FILL MATERIAL AND OPERATIONS SHALL BE INSPECTED BY THE OWNER'S GEOTECHNICAL ENGINEER.
- WATER SHALL NOT BE ALLOWED TO STAND IN TRENCHES OR FORMS BEFORE OR AFTER CONCRETE IS PLACED, AND SHALL BE PUMPED OUT. IF BOTTOMS OF TRENCHES BECOME SOFTENED DUE TO RAIN OR OTHER WATER BEFORE FOOTINGS ARE CAST, THE CONTRACTOR SHALL EXCAVATE THE SOFTENED MATERIAL AND REPLACE WITH CONCRETE.

**CONCRETE**

- ALL CONCRETE SHALL DEVELOP THE FOLLOWING COMPRESSIVE STRENGTHS AT 28 DAYS (AND 56 DAYS WHERE APPLICABLE):
 

NORMAL WEIGHT CONCRETE	28 DAYS
DRILLED PIERS	4000 PSI
FOOTINGS	4000 PSI
PADS, SLABS ON GRADE	4000 PSI
- ALL EXPOSED CORNERS OR EDGES OF COLUMNS, PIERS, WALLS, BEAMS, ETC., SHALL BE FORMED WITH A 3/4" CHAMFER UNLESS OTHERWISE NOTED ON DRAWINGS.

**CONCRETE REINFORCEMENT**

ALL CONCRETE SHALL BE REINFORCED. REINFORCEMENT SHALL BE NEW DEFORMED STEEL BARS, ASTM A706.

- ALL CONCRETE REINFORCEMENT DETAILS SHALL CONFORM TO ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES".
- CONCRETE COVER SHALL BE TO FACE OF BAR, MECHANICAL COUPLER, OR WELDED HEADED BAR AS FOLLOWS, UNLESS OTHERWISE NOTED ON DRAWINGS:

CAST-IN-PLACE CONCRETE CAST AGAINST AND EXPOSED TO EARTH	MINIMUM CONCRETE COVER
EXPOSED TO EARTH OR WEATHER	
#5 AND SMALLER	1 1/2"
#6 AND LARGER	2"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH	
SLABS, JOISTS	1"
WALLS	1 1/2"
COLUMNS, BEAMS	1 1/2"
SLABS ON GRADE	MID-DEPTH

- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF REINFORCEMENT LAYOUTS AND DETAILS FOR REVIEW PRIOR TO FABRICATION. SHOW ALL PROPOSED SPLICE LOCATIONS. FABRICATE FROM APPROVED DRAWINGS ONLY.
- THE LENGTHS AND SPLICES OF REINFORCEMENT SHOWN ON DRAWINGS REPRESENT A SUGGESTED CONSTRUCTION JOINT LAYOUT. BAR SPLICES MAY BE DELETED AND CONTINUOUS REINFORCEMENT USED AT THE CONTRACTOR'S OPTION. LONG BARS OR BENT BARS SHOWN MAY BE SPLICED IF NECESSARY FOR PLACEMENT OR CASE OF CONSTRUCTION PROVIDED MINIMUM SCHEDULED LAP LENGTHS ARE FOLLOWED WITH APPROVAL FROM THE ARCHITECT. MECHANICAL COUPLERS SHALL BE USED WHERE SHOWN ON THE DRAWINGS AND MAY BE USED IN LIEU OF LAP SPLICES WITH APPROVAL FROM THE ARCHITECT.

**STRUCTURAL STEEL**

- STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING:

W-SHAPES, WT-SHAPES	ASTM A 992
ANCHOR RODS	ASTM F 1554 GRADE 105
MACHINE BOLTS	ASTM A 307

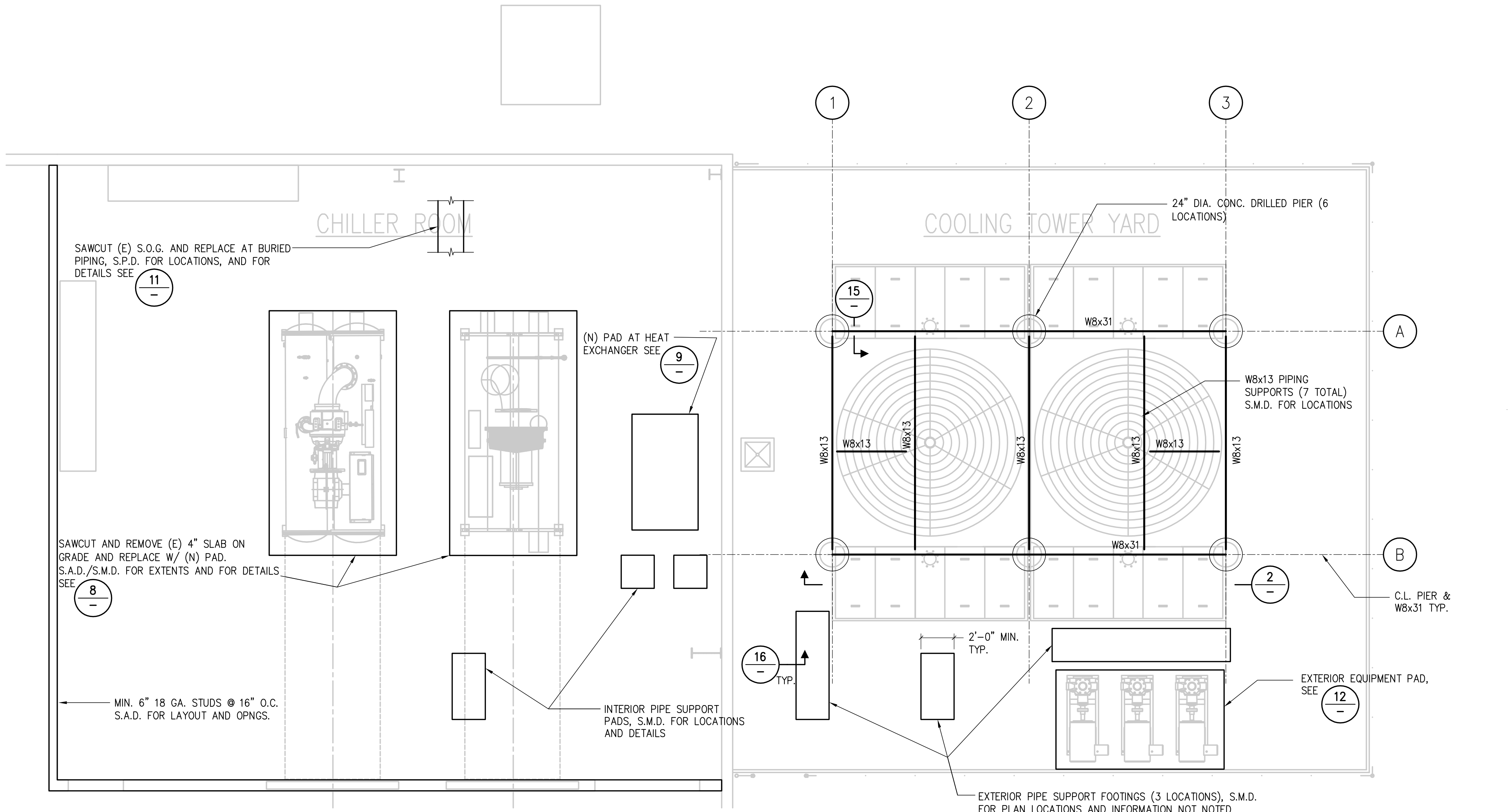
- ALL STRUCTURAL STEEL SHALL CONFORM TO AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. FABRICATE FROM APPROVED DRAWINGS ONLY.

**ABBREVIATIONS**

&	AND	GALV.	GALVANIZED	O.C.	ON CENTER
@	AT	G.B.	GRADE BEAM	O.F.	OUTSIDE FACE
A.B.	ANCHOR BOLT	G.L.	GLU-LAM	O.H.	OPPOSITE HAND
ABV.	ABOVE	GR.	GRADE	OPG OR OPG.	OPENING
ALT.	ALTERNATE	H. or HORIZ.	HORIZONTAL	O.S.B.	ORIENTED STRAND BOARD
A.R.	ANCHOR ROD	HDR.	HEADER	O.S.W.J.	OPEN WEB STEEL JOIST
BL.W.	BEAM	H.S.	HEADED STUD	PDF	POWDER DRIVEN FASTENER
B.M.	BOUNDARY NAILING	HSB	HOLLOW STRUCTURAL SHAPE	PJP	PARTIAL JOINT PENETRATION
B.O.	BOTTOM OF	HSS	HOLLOW STRUCTURAL SHAPE	PL	PLATE
BOTT.	BOTTOM	I.F.	INSIDE FACE	PLY. or P.W.	PLYWOOD
BRBF.	BUCKLING-RESISTING BRACED FRAME	JST.	JOIST	P.T.	POST-TENSION OR PRESSURE TREATED
BRG.	BEARING	LLH	LONG LEG HORIZONTAL	R.D.	RESIN DOWEL
B.S.	BACK SIDE	LLV	LONG LEG VERTICAL	REINF.	REINFORCEMENT
BTW.	BETWEEN	L.S.	LAG SCREW	REQ.	REQUIRED
C.I.P.	CAST-IN-PLACE CONSTRUCTION JOINT	MAX.	MAXIMUM	R.O.	ROUGH OPENING
C.J.	COMPLETE PENETRATION JOINT	MB	MACHINE BOLT	RWD.	REDWOOD
C.L.	CENTERLINE	MIN.	MINIMUM	S.A.D.	SEE ARCHITECTURAL DRAWINGS
CLR.	CLEAR	NA	NOT APPLICABLE	S.B.	SOLID BLOCKING
C.M.U.	CONCRETE MASONRY UNIT	N.I.C.	NOT IN CONTRACT	S.C.D.	SEE CIVIL DRAWINGS
COL.	COLUMN	N.S.	NEAR SIDE	SECT.	SECTION
CONC.	CONCRETE	N.T.S.	NOT TO SCALE	S.E.D.	SEE ELECTRICAL DRAWINGS
COND.	CONDITION	O.C.	ON CENTER	SHIT.	SHEET
CONN.	CONNECTION	O.F.	OUTSIDE FACE	SIM.	SIMILAR
CONT.	CONTINUOUS	O.H.	OPPOSITE HAND	S.J.	SEISMIC JOINT
CTRD.	CENTERED	OPG OR OPG.	OPENING	S.M.D.	SEE MECHANICAL
C.S.	CONCRETE SCREW	O.S.B.	ORIENTED STRAND BOARD	S.M.S.	SHEET METAL SCREW
d	PENNY (nail size, as in 100)	O.W.S.J.	OPEN WEB STEEL JOIST	S.P.D.	SEE PLUMBING DRAWINGS
D.B.A.	DEFORMED BAR ANCHOR	PDF	POWDER DRIVEN FASTENER	SPECS.	SPECIFICATIONS
DBL.	DOUBLE	PJP	PARTIAL JOINT PENETRATION	SQ.	SQUARE
DET.	DETAIL	PL	PLATE	S.R.	SEISMIC RESISTING
D.F.	DIAPHRAGM FIR	PLY. or P.W.	PLYWOOD	STAGGD.	STAGGERED
DIAG.	DIAGONAL	P.T.	POST-TENSION OR PRESSURE TREATED	STD.	STANDARD
DN.	DOWN	R.D.	RESIN DOWEL	STIFF.	STIFFENER
DWG.	DRAWING(S)	R.D.	RESIN DOWEL	STL.	STEEL
DWL.	DOWEL REINFORC.	REQ.	REQUIRED	SYMM.	SYMMETRICAL
(E)	EXISTING	REQ.	REQUIRED	T&B	TOP AND BOTTOM
EA.	EACH	R.O.	ROUGH OPENING	T&G	TONGUE AND GROOVE
EBF.	ECCENTRIC BRACED FRAME	RWD.	REDWOOD	T.B.	TOP OF BEAM
E.F.	EACH FACE	S.A.D.	SEE ARCHITECTURAL DRAWINGS	T.F.F.	TOP OF FINISHED FLOOR
E.J.	EXPANSION JOINT	S.B.	SOLID BLOCKING	T.O.C.	TOP OF CONCRETE
EL. or ELEV.	ELEVATION	S.C.D.	SEE CIVIL DRAWINGS	T.O.S.	TOP OF STEEL
E.N.	END NAILING	S.C.D.	SEE CIVIL DRAWINGS	TYP.	TYPICAL
E.P.S.	EXPANDED POLYSTYRENE	HSB	HOLLOW STRUCTURAL SHAPE	U.A.	UNDERCUT ANCHOR UNLESS OTHERWISE NOTED
EQ.	EQUAL	HSS	HOLLOW STRUCTURAL SHAPE	U.O.N.	VERIFY IN FIELD
E.S.	EACH SIDE	I.F.	INSIDE FACE	V.I.F.	VERTICAL
E.W.	EACH WAY	JST.	JOIST	W	WITH
EXA.	EXPANSION ANCHOR	LLH	LONG LEG HORIZONTAL	W/O	WITHOUT
FDN.	FOUNDATION	LLV	LONG LEG VERTICAL	W.P.	WORK POINT
FIN.	FINISH	LLS	LAG SCREW	W.S.	WOOD SCREW
FLG.	FLANGE	MAX.	MAXIMUM	W.T.S.	WELDED THREADED STUD
FUR.	FLOOR	MB	MACHINE BOLT	W.W.F.	WELDED WIRE FABRIC
F.N.	FIELD NAILING	MIN.	MINIMUM		
F.O.C.	FACE OF CONCRETE	(N)	NEW		
F.O.S.	FACE OF STUD	NA	NOT APPLICABLE		
F.D.W.	FACE OF WALL	N.I.C.	NOT IN CONTRACT		
FRMG.	FRAMING	N.T.S.	NOT TO SCALE		
F.S.	FAR SIDE				
FTG.	FOOTING				

**PLAN**

SCALE: 1/4"=1'-0"



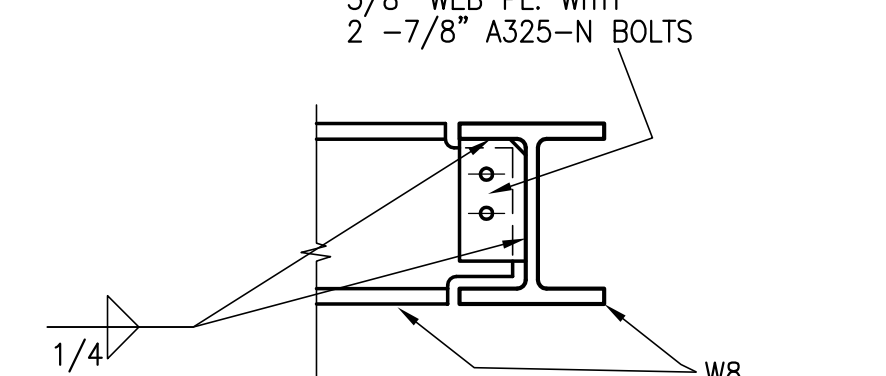
**DETAIL**

SCALE: 1/4"=1'-0"



**REPAIR DETAIL**

SCALE: 1/4"=1'-0"



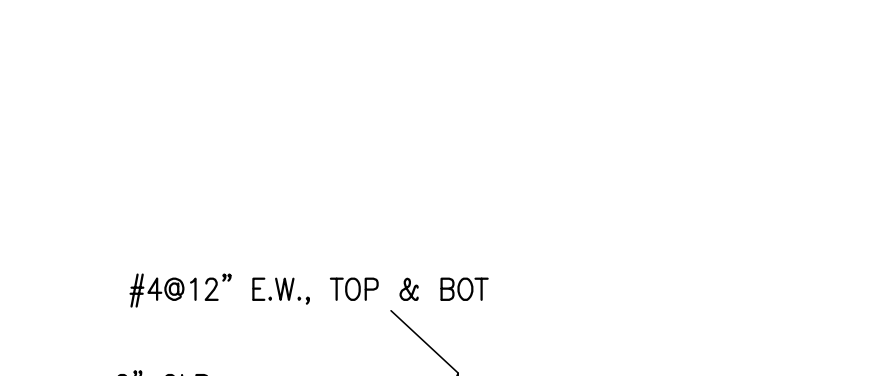
**EXTERIOR PIPE SUPPORT**

SCALE: 1/4"=1'-0"



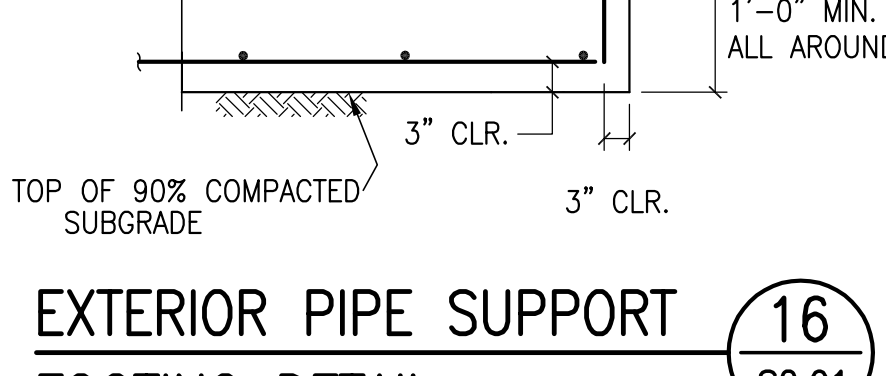
**EXTERIOR EQUIPMENT PAD**

SCALE: 1/4"=1'-0"



**PAD AT CHILLERS DETAIL**

SCALE: 1 1/2"=1'-0"



**SECTION**

SCALE: 1/4"=1'-0"



McCarthy Building Companies, Inc.  
343 Sansome Street, 14th Floor  
San Francisco, California 94104  
P 415 397-5151  
F 415 397-5999



FORELL/ELSESSER ENGINEERS, INC.  
Structural Engineers  
150 Pine Street - San Francisco, CA 94111  
Phone: (415) 837-0700 Fax: (415) 837-0800  
www.forell.com

This set of other project documents and all sheets, drawings and designs incorporated herein are the property of U.P. Inc. (UPI) and cannot be further used or reproduced in any form without the written consent of U.P. Inc. UPI hereby gives license to the contractor to use the information contained herein for the project only. UPI does not warrant, represent or guarantee the accuracy, completeness, or reliability of the information contained herein. Project documents are the property of U.P. Inc. and are not to be used for any other project. UPI and UPEI disclaim any liability for any damage or loss of any kind resulting from the use of the information contained herein. UPI and UPEI disclaim any liability for any damage or loss of any kind resulting from the use of the information contained herein.

Copyright 2008

College of San Mateo  
Central Plant (Building 36)  
San Mateo, CA  
Developed for  
San Mateo County Community College District

Date:	10/23/09
Revision:	01
Description:	DRILLED PIER FOUNDATION DET

Date:	2/7/02.20
Revision:	100N CD
Description:	DRILLED PIER FOUNDATION DET

Job No.	27062.20
Date	JANUARY 2009
Drawn by	
Checked by	
Scale	

**STRUCTURAL PLAN, NOTES AND DETAILS**

**S2.01**







PUMP SCHEDULE

NO.	MANUFACTURER & MODEL NO.	SERVICE	TYPE	GPM	HEAD FT.	HP@	HP@	HP	VOLTAGE	OTHER	REMARKS
1	B&G SERIES 800 64	CONDENSER	CONDENSER	175	8.6	19.1	25	25	460/230V 60HZ	1200	BRONZE FITTED WITH STANDARD SEALS & PREMIUM EFFICIENCY INVERTER DUTY TEC MOTOR
2	B&G SERIES 800 64	CONDENSER	CONDENSER	175	8.6	19.1	25	25	460/230V 60HZ	1200	BRONZE FITTED WITH STANDARD SEALS & PREMIUM EFFICIENCY INVERTER DUTY TEC MOTOR
3	B&G SERIES 800 64	CONDENSER	CONDENSER	175	8.6	19.1	25	25	460/230V 60HZ	1200	BRONZE FITTED WITH STANDARD SEALS & PREMIUM EFFICIENCY INVERTER DUTY COP MOTOR
4	B&G SERIES 800 64	CONDENSER	CONDENSER	175	8.6	19.1	25	25	460/230V 60HZ	1200	BRONZE FITTED WITH STANDARD SEALS & PREMIUM EFFICIENCY INVERTER DUTY COP MOTOR
5	B&G SERIES 800 64	CONDENSER	CONDENSER	175	8.6	19.1	25	25	460/230V 60HZ	1200	BRONZE FITTED WITH STANDARD SEALS & PREMIUM EFFICIENCY INVERTER DUTY COP MOTOR

VARIABLE FREQUENCY DRIVE SCHEDULE

NO.	MANUFACTURER & MODEL NO.	SERVICE	HP	EFF	TEMPERATURE	LOCATION	ELECTRICAL	OTHER	REMARKS
1	ABB ACH-550	CH-1	30	97	104	23	460/230V 60HZ	-	NEHA I ENCLOSURE LON INTERFACE CARD
2	ABB ACH-550	CH-2	30	97	104	23	460/230V 60HZ	-	NEHA I ENCLOSURE LON INTERFACE CARD
3	ABB ACH-550	CH-1	25	97	104	23	460/230V 60HZ	-	NEHA I ENCLOSURE LON INTERFACE CARD
4	ABB ACH-550	CH-2	25	97	104	23	460/230V 60HZ	-	NEHA I ENCLOSURE LON INTERFACE CARD
5	ABB ACH-550	CH-1	5	97	104	23	460/230V 60HZ	-	NEHA I ENCLOSURE LON INTERFACE CARD
6	ABB ACH-550	CH-2	5	97	104	23	460/230V 60HZ	-	NEHA I ENCLOSURE LON INTERFACE CARD

VARIABLE SPEED CENTRIFUGAL CHILLER SCHEDULE

NO.	MANUFACTURER & MODEL NO.	TYPE	TYPE	CHRG	NOCT	ADCT	KVA	CU/TON	EVAPORATOR	CONDENSER	ELECTRICAL	OTHER	REMARKS							
1	YORK C-15	CENTRIFUGAL	134A	1500	425	460	111	0.37	103	141	60	5025	2500	114	1405	190	300	5000	60HZ	CHILLERS SELECTED FOR SERIES 134A WITH FACTORY VSD LON CARD
2	YORK C-15	CENTRIFUGAL	134A	1500	425	390	150	0.405	103	146	5025	42	2500	115	10	1405	281	5000	60HZ	CHILLERS SELECTED FOR SERIES 134A WITH FACTORY VSD LON CARD

COOLING TOWER SCHEDULE

NO.	MANUFACTURER & MODEL NO.	TYPE	GPM	EFF	WBT	WBT	WBT	WBT	WBT	WBT	WBT	VOLTAGE	OTHER	REMARKS
1	BAC 387C-CH	INDUCED DRAFT	175	78	10	66 F	82	67	30	460/230V 60HZ	34000	-	WITH STAINLESS STEEL COLD WATER BASIN HOT WATER BASIN WATER BASKIN WITH DRAIN, PREMIUM EFFICIENCY INVERTER DUTY MOTOR, VIBRATION SWITCH, BOTTOM EXTERNAL EQUALIZER, SENSITIVE PANEL.	

EXPANSION TANK SCHEDULE

NO.	MANUFACTURER & MODEL NO.	TYPE	SERVICE	PRE-CHARGE	FILL	RELIEF	MAX	TOTAL	ACC	SIZE	OTHER	REMARKS
1	URSSELL NLA-800	REPLACEMENT	CHILLED WATER	20 PSIG	18 PSIG	15 PSIG	211 PSIG	211 PSIG	31" x 16" L	1500	RELIEF PRESURE TANK IS FULL ACCEPTANCE TYPE WITH REPLACEMENT BLADDER	

EXHAUST FAN SCHEDULE

NO.	MANUFACTURER & MODEL NO.	TYPE	SERVICE	CFM	EFF	HPM	WALL	HP	VOLTAGE	OTHER	REMARKS	
1	GREENHECK 88E-H20-4	WALL CHILLER RM PROP VENTILATION	1000	0.375	97	26.65	206.25"	0.24	1/4	120/60	60	FACTORY ELECTRICAL DISCONNECT, WALL HOUSING, 1 BACKDRAFT DAMPER OPERATES THROUGH REFRIGERANT MONITORING PANEL, UL-DL-195
2	GREENHECK 88E-H20-3	WALL CHILLER RM PROP	3700	0.375	197	26.25	206.25"	0.44	1/2	120/60	60	FACTORY ELECTRICAL DISCONNECT, WALL HOUSING, 1 BACKDRAFT DAMPER OPERATES THROUGH REFRIGERANT MONITORING PANEL, UL-DL-195

WATER TO WATER HEAT EXCHANGER SCHEDULE

NO.	MANUFACTURER & MODEL NO.	TYPE	SERVICE	CONDENSER	WATER FLOW	CHILLED	WATER FLOW	MAX	OTHER	REMARKS		
1	ALTA LAYAL 150-175	FLATE AND ECONOMIZER	WATER	500	53	40	600	60	55	120	150	STAINLESS STEEL FLATES 8" FLANGE

CENTRIFUGAL SEPARATOR FILTER SCHEDULE

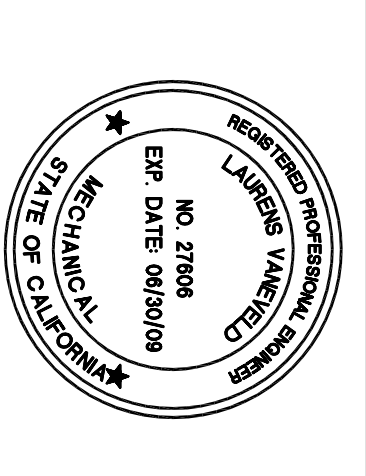
NO.	MANUFACTURER & MODEL NO.	LOCATION	TYPE	GPM	PD	HP	AMP	VOLTAGE	OTHER	REMARKS
1	LACOS 6400-CHBY	MECH TD	CENTRIFUGAL SEPARATOR	400	80	15	11.5	460/230V 60HZ	153	..

WATER TREATMENT SCHEDULE

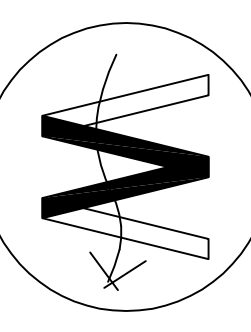
NO.	MANUFACTURER & MODEL NO.	TYPE	MAX	VOL <th>COL <th>CONTROL <th>REMARKS</th> </th></th>	COL <th>CONTROL <th>REMARKS</th> </th>	CONTROL <th>REMARKS</th>	REMARKS			
1	CLERVALTER SYSTEMS 6400-CHBY	CHEMICAL FEED	2700	2500	2000	350	460/230V 60HZ	78	84	THIS NON CHEMICAL WATER TREATMENT SYSTEM INCLUDES TDS CONTROL AND BLOWDOWN VALVE



McCarthy Building Companies, Inc.  
343 Sansome Street, 14th Floor  
San Francisco, California 94104  
P 415 3964-1339  
F 415 397-5999



**WESTERN ALLIED MECHANICAL**  
STATE CONTRACTORS  
LICENSE NO. 820725  
MECHANICAL CONTRACTORS



MEMO DRW/(650)321-0750  
FAX/(650)321-1946

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF WESTERN ALLIED MECHANICAL, INC. NO PART OF THIS DESIGN MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF WESTERN ALLIED MECHANICAL, INC. OR ANY OF ITS SUBSIDIARIES.

