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### GENERAL SHEET NOTES

A. FOR BLOCK DIAGRAMS, SEE DWG 050-E-510.

### SHEET KEYNOTES

1. MOUNT PHOSPHORUS ANALYZER AND TRANSMITTER 5 FEET AFF.



NO.	DATE	DR	CHK	REVISION	BY	APVD
		T. PALIN	M. RARDIN			

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BID DOCUMENTS

# CH2MHILL®

ELECTRICAL

## ENLARGED YARD ELECTRICAL PLAN

NAMPA WWTP PHASE 1 UPGRADES  
 PROJECT GROUP A  
 CITY OF NAMPA  
 NAMPA, IDAHO

AS NOTED

VERIFY SCALE

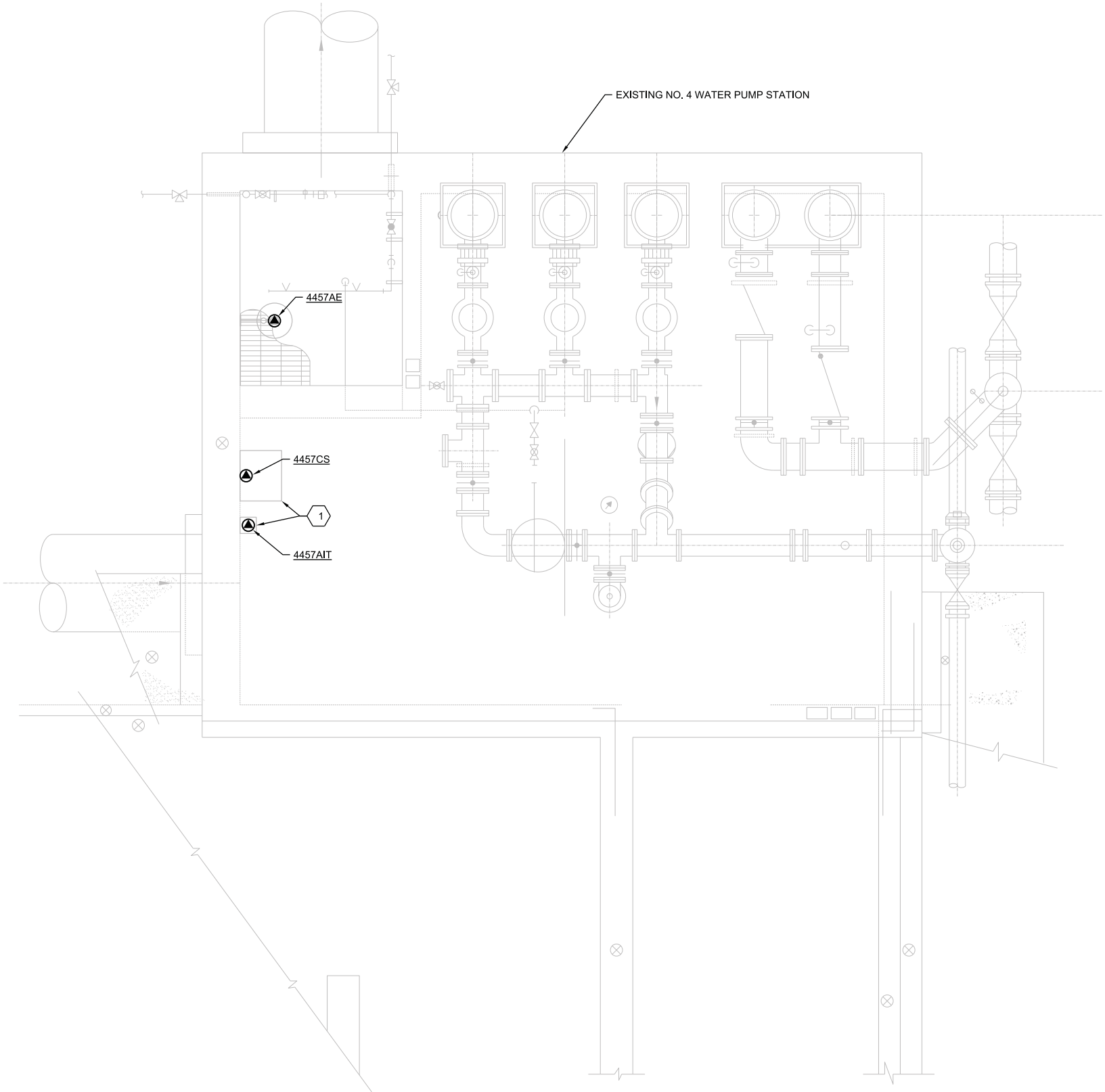
BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE DECEMBER 2014

PROJ 480770

DWG 050-E-302

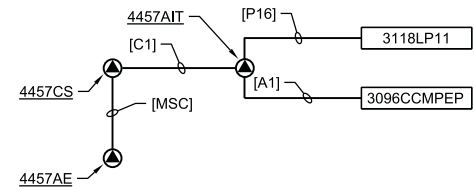
SHEET 60 of 157



### ENLARGED YARD ELECTRICAL PLAN

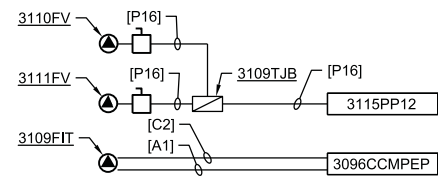
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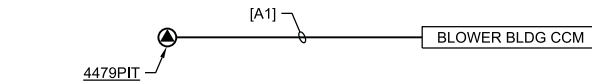
**NO. 4 WATER PUMP STATION  
PHOSPHORUS ANALYZER**

NTS



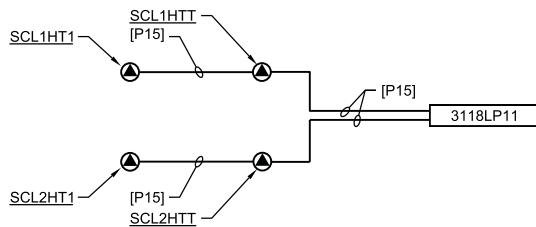
**SECONDARY CLARIFIER TOTALLY FERMENTED  
SECONDARY EFFLUENT FLOW CONTROL**

NTS



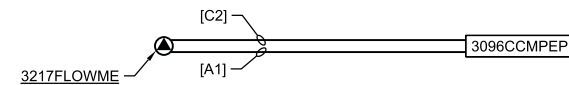
**BLOWER DISCHARGE PRESSURE**

NTS



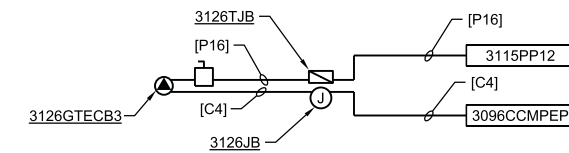
**SECONDARY CLARIFIER FLOW  
METER VAULT HEAT TRACING**

NTS



**SECONDARY CLARIFIER SECONDARY  
SLUDGE FLOW METER**

NTS



**COLLECTION BOX 3  
ACTUATED GATE**

NTS



NO.	DATE	DR	CHK	REVISION	BY	APVD

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

**CH2MHILL**  
ELECTRICAL  
**YARD ELECTRICAL  
BLOCK DIAGRAMS**

AS NOTED	
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DWG	050-E-510
SHEET	61 of 157

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Duct Bank Schedule

Table with columns: No., Circuits, From, To, Comments. Contains detailed schedule for DB-1P and DB-1A.

Duct Bank Schedule

Table with columns: No., Circuits, From, To, Comments. Contains detailed schedule for DB-2P, DB-2A, and DB-3P.



Revision table with columns: NO., DATE, DSGN, DR, REVISION, CHK, APVD. Includes names like K. Bartlett, M. Macrostie, G. Thompson.

Project information including: Nampa WWTP Phase 1 Upgrades, Project Group A, City of Nampa, Nampa, Idaho. Includes CH2MHILL logo and drawing title 'YARD ELECTRICAL DUCTBANK SCHEDULE - 1'.

Duct Bank Schedule

Table with columns: No., Circuits, From, To, Comments. Rows include DB-3A, DB-4P, DB-4A, DB-5P, DB-5A, DB-6P.

Duct Bank Schedule

Table with columns: No., Circuits, From, To, Comments. Rows include DB-6A, DB-7P, DB-7A, DB-8A.



Revision table with columns: NO., DATE, DSGN, DR, REVISION, CHK, APVD. Includes names like K BARTLETT, T PALIN, M MACROSTIE, G THOMPSON.

Project information including: Nampa WWTP Phase 1 Upgrades, Project Group A, City of Nampa, Nampa, Idaho. Includes CH2MHILL logo and drawing details like DATE, PROJ, DWG, SHEET.

Duct Bank Schedule

Table with columns: No., Circuits, From, To, Comments. Rows include DB-9A, DB-10P, DB-11, DB-12P, DB-12A, DB-13P, DB-13A, DB-14P, DB-14A, DB-15.

Duct Bank Schedule

Table with columns: No., Circuits, From, To, Comments. Rows include DB-16P, DB-16A, DB-17P, DB-18P, DB-18A, DB-19P, DB-19A, DB-20A, DB-21P, DB-21A, DB-22A, DB-23P, DB-23A, DB-24, DB-25, DB-26, DB-27A, DB-28P, DB-28A, DB-29P.



Revision table with columns: NO., DATE, DSGN, DR, REVISION, CHK, APVD. Includes names like T. PALIN, K. BARTLETT, M. MACROSTIE, G. THOMPSON.

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

**CH2MHILL**  
ELECTRICAL  
YARD ELECTRICAL  
DUCTBANK SCHEDULE - 3

AS NOTED  
VERIFY SCALE  
DATE: DECEMBER 2014  
PROJ: 480770  
DWG: 050-E-603  
SHEET: 64 of 157

Duct Bank Schedule

Table with columns: No., Circuits, From, To, Comments. Includes entries for BASIN LIGHTING, AERATION BASIN 3, SCL METER VAULT, SCL SLUDGE VAULT, and various control circuits for Aeration Basins 1, 2, and 3.

Duct Bank Schedule

Table with columns: No., Circuits, From, To, Comments. Includes entries for DB-33A with various circuit types (A15, A5, T-4, T-7, HH-3A, HH-15P, HH-10P, HH-1P, HH-1A, HH-10A, HH-3A, PRI. SLUDGE PUMP STATION).



Revision table with columns: NO., DATE, DSGN, REVISION, CHK, APVD. Includes entries for T. PALIN, K. BARTLETT, M. MACROSTIE, G. THOMPSON.

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

CH2MHILL®  
ELECTRICAL  
YARD ELECTRICAL  
DUCTBANK SCHEDULE - 4

Project information table with fields: DATE (DECEMBER 2014), PROJ (480770), DWG (050-E-604), SHEET (65 of 157).

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A  
B  
C  
D

HANDHOLE SCHEDULE		
NAME	MINIMUM INTERIOR DIMENSIONS	MANUFACTURER AND MODEL
HH-1A	42"L x 64"W x 38"D	UTILITY VAULT 444-LA
HH-1P	42"L x 64"W x 38"D	UTILITY VAULT 444-LA
HH-2A	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-2P	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-3A	42"L x 64"W x 38"D	UTILITY VAULT 444-LA
HH-3P	42"L x 64"W x 38"D	UTILITY VAULT 444-LA
HH-4A	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-4P	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-5	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-6	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-7	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-8A	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-8P	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-9A	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-9P	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-10A	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-10P	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-11	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-12	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-13	24"L x 24"W x 24"D	UTILITY VAULT 3030-SB
HH-14A	42"L x 42"W x 38"D	UTILITY VAULT 444-LA
HH-15A	42"L x 64"W x 38"D	UTILITY VAULT 444-LA
HH-15P	42"L x 64"W x 38"D	UTILITY VAULT 444-LA

**HANDHOLE SCHEDULE**  
NTS

LUMINAIRE SCHEDULE							
TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS	WATTS	VOLTS	MOUNTING	COMMENTS
E1	LITHONIA	EU2 LED M12	(2) LED	(2) 1.8	120/277	WALL 11 FEET AFF	EMERGENCY LIGHTING
L2	LITHONIA	TMSL 6L CLO LP840	LED	69	120	SUSPENDED 10 FEET AFF, UNO	
P1	LITHONIA	DSX1 LED 60C 1000 30K T4M MVOLT SPA DF DDBXD	LED	209	480	20 FOOT POLE	POLE-4
P2	LITHONIA	DSX1 LED 30C 700 40K T4M MVOLT SPA DF DDBXD	(2) LED	(2) 68	480	12 FOOT POLE	
P3	LITHONIA	DSX1 LED 30C 700 40K T4M MVOLT SPA DF DDBXD	(3) LED	(3) 68	480	12 FOOT POLE	
POLE-1	LITHONIA	SSA 12 4C DM28 DDB	NA	NA	NA	2 ARMS AT 180 DEGREES	12 FOOT SQUARE STRAIGHT ALUMINUM POLE, SOME POLES REQUIRE RECEPTACLES (SEE DRAWINGS)
POLE-2	LITHONIA	SSA 12 4C DM29 DDB	NA	NA	NA	2 ARMS AT 90 DEGREES	12 FOOT SQUARE STRAIGHT ALUMINUM POLE, SOME POLES REQUIRE RECEPTACLES (SEE DRAWINGS)
POLE-3	LITHONIA	SSA 12 4C DM39 DDB	NA	NA	NA	3 ARMS AT 90 DEGREES	12 FOOT SQUARE STRAIGHT ALUMINUM POLE, SOME POLES REQUIRE RECEPTACLES (SEE DRAWINGS)
POLE-4	LITHONIA	SSA 20 5G DM19 DDB	NA	NA	NA	1 ARM	20 FOOT SQUARE STRAIGHT ALUMINUM POLE, PROVIDE
W1	LITHONIA	WSQ LED 1 10A700/40K SR4 120 SF ELCW DDBXD	LED	24	120	WALL, CENTERED OVER DOOR APPROX 6" ABOVE DOOR FRAME	AS SHOWN
X2	LITHONIA	LQM SW3R 120/277 ELN	LED	1.71	120/278	WALL, CENTERED OVER DOOR APPROX 6" ABOVE DOOR FRAME	AS SHOWN
<b>LUMINAIRE SCHEDULE NOTES:</b>							
1	GENERAL NOTE: CONTRACTOR SHALL PROVIDE REQUIRED FIXTURE QUANTITIES, INSTALLATION FEATURES, AND COORDINATE ALL FIXTURE MOUNTING ACCESSORIES.						

**LUMINAIRE SCHEDULE**  
NTS



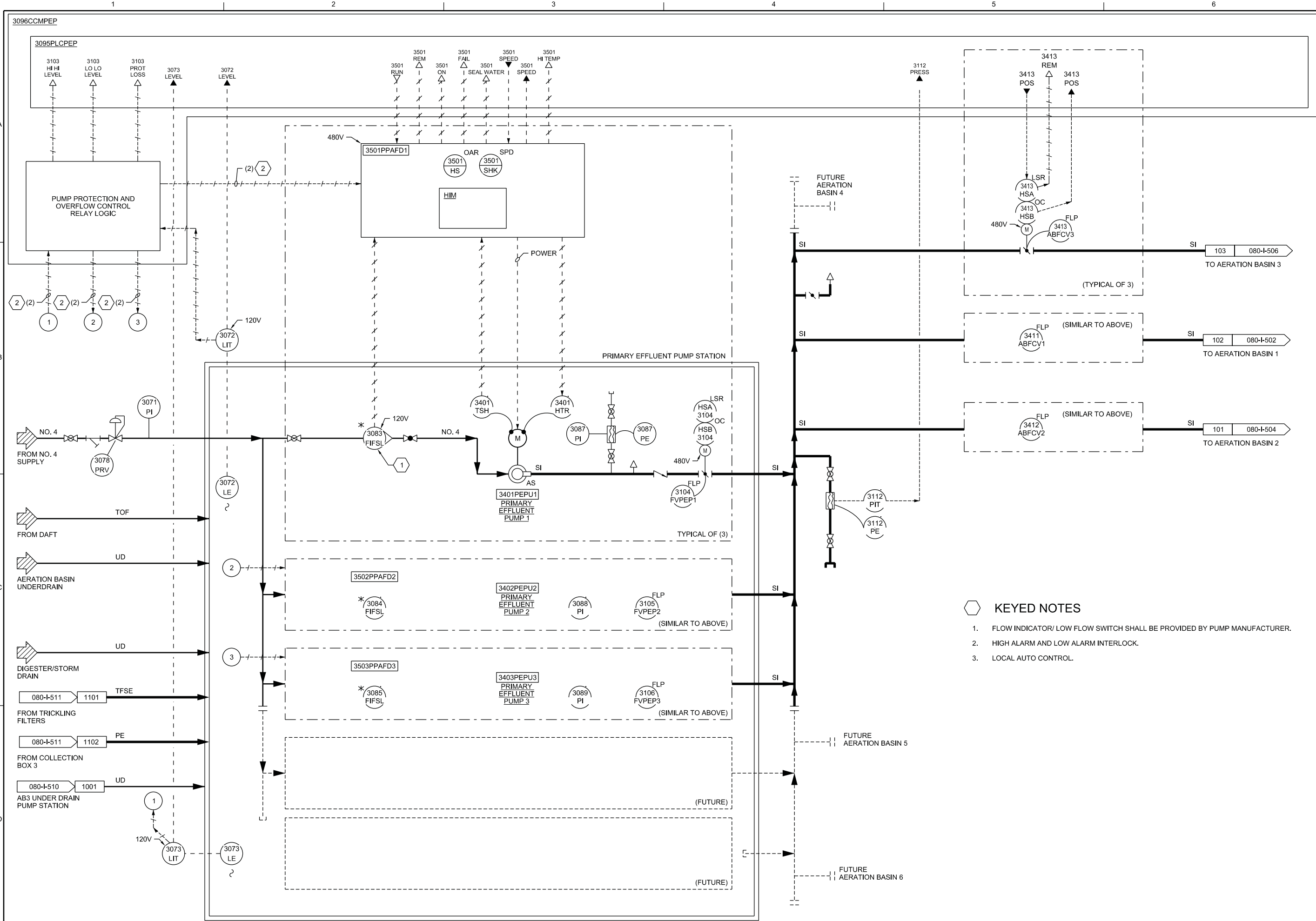
NO.	DATE	DR	CHK	APVD	BY	APVD
		T PALIN	K BARTLETT	M MACROSTIE		G THOMPSON

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

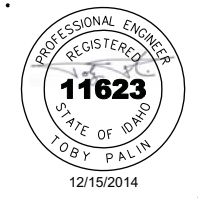
**CH2MHILL**  
ELECTRICAL  
YARD ELECTRICAL  
HANDHOLE SCHEDULE AND  
LUMINAIRE SCHEDULE

AS NOTED	
VERIFY SCALE	
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DATE	DECEMBER 2014
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SHEET	66 of 157

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- KEYED NOTES**
1. FLOW INDICATOR/ LOW FLOW SWITCH SHALL BE PROVIDED BY PUMP MANUFACTURER.
  2. HIGH ALARM AND LOW ALARM INTERLOCK.
  3. LOCAL AUTO CONTROL.



NO.	DATE	DR	CHK	BY	APVD
		T. PALIN		M. RARDIN	
				L. WOOD	
				G. THOMPSON	

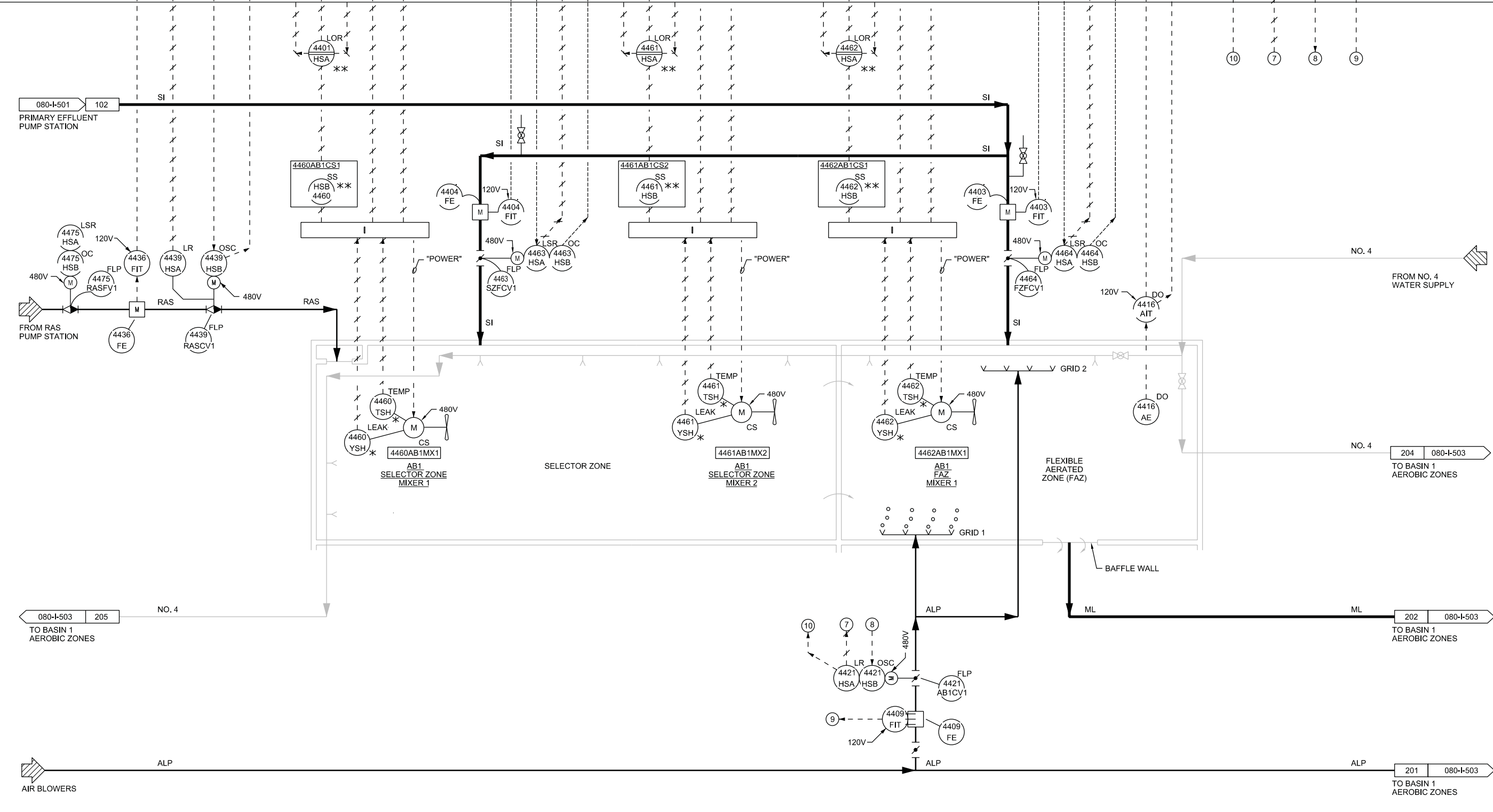
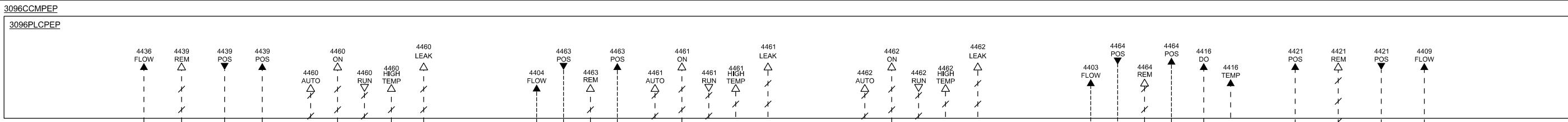
NAMPA WWTP PHASE 1 UPGRADES  
 PROJECT GROUP A  
 CITY OF NAMPA  
 NAMPA, IDAHO

INSTRUMENTATION AND CONTROL  
**PRIMARY EFFLUENT PUMP STATION  
 P&ID**

AS NOTED  
 VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING.  
 0" 1"

DATE	DECEMBER 2014
PROJ	480770
DWG	080-I-501
SHEET	67 of 157



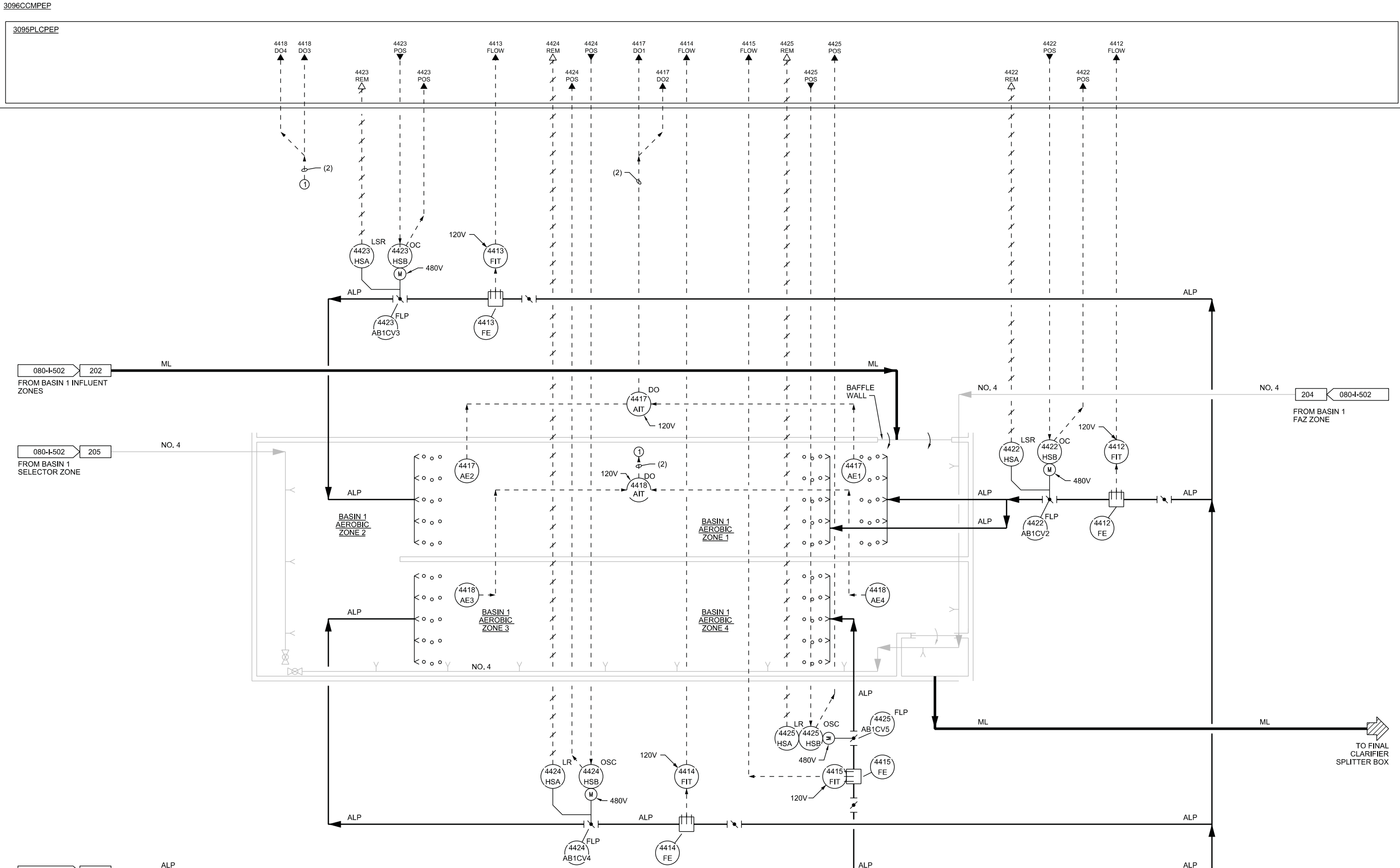


NO.	DATE	DSGN	DR	CHK	REVISION	BY	APVD
10							
7							
8							
9							

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

**CH2MHILL®**  
INSTRUMENTATION AND CONTROL  
**AERATION BASIN 1  
INFLUENT ZONES  
P&ID**

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DATE: DECEMBER 2014
PROJ: 480770
DWG: 080-I-502
SHEET: 68 of 157



