

PoDI / NHS

FHWA PROJECT OF DIVISION INTEREST (PoDI)? NO YES

NATIONAL HIGHWAY SYSTEM? NO YES

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

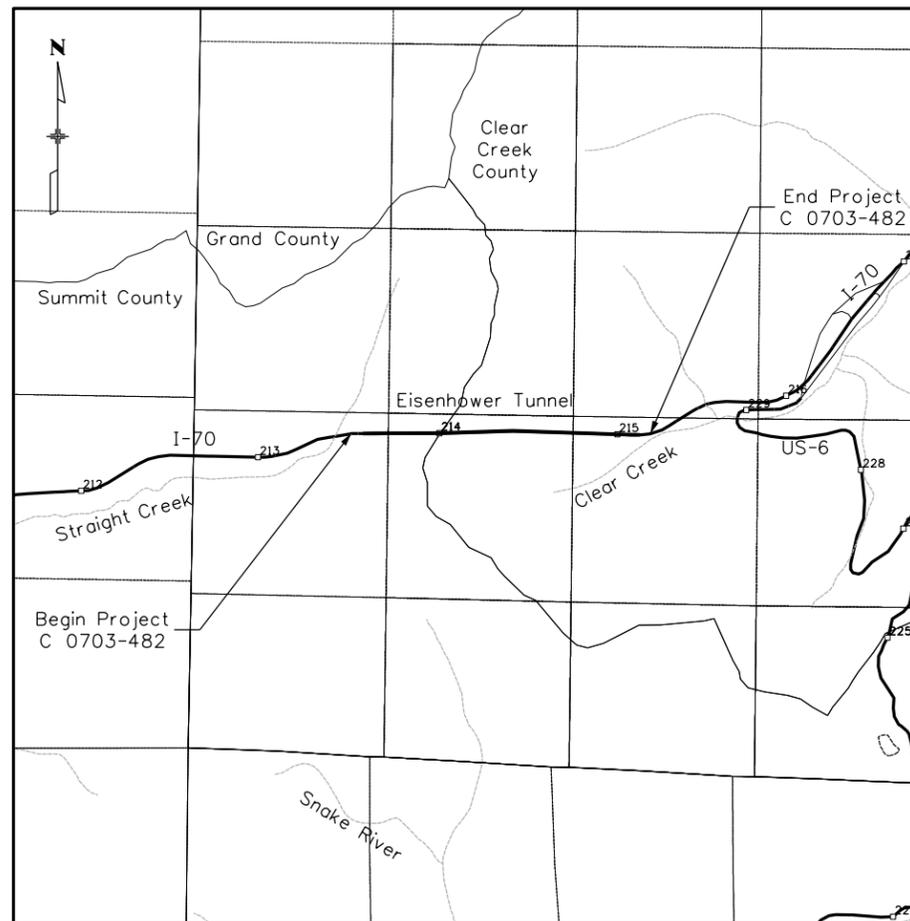
Related Projects:
P. E. UNDER PROJECT:
Project Number: **C 0703-482**
Project Code: **24210**

R.O.W. Projects:
R.O.W. Project Description

HIGHWAY CONSTRUCTION BID PLANS OF PROPOSED FEDERAL AID PROJECT NO. C 0703-482 EISENHOWER/JOHNSON MEMORIAL TUNNELS DRAINAGE, PLUMBING, HEAT TRACE CLEAR CREEK COUNTY AND SUMMIT COUNTY CONSTRUCTION PROJECT CODE NO. 24210

TABULATION OF LENGTH & DESIGN DATA		
LOCATION	FEET	
	ROADWAY	MAJOR STR.
BEGIN PROJECT C 0703-482 APPROX. MP 213.5 ON I-70	0	
STRUCTURE F-13-X JOHNSON TUNNEL STRUCTURE F-13-Y EISENHOWER TUNNEL		8,959
END PROJECT C 0703-482 APPROX. MP 215.4 ON I-70	0	
TOTAL	0	8,959
SUMMARY OF PROJECT LENGTH		
	FEET	MILES
ROADWAY (NET LENGTH)	0	0
MAJOR STRUCTURE	8,959	1.70
PROJECT GROSS LENGTH	8,959	1.70

SHEET NO.	INDEX OF SHEETS
1	TITLE SHEET
2-4	HEAT TRACE POWER PLAN
5-8	ELECTRICAL POWER PLAN
9-12	ELECTRICAL EQUIPMENT LOCATION OPTIONS



PROJECT LOCATION MAP



DRAFT RFP
OCTOBER 21, 2021

C:\P\7363 11:35:40 AM pwr\USUS036343.wso\ins.com\ATK\AC001\Documents\Roads and Bridges\Projects\24210 - E\MT DPHT\Design\Drawings\Sheet_L\Files\24210DES_TitleSht.dgn

Print Date: 10/21/2021
File Name: 24210DES_TitleSht.dgn
Horiz. Scale: 1:1 Vert. Scale: As Noted
Unit Information: XXX
ATKINS 7604 Technology Way, Suite 400
Denver, CO 80237
Phone: (303) 221-7275
Fax: (303) 221-7276