**College of San Mateo**  
**CHILLED WATER PLANT**  
**100% CD**  
EQUIPMENT SCHEDULES  
San Mateo, CA  
Developed for  
College of San Mateo

Revision	Description	Date
100% CD		10/31/08
100% CD revised		2/13/09
REV. 1		2/27/09
Detailing		3/3/09
REV. 2		3/24/09

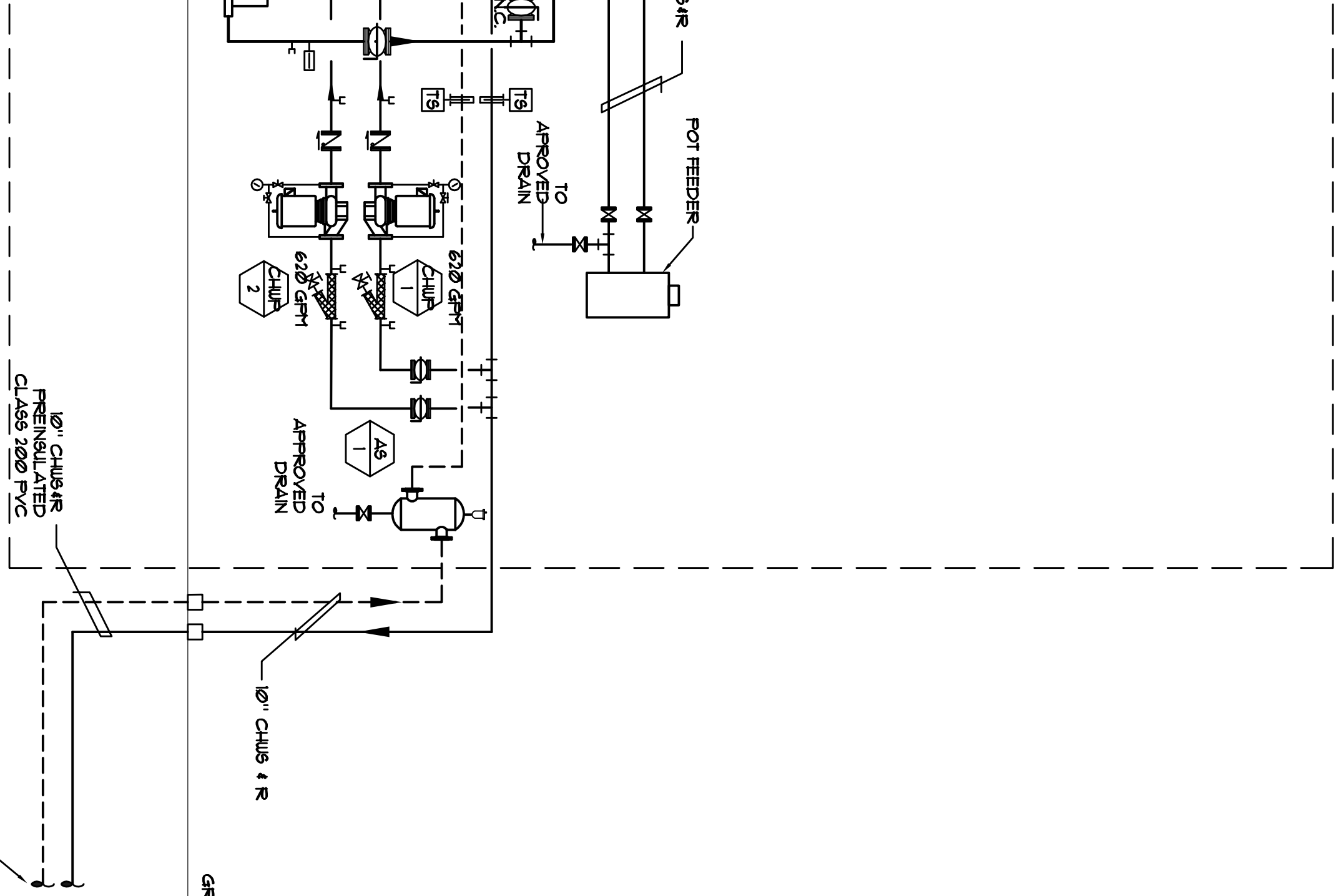
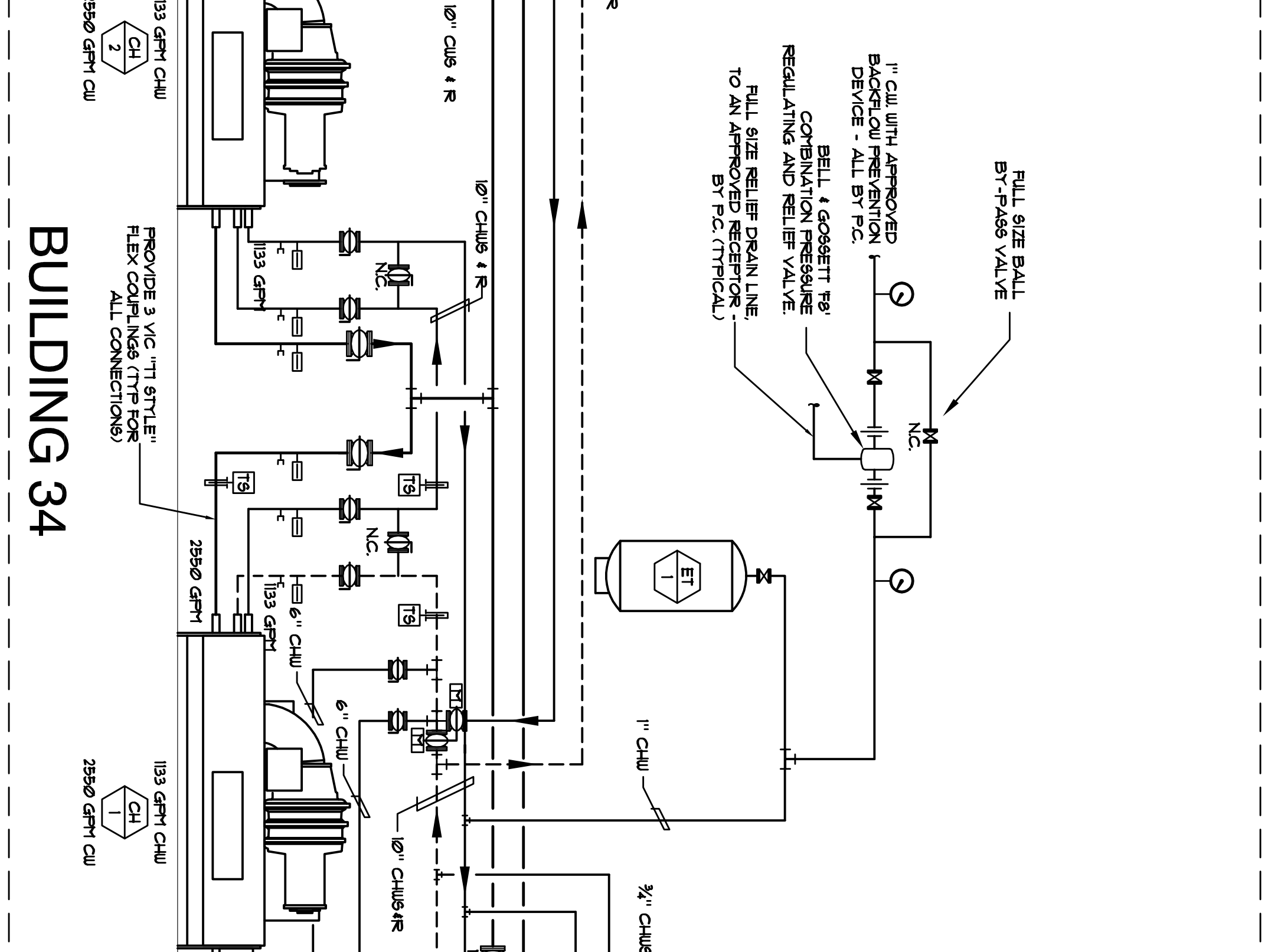
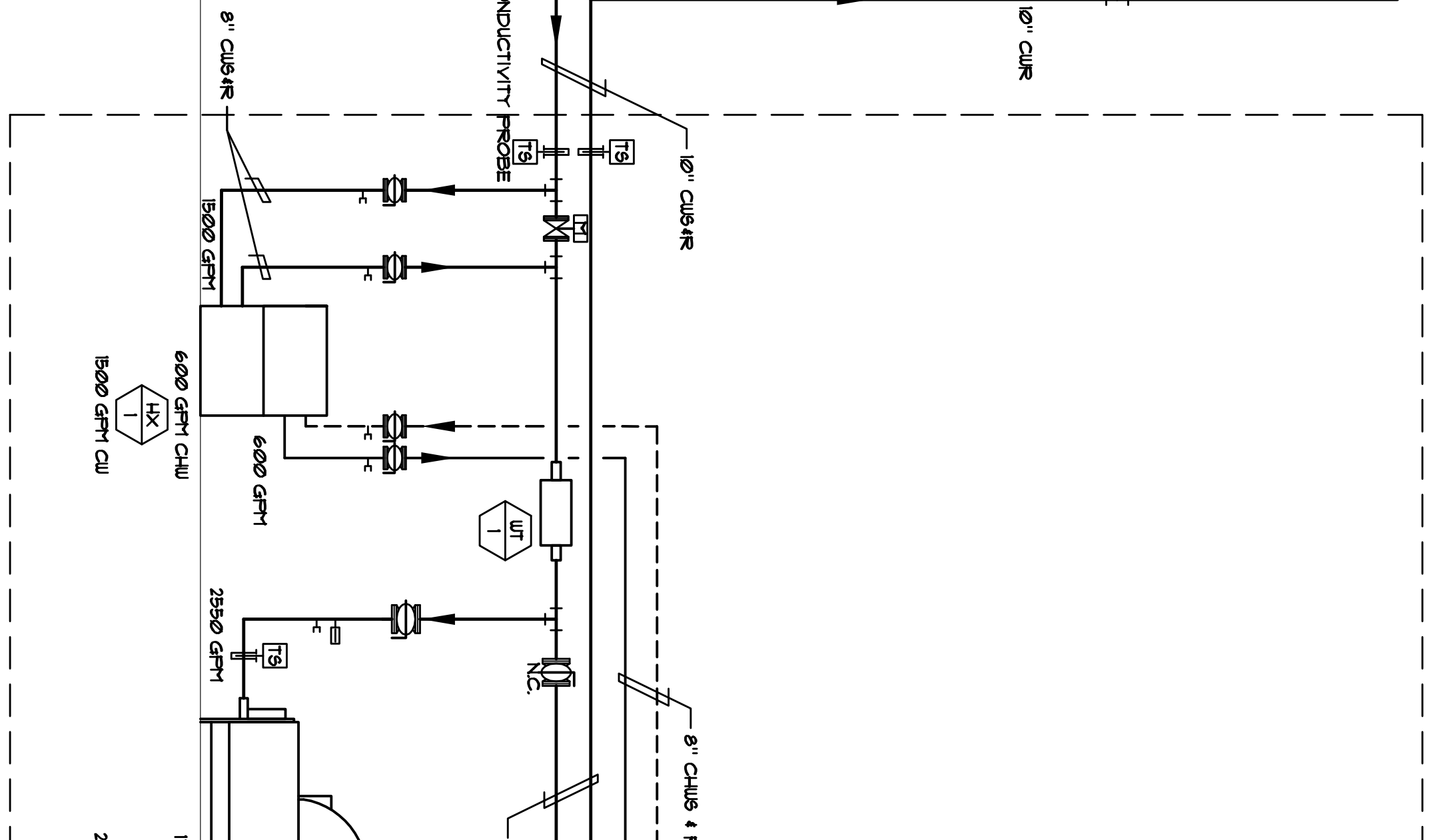
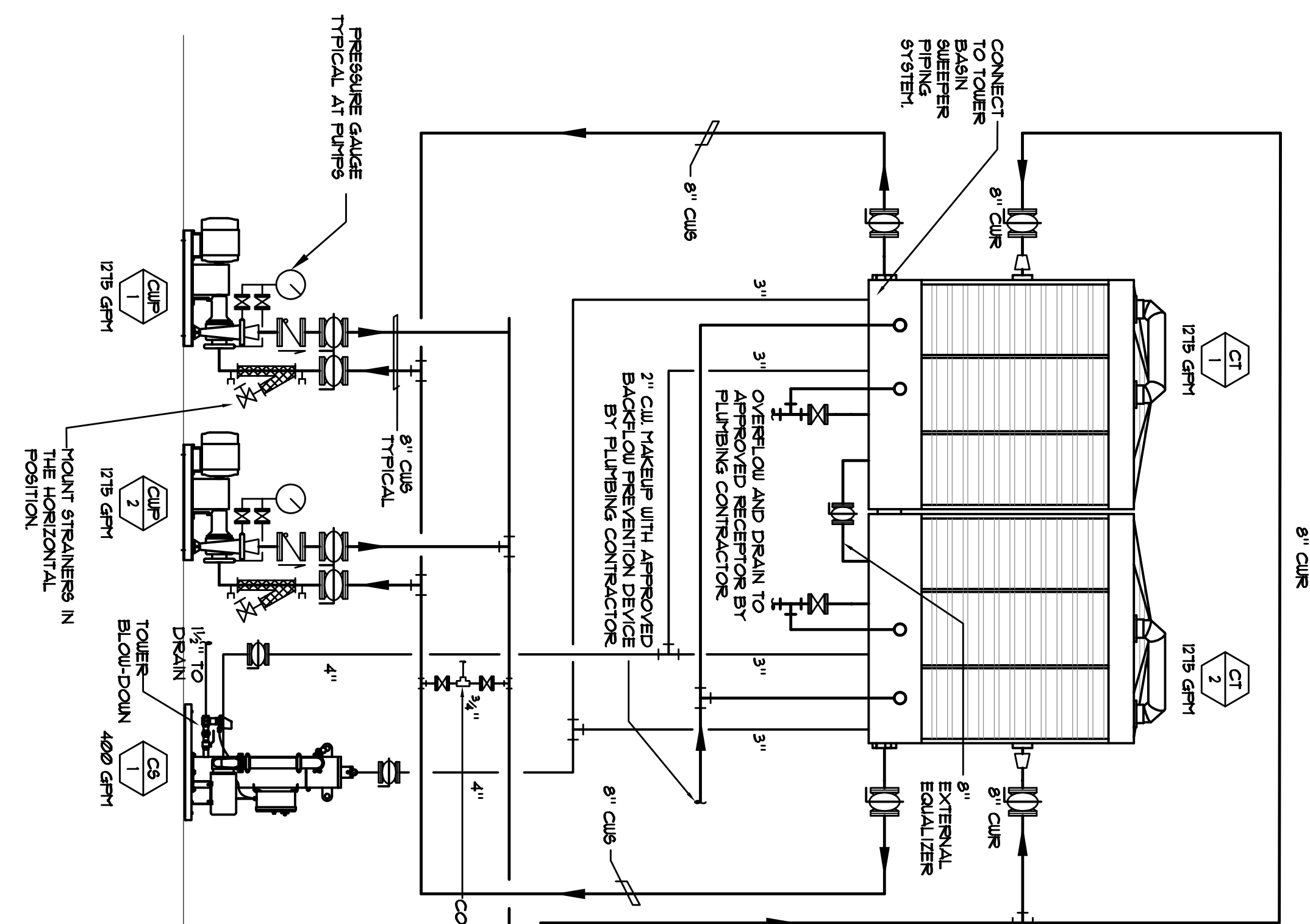
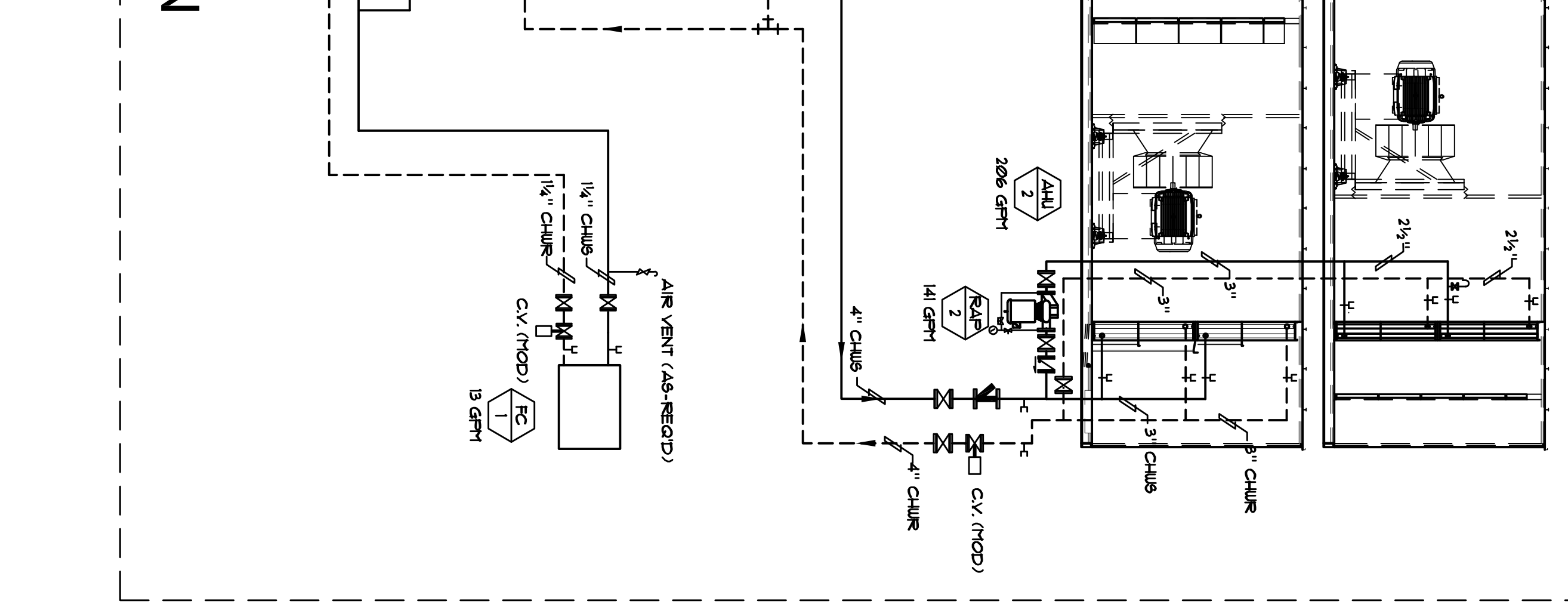
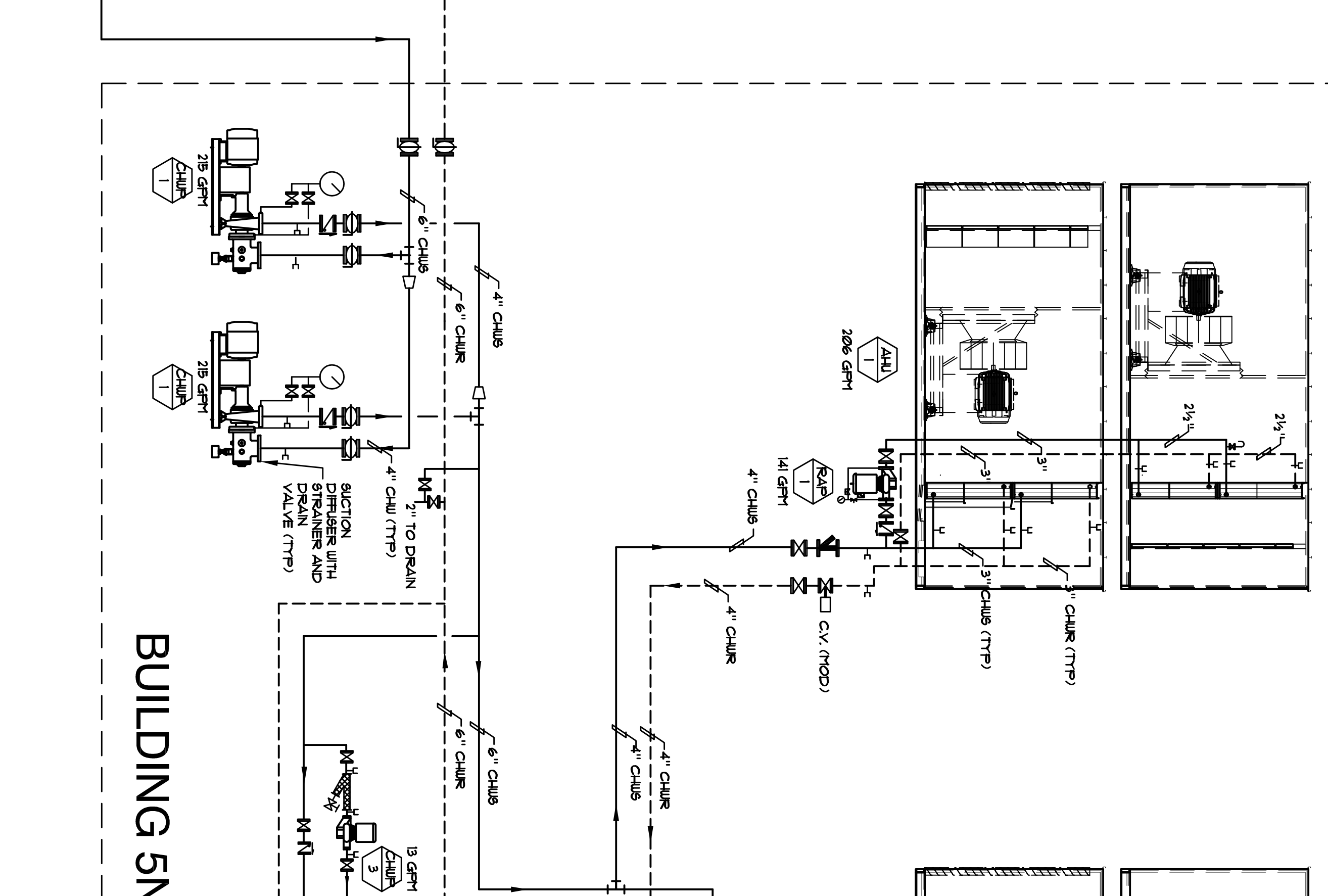
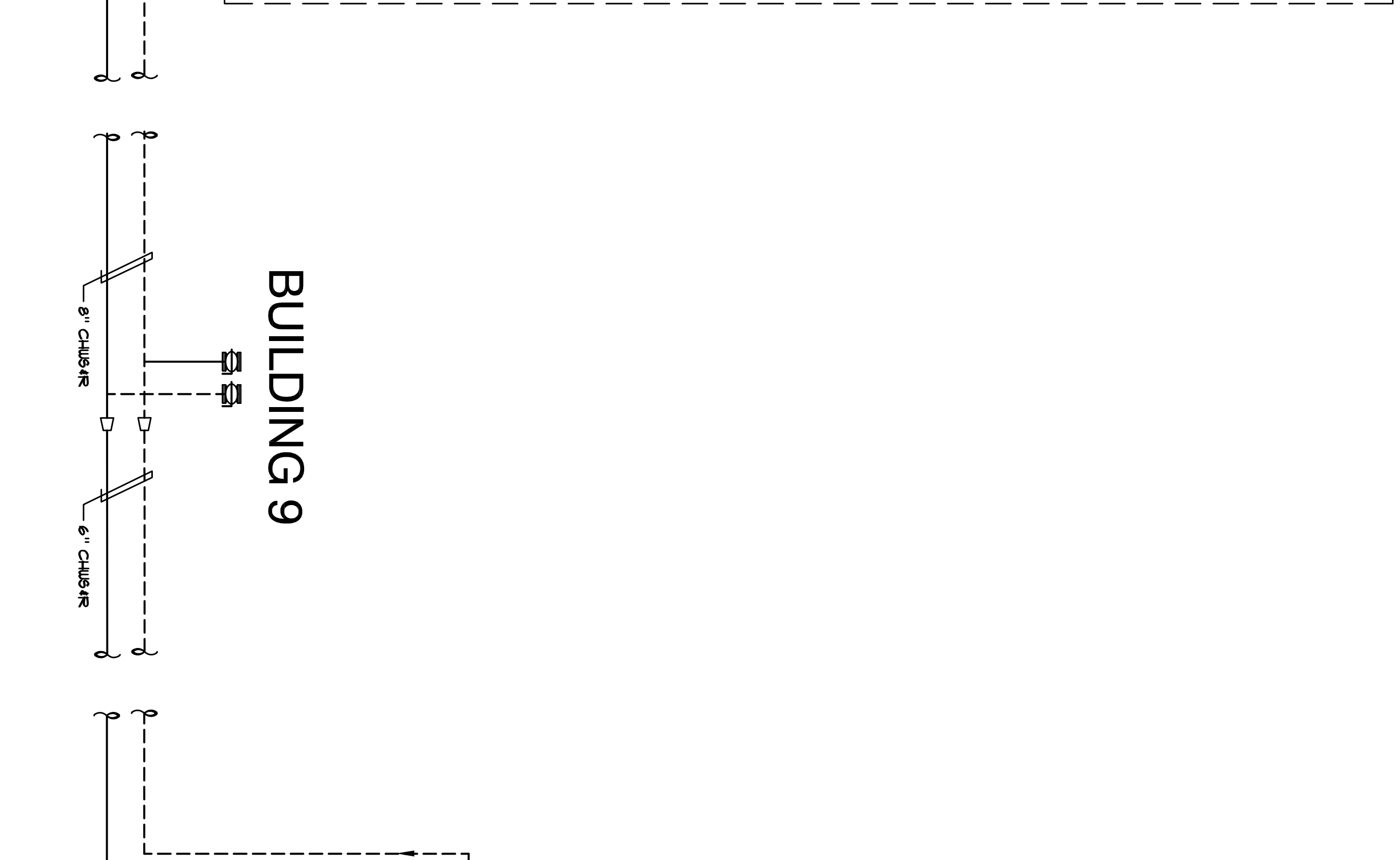
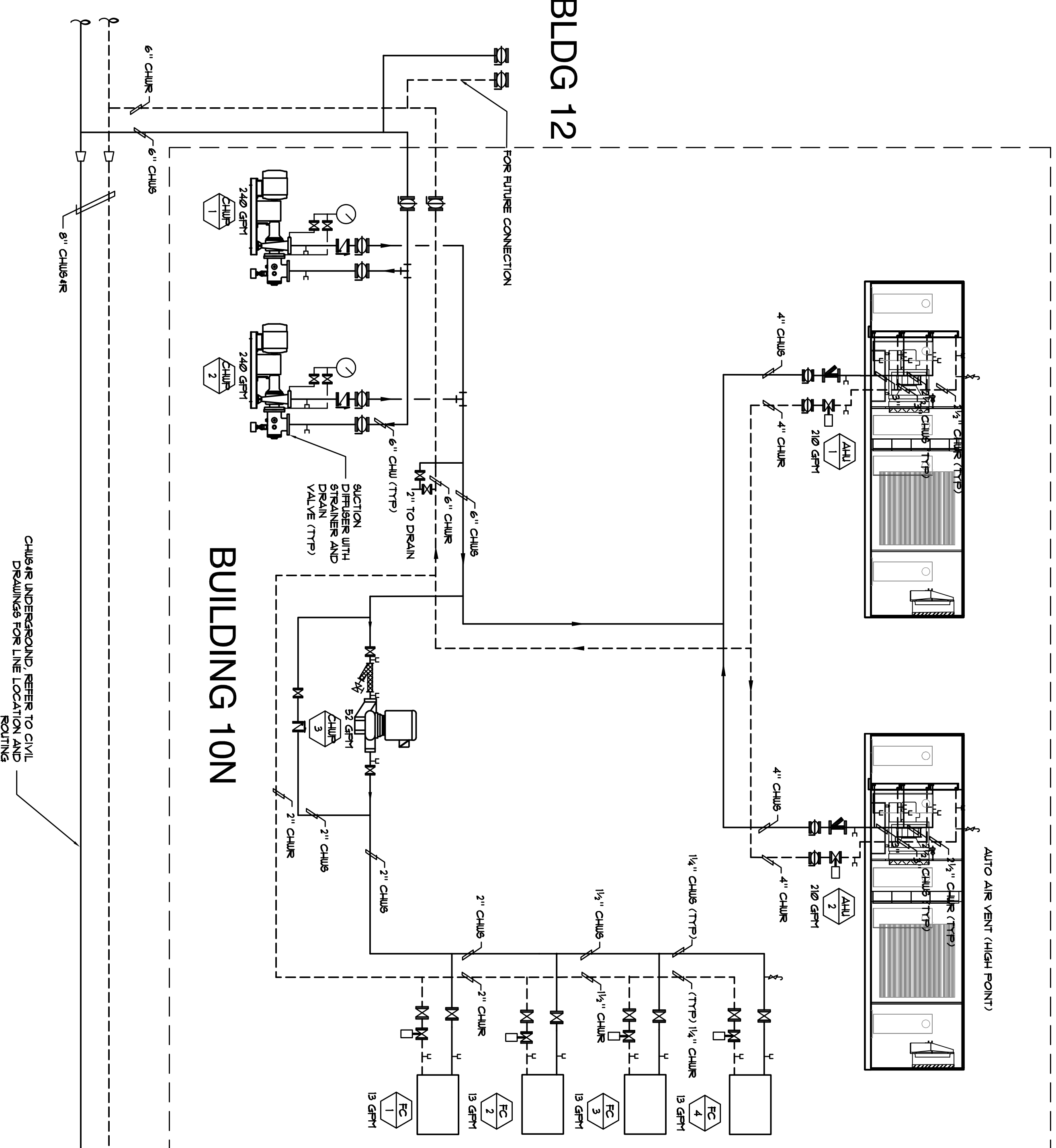
Draw No.	11808
Date	25 FEB 2009
Drawn by	NJ
Checked by	LV
Scale	SEE DRAWING

MO.02









1

M4-01

Scale: NTS

CHILLED AND CONDENSER WATER PIPING SCHEMATIC

1

M4-01

Scale: NTS

CHILLED AND CONDENSER WATER PIPING SCHEMATIC

1

M4-01

Scale: NTS

CHILLED AND CONDENSER WATER PIPING SCHEMATIC

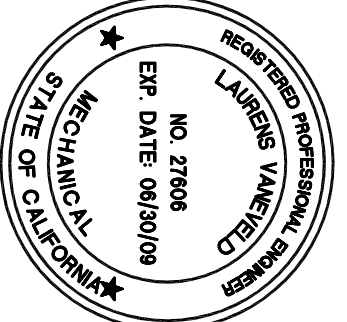
1

M4-01

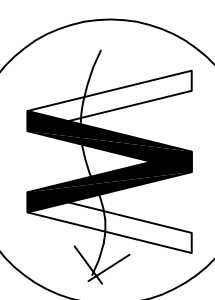
Scale: NTS



McCarthy Building Companies, Inc.  
343 Sansome Street, 14th Floor  
San Francisco, California 94104  
P 415 394-1339  
F 415 397-5999



**WESTERN ALLIED MECHANICAL**  
STATE CONTRACTORS  
LICENSE NO. 826782  
MECHANICAL CONTRACTORS



MENLO PARK (650) 326-0750  
FAX (650) 321-6946

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF WESTERN ALLIED MECHANICAL CONTRACTORS. THE DRAWINGS AND RELATIVES SHALL REMAIN THE PROPERTY OF WESTERN ALLIED MECHANICAL CONTRACTORS. NO PART OF THIS DESIGN SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE EXPRESS WRITTEN PERMISSION OF WESTERN ALLIED MECHANICAL CONTRACTORS. A PERMIT TO REPRODUCE THIS DESIGN IS GRANTED TO THE CLIENT OF THIS DESIGN.

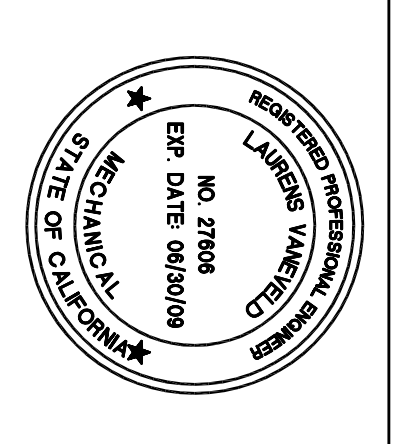
College of San Mateo  
**CHILLED WATER PLANT**  
100% CD  
CHILLED WATER AND HEAT RECOVERY DIAGRAM  
San Mateo, CA  
Developed for  
College of San Mateo

Revision	Description	Date
100% CD		10/31/08
100% CD revised		2/13/09
REV. 1		2/27/09
Detailing		3/3/09
REV. 2		3/24/09

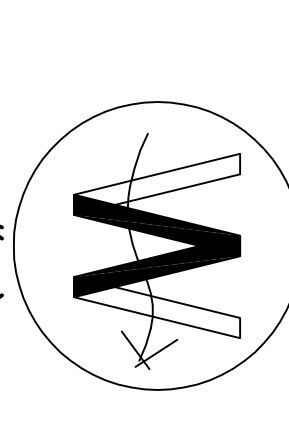
Job No.	Date
118088	25 FEB 2008
Drawn by	Checked by
RJ	LV
Scale	SEE DRAWING

M4-01





**WESTERN ALLIED MECHANICAL**  
STATE CONTRACTORS  
LICENSE NO. 826792  
MECHANICAL CONTRACTORS



MENU PAK/ (650) 326-0750  
FM/ (650) 321-4946

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF WESTERN ALLIED MECHANICAL, INC. CONTAINING THIS DESIGN AND SHALL BE THE PROPERTY OF WESTERN ALLIED MECHANICAL, INC. THE DELIVERY HEREOF DOES NOT CONSTITUTE A PUBLICATION HEREBY. THESE DRAWINGS OR BLUEPRINTS ARE FOR THE PURPOSE OF TRANSMITTING A SALE BY WESTERN ALLIED MECHANICAL, INC. TO ANOTHER PARTY. ANY REPRODUCTION OF THIS DESIGN WITHOUT THE WRITTEN PERMISSION OF WESTERN ALLIED MECHANICAL, INC. IS PROHIBITED.

