



**CITY OF CORAL SPRINGS
DEVELOPMENT SERVICES DEPARTMENT
BUILDING DIVISION**

The following plan review critique issues are the most frequent causes for tenant improvement permits to be rejected. If you or your design professional has any questions concerning these critique issues, please contact the appropriate discipline's contact person.

**TENANT IMPROVEMENT CRITIQUE LIST
FOR ELECTRICAL PLAN REVIEW**

Joseph E McCann, Chief Electrical Inspector

PHONE: 954-344-1054

FAX: 954-344-5948

E-MAIL: jem@coralsprings.org

1. Plans must be signed and sealed by the architect or engineer. 2001 FBC 104.6.3.7
2. Designer must hand write his/her signature. FS 471.025 and 481.221
3. Plans may also be designed, and signed by qualifier (EC, ER, EF, ET). Put qualifying numbers next to notarized signature. 2002 FBC 104.6.3.7 (ex)
4. An electrical permit is required when doing any type of electrical installation or renovation. 2001 FBC 101.4.3 & 104.2.5
5. Electrical plans are required when doing any type of electrical installation or renovation. 2001 FBC 104.6.2.1
6. AIC (fault current) calculations required for service equipment and AIC rating for equipment. 2001 FBC 104.6.8.1, 2002 NEC 110.9 & 110.10
7. Show total load, size and rating for main service. Service entrance conductors shall carry full loads as computed. 2002 NEC 250.50, 250.52 & FBC 104.6.4.8.1
8. Service grounding conductors not detailed or sized properly. 2002 NEC 250.50, 250.52 & FBC 104.6.4.8.1
9. Show total load for each panel. Show total load for service. Add total load correctly so service entrance conductors can be sized properly. 2001 FBC 104.6.4.8.1
10. Neutral conductor calculation required when not sized the same as current carrying conductors. 2002 NEC 310.15 (B)(6)
11. The calculation of a feeder or service load for existing installations shall be permitted to use actual maximum demand to determine the existing load under the following conditions:
 - a. The maximum demand data is available for (1) one year period.
 - b. The maximum demand 125% plus the new load does not exceed the ampacity of the feeder or rating of the service. 2002 NEC 220.35
12. Required to show detail for protection for service equipment, panels and any other live parts. 2002 NEC 110.27(B)

13. Ground-fault protection of equipment shall be provided for solidly grounded Wye electrical services of more than 150 volts to ground but not exceeding 600 volts phase-to-phase for each service disconnect, 1000 amps or more.
14. Grounding electrode conductor not sized properly. See note #1 exception #2 for parallel conductors. The equivalent size of the largest service-entrance conductor shall be determined by the largest sum of the areas of the corresponding conductors of each set. 2002 NEC 250.66
15. Equipment grounding conductor not sized properly. Where ungrounded conductors are increased in size, equipment grounding conductors, where installed, shall be increased in size proportionately according to circular mil area of the ungrounded conductors. 2002 NEC 250.122
16. Show main disconnect and sub-panel(s) on floor plans. 2001 FBC
17. Service disconnects (2-6) must be grouped in one location. 2002 NEC 225.34 & 230.72 (A)
18. Neutral conductor required to each service. 2002 NEC 250.24 (B)
19. Feeder taps not sized properly. 2002 NEC 225.33 & 230.71 (A)
20. Maximum number (6) disconnects allowed per service. 2002 NEC 225.33 & 230.71 (A)
21. Grounding electrode conductor not terminated correctly. The connection shall be made at any accessible point from the load end of the service drop or service lateral to and including the terminal or bus to which the grounded service conductor is connected at the service disconnecting means. 2002 NEC 250.24 (A)(1)
22. Show motor HP and load. 2002 NEC 220.14
23. Conductors not sized properly. 2002 NEC 310.15 & table 310.16
24. Conduits not sized properly. See the table on page 70-645 to select conduits to be sized. 2002 NEC Chapter 9 Annex (C)
25. Required to use adjusting factor for over 3 conductors in raceway. 2002 NEC 310.15 (B) (2)(A) Table
26. These circuits must be calculated for continuous duty load. Continuous duty load = 125% X the load of that circuit. 2002 NEC Definitions
27. Required to show circuitry (numbers) of all outlets, light, and any 1-Pole, 2-Pole, 3-Pole equipment. 2002 FBC 104.6.4.8.1
28. Panels considered “Lighting & Appliance Branch-Circuit Panel boards” must be individually protected with over-current protection on the supply side not greater than that of the panel board (panel). 2002 NEC 408.16 (A)
29. The branch circuit feeding EM lights shall be the same branch circuit as that serving the normal lighting in the area and connected ahead of any local switched. The branch circuit that feeds EM lights shall be clearly identified at the distribution panel. 2002 NEC 700.12 (E)
30. EM lighting required in all patient care areas. 2002 NEC 517.25
31. Each receptacle in other than dwelling units shall be calculated at not less than 180 V A per outlet. 2002 NEC 220.13

32. The first 10K V A or less demand factor X 100% Remainder over 10K V A X 50%. 2002 NEC 220.13 Demand Tables for Receptacles.
33. Branch-circuit conductors shall have an ampacity not less than the maximum load to be served. 2002 NEC 210.19 (A) (1)
34. A WP GFCI outlet shall be installed within 25' of REF/AC and Heat equipment and located at the same level as equipment. 2002 NEC 210.63
35. GFCI outlets required if receptacles are installed in commercial bathrooms. 2002 NEC 210.8 (B)(1)
36. For track light in other than dwelling units, an additional load of 150 VA shall be included for every 2' of lighting track or fraction thereof. 2002 NEC 220.12 (A)(B)
37. At least one receptacle outlet shall be installed directly above a show window for each 12' or major fraction thereof of show window area measured horizontally at its maximum width. For show window lighting, a load of not less than 200 VA/linear foot shall be included for show window measured horizontally along its base. 2002 NEC 210.62 & 220.12 (A)
38. Each commercial building and each commercial occupancy accessible to pedestrians shall be provided with at least one outlet in an accessible location at each entrance to each tenant space for sign(s). The outlet(s) shall be supplied by a 20A branch circuit that supplies no other load. Show load for sign(s) circuit(s). 2002 NEC 600.5 (A-C), 600.6
39. Show complete riser diagram, conduit wire main and panel sizes. 2001 FBC 104.6.4.8.1
40. Provide exit light at exit discharge access and corridors leading to exits. Chapter 10
41. Provide emergency light for enclosed stairways, enclosed corridors and at exits access and discharge (if possible). Chapter 10
42. Fire Alarm devices to meet Florida accessibility code (if applicable). FS 553.501
43. Provide fire alarms, pull stations, horns etc., when applicable. NFPA 72