WSR 26-16-078
PROPOSED RULES
DEPARTMENT OF
LABOR AND INDUSTRIES
[Order 25-31—Filed August 4, 2026, 3:02 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 26-01-100.

Title of Rule and Other Identifying Information: Chapter 296-46B WAC, Electrical safety standards, administration, and installation.

Hearing Location(s): On September 14, 2026, at 9:00 a.m., at the Department of Labor and Industries (L&I), 7273 Linderson Way S.W., Tumwater, WA 98501; or join electronically at https://lni-wa-gov.zoom.us/j/86070773859?pwd=CYHMiInCEIprRb2gp4PHvSckkdBmZa.1, Passcode ElectCA!1; or join by phone (audio only) 253-215-8782, Meeting ID 860 7077 3859, Passcode 432966118. The in-person and virtual/telephonic hearing starts at 9:00 a.m. and will continue until all oral comments are received.

Date of Intended Adoption: November 17, 2026.

Submit Written Comments to: Meagan Edwards, L&I, Customer Service, Compliance, and Public Safety Division, P.O. Box 44400, Olympia, WA 98504-4400, email CSCPSRules@Lni.wa.gov, fax 360-704-1980, beginning August 5, 2026, at 8:00 a.m., by September 14, 2026, at 5:00 p.m.

Assistance for Persons with Disabilities: Contact Meagan Edwards, phone 360-522-0125, fax 360-704-1980, email Meagan.Edwards@Lni.wa.gov, by August 31, 2026.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: L&I is proposing amendments to the electrical rules under chapter 296-46B WAC. L&I's electrical program reviewed the existing rules and adopted 2026 National Fire Protection Agency (NFPA) 70, National Electrical Code (NEC), to update rules for consistency with the latest national safety standards. NEC sets the standard for safe electrical design, installation, and inspection in homes, businesses, industry, and institutions to protect people and property from electrical hazards. The 2026 NEC replaces the current 2023 edition on December 31, 2026.

Washington's electrical industry stakeholders participated in the formal review process. A technical advisory committee of industry representatives and the state electrical board reviewed proposals and provided recommendations to L&I on adoption of the rules. This rule making proposes amendments from the formal review process.

New Sections:

WAC 296-46B-120 Branch circuit, feeder, and service calculations. Relocates existing requirements from WAC 296-46B-220 to new section and amends code references for consistency with the 2026 NEC, Article 120.

WAC 296-46B-268 Services over 1000 volts ac, 1500 volts dc, nominal. Relocates existing requirements under WAC 296-46B-235 to new section for consistency with the 2026 NEC, Article 268. Additional amendments include amending the title to align with the 2026 NEC; and clarifying the exception for wiring methods allowed by the 2026 NEC.

WAC 296-46B-706 Energy storage systems. Requires system design reviews for energy storage installations.

Amended Sections:

WAC 296-46B-100 General definitions. Amends the definition of "equivalent apprenticeship program" to further clarify its meaning.

WAC 296-46B-210 Branch circuits not over 1,000 volts ac, 1,500 volts dc nominal.

- Clarifies that fixed electrical equipment with exposed grounded metal parts in areas subject to shower spray must have ground fault circuit interrupter (GFCI) protection to address a new bathroom design.
- Adds new language to provide an exception to new GFCI requirements for listed heating, ventilation, and air conditioning (HVAC) equipment in the 2026 NEC until June 30, 2028, to allow more time for compliance.
- Modifies language for general housekeeping. This includes: Adding a new subsection to allow an exception to the 2026 NEC requirements for GFCI protection requirements for listed HVAC equipment until June 30, 2028; and amending subsection numbers for formatting.

WAC 296-46B-230 Services. Amends the section title and code references for consistency with 2026 NEC.

WAC 296-46B-450 Transformers and transformer vaults (including secondary ties). Amends the 2026 NEC, Article 450(b) requirements related to locations for transformer installations on a building/structure for clarity and consistency with current building code standard terms.

