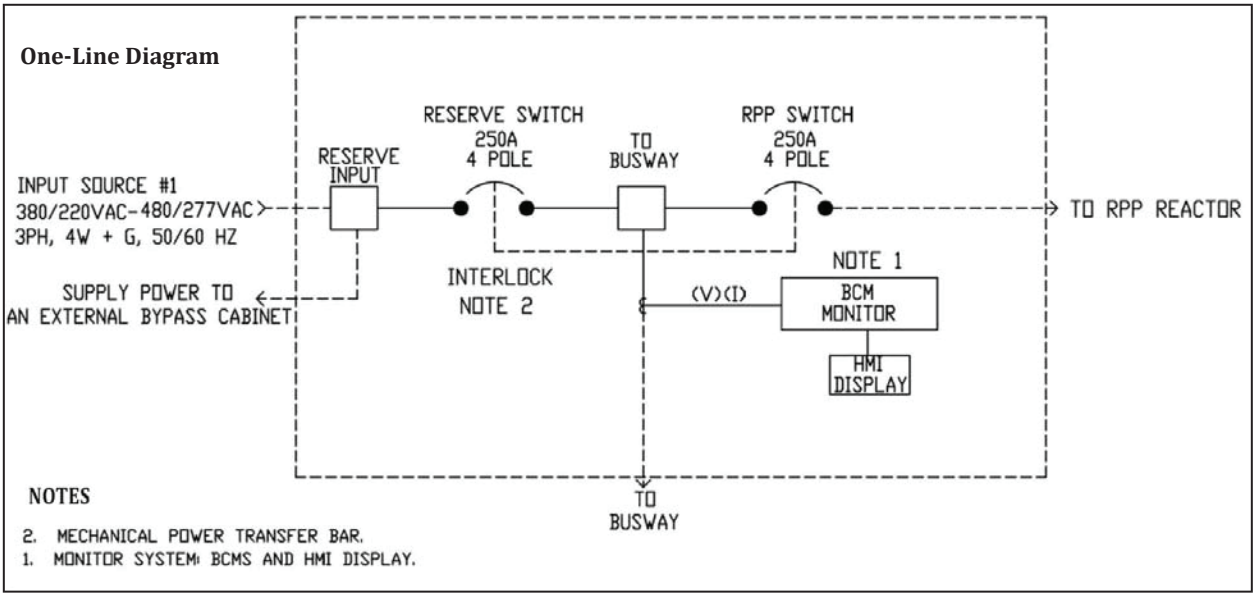
Chapter 1 Cabling

1.1 Cable RPP to Retrofit Bypass Cabinet

Power to the load will be provided by the Bypass, which has two power sources, the RPP and reserve power. The power output cables from the RPP to the load must be disconnected at the RPP and re-cabled to the Bypass.

The following illustration shows the one-line diagram for the Retrofit Bypass Cabinet.

Figure 1. Retrofit Bypass Cabinet one-line



⚠WARNING

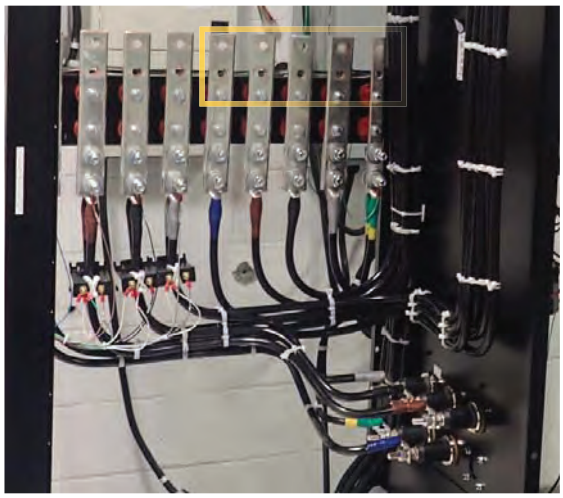
- A licensed electrician must install the Retrofit Bypass Cabinet and connect internal and external wiring.
- Installers should use Lock-Out/Tag-Out procedures and observe other precautions listed in the introductory Safety section.
- Power wiring and grounding must comply with NEC and applicable local codes.

1.2 Cable Bypass Cabinet to RPP

Eaton PDI RPP is shown in

1. Disconnect power output cables to load (busway) from the RPP Bus Bars. (You will later reconnect them to the load output of the Retrofit Bypass Cabinet.)

Figure 2. Eaton PDI RPP



(4) 2/0 cables (**ABCN**) with compression lugs are already attached to the input of the Retrofit Bypass Cabinet RPP Switch.

(1) #2 AWG **Ground** cable is coiled and attached to the Output (Busway) ground bus in the Retrofit Bypass Cabinet.

The cables are pre-cut to the correct length.