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation
Region 1

2829 W. Howard Pl.
Denver, CO 80204
Phone: 303-512-4272
FAX: 303-757-9886

XXX

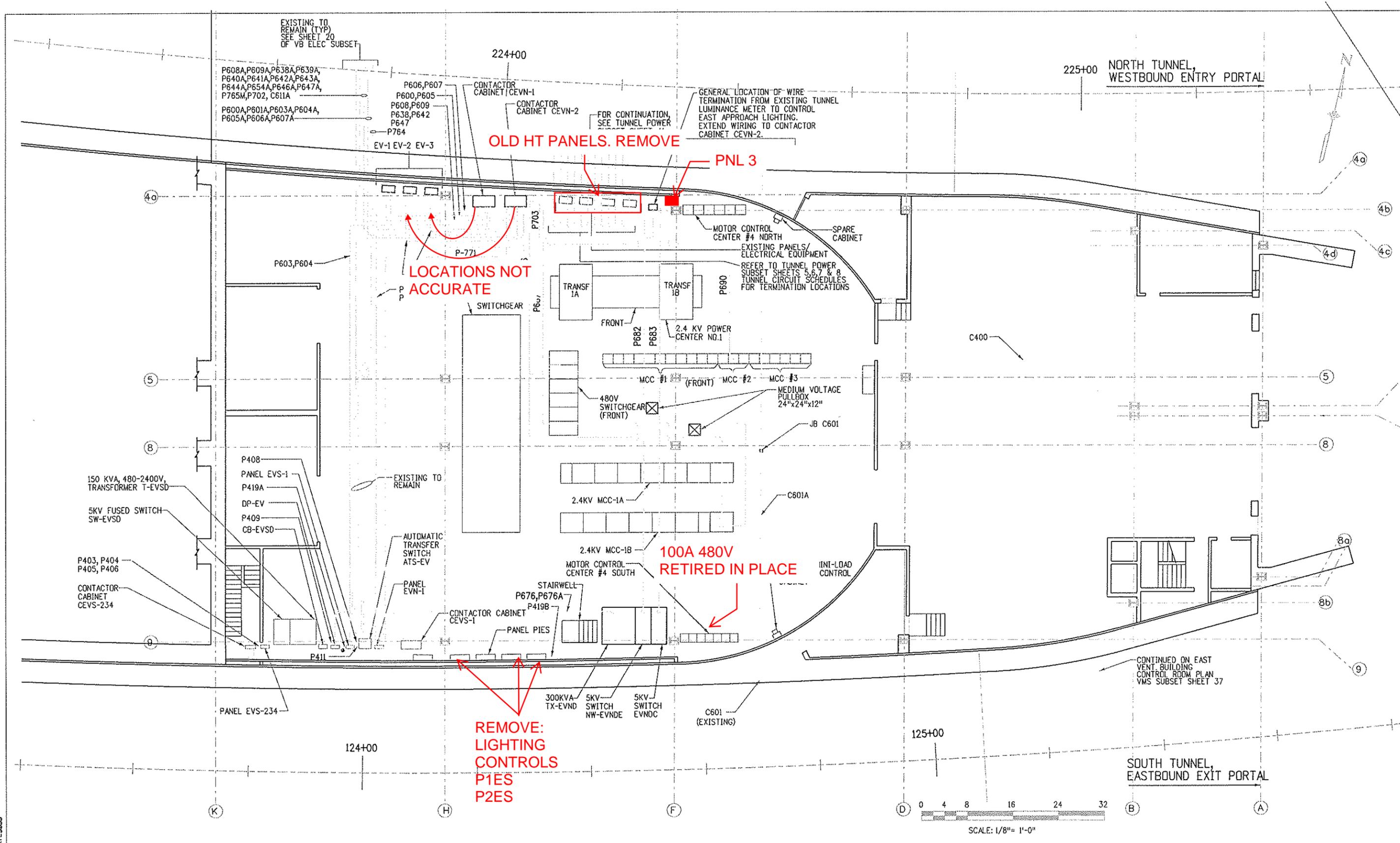
Preliminary

No Revisions:
Revised:
Void:

Contract Information

Contractor:
Resident Engineer:
Project Engineer:
PROJECT STARTED: / / ACCEPTED: / /
Comments:

Project No./Code
C 0703-482
24210
Sheet Number **01**



Design File Name: DGN&SPEC
 Plot File Name: \$PLOTFILE\$
 Date of Plot: \$\$\$DATE\$\$\$

Computer File Information	
Creation Date:	02/26/99 Initials: SL
Last Modification Date:	03/16/07 Initials: DJB
Full Path:	14102\800Deliv\AsBUILT\
Drawing File Name:	epp121en
Acad Ver.	R14 Scale: 1/8"=1'-0" Units: ENGLISH