WAC 296-46B-517 Health care facilities. Amends references for consistency with the 2026 NEC.

WAC 296-46B-550 Mobile homes, manufactured homes and mobile home parks. Amends subtitles for consistency with the 2026 NEC.

WAC 296-46B-800 General requirements for communications systems outside and entering buildings. Amends the title for consistency with the 2026 NEC.

WAC 296-46B-900 Electrical plan review. Amends code references for consistency with the 2026 NEC; and converts numbers written in words to the numeral for consistency with WAC style guidelines.

Repealed Sections:

WAC 296-46B-220 Branch circuit, feeder, and service calculations. Repeals the rule to relocate requirements under new WAC 296-46B-120 to align with the 2026 NEC, Article 120.

WAC 296-46B-235 Branch circuits, feeders, and services over 1,000 volts ac, 1,500 volts dc nominal. Repeals the rule and relocates the existing requirements to new WAC 296-46B-268 for consistency with the 2026 NEC.

Reasons Supporting Proposal: This rule making is necessary to ensure the electrical rules align with the latest safety codes that affect electrical work and are consistent with other states that regulate the industry for public safety.

Statutory Authority for Adoption: Chapter 19.28 RCW, Electricians and electrical installations, including RCW 19.28.031 and 19.28.251.

Statute Being Implemented: Chapter 19.28 RCW, Electricians and electrical installations, including RCW 19.28.031 and 19.28.251.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: L&I, governmental.

Name of Agency Personnel Responsible for Drafting: Randy Barnes, Program Manager, Tumwater, Washington, 509-735-0931; Implementation and Enforcement: Jennifer Williams, Assistant Director, Tumwater, Washington, 360-701-9504.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Meagan Edwards, L&I, Customer Service, Compliance, and Public Safety, P.O. Box 44400, Olympia, WA 98504-4400, phone 360-522-0125, fax 360-704-1980, email CSCPSRules@Lni.wa.gov.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules are adopting or incorporating by reference without material change federal statutes or regulations, Washington state statutes, rules of other Washington state agencies, shoreline master programs other than those programs governing shorelines of statewide significance, or, as referenced by Washington state law, national consensus codes that generally establish industry standards, if the material adopted or incorporated regulates the same subject matter and conduct as the adopting or incorporating rule; and rules only correct typographical errors, make address or name changes, or clarify language of a rule without changing its effect.

Scope of exemption for rule proposal:

Is partially exempt:

Explanation of partial exemptions:

	Proposed WAC Sections and Title	This proposed rule section is *not exempt*- Analysis is required	This proposed rule section *is exempt.* Provide RCW to support this exemption.
1.	WAC 296-46B-100 General definitions.	□	This section is exempt under RCW 34.05.310 (4)(d) because it adopts changes that clarify language of a rule without changing the substance or effect of requirements.
2.	WAC 296-46B-120 Branch circuit, feeder, and service calculations.	□	This section is exempt under RCW 34.05.310 (4)(c) because it adopts national consensus codes that generally establish industry.
3.	WAC 296-46B-210 Branch circuits not over 1,000 volts ac, 1,500 volts dc nominal.	X	
4.	WAC 296-46B-220 Branch circuit, feeder, and service calculations. (Repealer)	□	This section is exempt under RCW 34.05.310 (4)(d) because it adopts changes that clarify language of a rule without changing the substance or effect of requirements.
5.	WAC 296-46B-230 Services.	□	This section is exempt under RCW 34.05.310 (4)(c) because it adopts national consensus codes that generally establish industry standards without changing the substance or effect of requirements.
6.	WAC 296-46B-235 Branch circuits, feeders, and services over 1,000 volts ac, 1,500 volts dc nominal. (Repealer)	□	This section is exempt under RCW 34.05.310 (4)(d) because it adopts changes that clarify language of a rule without changing the substance or effect of requirements.
7.	WAC 296-46B-268 Wiring and protection—Grounding and bonding.	□	This section is exempt under RCW 34.05.310 (4)(c) because it adopts national consensus codes that generally establish industry standards.
8.	WAC 296-46B-450 Transformers and transformer vaults (including secondary ties).	□	This section is exempt under RCW 34.05.310 (4)(c) and 34.05.310 (4)(d) because it adopts national consensus codes that generally establish industry standards and changes that only clarify language of a rule without changing the substance or effect of requirements.