PROFESSIONAL ENGINEER  
REGISTERED  
**11623**  
STATE OF IDAHO  
TOBY PALIN  
12/15/2014

NO.	DATE	DSGN	DR	REVISION	CHK	BY

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

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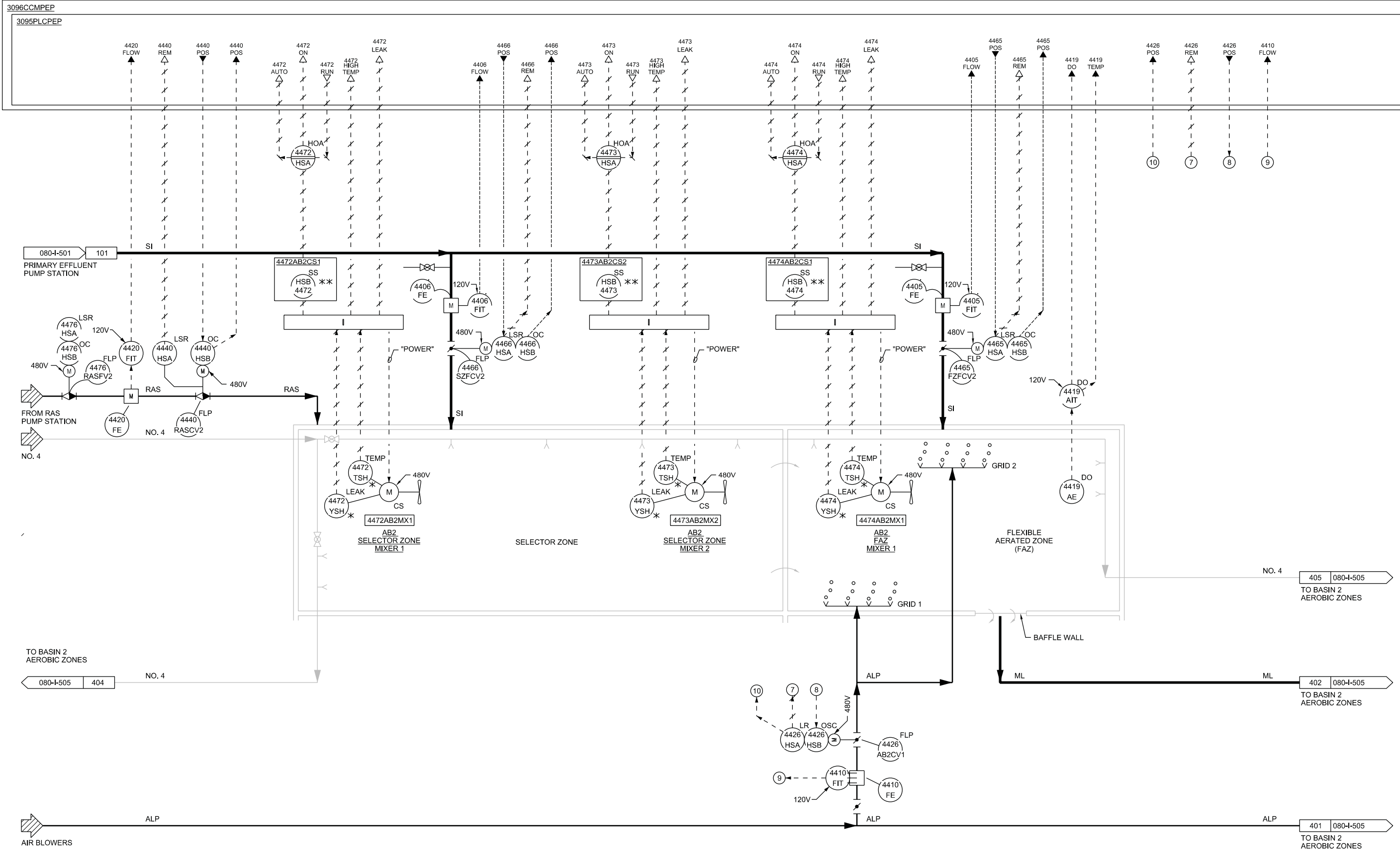
INSTRUMENTATION AND CONTROL  
**AERATION BASIN 1  
AEROBIC ZONES  
P&ID**

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0 1"

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G THOMPSON  
L WOOD  
M RARDIN  
T PALIN  
APVD  
BY



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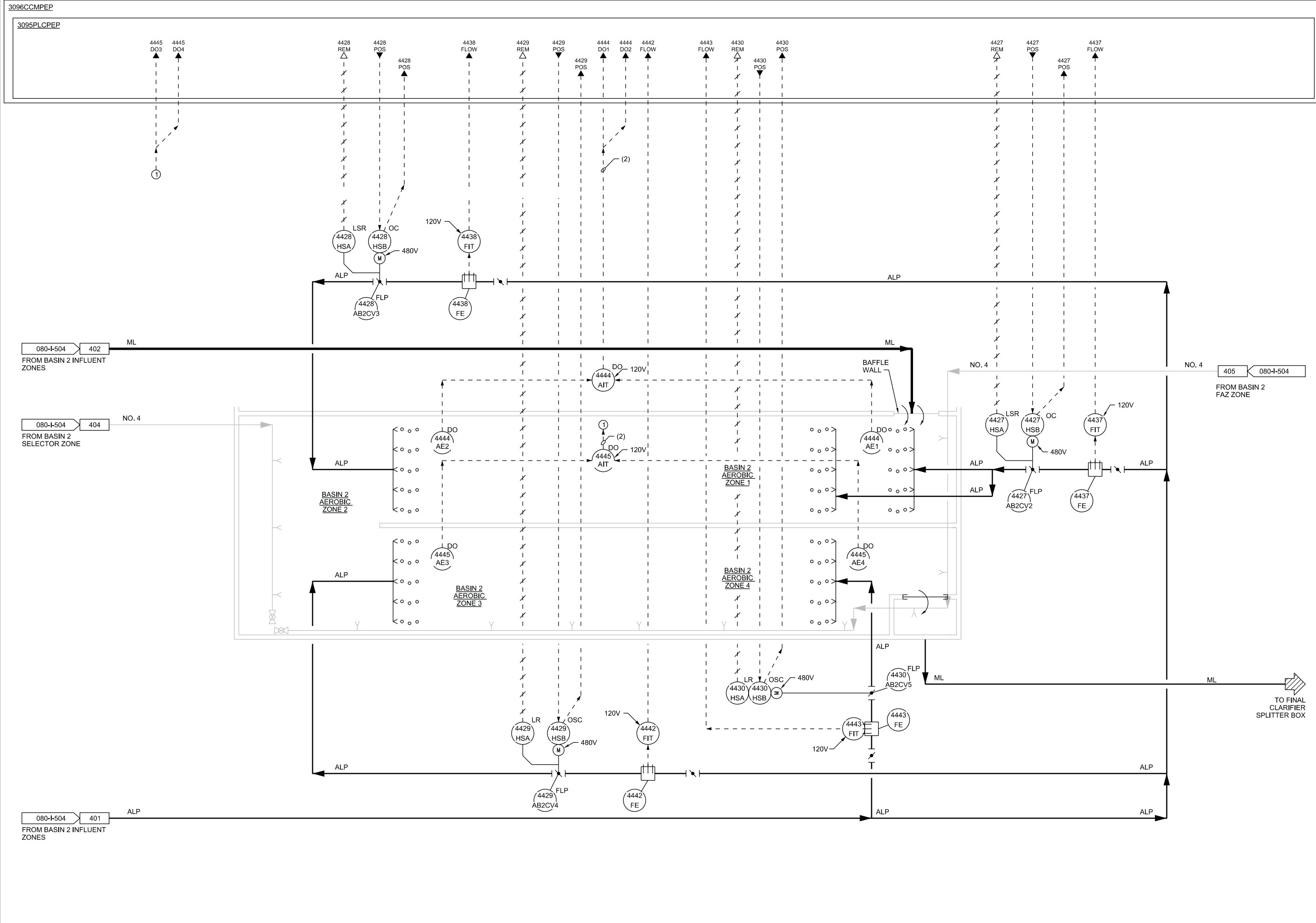
NAMPA WWTP PHASE 1 UPGRADES  
 PROJECT GROUP A  
 CITY OF NAMPA  
 NAMPA, IDAHO

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INSTRUMENTATION AND CONTROL  
**AERATION BASIN 2  
 INFLUENT ZONES  
 P&ID**

DATE	DECEMBER 2014
PROJ	480770
DWG	080-I-504
SHEET	70 of 157

AS NOTED  
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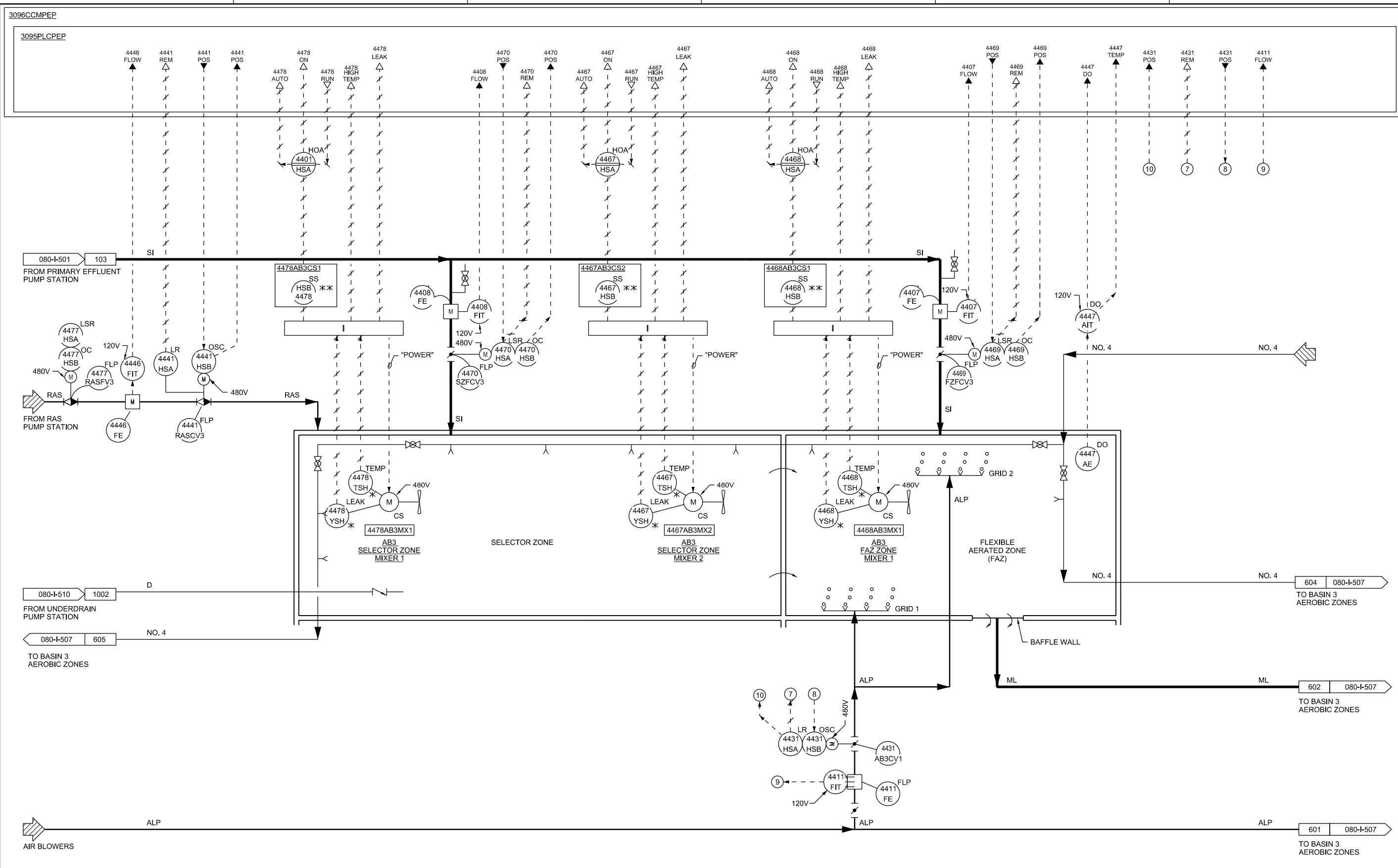
NO.	DATE	DSGN	DR	CHK	REVISION	BY	APVD
			T. PALIN				L. WOOD
							G. THOMPSON

NAMPA WWTP PHASE 1 UPGRADES  
 PROJECT GROUP A  
 CITY OF NAMPA  
 NAMPA, IDAHO

**CH2MHILL®**  
 INSTRUMENTATION AND CONTROL  
 AERATION BASIN 2  
 AEROBIC ZONES  
 P&ID

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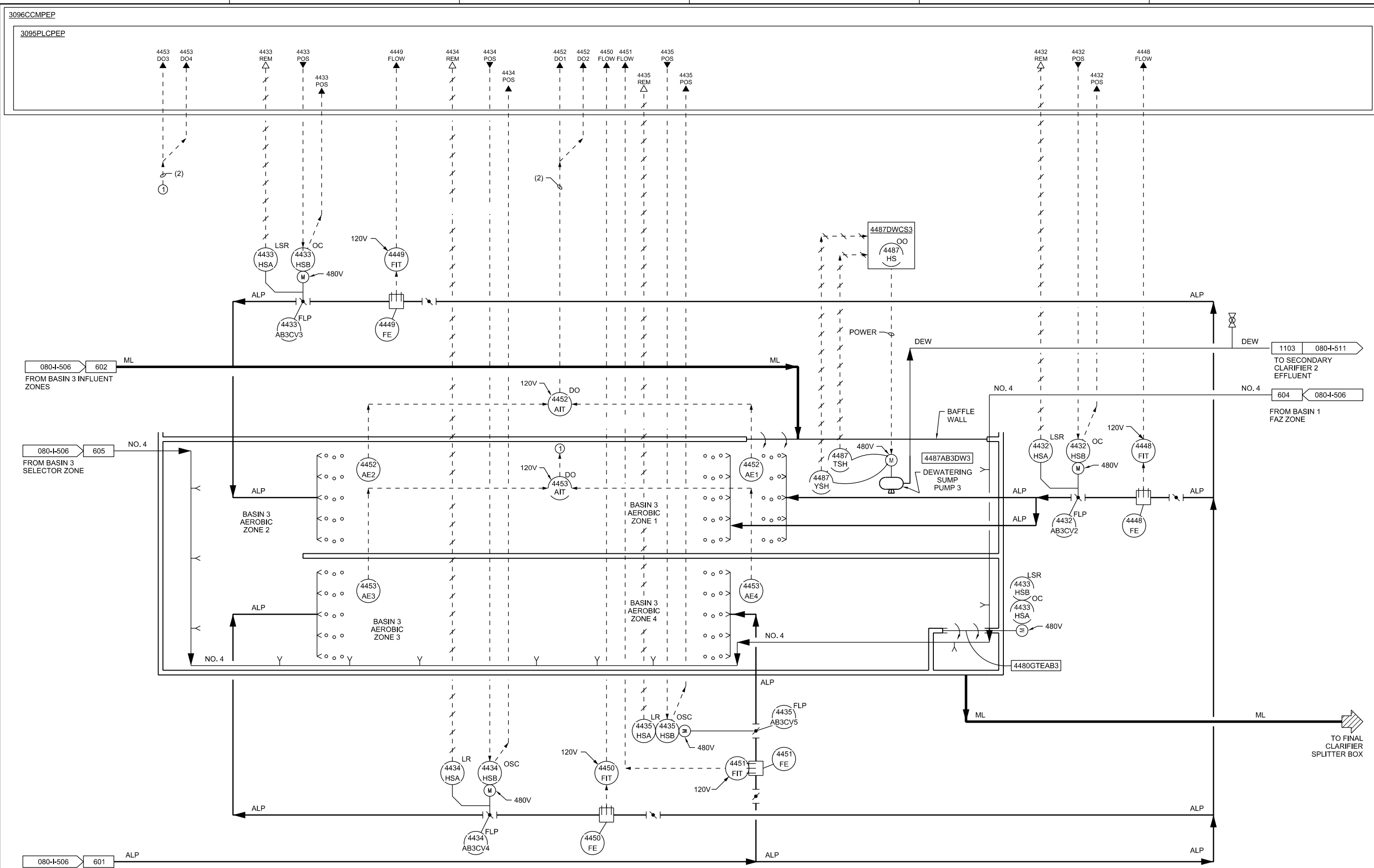
NO.	DATE	DR	CHK	REVISION	BY	APVD
10						
9						
8						
7						

NAMPA WWTP PHASE 1 UPGRADES  
 PROJECT GROUP A  
 CITY OF NAMPA  
 NAMPA, IDAHO

**CH2MHILL®**  
 INSTRUMENTATION AND CONTROL  
**AERATION BASIN 3  
 INFLUENT ZONES  
 P&ID**

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SHEET: 72 of 157

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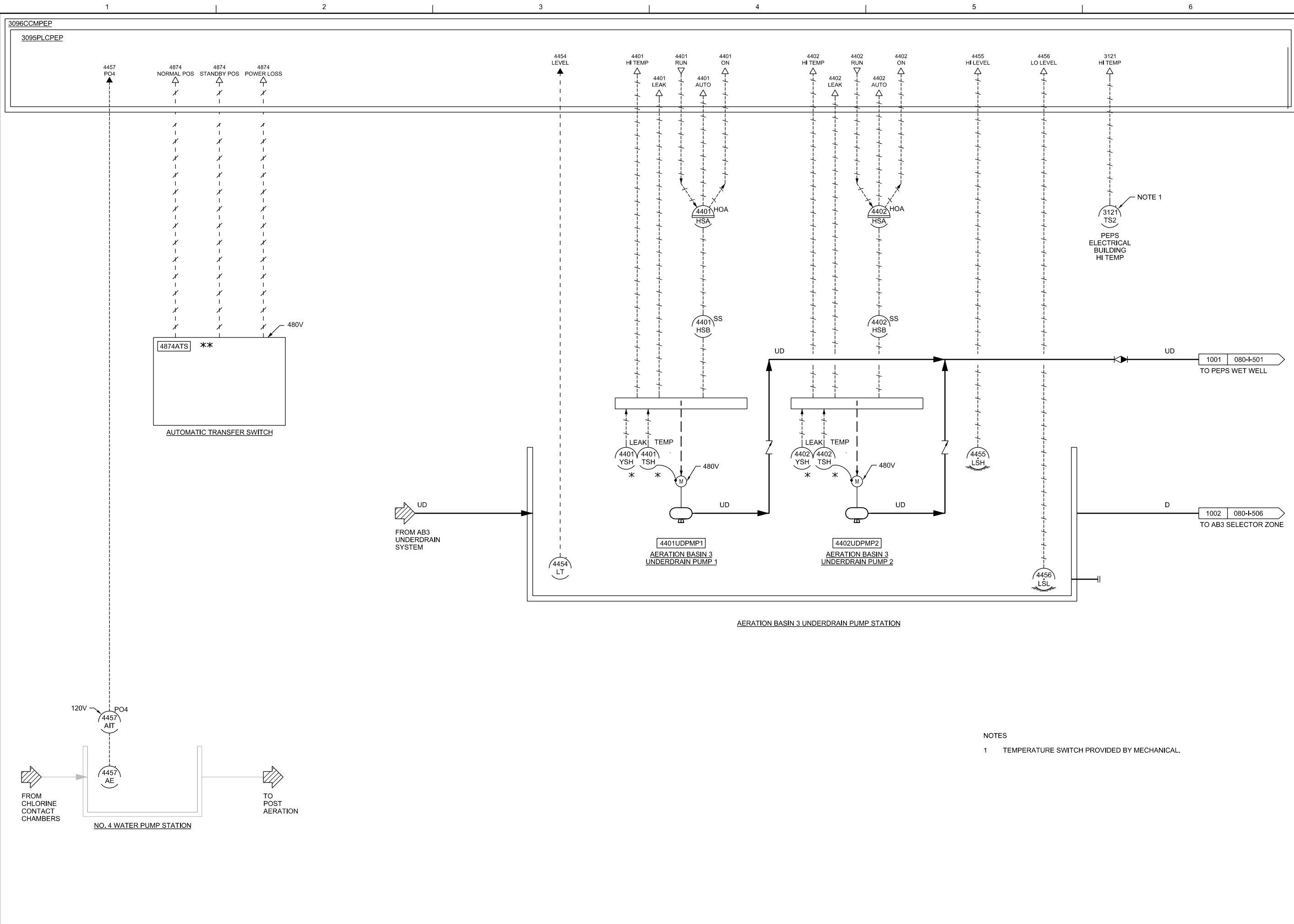
NO.	DATE	DSGN	DR	CHK	REVISION	BY	APVD
			T. PALIN				G. THOMPSON
							L. WOOD

NAMPA WWTP PHASE 1 UPGRADES  
 PROJECT GROUP A  
 CITY OF NAMPA  
 NAMPA, IDAHO

**CH2MHILL®**  
 INSTRUMENTATION AND CONTROL  
 AERATION BASIN 3  
 AEROBIC ZONES  
 P&ID

AS NOTED  
 VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING.  
 0" 1"

DATE	DECEMBER 2014
PROJ	480770
DWG	080-I-507
SHEET	73 of 157



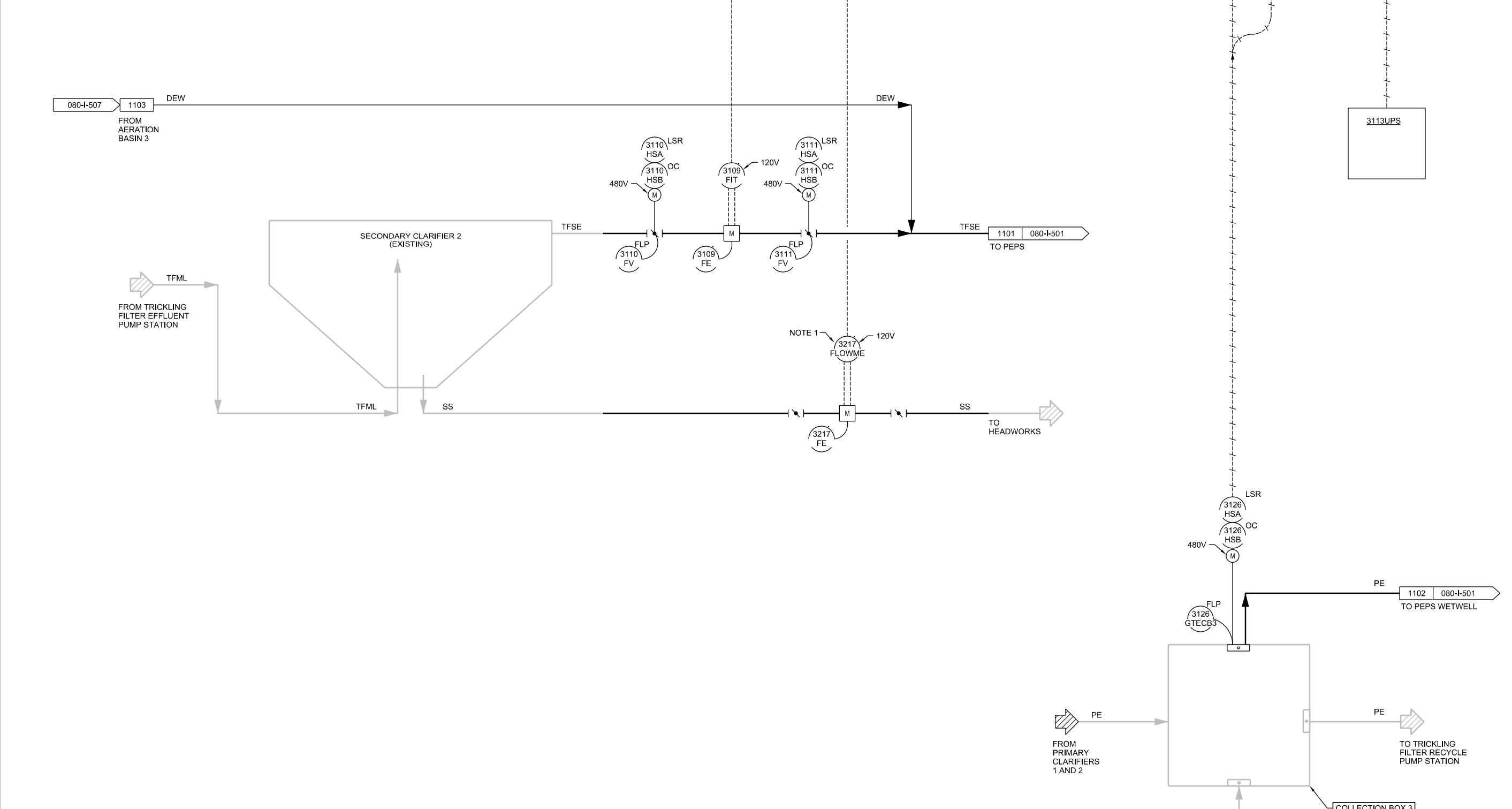
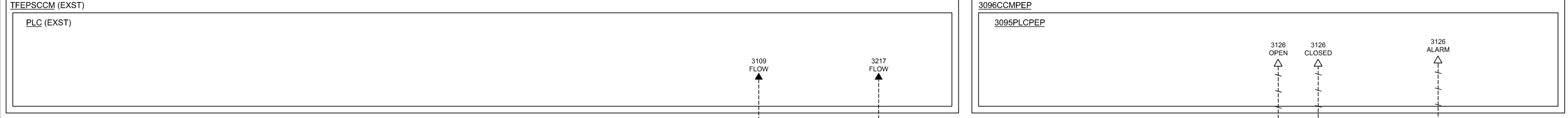
NO.	DATE	DR	REVISION	BY
		T. PALIN		
		M. RARDIN		
		L. WOOD		
		G. THOMPSON		

NAMPA WWTP PHASE 1 UPGRADES  
 PROJECT GROUP A  
 CITY OF NAMPA  
 NAMPA, IDAHO

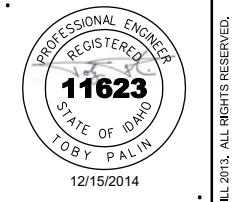
**CH2MHILL**  
 INSTRUMENTATION AND CONTROL  
 P&ID  
 MISCELLANEOUS SYSTEMS

DATE	DECEMBER 2014
PROJ	480770
DWG	080-I-510
SHEET	74 of 157

NOTES  
 1 TEMPERATURE SWITCH PROVIDED BY MECHANICAL.