Sheet Revisions	
07/03/07	ASBUILT DJB

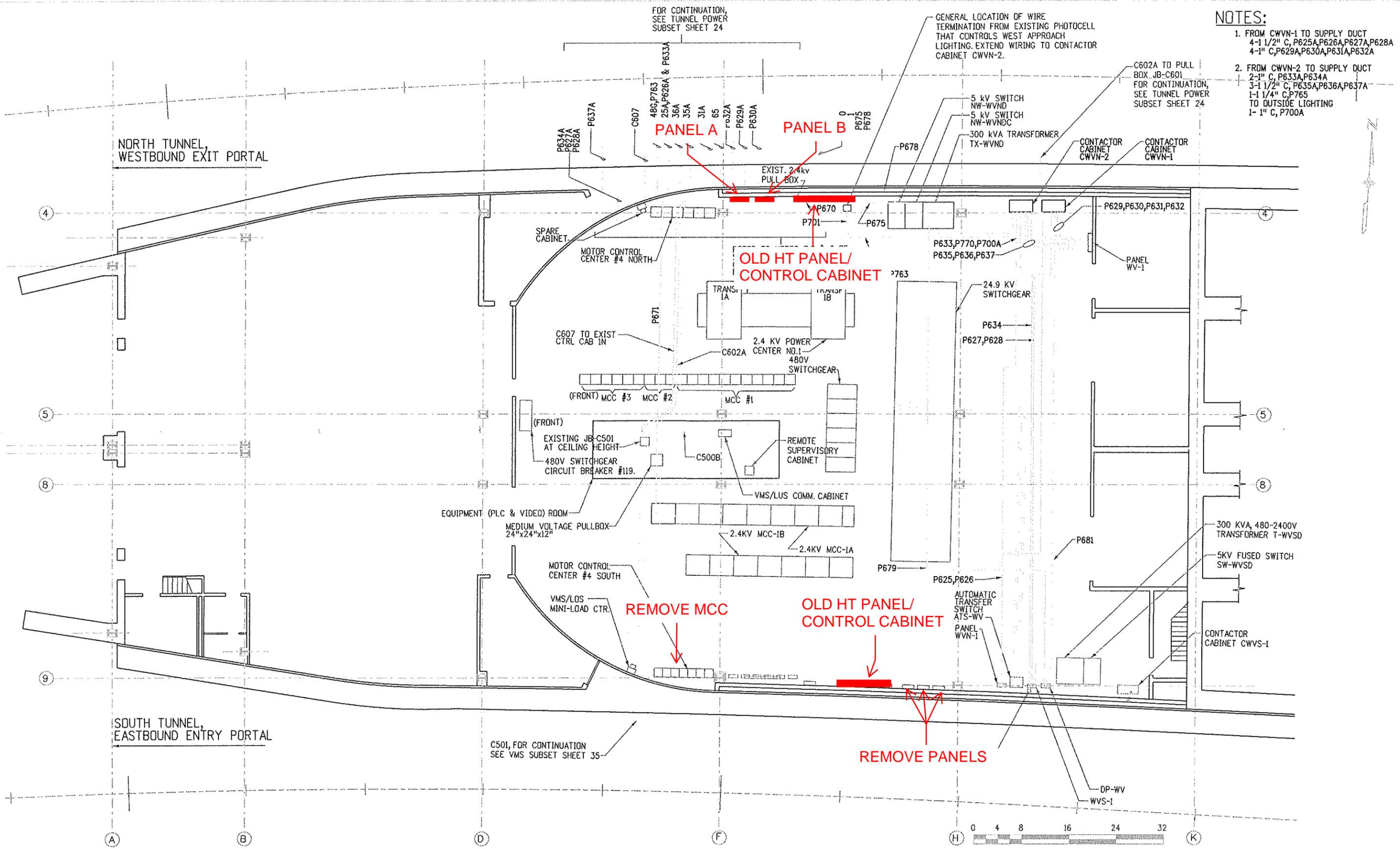
Colorado Department of Transportation

 P.O. BOX 399
 DUMONT, CO. 80436
 Phone: 303-512-5750 FAX: 303-512-5775
 Region 1 Mountain Residency I.N.Z.

As Constructed
No Revisions:
Revised:
Void:

EAST VENT BUILDING ELECTRICAL POWER PLAN	
Designer:	E.A. GAYAMAT
Detailer:	R. MILLER
Sheet Subset:	VB ELEC
Structure Numbers	
Subset Sheets:	4 of 20

Project No./Code	
IM 0703-269	
13166	
Sheet Number	02



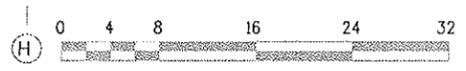
- NOTES:**
- FROM CWVN-1 TO SUPPLY DUCT
4-1 1/2" C, P625A, P626A, P627A, P628A
4-1" C, P629A, P630A, P631A, P632A
 - FROM CWVN-2 TO SUPPLY DUCT
2-1" C, P633A, P634A
3-1 1/2" C, P635A, P636A, P637A
1-1 1/4" C, P765
TO OUTSIDE LIGHTING
1-1" C, P700A

GENERAL LOCATION OF WIRE TERMINATION FROM EXISTING PHOTOCELL THAT CONTROLS WEST APPROACH LIGHTING. EXTEND WIRING TO CONTACTOR CABINET CWVN-2.

FOR CONTINUATION, SEE TUNNEL POWER SUBSET SHEET 24

C602A TO PULL BOX JB-C601 FOR CONTINUATION, SEE TUNNEL POWER SUBSET SHEET 24

C501, FOR CONTINUATION SEE VMS SUBSET SHEET 35



Design File Name: DGN\$SPEC*
 Plot File Name: \$PLOTFILE*
 Date of Plot: \$\$\$DATE\$\$\$\$

Computer File Information	
Creation Date:	05/26/99 Initials: SFD
Last Modification Date:	05/21/97 Initials: DJB
Full Path:	014102\800Deliv\AsBuilt\
Drawing File Name:	eppl20wn
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Sheet Revisions	
07/03/07	ASBUILT DJB

Colorado Department of Transportation



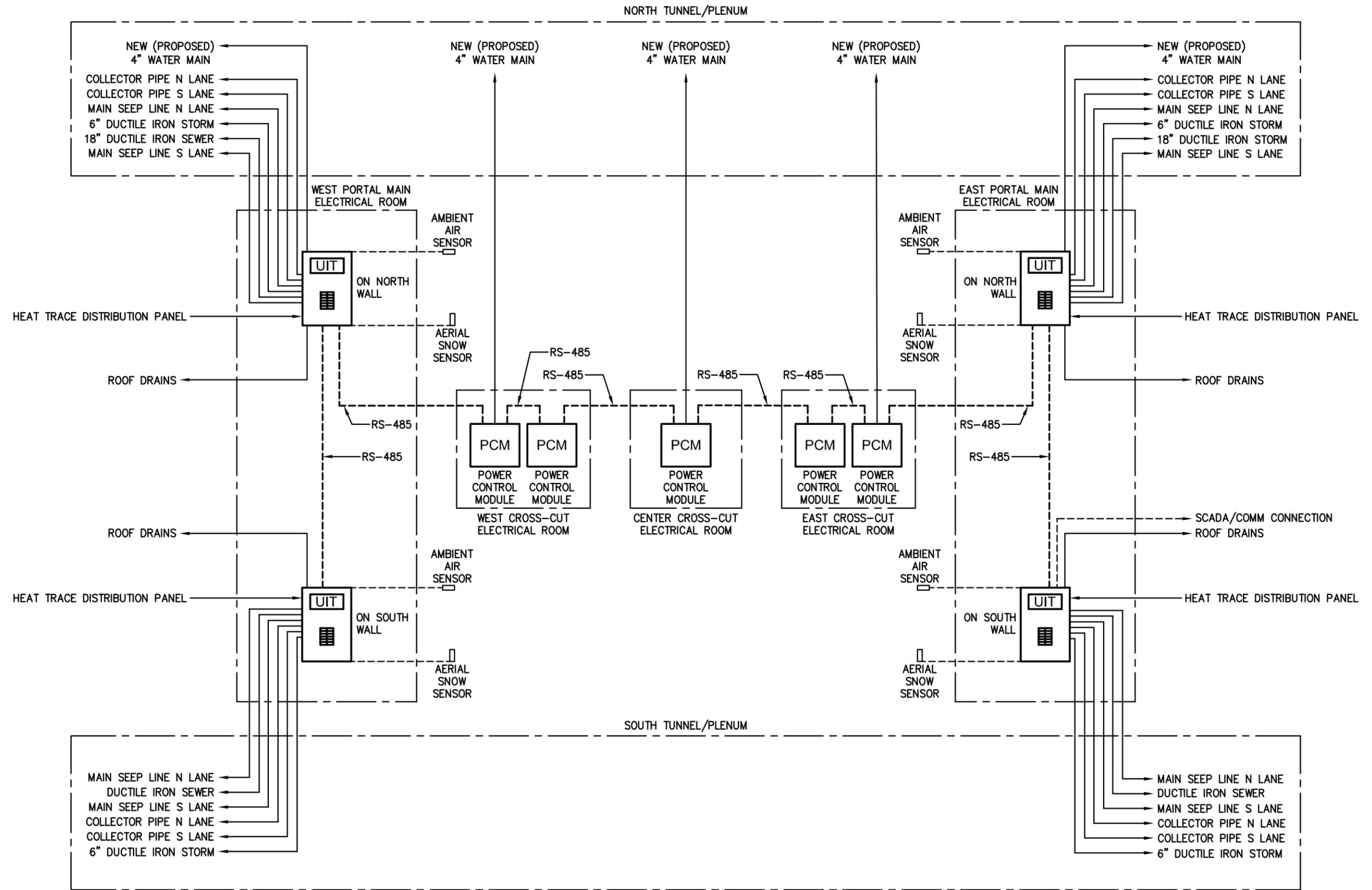
P.O. BOX 399
DUMONT, CO. 80436
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Region 1 Mountain Residency I.N.Z.

