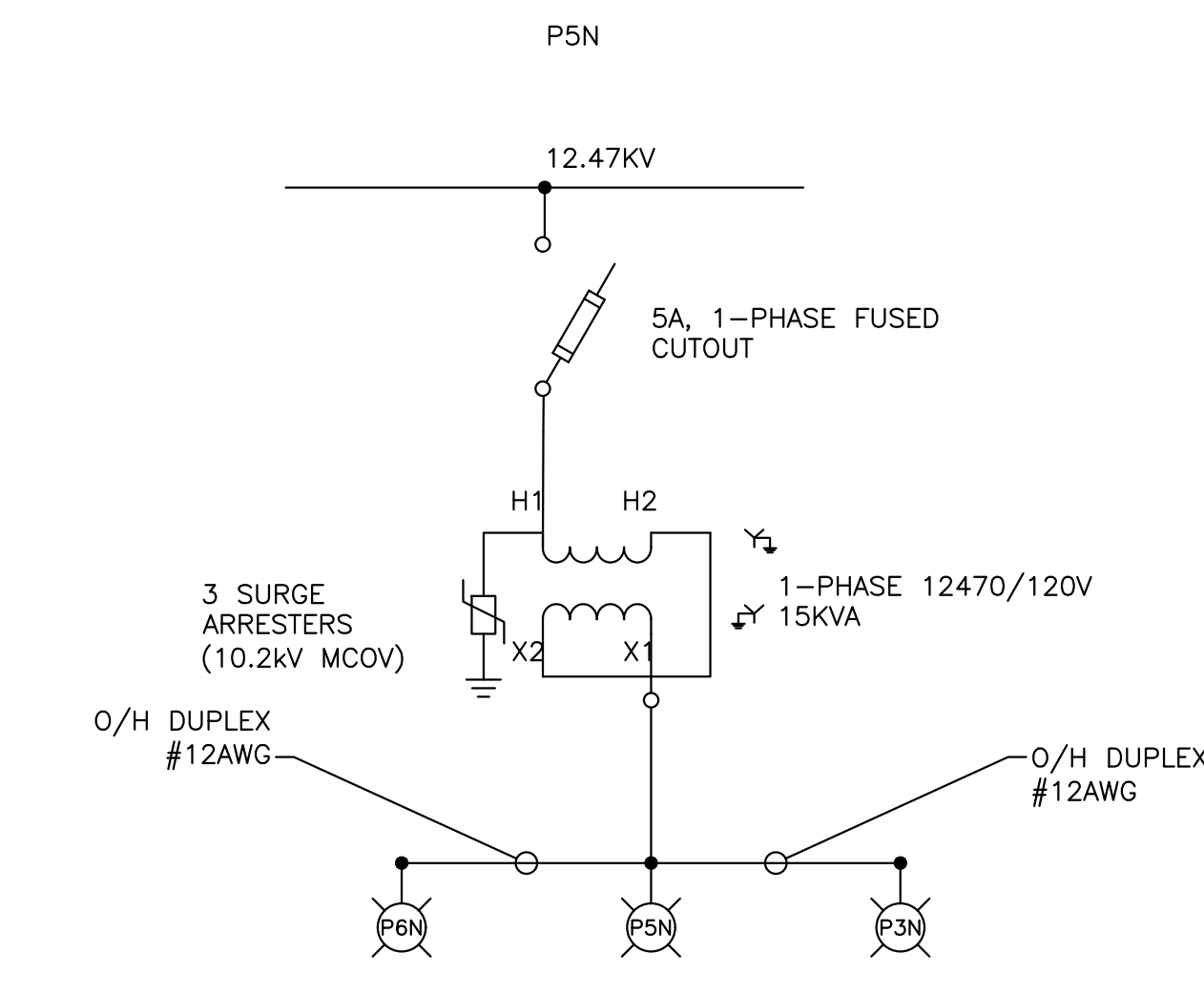
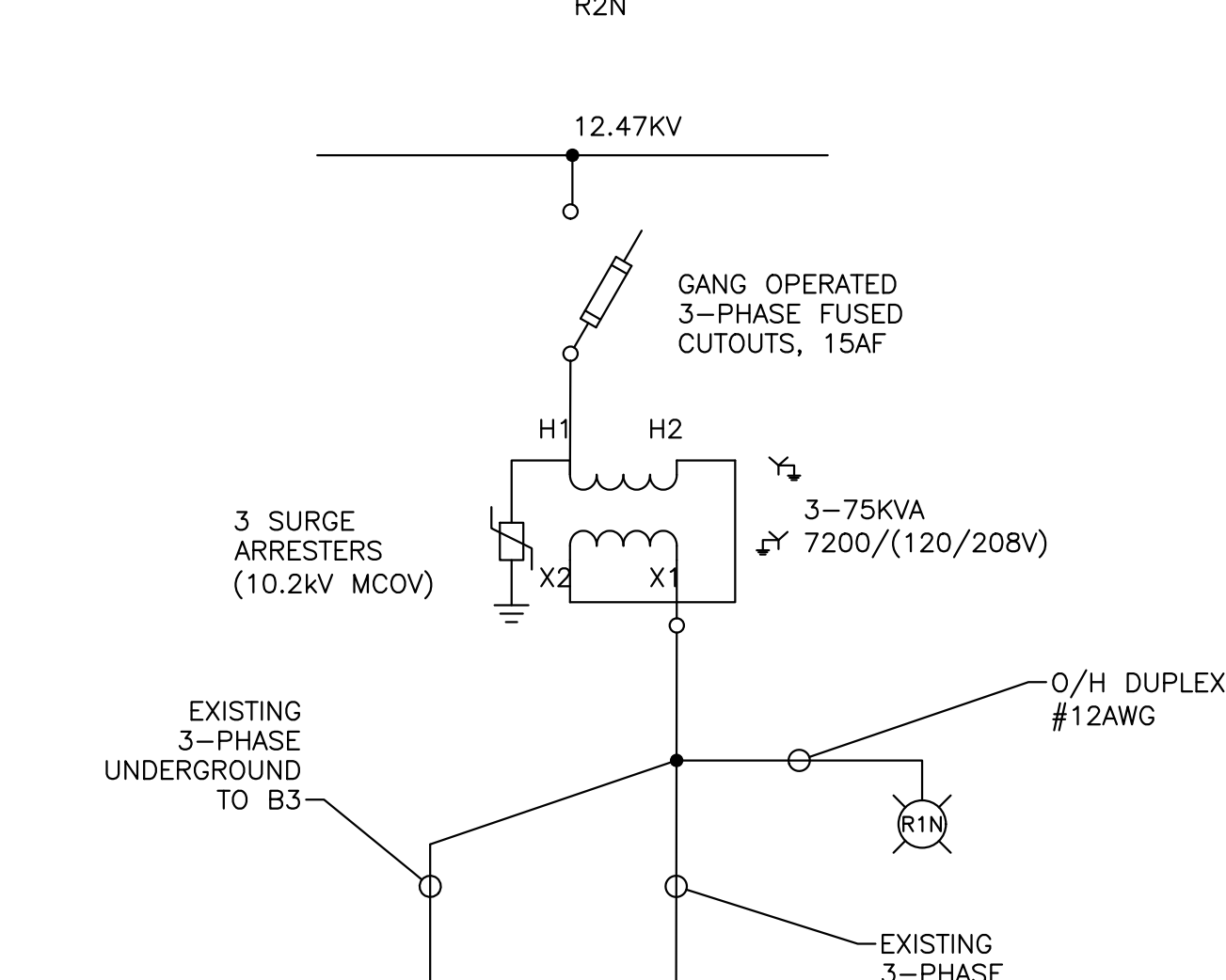


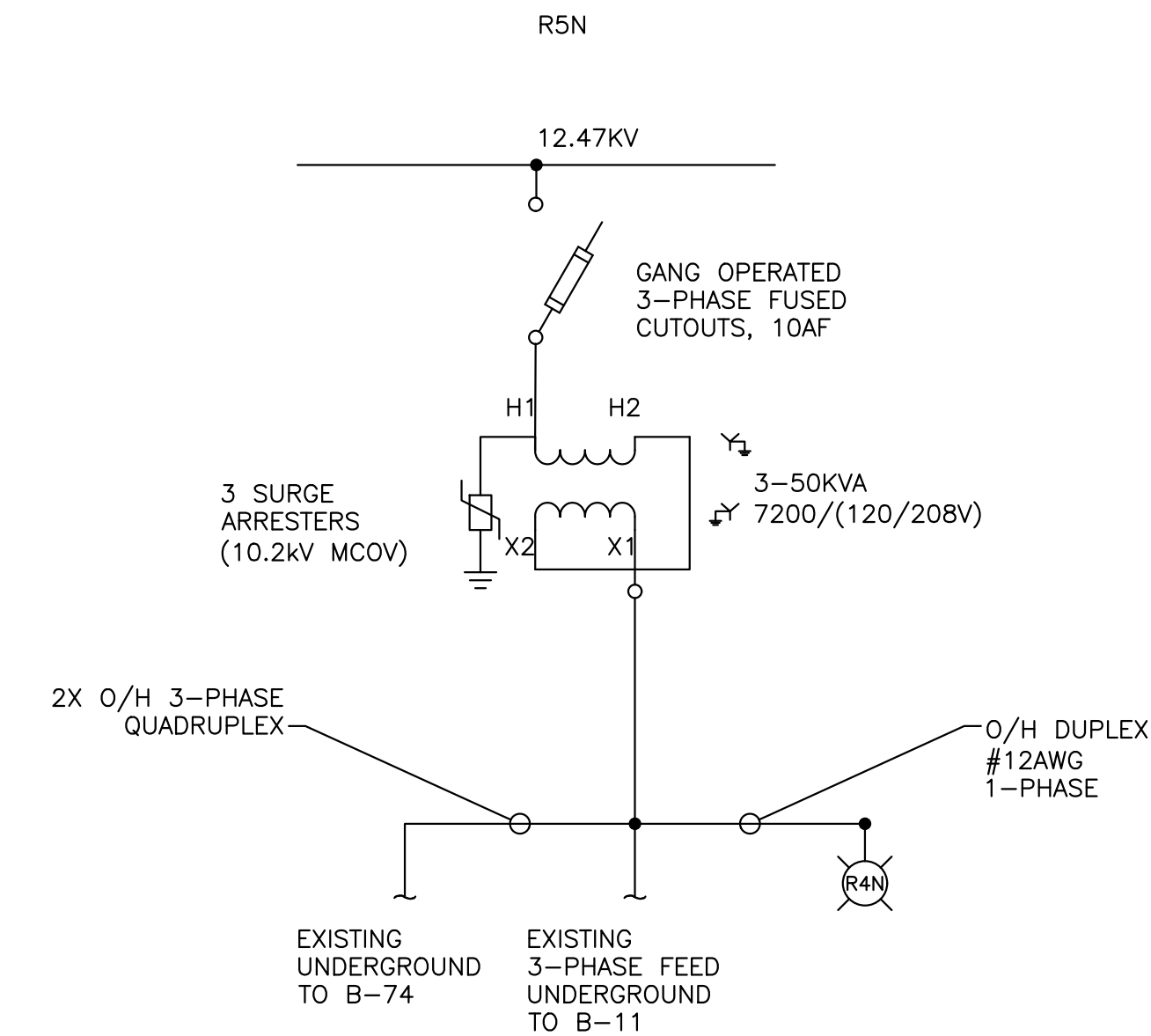
BILL OF MATERIALS		
ITEM No.	QTY	DESCRIPTION
019B	62	BOLT CARRIAGE 3/8"-16UNC X 4" THREAD L=3 GALVANIZED COMPLETE WITH NUT ASSEMBLED CSA C83
023B	7	BOLT MACHINE GALV., SQUARE HEAD 5/8" X 14" REQUIRED (AS PER CSA STD. C83.23-17)
031B	42	SCREW LAG 1/2" X 4" GIMLET POINT STANDARD HEX HEAD STEEL GALV. TO CSA G-164
031E	15	SCREW CREW LAG 5/8"x4" GIMLET POINT STANDARD HEX HEAD STEEL GALVANIZED TO CSA-G164
037A	60	RACE, CROSSARM, FLAT, STEEL, HOT DIP GALV., (AS PER CSA STD. C83.21M, BRACE NO. 3)
091A	30	3-1/4 x 4 x 7" WOOD CROSS ARM
107C	50	INSULATOR 15KV PIN L-G ELEC. SPEC. TO EXCEED ANSI CLASS 55-5 HIGH DENSITY POLYETHYLENE COMPLETE WITH UV INHIBITOR PIN HOLE SHALL
124A	32	PIN CROSSARM 1" NYLON THIMBLE 6" ABOVE WITH SQ. WRENCHING SHOULDER 3/4" DIA. LENGTH OF SHANK TO BE MIN. 6-1/4" TO MAX. 6-3/4" BELOW SHOULDER LONG SHANK COMPLETE WITH SQ. WASHER SQ. NUT AND CONCAVE LOCKNUT STEEL GALV.
125A	14	PIN POLE TOP GALVANIZED STEEL COMPLETE WITH 25MM (1") NYLON THREAD THIMBLE PINS MUST CONFORM TO DIMENSIONAL AND STRENGTH REQUIREMENTS SET
182C	30	IE GUARD DIA=2-7/8" INSULATOR PIN 2/0 ACSR