NOTES:  
1. FLOWMETER SALVAGED AND RELOCATED FROM SECONDARY SLUDGE PUMP STATION.



NO.	DATE	REVISION	CHK	DR	APVD	BY

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

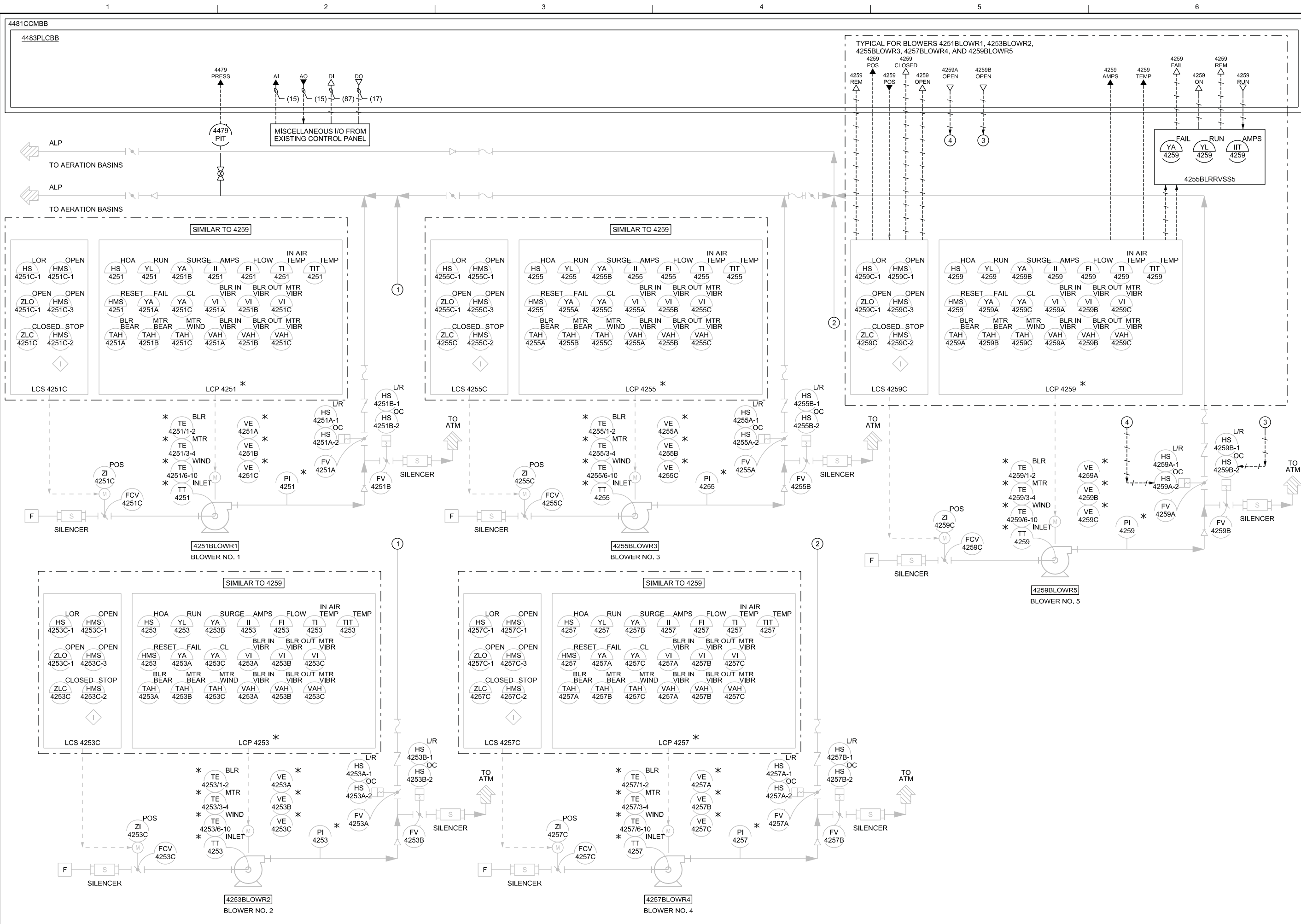
# CH2MHILL®

INSTRUMENTATION AND CONTROL  
P&ID  
**SECONDARY CLARIFIER 2  
EFFLUENT**

AS NOTED  
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING.  
0 1"

DATE	DECEMBER 2014
PROJ	480770
DWG	080-I-511
SHEET	75 of 157





4481CCMBB  
4483PLCBB

TYPICAL FOR BLOWERS 4251BLOWR1, 4253BLOWR2, 4255BLOWR3, 4257BLOWR4, AND 4259BLOWR5



NO.	DATE	DR	REVISION	BY	APVD
		T. PALIN			
				L. WOOD	
				M. RARDIN	
				G. THOMPSON	

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

INSTRUMENTATION AND CONTROL  
P&ID  
BLOWER BUILDING  
BLOWER SYSTEM

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE: DECEMBER 2014
PROJ: 480770
DWG: 080-I-512
SHEET: 76 of 157

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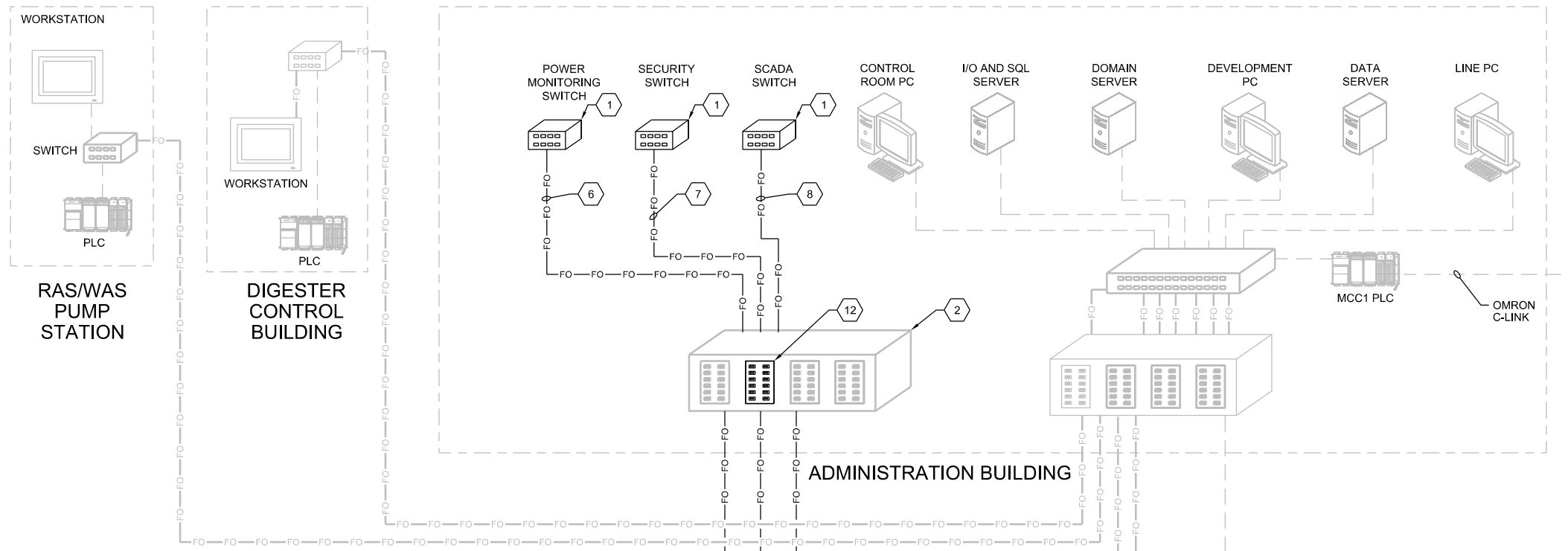
6

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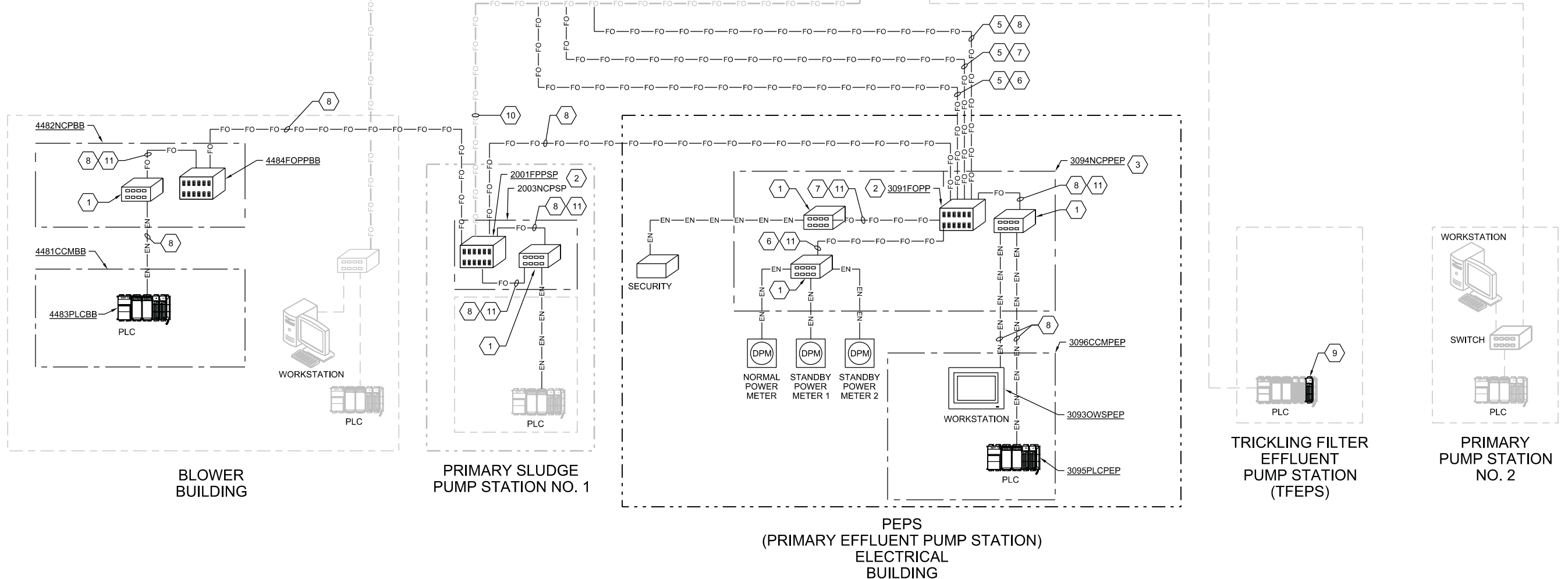


GENERAL NOTES:

1. CONFIGURATION OF ETHERNET SWITCHES SHALL BE PROVIDED BY OWNER OR SYSTEM INTEGRATOR.

KEY NOTES:

- 1 19" RACK ETHERNET SWITCH. SWITCH WILL BE SUPPLIED AND CONFIGURED BY THE OWNER.
- 2 FIBER OPTIC PATCH PANEL, FIBER PATCHES NOT SHOWN. COORDINATE WITH OWNERS SYSTEM INTEGRATOR TO CONFIGURE FIBER CONNECTIONS AT PATCH PANEL.
- 3 NEW 19" NETWORK RACK.
- 4 PLC AND PANEL MOUNTED WORKSTATION LOCATED IN NEW 3095PLCPEP.
- 5 COORDINATE WITH OWNER TO CONNECT TO EXISTING NETWORK.
- 6 POWER MONITORING NETWORK.
- 7 SECURITY SYSTEM NETWORK.
- 8 SCADA NETWORK.
- 9 PROVIDE A NEW ANALOG INPUT MODULE FOR EXISTING PLC.
- 10 MAINTAIN EXISTING NETWORK CONNECTION TO PLANT CONTROL SYSTEM USING EXISTING FIBER OPTIC CABLES FROM ADMINISTRATION BUILDING.
- 11 FIBER OPTIC PATCH CORD.
- 12 PROVIDE CORNING CCH-CP24-A9 TERMINATION PANEL FOR EXISTING FIBER OPTIC PATCH PANEL IN EXISTING NETWORK RACK. TERMINATE ALL FIBER AT THIS PANEL.



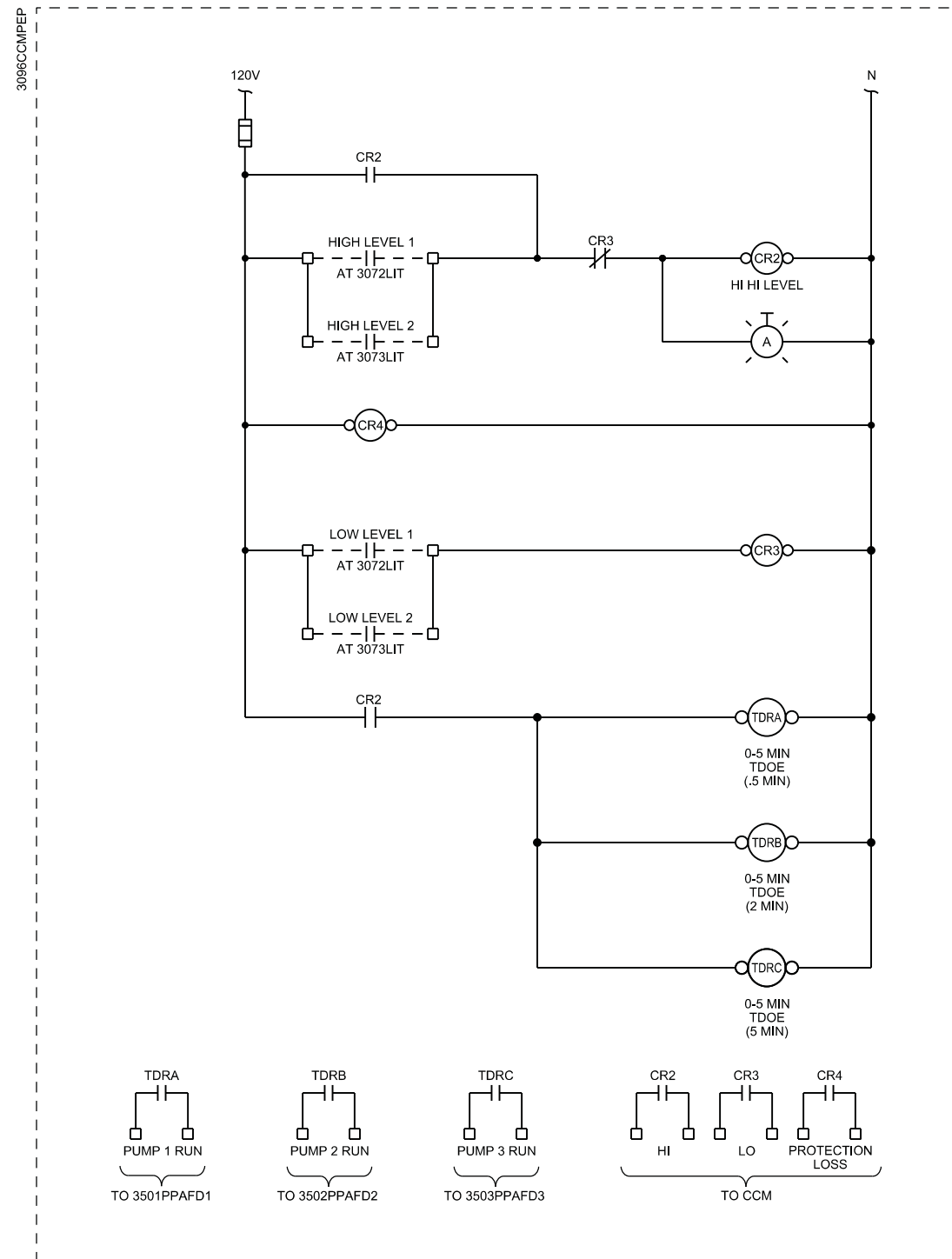
NO.	DATE	DR	REVISION	BY

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

**CH2MHILL®**  
INSTRUMENTATION AND CONTROL  
**NETWORK BLOCK DIAGRAM**

AS NOTED  
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE DECEMBER 2014  
PROJ 480770  
DWG 080-I-520  
SHEET 77 of 157



NOTE: SET TDRA, TDRB, AND TDRC TIME DELAY DIFFERENT SO THAT THEY DO NOT ALL START AT THE SAME TIME.

**PRIMARY EFFLUENT PUMP LOCAL AUTO CONTROL**

NTS



NO.	DATE	DR	REVISION	BY	APVD
		T. PALIN	CHK		
		M. RARDIN	CHK		
		L. WOOD	APVD		
		G. THOMPSON	APVD		

**CH2MHILL**  
 INSTRUMENTATION AND CONTROL  
 DETAILS

NAMPA WWTP PHASE 1 UPGRADES  
 PROJECT GROUP A  
 CITY OF NAMPA  
 NAMPA, IDAHO

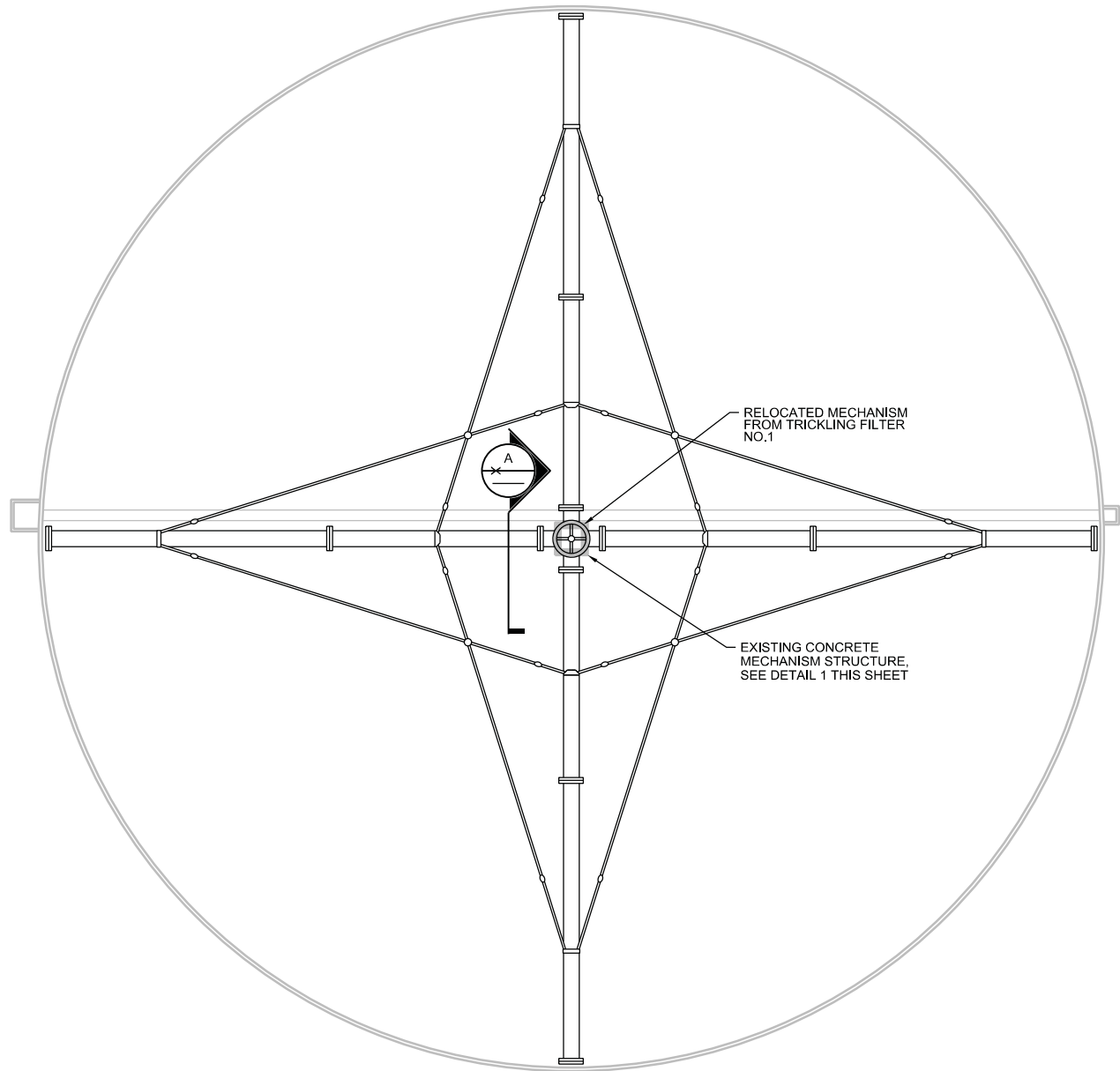
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VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	DECEMBER 2014
PROJ	480770
DWG	080-I-521
SHEET	78 of 157

A

B

C

D

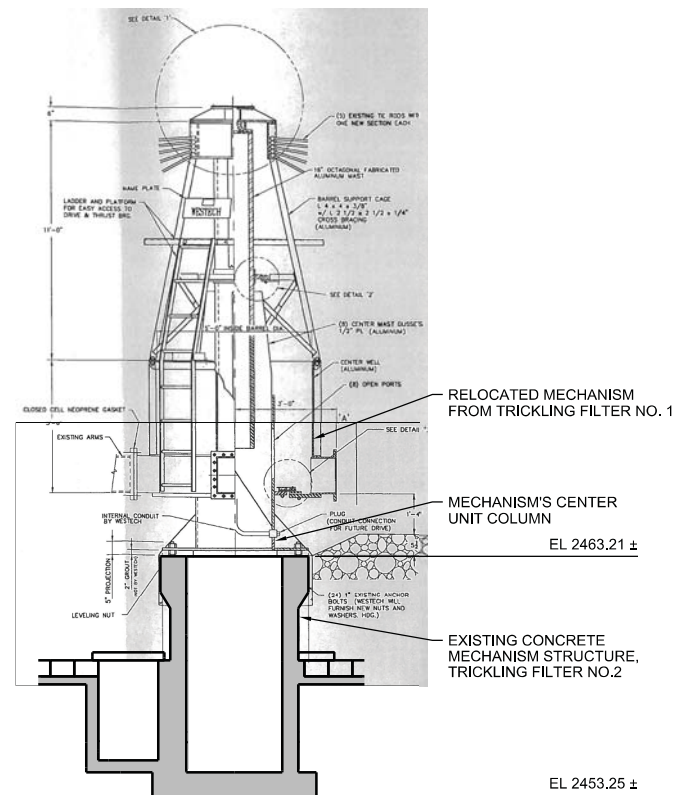


PLAN - TRICKLING FILTER NO. 2

1/16" = 1'-0"

NOTES:

1. CONTRACTOR SHALL REMOVE MECHANISM FROM TRICKLING FILTER NO. 2 AND TURN OVER TO OWNER PER SPECIFICATION SECTION 02 41 00.
2. CONTRACTOR SHALL INSTALL TRICKLING FILTER MECHANISM NO 1 ON TO TRICKLING FILTER NO 2
3. CONTRACTOR TO VERIFY BOLT CIRCLE PATTERN IS CONSISTENT BETWEEN TRICKLING FILTER NO. 1 MECHANISM AND TRICKLING FILTER NO. 2 STRUCTURE PRIOR TO THE INSTALLATION OF MECHANISM.
4. BOTH MECHANISM DRAWINGS INDICATE A 66" DIAMETER MOUNTING BOLT CIRCLE. TRICKLING FILTER 1 WESTECH MECHANISM HAS 24 EA 1" EXISTING ANCHOR BOLTS. TRICKLING FILTER 2 EIMCO MECHANISM DRAWINGS DO NOT INDICATE THE NUMBER OF ANCHOR BOLTS. CONTRACTOR MAY ASSUME THAT IT HAS 24 ANCHOR BOLTS, HOWEVER, AS FILTER 2 ORIGINALLY HAD A WESTECH MECHANISM.



