Electrical, Dwelling Unit 400 Amp and Up - Plan Submittal Checklist

I. PURPOSE: A checklist for the design professional/owner's representative to verify they meet the minimum plan review requirements for new or remodeled single family dwellings with a new or upgraded service sized 400 amperes or larger. The design professional/owner's representative should check each box to ensure the items required for plan review have been verified.

II. POLICY: Plan Preparation – Refer to Electrical Submittal Requirements Interpretation of PBCC 107.1 for additional information and to determine who is permitted to prepare the plans.

III. PROCEDURE: Plan Contents Checklist (2017 NEC Code sections referenced U.N.O.)

1. All plans shall be drawn to scale and shall include a legend of all symbols used.
   - ☐ Scale shown on the plan
   - ☐ Complete legend including all symbols and abbreviations used

2. A complete site plan showing service location and all exterior lighting or other wiring.
   - ☐ Service/panel board locations are shown
   - ☐ All exterior lighting and other wiring shown

3. A complete plan showing the type and layout of equipment and wiring for each floor, and all rooms or spaces shall be identified on the plans.
   - ☐ Show all equipment i.e. A/C units (condensing and air handler units), water heaters, etc.
   - ☐ Show all receptacles for compliance with NEC 210.11(C)
   - ☐ Show all receptacles for compliance with all parts of NEC 210.52
   - ☐ Show receptacles for compliance with NEC 210.63
   - ☐ Show weather-resistant receptacles per NEC 406.9 and tamper-resistant receptacles per NEC 406.12.
   - ☐ Show all lighting outlets for compliance with NEC 210.70

4. The maximum available fault current as published by the utility company at the point of attachment of each service-entrance section shall be indicated on the plans.
   - ☐ Maximum available fault current as published on the latest utility company chart
   - ☐ Utility company and available fault current have been verified

5. Fault-current calculations from service-entrance section to lowest rated overcurrent device or equipment. NOTE: The Utility service conductors shall NOT be used for fault-current calculations.
   - ☐ Fault current calculations are shown on the plans
   - ☐ Fault current calculations are shown for all panelboards and sub-panels

For more information or for a copy of this publication in an alternate format, contact Planning & Development at 602-262-7811 voice or TTY use 7-1-1.

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6. Complete code load calculations for service equipment, switchboards and panelboards as computed in accordance with the National Electric Code or by other methods satisfactory to the Building Official.
   - ☐ Load calculation for the service that complies with NEC 220 parts II and III
   - ☐ Load calculation for each panelboard that complies with NEC 220 parts II and III
   - ☐ Required appliance nameplate ratings provided for optional calculation NEC 220.82
   - ☐ Required A/C nameplate ratings provided for optional calculation NEC 220.82
   - ☐ Required motor & AHU nameplate ratings provided for optional calculation NEC 220.82

7. The size and length of all service and feeder raceways.
   - ☐ Size of service conductors and all feeders including equipment grounds

8. The rating of every motor disconnecting device.
   - ☐ Provide disconnect size for all motors, HVAC equipment, water heaters, etc.
   - ☐ Identify all disconnects as fused or non-fused

9. The volt-ampere rating of each outlet, the actual nameplate data of the equipment served.
   - ☐ Provide the volt-ampere rating and the voltage for each range/oven or dryer outlets

10. Switchboard and panelboard schedules showing volt-ampere and/or ampere rating of feeders, branch circuits, spare and/or future circuits to be installed.
    - ☐ Provide AFCI protection for all outlets (receptacles, lighting, smoke detectors, etc.) in all areas covered by NEC 210.12
    - ☐ Provide GFCI protection for all receptacles to comply with NEC 210.8
    - ☐ Provide GFCI protection for hydro-massage bathtubs per NEC 680.71
    - ☐ Provide types and sizes for all branch circuit overcurrent devices
    - ☐ Provide conductor sizes for all branch circuits

11. One-line diagram of the complete electrical system, including service equipment, switchboards and panelboards showing equipment class, type and size, feeder sizes and arrangement of overcurrent devices to be installed.
    - ☐ Provide the main bonding jumper size
    - ☐ Provide the water and gas bond size
    - ☐ Provide all grounding electrodes and sizes of grounding electrode conductors
    - ☐ Provide the type and size of all main overcurrent devices
    - ☐ Provide the voltage and ampere rating of all equipment
    - ☐ Provide AIC ratings for all equipment with overcurrent devices and SCCR ratings for all equipment without an overcurrent device.
    - ☐ Show separate structure grounding to comply with NEC 250.32