189L	11	WASHER, GALV., SQUARE, 2 1/4" X 2 1/4" X 3/16" WITH 11/16" DIA. HOLE
189F	12	WASHER SQUARE CURVED ID=13/16" 3"X3"X1/4" GALVANIZED HOLE MUST BE PUNCHED AFTER BENDING
189M	65	WASHER, SQUARE, 13/16" DIA.3" X 3" X 1/4"
189C	10	WASHER, GALV., ROUND, 9/16" DIA. HOLE
022M	42	BOLT HEX HEAD 1/2"-13UNC X2-1/4" GALVANIZED COMPLETE WITH HEX HEAD OVER SIZE NUT AND (2) FLAT ROUND WASHERS AND (1) SPLIT LOCK WASHER ASSEMBLED
024B	6	BOLT, MACHINE, GALV., SQ. HEAD, REQUIRED. (AS PER CSA STD. C83.23-17) 1/2" X 12" CHARPY RATED LEVEL 1
024F	10	BOLT, MACHINE, GALV., SQ. HEAD, REQUIRED. (AS PER CSA STD. C83.23-17) 3/4" X 20" CHARPY RATED LEVEL 1
024G	2	BOLT, MACHINE, GALV., SQ. HEAD, REQUIRED. (AS PER CSA STD. C83.23-17) 3/4" X 22" CHARPY RATED LEVEL 1
089E	9	CRIMPET COMPRESSION LINE #6-#2 TAP #6-#2 FOR COPPER ACSR OR ALUMINUM STRANDED OR SOLID 7-CONNECTOR PROGRAM RUN
089E	18	CRIMPET COMPRESSION LINE #3/0-266.8 TAP #3/0-266.8 FOR COPPER ACSR OR ALUMINUM STRD OR SOLID 7-CONNECTOR PROGRAM RUN
023D	21	BOLT, MACHINE, GALV., SQUARE HEAD, 5/8" X 12" REQUIRED (AS PER CSA STD. C83.23-17)
041D	9	BRACKET MOUNTING ARRESTER AND CUTOUT COMBINATION STANDARD PACKAGE QUANTITY 10 EACH
085K	9	3-PHASE GANGED OPERATED FUSED CUTOUT, SIZED AS REQUIRED