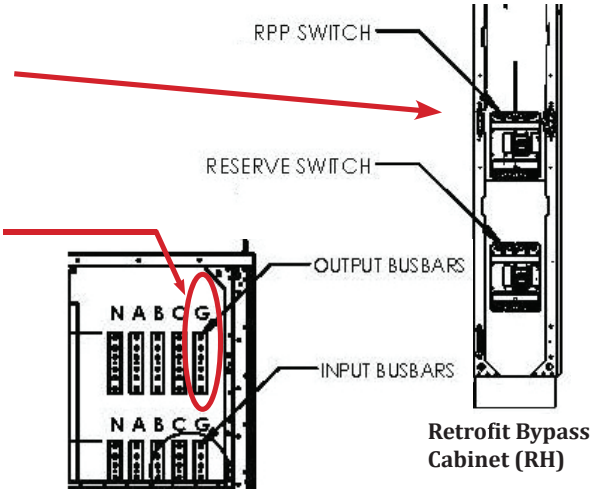
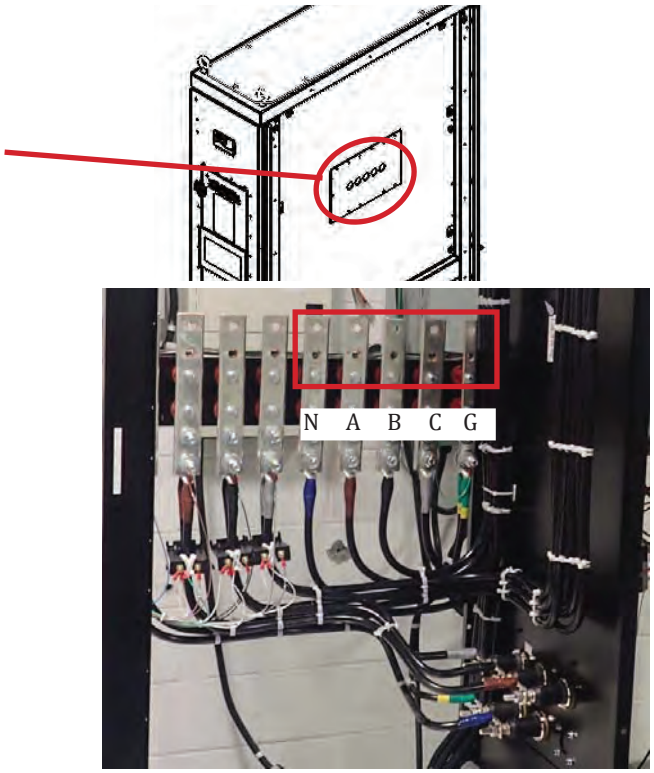


Figure 3. Bypass Cables



2. In the RPP, attach the five cables to RPP output bus bars (see Figure 3).
   - Torque for ½"-13 bolts is 57 ft-lbs.
   - Torque for M12 bolts is 77 Nm.

