
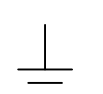
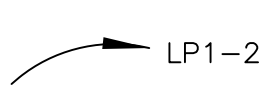

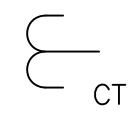
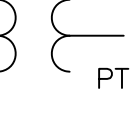
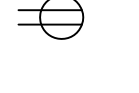
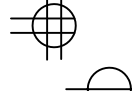

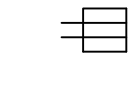
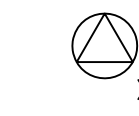
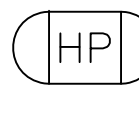

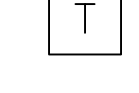
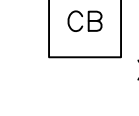
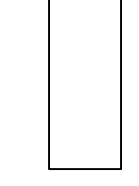
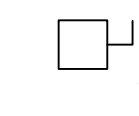
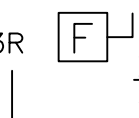


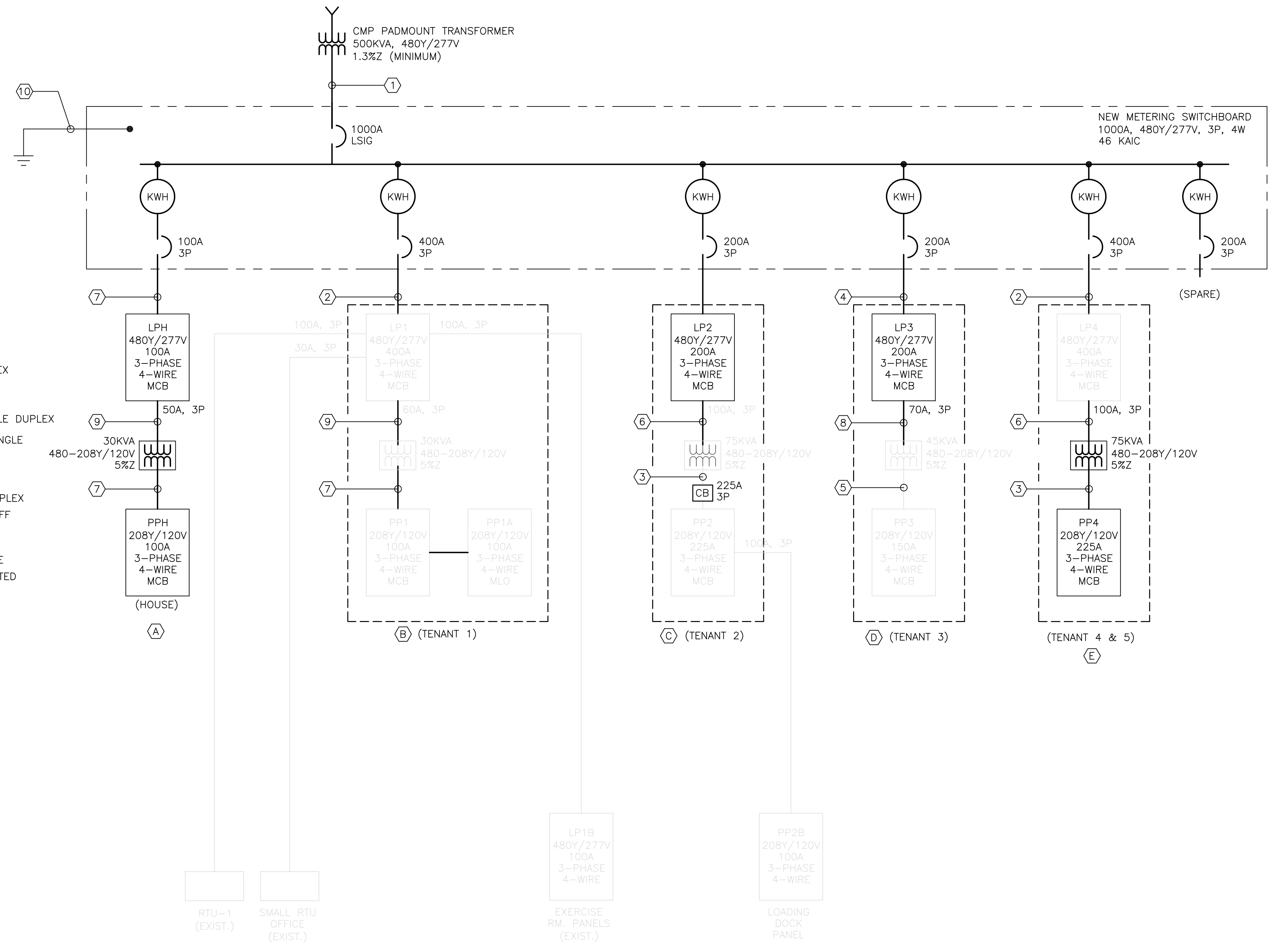


**POWER SYMBOLS**

-  CIRCUIT BREAKER
-  GROUND CONNECTION
-  HOME RUN TO PANEL (CKT. NO. AS SHOWN)
-  TRANSFORMER
-  CURRENT TRANSFORMER
-  POTENTIAL TRANSFORMER
-  20 AMPERE, 120 VOLT DUPLEX RECEPTACLE, +18" AFF
-  20 AMPERE, 120 VOLT DOUBLE DUPLEX RECEPTACLE, +18" AFF
-  20 AMPERE, 120 VOLT SINGLE RECEPTACLE
-  20 AMPERE, 120 VOLT DUPLEX GFCI RECEPTACLE, +18" AFF
-  OTHER POWER RECEPTACLE NEMA DESIGNATION AS NOTED
-  MOTOR
-  JUNCTION BOX
-  TRANSFORMER
-  CIRCUIT BREAKER SIZED AS NOTED
-  PANELBOARD NORMAL POWER
-  UNFUSED SAFETY SWITCH, RATING AS NOTED
-  FUSED SAFETY SWITCH, RATING AS NOTED
-  MAGNETIC MOTOR STARTER, RATING AS NOTED
-  MANUAL TOGGLE OPERATED MOTOR STARTER



**1 ELECTRICAL ONE-LINE DIAGRAM**  
SCALE: N.T.S.