	Proposed WAC Sections and Title	This proposed rule section is *not exempt*- Analysis is required	This proposed rule section *is exempt.* Provide RCW to support this exemption.
9.	WAC 296-46B-517 Health care facilities.	□	This section is exempt under RCW 34.05.310 (4)(c) because it adopts national consensus codes that generally establish industry standards without changing the substance or effect of requirements.
10.	WAC 296-46B-550 Mobile homes, manufactured homes and mobile home parks.	□	This section is exempt under RCW 34.05.310 (4)(c) because it adopts national consensus codes that generally establish industry standards without changing the substance or effect of requirements.
11.	WAC 296-46B-706 Energy storage systems.	X	
12.	WAC 296-46B-800 General requirements for communications systems outside and entering buildings.	□	This section is exempt under RCW 34.05.310 (4)(c) because it adopts national consensus codes that generally establish industry standards without changing the substance or effect of requirements.
13.	WAC 296-46B-900 Electrical plan review.	□	This section is exempt under RCW 34.05.310 (4)(c) and 34.05.310 (4)(d) because it adopts national consensus codes that generally establish industry standards and changes that only clarify language of a rule without changing the substance or effect of requirements.

The proposed rule does not impose more-than-minor costs on businesses. Following is a summary of the agency's analysis showing how costs were calculated. Most of the proposed rule changes are exempt from the small business economic impact statement (SBEIS) under RCW 19.85.025. Those changes that are not exempt from the SBEIS requirement include:

- Clarifying that fixed electrical equipment with exposed grounded metal parts in areas subject to shower spray must have GFCI protection.
- Allowing an exception to the 2026 NEC requirements for GFCI protection for listed HVAC equipment until June 30, 2028.
- Requiring system design reviews for energy storage installations and having them available on the installation site until the inspection process is complete.

According to the Regulatory Fairness Act under RCW 19.85.030, an agency shall prepare an SBEIS: (i) If the proposed rule will impose more-than-minor costs on businesses in an industry; or (ii) if requested to do so by a majority vote of the joint administrative rules review committee within 45 days of receiving the notice of proposed rule making under RCW 34.05.320. As this rule is not expected to impose any costs, an SBEIS is not required.

August 4, 2026
Joel Sacks
Director

RDS-7227.3

AMENDATORY SECTION (Amending WSR 24-05-085, filed 2/21/24, effective 4/1/24)

WAC 296-46B-100 General definitions. All definitions listed in the National Electrical Code and chapter 19.28 RCW are recognized in this chapter unless other specific definitions are given in this chapter and chapter 19.28 RCW. The definitions in this section apply to all parts of this chapter. Some sections may have definitions specific to that section.

"Accreditation" is a determination by the department that a laboratory meets the requirements of this chapter and is therefore authorized to evaluate electrical products that are for sale in the state of Washington.

"Administrative law judge" means an administrative law judge (ALJ) appointed pursuant to chapter 34.12 RCW and serving in board proceedings pursuant to chapter 19.28 RCW and this chapter.

"ANSI" means American National Standards Institute. Copies of ANSI standards are available from the National Conference of States on Building Codes and Standards, Inc.

"Appeal" is a request for review of a department action by the board as authorized by chapter 19.28 RCW.

"Appellant" means any person, firm, partnership, corporation, or other entity that has filed an appeal or request for board review.

"Appliance" means household appliance.

"ASTM" means the American Society for Testing and Materials. Copies of ASTM documents are available from ASTM International.

"AWG" means American Wire Gauge.