ANY COMMUNICATION OF THIS DESIGN TO ANY OTHER PARTY WITHOUT THE WRITTEN PERMISSION OF WESTERN ALLIED MECHANICAL, INC. CONSTITUTES A VIOLATION OF THE LAWS OF THIS STATE.

**College of San Mateo**  
**CHILLED WATER PLANT**  
**100% CD**  
DETAILS  
San Mateo, CA  
Developed for  
College of San Mateo

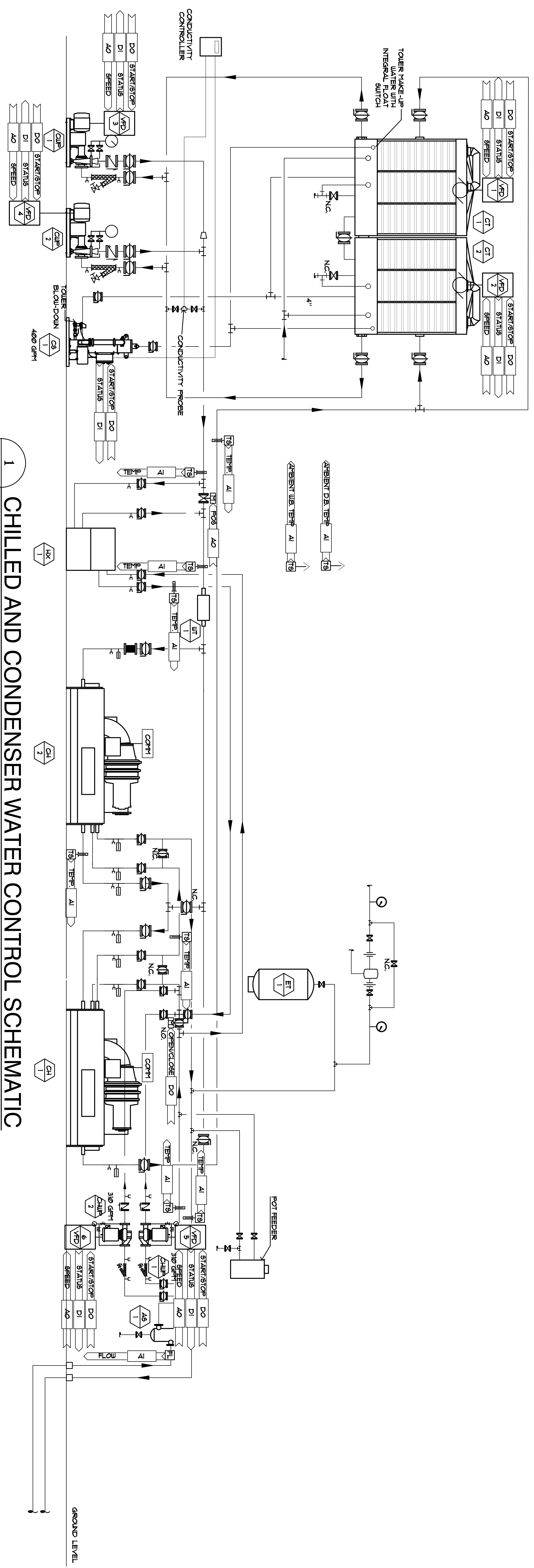
Revision	Description	Date
100% CD		10/31/08
100% CD revised		2/13/09
REV. 1		2/27/09
Detailing		3/30/09
REV. 2		3/24/09

Revision	Description	Date
100% CD		10/31/08
100% CD revised		2/13/09
REV. 1		2/27/09
Detailing		3/30/09
REV. 2		3/24/09

Job No.	118069
Date	22 FEB 2008
Drawn by	NJ
Checked by	LJ
Scale	SEE DRAWINGS

**M6.01**

**1 CHILLED AND CONDENSER WATER CONTROL SCHEMATIC**  
Scale: NTS

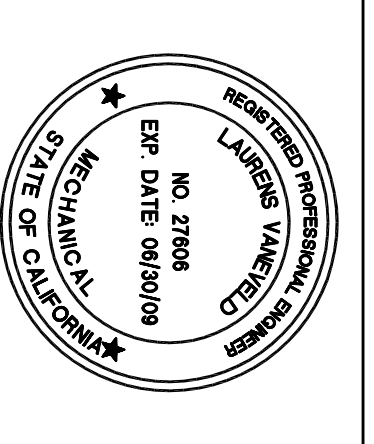


**Control Sequence of Operation**

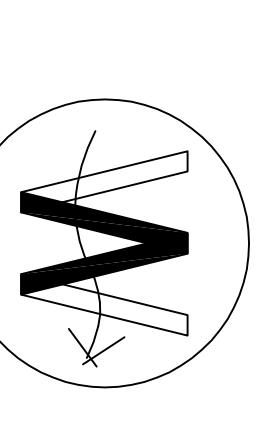
- I. General:
  - A. Front End Computer: A new front end computer is not required since the district already has an existing BPS operators station. This system shall be incorporated into the existing campus system.
  - B. Hardware Points: The point lists included in the following sections on each subequation are to be considered as minimum requirements, additional points may be included. Some of these points may a control contractor's option be obtained through network connections if available. This would include start stop status, and speed points serving equipment and also the chiller supply temperature equipment, condenser pressure, and outdoor air points. All other points may be included to detailed devices.
  - C. Trend Logging: All central plant physical points and important setpoints shall be trend logged. This includes supply air temperature, chilled water supply temperature, hot water supply temperature, duct static pressure, and chiller differential pressure setpoints. Trend log sampling frequency should be adjustable on sets of points up to 8% of total) can be withdrawn from centrally for service purposes.
  - D. Reports: Set up reports of specific information including reports of plant operation and energy use and estimated energy savings from water economizer operation.
  - E. Alarming: Alarming shall be included where useful for alerting maintenance personnel of problems in the system. Examples are zones that have hot control airflows and failure and failure to maintain setpoints with allowable limits that initiate alarm.
  - F. The Delay and Throttle On/Off Times: All time delays and throttle on/off times shall be included as detailed below.
  - G. Adjustable Setpoints: All setpoints used in control sequences must be adjustable without significant restriction. This includes minimum on and off times and time delays as mentioned above, as well as temperature, flow, speed, and pressure setpoints.
  - H. The Scheduling: Although some of the equipment will be running 24 hours a day 365 days a year, all controlled equipment and systems must including scheduling capabilities to allow for on hours setback or load shedding.
  - I. Chiller Plant: CH-1 & 2, CH-2, CH-1 & 2, CH-1 & 2
  - A. The chiller plant will operate 24 hours per day continuously. The chiller plant consists of two variable flow water cooled centrifugal chillers, two minimum flow chilled water pumps with VFD's, two condenser water pumps with VFD's, a central free condenser water treatment system, centrifugal separator and associated piping valves and controls.
  - B. The chiller plant shall shut down and an alarm will be generated upon receiving an indication of refrigerant leak detection.
  - C. Chiller plant modes:
    1. The chiller plant can be in chiller only mode or economizer mode.
    2. The chiller plant can be in heat exchanger mode. The heat exchanger shall be closed to direct all flow through the heat exchanger. The three way chilled water valve shall also be positioned to direct all flow through the heat exchanger. The plant may operate with or without chillers in economizer mode.
    3. The chiller plant shall switch to chiller only mode when the condenser water supply temperature rises to less than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    4. Upon operating in chiller only mode the economizer condenser water valve shall be opened to allow bypass of the heat exchanger and the three way chilled water valve shall be positioned to bypass the heat exchanger.
    5. The chiller plant shall switch to economizer mode when the ambient wet bulb temperature drops more than 5 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    6. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    7. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    8. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    9. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    10. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    11. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    12. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    13. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    14. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    15. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    16. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    17. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    18. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    19. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    20. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    21. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    22. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    23. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.
    24. The chiller plant shall switch to economizer mode when the condenser water supply temperature drops more than 2 degrees F (4dJ) below the chilled water return temperature for 10 minutes.

Job No.	118069
Date	22 FEB 2008
Drawn by	NJ
Checked by	LJ
Scale	SEE DRAWINGS





**WESTERN ALLIED MECHANICAL**  
STATE CONTRACTORS  
LICENSE NO. 826782  
MECHANICAL CONTRACTORS



MEMO PAK/(650)326-0750  
FM/(650)321-4946

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF THE DESIGNER AND SHALL REMAIN THE PROPERTY OF THE DESIGNER AND SUBMITTER. CONTRACTORS SHALL BE RESPONSIBLE FOR VERIFYING THE DESIGN AND SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS. THE DESIGNER'S LIABILITY IS LIMITED TO THE DESIGN AND SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION OF THE SYSTEM OR THE PERFORMANCE THEREOF. THESE DRAWINGS OR BLUEPRINTS ARE FOR INFORMATION ONLY AND SHALL NOT BE USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF THE DESIGNER. ANY COMMUNICATION OF THIS DESIGN TO ANY OTHER PARTY WITHOUT THE WRITTEN CONSENT OF THE DESIGNER SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO THE DESIGNER.

**College of San Mateo CHILLED WATER PLANT 100% CD**  
DETAILS  
San Mateo, CA  
Developed for College of San Mateo

Revision	Description	Date
	100% CD	10/31/08
	100% CD revised	2/13/09
REV. 1		2/27/09
	Detailing	3/3/09
REV. 2		3/24/09

Revision	Description	Date
	100% CD	10/31/08
	100% CD revised	2/13/09
REV. 1		2/27/09
	Detailing	3/3/09
REV. 2		3/24/09

Job No.	110009
Date	26 FEB 2008
Drawn by	RJ
Checked by	LJV
Scale	SEE DRAWING

**M6.02**

**CHILLER ROOM VENTILATION SEQUENCE OF OPERATION**  
THE CHILLER ROOM VENTILATION FAN EF-2 CAN BE ACTIVATED FOUR WAYS:

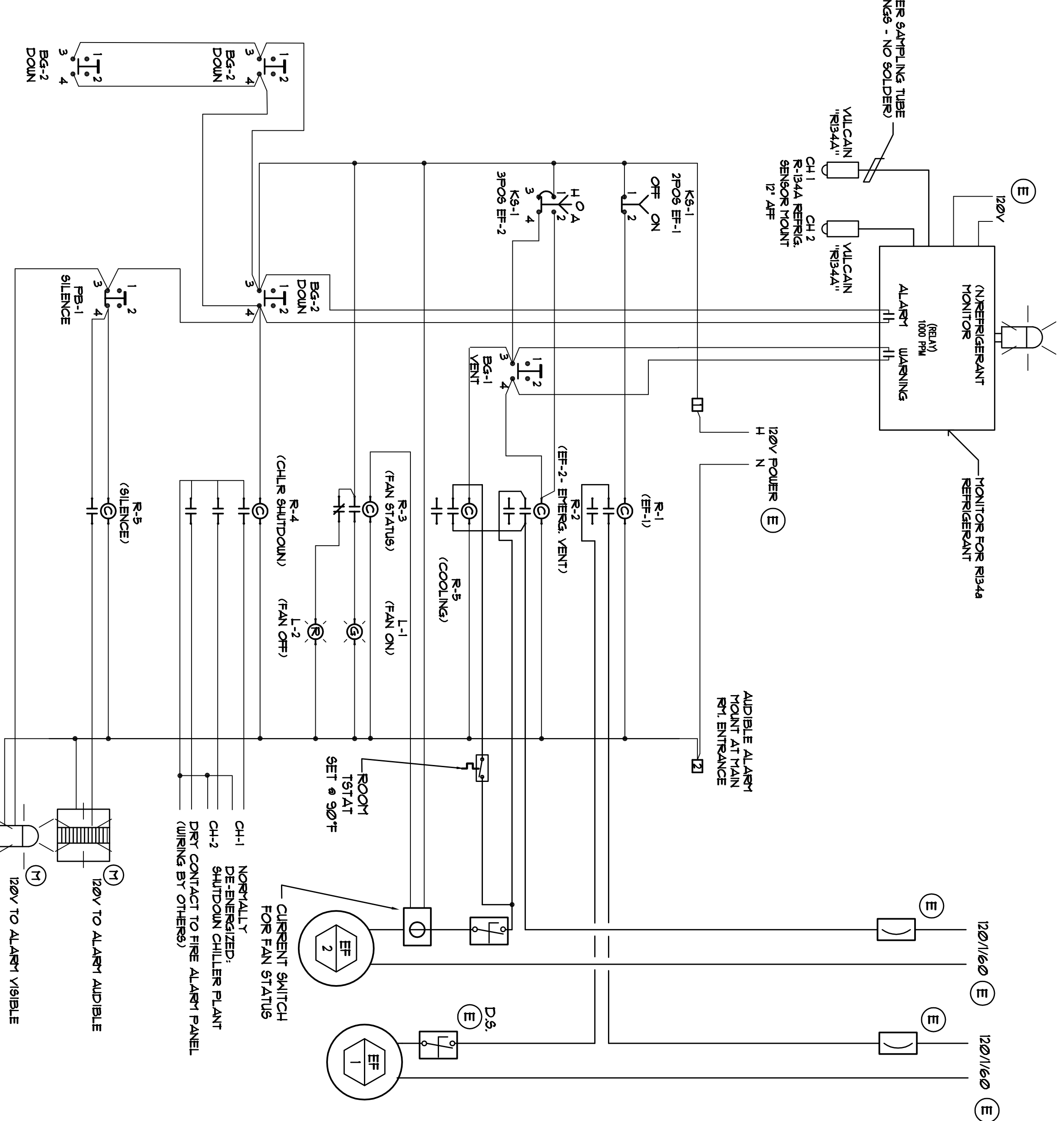
- ONE BREAK GLASS EMERGENCY ON ONLY SWITCH BG-1
- REFRIGERANT AUTO LEAK DETECTION SYSTEM RELAY CONTACT.
- INDIVIDUAL FAN KEYED HAND-OFF-AUTO SWITCH LOCATED IN THE CHILLER ROOM REFRIGERANT CONTROL PANEL IN THE HAND POSITION.
- A CALL FOR VENTILATION BY A WALL MOUNTED THERMOSTAT.

**NORMAL OPERATION**  
UNDER NORMAL OPERATING CONDITIONS THE INDIVIDUAL KEYED HAND-OFF-AUTO SWITCH SHALL BE IN THE AUTO POSITION, SO THAT THE CONTROL SYSTEM WILL START AN EXHAUST FAN FOR EMERGENCY CONTROL ACTIVATION. EXHAUST FAN, EF-1 SHALL OPERATE CONTINUOUSLY AND THE KEYED ON-OFF SWITCH SHALL BE IN THE ON POSITION.

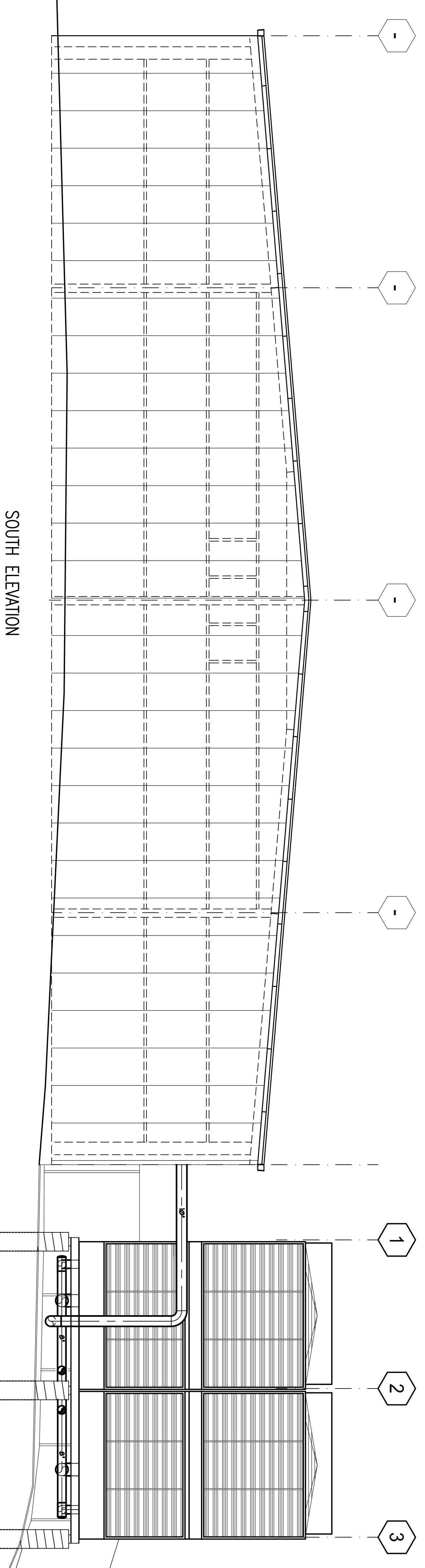
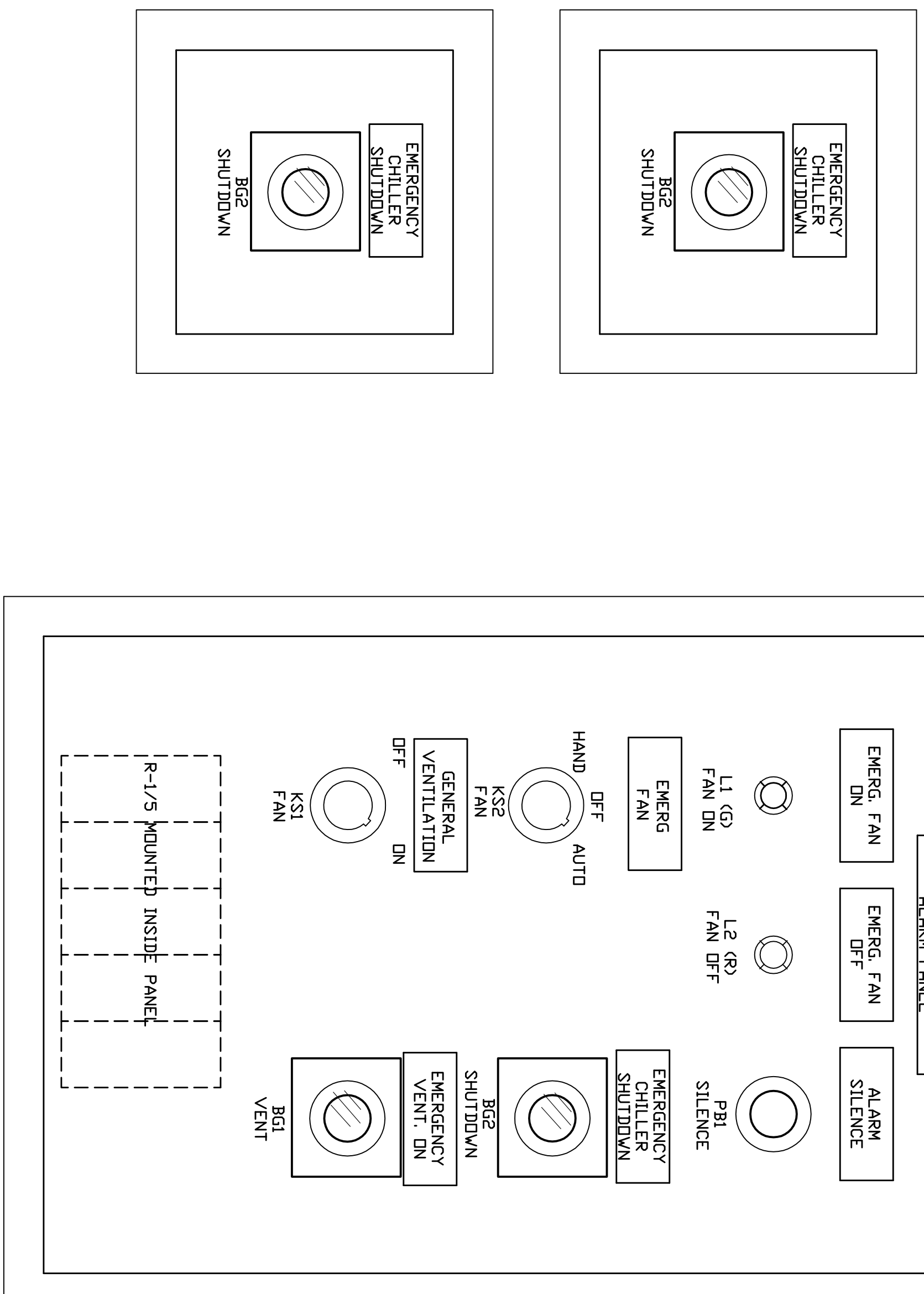
**EMERGENCY OPERATION**  
EMERGENCY OPERATION OCCURS UNDER THE FOLLOWING CONDITIONS:

- MANUAL EMERGENCY VENTILATION: A BREAK GLASS EMERGENCY ON ONLY PUSH BUTTON IS ACTIVATED TO ENERGIZE EF-2. THE SWITCH IS LOCATED IN THE REFRIGERANT CONTROL PANEL. GLASS EMERGENCY ON ONLY PUSH BUTTON IS ACTIVATED TO SHUT DOWN CH-1 & CH-2. THE SWITCHES ARE LOCATED AT EACH ENTRANCE AND ONE IN THE REFRIGERANT MONITOR CONTROL PANEL.
- AUTOMATIC DETECTION: THE REFRIGERANT DETECTION SYSTEM ON ONLY RELAY CONTACT IS ENERGIZED.
- AUDIBLE AND VISUAL ALARMS ARE ACTIVATED.
  - EF-2 IS ENERGIZED ON.
  - CH-1 & CH-2 ARE DR-ENERGIZED.
  - CH-1 & CH-2 ARE DR-ENERGIZED.
  - A SIGNAL IS SENT TO THE FACE.

THE AUDIBLE ALARM CAN BE SILENCED BY SWITCH PB-1.



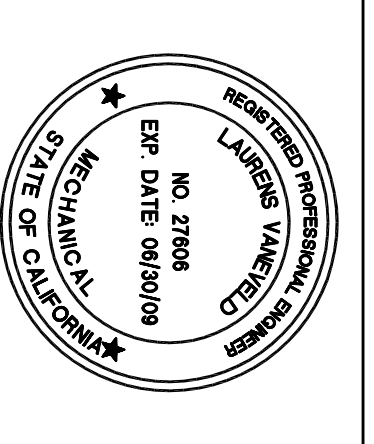
**1 REFRIGERANT ALARM AND MONITORING SYSTEM**  
M6-02 Scale: NTS



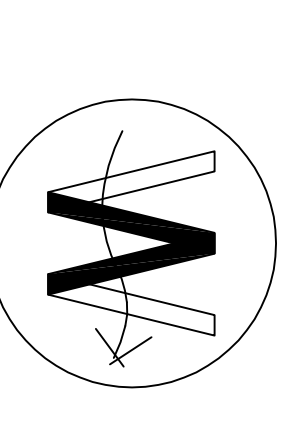
**SOUTH ELEVATION**

**2 BUILDING SECTION SOUTH**  
M6-02 Scale: NTS





**WESTERN ALLIED MECHANICAL**  
STATE CONTRACTORS  
LICENSE NO. 826782  
MECHANICAL CONTRACTORS



MEMO PRR/(650)328-0750  
FW/(650)321-4946

THIS DESIGN IS THE EXCLUSIVE PROPERTY OF THE DRAWING AND BUILDING CONTRACTORS. THE DESIGN AND BUILDING CONTRACTORS SHALL NOT BE RESPONSIBLE FOR ANY ALTERATIONS OR MODIFICATIONS MADE BY ANY OTHER PARTY. THE DELIVERY OF THESE DRAWINGS OR BUILDINGS ARE FOR THE PURPOSE OF TRANSMITTING A SALE BY THE CONTRACTING SYSTEM INCORPORATED. ANY COMMUNICATION OF THE DESIGN TO ANY OTHER PARTY WITHOUT THE WRITTEN PERMISSION OF WESTERN ALLIED MECHANICAL, INC. CONSTITUTES A VIOLATION OF THE LAWS OF THIS STATE.

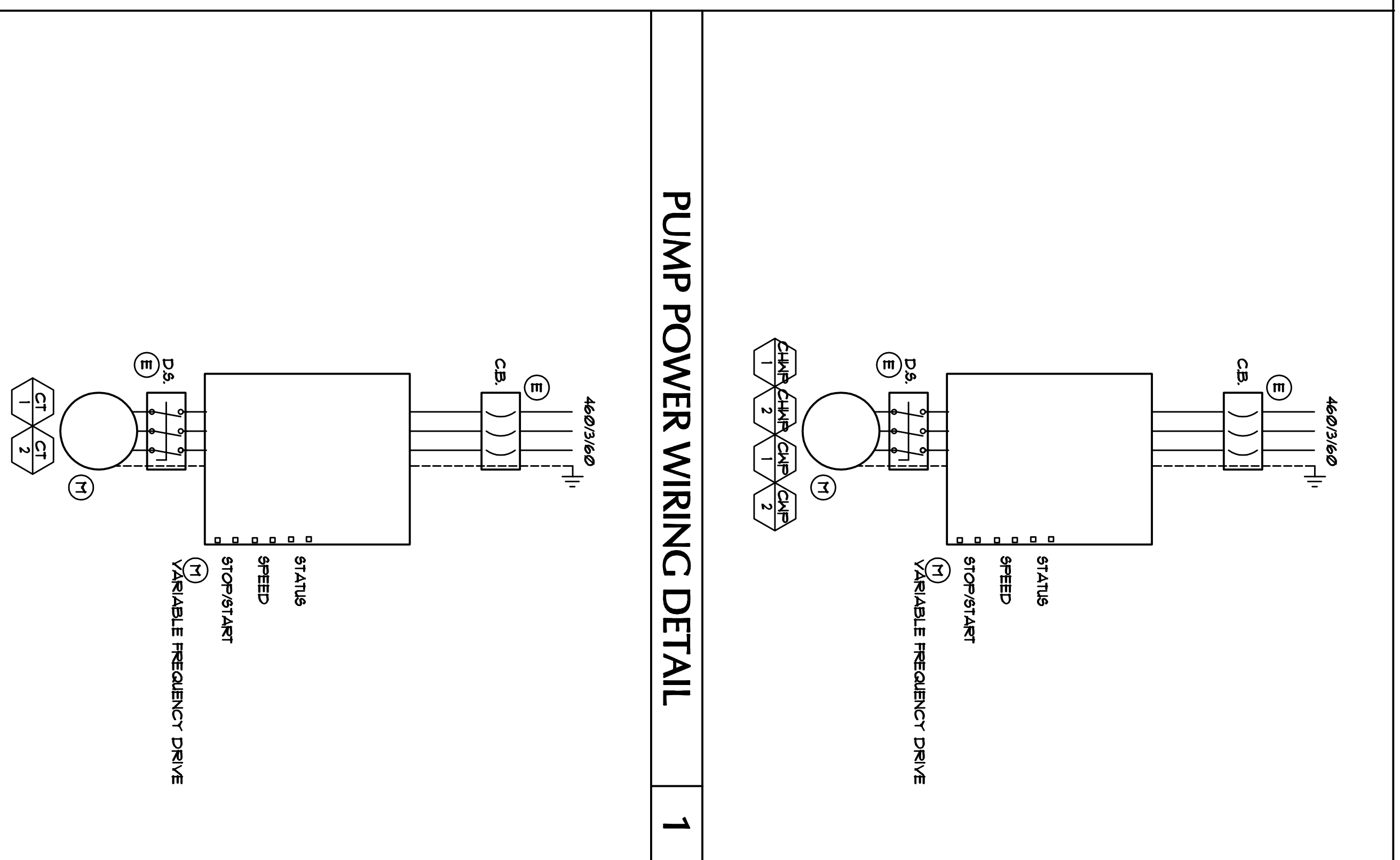
**College of San Mateo CHILLED WATER PLANT 100% CD**  
DETAILS  
San Mateo, CA  
Developed for College of San Mateo

Revision	Description	Date
100% CD		10/31/08
100% CD revised		2/13/09
REV. 1		2/27/09
Detailing		3/3/09
REV. 2		3/24/09

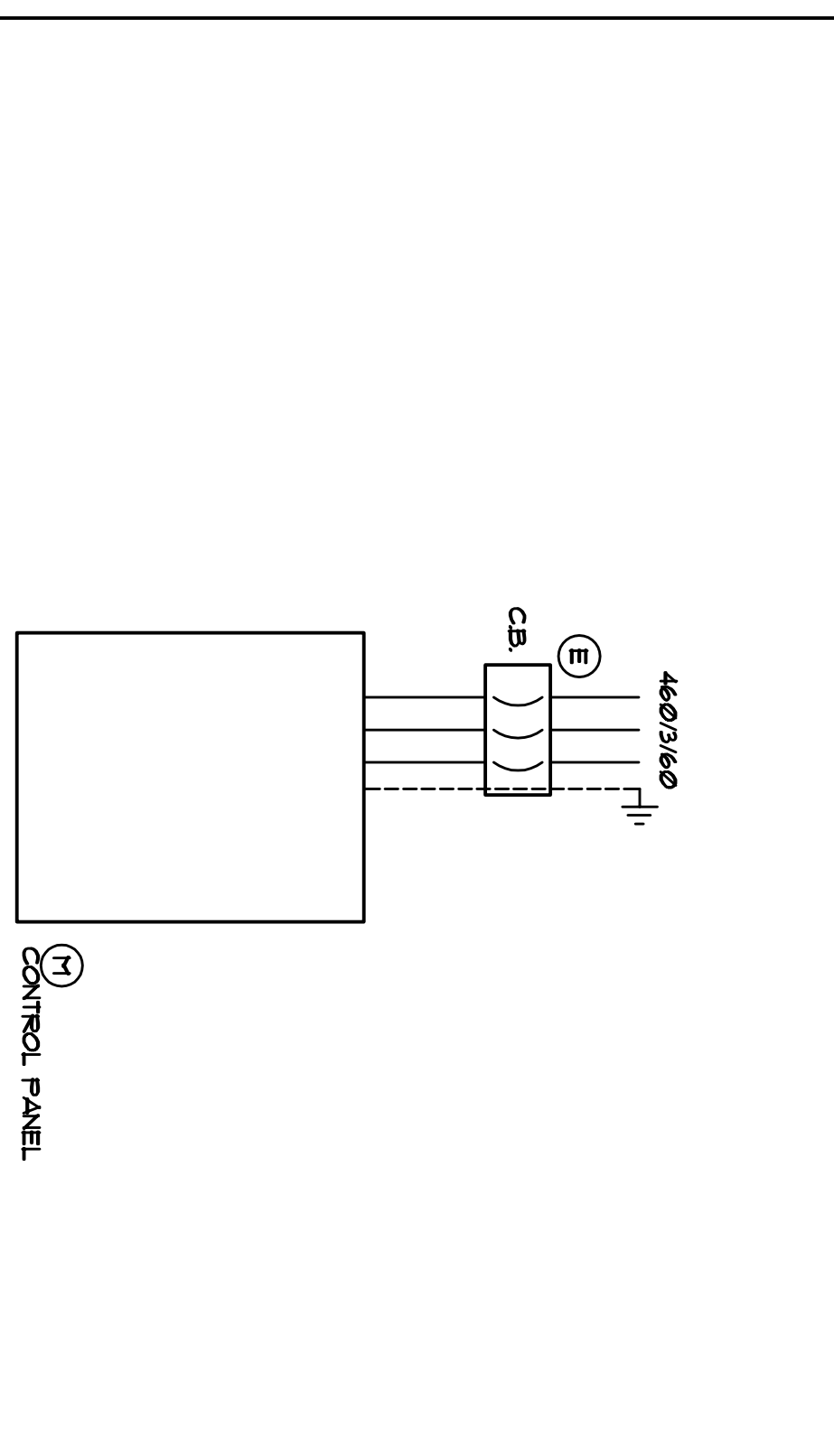
Revision	Description	Date
100% CD		10/31/08
100% CD revised		2/13/09
REV. 1		2/27/09
Detailing		3/3/09
REV. 2		3/24/09