A MECHANISM AND STRUCTURE  
1/4" = 1'-0"



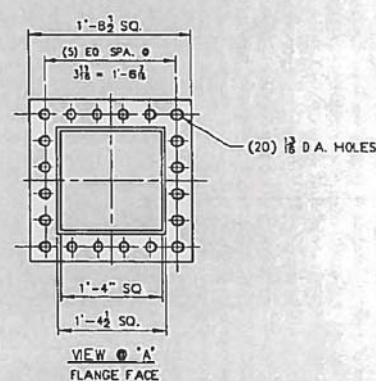
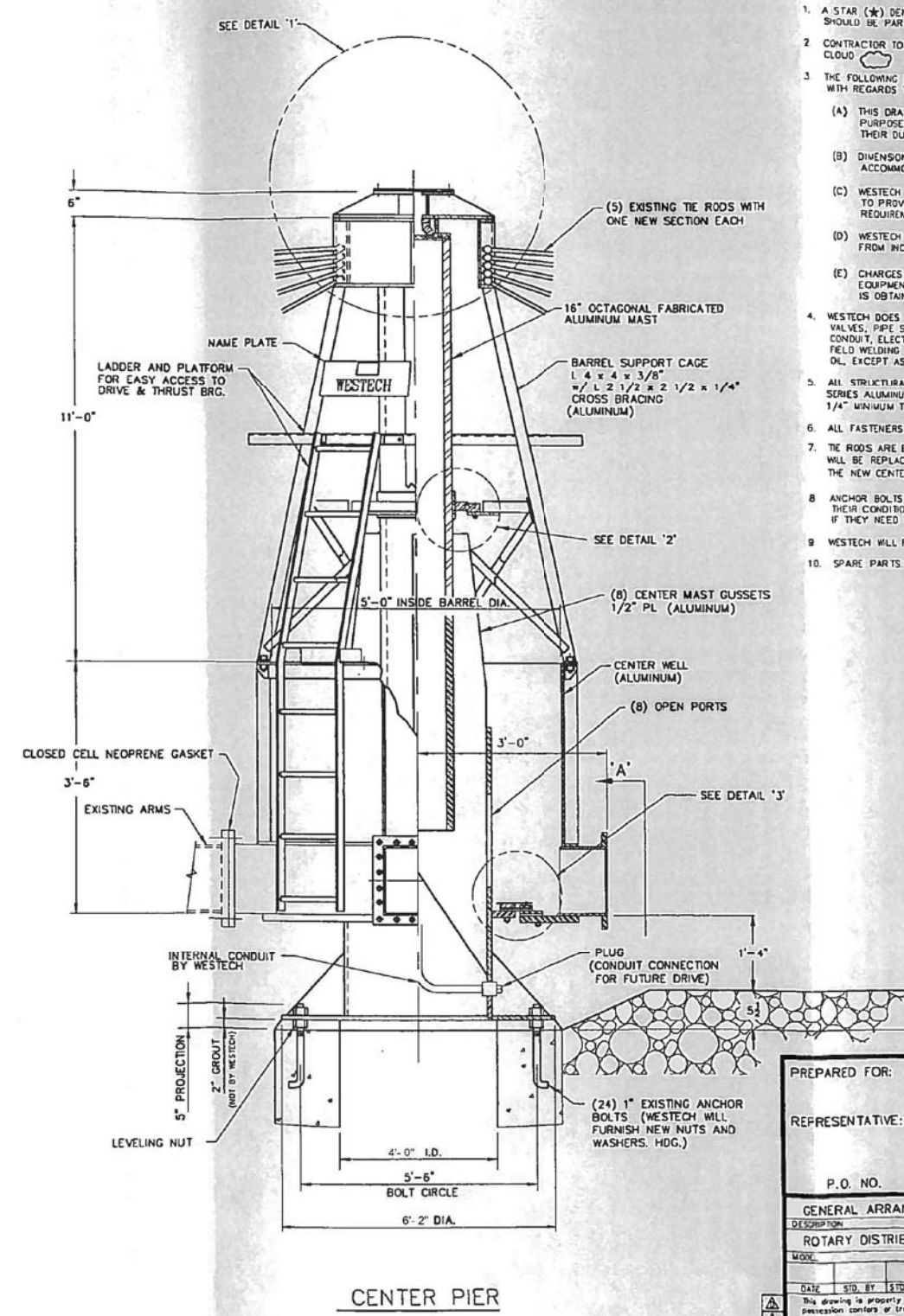
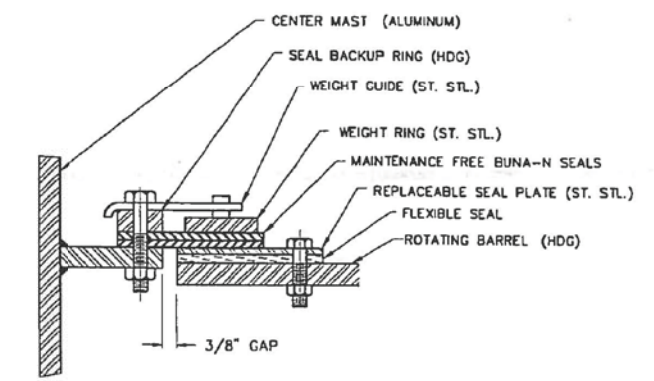
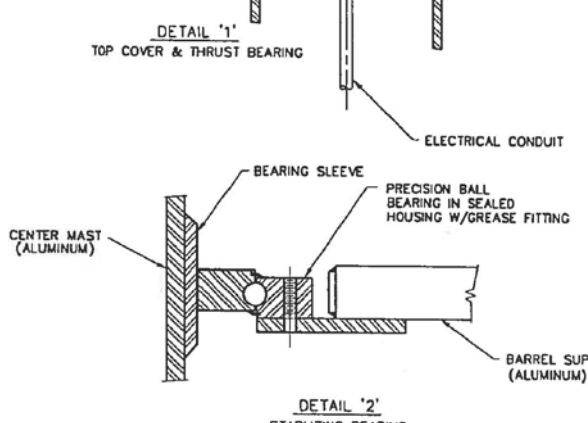
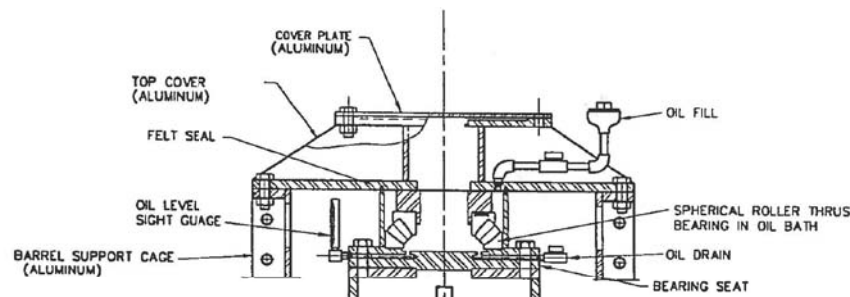
DESIGN	J. CHANG	DR	J. CHANG
REVISION	D. DALSOGLIO	CHK	L. FETTKETHER
BY	G. THOMPSON	APVD	G. THOMPSON

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

**CH2MHILL**  
PROCESS MECHANICAL  
**TRICKLING FILTER NO.2  
MECHANISM REPLACEMENT**

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE DECEMBER 2014
PROJ 480770
DWG 321-M-111
SHEET 79 of 157

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- NOTES
- A STAR (\*) DENOTES VARIANCE FROM CONTRACT DOCUMENTS AND SHOULD BE PARTICULARLY NOTED.
  - CONTRACTOR TO VERIFY OR SUPPLY ON APPROVAL ALL DIMENSIONS SHOWN IN CLOUD.
  - THE FOLLOWING DEFINES THE RESPONSIBILITY OF WESTECH ENGINEERING INC WITH REGARDS TO THE INFORMATION AND DIMENSIONS SHOWN ON THE DRAWING:
    - (A) THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR INSTALLATION PURPOSES UNTIL IT BEARS THE APPROVAL OF THE OWNER, ENGINEER, OR THEIR DULY AUTHORIZED REPRESENTATIVE.
    - (B) DIMENSIONS, LOADS, AND OTHER INFORMATION ARE PROVIDED TO ACCOMMODATE THE EQUIPMENT TO THE STRUCTURE AS SHOWN.
    - (C) WESTECH IS NOT RESPONSIBLE FOR CONCRETE DESIGN. THE CUSTOMER IS TO PROVIDE REINFORCING STEEL AND DETERMINE SIZES TO SUIT LOCAL REQUIREMENTS.
    - (D) WESTECH IS NOT RESPONSIBLE FOR DAMAGE, INJURY OR LOSS RESULTING FROM INCORPORATION OR USE OF THIS EQUIPMENT.
    - (E) CHARGES FOR MODIFICATION, ADDITIONS OR CORRECTIONS TO THE EQUIPMENT WILL NOT BE ACCEPTED BY WESTECH, UNLESS PRIOR APPROVAL IS OBTAINED IN WRITING FROM AN AUTHORIZED WESTECH REPRESENTATIVE.
  - WESTECH DOES NOT FURNISH CONCRETE, GROUT, CONCRETE REINFORCING, PIPING, VALVES, PIPE SUPPORTS OR FITTINGS, WALL BRACKETS, ELECTRICAL WIRING, CONDUIT, ELECTRICAL EQUIPMENT, ERECTION, FIELD PAINTING OR PAINT, FIELD WELDING OR WELD ROD, WATER FOR TESTING, GREASE, OR LUBRICATING OIL, EXCEPT AS SPECIFICALLY NOTED.
  - ALL STRUCTURAL MATERIALS USED IN FABRICATION WILL BE EITHER 3003M-14 SERIES ALUMINUM PLATE OR 6061-T6 SERIES ALUMINUM STRUCTURAL MEMBERS 1/4" MINIMUM THICKNESS.
  - ALL FASTENERS WILL BE 304 STAINLESS STEEL.
  - THE RODS ARE EXISTING AND ARE TO BE REUSED. ONE SECTION OF EACH ROD WILL BE REPLACED WITH A NEW SECTION, SLIGHTLY SHORTER TO ACCOMMODATE THE NEW CENTER ASSEMBLY.
  - ANCHOR BOLTS ARE EXISTING. THE CONTRACTOR IS RESPONSIBLE TO CHECK THEIR CONDITION. WESTECH WILL FURNISH NEW NUTS AND FLAT WASHERS. IF THEY NEED TO BE REPLACED STAINLESS EPOXY ANCHORS CAN BE FURNISHED.
  - WESTECH WILL FURNISH ONE CENTER ASSEMBLY WHICH WILL FIT EXISTING ARMS.
  - SPARE PARTS: NONE.

PREPARED FOR: CITY OF NAMPA, NAMPA WASTEWATER DIVISION  
NAMPA, IDAHO

REPRESENTATIVE: GOBLE SAMPSON ASSOC.  
SALT LAKE CITY, UTAH

P.O. NO.

GENERAL ARRANGEMENT CENTER ASSEMBLY ONLY

DESCRIPTION: ROTARY DISTRIBUTOR (1) 200'-0" DIA.

DATE	SID BY	SID CHKD	SID APPVD	SCALE	DATE	PROJ BY	PROJ CKD	PROJ APPVD
				NONE	6-99	TC	ARS	MLK

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WESTECH D101 18318A

NO.	DATE	DSGN	J. CHANG	DR	D. DALSOGLIO	CHK	L. FETTKETTER	APVD	G. THOMPSON
REVISION									

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

PROCESS MECHANICAL  
**TRICKLING FILTER NO. 2  
MECHANISM REPLACEMENT  
VENDOR DRAWING**

AS NOTED  
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING.  
DATE: DECEMBER 2014  
PROJ: 480770  
DWG: 321-M-REF-1  
SHEET: 80 of 157

TRICKLING FILTER NO. 2 MECHANISM REPLACEMENT VENDOR DRAWING

1

2

3

4

5

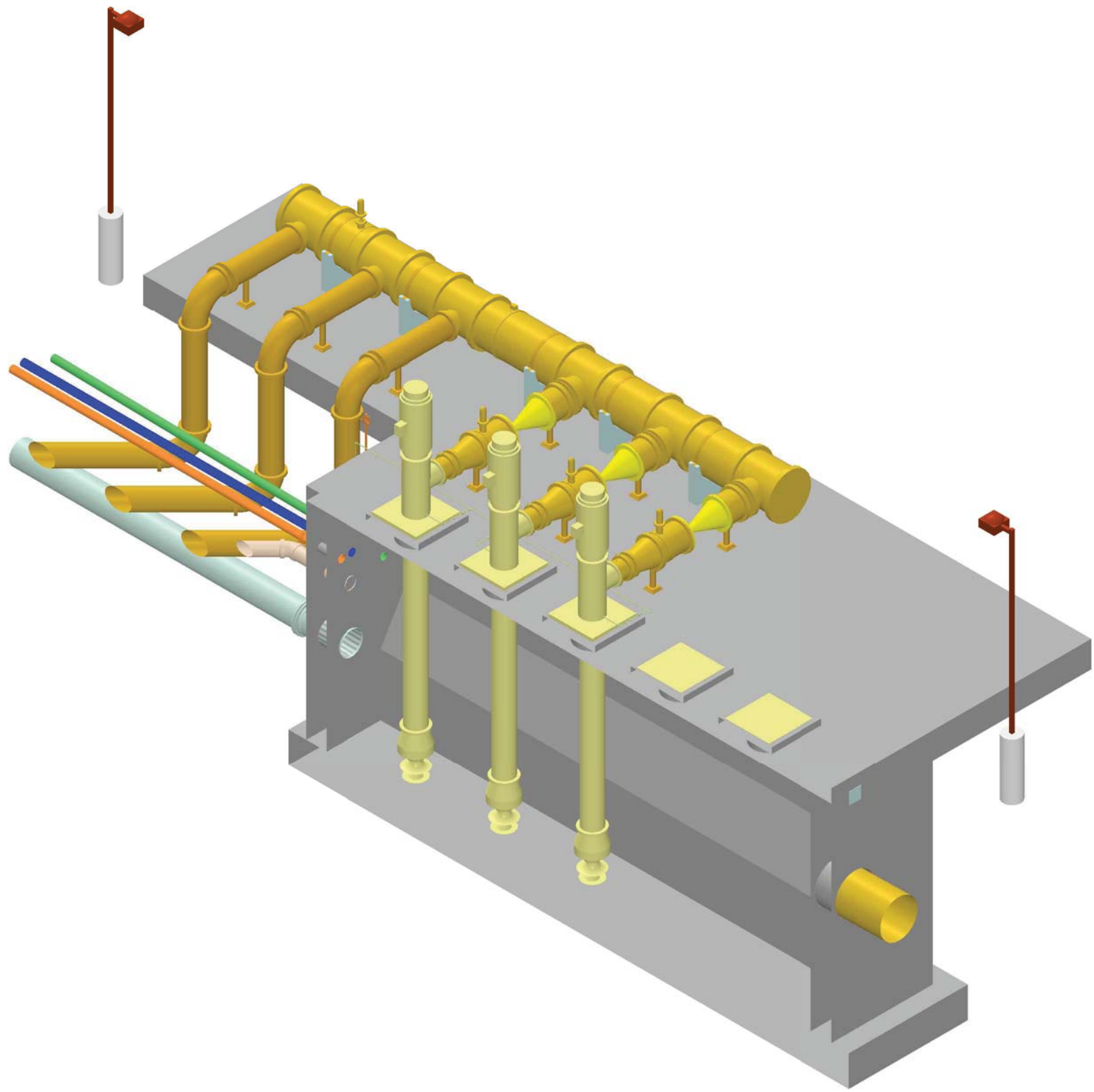
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A

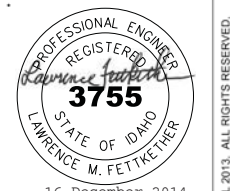
B

C

D



**PRIMARY EFFLUENT PUMP STATION RENDERED MODEL**  
NTS



NO.	DATE	REVISION	BY

**CH2MHILL®**  
GENERAL  
**PRIMARY EFFLUENT PUMP STATION  
RENDERED MODEL**

NAMPA WWTP PHASE 1 UPGRADES	
PROJECT GROUP A	
CITY OF NAMPA	
NAMPA, IDAHO	
AS NOTED	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
0 1"	
DATE	DECEMBER 2014
PROJ	480770
DWG	371-G-001
SHEET	81 of 157

L FETTKETHER  
 M RARDIN  
 B HERMAN  
 G THOMPSON  
 APVD  
 CHK  
 DR  
 APVD  
 APVD  
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GENERAL SHEET NOTES

- A. FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS, SEE DRAWINGS 010-G-013, 010-G-014, AND 010-G-015.
- B. SEE STANDARD DETAILS FOR ADDITIONAL INFORMATION.



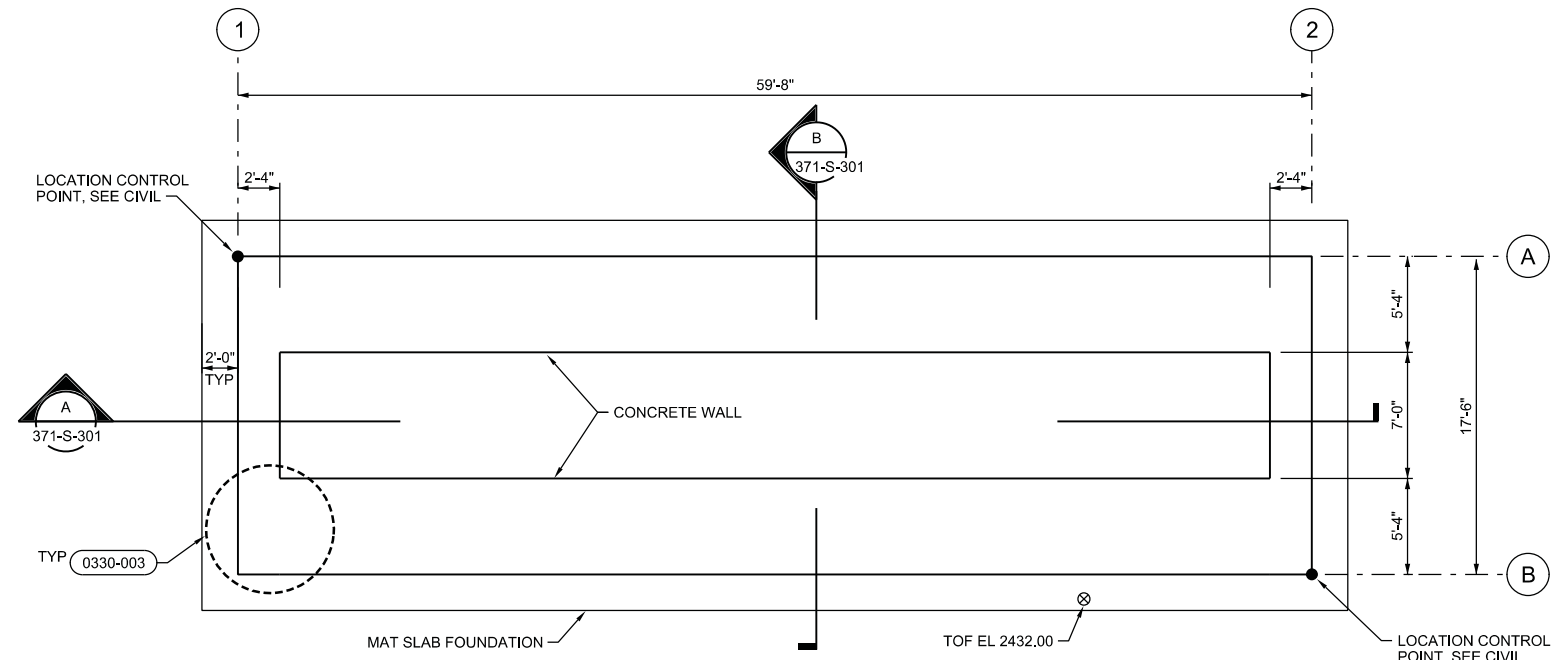
NO.	DATE	DSGN	DR	CHK	BY	APVD
			W KOHLER	L HENDERSHOT	B HERMAN	G THOMPSON

NAMPA WWTP PHASE 1 UPGRADES PROJECT GROUP A CITY OF NAMPA NAMPA, IDAHO
---

<b>CH2MHILL</b> <sup>®</sup> STRUCTURAL
<b>PRIMARY EFFLUENT PUMP STATION FOUNDATION PLAN</b>

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VERIFY SCALE	
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DATE	DECEMBER 2014
PROJ	480770
DWG	371-S-101
SHEET	82 of 157

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**PRIMARY EFFLUENT PUMP STATION FOUNDATION PLAN**  
3/16" = 1'-0"



1                          2                          3                          4                          5                          6

A  
B  
C  
D

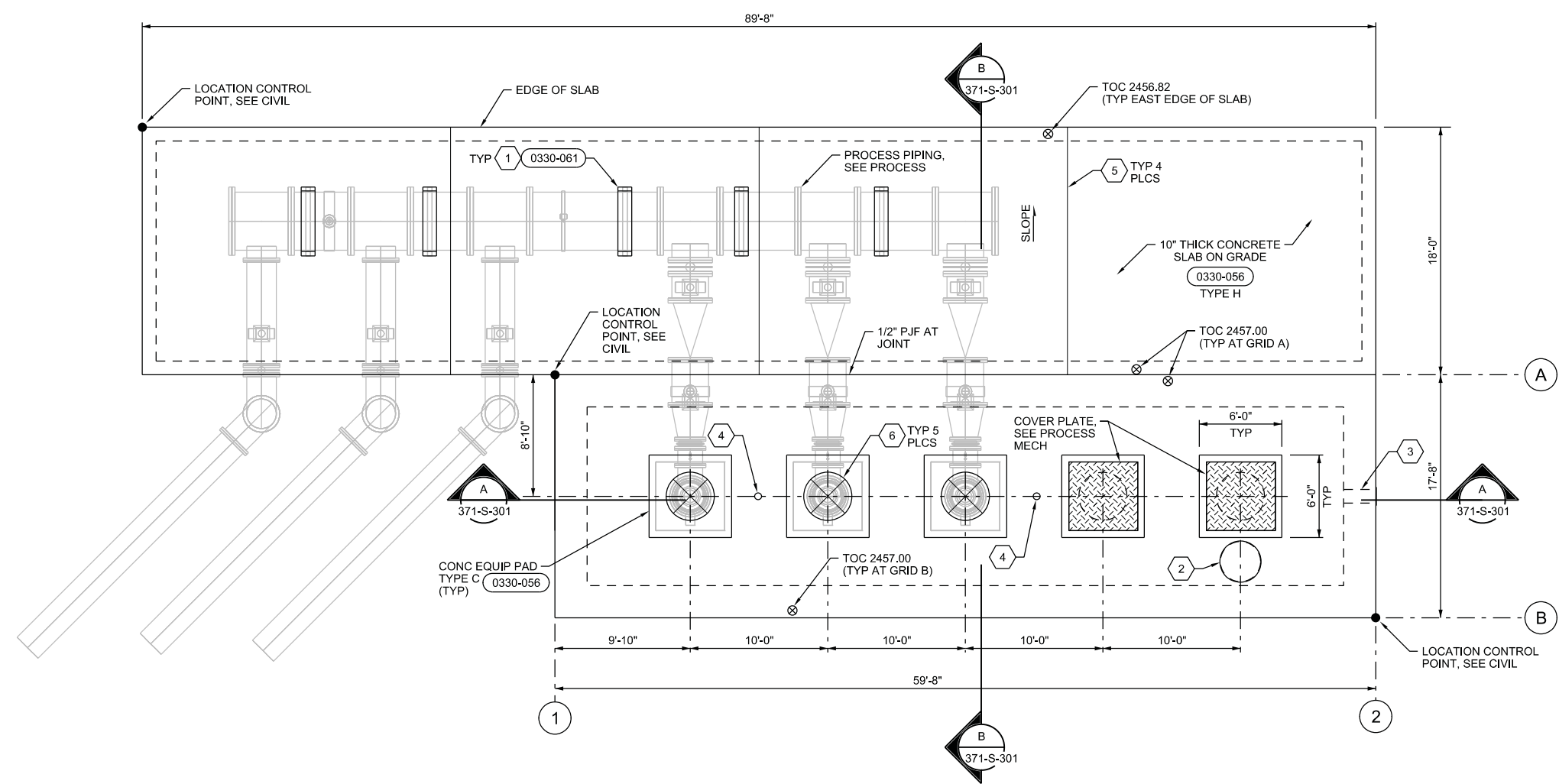
**GENERAL SHEET NOTES**

- A. FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS, SEE DRAWINGS 010-G-013, 010-G-014, AND 010-G-015.
- B. SEE STANDARD DETAILS FOR ADDITIONAL INFORMATION.



**SHEET KEYNOTES**

1. TYPE "A" CONCRETE PIPE SUPPORT SADDLE (TYP OF 5). COORDINATE FINAL LOCATION WITH PROCESS MECHANICAL AND CONTROL JOINTS. ADJUST LOCATION OF CONTROL JOINT AS REQUIRED SUCH THAT JOINT IS NO CLOSER THAN 3' TO FACE OF PIPE SUPPORT.
2. 36" DIA HEAVY DUTY MANHOLE COVER AS SPECIFIED. CAST-IN-PLACE WITH LID FLUSH WITH TOP OF CONCRETE. CENTER ON PUMP WITH WEST EDGE TANGENT WITH INSIDE FACE OF WALL BELOW.
3. 12"x12" BLOCKOUT THROUGH WALL. CENTER ON PUMPS AND TOP OF BLOCKOUT = BOTTOM OF CONCRETE LID. CAP WITH 1/4"x16"x16" SST PLATE AND 1/8" RED RUBBER GASKET. ANCHOR PLATE TO CONCRETE WITH 3/8" DIA x 4" MIN EMBED SST ADHESIVE ANCHORS.
4. ULTRASONIC LEVEL ELEMENT EMBED, CENTER BETWEEN PUMPS. SEE ELECTRICAL FOR ADDITIONAL INFORMATION.
5. CONTROL JOINT. FIELD LOCATE PER NOTE 1. MAXIMUM SPACING = 20 FEET. (0315-192)
6. 42" DIAMETER PUMP SHAFT PENETRATION. VERIFY WITH PUMP MANUFACTURER PRIOR TO CONCRETE PLACEMENT.