"Basement" means that portion of a building that is partly or completely below grade plane. A basement will be considered as a story above grade plane and not a basement where the finished surface of the floor above the basement is:

(a) More than six feet above grade plane;

(b) More than six feet above the finished ground level for more than 50 percent of the total building perimeter; or

(c) More than 12 feet above the finished ground level at any point. Also see "mezzanine" and "story."

"Board" means the electrical board established and authorized under chapter 19.28 RCW.

"Category list" is a list of manufacturing safety standards or product types determined by the department.

A "certified electrical product" is an electrical product to which a laboratory, accredited by the state of Washington, has the laboratory's certification mark attached.

A "certification mark" is a specified laboratory label, symbol, or other identifying mark that indicates the manufacturer produced the product in compliance with appropriate standards or that the product has been tested for specific end uses.

"Certificate of competency" includes the certificates of competency for master journey level electrician, master specialty electrician, journey level, and specialty electrician.

A laboratory "certification program" is a specified set of testing, inspection, and quality assurance procedures, including appropriate implementing authority, regulating the evaluation of electrical products for certification marking by an electrical products certification laboratory.

A "complete application" includes the submission of all appropriate fees, documentation, and forms.

"Chapter" means chapter 296-46B WAC unless expressly used for separate reference.

"Construction," for the purposes of chapter 19.28 RCW, means electrical construction.

"Coordination (selective)" as defined in NEC 100 must be determined and documented by a professional engineer registered under chapter 18.43 RCW.

"Department" means the department of labor and industries of the state of Washington.

"Director" means the director of the department, or the director's designee.

"Egress - Unobstructed (as applied to NEC 110.26 (C)(2)(a))" means an egress path that allows a worker to travel to the exit from any other area in the room containing the equipment described in NEC 110.26 (C)(2) without having to pass through that equipment's required working space.

"Electrical equipment" includes electrical conductors, conduit, raceway, apparatus, materials, components, and other electrical equipment not exempted by RCW 19.28.006(9). Any conduit/raceway of a type listed for electrical use is considered to be electrical equipment even if no wiring is installed in the conduit/raceway at the time of the conduit/raceway installation.

An "electrical products certification laboratory" is a laboratory or firm accredited by the state of Washington to perform certification of electrical products.

An "electrical products evaluation laboratory" is a laboratory or firm accredited by the state of Washington to perform on-site field evaluation of electrical products for safety.

An "equivalent apprenticeship program" for the purposes of RCW 19.28.161 (2)(a)(i) and 19.28.191 (1)(c)(ii), means one that is party to a reciprocal agreement recognized by the Washington state apprenticeship and training council (WSATC) under WAC 296-05-011(3).

"Field evaluated" means an electrical product to which a field evaluation mark is attached. Field evaluation must include job site inspection unless waived by the department, and may include component sampling and/or laboratory testing.

"Field evaluation mark" is a specified laboratory label, symbol, or other identifying mark indicating the manufacturer produced the product in essential compliance with appropriate standards or that the product has been evaluated for specific end uses.

A "field evaluation program" is a specified set of testing, inspection, and quality assurance procedures, including appropriate implementing authority regulating the testing and evaluation of electrical products for field evaluation marking.

The "filing" is the date the document is actually received in the office of the chief electrical inspector.

"Final judgment" means any money that is owed to the department under this chapter, including fees and penalties, or any money that is owed to the department as a result of an individual's or contractor's unsuccessful appeal of a citation.

"Fished wiring" is when cable or conduit is installed within the finished surfaces of an existing building or building structure (e.g., wall, floor or ceiling cavity).

"Household appliance" means utilization equipment installed in a dwelling unit that is built in standardized sizes or types and is installed or connected as a unit to perform one or more household functions such as food preparation, cooking, and cleaning. Includes appli-

ances typically installed in a dwelling unit kitchen, clothes washing, drying, and water heating appliances, portable room air conditioning units and portable heaters, etc. Fixed electric space-heating equipment covered in NEC 424 (furnaces, baseboard and wall heaters, electric heat cable, etc.) and fixed air-conditioning/heat pump equipment (NEC 440) are not household appliances. Household appliance does not mean any utilization equipment that:

(a) Supplies electrical power, other than Class 2, to other utilization equipment; or

(b) Receives electrical power, other than Class 2, through other utilization equipment.