Job No.	110009
Date	26 FEB 2008
Drawn by	RJ
Checked by	LJV
Scale	SEE DRAWING

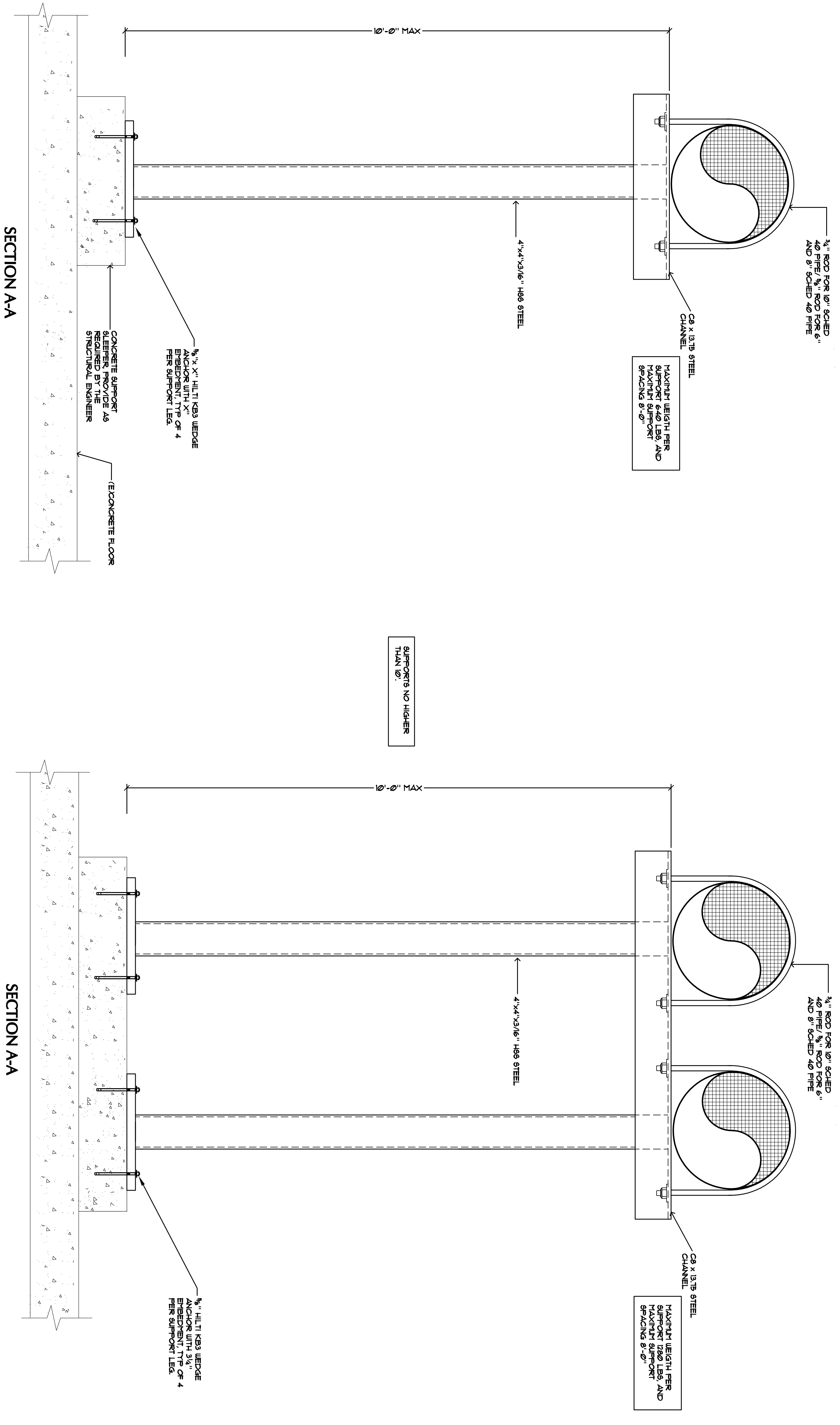
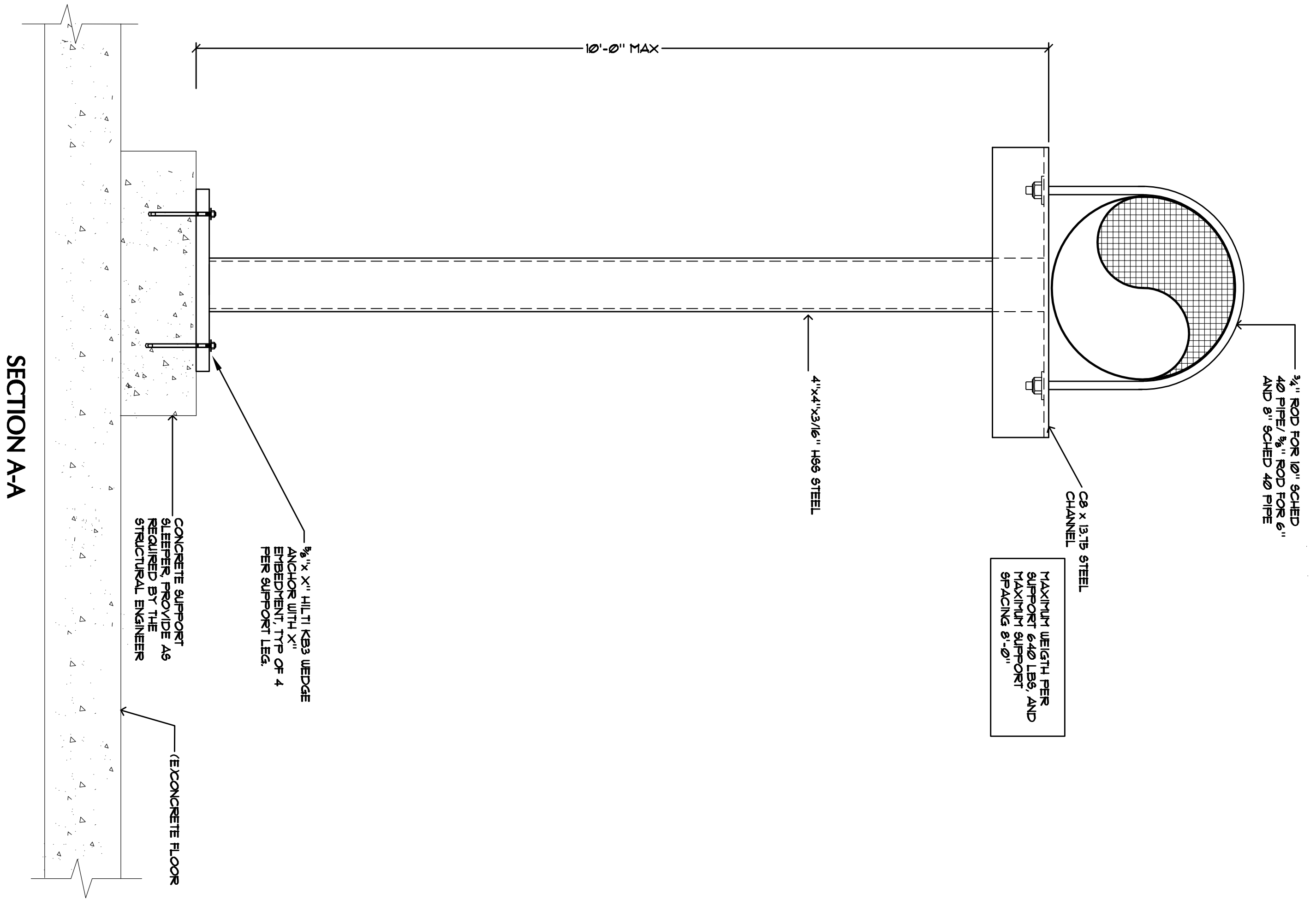
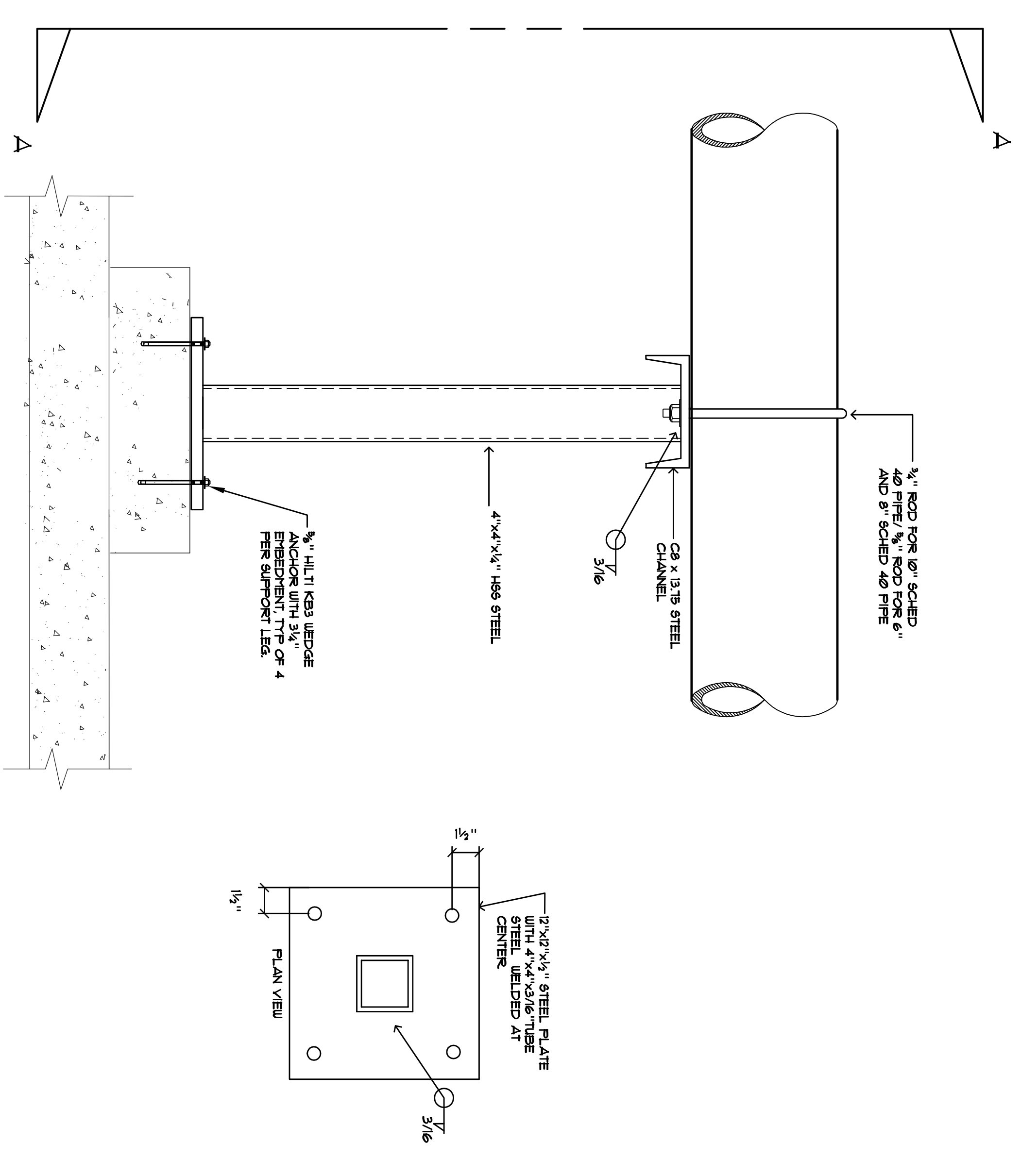
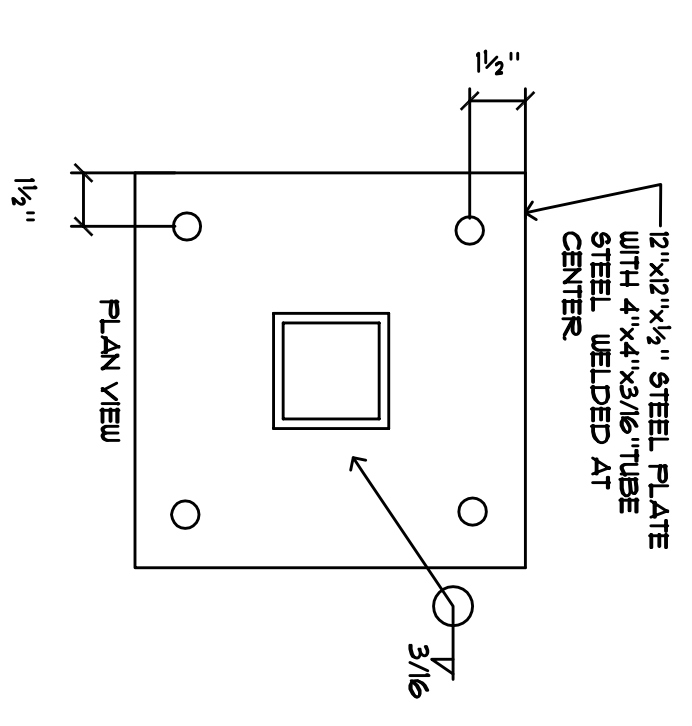
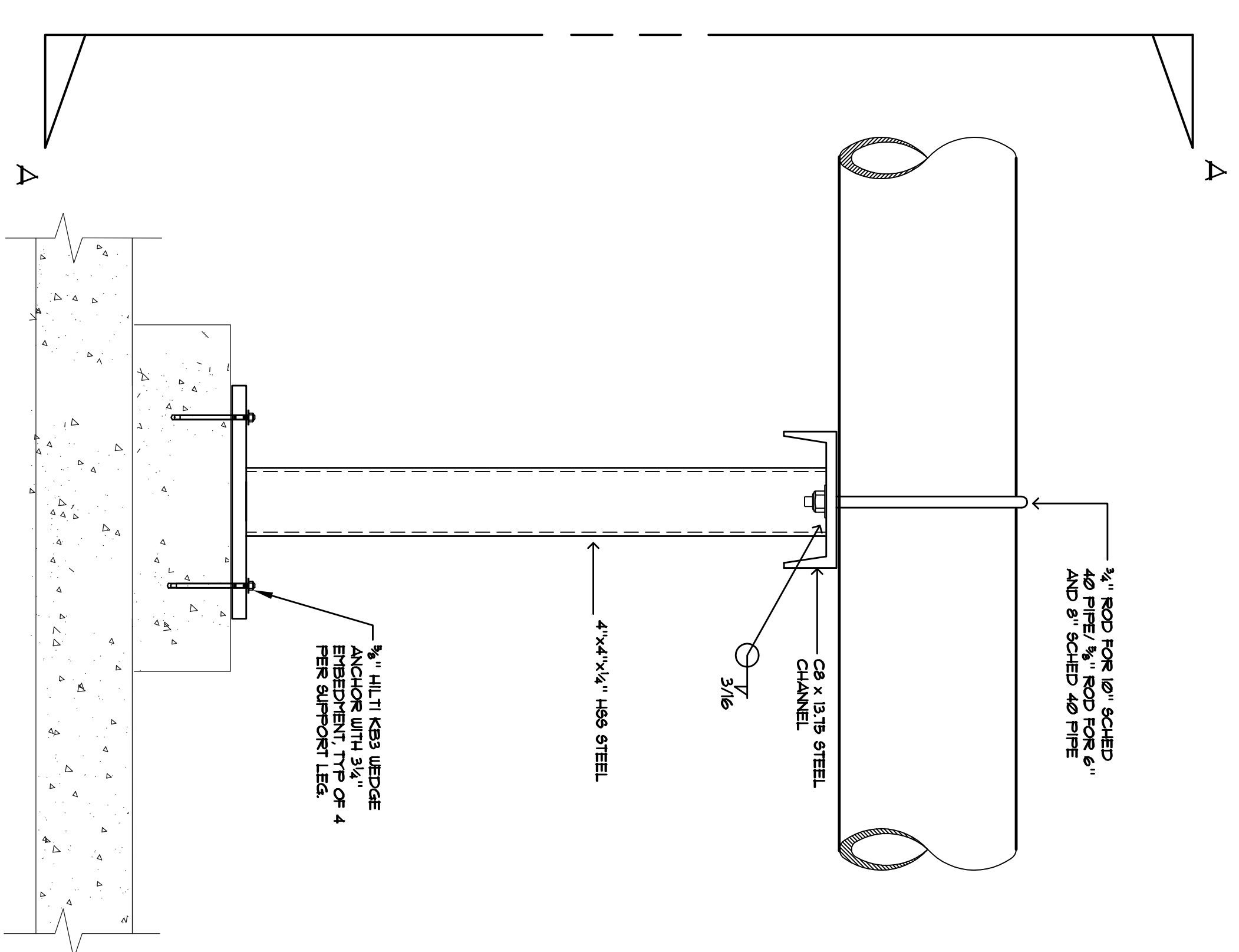
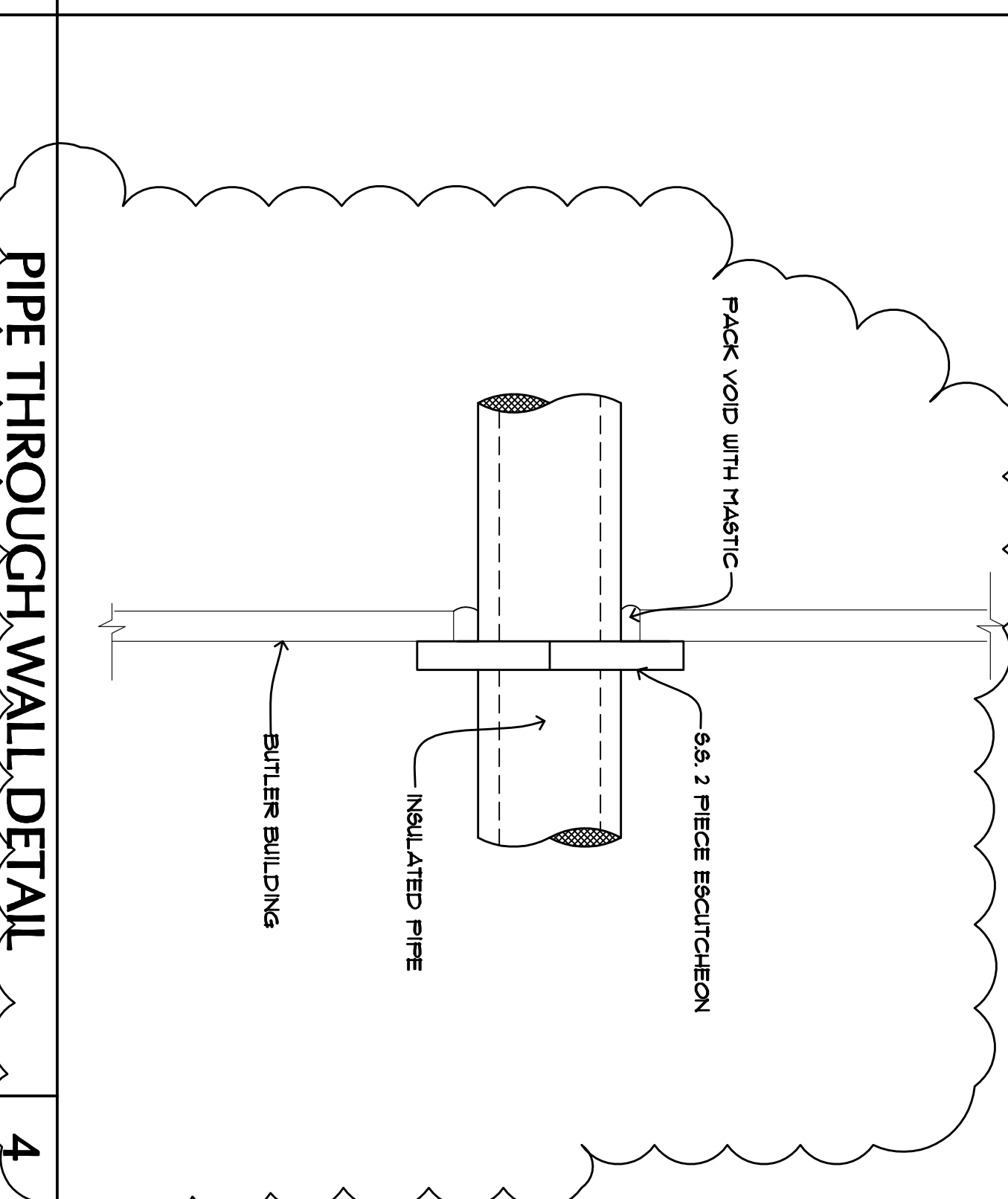
**M6.03**



**TOWER FAN POWER WIRING DETAIL 2**



**CENTRIFUGAL SEPARATOR WIRING DETAIL 3**



**PIPE SUPPORT DETAIL**



PLUMBING FIXTURE SCHEDULE		
TAG	ITEM	REMARKS
FD-1	FLOOR DRAIN	ZURN ZN 415 58 5" DIA NICKEL BRONZE TOP WITH PPP TRAP PRIMER
FS-1	FLOOR SINK	ZURN ZN-1901-2 12"x12" SANI-FLOOR RECEPTOR 1/2" GRATE WITH PPP TRAP PRIMER
FCO	FLOOR CLEANOUT	ZURN ZN-1400 WITH NIKEL BRONZE TOP
TP	TRAP PRIMER	PRECISION PRODUCTS MODEL P1 OR P2
RPBPP	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER	ZURN/WILKINS MODEL 975XL
PRV-1	PRESSURE REDUCING VALVE	
PRV-2	PRESSURE REDUCING VALVE	BELL & GOSSETT "FB" COMBINATION PRESSURE REGULATING AND RELIEF VALVE

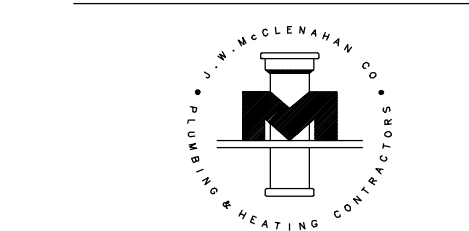
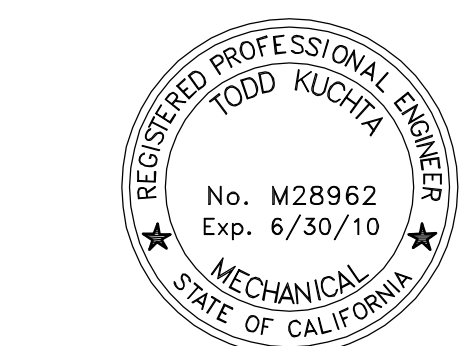
PIPE MATERIAL SCHEDULE		
CODE	ITEM	SCOPE
SS V	SANITARY WASTE AND VENT PIPING ABOVE & BELOW GRADE	NO HUB CAST IRON PIPE AND FITTINGS WITH STANDARD STAINLESS STEEL SHELDED COUPLINGS WITH NEOPRENE GASKETS.
SD	STORM DRAIN ABOVE & BELOW GRADE	NO HUB CAST IRON PIPE AND FITTINGS WITH STANDARD STAINLESS STEEL SHELDED COUPLINGS WITH NEOPRENE GASKETS.
PD	PUMPED DISCHARGE PIPING	TYPE "L" COPPER WITH DWV COPPER FITTINGS.
CW HW IRR	ABOVE GRADE DOMESTIC WATER PIPING	TYPE "L" COPPER PIPE AND COPPER FITTINGS WITH LEAD-FREE SOLDER JOINTS SIZES 1/2"-2" METALLIC JOINTS SIZES 2 1/2"-4".
CW	BELOW GRADE DOMESTIC WATER PIPING	TYPE "L" COPPER PIPE AND COPPER FITTINGS WITH LEAD-FREE SOLDER JOINTS SIZES 1/2"-2" SILFOS 2 1/2" & LARGER.
CD	CONDENSATE DRAINS ABOVE GRADE	TYPE "M" COPPER PIPE AND COPPER FITTINGS WITH LEAD-FREE SOLDER JOINTS SIZES 1/2"-2".

PLUMBING SCOPE		
CODE	ITEM	SCOPE
SS V	SANITARY WASTE AND VENT PIPING ABOVE & BELOW GRADE	SANITARY WASTE AND VENT SYSTEM STUBBED OUT 5'-0" FROM BUILDING
SD	STORM DRAIN ABOVE & BELOW GRADE	SANITARY WASTE AND VENT SYSTEM STUBBED OUT 5'-0" FROM BUILDING. STORM WATER COLLECTION SYSTEM FROM PODIUM LEVEL TO OUTSIDE OF BUILDING STUBBED OUT 5'-0" FROM BUILDING.
CW HW	DOMESTIC WATER PIPING	DOMESTIC HOT AND COLD WATER SYSTEMS FROM METER TO FIXTURES INCLUDING BACKFLOW PREVENTORS. HOT WATER SYSTEM TO BE INSULATED TO TITLE 24.
CD	CONDENSATE	CONDENSATE PRIMARY AND SECONDARY DRAINS FROM COOLING COILS TO APPROPRIATE POINT OF CONNECTION.
FIX	PLUMBING FIXTURES	FIXTURES: SUPPLY, SET AND CONNECT ALL FIXTURES LISTED IN SCHEDULES. ALSO CONNECT DISHWASHERS AND DISPOSERS.

MANDATORY MEASURES	
MECHANICAL MEASURES (EQUIPMENT & SYSTEMS EFFICIENCY)	
[X] ANY APPLIANCE FOR WHICH THERE IS A CALIFORNIA STANDARD ESTABLISHED IN THE APPLIANCE EFFICIENCY STANDARDS MAY BE INSTALLED ONLY IF THE MANUFACTURER HAS CERTIFIED TO THE COMMISSION, AS SPECIFIED IN THOSE REGULATIONS, THAT THE APPLIANCE COMPLIES WITH THE APPLICABLE STANDARD FOR THAT APPLIANCE.	
[X] PIPING, EXCEPT THAT CONVEYING FLUIDS AT TEMPERATURES BETWEEN 80 AND 105°F, OR WITHIN HVAC EQUIPMENT, SHALL BE INSULATED IN ACCORDANCE WITH STANDARDS SECTION 123.	
SERVICE WATER HEATING SYSTEMS	
[X] IF A CIRCULATING HOT WATER SYSTEM IS INSTALLED, IT SHALL HAVE A CONTROL CAPABLE OF AUTOMATICALLY TURNING OFF THE CIRCULATING PUMP(S) WHEN HOT WATER IS NOT REQUIRED.	
[X] LAVATORIES IN RESTROOMS OF PUBLIC FACILITIES SHALL BE EQUIPPED WITH CONTROLS TO LIMIT THE OUTLET TEMPERATURE TO 110°F.	
[X] OUTLET DEVICES THAT LIMIT THE FLOW OF HOT WATER TO A MAXIMUM OF 0.5 GPM IN PUBLIC LAVATORIES.	

SHEET INDEX		
SHEET NO.	SHEET TITLE	SCALE
P1.00	COVER SHEET	
P2.01	PLUMBING - LEVEL 1 - WEST BELOW GRADE DWV PIPING	1/8"=1'-0"

SYMBOLS & ABBREVIATIONS			
	EQUIPMENT IDENTIFICATION	— CW —	COLD WATER SUPPLY PIPE
	SECTION OR DETAIL IDENTIFICATION NUMBER SHEET ON WHICH SECTION OR DETAIL IS SHOWN	— SS —	SANITARY SEWER PIPE
	SHEET NOTES	— SS —	SANITARY SEWER PIPE U.G.
	GENERAL NOTES	— OFD —	OVERFLOW STORM DRAIN PIPE ABOVE FLOOR
	PLUMBING FIXTURE TAG	— OFD —	OVERFLOW STORM DRAIN PIPE BELOW FLOOR
	DIAMETER OR ROUND ELECTRICAL PHASE	— SD —	STORM DRAIN PIPE ABOVE FLOOR
	GV GATE VALVE	— SD —	STORM DRAIN PIPE BELOW FLOOR
	PRV PRESSURE REDUCING VALVE	— GD —	GARAGE DRAIN PIPE ABOVE FLOOR
	SHV SQUARE HEAD VALVE	— GD —	GARAGE DRAIN PIPE BELOW FLOOR
	CV CHECK VALVE	— PELEV —	PUMPED ELEVATOR DISCHARGE
	PTRV PRESSURE AND TEMPERATURE RELIEF VALVE	CLG	CEILING
	WHA WATER HAMMER ARRESTOR	FF	FINISH FLOOR
	DN PIPE DN	E	INVERT ELEVATION
	UP PIPE UP	NPW	NOT IN PLUMBING WORK
	HB HOSE BBR	NTS	NOT TO SCALE
	CO CLEAN OUT	R	RISE
	GCO GRADE CLEAN OUT	TYP	TYPICAL
	2-WAY CLEANOUT	UG	UNDERGROUND
	WCO WALL CLEAN OUT	VR	VENT RISER
	PIPE CONTINUES	VTR	VENT THRU ROOF
	OFF CAPPED FOR FUTURE		
	FD,FS,AD FLOOR DRAIN, FLOOR SINK, AREA DRAIN (BELOW)		
	GO NATURAL GAS OUTLET		
	RISER TAG		



**J.W. McCLENAHAN CO.**  
2307 PALM AVE  
P.O. BOX 1149  
SAN MATEO, CA 94403  
TEL: (650) 345-1691  
FAX: (650) 345-5681

This and all other project documents are the property of McCarthy Building Companies, Inc. (McCarthy) and shall remain the property of McCarthy. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of McCarthy. The use of this document for any purpose other than that intended by McCarthy is prohibited. McCarthy Building Companies, Inc. is not responsible for any errors or omissions in this document. McCarthy Building Companies, Inc. is not responsible for any discrepancies between project documents and the existing conditions.