**PRIMARY INFLUENT PUMP STATION PLAN**  
3/16"=1'-0"

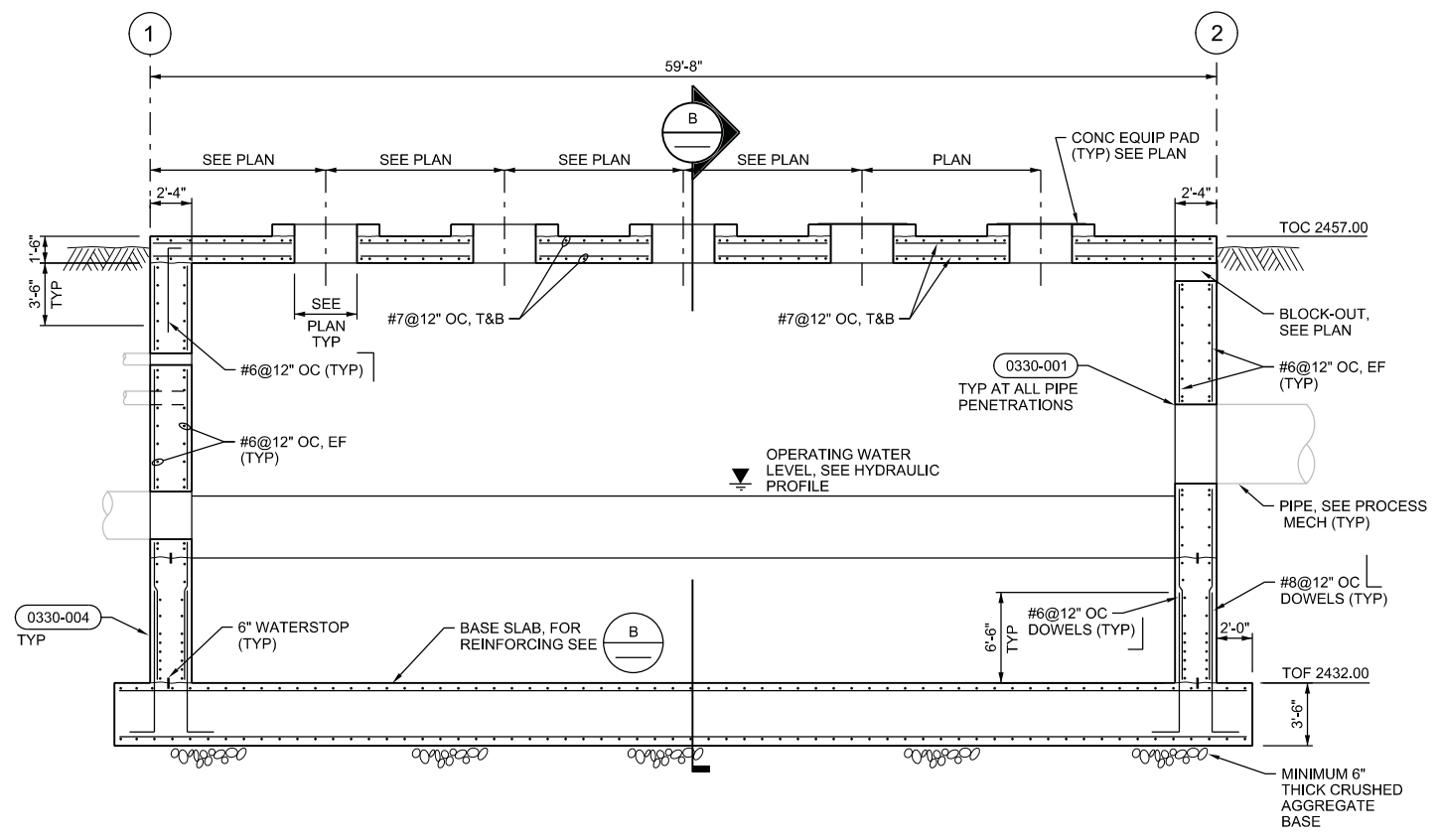
NO.	DATE	DR	CHK	REVISION	BY	APVD
		W KOHLER	L HENDERSHOTT		B HERMAN	G THOMPSON

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

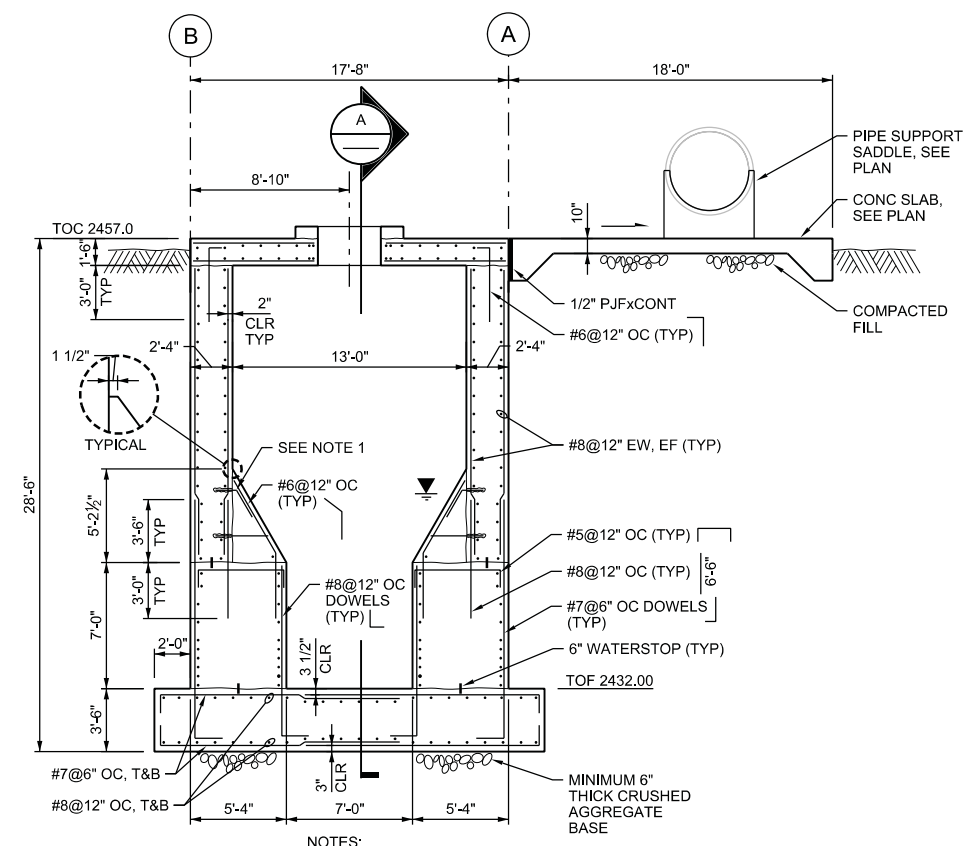
**CH2MHILL**  
STRUCTURAL  
**PRIMARY EFFLUENT PUMP STATION  
PLAN**

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE DECEMBER 2014
PROJ 480770
DWG 371-S-111
SHEET 83 of 157





**A SECTION**  
 3/16"=1'-0"  
 371-S-101  
 371-S-111



**B SECTION**  
 3/16"=1'-0"  
 371-S-101  
 371-S-111

- NOTES:
- #5xREQD RDAA WITH 6" MIN EMBED @ 24" OC, EACH WAY.
  - FOR INFORMATION NOT SHOWN, SEE SECTION A, THIS DWG.
  - CORNER BARS SHALL BE #8, SEE 0330-003

NO.	DATE	DR	CHK	REVISION	BY
		W KOHLER	L HENDERSHOTT		G THOMPSON

NAMPA WWTP PHASE 1 UPGRADES  
 PROJECT GROUP A  
 CITY OF NAMPA  
 NAMPA, IDAHO

<b>CH2MHILL®</b>	
STRUCTURAL	PRIMARY EFFLUENT PUMP STATION SECTIONS
AS NOTED	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	DECEMBER 2014
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SHEET	84 of 157

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GENERAL SHEET NOTES

- NOTES:
1. PIPE AIR RELEASE VALVES TO PEPS WET WELL WITH GALV STEEL PIPE. SEE (4027-604)
  2. PIPE SEAL WATER DRAINS TO PEPS WET WELL SEE (4027-604)
  3. DRAIN LINES REQUIRED BY NOTES 1 & 2 MAY BE COMBINED TO REDUCE NUMBER OF SLAB PENETRATIONS. KEEP PIPING CLEAR OF WALKWAYS BETWEEN PUMPS.

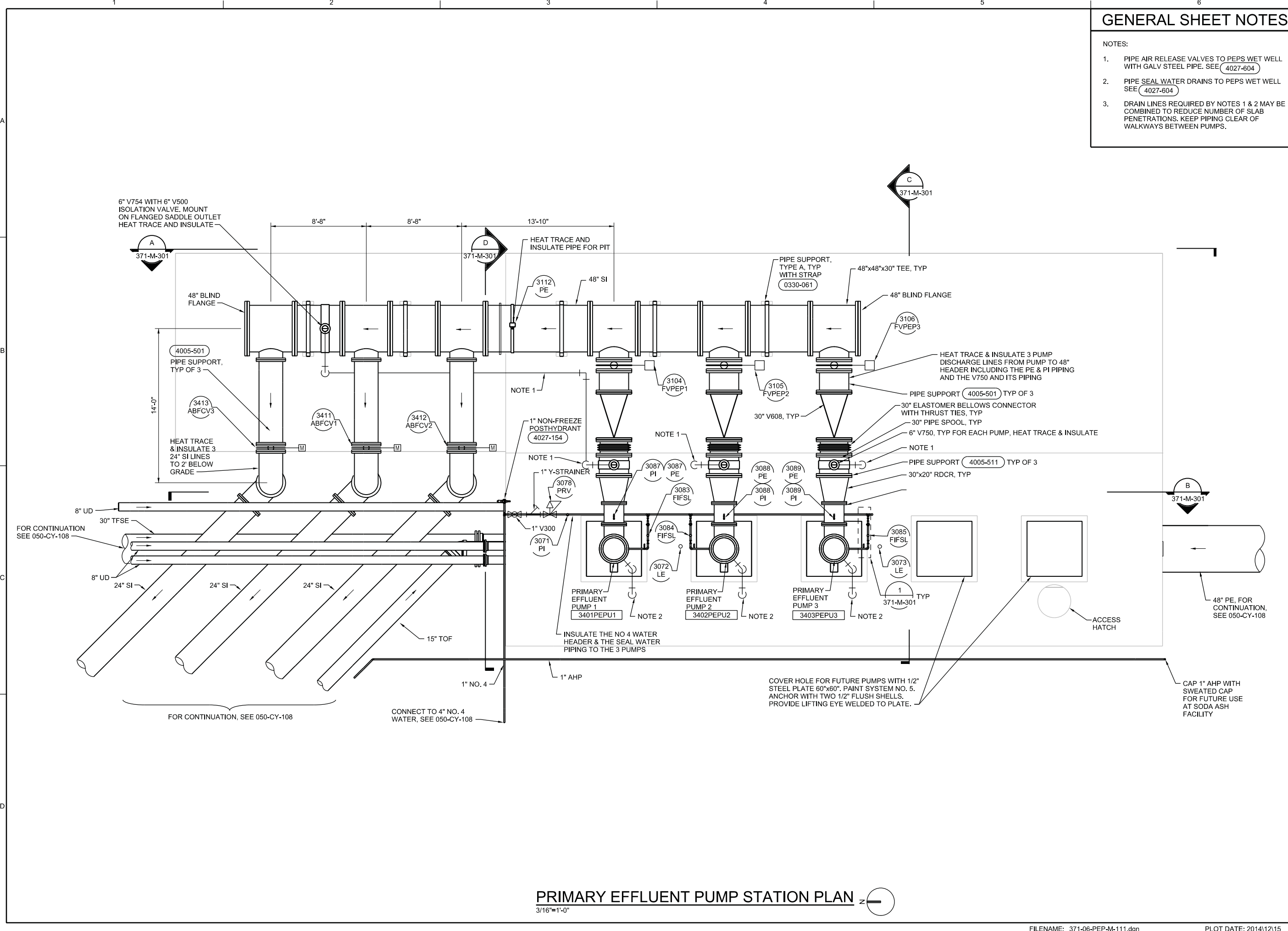
PROFESSIONAL ENGINEER  
REGISTERED  
3755  
STATE OF IDAHO  
LAWRENCE M. FETTKETTER  
16 December 2014

NO.	DATE	DR	CHK	BY	APVD
		J. PIGMAN	L. FETTKETTER		G. THOMPSON

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

**CH2MHILL**  
PROCESS MECHANICAL  
**PRIMARY EFFLUENT PUMP STATION PLAN**

AS NOTED  
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING.  
DATE: DECEMBER 2014  
PROJ: 480770  
DWG: 371-M-111  
SHEET: 85 of 157

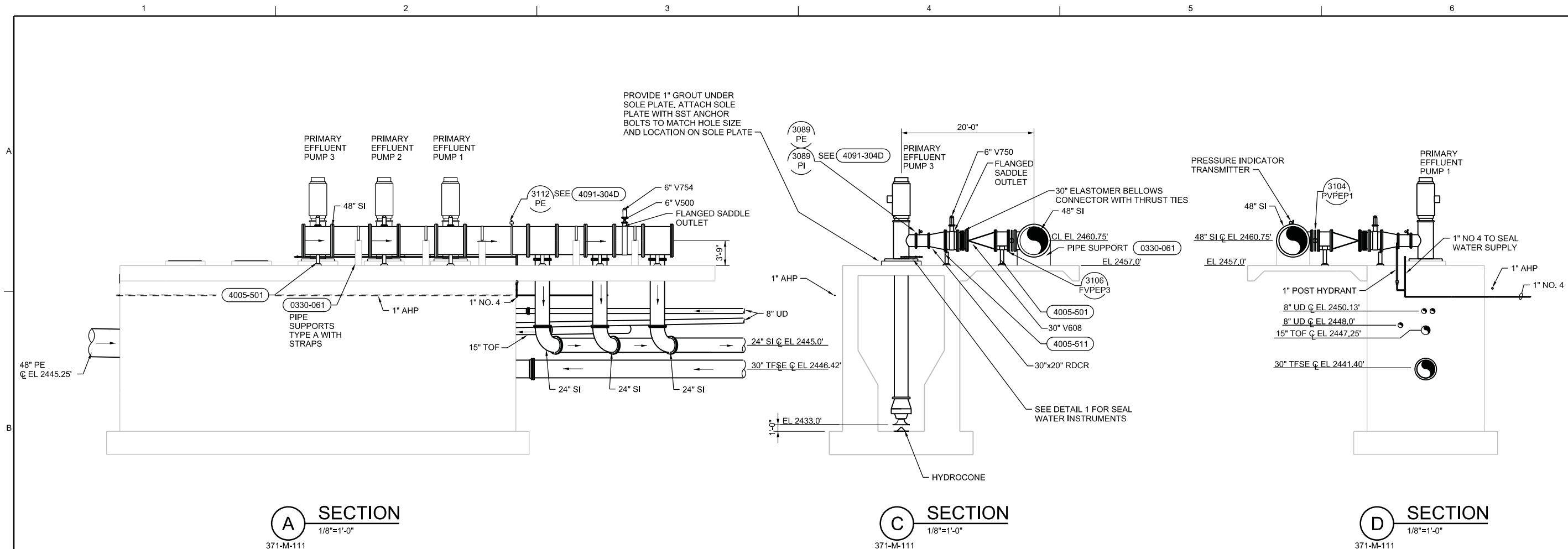


**PRIMARY EFFLUENT PUMP STATION PLAN**  
3/16"=1'-0"

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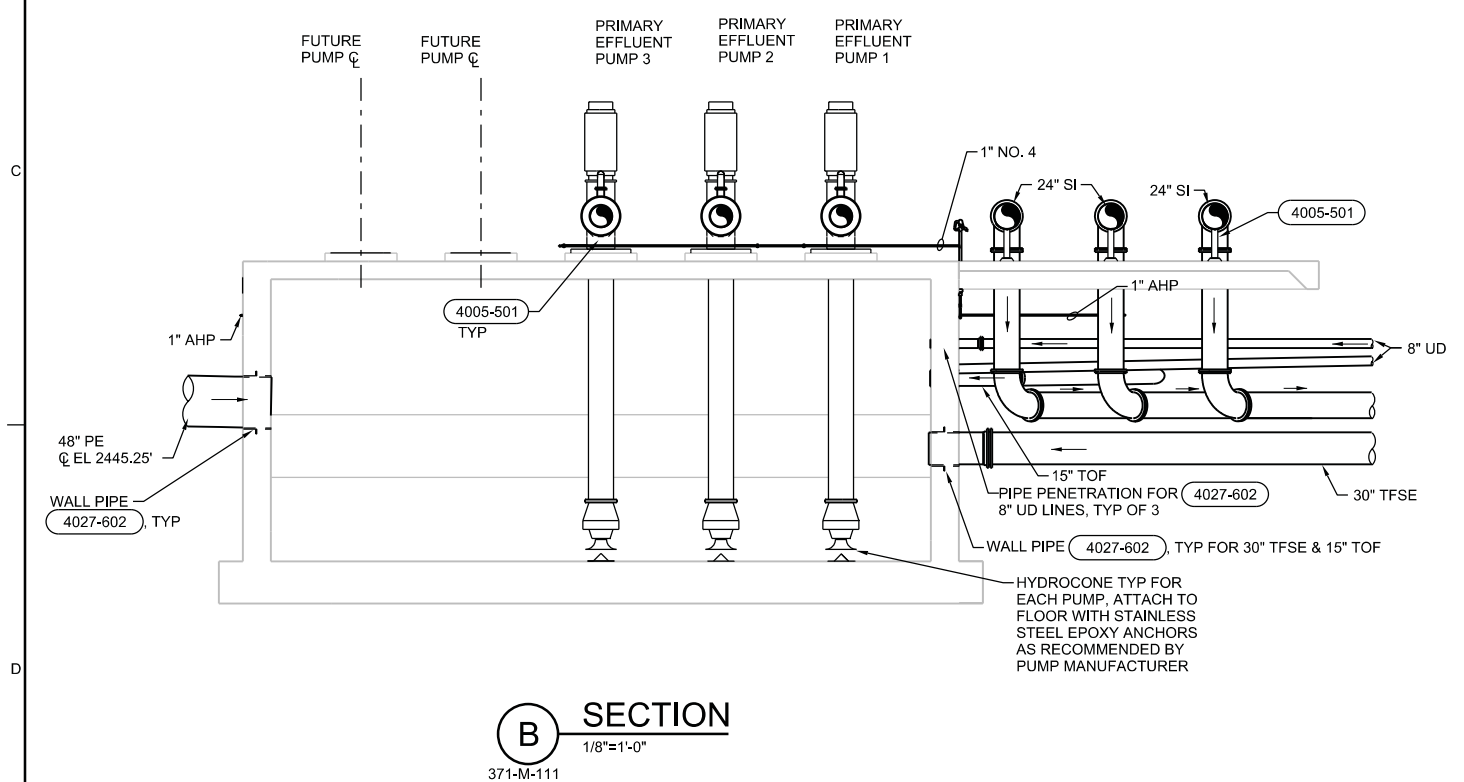
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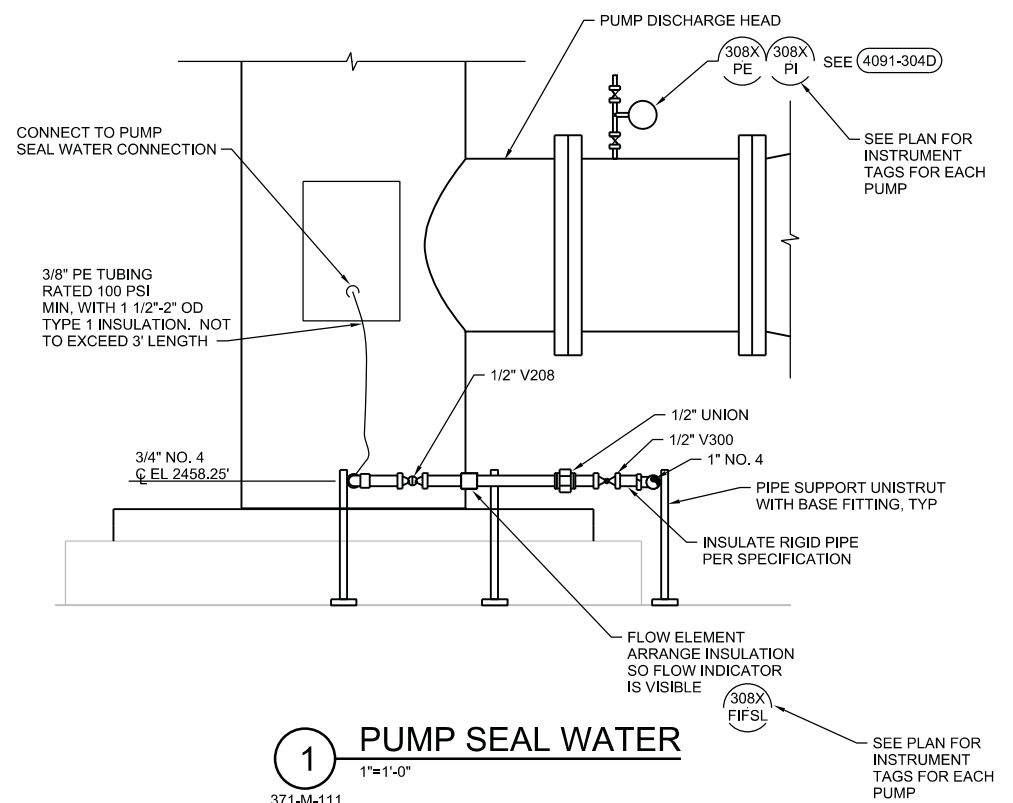
**A SECTION**  
1/8"=1'-0"  
371-M-111

**C SECTION**  
1/8"=1'-0"  
371-M-111

**D SECTION**  
1/8"=1'-0"  
371-M-111



**B SECTION**  
1/8"=1'-0"  
371-M-111



**1 PUMP SEAL WATER**  
1"=1'-0"  
371-M-111

NO.	DATE	DR	REVISION	BY

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

**CH2MHILL**  
PROCESS MECHANICAL  
**PRIMARY EFFLUENT PUMP STATION  
SECTIONS**

	AS NOTED
	VERIFY SCALE
	BAR IS ONE INCH ON ORIGINAL DRAWING.
	DATE DECEMBER 2014
	PROJ 480770
	DWG 371-M-301
	SHEET 86 of 157

## GENERAL SHEET NOTES

- A. FOR CIRCUITS SEE BLOCK DIAGRAMS.
- B. SEE AREA CLASSIFICATION AND MATERIAL SELECTION TABLE ON DRAWING 010-G-028.
- C. SEE CONTROL DIAGRAMS ON DRAWING 371-E-501.
- D. SEE DUCTBANK SCHEDULES ON DRAWINGS 050-E-601, 050-E-602, & 050-E-603.
- E. FOR SITE CONDUIT ROUTING SEE YARD ELECTRICAL PLANS.



## SHEET KEYNOTES

1. PROVIDE (1) 1 1/2" AND (3) 3/4" CONDUITS TO EACH FUTURE PUMP FROM LOCATION OF FUTURE AFD IN PEPS ELECTRICAL BUILDING. STUB UP CONDUITS AND CAP.
2. UTILITY CORRIDOR. ROUTE CONDUIT AND PIPE FOR ADJACENT PUMPS EXPOSED ON TOP OF CONCRETE ABOVE WET WELL. STUB UP CONDUITS EAST OF WET WELL THROUGH CONCRETE SLAB.
3. INSTALL CONCRETE ENCASED ELECTRODE IN BOTTOM FOOTING OF WET WELL. COORDINATE WITH STRUCTURAL.
4. BOND GROUNDING SYSTEM TO PIPING.

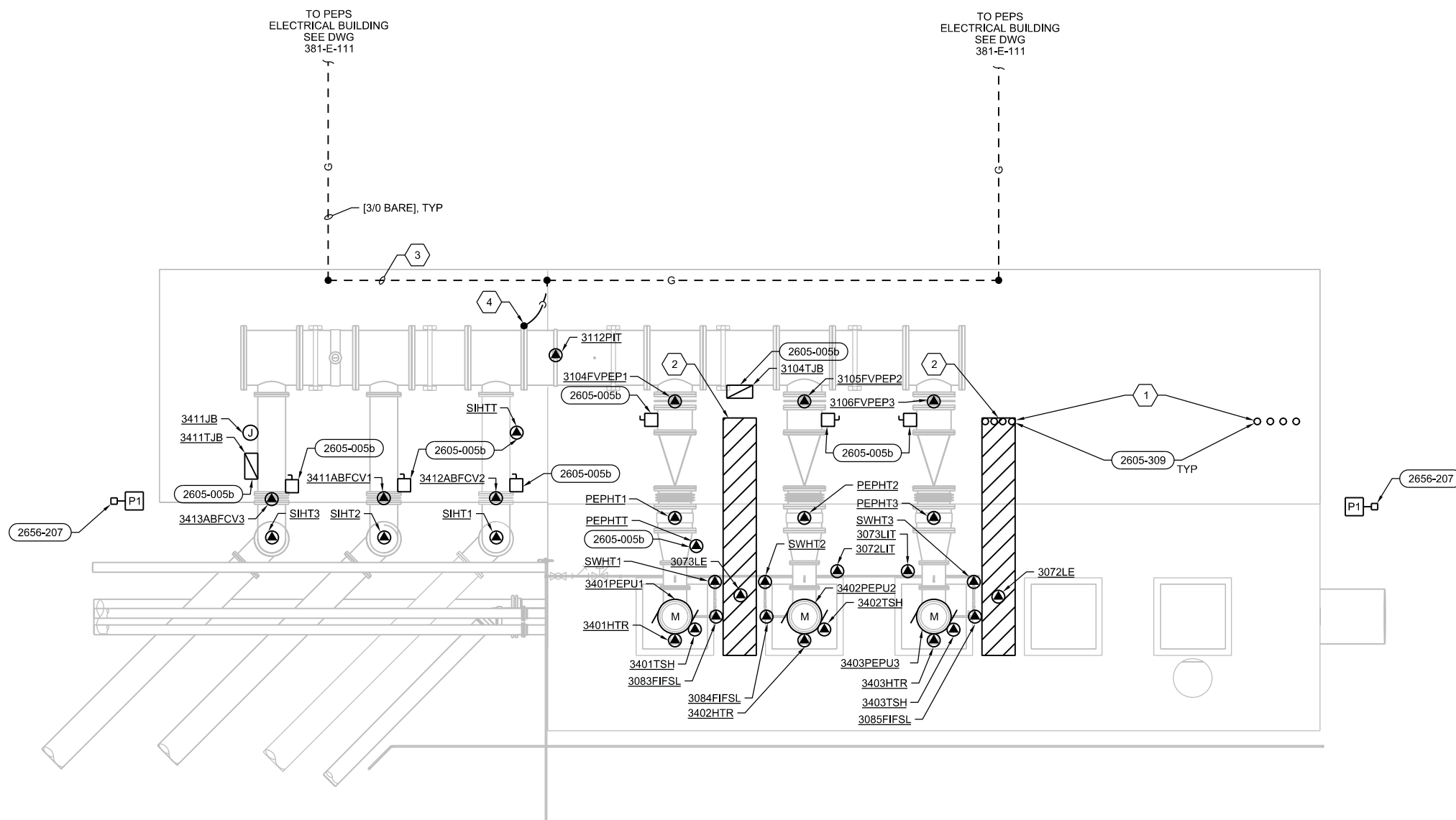
NO.	DATE	DR	CHK	REVISION	BY

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

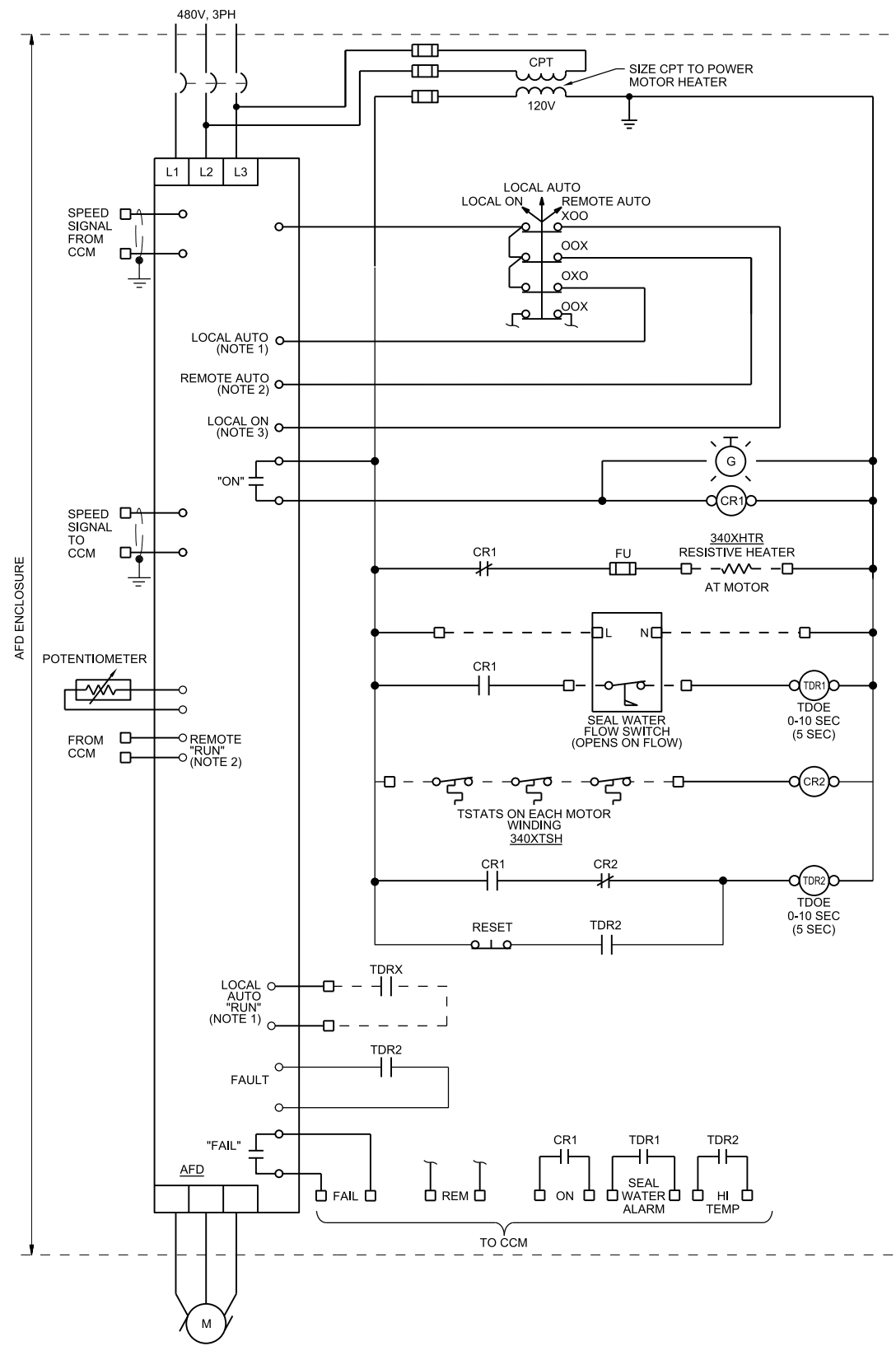
**CH2MHILL®**  
ELECTRICAL  
**PRIMARY EFFLUENT PUMP STATION  
PLAN**

DATE	DECEMBER 2014
PROJ	480770
DWG	371-E-111
SHEET	87 of 157

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**PRIMARY EFFLUENT PUMP STATION**   
3/16"=1'-0"



- NOTES**
- 1 WHEN IN "LOCAL AUTO" MODE AFD SHALL OPERATE AT PRE-PROGRAMMED SPEED (45HZ) WHEN LOCAL AUTO RUN INPUT IS CLOSED. SEE DRAWING 080-I-521.
  - 2 WHEN IN "REMOTE AUTO" MODE AFD SHALL RUN WHEN REMOTE INPUT IS CLOSED AND SHALL OPERATE AT SPEED BASED ON ANALOG INPUT.
  - 3 WHEN IN "LOCAL ON" MODE AFD SHALL OPERATE AT SPEED DETERMINED BY POTENTIOMETER.