**GENERAL NOTES**

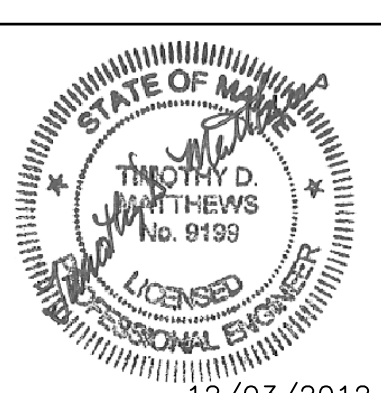
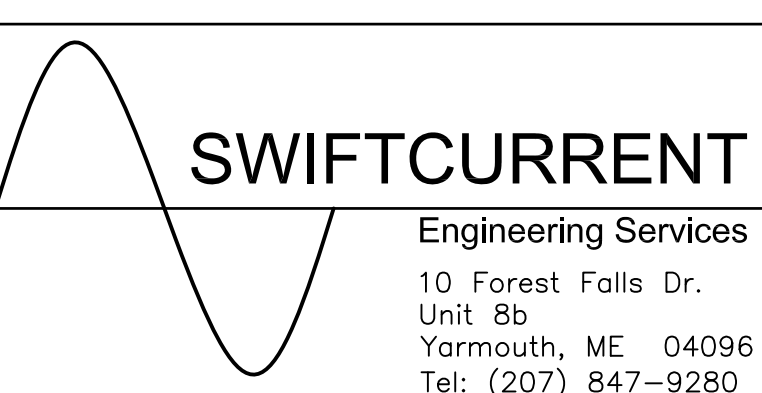
1. ALL WORK SHALL BE IN COMPLIANCE WITH NFPA-70, NATIONAL ELECTRICAL CODE.
2. ALL MOTOR SAFETY SWITCHES, DISCONNECTS AND MOTOR STARTERS ARE FURNISHED BY DIVISION 16000 UNLESS NOTED AS FURNISHED WITH EQUIPMENT (FWE).
3. UNLESS OTHERWISE NOTED, CONVENIENCE RECEPTACLES SHALL BE MOUNTED 18 INCHES AFF AND LIGHTING TOGGLE SWITCHES 48 INCHES AFF.
4. ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH A UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN THE RATING OF THE SEPARATION.
5. LIGHTING TOGGLE SWITCHES SHALL BE COMMERCIAL SPECIFICATION GRADE, 277 VOLT, SIDE WIRED AS MANUFACTURED BY LEVITON, PASS & SEYMOUR, OR APPROVED EQUAL.
6. CONVENIENCE RECEPTACLES SHALL BE COMMERCIAL SPECIFICATION GRADE UNLESS SHOWN OTHERWISE, GROUNDING TYPE, NEMA 5-20R, SIDE WIRED, AS MANUFACTURED BY LEVITON, PASS & SEYMOUR, OR APPROVED EQUAL.
7. UNLESS OTHERWISE NOTED ALL HOMERUNS FOR 15 OR 20A CIRCUITS SHALL BE 2#12AWG & #12 GND. HOMERUNS FED FROM 20A, 1P CIRCUITS IN EXCESS OF 100 FEET (FOR 120V CIRCUITS) OR 200 FEET (FOR 277V CIRCUITS) SHALL BE #10AWG. ALL WIRING SHALL BE COPPER. DISTRIBUTION WIRING SHALL BE TYPE THHN/THWN.
8. CONDUIT SYSTEMS: EXPOSED INTERIOR CONDUITS SHALL BE EMT, 3/4" MINIMUM. PROPERLY SUPPORTED MC CABLE ASSEMBLIES MAY BE USED ABOVE CEILINGS AND IN WALLS.