Copyright 2008

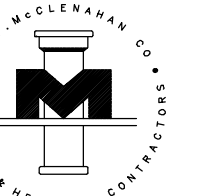
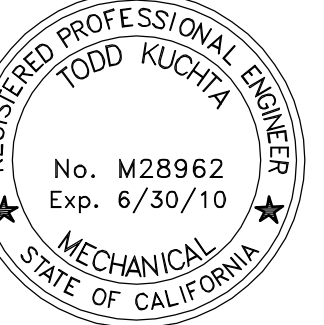
**College of San Mateo  
Central Plant**  
  
San Mateo, CA  
Developed for  
College of San Mateo County Community College District

Revision	Description	Date

Revision	Description	Date

Job No.	27082.20
Date	OCTOBER 2008
Drawn by	SCC
Checked by	TK
Scale	

COVER SHEET  
**P1.00**



**J.W. McCLENAHAN CO.**  
2307 PALM AVE  
P.O. BOX 1149  
SAN MATEO, CA 94403  
TEL: (650) 345-1691  
FAX: (650) 345-5681

This and all other project documents are the property of McCarthy Building Companies, Inc. (MCC) and shall remain the property of MCC. All project documents are the property of MCC. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of McCarthy Building Companies, Inc. (MCC). This document is intended for the use of the project and is not to be used for any other purpose. The user of this document is responsible for its proper use and for any consequences resulting from its use. MCC and its consultants make no representation or warranty concerning the accuracy of the information contained herein and shall not be responsible for any discrepancies between project documents and the existing conditions.

Copyright 2008

**College of San Mateo  
Central Plant**

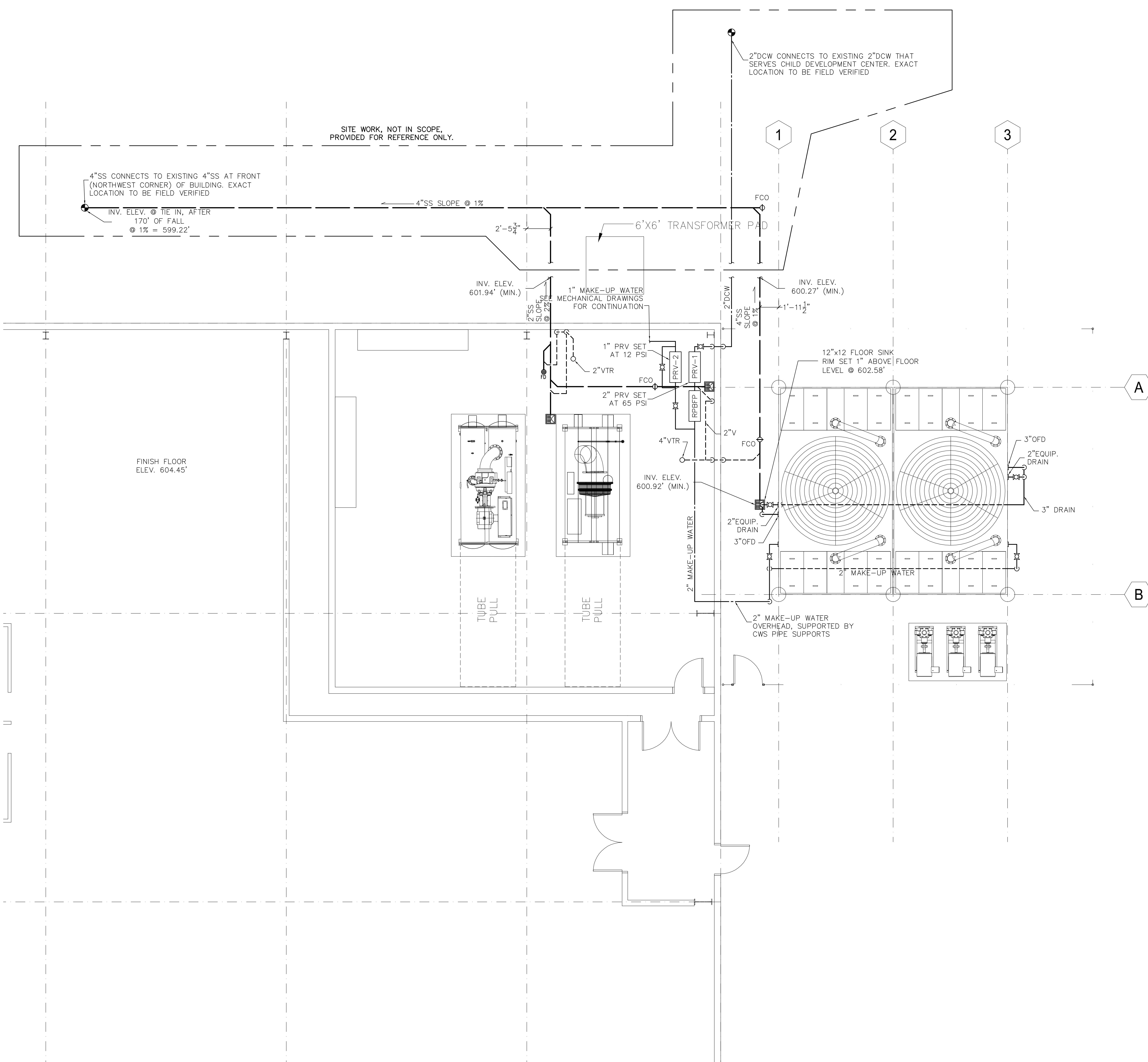
San Mateo, CA  
Developed for  
College of San Mateo County Community College District

Revision	Description	Date

Revision	Description	Date

Job No.	27082.20
Date	OCTOBER 2008
Drawn by	SCC
Checked by	TK
Scale	1/4" = 1'-0"

**Central Plant Plumbing Plan  
P2.01**



SITE WORK, NOT IN SCOPE,  
PROVIDED FOR REFERENCE ONLY.

4"SS CONNECTS TO EXISTING 4"SS AT FRONT  
(NORTHWEST CORNER) OF BUILDING. EXACT  
LOCATION TO BE FIELD VERIFIED

INV. ELEV. @ TIE IN, AFTER  
170' OF FALL  
@ 1% = 599.22'

4"SS SLOPE @ 1%

2"DCW CONNECTS TO EXISTING 2"DCW THAT  
SERVES CHILD DEVELOPMENT CENTER. EXACT  
LOCATION TO BE FIELD VERIFIED

1" MAKE-UP WATER  
MECHANICAL DRAWINGS  
FOR CONTINUATION

12"x12" FLOOR SINK  
RIM SET 1" ABOVE FLOOR  
LEVEL @ 602.58'

FINISH FLOOR  
ELEV. 604.45'

INV. ELEV.  
600.92' (MIN.)

2" MAKE-UP WATER  
OVERHEAD, SUPPORTED BY  
CWS PIPE SUPPORTS



**LEGEND AND ABBREVIATIONS**

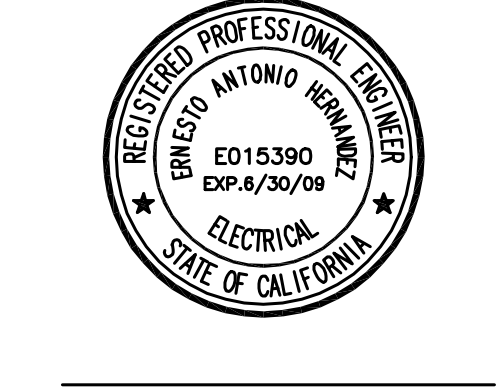
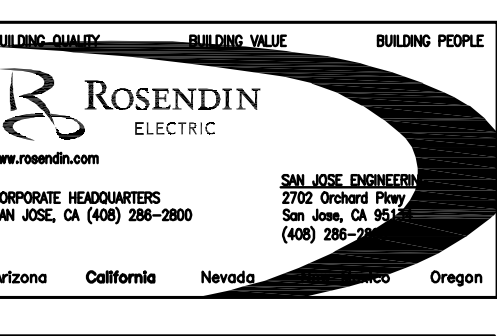
(NOTE: THIS IS A MASTER SYMBOL LIST AND NOT ALL SYMBOLS INDICATED HAVE BEEN USED ON PLANS)

SYMBOL	LIGHTING FIXTURES	EQUIPMENT	SINGLE LINE AND SCHEMATICS	ABBREVIATIONS
	FLUORESCENT CEILING FIXTURE		CIRCUIT BREAKER:	A, AMP AMPERES
	FLUORESCENT OPEN STRIP		AF = AMP FRAME	AFB ABOVE FINISHED FLOOR
	CEILING SURFACE OR RECESSED DOWNLIGHT		AT = AMP TRIP	AIC AMPERES INTERRUPTING CAPACITY
	WALL MOUNTED FIXTURE OR SCONCE		P = POLE	ATS AUTOMATIC TRANSFER SWITCH
	WALL WASHER		AIC = AMPERES INTERRUPTING CAPACITY	A/V AUDIO/VISUAL
	TRACK MOUNTED FIXTURES (TRACK LENGTHS AS INDICATED WITH FITTINGS AND CONNECTORS AS REQUIRED)		FUSIBLE SWITCH:	BMS BUILDING MANAGEMENT SYSTEM
	BOLLARD LUMINAIRE		—/3 = SWITCH SIZE AND POLES	C CONDUIT WITH PULLCORD IF OTHERWISE EMPTY
	CIRCUIT BREAKER		— = FUSE SIZE	CB, C/B CIRCUIT BREAKER
	EMERGENCY LIGHTING UNIT: MOUNT AT LOWER OF +96" AFF OR 12" BELOW CEILING		DRAWOUT CIRCUIT BREAKER:	CLG CEILING
	COMBINATION EMERGENCY LIGHTING UNIT & EXIT LIGHT		AF = AMP FRAME	DPDT DOUBLE POLE DOUBLE THROW
	EXIT LIGHT: FACES AND ARROWS AS INDICATED ON PLANS		AT = AMP TRIP	DPST DOUBLE POLE SINGLE THROW
	LOW LEVEL EXIT LIGHT: MOUNT AT BETWEEN +6" & +8" A.F.F. TO BOTTOM OF FIXTURE; & 4" MAX. FROM EDGE OF FIXTURE TO LATCH SIDE OF DOOR OR EXIT WAY OPENING.		P = POLE	(E) EXISTING TO REMAIN
			AIC = AMPERES INTERRUPTING CAPACITY	EC EMPTY CONDUIT
			DRAWOUT FUSIBLE SWITCH:	EM EMERGENCY
			—/3 = SWITCH SIZE AND POLES	EMT ELECTRIC METALLIC TUBING
			— = FUSE SIZE	FACP FIRE ALARM CONTROL PANEL
				FBO FURNISHED BY OTHERS
				FLUOR FLUORESCENT
				FU FUSE: DUAL-ELEMENT, TIME DELAY
				GFCI GROUND FAULT CIRCUIT INTERRUPTER
				G, GND GROUND
			PANEL - SEE PANEL SCHEDULE FOR DETAILS	HOA HAND-OFF-AUTOMATIC
			PANEL WITH MAIN BREAKER - SEE PANEL SCHEDULE FOR DETAILS	HID HIGH INTENSITY DISCHARGE
				HP HORSEPOWER
				HPS HIGH PRESSURE SODIUM
				IG ISOLATED GROUND
				INCAND INCANDESCENT
				KerMil THOUSAND CIRCULAR MILS (1in. = 1000MILS)
				KW KILOWATT
				KVA KILOVOLT AMPS
				LPS LOW PRESSURE SODIUM
				LTG LIGHTING
				LV LOW VOLTAGE
				MCB MAIN CIRCUIT BREAKER
				MCC MOTOR CONTROL CENTER
				MCP MOTOR CIRCUIT PROTECTOR
				MPOE MINIMUM POINT OF ENTRY FOR TEL/DATA SERVICES
				(N) NEW
				NACB NON-ADJUSTABLE CIRCUIT BREAKER
				NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
				N,NEUT NEUTRAL
				NIC NOT IN CONTRACT
				NL NIGHT LIGHT
				NTS NOT TO SCALE
				OC ON CENTER
				PNL PANEL
				PVC POLYVINYL CHLORIDE CONDUIT
				(R) EXISTING TO BE RELOCATED
				RGS RIGID GALVANIZED STEEL
				SPDT SINGLE POLE DOUBLE THROW
				SPST SINGLE POLE SINGLE THROW
				TP TYPICAL
				UG UNDER GROUND
				UNSW UNSWITCHED
				UN UNLESS OTHERWISE NOTED
				UPS UNINTERRUPTIBLE POWER SUPPLY
				V VOLTS
				WP WEATHER PROOF (NEMA 3R)
				(X) EXISTING TO BE REMOVED
				XFMR TRANSFORMER
				XP EXPLOSION PROOF
				— —
				— —
				— —
				— —
				— —

SHEET	DESCRIPTION	ISSUED FOR 100% CD	ISSUED FOR 100% CD	ISSUED FOR 100% CD	ISSUED FOR 100% CD
		DATE: 08/05/08	DATE: 08/05/08	DATE: 10/29/08	DATE: 02/27/09
E1.01	LEGEND, ABBREVIATIONS AND DRAWING SCHEDULE				
E1.02	TITLE-24 & OUTDOOR LIGHTING COMPLIANCE NOTES				
E2.01	LIGHTING, POWER & DATA PLAN				
E5.01	SINGLE LINE DIAGRAM, FEEDER AND PANEL SCHEDULE				



McCarty Building Companies, Inc.  
343 Sansome Street, 14th Floor  
San Francisco, California 94104  
P 415 364-1339  
F 415 397-5999



IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICE

APPL. #:

AC \_\_\_\_\_ FLS \_\_\_\_\_ SS \_\_\_\_\_

DATE \_\_\_\_\_

FILE NUMBER:

This and all other project documents are the property of LPA, KH, and all other project documents and are not to be used, copied, or disseminated in any way without the written consent of LPA, KH, and all other project documents. This and all other project documents are not to be used, copied, or disseminated in any way without the written consent of LPA, KH, and all other project documents. This and all other project documents are not to be used, copied, or disseminated in any way without the written consent of LPA, KH, and all other project documents.

College of San Mateo  
Central Plant (Building 34)  
San Mateo, CA

Developed for  
San Mateo County Community College District

Date	Revisions/Description

Date	Revisions/Description

Job No: REI-30086  
Date: OCTOBER 2008  
Drawn by: FF  
Checked by: TS/RW  
Scale: AS NOTED

**LEGEND, ABBREVIATIONS & DRAWING SCHEDULE E1.01**







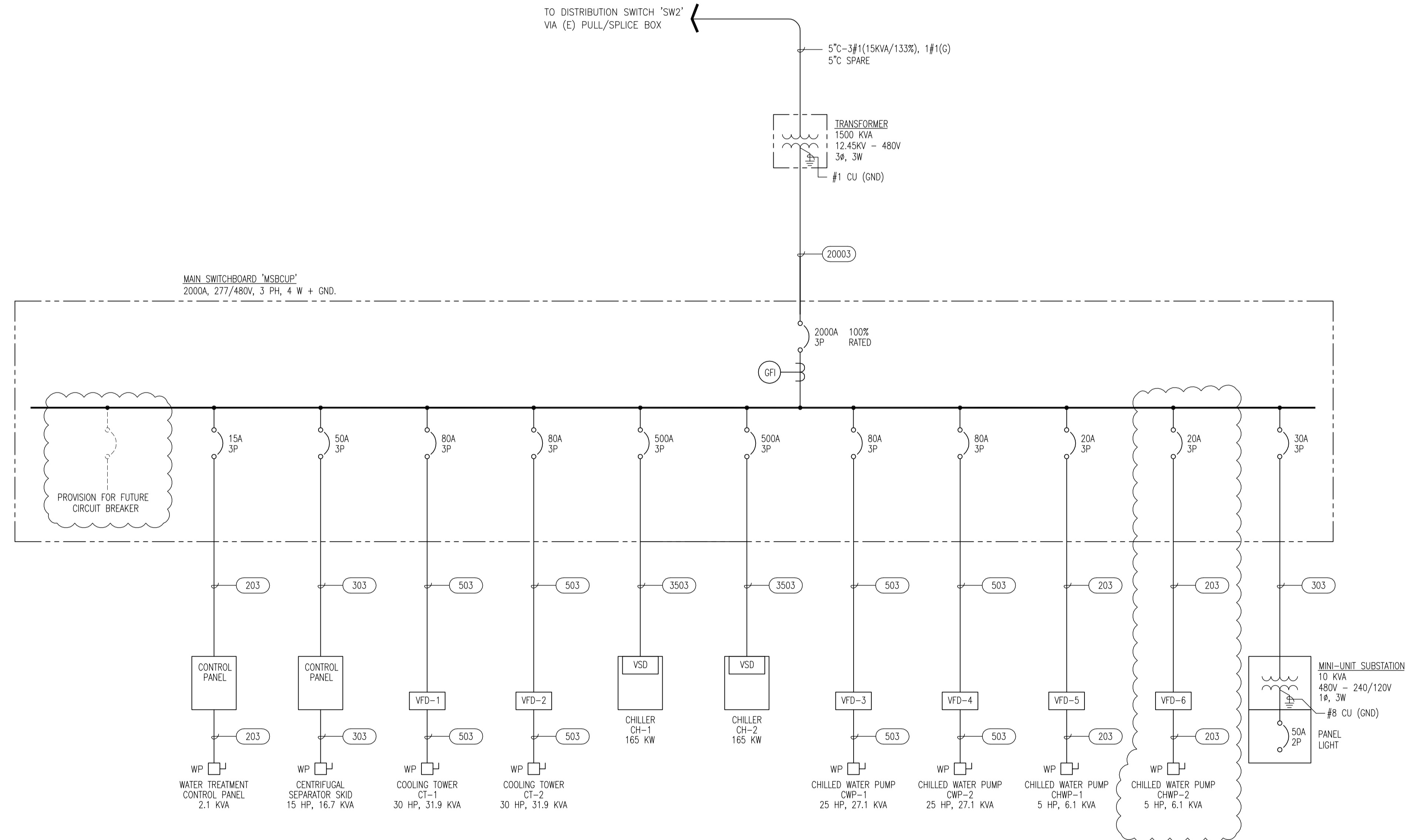


PANEL TYPE	DESCRIPTION	LCH1			LOCATION:			CHILLER PLANT			TYPE	DESCRIPTION
		LOAD	BKR	CIR	A	B	C	CIR	BKR	LOAD		
EF-1		896	20/1	1	1796			2	20/1	900	R	RECEPT.
EF-2		1176	20/1	3		1536		4	20/1	360	L	EXTERIOR LTS.
	Refrigeration Monitoring Pnl.	180	20/1	5				6	20/1		S	SPARE
	RECEPT	1080	20/1	7	1080			8	20/1		S	SPARE
	Water Treatment Control	180	20/1	9		180		10	20/1		S	SPARE
	Water Treat.Conductivity Pnl.	180	20/1	11				12	20/1		S	SPARE
				13	0			14				
				15		0		16				
				17			0	18				
				19	0			20				
				21		0		22				
				23			0	24				
				25	0			26				
				27		0		28				
				29			0	30				
				31	0			32				
				33		0		34				
				35			0	36				
				37	0			38				
				39			0	40				
				41			0	42				
				24	2876	1716	360					
					24	14	3					
BUS RATING		100			GROUND:			STANDARD			NOTES:	
VOLTAGE:		208 /120V			MOUNTING:			SURFACE				
PHASE:		3			ENCLOSURE:			NEMA 1				
WIRE:		4			FEED:							
FDR "CB" OR "MCB" SIZE		50			CONNECTED KVA			5.0				
"MLO" OR "MCB"		MCB			CONNECTED AMPS			13.7				
MCB RATING (80% or 100%)		80%			RECEPTACLE KVA LOAD			0.9				
AIC RATING:		31			OTHER KVA LOAD			4.1				
BUS TYPE:		CU			SPCL KVA LOAD (W/DMD FCTR)			0.0				
NEUTRAL:		100%			LOAD (AMPS) PANEL			13.8				
MAX. ALLOWED AMPS		40 A										

R=RECEPTACLE, L=LIGHTING, M=MOTORS, O=OTHER LOADS, K=KITCHEN EQUIPMENT, F=FREEZER, S=SPECIAL LOADS WITH DEMAND FACTOR  
"BLANKS", "L", "M" AND "O" WILL BE CALCULATED AT 100%; "K", "F" AND "S" WILL BE CALCULATED WITH % ENTERED IN "J34" (DO NOT ENTER % SIGN)  
RECEPTACLE LOAD WILL BE CALCULATED AS FOLLOWS: 0-10 KVA @100%, ABOVE 10 KVA @50%

Rev. June 30, 2008

COPPER FEEDER SCHEDULE - 3 PHASE, 3 WIRE				
FEEDER No.	AMPERE	FEEDER	GROUND	CONDUIT
153	15A, 3PH3W	3-#12	#12	1 1/2"
203	20A, 3PH3W	3-#12	#12	1 1/2"
303	30A, 3PH3W	3-#10	#10	1 1/2"
403	40A, 3PH3W	3-#8	#10	3/4"
503	50A, 3PH3W	3-#8	#10	3/4"
603	60A, 3PH3W	3-#6	#10	1"
703	70A, 3PH3W	3-#4	#8	1"
803	80A, 3PH3W	3-#4	#8	1"
1003	100A, 3PH3W	3-#2	#6	1 1/4"
1253	125A, 3PH3W	3-#1	#6	1 1/2"
1503	150A, 3PH3W	3-#1/0	#6	1 1/2"
1753	175A, 3PH3W	3-#2/0	#6	2"
2003	200A, 3PH3W	3-#3/0	#6	2"
2253	225A, 3PH3W	3-#4/0	#4	2 1/2"
2503	250A, 3PH3W	3-#250K	#4	2 1/2"
3003	300A, 3PH3W	3-#350K	#4	2 1/2"
3503	350A, 3PH3W	3-#400K	#2	3"
4003	400A, 3PH3W	3-#500K	#2	4"
5003	500A, 3PH3W	6-#250K	2-#2	(2) 2 1/2"
6003	600A, 3PH3W	6-#350K	2-#1	(2) 3"
8003	800A, 3PH3W	6-#500K	2-#1/0	(2) 4"
10003	1000A, 3PH3W	9-#600K	3-#2/0	(3) 3"
12003	1200A, 3PH3W	9-#800K	3-#3/0	(3) 4"
16003	1600A, 3PH3W	12-#600K	4-#4/0	(4) 4"
20003	2000A, 3PH3W	15-#600K	5-#250K	(5) 4"



1 Single Line Diagram  
E5.01 SCALE: None



IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICE

APPL. #

AC \_\_\_\_\_ FLS \_\_\_\_\_ SS \_\_\_\_\_

DATE \_\_\_\_\_

FILE NUMBER:

This and all other project documents and all their contents, including but not limited to drawings, specifications, and schedules, are the property of McCarthy Building Companies, Inc. (MCC). They are to be used only for the project and site named herein. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of McCarthy Building Companies, Inc. (MCC). The user of this document shall be deemed to have accepted the user's responsibility for the accuracy and completeness of the information contained herein. MCC and its Consultants make no representation concerning the accuracy of the information contained herein or the results of any construction or other work based on this information.

© Copyright 2008

Revision	Description	Date

Revision	Description	Date

Job No.	REI-300085
Date	OCTOBER 2008
Drawn by	FF
Checked by	TS/RWB
Scale	AS NOTED

**SINGLE LINE DIAGRAM & FEEDER SCHEDULE**  
**E5.01**



# Fire Alarm System For

# COLLEGE OF SAN MATEO BUILDING 34

## 1700 W. Hillsdale Boulevard San Mateo, California 94403

SHEET NUMBER	DRAWING INDEX
FA-01	SHEET TITLE COVER SHEET/ FIRE ALARM EQUIPMENT LIST/ SCOPE OF WORK
FA-02	MISCELLANEOUS NOTES/ EXISTING SEQUENCE OF OPERATIONS
FA-03	EXISTING MXL PANEL AND UPDATED CALCULATIONS
FA-04	WIRING OF DEVICES
FA-05	BUILDING 34 FIRE ALARM RISER DIAGRAM
FA-06	BUILDING 12 FIRE ALARM PLAN

### FIRE ALARM EQUIPMENT LIST

CATE-GORY	ITEM NO.	SYMBOL	QTY	MODEL NUMBER	D E S C R I P T I O N	MANUFACTURER	DATA NUMBER	CALIFORNIA STATE FIRE MARSHAL LISTING NUMBER
	1	TRI-S	1	TRI-S	INTELLIGENT INTERFACE MODULE, SINGLE INPUT	SIEMENS	6179	7300-0067:146
	2				MULTI CANDELA WALL-MOUNTED HORV/STROBE, 15cd	WHEELLOCK	---	7125-0785:142
	3				MULTI CANDELA WALL-MOUNTED HORV/STROBE, 30cd	WHEELLOCK	---	7125-0785:142
	4		1	NS-24MCW-FR	MULTI CANDELA WALL-MOUNTED HORV/STROBE, 75cd	WHEELLOCK	---	7125-0785:142
	5				MULTI CANDELA WALL-MOUNTED HORV/STROBE, 110cd	WHEELLOCK	---	7125-0785:142
	6							

### GENERAL ELECTRICAL NOTES

- ALL WIRING AND INSTALLATION MUST CONFORM WITH PROJECT SPECIFICATIONS, APPLICABLE CODE SUMMARIES, DRAWINGS AND REQUIREMENTS ADOPTED BY NFPA.
- SMOKE DETECTORS SHALL NOT BE LOCATED IN A DIRECT AIRFLOW NOR CLOSER THAN 3 FEET FROM AIR SUPPLY DIFFUSER OR RETURN AIR OPENING PER NFPA 72 (CHAPTERA-5.7.4.1) 2002 EDITION.
- ALL SMOKE DETECTORS AND INITIATING DEVICES WIRING SHALL BE INSTALLED MINIMUM 3 FEET FROM ELECTRONIC BALLAST (LIGHTING FIXTURES).
- WHEN INSTALLING INITIATING AND NOTIFICATION DEVICES, POLARITY MUST BE OBSERVED.
- ALL NOTIFICATION CIRCUIT WIRES MUST BE SUPERVISED. HENCE, NO PARALLEL BRANCHING OF WIRES IS PERMISSIBLE (T-TAPPING). ALL AUDIBLE SIGNALING DEVICES SHALL PRODUCE A DISTINCTIVE THREE-PULSE TEMPORAL TONE. AUDIBLE SIGNALS SHALL HAVE A SOUND LEVEL OF NOT LESS THAN 75dba AT 10' OR AT LEAST 15dba ABOVE THE AVERAGE AMBIENT SOUND LEVEL, WHICHEVER IS GREATER, BUT NOT MORE THAN 110dba AT THE MINIMUM HEARING DISTANCE FROM THE AUDIBLE APPLIANCE (PER NFPA 72 CH. 4, 1999 ED.) WHEN MORE THAN TWO (2) VISUAL DEVICES ARE IN THE SAME VIEWING PLANE THE VISUAL DEVICES SHALL BE SYNCHRONIZED AS REQUIRED BY NFPA 72 CH. 4, 1999 EDITION.
- DO NOT INSTALL ADDRESSABLE DEVICES PRIOR TO PROGRAMMING. (SEE NOTE 15)
- ALL 24 VDC WIRE TO BE INSTALLED IN DEDICATED CONDUIT SEPARATE FROM 120 VAC WIRING, IN ACCORDANCE WITH CURRENT NATIONAL AND STATE ELECTRICAL CODES.
- CONDUIT SIZING TO BE DETERMINED BY THE ELECTRICAL CONTRACTOR AND SHALL CONFORM TO CONDUIT FILL CAPACITIES AS PER REQUIREMENTS OF CURRENT EDITIONS OF NATIONAL AND STATE ELECTRICAL CODES.
- DO NOT APPLY 120 VAC POWER TO CONTROL PANEL UNTIL A SIEMENS FIRE SAFETY SERVICE TECHNICIAN HAS INSPECTED ALL SYSTEM WIRING CONNECTIONS AND HAS APPROVED THE SYSTEM TO BE TURNED ON.
- ALL PLUC-IN TYPE DETECTORS REQUIRE A 4" OCTAGONAL 1-1/2" OR DEEPER MOUNTING BOX. REFER TO DETAIL DRAWINGS FOR DEVICE WIRING AND MOUNTING CONDITIONS.
- 120 VAC INPUT CONNECTIONS TO THE FIRE ALARM CONTROL PANEL LIGHT AND POWER SERVICE SHALL BE ON DEDICATED BRANCH CIRCUIT(S). THE CIRCUIT(S) AND CONNECTIONS SHALL BE MECHANICALLY PROTECTED. CIRCUIT DISCONNECT MEANS SHALL HAVE A RED MARKING. SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
- INSTALLATION MATERIALS SUCH AS CONDUITS, FITTINGS, JUNCTION BOXES, TERMINAL CABINETS, PULL BOXES, HANGERS, ETC. ARE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL WIRING IS TO BE FROM DEVICE TERMINAL TO DEVICE TERMINAL SPLICES AND WIRE NUTS ARE NOT ACCEPTABLE.
- ANY DEVIATION FROM THE DESIGN AND LOCATION OF EQUIPMENT SHOWN MUST FIRST HAVE A WRITTEN APPROVAL FROM SIEMENS FIRE SAFETY. ANY DEVIATION FROM DESIGN MUST ALSO BE INDICATED ON SIEMENS FIRE SAFETY SHOP DRAWINGS (BLUEPRINTS) AND RETURNED TO SIEMENS FIRE SAFETY AT TIME OF JOB COMPLETION.
- SHOWN IN THIS DRAWING SET IS SIEMENS FIRE SAFETY ENGINEERED FIRE ALARM SYSTEM PER CONTRACTUAL DESIGN DRAWINGS AND SPECIFICATIONS.
  - CONTRACTOR SHALL NOT DEVIATE BY NOT MORE THAN 5% FROM THE FINAL APPROVED SHOP DRAWINGS.
  - WIRE RUNS HAVE BEEN ENGINEERED TO COMPLY WITH SPECIFIC VOLTAGE DROP REQUIREMENTS. ANY DEVIATION FROM SHOWN WIRE RUNS WHICH RESULTS IN NONCOMPLIANCE WITH VOLTAGE DROP REQUIREMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
  - THESE SUBMITTED SHOP DRAWINGS ARE COMPLETE. SIEMENS FIRE SAFETY SHALL NOT BEAR ANY ADDITIONAL COSTS OF RE-ENGINEERING RECORD DRAWINGS (AS-BUILTS).
- ALL SMOKE DETECTORS (NEW OR EXISTING) SHALL BE PROTECTED FROM DUST AND DEBRIS DURING CONSTRUCTION. SMOKE-SENSING DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER THE CONSTRUCTION CLEANUP OF ALL TRADES IS COMPLETE AND FINAL. PER NFPA 72 (5.7.1.1) 2002 EDITION.