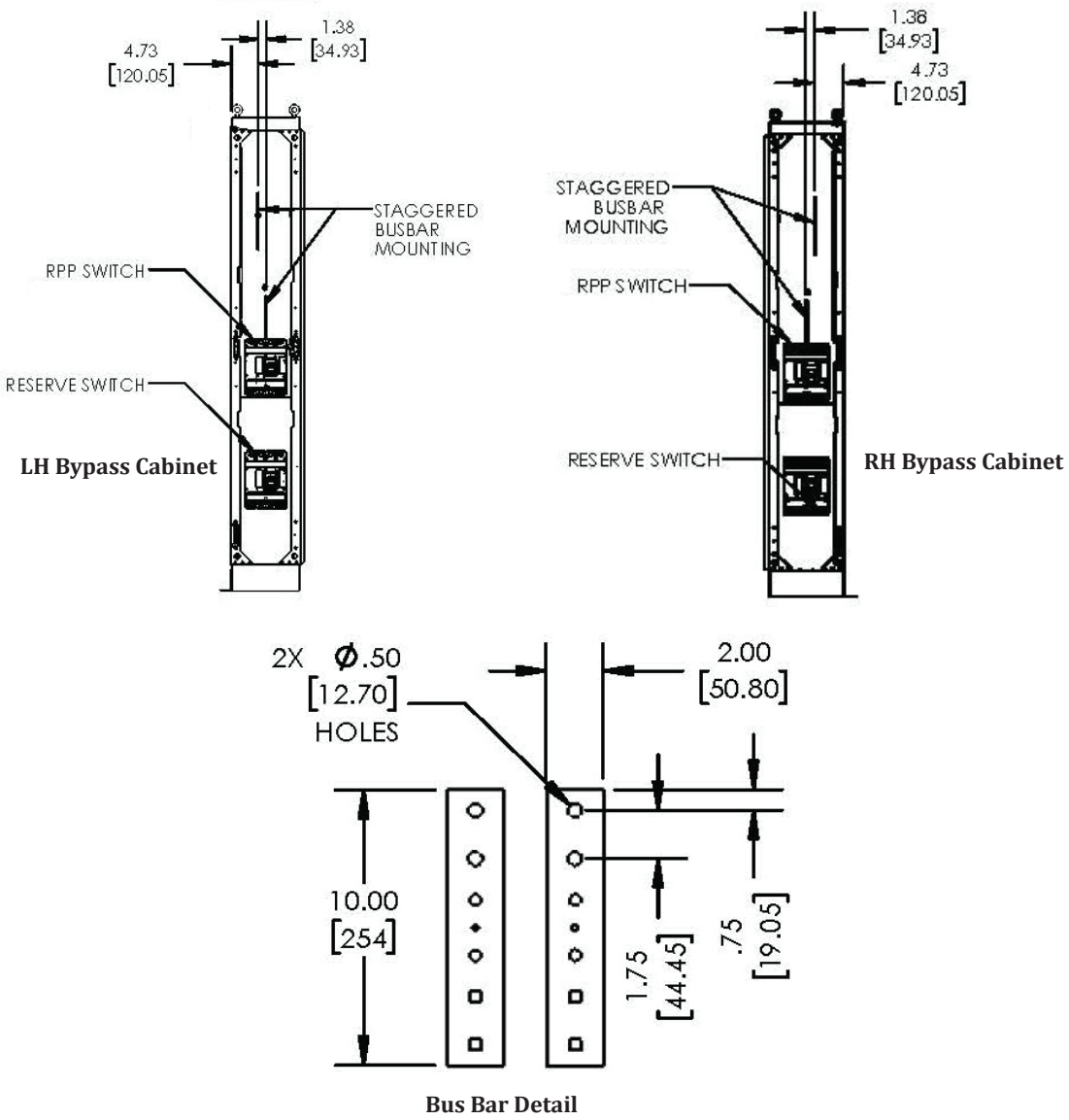
1.3 Cable Reserve and Load to Bypass

Reserve power cables and Load power cables are run from overhead to Retrofit Bypass Cabinet bus bars.

To make overhead cable entry easier, Reserve and Load bus bars are staggered in the Retrofit Bypass Cabinet.

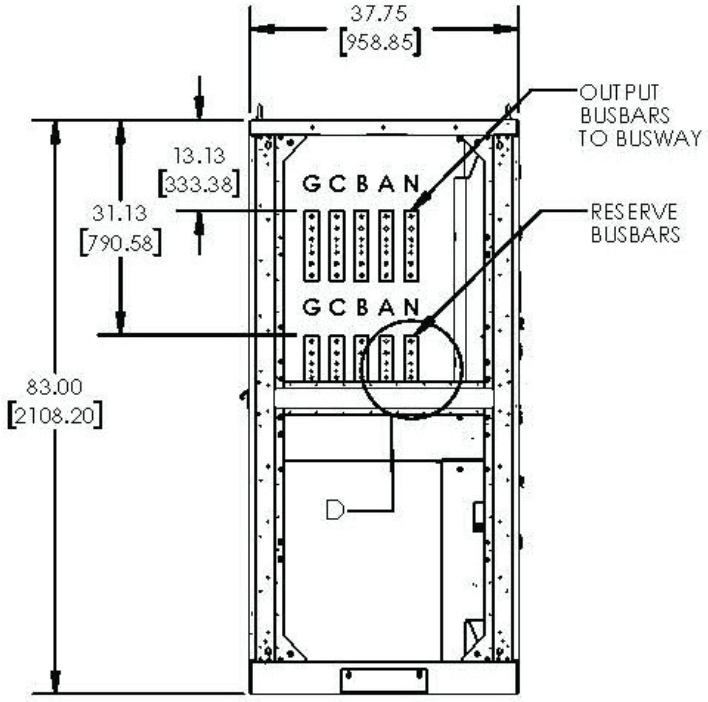
Figure 4. Reserve and Load Power Cables

Figure 4. Reserve and Load Power Cables (Continued)