As Constructed
No Revisions:
Revised:
Void:

WEST VENT BUILDING ELECTRICAL POWER PLAN	
Designer:	E.A. GAYAMAT
Detailer:	R. MILLER
Sheet Subset:	VB ELEC
Structure Numbers	
Subset Sheets:	6 OF 20

Project No./Code	
IM	0703-269
	13166
Sheet Number	03



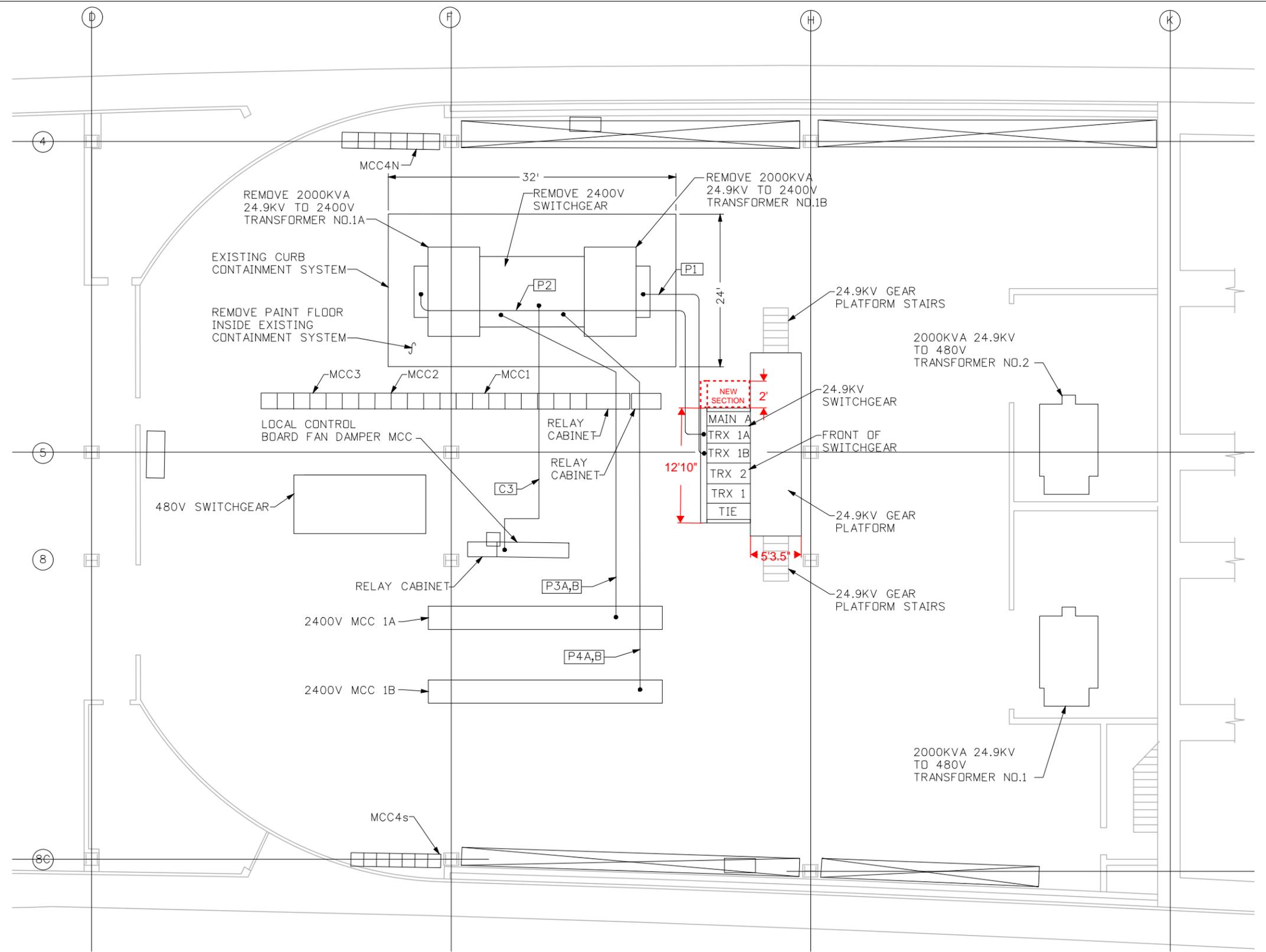
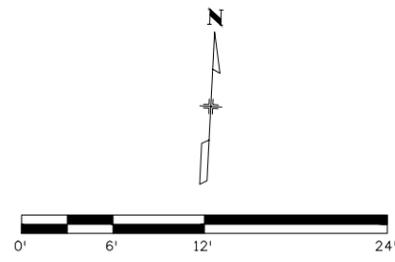
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DRAWN:	PKE
CHECKED:	LS
DATE:	10/13/2021
JOB NUMBER:	21047
PROJECT MGR:	AW