009D	19	ARRESTER ASSEMBLY HEAVY DUTY 10KV
021C	20	BOLT, DOUBLE ARMING, GALV., 3/4" X 20" (AS PER CSA STD. C83.22-17 FULL THREAD)
053A	39	DEAD END CLAMPS - STRAIGHT LINE ALUMINUM, ALUMINUM ALLOY BODY AND KEEPER, HARDWARE: STEEL, HOT DIPPED GALV. COTTER PIN: STAINLESS STEEL
097A	45	EYEBOLT #2 PER CSA C83-74-M FORGED STEEL GALV. EYE DIA=9/16" MAXIMUM EYE ROUND THROUGHOUT
112F	45	INSULATOR 25KV DEADEND SUSPENSION COMPOSITE WITH CLEVIS TONGUE END FITTINGS LOAD RATING 15000-POUNDS 70KN APPROXIMATE L=17" 430MM MINIMUM LEAKAGE 25.6" 650MM MINIMUM DRY ARCING 11.0" 280MM LOW FREQUENCY FLASHOVER 130KV DRY 110KV WET POS CRITICAL IMPULSE FLASH OVER 190KV MAXIMUM RIV 10 MICROVOLT AT 1MHZ ALL IN ACCORDANCE WITH CEA SPEC #LWWG-01 91 TYPE DS-28
191B	N/A	CONDUCTOR #4AWG ALUMINUM SOLID SOFT DRAWN TIE WIRE COIL DIA=21" 175-METERS PER COIL TECO: WIRE, ALUMINUM, TIE, #4 BARE ANNEALED, ON NON- RETURNABLE 1/4" OR 1/2" THICK, PLYWOOD OR EQUIVALENT PLASTIC SPOOLS. SPOOL SIZE: 11" MAX DIAMETER 5" MAX WIDTH, WIRE LENGTH TO BE 312' FT. PLUS OR MINUS 5%, WITH A 1-1/2" HUB, 38.38# AL PER 1000 FT WT OF 312 FT OF WIRE = 11.97 LBS.
021D	4	BOLT, DOUBLE ARMING, GALV., 3/4" X 22" (AS PER CSA STD. C83.22-17 FULL THREAD), CHARPY RATED LEVEL 1