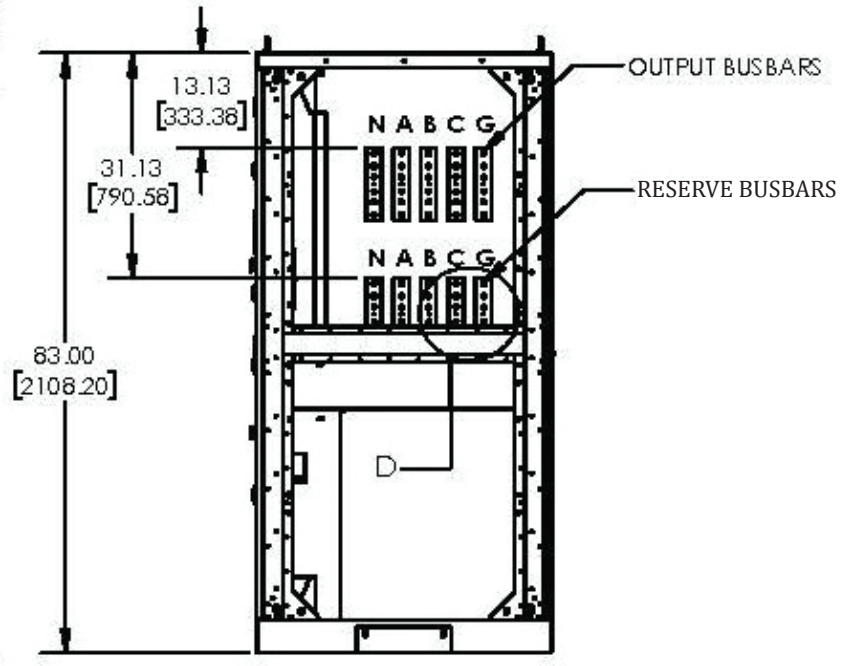
1. Run Load power cables (disconnected in , step 1) through overhead cable entry to **Bypass Output Bus Bars** (to busway).
   - Connect ABCNG cables to Bus Bars Torque ½"-13 bolts to 57 ft-lbs.
   - Torque M12 bolts to 77 Nm.

Figure 5. Retrofit Bypass Cabinet - Left Hand Panels Removed



2. Run Reserve power cables through overhead cable entry to Bypass Reserve Bus Bars.
    - Connect ABCNG cables to Bus Bars. Torque ½"-13 bolts to 57 ft-lbs.
    - Torque M12 bolts to 77 Nm.

Figure 6. Retrofit Bypass Cabinet - Right Hand Panels Removed



NOTE Phase connections on LH and RH units are mirror images of each other.

1.4 Monitoring: Shorting CTs

The BOM includes five (5) jumpers (PN TSP57827) that are used to short current transformers (CTs) in the monitoring system to prevent them generating a voltage. The jumpers are shipped in the documentation envelope.

Figure 7. Transformer Jumpers

Jumpers
PN TSP57827

A DIN rail with terminal blocks and fuses is located on the inside panel behind the Retrofit Bypass Cabinet door. To short a CT, screw a jumper into the corresponding phase position in the black terminal blocks.

Figure 8. Terminal Block DIN Rail

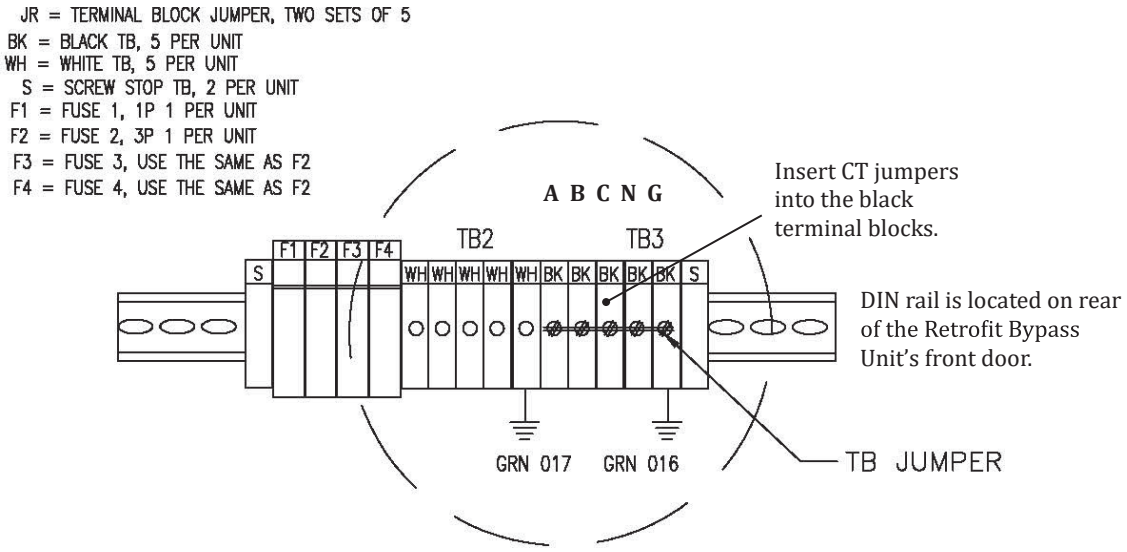


Figure 9. Retrofit Bypass Cabinet - TB Location