EISENHOWER/JOHNSON MEMORIAL TUNNEL PROPOSED HEAT-TRACE BLOCK DIAGRAM

Heidenreich 2:06:06 PM J:\184045L - EJM 2400V Switchgear\5.0 Project Data\5.1 Electrical\FinalDesign\Plan Sheet files\24.9-W_Exist-Elec-Room.dgn

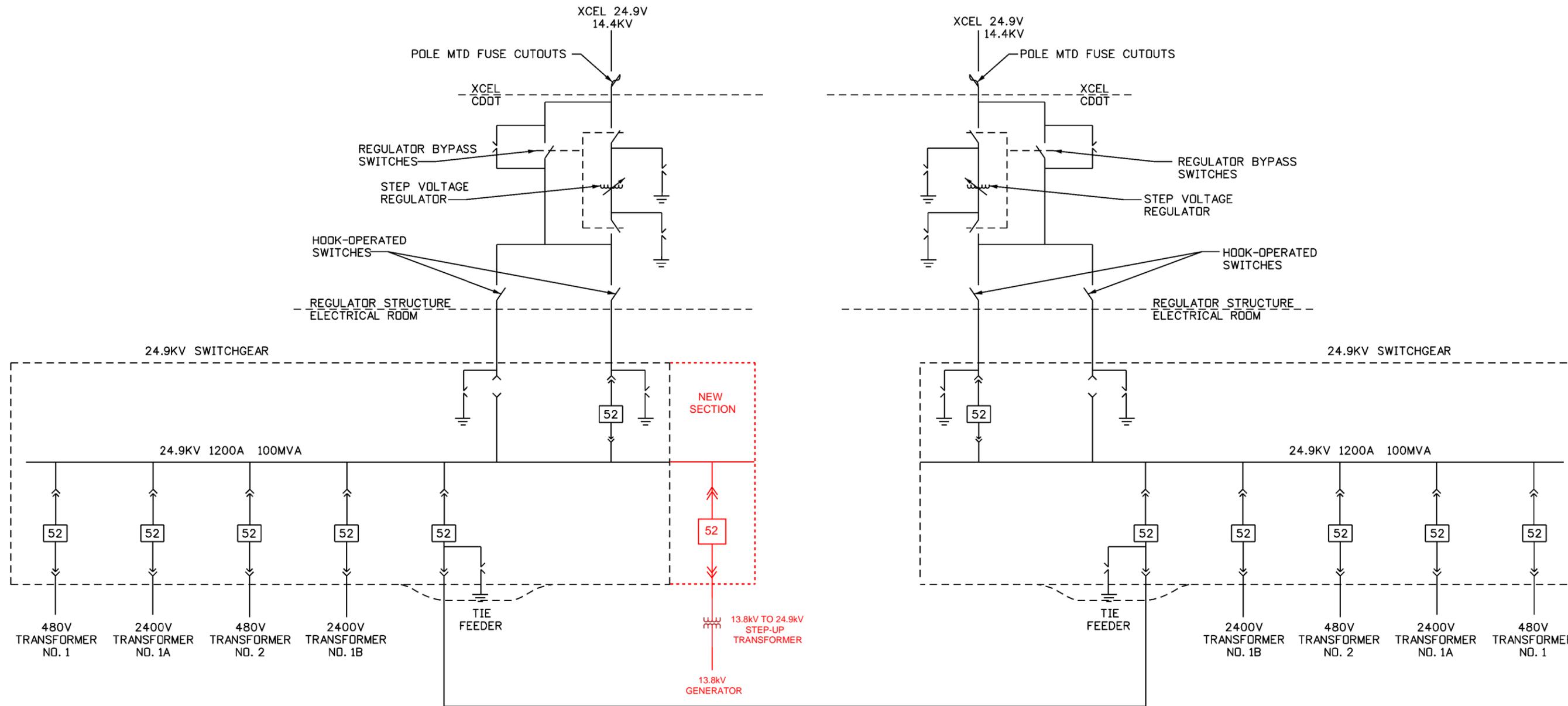


NOTES

1. FLOOR ELEVATION 11,156.50'.
2. CONDUIT NUMBERS ARE KEYED TO SHEET 5, TABULATION OF WIRING. EXISTING WIRING IS THE SAME AS THE NEW WIRING.
3. EXISTING CONTAINMENT SYSTEM DIMENSIONS ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY.

Print Date: 6/24/2016		Sheet Revisions		Colorado Department of Transportation		As Constructed		WEST VENTILATION BUILDING ELECTRICAL EQUIPMENT ROOM PLAN - EXISTING		Project No./Code				
File Name: 24.9-W_Exist-Elec-Room.dgn		Date:	Comments	Init.	425A Corporate Circle Golden, CO 80401 Phone: 720-497-6959 FAX: 720-497-6951 Region 1 JDS		No Revisions:		Designer: J. SHELDON Detailer: J. GONZALES Sheet Subset:		NHPP 0703-420			
Horiz. Scale: 1:12 Vert. Scale: NA							Revised:				Structure Numbers		20323	
Unit Information Unit Leader Initials							Void:				Subset Sheets: 11 of 26		Sheet Number 05	
555 17th Street, Suite 500 Denver, CO 80202 Phone: (303) 832-9091 Fax: (303) 728-1936														

Gonzales 9:02:24 AM J:\184026 - CDDT Tunnel NPS 2011\EE\MT_25KV Switchgear - (TDS)\19373\Drawings\Plan Sheet files\24.9-New_One-Line.dgn



WEST VENTILATION BUILDING

EAST VENTILATION BUILDING

NEW 24.9KV ONE-LINE DIAGRAM

N.T.S.