Exception: WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION FOR PROTECTION DURING CONSTRUCTION, DETECTORS THAT HAVE BEEN INSTALLED DURING CONSTRUCTION AND FOUND TO HAVE A SENSITIVITY OUTSIDE THE LISTED AND MARKED SENSITIVITY RANGE SHALL BE CLEANED OR REPLACED AT AN ADDITIONAL COST TO THE CONTRACTOR.
- POWER SERVICES SHALL BE ON A DEDICATED BRANCH CIRCUIT WIT A RED MARKING AND IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL"
- PROVIDE TEMPORAL-THREE DISTINCTIVE FIRE ALARM SOUND.
- THE STROBE FLASH RATE SHALL NOT EXCEED TWO (2) FLASHES PER SECOND NOR BE LESS THAN ONE FLASH PER SECOND.
- FINAL FIRE ALARM TEST SHALL BE MADE WITH THE DSA INSPECTOR OF RECORD (IOR). LOCAL FIRE AUTHORITY SHALL BE NOTIFIED OF DATE AND TIME OF FINAL FIRE ALARM TESTING AND SHALL ASSIST/WITNESS SUCH TESTING WHEN ABLE.
- FIRE ALARM CONTRACTOR SHALL PROVIDE A "RECORD OF COMPLETION" TO THE INSPECTOR OF RECORD (IOR)/DSA AFTER COMPLETION OF OPERATIONAL ACCEPTANCE TEST.

### SCOPE OF WORK

Presented herein is the minor fire alarm system modifications for the building remodel which include a slight reconfiguring of notification devices within the newly created mechanical chiller room. Further, the fire alarm system will monitor the refrigerant monitoring system for leak detection and emergency chiller de-activation. System status changes report to the campus fire alarm system and will then be sent to the existing campus monitoring company.

### MXL - FIRE ALARM SYSTEM WIRING GUIDELINES

- ALL WIRING MUST COMPLY WITH LOCAL AND CALIFORNIA ELECTRICAL CODES. ALL WIRING MUST BE DONE AS DESCRIBED IN NOTES 2 & 6 BELOW, TO OBTAIN SAFE AND PROPER SYSTEM OPERATION.
- EARTH GROUND THE MXL ENCLOSURE PROPERLY; SEE LATEST EDITION OF NATIONAL ELECTRICAL CODES FOR APPROVED METHODS. CONDUIT GROUND IS NOT ADEQUATE.
- SEPARATE ALL WIRING FOR INITIATING DEVICES (i.e., DETECTORS, MANUAL STATIONS, TRI MODULES, ETC) FROM ALL OTHER WIRING IN THE MXL-IQ ENCLOSURE.
- INSULATE ALL CABLE DRAIN WIRES FROM ANY CONDUIT OR OTHER EARTH GROUNDED ELECTRICAL BOX, INCLUDING THOSE IN THE MXL ENCLOSURE.
- CONNECT SHIELD CABLE DRAIN WIRE ONLY AT SPECIFIED LOCATION INSIDE THE MXL ENCLOSURE.
- EARTH GROUND ALL CONDUIT RUNS THROUGHOUT THE INSTALLATION.
- LINE RESISTANCE IS MEASURED AT THE ALD-21 MODULE SCREW TERMINALS. THE END OF THE LOOP MUST BE SHORTED. THE ALD-21 MODULE MUST BE REMOVED FROM THE SCREW TERMINALS, AND NO ADDRESSABLE DEVICES MAY BE INSTALLED.
- LINE CAPACITANCE IS MEASURED AT THE ALD-21 MODULE SCREW TERMINALS THE END OF THE LOOP(S) MUST BE OPEN. THE ALD-21 MODULE MUST BE REMOVED FROM THE SCREW TERMINALS AND NO ADDRESSABLE DEVICES MAY BE INSTALLED.
- ALL 110/120 VAC CIRCUITS SHALL BE INSTALLED IN DEDICATED CONDUIT.
- ALD-21 LOOP WIRING MUST NOT BE IN THE SAME CONDUIT AS CODED AUDIBLE WIRING.
- ALL INITIATING CIRCUITS ARE RATED POWER LIMITED AND SHALL BE WIRED IN ACCORDANCE WITH APPLICABLE CODES.
- UNDERGROUND WIRING IS PERMISSIBLE IF ALL NEC WIRING REQUIREMENTS ARE MET.
- OVERHEAD OR EXTERIOR WIRING IS NOT RECOMMENDED.

### CODE SUMMARY

2007	CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
2007	CALIFORNIA BUILDING CODE PART 2, TITLE 24, CCR (2006 IBC AND 2007 CALIFORNIA AMENDMENTS)
2007	CALIFORNIA ELECTRICAL CODE PART 3, TITLE 24, CCR (2005 NEC AND 2007 CALIFORNIA AMENDMENTS)
2007	CALIFORNIA MECHANICAL CODE PART 4, TITLE 24, CCR (2006 UMC AND 2007 CALIFORNIA AMENDMENTS)
2007	CALIFORNIA PUMBING CODE PART 5, TITLE 24, CCR (2006 UPC AND 2007 CALIFORNIA AMENDMENTS)
2007	CALIFORNIA FIRE CODE PART 9, TITLE 24, CCR (2006 IFC AND 2007 CALIFORNIA AMENDMENTS)
2002	NFPA 72 NATIONAL FIRE ALARM CODE AND ALL AMENDMENTS IN ADDITIONS TO THE ABOVE

### BUILDING CONDITIONS

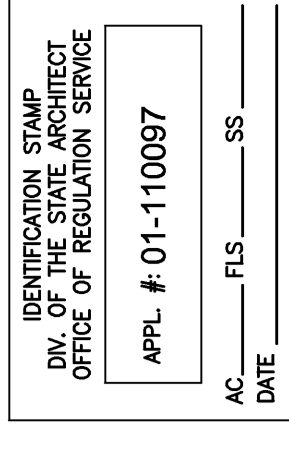
**PROJECT LOCATION:** BUILDING OWNER:  
COLLEGE OF SAN MATEO SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT  
1700 WEST HILLDALE BOULEVARD 3401 CSM DRIVE SAN MATEO, CA 94402  
SAN MATEO, CA 94402 TEL. 650-574-6512



McCarthy Building Companies, Inc.  
343 Saranome Street, 14th Floor  
San Francisco, California 94104  
P 415 364-1339  
F 415 397-5699

### SIEMENS Building Technologies, Inc.

Fire Safety Division  
SAN FRANCISCO BRANCH  
2082 Market Street, Suite 500  
San Francisco, CA 94114  
Tel: (415) 763-8000 Fax: (415) 253-2100  
California State CTO License No. 289790  
U.I. Certificate ID No. 24791-001



The Seal of the Architect is the emblem of the profession and shall be used in accordance with the provisions of the California State Board of Architecture. The Seal shall not be used in any other manner. The Seal shall not be used in any other manner. The Seal shall not be used in any other manner.

© copyright 2008

San Mateo County Community College District  
San Mateo, CA  
College of San Mateo  
Site Package  
San Mateo, CA

Date	Revision	Description

Date	Revision	Description
02 APRIL 2009	02A FINAL	DSA SUBMITTAL

JOB No.	XX
Date	02 APRIL 2009
Drawn By	RB
Checked by	ML
Scale	AS SHOWN

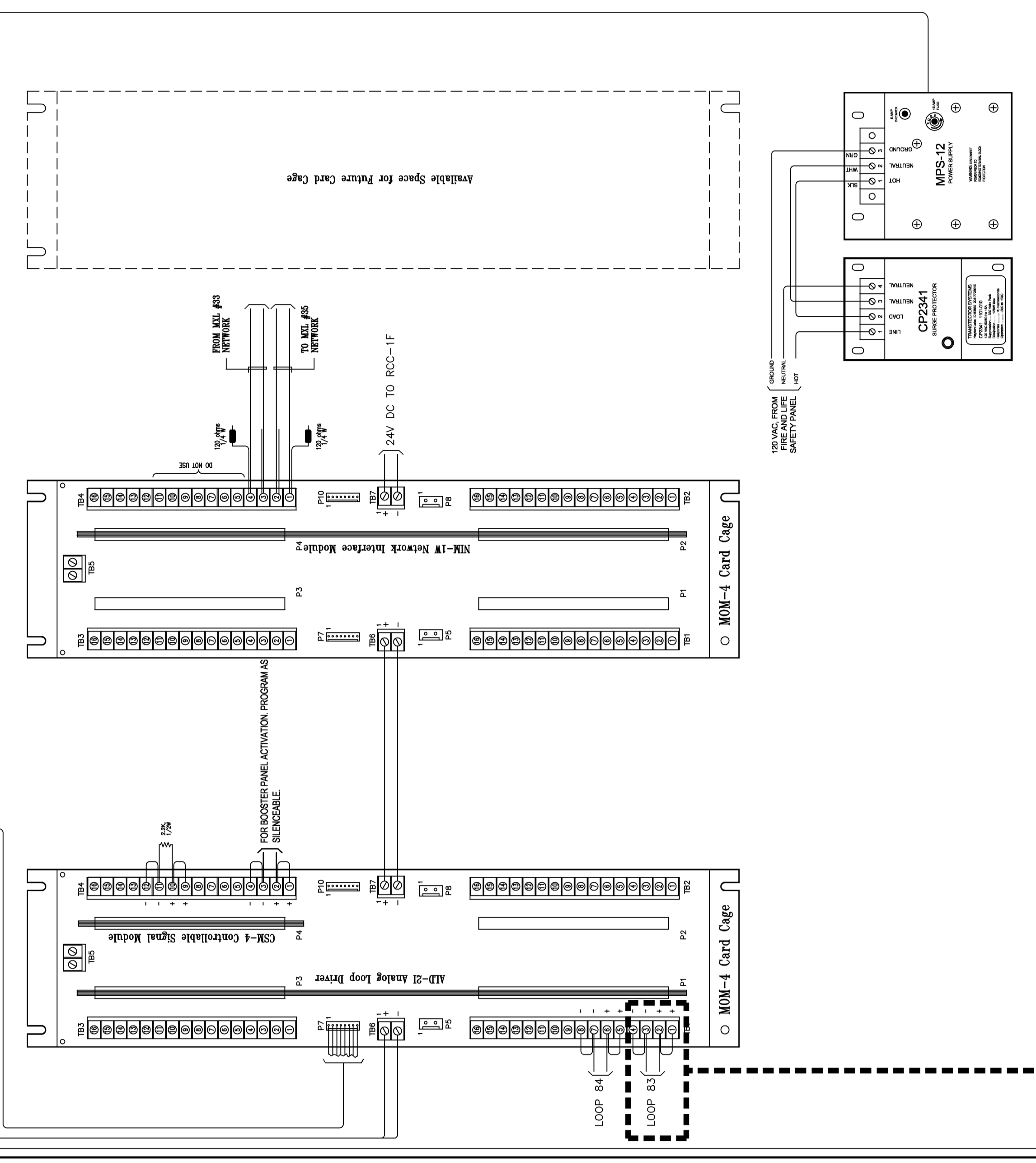
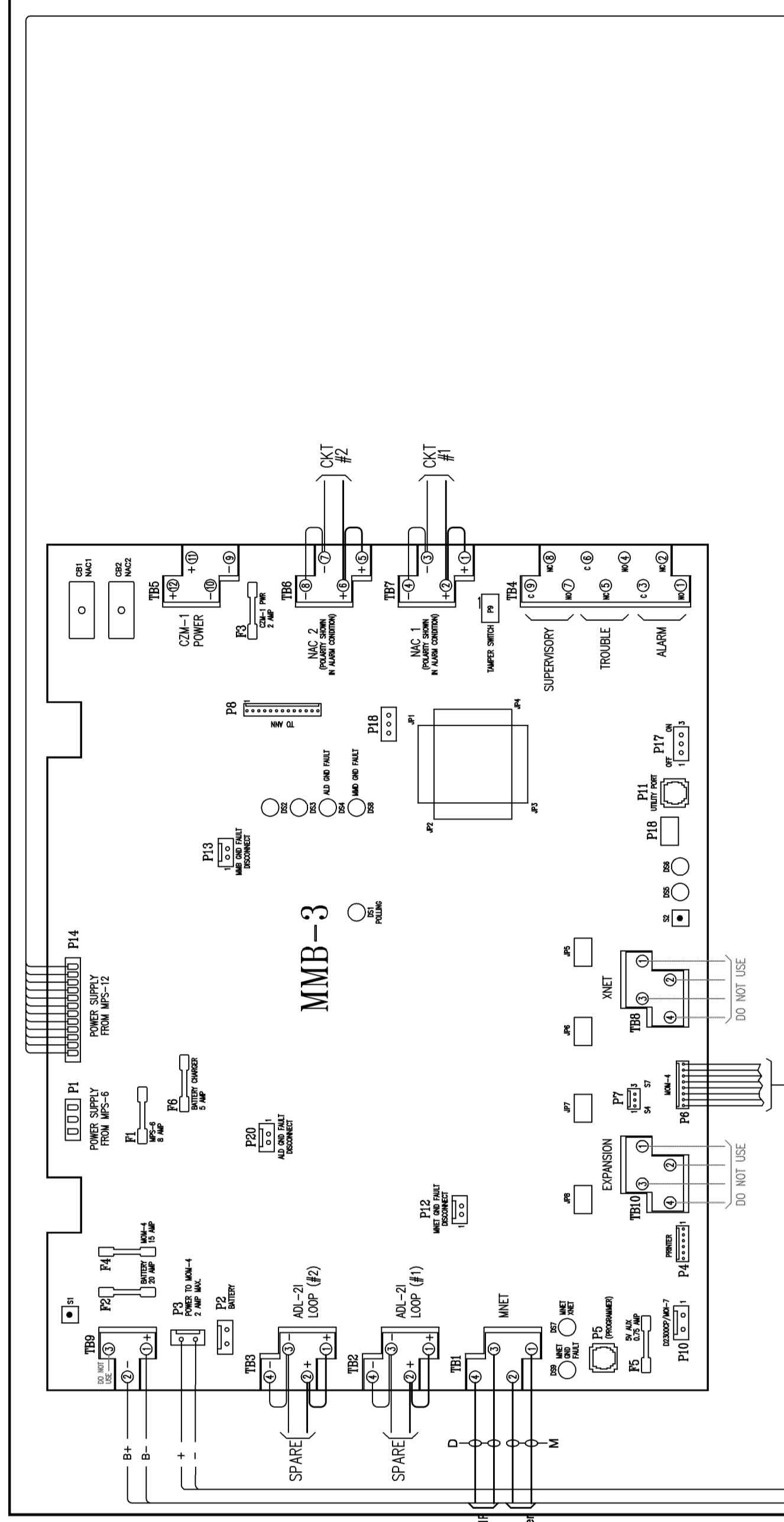
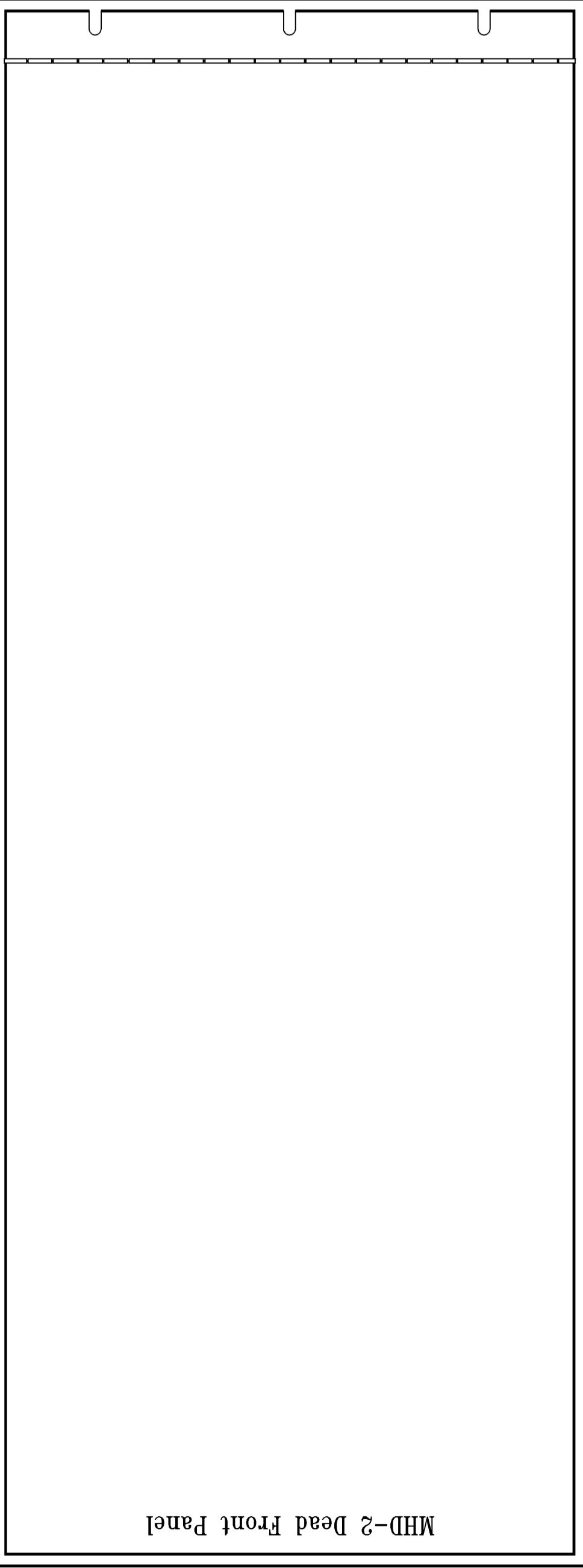
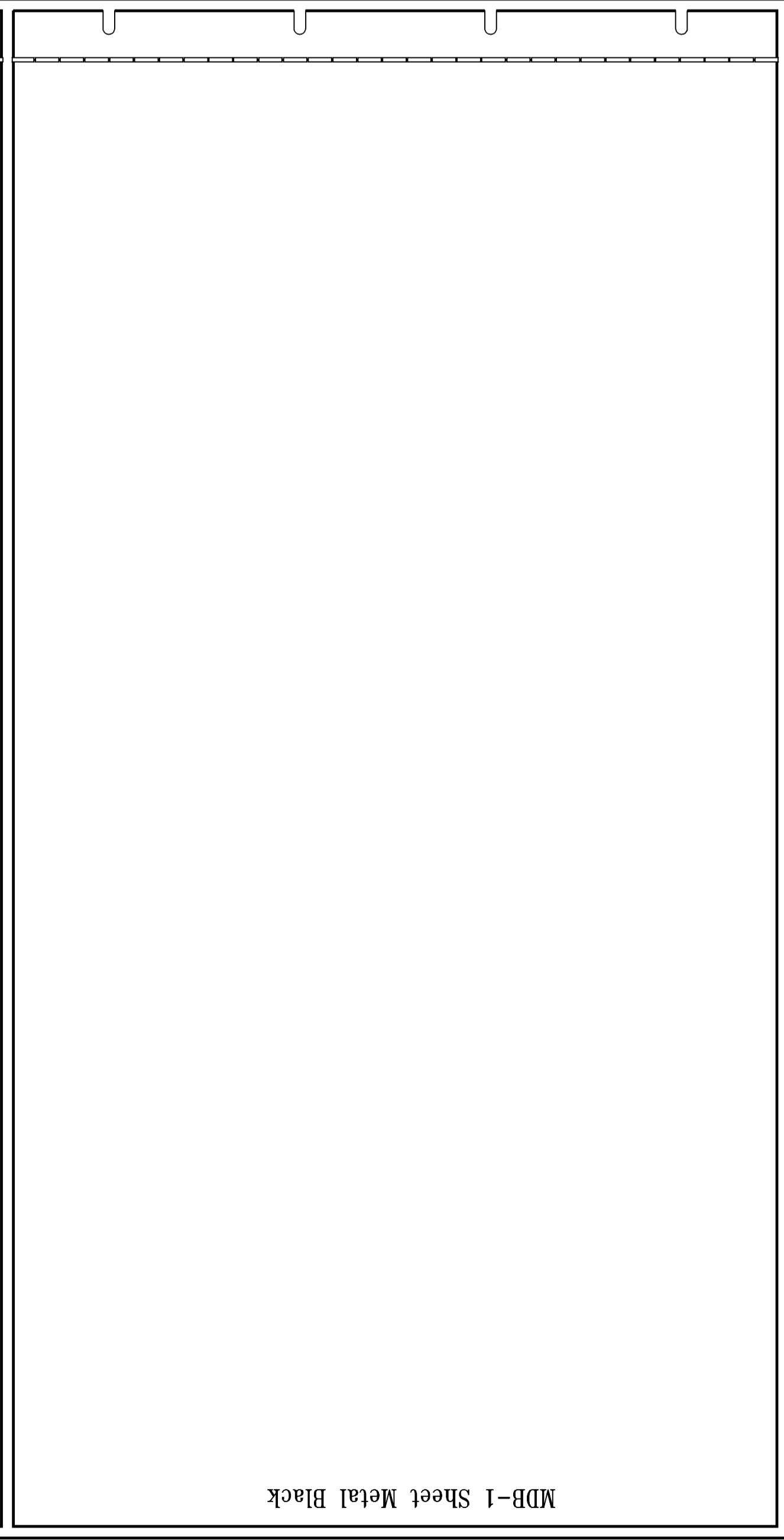
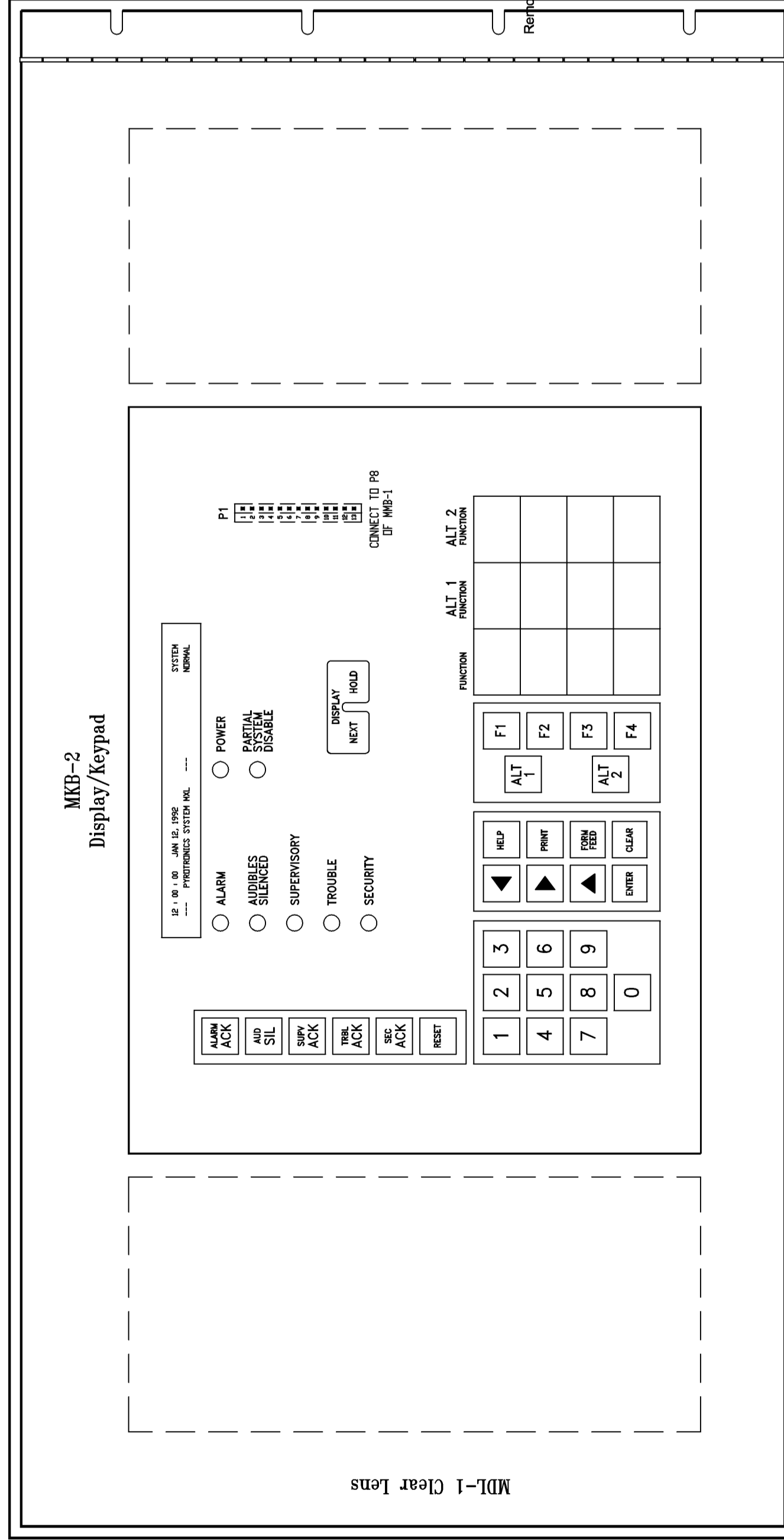
### COVER/ INDEX EQUIPMENT LIST

FA01









MXL PANEL ENCLASURE CONSISTING OF:  
 MBR-2 Backbox  
 MDR-2 Door

Internal View

ACTUAL VOLTAGE DROP CALC

CKT	DISTANCE (ft)	CURRENT LOAD (amps)	VOLTAGE DROP (%)
S1	370	1.203	6.135

#12 AWG WIRE BEING USED

SCOPE OF WORK

**MXL BATTERY CALCULATION**

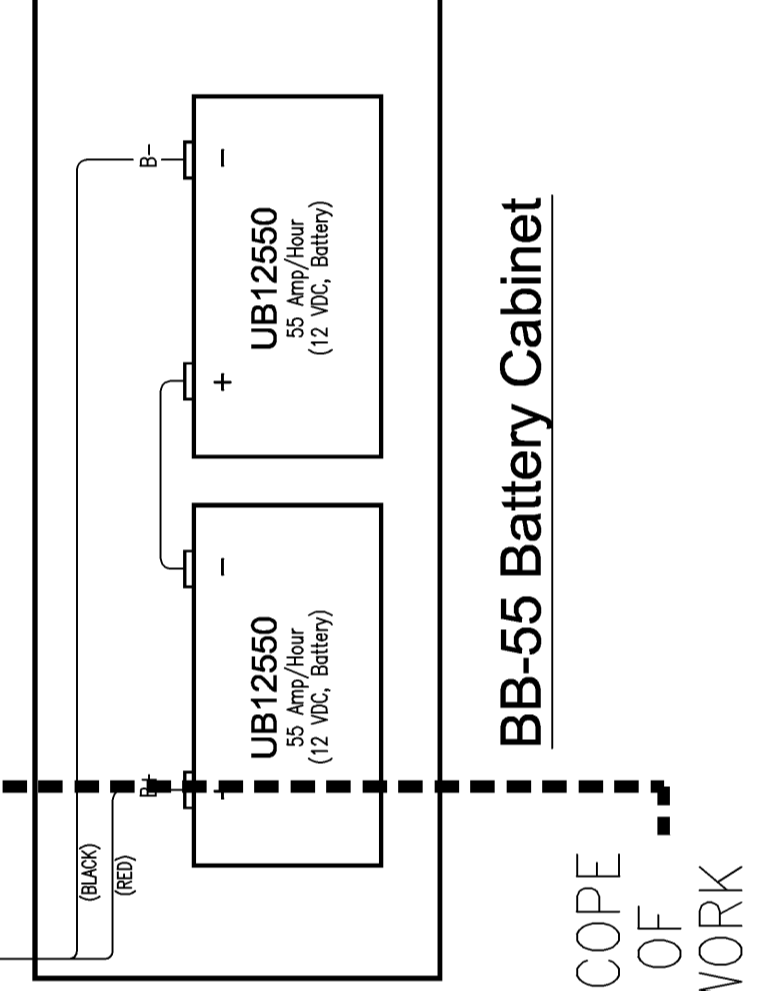
SUPERVISORY CURRENT			ALARM CURRENT		
DESCRIPTION	QTY	MODULE CURRENT	DESCRIPTION	QTY	MODULE CURRENT
MMB-3 MAIN CONTROL BOARD	1	0.015			
MMB-2 MAIN CONTROL BOARD	1	0.002			
ALD-2 ANALOG LOOP DRIVER	1	0.105			
ALD LOOP	2	0.055			
CSM-4 CONTROLLABLE SIGNAL MODULE	1	0.010			
NOTIFICATION CIRCUITS	2	0.012			
NM-1W NETWORK INTERFACE MODULE	1	0.150			
RCC-1 REMOTE COMMAND CENTER	1	0.075			
<b>TOTAL CURRENT</b>		<b>0.676</b>	<b>TOTAL CURRENT</b>		<b>0.000</b>