022B	8	BOLT, MACHINE, GALV., SQUARE HEAD, 1/2" X 7" REQUIRED. (AS PER CSA STD. C83.23-17)
025A	8	PALNUT, LOCK NUT, 1/2", GALVANIZED
036C	4	BRACE CROSSARM 18"x60" ANGLE STEEL DOUBLE SPAN GALVANIZED
053B	6	DEAD END CLAMPS - STRAIGHT LINE ALUMINUM, ALUMINUM ALLOY BODY AND KEEPER, HARDWARE: STEEL, HOT DIPPED GALV. COTTER PIN: STAINLESS STEEL
091G	4	3-1/4" X 4 X 7" WOOD CROSS ARM
124B	6	PIN CROSSARM 1" NYLON THIMBLE 6" ABOVE WITH SQUARE WRENCHING SHOULDER 3/4" DIAMETER LENGTH OF SHANK TO BE MINIMUM 6-1/4" TO MAXIMUM 6-3/4" BELOW SHOULDER LONG SHANK COMPLETE WITH SQUARE WASHER SQUARE NUT AND CONCAVE LOCKNUT STEEL GALVANIZED
159C	3	CONNECTOR, AMPACT, ACSR AND ALLUMINUM, CONDUCTOR COMBINATIONS #2/0 #2/0 or #3/0 #1/0
161A	3	SHELL DESIGNED FOR USE ONLY IN AMPACT TOOLS COMPLETELY WEATHERPROOF MOLDED OF RUGGED POLYETHYLENE CONTAINS PROPELLENT AND PRIMER COLOUR CODED TO MATCH TAPS BLUE SHELL CONDUCTOR #4AWG ALUMINUM SOLID SOFT DRAWN TIE WIRE COIL DIA=21" 175-METERS PER COIL TECO: WIRE, ALUMINUM, TIE, #4 BARE ANNEALED, ON NON- RETURNABLE 1/4" OR 1/2" THICK, PLYWOOD OR EQUIVALENT PLASTIC SPOOLS. SPOOL SIZE: 11" MAX DIAMETER 5" MAX WIDTH, WIRE LENGTH TO BE 312' FT. PLUS OR MINUS 5%, WITH A 1-1/2" HUB, 38.38# AL PER 1000 FT WT OF 312 FT OF WIRE = 11.97 LBS.