LEGEND:



DRAWOUT CIRCUIT BREAKER



SWITCH

STEP VOLTAGE REGULATOR

LIGHTNING/SURGE ARRESTER

Print Date: 8/18/2014	
File Name: 24.9-New_One-Line.dgn	
Horiz. Scale: 1:1	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
PARSONS BRINCKERHOFF	555 17th Street, Suite 500 Denver, CO 80202 Phone: (303) 832-9091 Fax: (303) 728-1936

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation



425A Corporate Circle
Golden, CO 80401
Phone: 720-497-6959 FAX: 720-497-6951

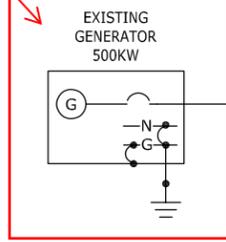
Region 1 JDS

As Constructed
No Revisions:
Revised:
Void:

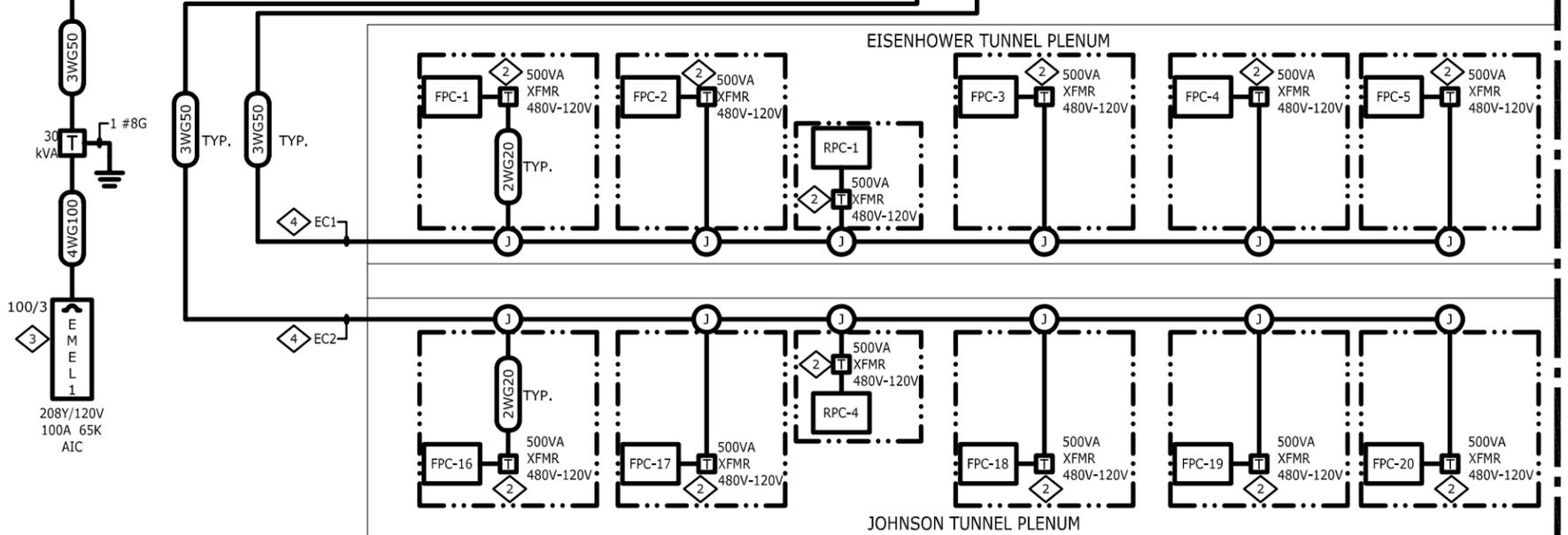
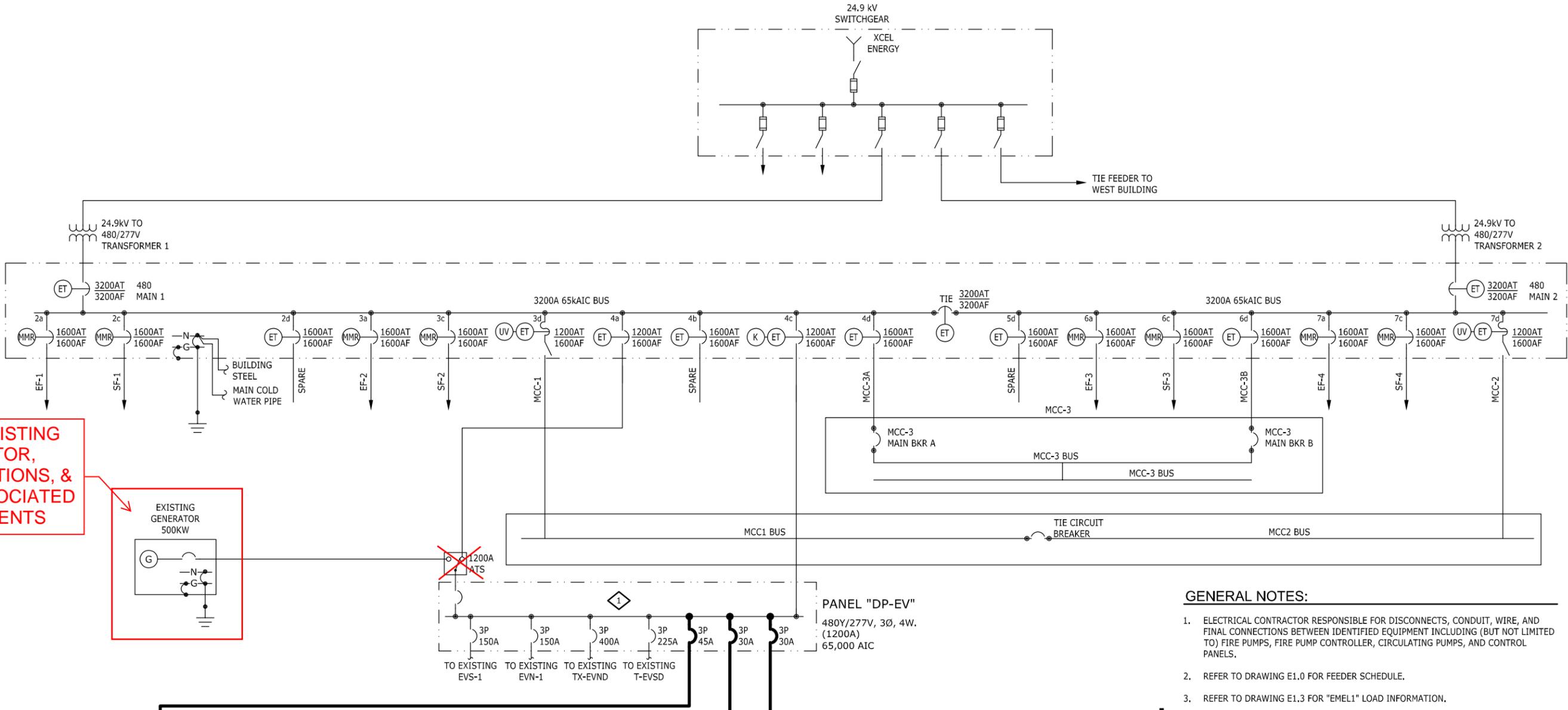
NEW ONE-LINE DIAGRAM		
Designer:	J. SHELDON	Structure Numbers
Detailer:	H. PULIDO	
Sheet Subset:		Subset Sheets: 2 of 21