**WIREMAN POWER HOURING**

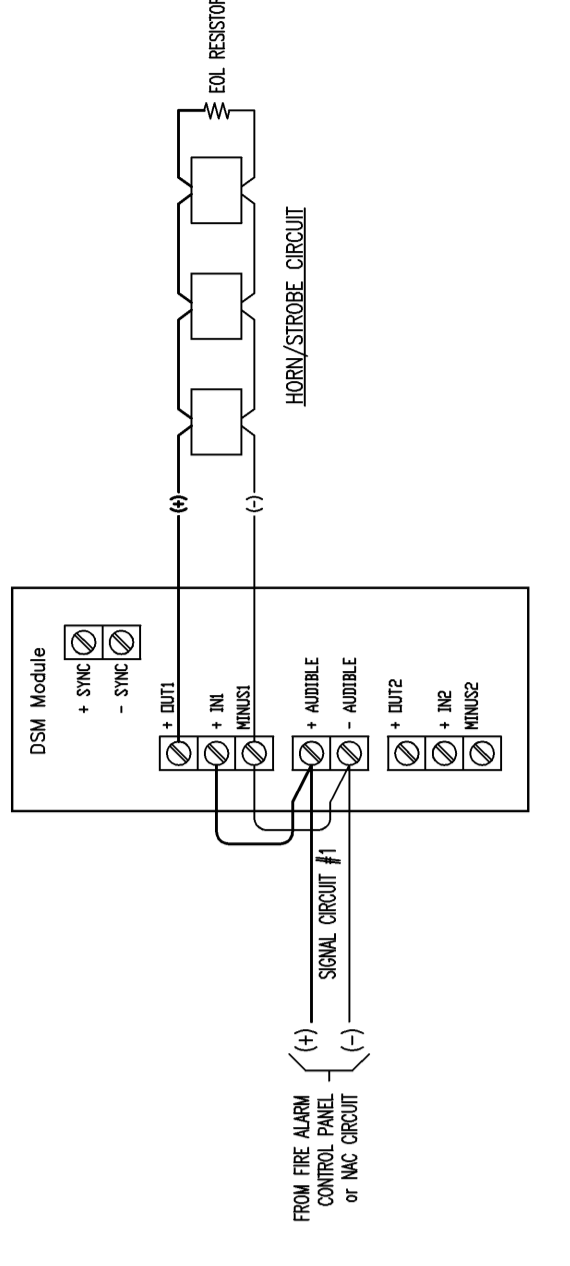
TOTAL CKT CURRENT	1.203
<b>TOTAL ALARM CURRENT (AMPS)</b>	<b>1.203</b>

**SUMMARY**

A = TOTAL SUPERVISORY CURRENT	
x SUPERVISORY TIME REQUIRED	60 HR
=	<b>40.55 (AMP/HR)</b>
B = TOTAL ALARM CURRENT	
x ALARM TIME REQUIRED	55 (AMP/HR)
=	<b>1.879 (AMP/HR)</b>
C = A + B	
=	<b>42.43 (AMP/HR)</b>
BATTERY RESERVE AFTER 60 HOURS SUPERVISORY & 5 MINUTES ALARM (AMPHOUR)	
=	<b>14.284 (AMPHOUR)</b>

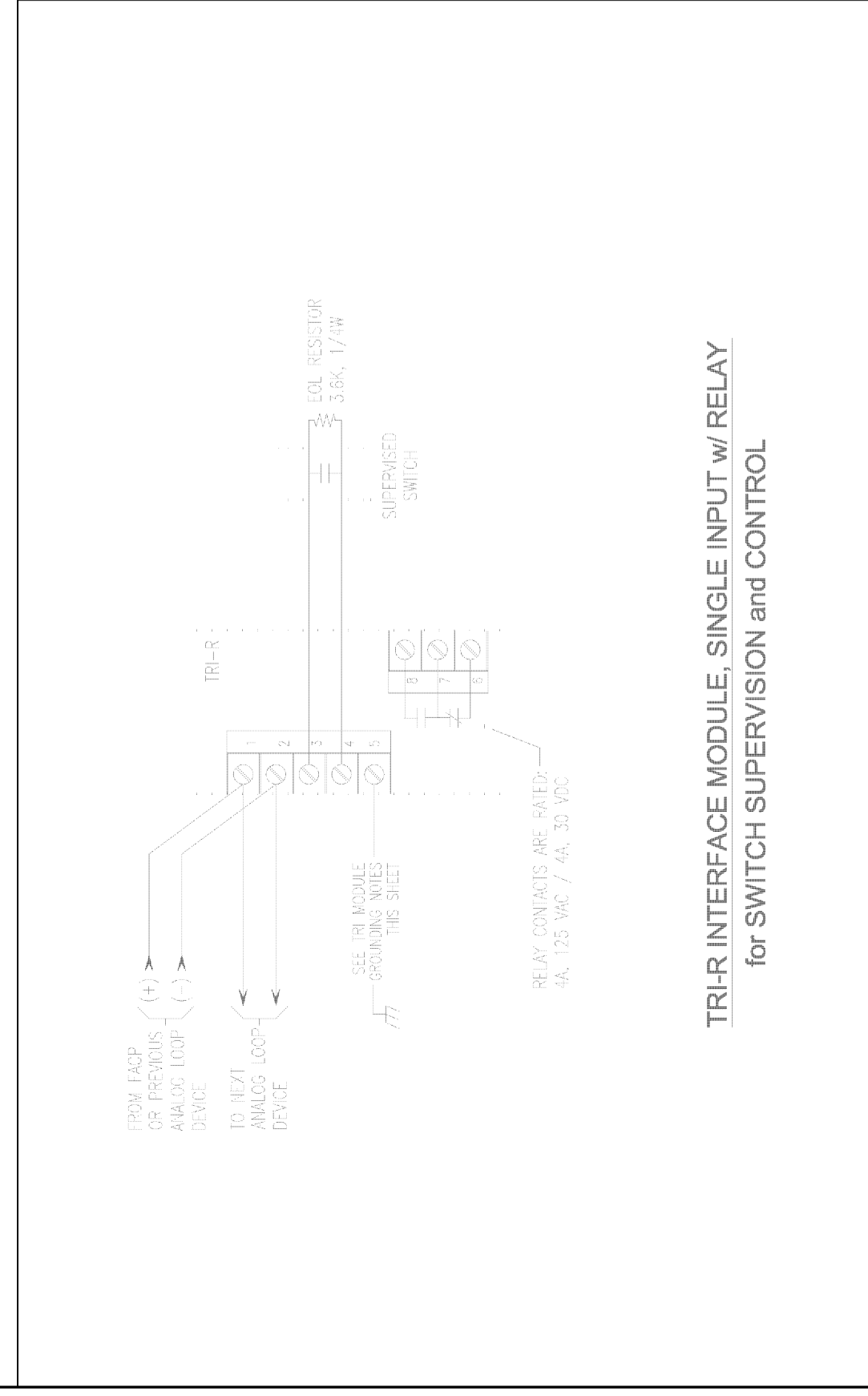


**MXL - FIRE ALARM CONTROL PANEL**  
 Building 34, College of San Mateo

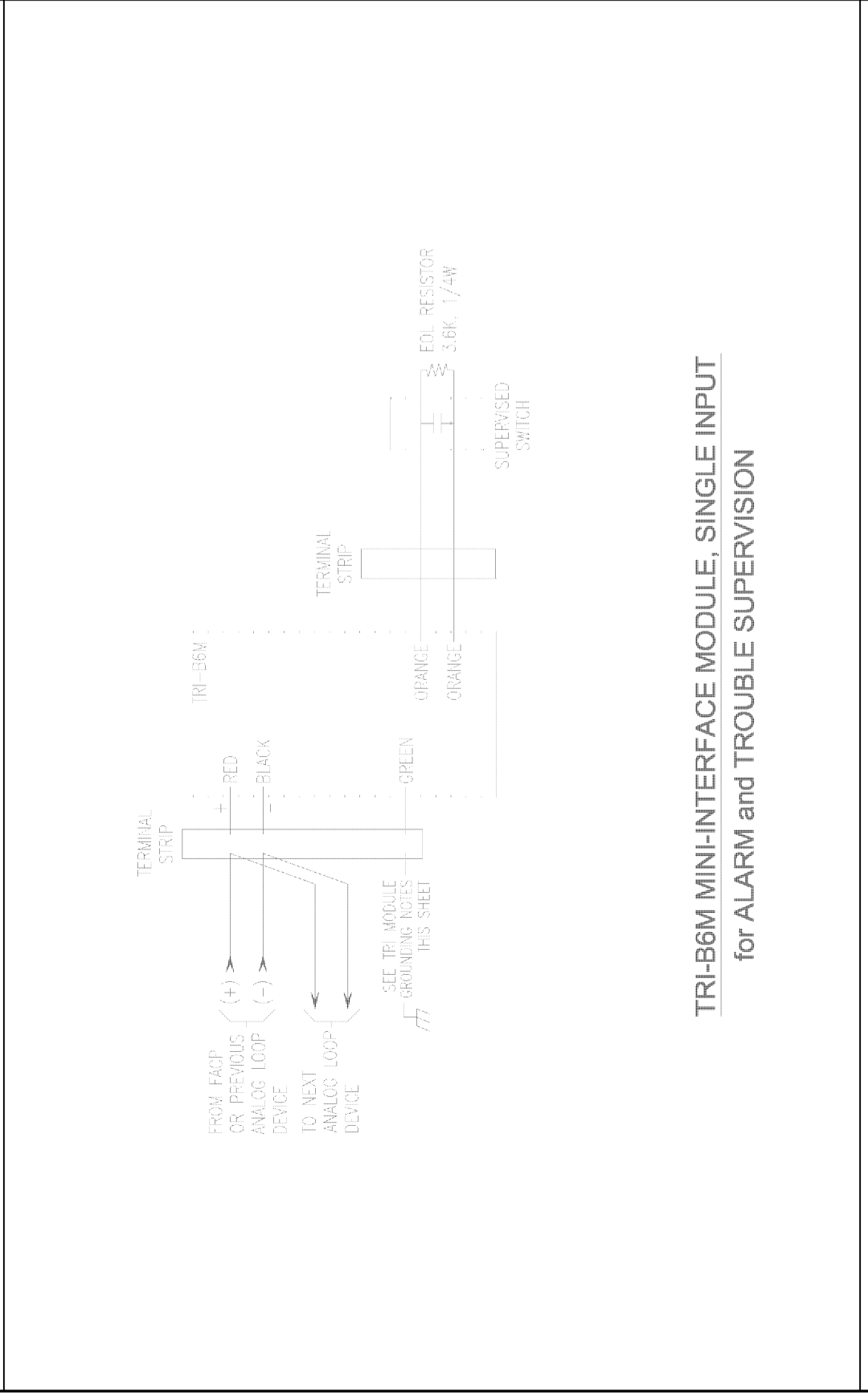


- NOTE:
- MAXIMUM 20 DSM INTERCONNECTED TOGETHER.
  - MAXIMUM OF 1000 FEET FROM THE 1ST DSM TO THE LAST DSM MODULE.
  - MAXIMUM OF #18 AWG WIRE CAN BE USED FOR SYNCING ALL DSM MODULES.
  - USE APPROPRIATE END-OF-LINE RESISTOR VALUES for:
    - MAL FA CONTROL PANEL ----- 2.2K, 1/2 WATT
    - ZC1-BB ZONE CONTROL CARD ----- 24K, 1/2 WATT
    - PS-12/24-SMP EXTENDER PANEL ----- 2.2K, 1/2 WATT
    - ICP INTELLIGENT CONTROL POINT ----- 15K, 1/2 WATT

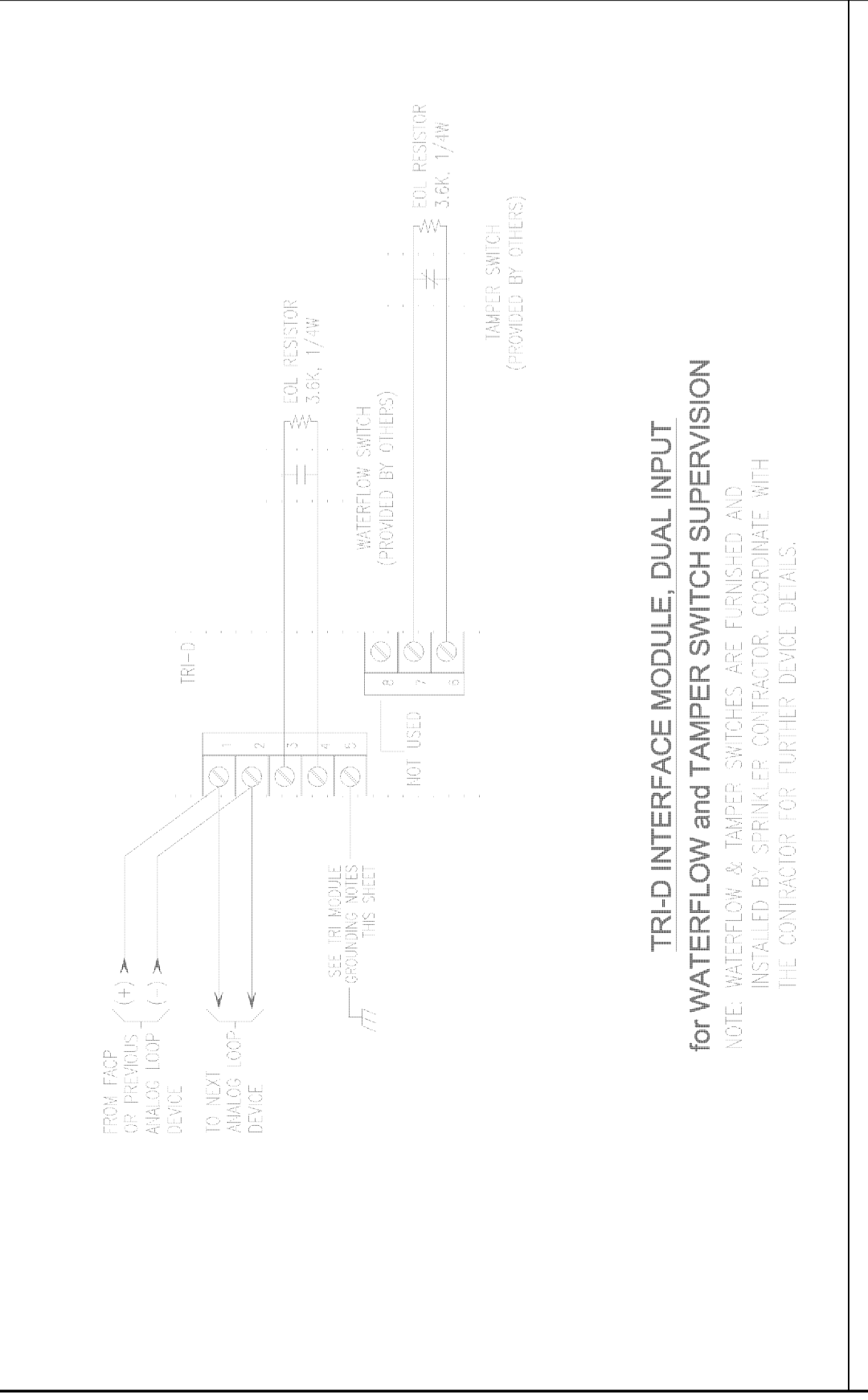
TYPICAL WIRING OF FIELD DEVICES



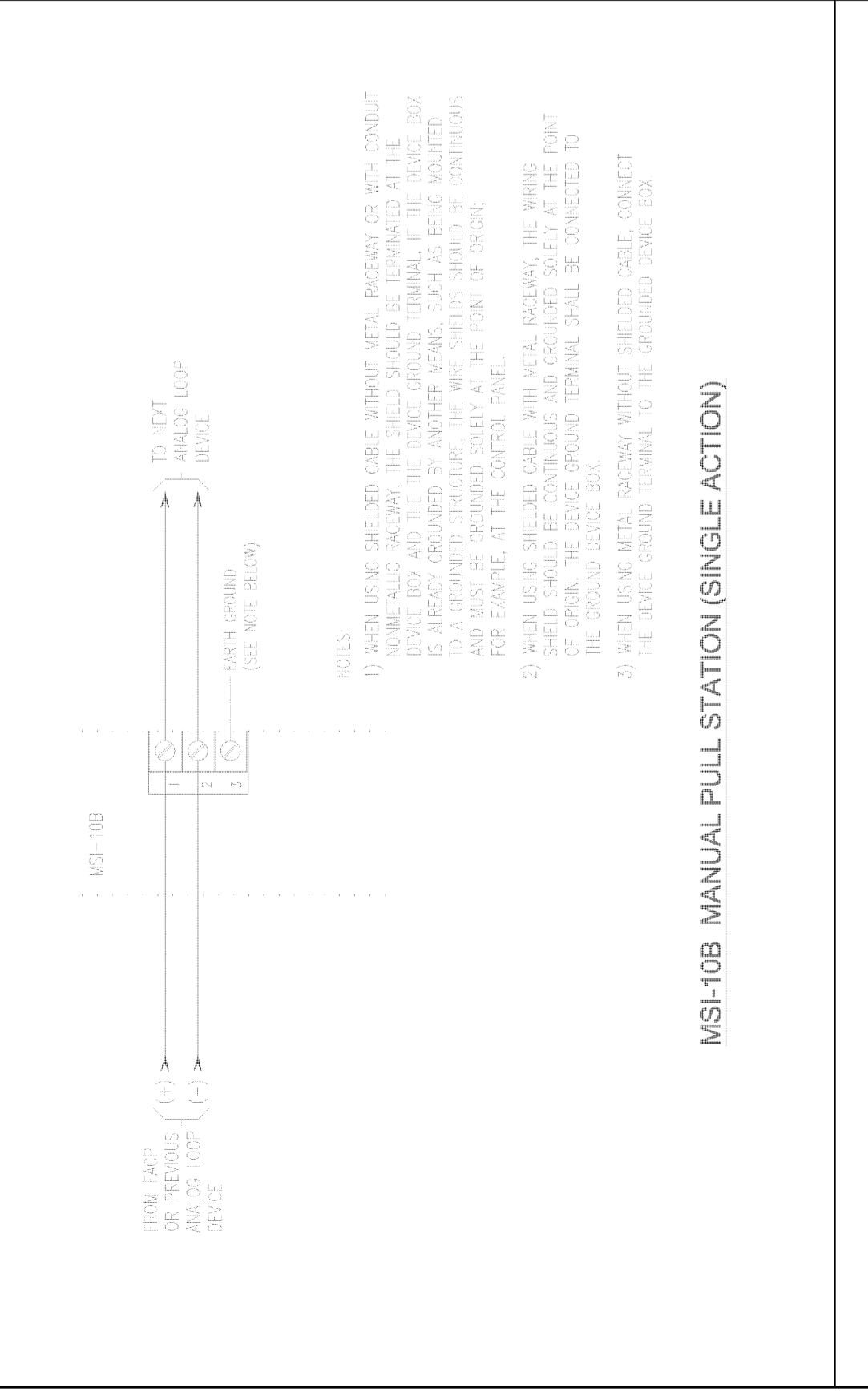
**TRH-R INTERFACE MODULE, SINGLE INPUT w/ RELAY**  
for SWITCH SUPERVISION and CONTROL



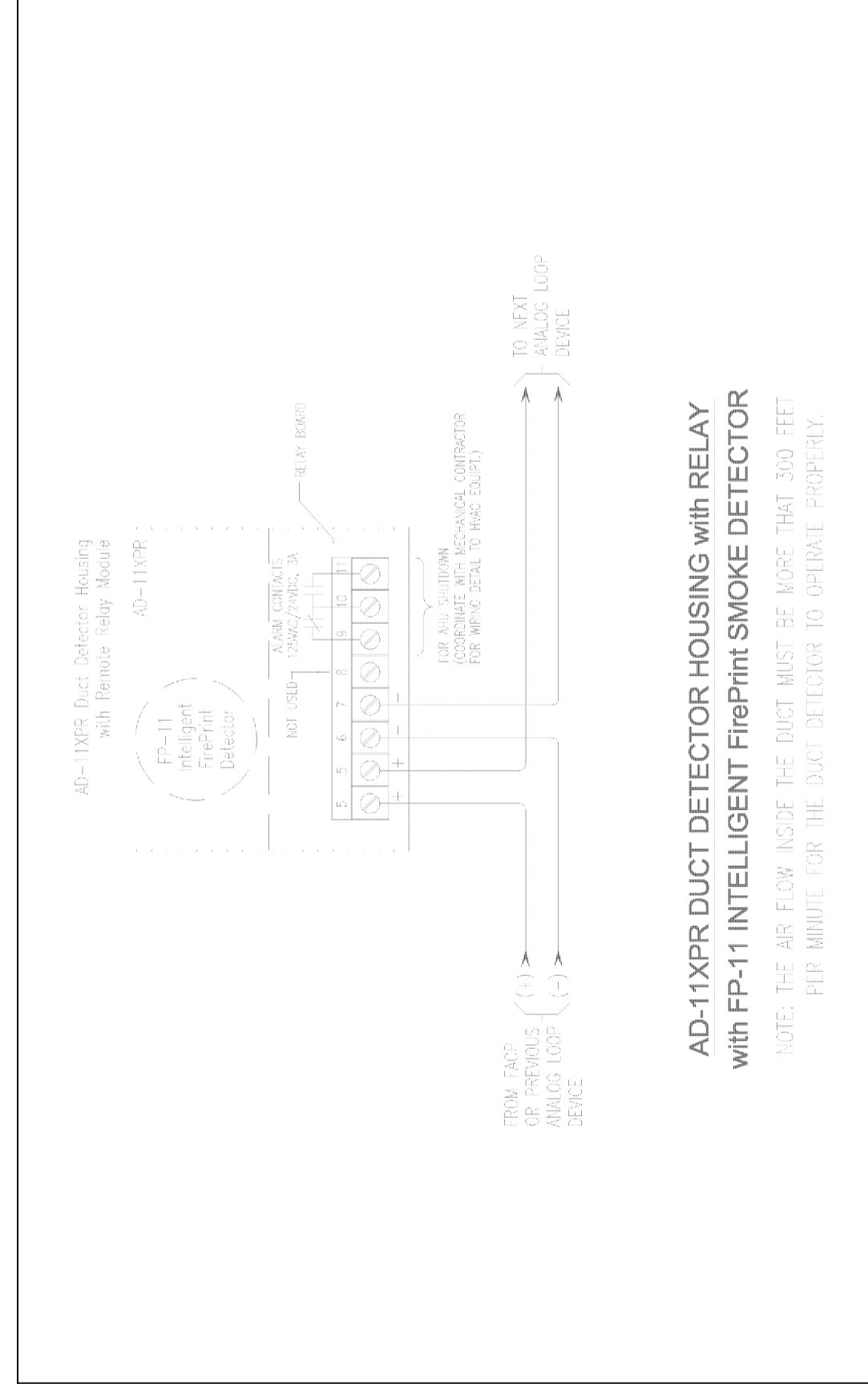
**TRH-R6M MINI-INTERFACE MODULE, SINGLE INPUT**  
for ALARM and TROUBLE SUPERVISION



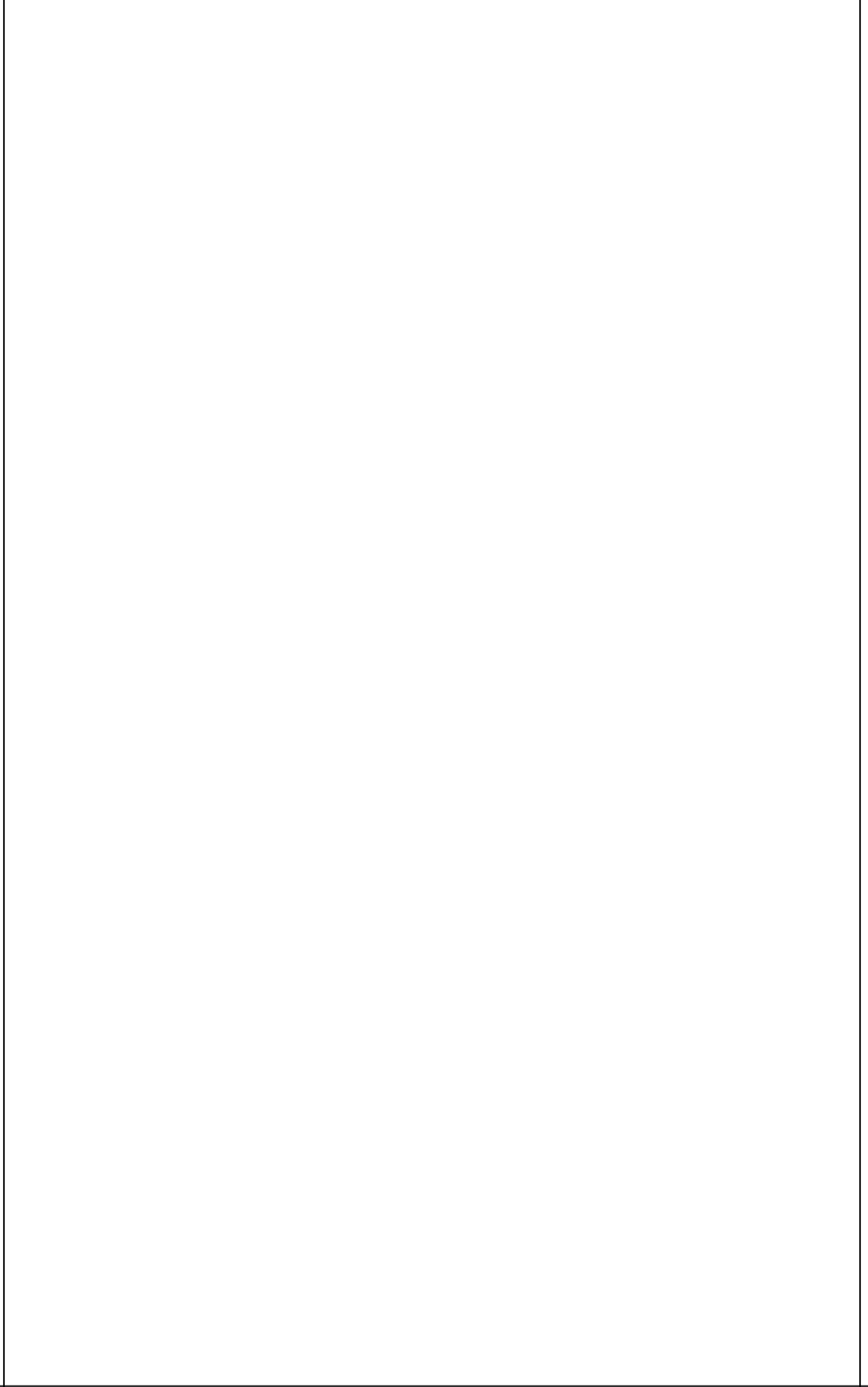
**TRH-D INTERFACE MODULE, DUAL INPUT**  
for WATERFLOW and TAMPER SWITCH SUPERVISION



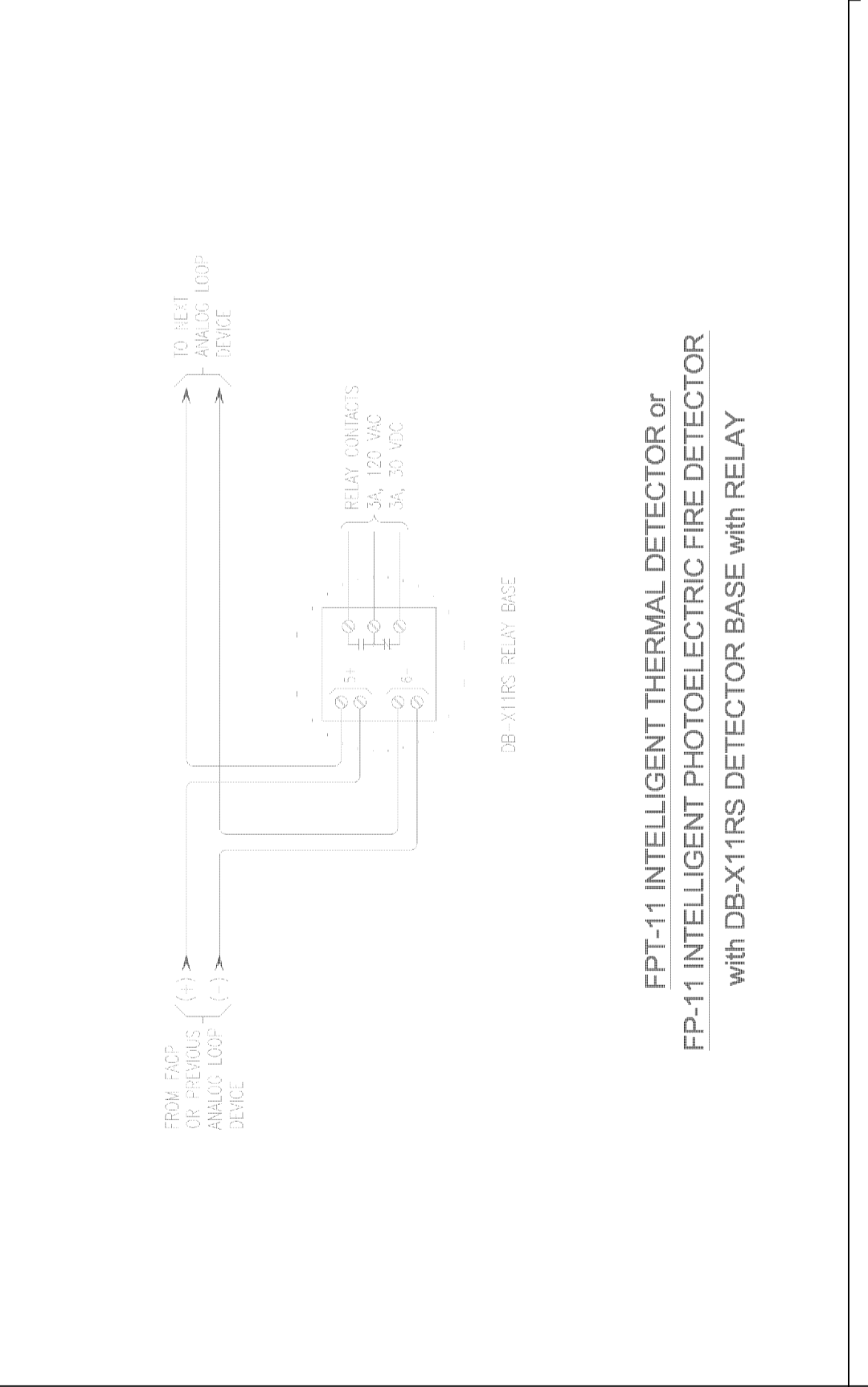
**MSI-10B MANUAL PULL STATION (SINGLE ACTION)**



