DEVELOPMENT SERVICES – BUILDING INSPECTION

INSPECTION GUIDELINES:
ELECTRICAL CONVERSIONS

INSPECTION CODE: 107

SCOPE: RESIDENTIAL AND COMMERCIAL

APPLICABLE CODES: 2016 CBC, CRC, CPC, CMC, CEC, CALGreen, CEnC, and PAMC

The information provided in this document is general and intended as a guide only. Each project is unique and additional requirements may be enforced as deemed appropriate.

PERMITS

NOT REQUIRED IN THE FOLLOWING CONDITIONS (For Underground Districts Only)

☐ When existing service is un-tampered and has all the required City release tags and seals.

☐ When using existing equipment, it must have provision for underground feeds.

☐ Where a new underground feed is within 10’ of the existing equipment and requires no more than one conduit body, such as an LB, for connections there to.

REQUIRED IN THE FOLLOWING CONDITIONS

☐ When the service entrance location exceeds 10’ from the existing service location. A meter main shall be installed.

☐ When tampered, unsealed meters, or new equipment without permit is discovered.

☐ If un-permitted equipment is encountered, the property owner shall hire a licensed and qualified electrician to verify all work complies with the current California Electrical Code and the CPAU standards (see CPAU Standard Drawing SR-CN-U-1009).

RELOCATION OF ELECTRIC SERVICE AND OLD PANEL CONVERSION TO SUBPANEL

☐ The old panel shall be listed for such use. If the existing panel is not listed for use as a subpanel, a new panel shall be installed.

☐ The equipment grounds and the grounded conductors are required to be separated and require a separate bus bar.

☐ The water ground and grounding electrode conductor shall be removed from the old panel and installed at the new main electrical service.

☐ When the feeders are run in non-metallic conduit, an equipment grounding conductor shall be installed. (CEC 250-122)
COMMERCIAL INSTALLATIONS

☐ When the voltage is being changed, verify with CPAU that the meter base complies with their standards.

☐ Obtain short circuit current (fault condition) from CPAU Electric Engineering. The equipment must be listed at or above this value.

☐ Switchgears located outside shall have a phenolic label (red background with white lettering) listing the address.

☐ Label the service equipment with the short circuit current available; for example, “SSCA, 42,000A”. Mount the phenolic plaque on the face of the equipment. (CEC 90.4)

PRE-INSPECTION

☐ A pre-inspection is required at the jobsite prior to commencing work to verify that work will meet CEC and City of Palo Alto Utilities (CPAU) standards.

☐ A CPAU electric application must be completed for each conversion.

☐ Underground utilities will verify torque and duct seal is installed at underground conduit. Meter will be set and returned to service.

INSPECTION

☐ Verify that the CPAU Underground Electrical Inspector approved and placed a green sticker on the panel. (CPA Municipal Code)

☐ Ensure that the panel is secured.

☐ Provide the following working clearances: 36” in depth, 30” in width, and 6’-6” in height. (CEC 110.26)

☐ Check that the bonding and grounding are complete.

☐ Service entrance conductors shall be landed and torqued. (CEC 110.3 (B))

☐ Where conductors terminate at a mechanical lug, conductors shall be wire-brushed and coated with an approved anti-oxidant compound. (CEC 110.3 (B))

☐ Bollards shall be installed when electric equipment is subject to physical damage (see CPAU Standard Drawing SR-MT-E-1035).