Project No./Code
C 0703-399
19373
Sheet Number 06

DEMO EXISTING GENERATOR, CONNECTIONS, & ANY ASSOCIATED COMPONENTS



XREFS=(x=4b) L:\projects\E2.2 EAST ELECTRICAL ONE-LINE DIAGRAM\Drawings\E2.2 EAST ELECTRICAL ONE-LINE DIAGRAM.dwg JAN 27, 2015 2:44PM CHENDERSON DIMSCALE=1/16 INCHES=0.75 CM



1 EAST VENTILATION BLDG 480V SWITCHGEAR ONE-LINE DIAGRAM
SCALE:N.T.S.

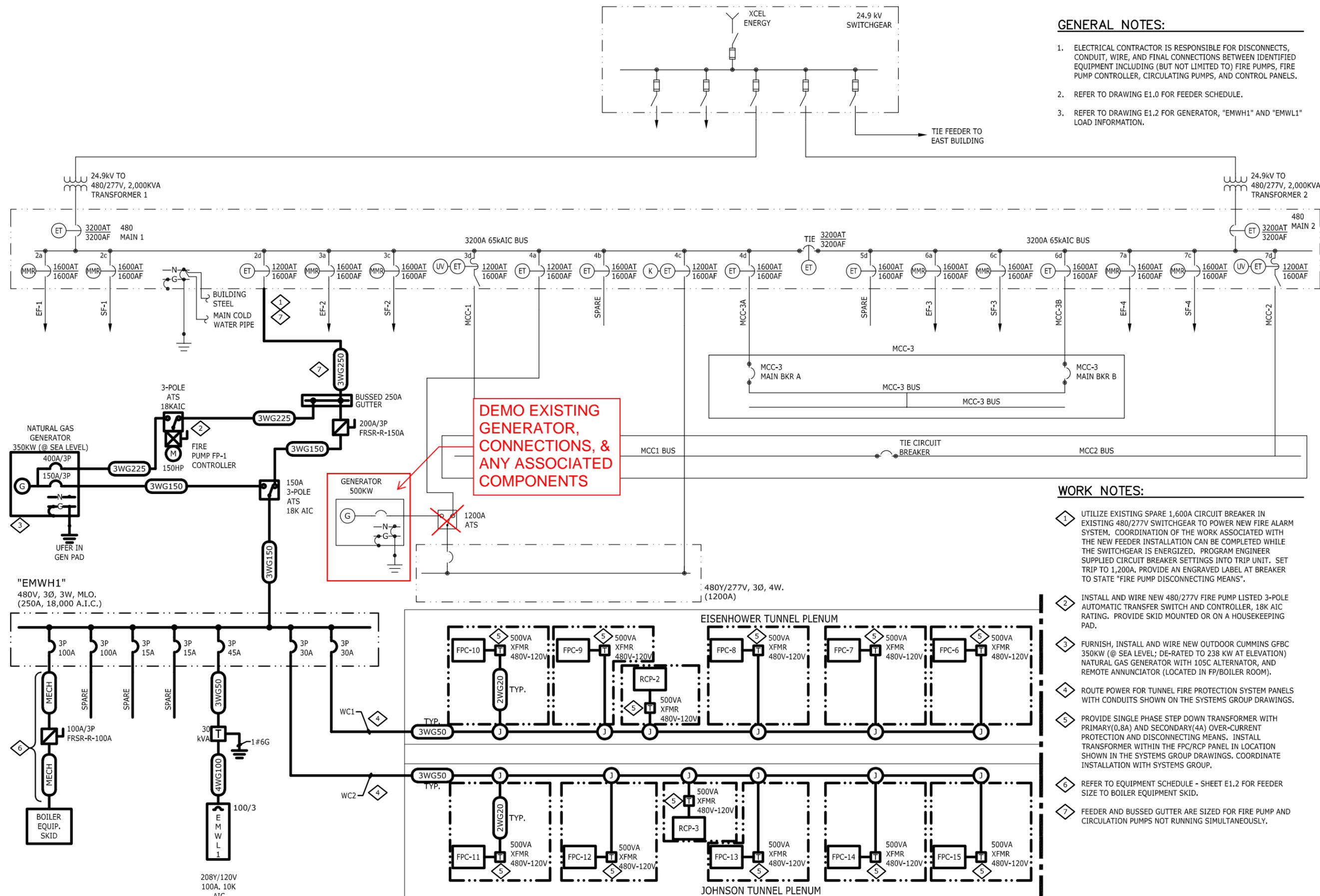
GENERAL NOTES:

1. ELECTRICAL CONTRACTOR RESPONSIBLE FOR DISCONNECTS, CONDUIT, WIRE, AND FINAL CONNECTIONS BETWEEN IDENTIFIED EQUIPMENT INCLUDING (BUT NOT LIMITED TO) FIRE PUMPS, FIRE PUMP CONTROLLER, CIRCULATING PUMPS, AND CONTROL PANELS.
2. REFER TO DRAWING E1.0 FOR FEEDER SCHEDULE.
3. REFER TO DRAWING E1.3 FOR "EMEL1" LOAD INFORMATION.
4. EXISTING 500KW GENERATOR LOAD IS LESS THAN 200KW.