023B	6	5/8" X 4" MACHINE BOLT
115C	6	3-PHASE GANG OPERATED FUSED CUTOUT, 15KV, STANDARD CREEP, 100A, 10KA, FUSE SIZED AS INDICATED
107C	3	INSULATOR, ANSI C29.5 CLASS 55-5
023E	8	5/8" X 14 CARRAGE BOLT
	3	TRANSFORMER 7200/347V, 25KVA TO CSA AND NB POWER SPEC WITH MOUNTING BRACKETS
	3	TRANSFORMER 7200/120V, 50KVA TO CSA AND NB POWER SPEC WITH MOUNTING BRACKETS
	1	TRANSFORMER 7200/120V, 15KVA TO CSA AND NB POWER SPEC WITH MOUNTING BRACKETS
	3	TRANSFORMER 7200/120V, 25KVA TO CSA AND NB POWER SPEC WITH MOUNTING BRACKETS
	1	TRANSFORMER 7200/120V, 10KVA TO CSA AND NB POWER SPEC WITH MOUNTING BRACKETS
	3	TRANSFORMER 7200/120V, 75KVA TO CSA AND NB POWER SPEC WITH MOUNTING BRACKETS



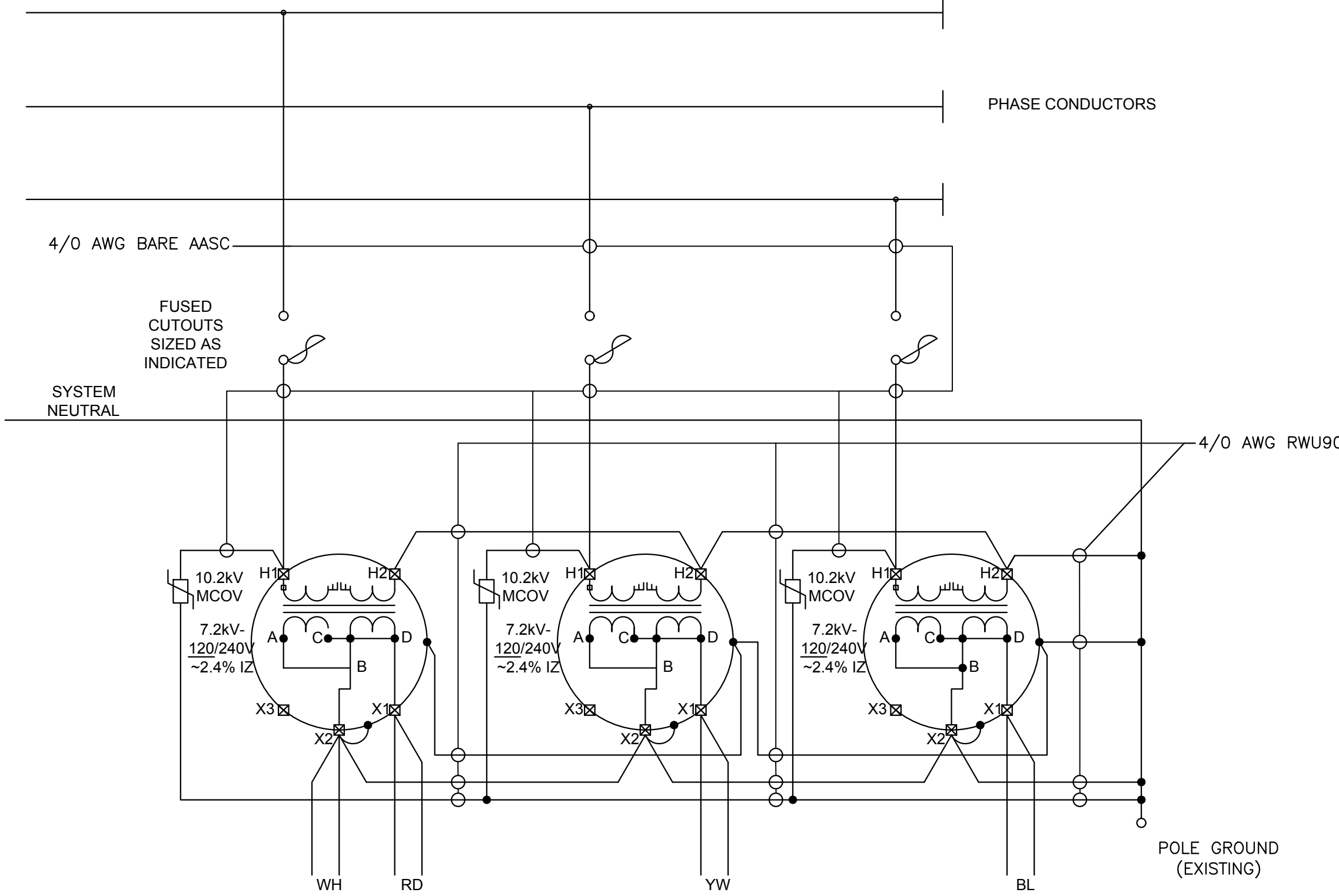
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E4
DETAIL - LIGHTING SCHEMATIC P5N
SCALE : N.T.S.