HVAC/refrigeration specific definitions:

(a) "HVAC/refrigeration" means heating, ventilation, air conditioning, and refrigeration.

(b) "HVAC/refrigeration component" means electrical power and limited energy components within the "HVAC/refrigeration system," including, but not limited to: Pumps, compressors, motors, heating coils, controls, switches, thermostats, humidistats, low-voltage damper controls, outdoor sensing controls, outside air dampers, standalone duct smoke detectors, air monitoring devices, zone control valves and equipment for monitoring of HVAC/refrigeration control panels and low-voltage connections. This definition excludes equipment and components of non-"HVAC/refrigeration control systems."

(c) "HVAC/refrigeration control panel" means an enclosed, manufactured assembly of electrical components designed specifically for the control of a HVAC/refrigeration system. Line voltage equipment that has low voltage, NEC Class 2 control or monitoring components incidental to the designed purpose of the equipment is not an HVAC/refrigeration control panel (e.g., combination starters).

(d) "HVAC/refrigeration control system" means a network system regulating and/or monitoring a HVAC/refrigeration system. Equipment of a HVAC/refrigeration control system includes, but is not limited to: Control panels, data centers, relays, contactors, sensors, and cables related to the monitoring and control of a HVAC/refrigeration system(s).

(e) "HVAC/refrigeration equipment" means the central unit primary to the function of the "HVAC/refrigeration system." HVAC/refrigeration includes, but is not limited to: Heat pumps, swamp coolers, furnaces, compressor packages, and boilers.

(f) "HVAC/refrigeration system" means a system of HVAC/refrigeration: Wiring, equipment, and components integrated to generate, deliver, or control heated, cooled, filtered, refrigerated, or conditioned air. This definition excludes non-HVAC/refrigeration control systems (e.g., fire alarm systems, intercom systems, building energy management systems, and similar non-HVAC/refrigeration systems).

"IBC" means the International Building Code. Copies of the IBC are available from the International Code Council.

An "individual" or "party" or "person" means an individual, firm, partnership, corporation, association, government subdivision or unit thereof, or other entity.

An "installation" includes the act of installing, connecting, repairing, modifying, or otherwise performing work on an electrical system, component, equipment, or wire except as exempted by WAC 296-46B-925. An installation is not the passive testing or operational programming of an electrical system, component, equipment, or wire. See "passive testing."

An "identification plate" is suitable for the environment and is a printed or etched adhesive label approved by the department or a phenolic or metallic plate or other similar material engraved in block letters at least 1/4 inch high unless specifically required to be larger by this chapter, suitable for the environment and application. The letters and the background must be in contrasting colors. Screws, rivets, permanent adhesive, or methods specifically described in this chapter must be used to affix an identification plate to the equipment or enclosure.

"Job site" means a specific worksite having a single address or specific physical location (e.g., a single-family residence, a building, a structure, a marina, an individual apartment building with a specific address, etc.).

"Journey level electrician" means a person who has been issued a journey level electrician certificate of competency by the department. The terms "journey level" and "journeyperson" in chapter 19.28 RCW are synonymous.

"Labeled" means an electrical product that bears a certification mark issued by a laboratory accredited by the state of Washington.

A "laboratory" may be either an electrical product(s) certification laboratory or an electrical product(s) evaluation laboratory.

A "laboratory operations control manual" is a document to establish laboratory operation procedures and may include a laboratory quality control manual.

"License" means a license required under chapter 19.28 RCW.

"Like-in-kind" means having the same overcurrent protection requirements and similar characteristics such as voltage requirement, current draw, short circuit characteristics, and function within the system and being in the same location. Like-in-kind also includes any equipment component authorized by the manufacturer as a suitable component replacement part.