**PRIMARY EFFLUENT PUMP CONTROL DIAGRAM**  
 (3401PEPPU1, 3402PEPPU2, 3403PEPPU3)

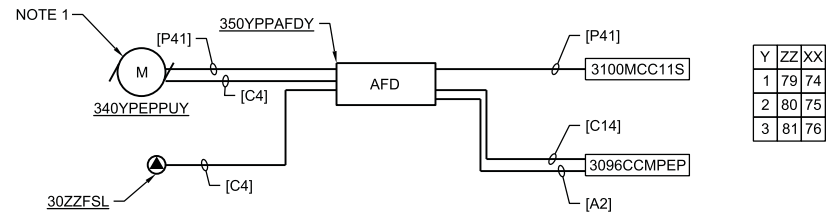


NO.	DATE	DR	CHK	REVISION	BY	APVD

NAMPA WWTP PHASE 1 UPGRADES  
 PROJECT GROUP A  
 CITY OF NAMPA  
 NAMPA, IDAHO

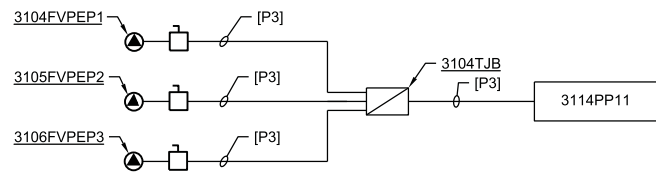
**CH2MHILL®**  
 ELECTRICAL  
**PRIMARY EFFLUENT PUMP STATION  
 CONTROL DIAGRAMS**

AS NOTED	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	DECEMBER 2014
PROJ	480770
DWG	371-E-501
SHEET	88 of 157

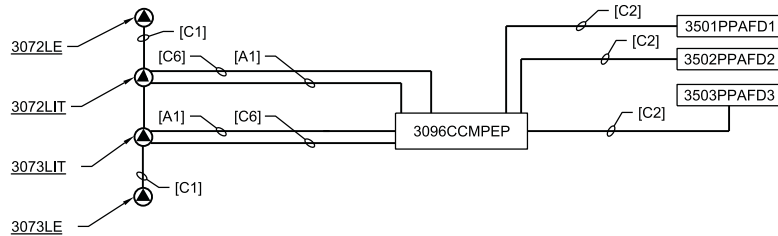


NOTES:  
1. JUNCTION BOX FOR HEATER AND TSH ARE LOCATED ON MOTOR.

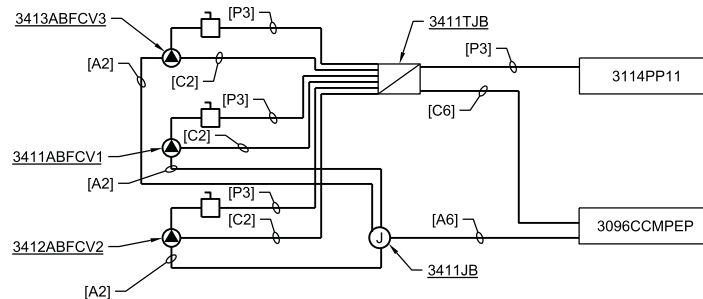
### PRIMARY EFFLUENT PUMPS NTS



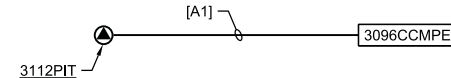
### PRIMARY EFFLUENT PUMP FLOW VALVES NTS



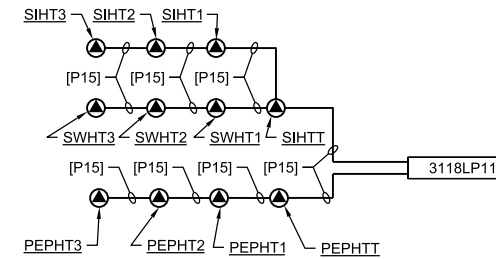
### PRIMARY EFFLUENT WELL LEVEL SENSING NTS



### PEPS FLOW CONTROL TO AERATION BASINS NTS



### PEPS PRESSURE TRANSMITTER NTS



### PEPS HEAT TRACING NTS

Y	ZZ	XX
1	79	74
2	80	75
3	81	76



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REVISION  
BY APVD  
APVD  
G THOMPSON  
M MACROSTIE  
K BARTLETT  
T PALIN

NO. DATE  
DSGN DR

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

## CH2MHILL®

ELECTRICAL  
PRIMARY EFFLUENT PUMP STATION  
BLOCK DIAGRAMS

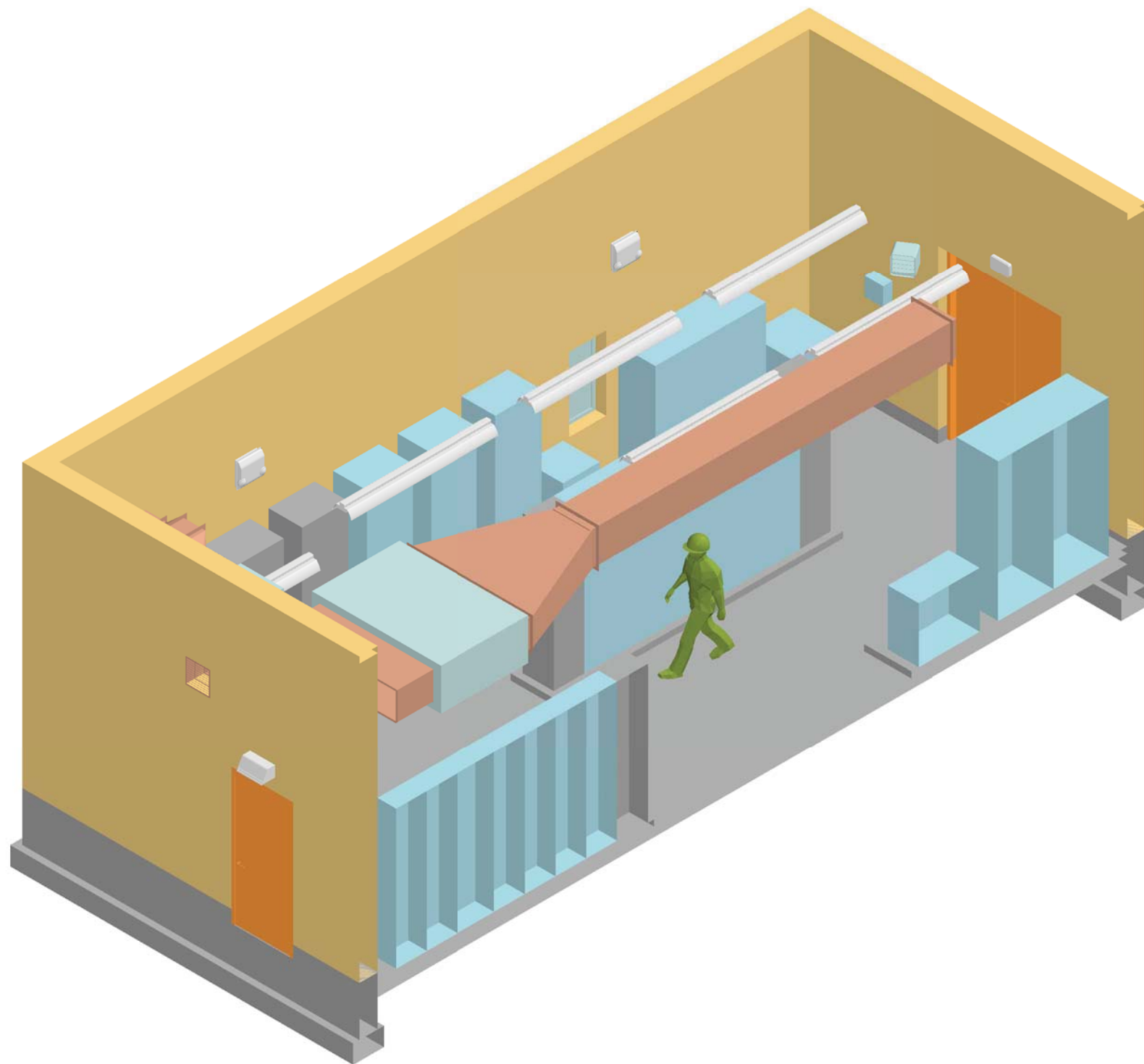
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BID DOCUMENTS

DATE	DECEMBER 2014
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DWG	371-E-510
SHEET	89 of 157

1 2 3 4 5 6

A  
B  
C  
D



**PEPS ELECTRICAL BUILDING RENDERED MODEL**  
NTS



NO.	DATE	DR	REVISION	BY
		L FETTKETHER		
		M RARDIN	CHK	
		B HERMAN	APVD	
		G THOMPSON	APVD	

**CH2MHILL®**  
GENERAL  
**PEPS ELECTRICAL BUILDING  
RENDERED MODEL**

NAMPA WWTP PHASE 1 UPGRADES  
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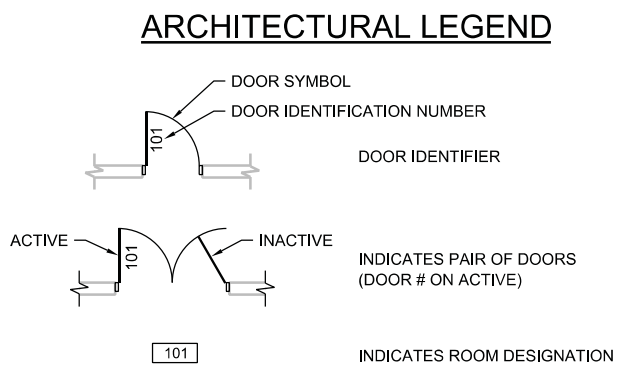
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0 1"
DATE DECEMBER 2014
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DWG 381-G-001
SHEET 90 of 157

<b>CODE DATA</b>	
BUILDING: 2012 IBC	
<b>GENERAL INFORMATION</b>	
USE AND OCCUPANCY CLASSIFICATION (CHAPTER 3)	S-2 LOW HAZARD
TYPE OF CONSTRUCTION	2-B
<b>AREA AND HEIGHT LIMITATIONS</b>	
MAXIMUM ALLOWABLE AREA (TABLE 503)	26,000 S.F.
ACTUAL AREA:	852 S.F.
MAXIMUM ALLOWABLE STORIES (TABLE 503)	3 STORIES
ACTUAL NO. OF STORIES	1
MAXIMUM ALLOWABLE HEIGHT (TABLE 503)	55'
ACTUAL HEIGHT:	15'-8"

<b>REQUIRED FIRE RESISTANT RATINGS</b>	
BUILDING ELEMENTS (TABLE 704.3)	
STRUCTURAL FRAME, EXTERIOR BEARING WALLS, INTERIOR BEARING WALLS, EXTERIOR NON BEARING WALLS, FLOOR CONSTRUCTION, ROOF CONSTRUCTION:	0 HOURS
SHAFT ENCLOSURE, STAIR ENCLOSURE:	N/A
INCIDENTAL USE AREAS (302.2)	N/A
FIRE SEPARATION DISTANCE (TABLE 602)	NOT REQ'D
DISTANCE FROM IMAGINARY LINE BETWEEN BUILDINGS	13.13'

<b>OCCUPANCY/EGRESS</b>		
CALCULATED NUMBER OF OCCUPANTS	1:300 852/300=3 NOT NORMALLY OCCUPIED	
EGRESS WIDTH BASED ON OCCUPANCY (TABLE 1005.1 AND 1008.1.1)	6x.2 = 1.2IN	
NUMBER OF EXITS	REQUIRED	ACTUAL
OVERALL BUILDING	1	2
ALLOWABLE COMMON PATH TRAVEL	75FT. MAX.	
MAX TRAVEL DISTANCE ALLOWED (TABLE 1015.1)	300 FT.	
<b>FIRE PROTECTION</b>		
SPRINKLERS	NO	
FIRE EXTINGUISHERS	YES	
EXIT LIGHTING	YES	
FIRE ALARM	NO	
SMOKE ALARM	YES	

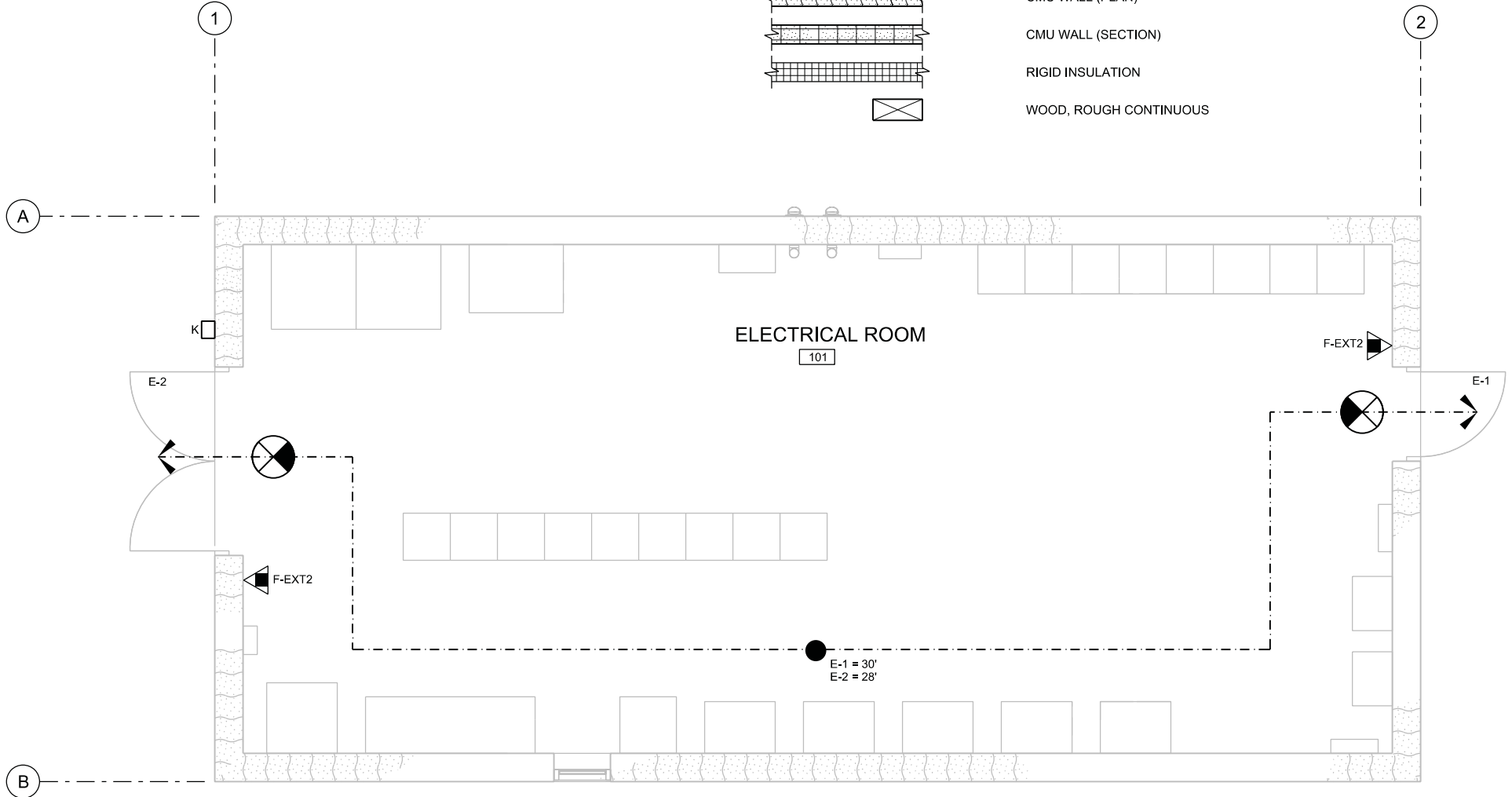
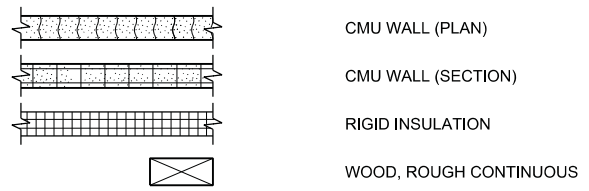
- LIFE SAFETY LEGEND**
- E "X" EXIT NUMBER
  - START POINT
  - X' TRAVEL DISTANCE (X = TOTAL DISTANCE TO EXIT IN FEET)
  - ▲ FIRE EXTINGUISHER 15 LBS. IN SURFACE MOUNTED BRACKET
  - ⊗ EXIT LIGHTS
  - K☐ KNOX BOX, SEE FIRE ALARM DRAWINGS



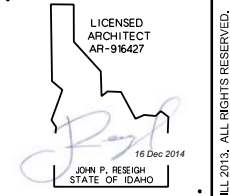
**GENERAL ARCHITECTURAL NOTES**

- FOR DOOR HARDWARE, SEE SPECIFICATIONS
- FOR PAINT SYSTEMS, SEE SPECIFICATIONS

**ARCH/STRUCT MATERIAL SYMBOLS**



**PEPS ELECTRICAL BUILDING LIFE SAFETY PLAN**  
3/8"=1'-0" 



NO.	DATE	DSGN	DR	J RESEIGN
REVISION	CHK	APVD	BY	APVD
G KIRSTEN	B HERMAN	D DALSOGLIO		G THOMPSON

ARCHITECTURAL/STRUCTURAL  
**PEPS ELECTRICAL BUILDING**  
LIFE SAFETY PLAN

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

AS NOTED  
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SHEET	91 of 157





**GENERAL SHEET NOTES**

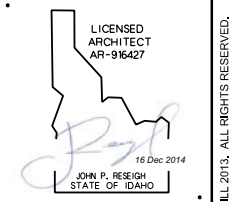
- A. FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS, SEE DRAWINGS 010-G-013, 010-G-014, AND 010-G-015.
- B. SEE STANDARD DETAILS FOR ADDITIONAL INFORMATION.
- C. SEE CIVIL DRAWINGS FOR CONCRETE STOOPS

**SHEET KEYNOTES**

1. REINFORCE SLAB ON GRADE WITH #4@12" OC EACH WAY, CENTERED IN SLAB.
2. COORDINATE FINAL NUMBER, LOCATION, AND EXTENT OF CONCRETE PADS WITH ELECTRICAL AND MECHANICAL PRIOR TO CONSTRUCTION.
3. 3'-0" x 7'-0" INSULATED HM DOOR AND FRAME. DOOR HARDWARE SET 2
4. (2) 3'-2" x 9'-0" THERMALLY BROKEN INSULATED HM FRAME AND INSULATED DOOR. DOOR HARDWARE SET 1
5. 2'-0" W X 4'-0" H FIXED INSULATED GLASS WINDOW, 7'-4" HEAD HEIGHT
6. CONCRETE SPLASH, (0762-004)
7. SEE EXTERIOR ELEVATIONS SHEET 381-AS-201 FOR LOCATION OF ROOF DRAIN/OVERFLOW NOZZLE

**COLOR LIST**

- SPLIT FACE CMU - INTEGRAL COLOR BASALITE 655 WALNUT
- SMOOTH FACE CMU - INTEGRAL COLOR BASALITE 630 MOON DUST
- CMU MORTAR - INTEGRAL COLOR BASALITE 325
- DOOR FRAMES - METAL PS5 SHERWIN WILLIAMS SW6152
- EXTERIOR DOORS - METAL PS5 SHERWIN WILLIAMS SW7038
- COPING CAP - METAL KYNAR BARK BRONZE
- SKYLIGHT CURB - METAL FACTORY DARK GRAY
- ROOF DRAIN NOZZLE - METAL FACTORY BRONZE
- LOUVERS - METAL FACTORY BRONZE
- INTERIOR CMU FACE WALLS - INTEGRAL COLOR, SEE SPLIT FACE
- AND SMOOTH CMU COLORS
- CONCRETE FLOOR - LIGHT BROOM, SEALED CLEAR
- ROOF DECK - METAL GALVANIZED
- WINDOW - METAL KYNAR BRONZE



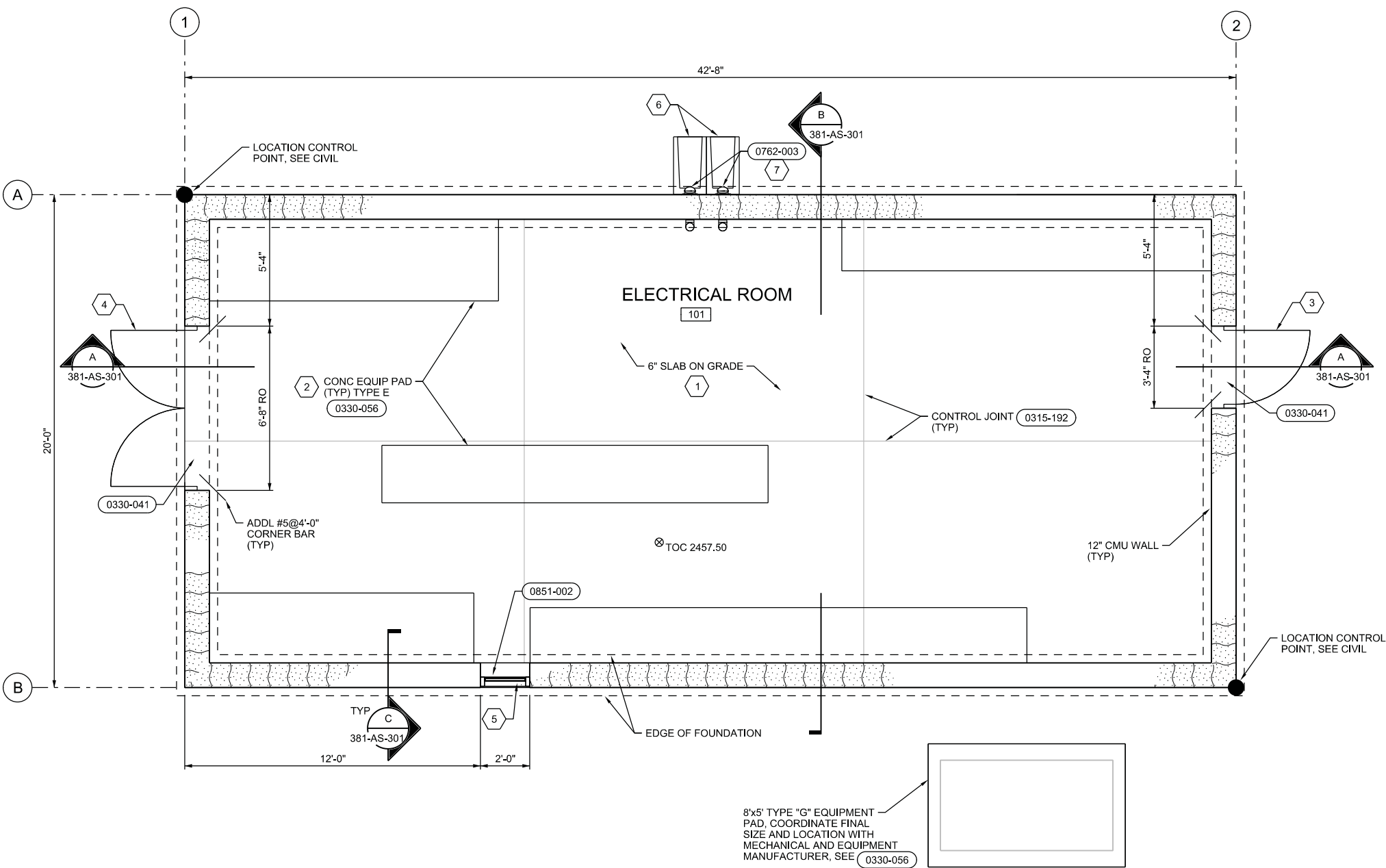
NO.	DATE	DGN	J RESEIGH	DR	D DALSOGLIO	REVISION	CHK	G KIRSTEN	APVD
			W KOHLER	L HENDERSHOTT				B HERMAN	
								G THOMPSON	

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

**CH2MHILL**  
ARCHITECTURAL/STRUCTURAL  
**PEPS ELECTRICAL BUILDING  
FOUNDATION/FLOOR PLAN**

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LICENSED ARCHITECT AR-916427  
 JOHN P. RESEIGH STATE OF IDAHO  
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**PEPS ELECTRICAL BUILDING FOUNDATION/FLOOR PLAN**  
3/8"=1'-0"