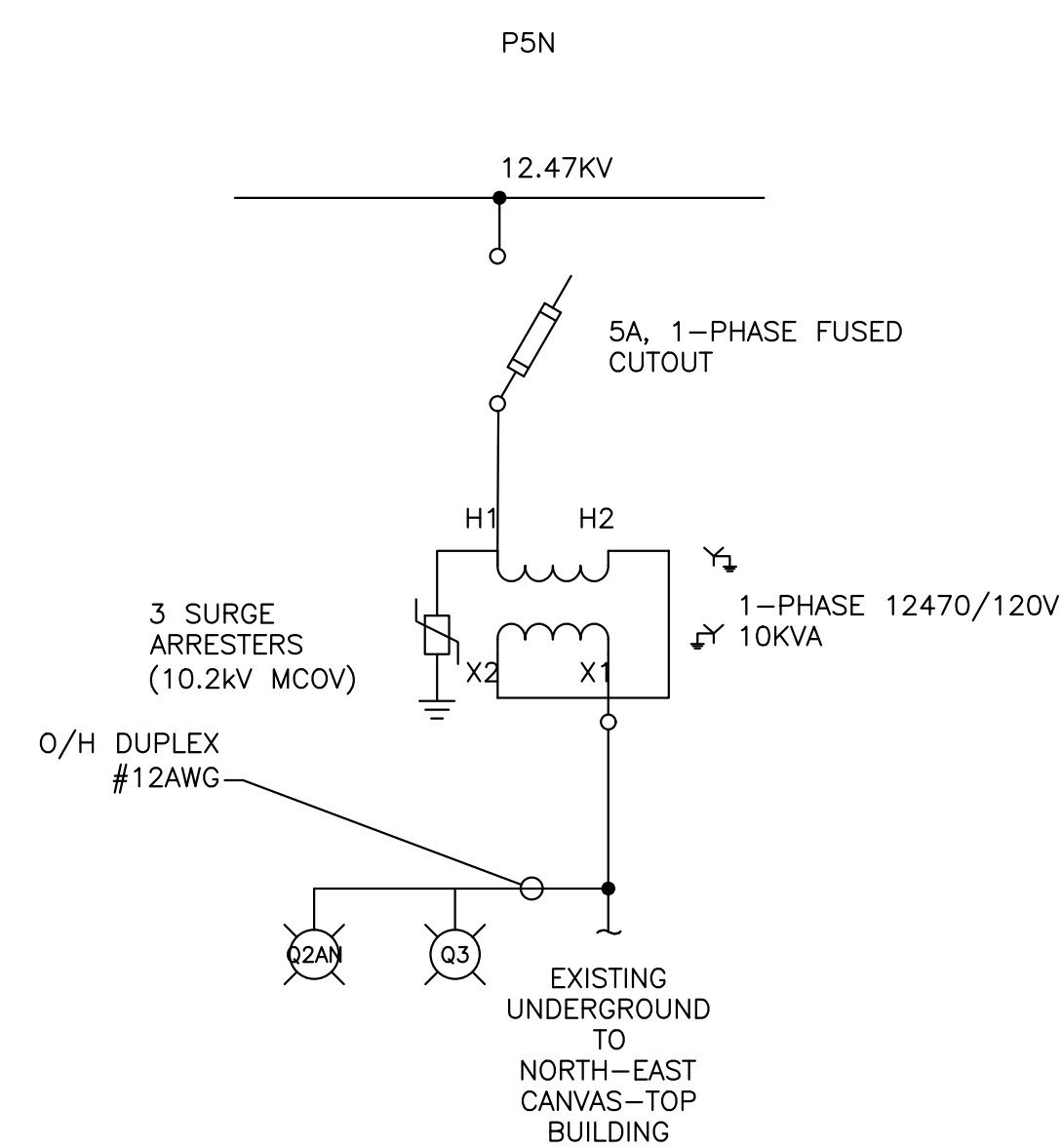
2
E4
DETAIL - LIGHTING SCHEMATIC R2N
SCALE : N.T.S.



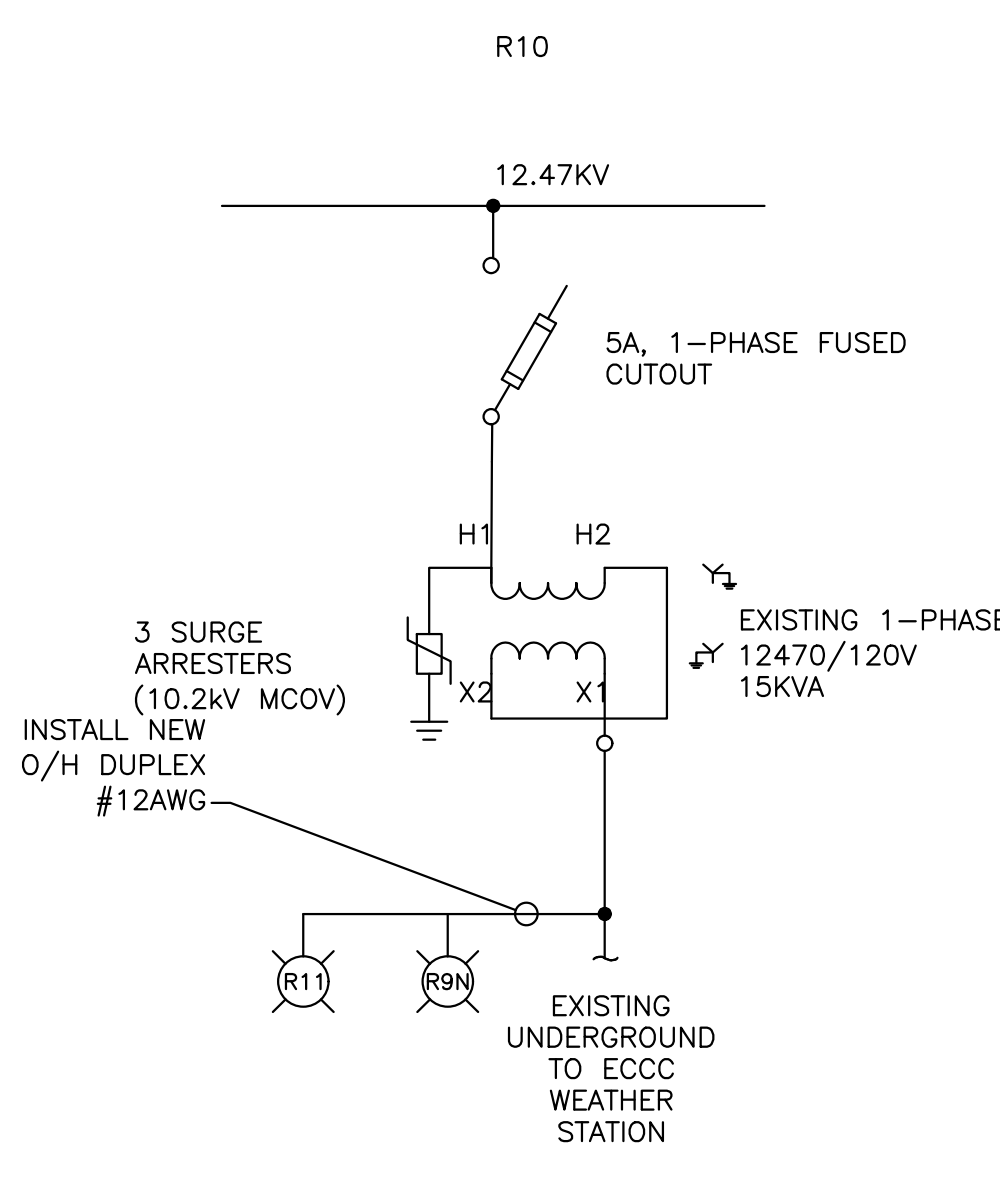
3
E4