For the purpose of WAC 296-46B-940, a "lineworker" is a person employed by a serving electrical utility or employed by a licensed general electrical contractor who carries, on their person, evidence that they:

(a) Have graduated from a department-approved lineworker's apprenticeship course; or

(b) Are currently registered in a department-approved lineworker's apprenticeship course and are working under the direct 100 percent supervision of a journey level electrician or a graduate of a lineworker's apprenticeship course approved by the department. The training received in the lineworker's apprenticeship program must include training in applicable articles of the currently adopted National Electrical Code.

"Listed" means equipment has been listed and identified by a laboratory approved by the state of Washington for the appropriate equipment standard per this chapter.

"Low voltage" means:

(a) NEC, Class 1 power limited circuits at 30 volts maximum.

(b) NEC, Class 2 circuits powered by a Class 2 power supply as defined in NEC 725.60(A).

(c) NEC, Class 3 circuits powered by a Class 3 power supply as defined in NEC 725.60(A).

(d) Circuits of telecommunications systems as defined in chapter 19.28 RCW.

"Member of the firm" means the member(s) on file with the department of licensing for sole proprietorships/partnerships or with the secretary of state for corporations.

"Mezzanine" is the intermediate level or levels between the floor and ceiling of any story with an aggregate floor area of not more than one-third of the area of the room or space in which the level or levels are located. Also see "basement" and "story."

"NEC" means National Electrical Code. Copies of the NEC are available from the National Fire Protection Association.

"NEMA" means National Electrical Manufacturer's Association. Copies of NEMA standards are available from the National Electrical Manufacturer's Association.

"NESC" means National Electrical Safety Code. Copies of the NESC are available from the Institute of Electrical and Electronics Engineers, Inc.

"NETA" means International Electrical Testing Association, Inc. Copies of the NETA standards and information are available from the International Electrical Testing Association, Inc.

"NFPA" means the National Fire Protection Association. Copies of NFPA documents are available from the National Fire Protection Association.

"NRTL" means Nationally Recognized Testing Laboratory accredited by the federal Occupational Safety and Health Administration (OSHA) after meeting the requirements of 29 C.F.R. 1910.7.

A "new building" for the purposes of RCW 19.28.261 includes the setting of a manufactured, mobile, or modular building.

"Passive testing" (e.g., pressing of test buttons, use of testing equipment like voltage testers, clamp-on meters, removal of a device head where the wiring is terminated on a separate base plate, etc.) means testing that does not require any:

(a) Physical modification to the electrical system wiring; or

(b) Wiring to be disconnected or terminated, except as necessary for an approved electrical testing laboratory or approved engineer performing an equipment evaluation.

"Point of contact" or "point of connection" means the service point.

"Proceeding" means any matter regarding an appeal before the board including hearings before an administrative law judge.

"Public area or square" is an area where the public has general, clear, and unrestricted access.

A "quality control manual" is a document to maintain the quality control of the laboratory's method of operation. It consists of specified procedures and information for each test method responding to the requirements of the product standard. Specific information must be provided for portions of individual test methods when needed to comply with the standard's criteria or otherwise support the laboratory's operation.

"RCW" means the Revised Code of Washington. Electronic copies of electrical RCW are available from the department and the office of the code reviser (https://leg.wa.gov/codereviser).

"Readily accessible" means the definition as defined in NEC 100. In addition, it means that, except for keys, no tools or other devices are necessary to gain access (e.g., covers secured with screws, etc.).

"Service" or "served" means that as defined in RCW 34.05.010(19) when used in relation to department actions or proceedings.

A "sign," when required by the NEC, for use as an identification method (e.g., legibly marked, legible warning notice, marked, field

marked, permanent plaque/directory, etc.) means "identification plate."

A "stand-alone amplified sound or public address system" is a system that has distinct wiring and equipment for audio signal generation, recording, processing, amplification, and reproduction. This definition does not apply to telecommunications installations.

