



Department of Planning

GUIDANCE NOTE

GN0012 - January 2020

ELECTRICAL PLAN REVIEW SUBMISSION **COMMERCIAL and MULTI-FAMILY PROJECTS**

Purpose

The Department of Planning in an initiative to improve customer service has developed this Informational Bulletin to provide guidelines to aid the applicant with an electrical plan review submission for commercial and multi-family projects.

Scope

Electrical plan reviews are based on the adopted edition of the Electricity Law and Regulations, the National Electrical Code, and the Cayman Islands Building Code Regulations.

To ensure a thorough plan review, Electrical drawings must contain but are not limited to, the electrical requirements, details, and specifications listed below.

Site plan

- The site plan must coordinate with the latest planning approval.
- Site plans must show the location of utility pole/transformer(s), service equipment, service run, outdoor feeders, and outdoor circuits and equipment.

General notes, drawing index, legends, Lighting schedules, Equipment, and motor schedules

- Lighting fixture schedules must indicate the input VA, voltage, and rating of all fixtures in use.
- Legends must use standard recognized electrical symbols.
- The general notes must indicate the wiring methods of all circuits in use.

Floor Plan

- Wall Schedule
 - Hatching to coordinate with floor plan

- Wall construction (i.e. timber, masonry, ICF)
 - Label rated walls (if applicable)
 - Specification for listed assembly (if applicable)
 - Location of wall penetrations
- Enlarged ¼ inch = 1-foot floor plan details of fire pump rooms, electrical rooms, elevator equipment rooms, pool equipment rooms and mechanical equipment rooms shall be provided to verify working clearances and dedicated equipment space. NEC 110.26.
 - Routing of emergency feeders and circuits must be shown for assembly occupancies and buildings above 75ft. in height and shall comply with NEC 700.10(D).
 - All rooms and areas shall be label/identified on floor plans.
 - All circuits on floor plans must be identified (numbered) and related to the panel schedule.
 - Wiring methods within assembly areas shall be identified on floor plans and per NEC 518.
 - Wiring methods and equipment within Plenum areas shall be identified on floor plans and per NEC 300.22.
 - Wiring methods within Health Care Facilities shall be identified on floor plans and per NEC 517.

One-line/Riser Diagrams

- The one-line/riser diagram must show the size and type of all conduits, conductors, OCPDs, and rating of equipment for services and feeders. Insulation type for conductors and temperature rating of terminations shall be included.
- All connections to grounding electrodes must be shown on the riser.
- The type of service (underground or overhead) and the type of utility transformer (vault or pole mounted) must be represented on the riser.
- The length of the Tap feeders must be indicated when required.
- Electrical riser diagrams for swimming pools showing all circuits and equipment must be incorporated when in use.
- PV riser diagrams must be incorporated when connecting to the premises riser.

Panel Schedules

- Panel schedules must indicate the size and type of all circuit conductors, rating and type of OCPDs, voltage, number of phases, colour coding, AIC rating, and location of panel/equipment.
- Panel schedules must show all the circuit numbers correlated with the floor plans.
- Every circuit and circuit notification shall be legibly identified as to its clear, evident, and specific purpose or use as per NEC 408.4 and 110.22. Panel

schedule must not merely indicate "Lights" but rather "kitchen area lights", bedroom lights & receptacles, etc...

- Unused circuits shall be marked accordingly i.e. 'spare'. NEC 408.4.
- Connected VA per phase must be shown. Panels shall be as balanced as possible (within 10%). NEC 210.11(B).
- The Source of power shall be indicated as per NEC 408.4(B).

Calculations

- Calculations shall be provided for all feeders and services; such calculations shall show the area in square feet of the space(s) supplied by each feeder, the total calculated load before applying demand factors, the demand factor used, and the calculated load after applying demand factors. NEC 215.5 and 220.
- Short circuit calculations shall be provided and maximum available fault current shall be marked on service equipment. NEC 110.24.
- Data logger readings (if used) shall be following the latest Policy, see attached.

Additions, Alterations, Modification & Fit-outs

- For additions, alterations, modifications, and fit-outs of existing buildings and installations, the latest set of approved electrical drawings must be submitted as a reference on review.
- Additions, alterations, and modifications must be marked & identified by clouding or another evident manner.

Reference and demolition drawings (if needed)

- All demolition drawings must be accompanied by a letter clarifying the scope of work.

Note:

- *Drawings shall be legible, dimensioned and drawn to a scale of 1/8 inch = 1 foot or 1/4 inch = 1 foot.*
- *Equipment specifications may be requested from time to time.*
- *Details must be specific to the project and not a generic cut and paste.*
- *A letter must be submitted along with the plans for all Health Care Facilities. Such a letter must indicate the type of procedures that will be conducted and shall clarify the classification of each Patient Care Space (Basic, General, Critical, or Support).*
- *A letter must be submitted along with the plans for all warehouses and storage facilities indicating the type and amount of materials to be stored within the storage areas.*

The above information is intended to be a guide; refer to the most recent adopted codes and standards for other requirements as it pertains to your project.

For additional information, please email the Department of Planning at info@planning.gov.ky or call (345) 244-6501 or visit our website at www.planning.ky.