DETAIL - LIGHTING SCHEMATIC R5N
SCALE : N.T.S.



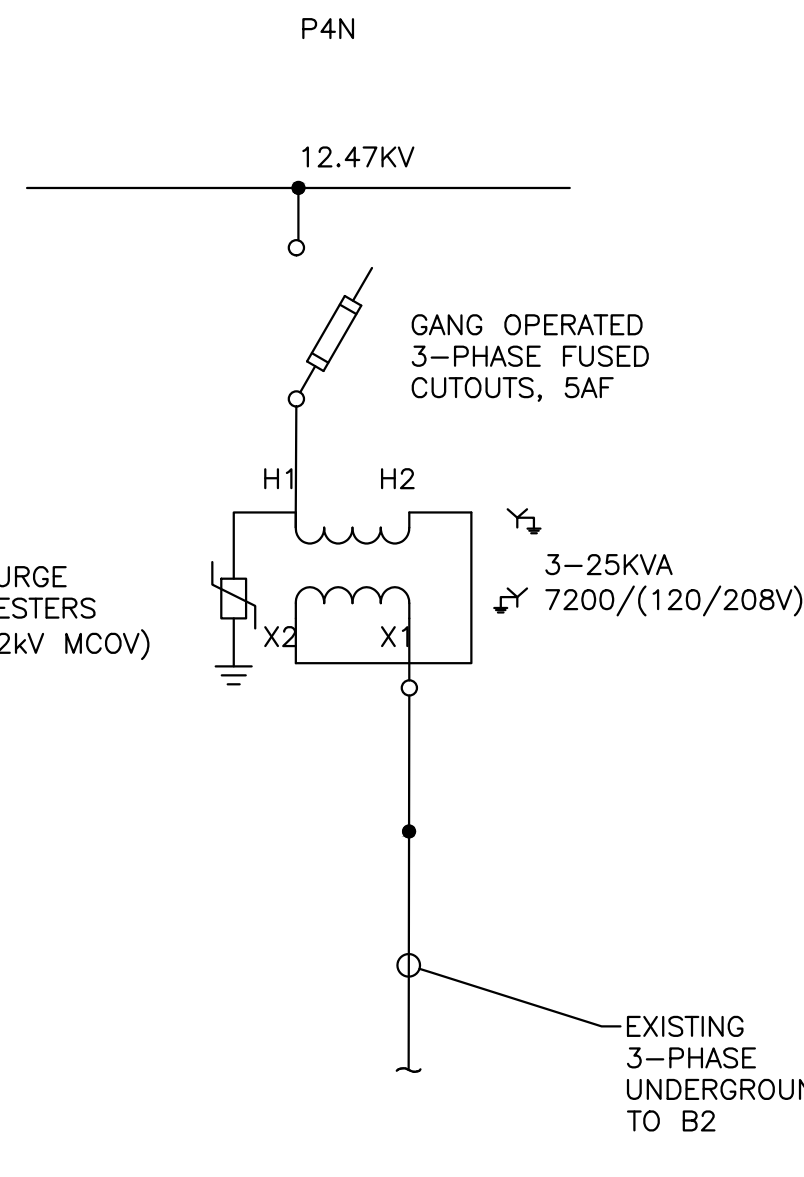
4
E4
DETAIL - TRANSFORMER BANK WIRING DIAGRAM (TYP.)