"Story" is that portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above. Next above means vertically and not necessarily directly above. Also see "basement" and "mezzanine."

"Structure," for the purposes of this chapter and in addition to the definition in the NEC, means something constructed either in the field or factory that is used or intended for supporting or sheltering any use or occupancy as defined by the IBC.

"Supervision" for the purpose of supervising electrical trainees, means that the appropriately certified supervising electrician is on the same job site as the trainee being supervised. The trainee is not considered to be on the same job site if the supervising electrician and the trainee are working:

(a) In separate buildings at a single address (e.g., a campus, multibuilding industrial complex, multibuilding apartment complex, etc.) except for a single-family residence; or

(b) On an outdoor project (e.g., irrigation system, farm, street lighting, traffic signalization, etc.) where the trainee is more than 1,000 feet from the supervising electrician or where the trainee is more than 200 feet from the supervising electrician and out of sight.

"System design review" means a set of design documents that include the manufacturer's installation information, a legible one-line diagram of the system design, and calculations used to determine voltage and current within the system. The one-line diagram must show the system equipment, devices, overcurrent protection, conductor sizing, grounding, ground fault protection if required, and any system interconnection points. The review must be available to the inspector during all inspections.

A "telecommunications local service provider" is a regulated or unregulated (e.g., by the Federal Communications Commission or the utilities and transportation commission as a telephone or telecommunications provider) firm providing telecommunications service ahead of the telecommunications network demarcation point to an end-user's facilities.

"TIA/EIA" means the Telecommunications Industries Association/Electronic Industries Association which publishes the TIA/EIA Telecommunications Building Wiring Standards. Standards and publications are adopted by TIA/EIA in accordance with the American National Standards Institute (ANSI) patent policy.

A "training school" is a Washington public community or technical college or not-for-profit nationally accredited technical or trade school licensed by the work force training and education coordinating board under chapter 28C.10 RCW.

"Under the control of a utility" for the purposes of RCW 19.28.091 and 19.28.101 is when electrical equipment is not owned by a utility and:

(a) Is located in a vault, room, closet, or similar enclosure that is secured by a lock or seal so that access is restricted to the utility's personnel; or

(b) The utility is obligated by contract to maintain the equipment and the contract provides that access to the equipment is restricted to the utility's personnel or other qualified personnel.

"UL" means Underwriters Laboratory.

"Utility" means an electrical utility.

"Utility system" means electrical equipment owned by or under the control of a serving utility that is used for the transmission or distribution of electricity from the source of supply to the point of contact and is defined in section 90.2 (b)(5) of the National Electrical Code, 1981 edition (see RCW 19.28.010(1)).

"Utilization voltage" means the voltage level employed by the utility's customer for connection to lighting fixtures, motors, heaters, or other electrically operated equipment other than power transformers.

"Variance" is a modification of the electrical requirements as adopted in chapter 19.28 RCW or any other requirements of this chapter that may be approved by the chief electrical inspector if assured that equivalent objectives can be achieved by establishing and maintaining effective safety.

"WAC" means the Washington Administrative Code. Electronic copies of this chapter of the WAC are available from the department and the office of the code reviser (https://leg.wa.gov/codereviser).

NEW SECTION

WAC 296-46B-120 Branch circuit, feeder, and service calculations.

042 Lighting load calculations.

In determining feeder and service entrance conductor sizes and equipment ratings, a building that is designed and constructed to comply with the currently adopted Washington state energy code unit lighting power allowance table and footnotes may be used in lieu of NEC 120.42. The requirements of NEC 120.42(B), items 1, 2, and 3 do not apply.

AMENDATORY SECTION (Amending WSR 24-05-085, filed 2/21/24, effective 4/1/24)

WAC 296-46B-210 Branch circuits not over 1,000 volts ac, 1,500 volts dc nominal.

008(A) Dwelling units GFCI requirements.