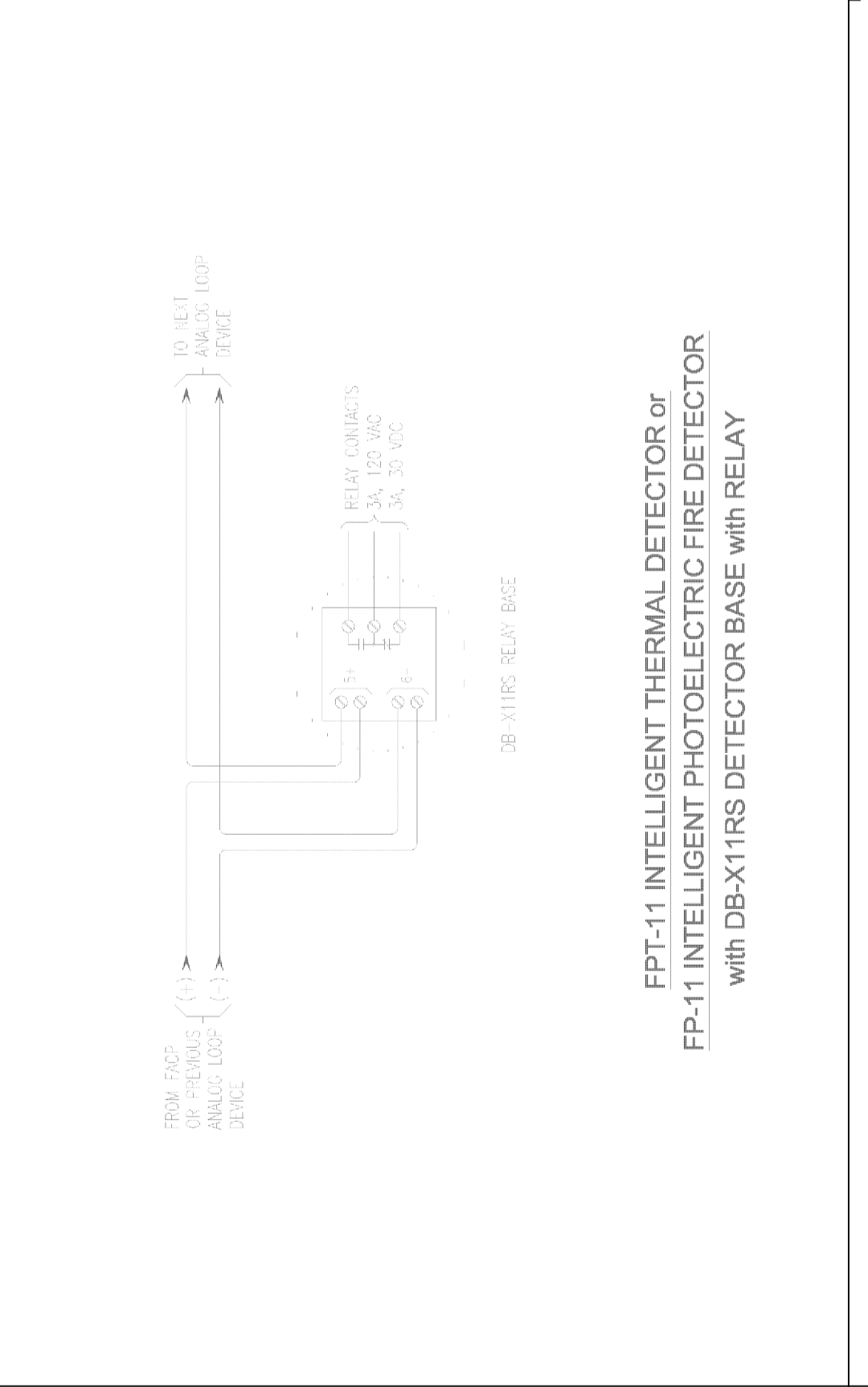
**AD-1XPR DUCT DETECTOR HOUSING WITH RELAY**  
with FP-11 INTELLIGENT FirePint SMOKE DETECTOR



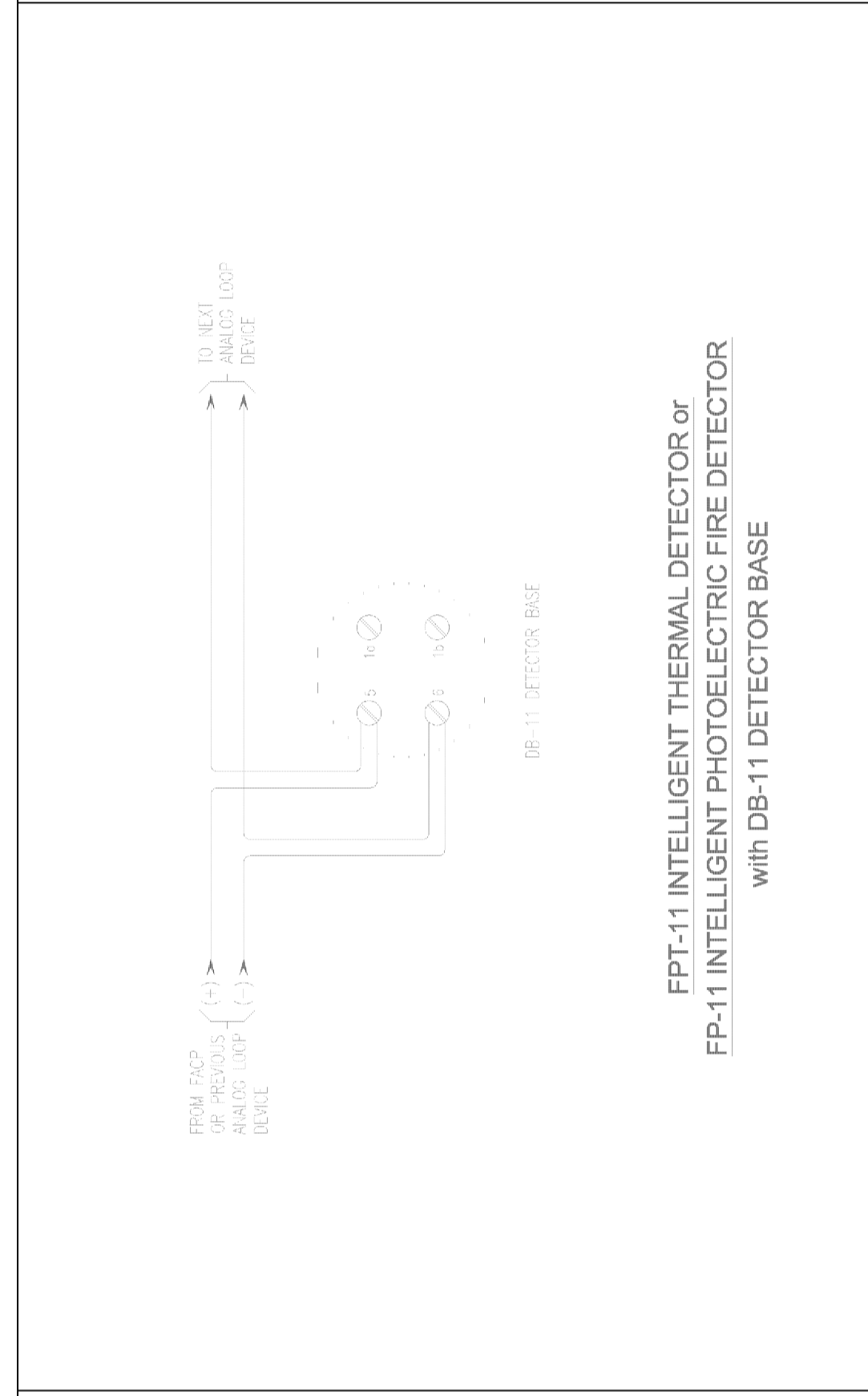
**FP-11 INTELLIGENT THERMAL DETECTOR or FP-11 INTELLIGENT PHOTOELECTRIC FIRE DETECTOR**



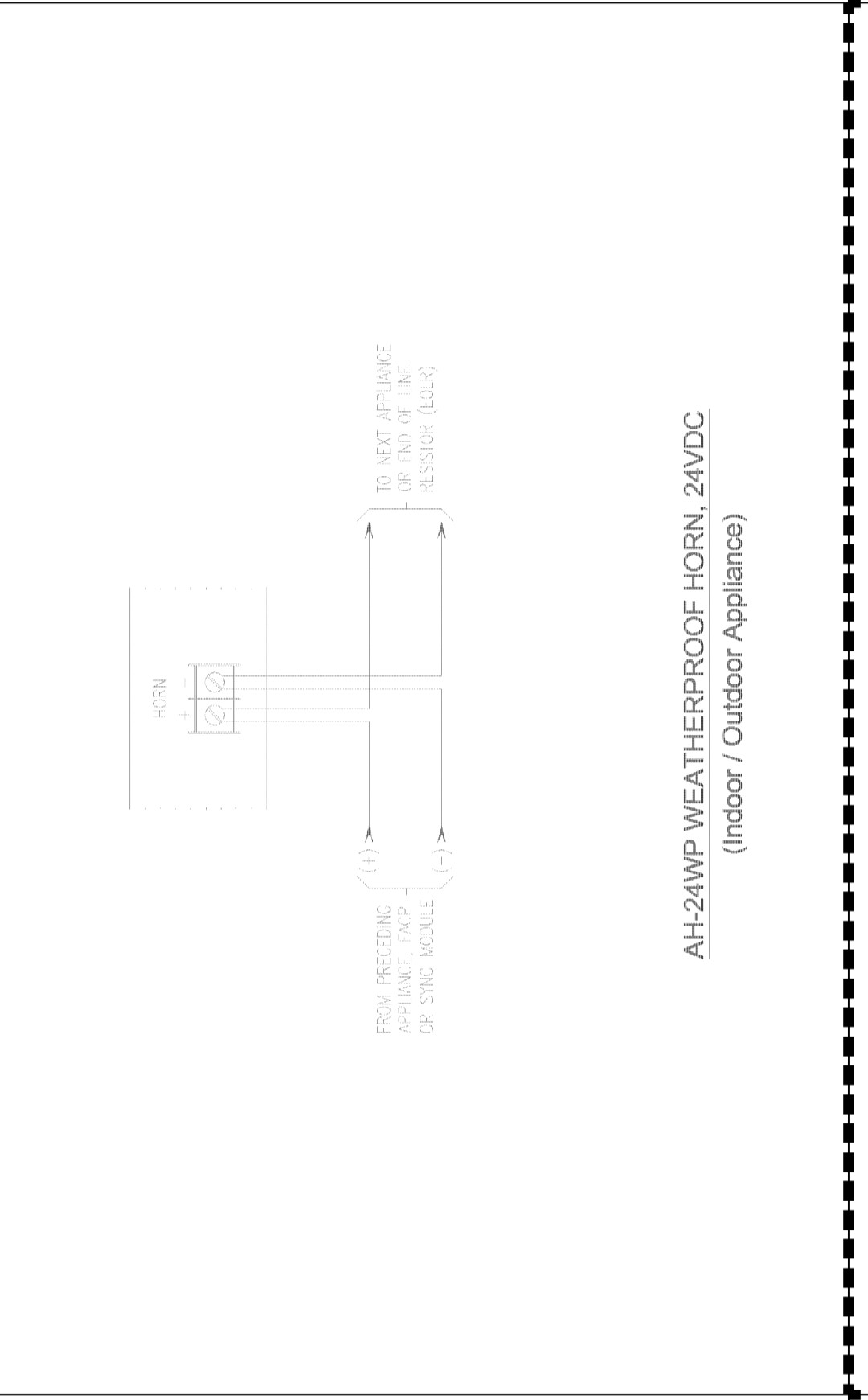
**RSS-24MCW & RSS-24MCC STROBE, 24VDC**  
(Multi-Candela Appliance)



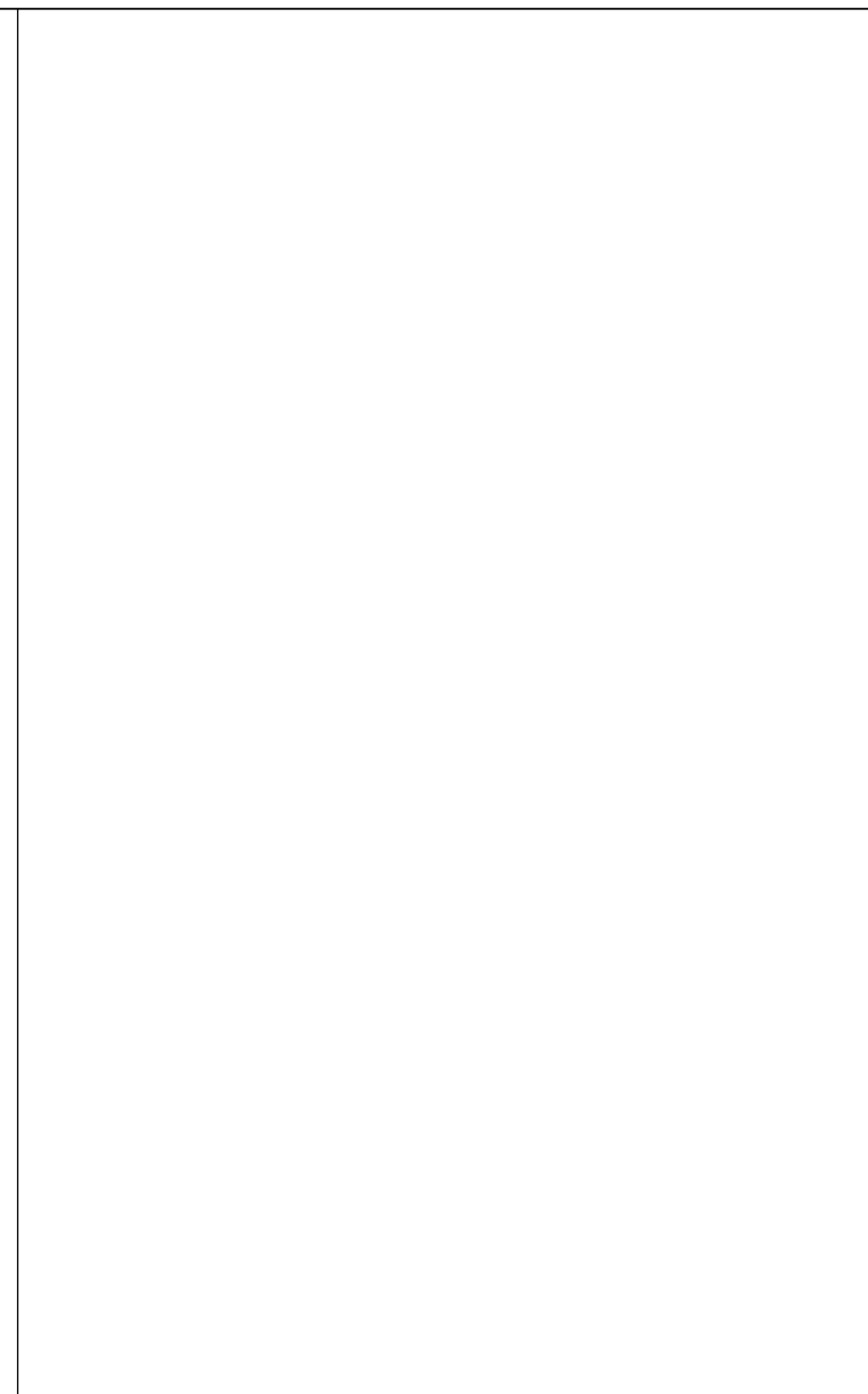
**AH-24WP WEATHERPROOF HORN, 24VDC**  
(Indoor / Outdoor Appliance)



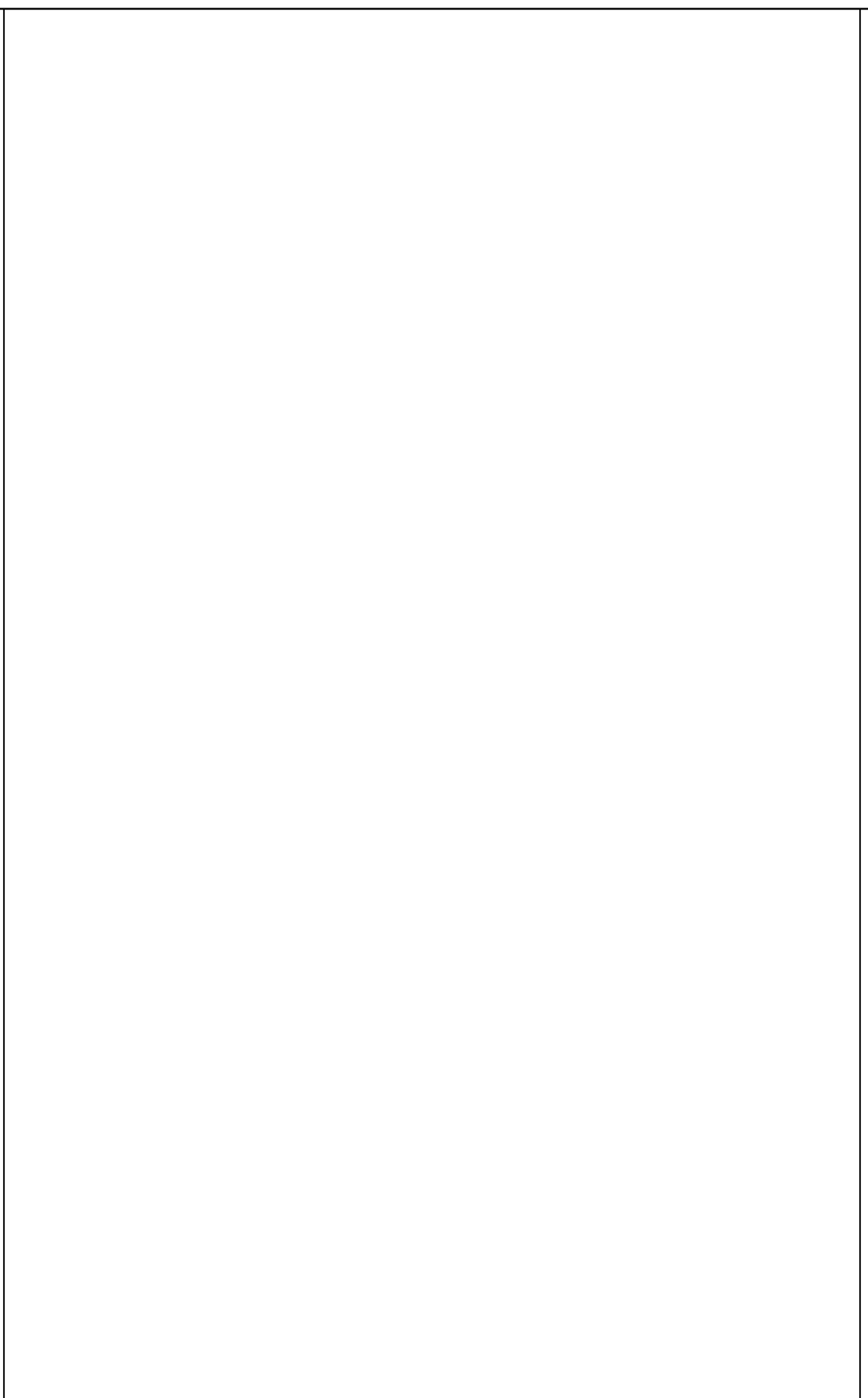
**NS-24MCW HORN/STROBE, 24VDC**  
(Multi Candela Two Wire Appliance)



**TRH-S INTERFACE MODULE, SINGLE INPUT**  
for SWITCH SUPERVISION of REFRIGERATION MONITORING PANEL and PURGE SWITCH



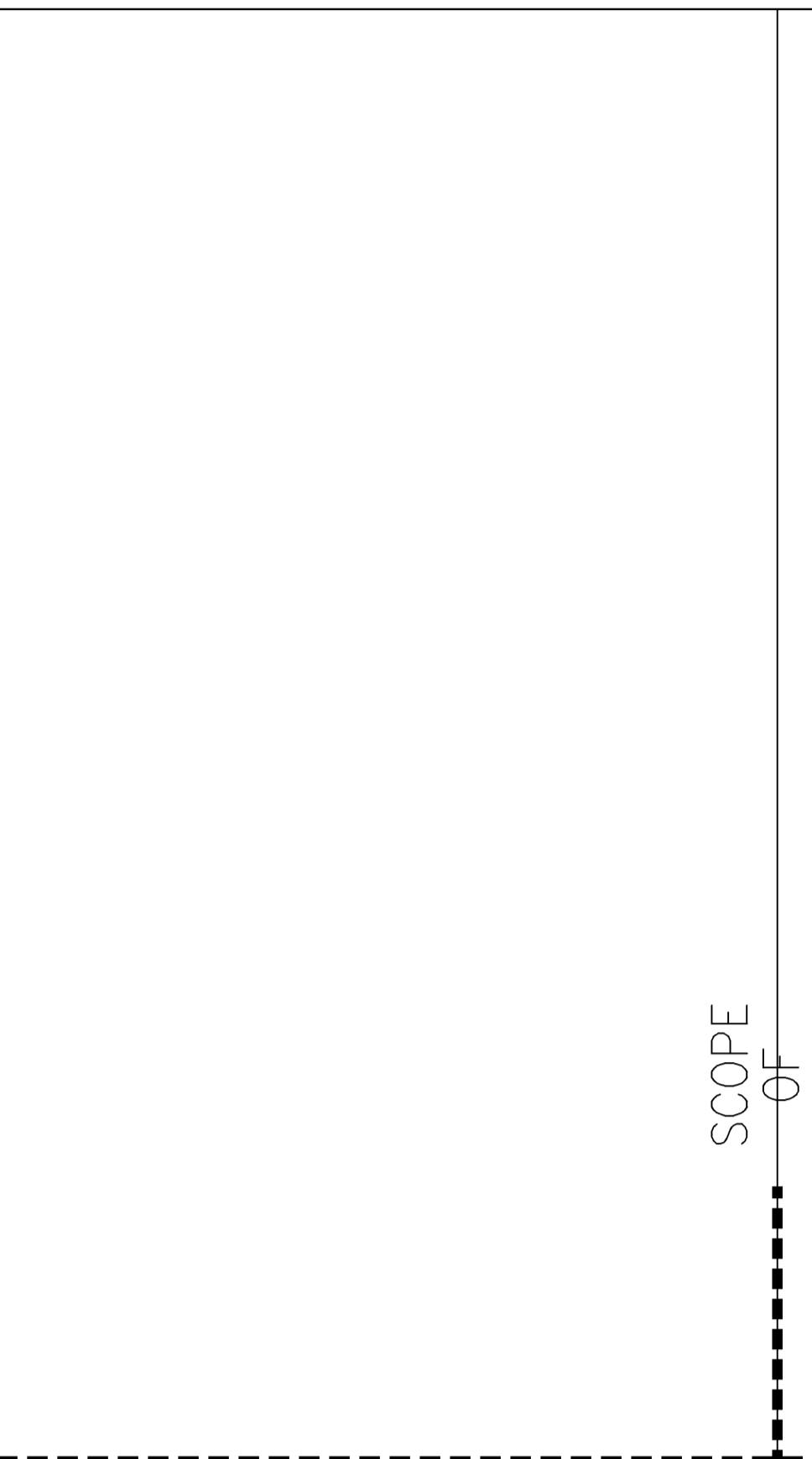
**FP-11 INTELLIGENT THERMAL DETECTOR or FP-11 INTELLIGENT PHOTOELECTRIC FIRE DETECTOR**  
with DB-11 DETECTOR BASE



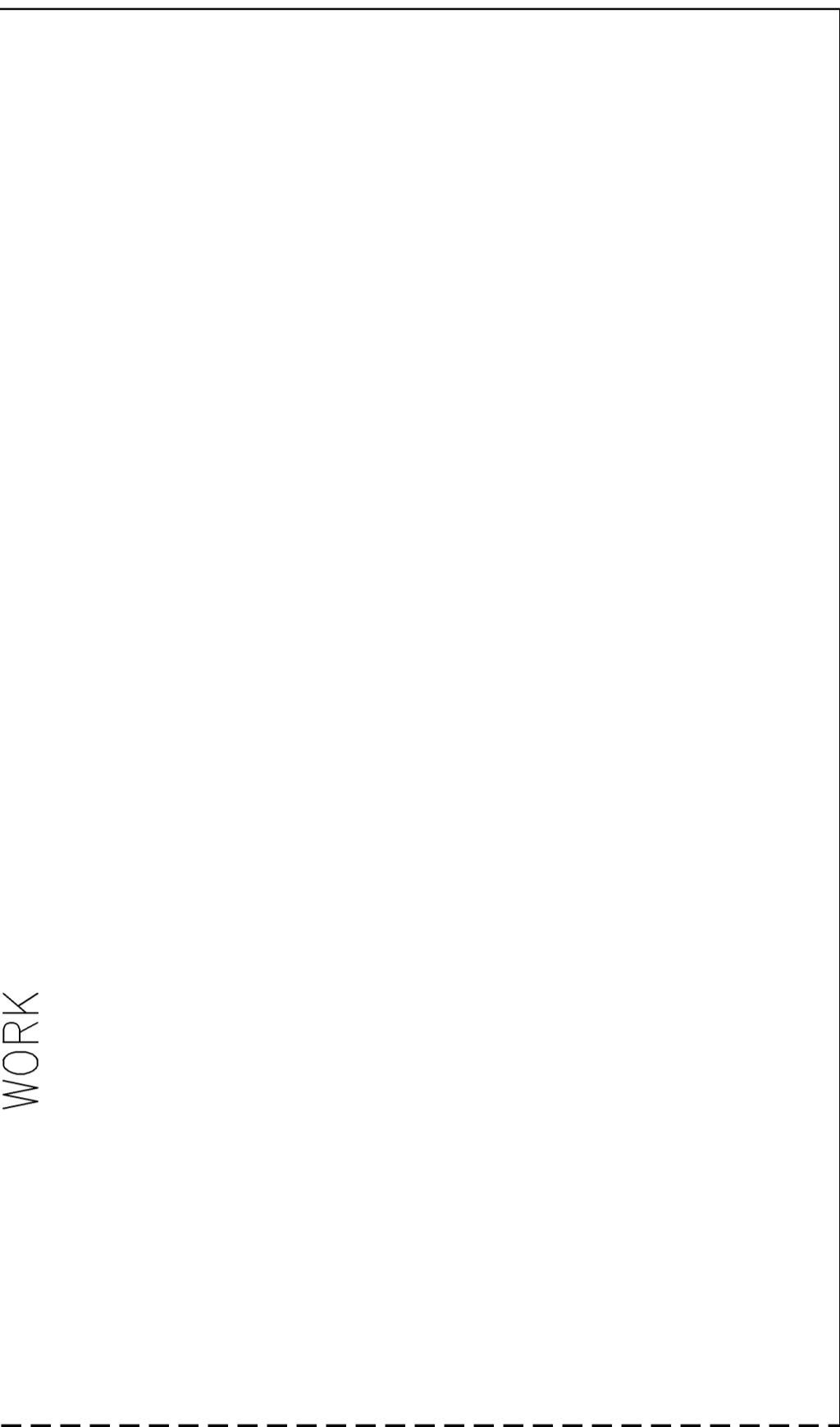
**TRH-R INTERFACE MODULE, SINGLE INPUT w/ RELAY**  
for DOOR HOLDER CONTROL (120 VAC)



**TRH-S INTERFACE MODULE, SINGLE INPUT**  
for SWITCH SUPERVISION of REFRIGERATION MONITORING PANEL and PURGE SWITCH

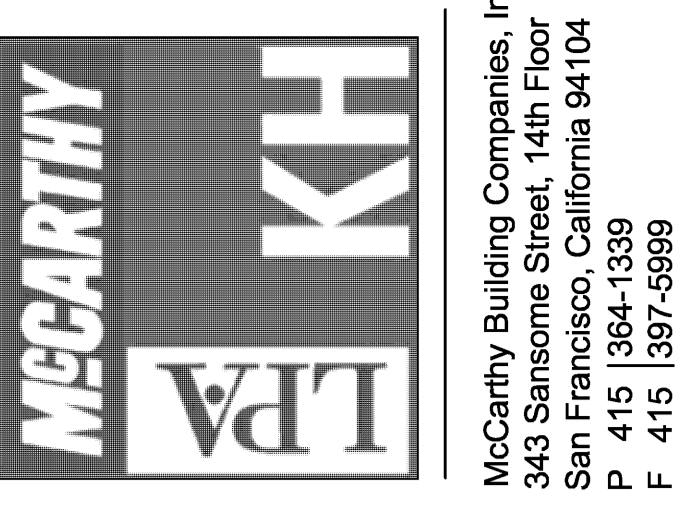


**TRH-S INTERFACE MODULE, SINGLE INPUT**  
for SWITCH SUPERVISION of REFRIGERATION MONITORING PANEL and PURGE SWITCH



**TRH-S INTERFACE MODULE, SINGLE INPUT**  
for SWITCH SUPERVISION of REFRIGERATION MONITORING PANEL and PURGE SWITCH

SCOPE OF WORK



McCarthy Building Companies, Inc.  
343 Sansome Street, 14th Floor  
San Francisco, California 94104  
P 415 364-1339  
F 415 397-5999

**SIEMENS**  
Building Technologies, Inc.  
Fire Safety Division  
SAN FRANCISCO BRANCH  
2082 Market Street, Suite 300  
San Francisco, CA 94114  
Tel (415) 763-6000 Fax (415) 763-2100  
California State CTD License No. 709796  
U.L. Certificate ID No. 324797-001

REGISTRATION STAMP  
DIV. OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICE  
APPL. # 01-110097  
AC: \_\_\_\_\_ DATE: \_\_\_\_\_  
FILE NUMBER: \_\_\_\_\_

The use of other product information of this nature and the incorporation thereof into this drawing is not intended to constitute a warranty of any kind, either expressed or implied, by the manufacturer of the product or by the architect. The manufacturer of the product is the primary authority on the proper use of the product. The architect is not responsible for the proper use of the product. The manufacturer of the product is the primary authority on the proper use of the product. The architect is not responsible for the proper use of the product.

© copyright 2008

College of San Mateo  
Site Package  
San Mateo, CA  
Developed for  
San Mateo County Community College District

Revision	Description	Date
02	APRIL 2009	
01	APRIL 2008	
00	APRIL 2008	

JAN. No.	02
Drawn By	02 APRIL 2009
Checked by	02 APRIL 2008
Scale	AS SHOWN

WIRING OF DEVICES
FA04