**KEYED NOTES:**

- (A) INTENT IS TO FURNISH NEW HOUSE PANELS (PH & PPH) AND NEW 30KVA TRANSFORMER FOR MISCELLANEOUS COMMON LOADS SUCH AS EXTERIOR LIGHTS, FIRE ALARM PANEL AND ELECTRICAL ROOM AND EXTERIOR RECEPTACLES.
- (B) INTENT IS TO REUSE EXISTING EQUIPMENT & RELOCATE AS REQUIRED IN ELECTRICAL ROOM TO ACCOMMODATE NEW SWITCHGEAR AND MAINTAIN REQUIRED CLEARANCES.
- (C) INTENT IS TO REUSE EXISTING FEEDER WIRING (FEED EXISTING #500KCM CU FROM 200A BREAKER) TO EITHER NEW PANEL IN PLACE OF PANEL P3 (SQUARE D MODEL NEHB) OR FURNISH NEW BREAKERS IN EXISTING PANEL FOR AREA LIGHTING AND RE-INSTALL BREAKER TO EXISTING TRANSFORMER. THIS PANEL SHALL BE REDESIGNATED LP2. EQUIPMENT PREVIOUSLY FED FROM PANELS 3A AND 3B HAS BEEN REMOVED - PANELS MAY BE ABANDONED IN PLACE. RETAIN PANEL P5 (NEW PANEL PP2) AND SUB PANEL P5A (NEW PANEL PP2A) AND FEED FROM EXISTING 75KVA TRANSFORMER. ADD NEW 225A CIRCUIT BREAKER OR FUSED DISCONNECT ON THE SECONDARY SIDE OF THE TRANSFORMER.
- (D) INTENT IS TO RUN NEW 200A FEEDER FROM NEW METERING PANEL TO A NEW 200A, 480/277V, PANEL LP3 IN EXISTING LOCATION OF PANEL P2. REMOVE EXISTING PANEL P2. PROVIDE 70A, 3P BREAKER TO RECONNECT EXISTING 45KVA TRANSFORMER AND EXISTING PANEL PP2 (TO BE REDESIGNATED PP3).
- (E) INTENT IS TO REUSE THE EXISTING CONDUITS AND 400A FEEDER CONDUCTORS THAT CURRENTLY FEED PANEL P2. INSTALL A JUNCTION BOX IN THE CEILING. SPICE CONDUCTORS USING BURNDY UNITAP MECHANICAL LUGS, OR EQUAL, IN NEW CEILING MOUNTED JUNCTION BOX AND CONTINUE CONDUIT AND FEEDER TO NEW LOCATION. RE-INSTALL EXISTING PANEL P2 IN THIS LOCATION AND REDESIGNATE PANEL LP4. PROVIDE NEW PROVIDE NEW 225A 208/120V PANELBOARD AND NEW 75KVA TRANSFORMER.

**WIRE SCHEDULE:**

- (1) (3)-4#350KCM CU, (3)-4"C (EXISTING)
- (2) 4#500KCM CU & #3GND, 4"C
- (3) 4#4/OAWG CU & #4GND, 2-1/2"C
- (4) 4#3/OAWG CU & #6GND, 2"C
- (5) 4#1/OAWG CU & #6GND, 1-1/2"C
- (6) 3#3AWG CU & #8GND, 1-1/4"C
- (7) 4#3AWG CU & #8GND, 1-1/4"C
- (8) 3#4AWG CU & #8GND, 1-1/4"C
- (9) 3#6AWG CU & #10GND, 1"C
- (10) 1"#3/OAWG BARE CU GROUND

A	TDM	12/7/12	REVISED AS PER EXISTING CONDITIONS				
REV	BY	DATE	STATUS				
765 WARREN AVE PORTLAND, MAINE							
ELECTRICAL PLAN							
				DESIGN BY: TDM		DRAWN BY: KLM	
				DATE: 11-30-2012		JOB:	
				SCALE: AS NOTED		E100	
				12/03/2012			