WORK NOTES:

1. IN EXISTING 480/277V PANEL "DP-EV" FURNISH AND INSTALL NEW CIRCUIT BREAKERS AS SHOWN TO POWER NEW FIRE ALARM SYSTEM. RE-ARRANGE EXISTING CIRCUIT BREAKERS IN "DP-EV" AS NECESSARY TO ACCOMMODATE SPACE FOR NEW BREAKERS.
2. PROVIDE SINGLE PHASE STEP DOWN TRANSFORMER WITH PRIMARY(0.8A) AND SECONDARY(4A) OVER-CURRENT PROTECTION AND DISCONNECTING MEANS. INSTALL TRANSFORMER WITHIN THE FPC/RCP PANEL IN LOCATION SHOWN IN THE SYSTEMS GROUP DRAWINGS. COORDINATE INSTALLATION WITH SYSTEMS GROUP.
3. FURNISH, INSTALL AND WIRE NEW TRANSFORMER AND 208/120V PANEL. THIS PANEL WILL POWER THE FIRE ALARM PANELS, FIBER OPTIC LINEAR HEAT DETECTION SYSTEM, SOLENOID VALVES, VIDEO CAMERAS, WORK STATIONS, AND FLAT SCREEN DISPLAYS POWERED FROM THE EAST PORTAL.
4. ROUTE POWER FOR TUNNEL FIRE ALARM SYSTEM PANELS WITH CONDUITS SHOWN ON SYSTEMS GROUP DRAWINGS.

XREFS: (x-tb) LAYOUTS: (E2.1 WEST ELECTRICAL ONE-LINE DIAGRAM) SHEETS: (Electrical\E2.1 WEST ELECTRICAL ONE-LINE DIAGRAM.dwg JAN 29, 2015 10:20AM JBAKER DIMSCALE=1 P:\181914002\DWG\jmt - fixed fire suppression system)



GENERAL NOTES:

1. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR DISCONNECTS, CONDUIT, WIRE, AND FINAL CONNECTIONS BETWEEN IDENTIFIED EQUIPMENT INCLUDING (BUT NOT LIMITED TO) FIRE PUMPS, FIRE PUMP CONTROLLER, CIRCULATING PUMPS, AND CONTROL PANELS.
2. REFER TO DRAWING E1.0 FOR FEEDER SCHEDULE.
3. REFER TO DRAWING E1.2 FOR GENERATOR, "EMWH1" AND "EMWL1" LOAD INFORMATION.

WORK NOTES:

1. UTILIZE EXISTING SPARE 1,600A CIRCUIT BREAKER IN EXISTING 480/277V SWITCHGEAR TO POWER NEW FIRE ALARM SYSTEM. COORDINATION OF THE WORK ASSOCIATED WITH THE NEW FEEDER INSTALLATION CAN BE COMPLETED WHILE THE SWITCHGEAR IS ENERGIZED. PROGRAM ENGINEER SUPPLIED CIRCUIT BREAKER SETTINGS INTO TRIP UNIT. SET TRIP TO 1,200A. PROVIDE AN ENGRAVED LABEL AT BREAKER TO STATE "FIRE PUMP DISCONNECTING MEANS".
2. INSTALL AND WIRE NEW 480/277V FIRE PUMP LISTED 3-POLE AUTOMATIC TRANSFER SWITCH AND CONTROLLER, 18K AIC RATING. PROVIDE SKID MOUNTED OR ON A HOUSEKEEPING PAD.
3. FURNISH, INSTALL AND WIRE NEW OUTDOOR CUMMINS GFBC 350KW (@ SEA LEVEL; DE-RATED TO 238 KW AT ELEVATION) NATURAL GAS GENERATOR WITH 105C ALTERNATOR, AND REMOTE ANNUNCIATOR (LOCATED IN FP/BOILER ROOM).
4. ROUTE POWER FOR TUNNEL FIRE PROTECTION SYSTEM PANELS WITH CONDUITS SHOWN ON THE SYSTEMS GROUP DRAWINGS.
5. PROVIDE SINGLE PHASE STEP DOWN TRANSFORMER WITH PRIMARY(0.8A) AND SECONDARY(4A) OVER-CURRENT PROTECTION AND DISCONNECTING MEANS. INSTALL TRANSFORMER WITHIN THE FPC/RCP PANEL IN LOCATION SHOWN IN THE SYSTEMS GROUP DRAWINGS. COORDINATE INSTALLATION WITH SYSTEMS GROUP.
6. REFER TO EQUIPMENT SCHEDULE - SHEET E1.2 FOR FEEDER SIZE TO BOILER EQUIPMENT SKID.
7. FEEDER AND BUSSED GUTTER ARE SIZED FOR FIRE PUMP AND CIRCULATION PUMPS NOT RUNNING SIMULTANEOUSLY.

1 WEST VENTILATION BLDG 480V SWITCHGEAR ONE-LINE DIAGRAM
SCALE:N.T.S.

E2.1 WEST ELECTRICAL ONE-LINE DIAGRAM

RECORD DRAWINGS - 2015-11-16

GEP

ART



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DATE:	10/13/2021
JOB NUMBER:	21047
PROJECT MGR:	AW

EISENHOWER/JOHNSON MEMORIAL TUNNEL ELECTRICAL EQUIPMENT LOCATIONS OPTION #1



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CHECKED:	LS
DATE:	10/12/2021
JOB NUMBER:	21047
PROJECT NO.:	A/W

EISENHOWER/JOHNSON MEMORIAL TUNNEL ELECTRICAL EQUIPMENT LOCATIONS OPTION #2



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CHECKED:	LS
DATE:	10/12/2021
JOB NUMBER:	21047
PROJECT MGR:	AW

EISENHOWER/JOHNSON MEMORIAL TUNNEL ELECTRICAL EQUIPMENT LOCATIONS OPTION #3



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DRAWN:	PKE
CHECKED:	LS
DATE:	10/12/2021
JOB NUMBER:	21047
PROJECT MGR:	AW

EISENHOWER/JOHNSON MEMORIAL TUNNEL ELECTRICAL EQUIPMENT LOCATIONS OPTION #4