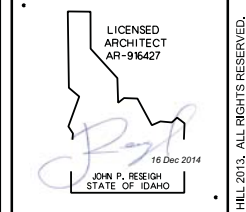


**GENERAL NOTES**

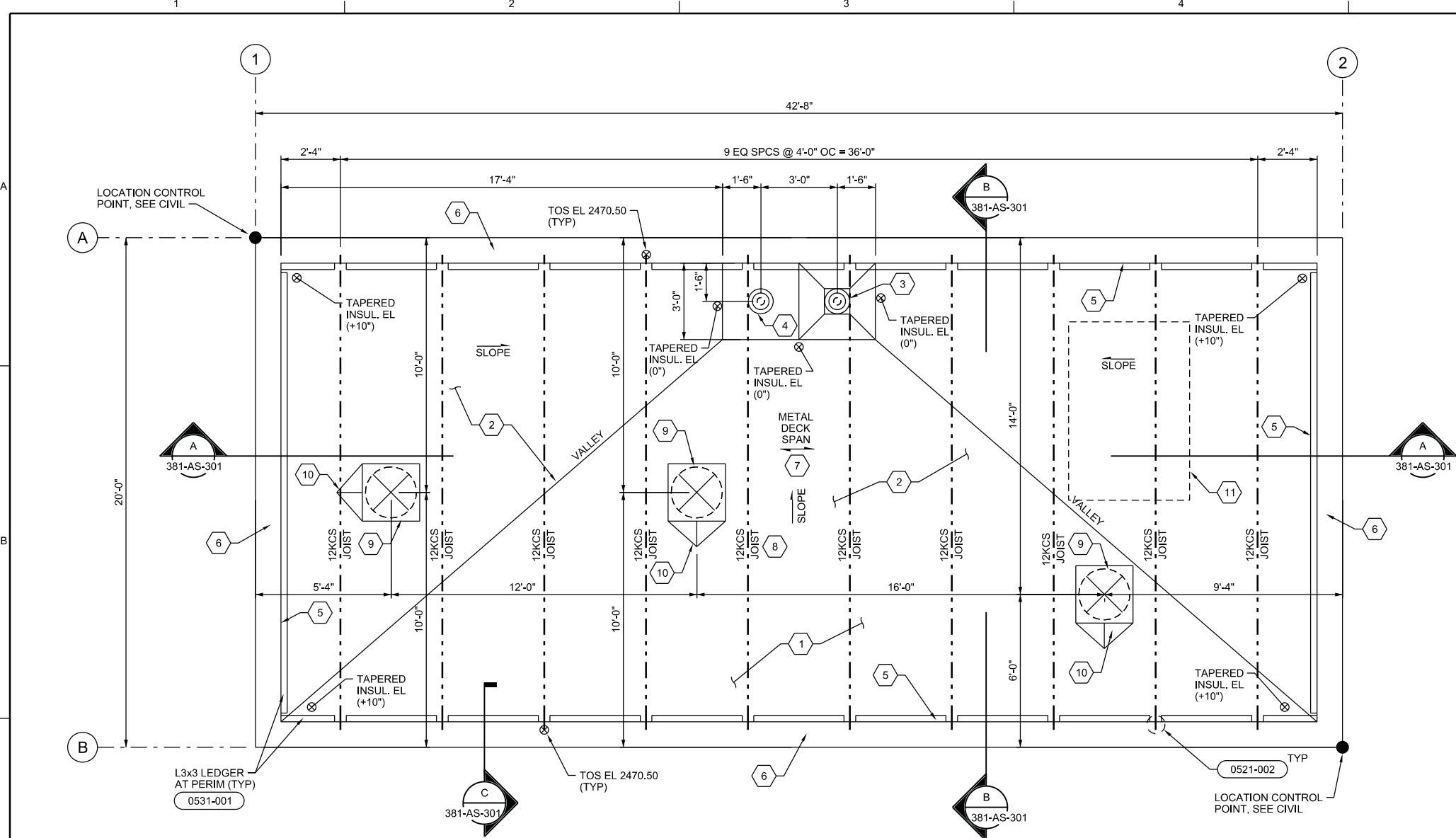
- GENERAL NOTES APPLY TO ALL DRAWINGS WITHIN A PROJECT.
- FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS, SEE DRAWINGS 010-G-013, 010-G-014, AND 010-G-015.
- SEE STANDARD DETAILS FOR ADDITIONAL INFORMATION.
- ROOF TO HAVE MIN. OF R-30 RIGID ROOF INSULATION. TAPERED INSULATION ON TOP STARTS WITH ELEVATION 0'-0"

**SHEET KEYNOTES**

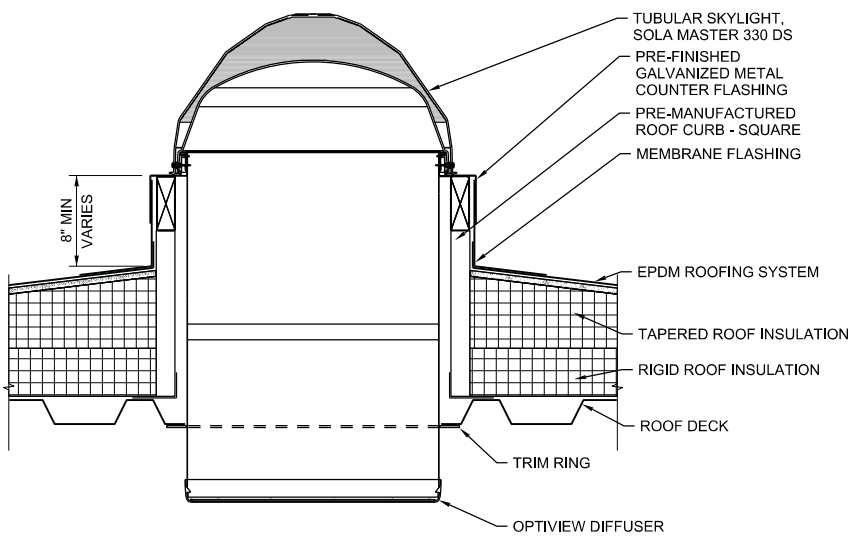
- EPDM ROOF SYSTEM OVER (R-30 MIN.) ROOF INSULATION AND TAPERED RIGID ROOF INSULATION OVER METAL DECK.
- TAPERED INSULATION TO ROOF DRAIN
- ROOF DRAIN IN SUMP. (0753-006 & 0531-021)
- OVERFLOW/ROOF DRAIN, (0753-006 & 0531-021)
- BASE FLASHING, (0753-004)
- COPING, (0753-002)
- METAL ROOF DECK SHALL BE 20 GA. 1 1/2" "B" DECK WITH +SMN = 0.235 IN<sup>2</sup>, 1MN = 0.216 IN<sup>2</sup>. ATTACH DECK TO SUPPORTS WITH 5/8" DIA WELDS IN A 4 WELD PATTERN PER 3' WIDE PANEL. SIDE LAPS SHALL BE VERCO PUNCH-LOCK @ 24" O.C.
- 12" KCS JOIST. FINAL DESIGNATION TO BE DETERMINED BY JOIST MANUFACTURER.
- SOLAR TUBE/SKYLIGHT. SEE DETAIL 1 THIS DRAWING. FOR FRAMING AT 21" DIA PENETRATION SEE (0531-021)
- CRICKET AT EACH CURB.
- 800 LB MECHANICAL UNIT HUNG FROM ROOF JOISTS. COORDINATE FOOTPRINT, LOCATION, AND CONNECTIONS WITH MECHANICAL.



NO.	DATE	DESIGN	BY	APPROVED
1		J RESEIGH	J RESEIGH	G THOMPSON
2		DR	L HENDERSHOTT	G KIRSTEN
3		REVISION	D DALSOGLIO	B HERMAN

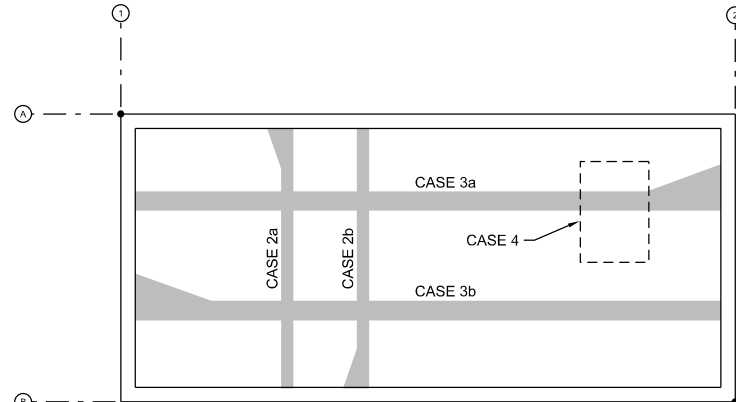


**PEPS ELECTRICAL ROOF AND FRAMING PLAN**  
3/8"=1'-0"



**1 TUBE SKYLIGHT/SOLAR TUBE**  
1 1/2" = 1'-0"

ROOF SNOW LOADS	
CASE	DESCRIPTION
1	25 PSF UNIFORM SNOW
2	SNOW DRIFT 22 PSF — 37.3 PSF 3'-8" ROOF LENGTH
3	SNOW DRIFT 22 PSF — 41.5 PSF 3'-8" ROOF LENGTH
ROOF SNOW LOADS	
4	800 LB UNIT HUNG FROM ROOF JOISTS (NOTE 11)



SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL LOADING INFORMATION

**ROOF LOAD DIAGRAM**  
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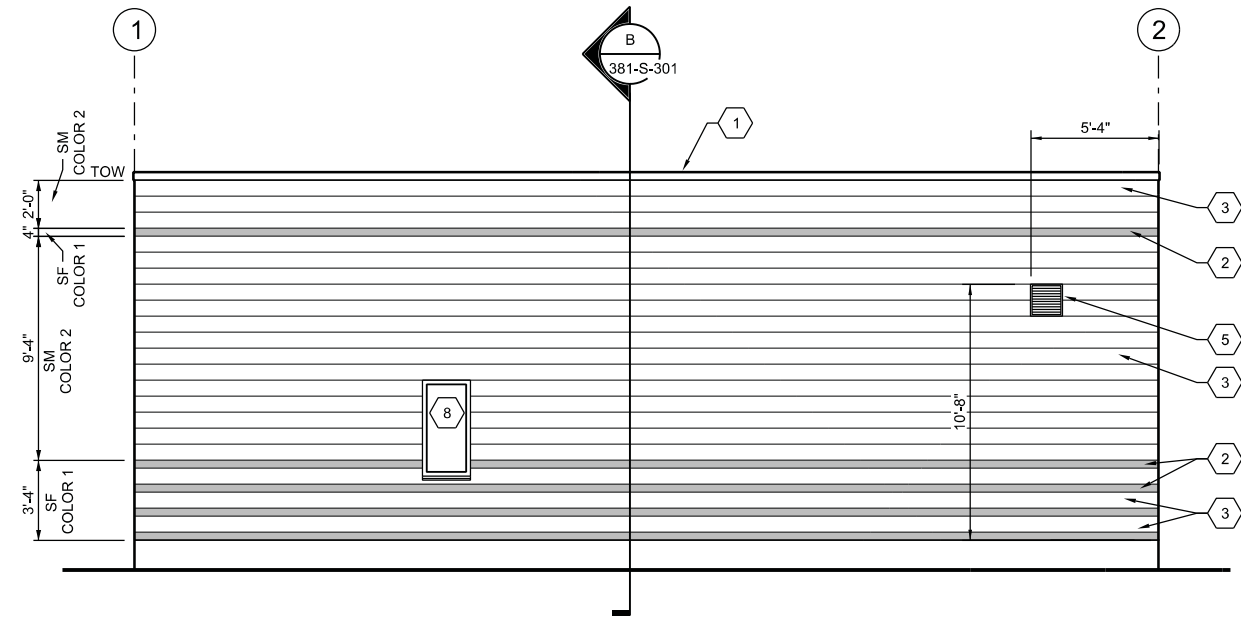
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PEPS ELECTRICAL BUILDING  
ROOF AND FRAMING PLAN

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PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

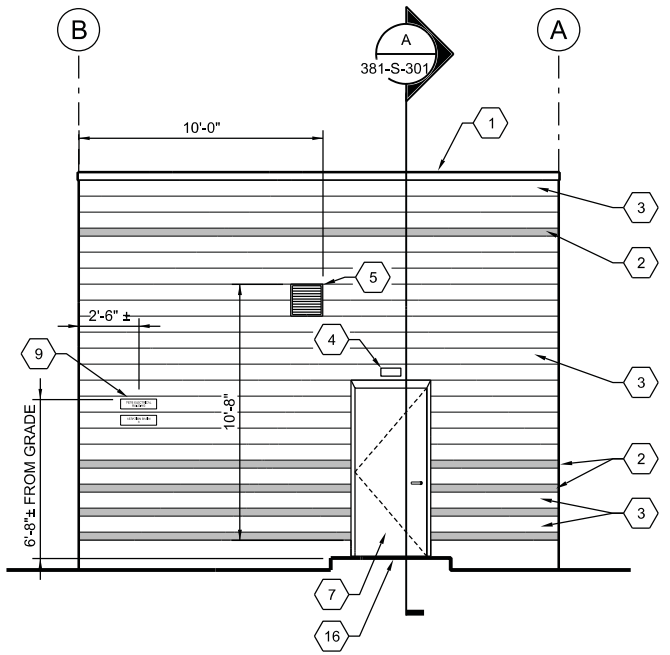
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SHEET	93 of 157

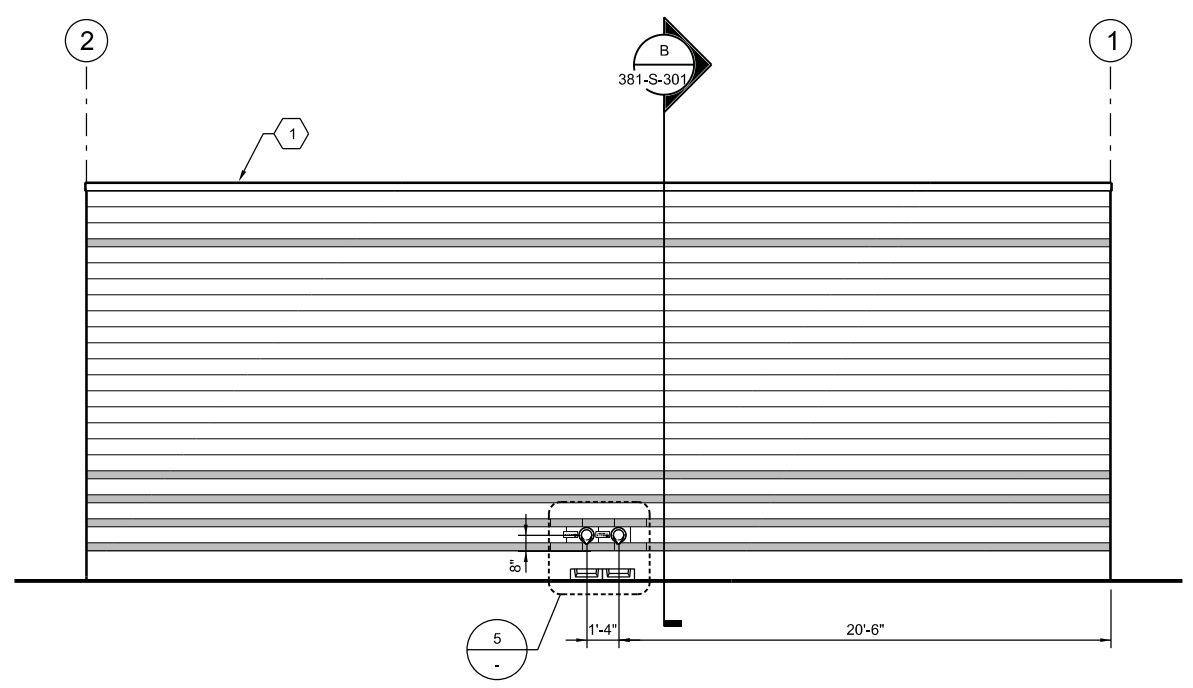
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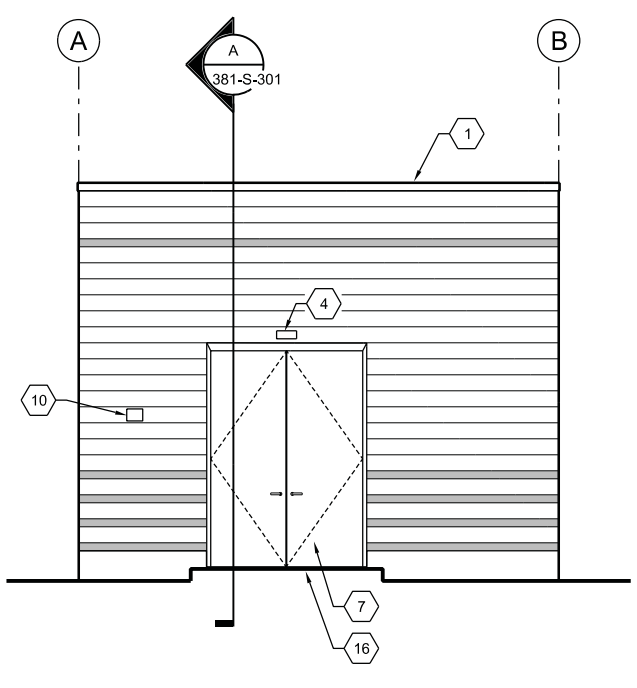
1 WEST EXTERIOR ELEVATION  
1/4"=1'-0"



2 SOUTH EXTERIOR ELEVATION  
1/4"=1'-0"



3 EAST EXTERIOR ELEVATION  
1/4"=1'-0"



4 NORTH EXTERIOR ELEVATION  
1/4"=1'-0"

### GENERAL NOTES

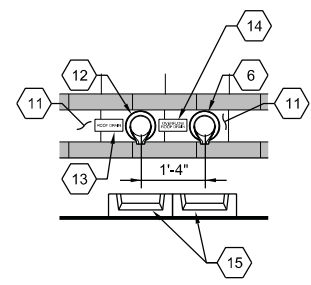
- A. GENERAL NOTES APPLY TO ALL DRAWINGS WITHIN A PROJECT.
- B. SEE SHEET 381-AS-301 FOR WALL HEIGHTS

### SHEET KEYNOTES

- 1. COPING CAP, (0753-002)
- 2. 4" HIGH CMU
- 3. 8" HIGH CMU
- 4. LIGHT, MOUNT 6" ABOVE DOOR FRAME, SEE ELECTRICAL
- 5. LOUVER, SEE MECHANICAL (0890-002)
- 6. OVERFLOW NOZZLE, (0762-003)
- 7. INSULATED HM DOOR AND FRAME
- 8. ALUMINUM WINDOW (0851-002)
- 9. SIGN A3, PLACE SIGN E1 BELOW, SEE SPECIFICATIONS
- 10. KNOX BOX 4400 SERIES OR AS REQUIRED BY LOCAL FIRE MARSHAL
- 11. SMOOTH FACE BLOCK OUT (BLOCK) AT PIPE PENETRATIONS, MATCH SPLIT FACE COLOR
- 12. ROOF DRAIN NOZZLE (0762-003)
- 13. SIGN A1, SEE SPECIFICATIONS
- 14. SIGN A2, SEE SPECIFICATIONS
- 15. SLASH BLOCKS, (0762-004)
- 16. CONCRETE STOOP, SEE CIVIL DRAWINGS

### CMU LEGEND

- SF - SPLIT FACE CMU, COLOR SEE COLOR LIST SHEET AS-101
- SM - SMOOTH FACE CMU, COLOR SEE COLOR LIST SHEET AS-101



5 OVERFLOW/ROOF NOZZLE  
1/4"=1'-0"

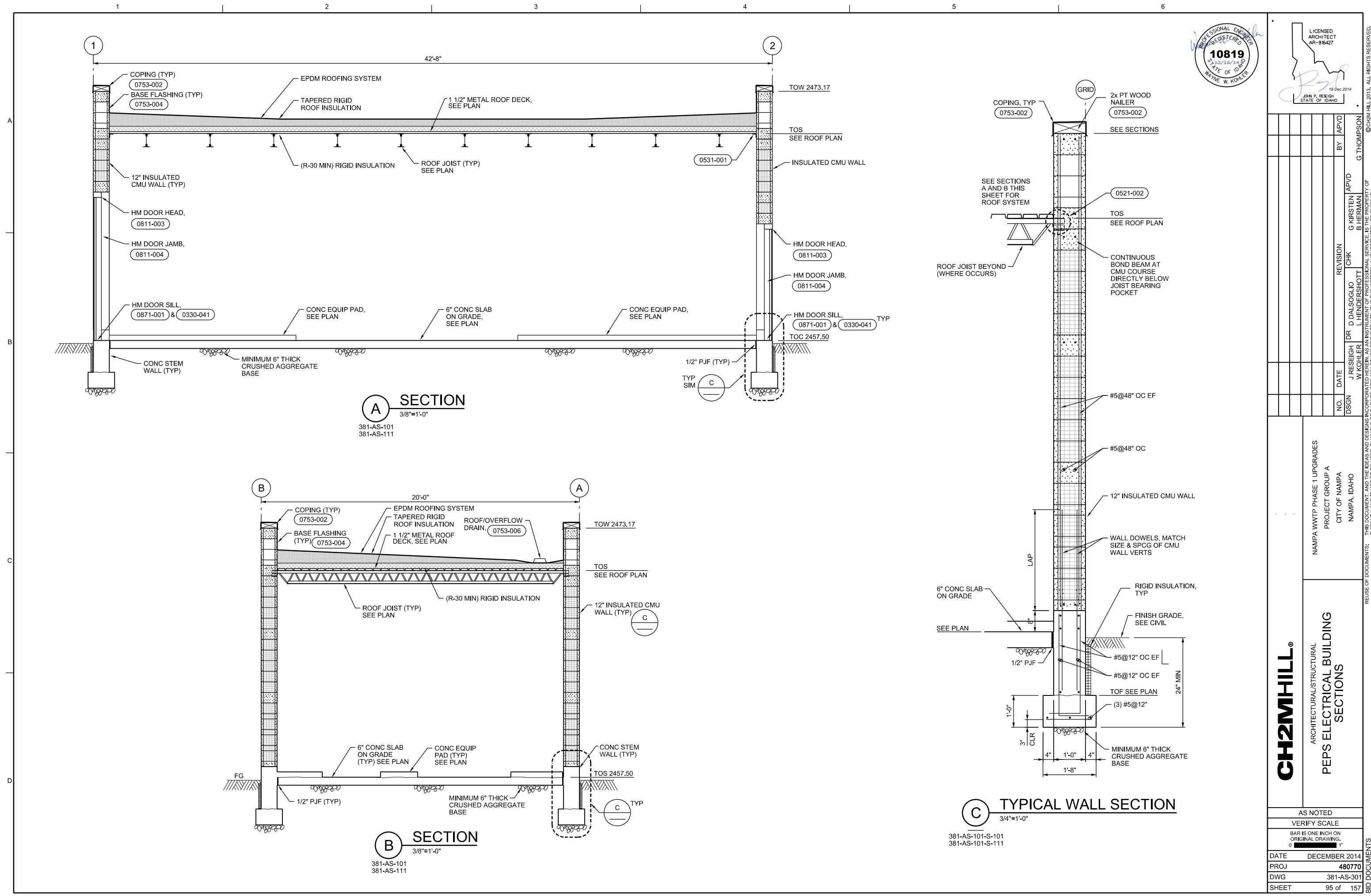
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AR-916427  
*J.P.R.*  
16 Dec 2014  
JOHN P. RESEIGH  
STATE OF IDAHO

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NAMPA, IDAHO

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PEPS ELECTRICAL BUILDING  
EXTERIOR ELEVATIONS

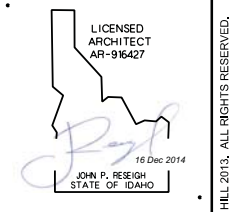
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DWG	381-AS-201
SHEET	94 of 157



**A SECTION**  
3/8"=1'-0"  
381-AS-101  
381-AS-111

**B SECTION**  
3/8"=1'-0"  
381-AS-101  
381-AS-111

**C TYPICAL WALL SECTION**  
3/4"=1'-0"  
381-AS-101-S-101  
381-AS-101-S-111



NO.	DATE	DR	CHK	REVISION	BY	APVD
		J RESEIGH	D DALSOGLIO		G KIRSTEN	APVD
		W KOHLER	L HENDERSHOTT		B HERMAN	APVD
					G THOMPSON	APVD

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

**CH2MHILL**  
ARCHITECTURAL/STRUCTURAL  
**PEPS ELECTRICAL BUILDING SECTIONS**

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LICENSED ARCHITECT AR-916427  
 JOHN P. RESEIGH STATE OF IDAHO  
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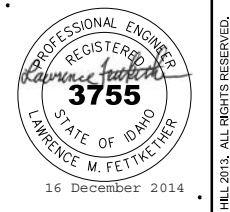
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6

# HVAC / PLUMBING LEGEND

- ABBREVIATIONS:
- AFF ABOVE FINISHED FLOOR
  - CU CONDENSING UNIT
  - EA EXHAUST AIR
  - ERU ENERGY RECOVERY UNIT
  - FA FRESH AIR
  - FCU FAN COIL UNIT
  - LV LOUVER
  - OA OUTSIDE AIR
  - SA SUPPLY AIR
  - SG SUPPLY GRILL
  - UH UNIT HEATER

- SYMBOLS
- ┌┐ ELBOW
  - ▭ CAP
  - ⊕ THERMOSTAT
  - ⊞ MOTORIZED ACTUATOR



## GENERAL SHEET NOTES

- DUCT SUPPORTS TO BE BY THE MECHANICAL CONTRACTOR AND SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND DETAIL (2331-102)
- SEE 010-G-025 AND 010-G-026 FOR INFORMATION ON PIPING MATERIAL