SCALE : N.T.S.



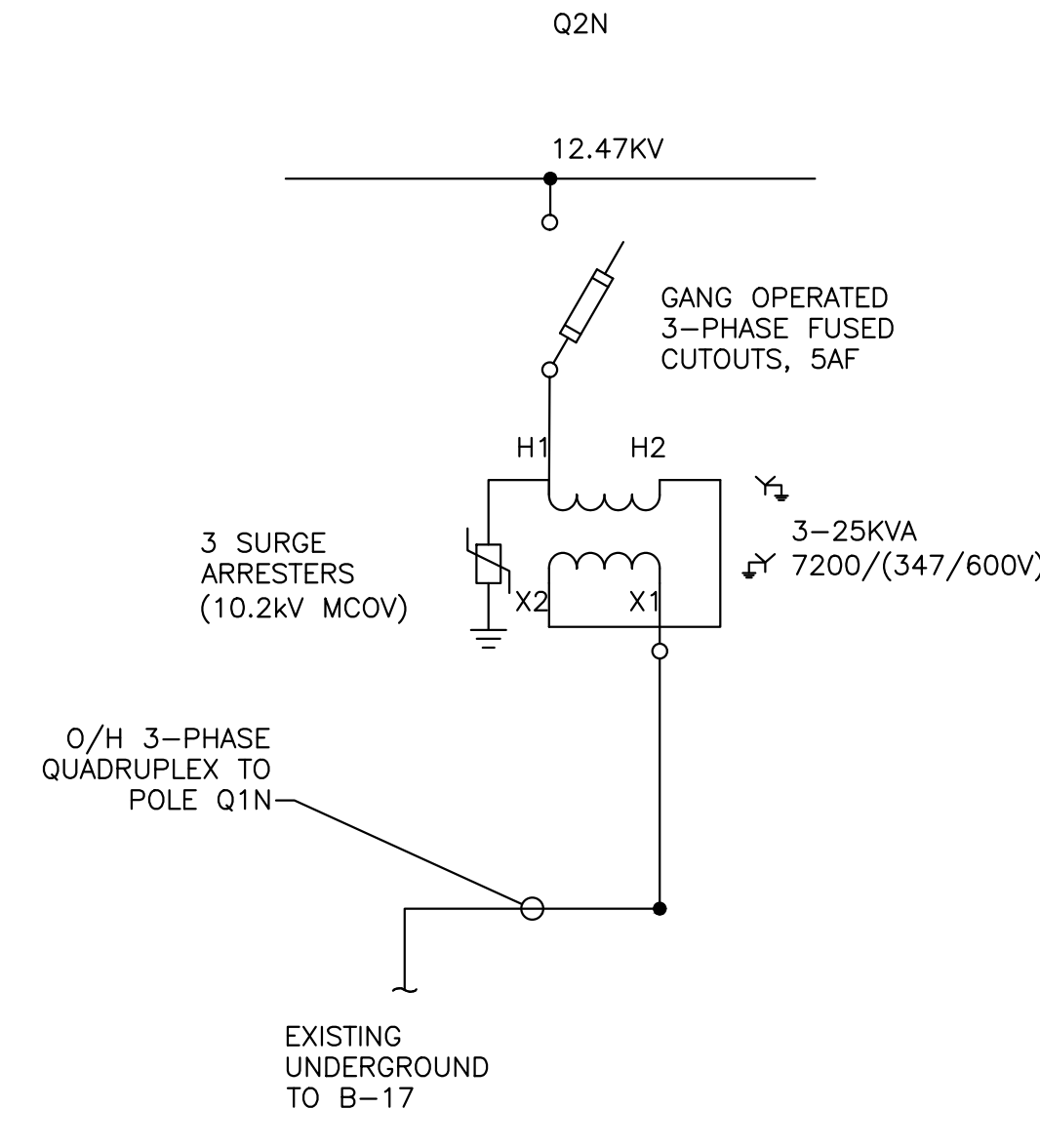
5
E4
DETAIL - LIGHTING SCHEMATIC P5N
SCALE : N.T.S.



6
E4
DETAIL - LIGHTING SCHEMATIC R10
SCALE : N.T.S.



7
E4
DETAIL - WIRING SCHEMATIC P4N
SCALE : N.T.S.



8
E4
DETAIL - WIRING SCHEMATIC Q2N
SCALE : N.T.S.



1	RE-ISSUED FOR TENDER	10/22/20
0	ISSUED FOR TENDER	10/20/20
revisions		date
project	ELECTRICAL SITE DISTRIBUTION AAFC R&D CENTRE, FREDERICTON YORK CO., NB	
drawing	SCHEMATICS AND BILL OF MATERIALS	
designed LP	conçu	
date AUGUST 27, 2020		
drawn KD	dessiné	
date AUGUST 27, 2020		
approved LP	approuvé	
date AUGUST 27, 2020		
Tender	Submission	
PWSC Project Manager	Administrateur de projets TPSC	
project number	no. du projet	
R.106441.003		
drawing no.	no. du dessin	
E4		