Electrical Service Upgrades

These guidelines are to be followed when upgrading a main service panel in the County of Santa Cruz:

Commercial:
- All commercial electrical service panel upgrade applications that have any new wiring beyond the new service panel shall provide a minimum of 2 sets of plans designed by a State of California Licensed Electrical Contractor or a California Licensed Designer that include:
  1. A plot plan. The plot plan shall include the occupancy of the building, the construction type, the total building square footage and if the building has fire sprinklers or not. This page will also include the applicable California Electrical Code and California Energy Code in effect at the time of application.
  2. A floor plan with all walls, door openings, window openings, plumbing fixtures and mechanical equipment, existing and proposed, shall be shown.
  3. A complete electrical line diagram with all feeders, branch circuits, wire sizes, conduit sizes, any additional panel boards and a complete distribution schedule for phase and overcurrent protection.
  4. Any new lighting and/or mechanical work shall be identified and shown to comply with current codes including energy compliance documents.
  5. The panelboard shall be legibly marked with the maximum available fault current in accordance with Sec 110.24(A). 2016 CEC.
- Applications for service upgrades that have no new wiring and do not intend to have new wiring shall be issued over-the-counter. (Item #5 from the list above must be met for all commercial panelboards)
- Applications that include “future wiring” will not be issued without provisions 1-5 being met.

Residential:
- All residential electrical service panel upgrade applications equal to or greater than 400 amps and have any new wiring beyond the new service panel shall comply with items 1-4 above. 
  Exception: Panels being upgraded to no more than 400 amps to accommodate a solar photovoltaic back feed.
- All residential service panel upgrade applications less than 400 amps shall be issued over-the-counter and all new wiring and subordinate panels shall be included in the permit description and inspected.