## SHEET KEYNOTES

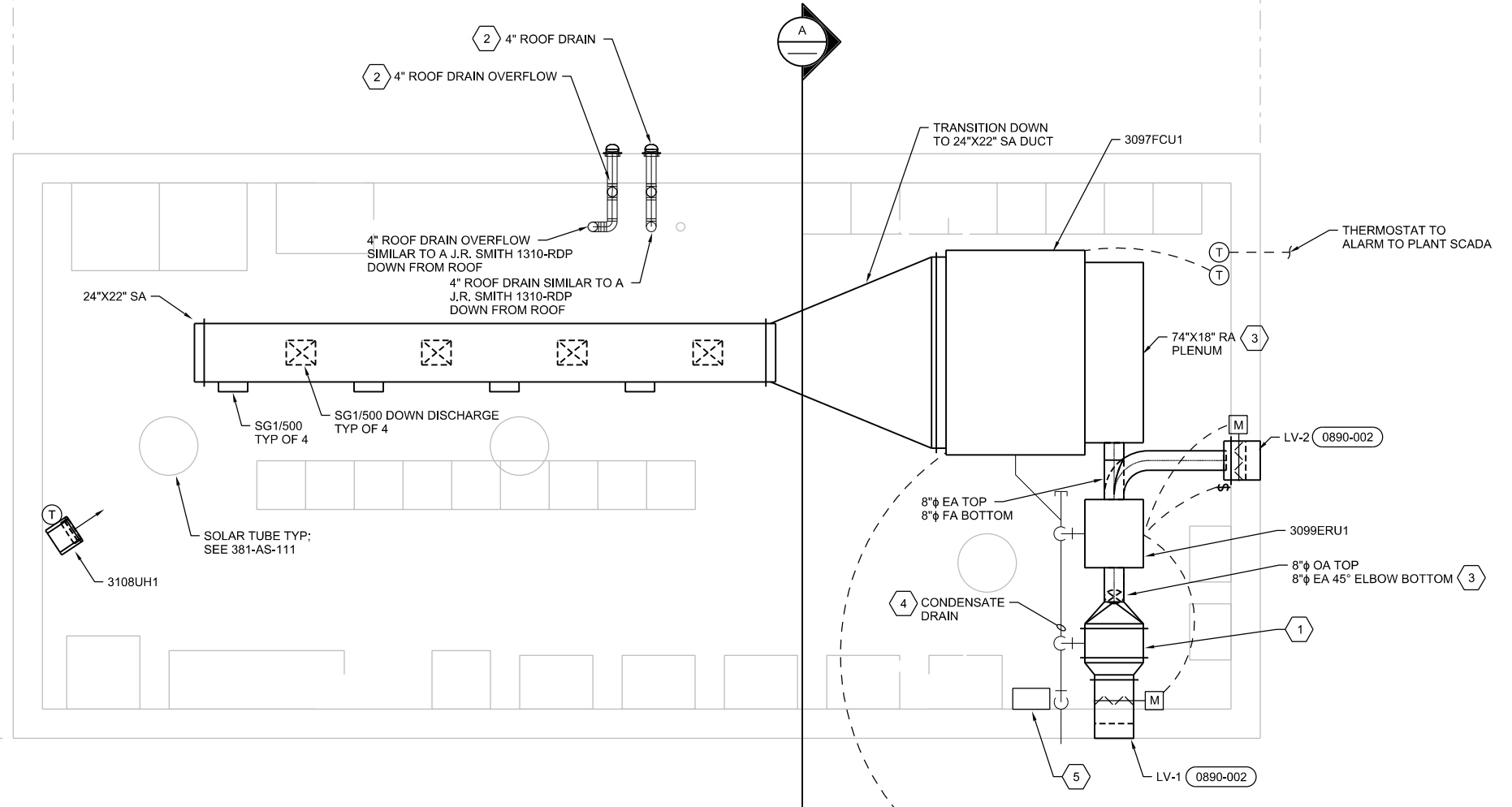
- EXTERNAL FILTER BANK WITH 24"X24" CARBON FILTER SIMILAR TO FLANDERS FCP201 OR EQUAL. TRANSITION FILTER BANK INLET AND OUTLET DUCT AS REQUIRED
- DOWNSPOUT NOZZLE SIMILAR TO J.R. SMITH 1770. TERMINATE ON SPLASH BLOCK. FINISH PER DETAIL (0762-003)
- FINISH END WITH 1/2" STAINLESS STEEL WIRE MESH
- TRAP AND VENT 1-1/2" PVC CONDENSATE DRAIN. TERMINATE 1-1/2" CONDENSATE DRAIN AT EXTERIOR OF PEPS ELECTRICAL BUILDING SEE (2377-100)
- REFRIGERANT ACCUMULATOR TO BE MOUNTED ON INTERIOR WALL AS CLOSE TO CONDENSING UNIT AS POSSIBLE

NO.	DATE	DSGN	DR	CHK	REVISION	BY	APVD

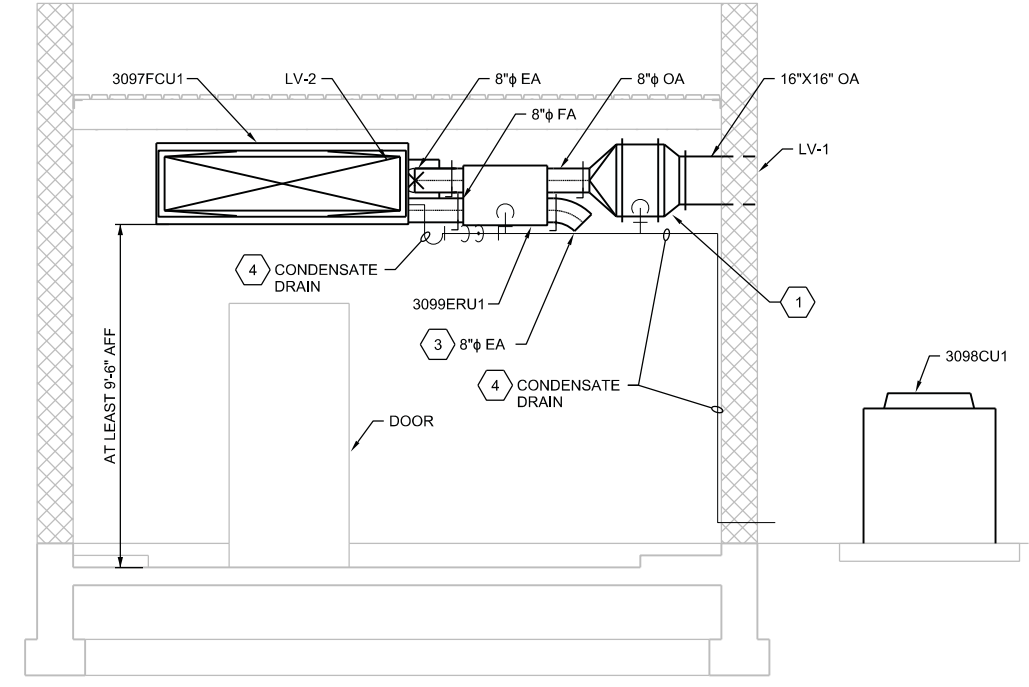
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PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

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BUILDING MECHANICAL  
**PEPS ELECTRICAL BUILDING  
HVAC PLAN**

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SHEET 96 of 157



**PEPS ELECTRICAL BUILDING HVAC PLAN**  
3/8"=1'-0"



**SECTION A-A**  
3/8"=1'

### INDOOR FANCOIL UNIT SCHEDULE

DESIGNATION	3097FCU1
CFM	4000
EXTERNAL STATIC PRESSURE (IN WG)	1
FAN RPM	1436
NOMINAL CAPACITY (TONS)	10
EAT DEG F	77
LAT DEG F	53
FAN COIL SECTION VOLTAGE	480/3
FLA	5.2
MCA	6
MOCP	15
FAN MOTOR HP	2.3
NUMBER OF FANS	2
BHP	1.01
MOTOR RPM	2750
WIDTH	84
DEPTH	57
HEIGHT	27
WEIGHT LBS	800
ORIENTATION	HORIZONTAL HANGING
BASIS OF DESIGN	AAON
MODEL	H3
NOTES	1,2,3

NOTES:  
 1. PROVIDE WITH A FACTORY HARD WIRE DIGITAL PROGRAMMABLE THERMOSTAT  
 2. PROVIDE WITH FACTORY REFRIGERANT LINE  
 3. AC FAN COIL SHALL BE FURNISHED WITH THE CONDENSING UNIT BY THE SAME MANUFACTURER AND SHALL BE AN APPROVED AS SUITABLE FOR OPERATION

### OUTDOOR CONDENSING UNIT SCHEDULE

DESIGNATION	3098CU1
TOTAL COOLING CAPACITY (MBH)	107.0
SENSIBLE COOLING CAPACITY (MBH)	107.0
VOLTAGE	480/3
FLA	21
MCA	23
MOCP	30
REFRIGERANT	R-410A
EER	10.1
LENGTH	86
WIDTH	45
HEIGHT	50
WEIGHT LBS	854
MATCHING INDOOR UNIT	H3
BASIS OF DESIGN	AAON
MODEL	CC-010
UNIT TYPE	AIR CONDITIONER
NOTES	1,2

NOTES:  
 1. SENSIBLE LOAD MUST BE MET AT AMBIENT TEMPERATURES OF 105 DEG F  
 2. ALL CONDENSING UNIT AND INDOOR FAN COIL UNIT SHALL BE FURNISHED FROM THE SAME MANUFACTURER AND SHALL BE AN APPROVED MODEL COMBINATION

### UNIT HEATER SCHEDULE

DESIGNATION	3108UH1
CFM	350
HP	1/100
VOLTS/PHASE	208/3
FULL LOAD AMPS	24
ORIENTATION	HORIZONTAL
EAT DEG F	60
FUEL	ELECTRIC
KW OUTPUT	5
AREA/LOCATION SERVED	GENERATOR ROOM
HEIGHT	16"
WIDTH	14"
LENGTH	7.5"
WEIGHT	27 LBS
MOUNTING HEIGHT	8"
MODEL	MUH-05-81
MANUFACTURER	QMARK

NOTES:  
 1. PROVIDE WITH A INTEGRAL THERMOSTAT  
 2. PROVIDE WITH WALL MOUNT BRACKET

### LOUVER SCHEDULE

DESIGNATION	LV-1	LV-2
FREE AREA SQFT	0.6	0.6
CFM	200	200
FACE VELOCITY (FT/SEC)	339	339
LENGTH	16	16
WIDTH	16	16
HEIGHT	6"	6"
SP IN WG	0.09"	0.09"
MATERIAL	ALUM	ALUM
TYPE	COMBINATION	COMBINATION
MODEL	ELC6375DAF	ELC6375DAF
MANUFACTURER	RUSKIN	RUSKIN
NOTES	1,2	1,2

NOTES:  
 1. PROVIDE WITH DRAINABLE BLADES AND 1"x1" BIRD SCREEN.  
 2. PROVIDE WITH DAMPER 120V DAMPER ACTUATOR

### GRILLE SCHEDULE

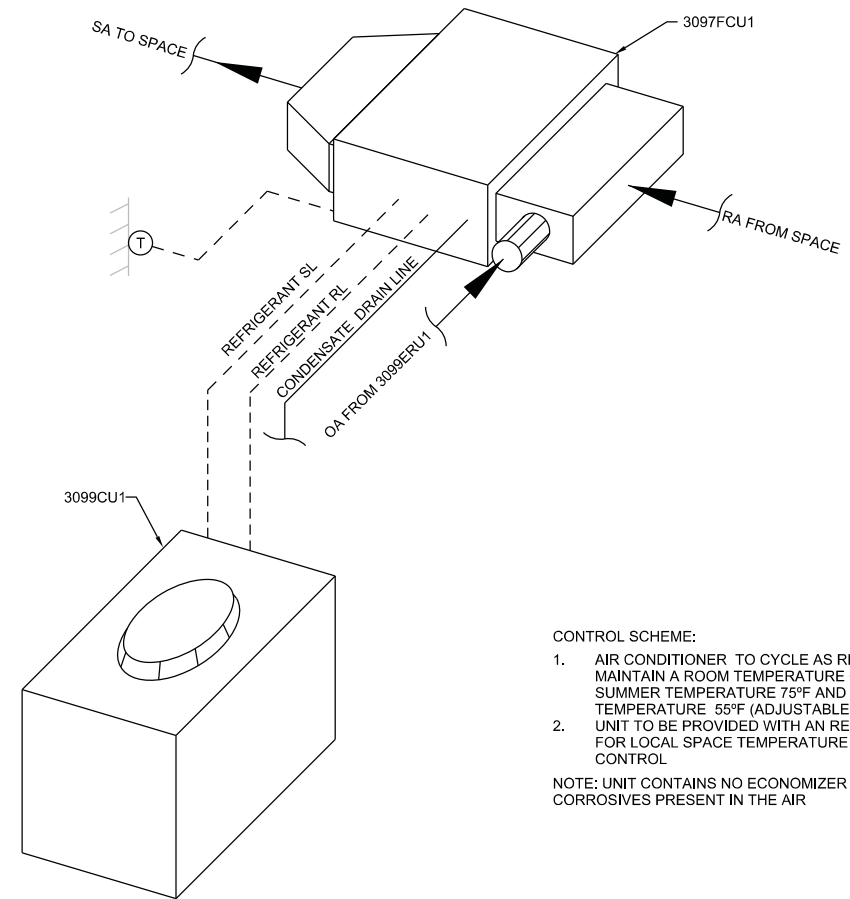
DESIGNATION	SG1
FACE/MODULE SIZE	12X10
TYPE	SUPPLY GRILLE
BLADE SPACING	3/4
CFM FOR NC RATING	432
NC LEVEL	16
MATERIAL OF CONST	ALUMINUM
MODEL	272RL
MANUFACTURER	TITUS

NOTES:  
 1. GRILLES TO BE PROVIDED WITH FACTORY MOUNTED OPPOSED BLADE DAMPERS  
 2. CONTRACTOR SHALL COORDINATE FRAME TYPE WITH BUILDING CONSTRUCTION.  
 3. MAXIMUM PRESSURE DROP THRU GRILLE SHALL BE LESS THAN .08" WC AT THE CFM FOR NC RATING

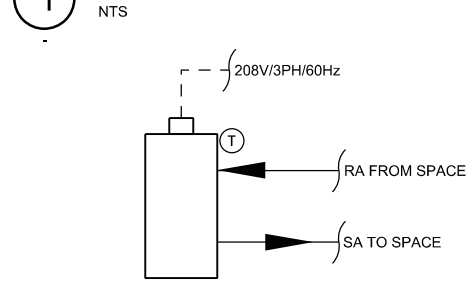
### ENERGY RECOVERY UNIT SCHEDULE

DESIGNATION	3099ERU1
CFM	200
ENTERING AIR TEMP - WINTER	3
FRESH AIR TEMP - WINTER	52
TOTAL EFF% WINTER	76
ENTERING AIR TEMP - SUMMER	98
FRESH AIR TEMP - SUMMER	83
TOTAL EFF% SUMMER	76
ESP IN WG	0.8
CFM	200
ENTERING AIR TEMP - WINTER	72
ENTERING AIR TEMP - SUMMER	80
ESP IN WG	0.8
VOLTS/PH	120/1
MOTOR HP	0.1
HEIGHT	21"
WIDTH	24"
LENGTH	30"
WEIGHT	72 LBS
PRE-FILTER EFF	MERV 8
MODEL	EV300
MANUFACTURER	RENEW AIRE

NOTES:  
 1. PROVIDE WITH FACTORY MOUNTED BACKDRAFT DAMPERS ON BOTH SUPPLY AND EXHAUST AIRSTREAM

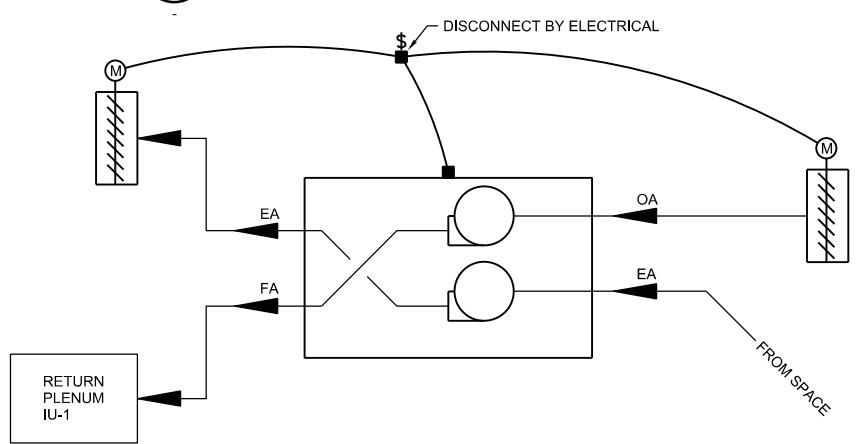


1 SINGLE ZONE AIR CONDITIONING UNIT (3099CU1,3097FCU1) CONTROL DIAGRAM



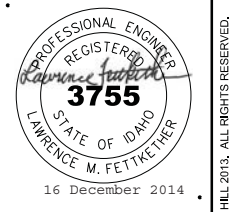
CONTROL SCHEME:  
 1. AIR CONDITIONER TO CYCLE AS REQUIRED TO MAINTAIN A ROOM TEMPERATURE OF:  
 SUMMER TEMPERATURE 75°F AND A WINTER TEMPERATURE 55°F (ADJUSTABLE)  
 2. UNIT TO BE PROVIDED WITH AN REMOTE THERMOSTAT FOR LOCAL SPACE TEMPERATURE SENSING AND CONTROL  
 NOTE: UNIT CONTAINS NO ECONOMIZER DUE TO CORROSIVES PRESENT IN THE AIR

2 ELECTRIC HEATER (3108UH1) CONTROL DIAGRAM



CONTROL SCHEME:  
 1. UNIT HEATER TO CYCLE AS REQUIRED TO MAINTAIN A ROOM TEMPERATURE OF 50°F (ADJUSTABLE)  
 2. UNIT TO BE PROVIDED WITH AN INTEGRAL THERMOSTAT FOR LOCAL SPACE TEMPERATURE SENSING AND CONTROL

3 ENERGY RECOVERY UNIT (3099ERU1) CONTROL DIAGRAM



NO.	DATE	DSGN	CHK	DR	BY
					G THOMPSON
					L FEITKETHER
					L HENDERSHOTT
					J MAULIN

NAMPA WWTP PHASE 1 UPGRADES  
 PROJECT GROUP A  
 CITY OF NAMPA  
 NAMPA, IDAHO

**CH2MHILL**  
 BUILDING MECHANICAL  
 PEPS ELECTRICAL BUILDING  
 DIAGRAMS AND SCHEDULES

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE DECEMBER 2014
PROJ 480770
DWG 381-BM-501
SHEET 97 of 157

**GENERAL SHEET NOTES**

- A. SEE DRAWING 010-G-018 FOR CIRCUIT SCHEDULE.
- B. FOR CIRCUITS NOT SHOWN SEE BLOCK DIAGRAMS.

**SHEET KEYNOTES**

- 1. EQUIPMENT BY IDAHO POWER.
- 2. SERVICE SHALL ENTER BOTTOM OF STRUCTURE.



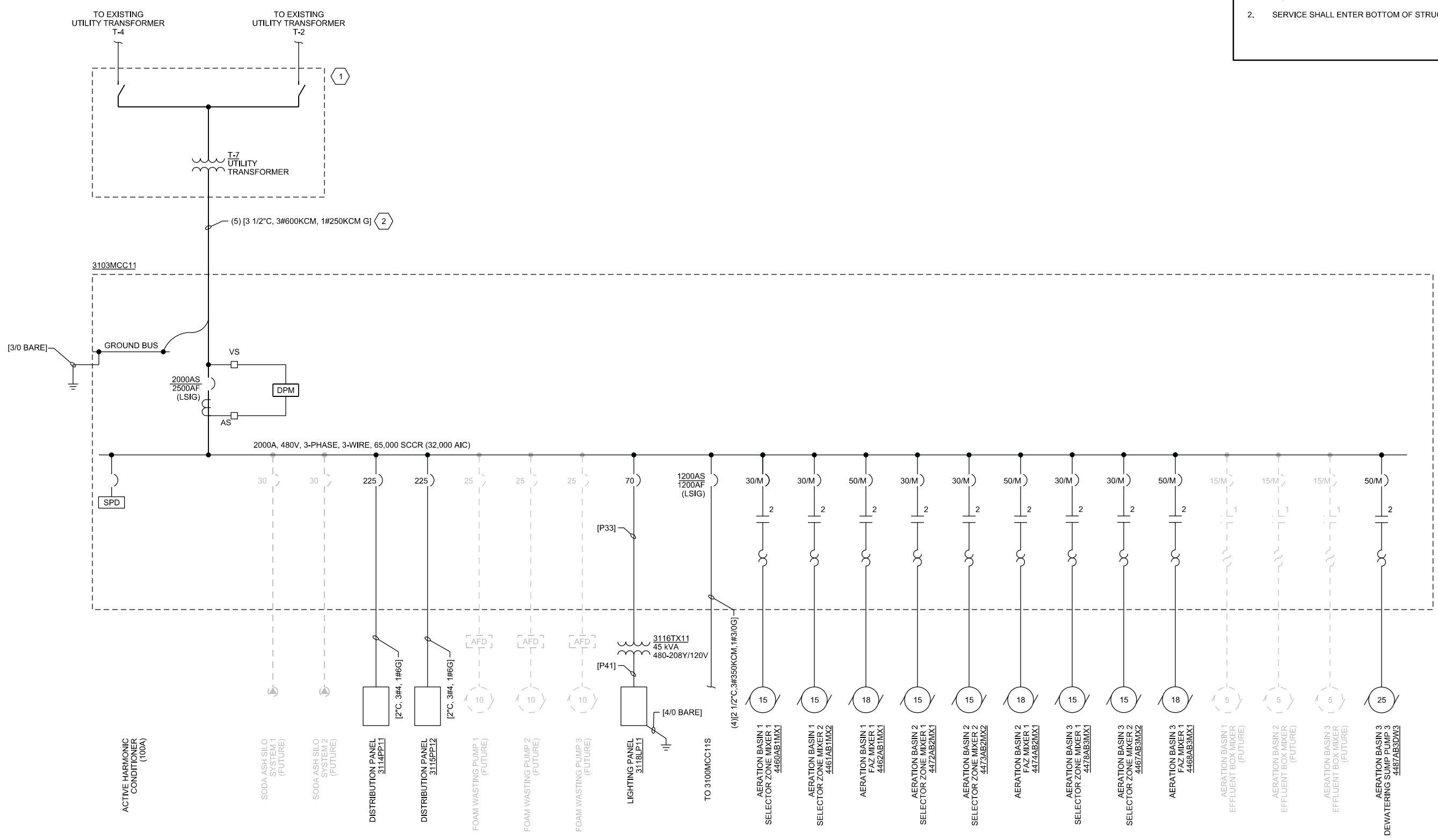
NO.	DATE	DR	CHK	REVISION	BY	APVD
		T. PALIN	K. BARTLETT			
						G. THOMPSON

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

**CH2MHILL**  
ELECTRICAL  
**PEPS ELECTRICAL BUILDING  
MCC-11 ONE-LINE DIAGRAM**

AS NOTED
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PROJ: 480770
DWG: 381-E-001
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**ONE-LINE DIAGRAM**  
NTS



1  
2  
3  
4  
5  
6  
A  
B  
C  
D

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**GENERAL SHEET NOTES**

- A. SEE DRAWING 010-G-018 FOR CIRCUIT SCHEDULE.
- B. FOR CIRCUITS NOT SHOWN SEE BLOCK DIAGRAMS.

**SHEET KEYNOTES**

- 1. SERVICE ENTRANCE RATED WITH KEY INTERLOCK.
- 2. BYPASS ISOLATION TRANSFER SWITCH.
- 3. PROVIDE KEYED INTERLOCK SYSTEM SO THAT ONLY TWO OF THE THREE CIRCUIT BREAKERS IN THE MAIN-TIE-MAIN CONFIGURATION CAN BE CLOSED AT ONE TIME.
- 4. PROVIDE KEYED INTERLOCK SO ONLY ONE BREAKER CAN BE CLOSED AT A TIME.
- 5. 200A RECEPTACLE FOR CONNECTION TO PORTABLE GENERATOR. RECEPTACLE SHALL BE APPLETON POWERTITE ADR20044RS.
- 6. INSTALL NEW CIRCUIT BREAKER AND EATON IQ 250 METER FOR LOCAL MONITORING OF STANDBY POWER LOADS. METER SHALL BE PANEL MOUNTED ALONG SIDE EXISTING METER DISPLAYS. SEE ELECTRICAL SITE PLANS FOR LOCATION OF SWBD-EG. EXISTING SWITCHBOARD IS EATON POW-R-LINE C.

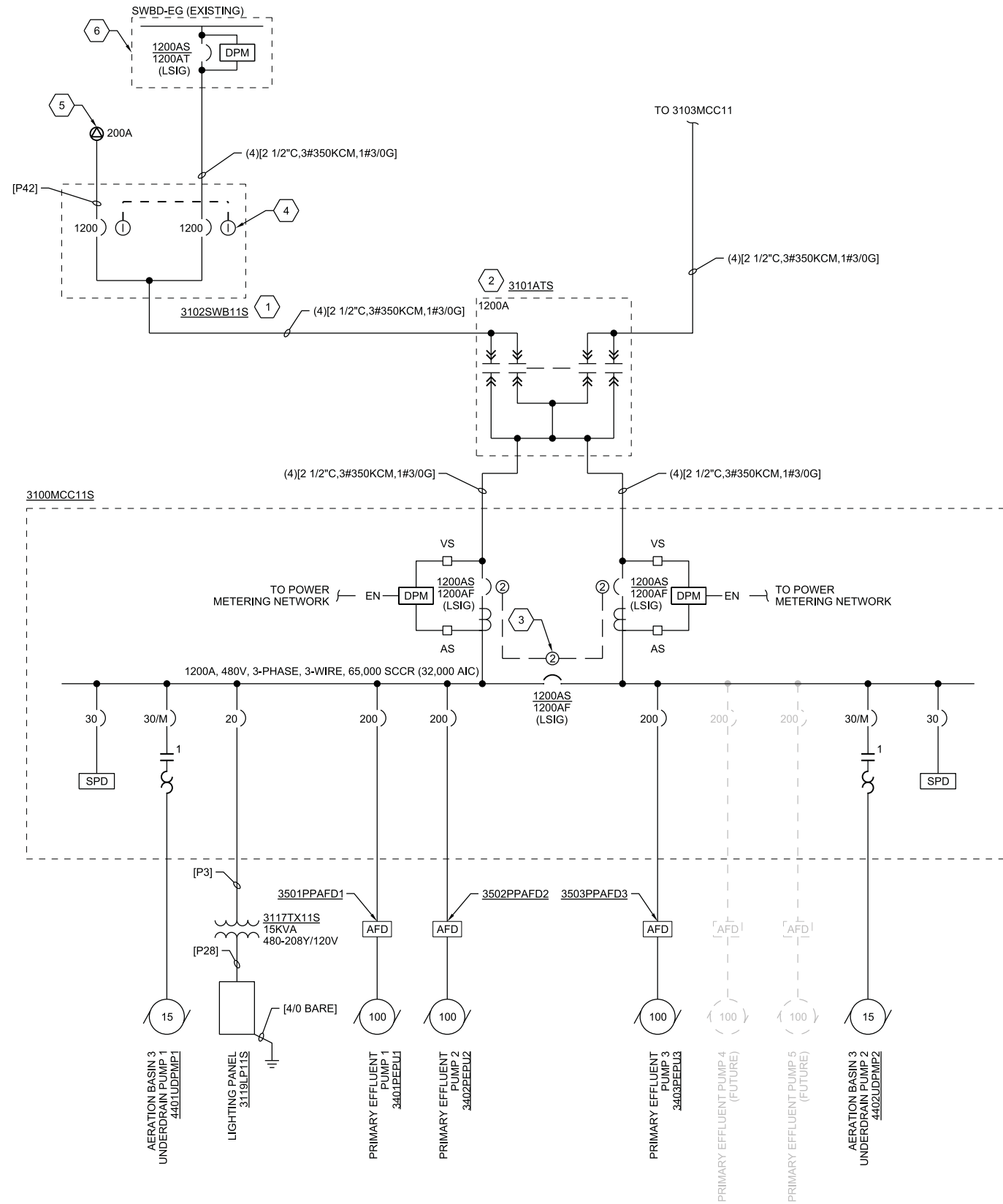


NO.	DATE	DSGN	DR	CHK	APVD	BY	APVD

NAMPA WWTP PHASE 1 UPGRADES  
PROJECT GROUP A  
CITY OF NAMPA  
NAMPA, IDAHO

**CH2MHILL®**  
ELECTRICAL  
**PEPS ELECTRICAL BUILDING  
MCC-11S ONE-LINE DIAGRAM**

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SHEET: 99 of 157



**ONE-LINE DIAGRAM**  
NTS