(1) In a garage or unfinished basement, a red receptacle, with a red cover plate, supplying a fire alarm system is not required to have ground-fault circuit-interrupter protection. The receptacle must be identified for use only with the fire alarm system by an identification plate or engraved cover with letters at least 1/4 inch high.

(2) All fixed electrical equipment with exposed grounded metal parts within an enclosed shower area or within five feet of the top inside edge of a bathtub or area subject to spray from a shower must have ground fault circuit interrupter protection.

008(B) Other than dwelling units - GFCI requirements.

(3) GFCI requirements. GFCI protection for personnel will not be required for:

(a) Three-phase receptacles unless specifically required elsewhere in the NEC; or

(b) Receptacles other than 125-volt, single phase, 15- or 20-ampere used for: Recreational vehicle supply equipment or for attachment of a mobile home supply cord.

For the purposes of NEC 210.8(B), kitchen means any area where utensils, dishes, etc., are cleaned or where food or beverages are prepared or cooked.

008(F) Outdoor outlets.

(4) For the purposes of 2026 NEC 210.8(F), GFCI protection shall not be required for listed HVAC equipment. This exception expires on June 30, 2028.

011 Branch circuits.

((~~(4)~~)) (5) A raceway system or one dedicated 15-ampere minimum, 120 volt circuit must be taken to all unfinished space areas adaptable to future dwelling unit living areas that are not readily accessible to the service or branch circuit panelboard. One circuit or raceway is required for each 480 square feet or less of unfinished space area. If the total adjacent unfinished space area is less than 480 square feet, the circuit can be an extension of an existing circuit. The circuits must terminate in a suitable box(es). The box must contain an identification of the intended purpose of the circuit(s). The branch circuit panelboard must have adequate space and capacity for the intended load(s).

013 Ground fault protection of equipment.

((~~(5)~~)) (6) Equipment ground fault protection systems required by the NEC must be tested prior to being placed into service to verify proper installation and operation of the system as determined by the manufacturer's published instructions. A firm having qualified personnel and proper equipment must perform the tests required. A copy of the manufacturer's performance testing instructions and a written performance acceptance test record signed by the person performing the test must be available at the time of inspection. The performance acceptance test record must include test details including, but not limited to, all trip settings and measurements taken during the test.

025 Common area branch circuits.

((~~(6)~~)) (7) For the purpose of NEC 210.25, loads for septic or water well systems that are shared by no more than two dwelling units may be supplied from either of the two dwelling units if approved by the local building official and local health department.

052 (A)(2) Dwelling unit receptacle outlets.

((~~(7)~~)) (8) For the purpose of NEC 210.52 (A)(2)(1), "similar openings" include the following configurations that are a permanent part of the dwelling configuration or finish:

(a) Window seating; and

(b) Bookcases or cabinets that extend from the floor to a level at least five feet six inches above the floor.

Any outlets eliminated by such window seating, bookcases, or cabinets must be installed elsewhere within the room.

052 (C)(2) Island and peninsular countertop and work surfaces.

((~~(8)~~)) (9) If receptacle outlets are not installed to serve an island or peninsular countertop or work surface, no future provisions to do so are required.

063 Equipment requiring servicing.

((~~(9)~~)) (10) For the purposes of NEC 210.63, when equipment requiring servicing is located outdoors, accessible locations for receptacle outlets do not include locations accessed through doors or windows.

AMENDATORY SECTION (Amending WSR 24-05-085, filed 2/21/24, effective 4/1/24)

WAC 296-46B-230 Services.

001 General service requirements.

(1) The owner, the owner's agent, or the electrical contractor making the installation must consult the serving utility regarding the utility's service entrance requirements for equipment location and meter equipment requirements before installing the service and equipment. Provisions for a meter and related equipment, an attachment of a service drop, or an underground service lateral must be made at a location acceptable to the serving utility. The point of contact for a service drop must permit the clearances required by the NEC.

(2) A firewall must have a minimum two-hour rating as defined by the local building official to be considered a building separation in accordance with Article 100 NEC.

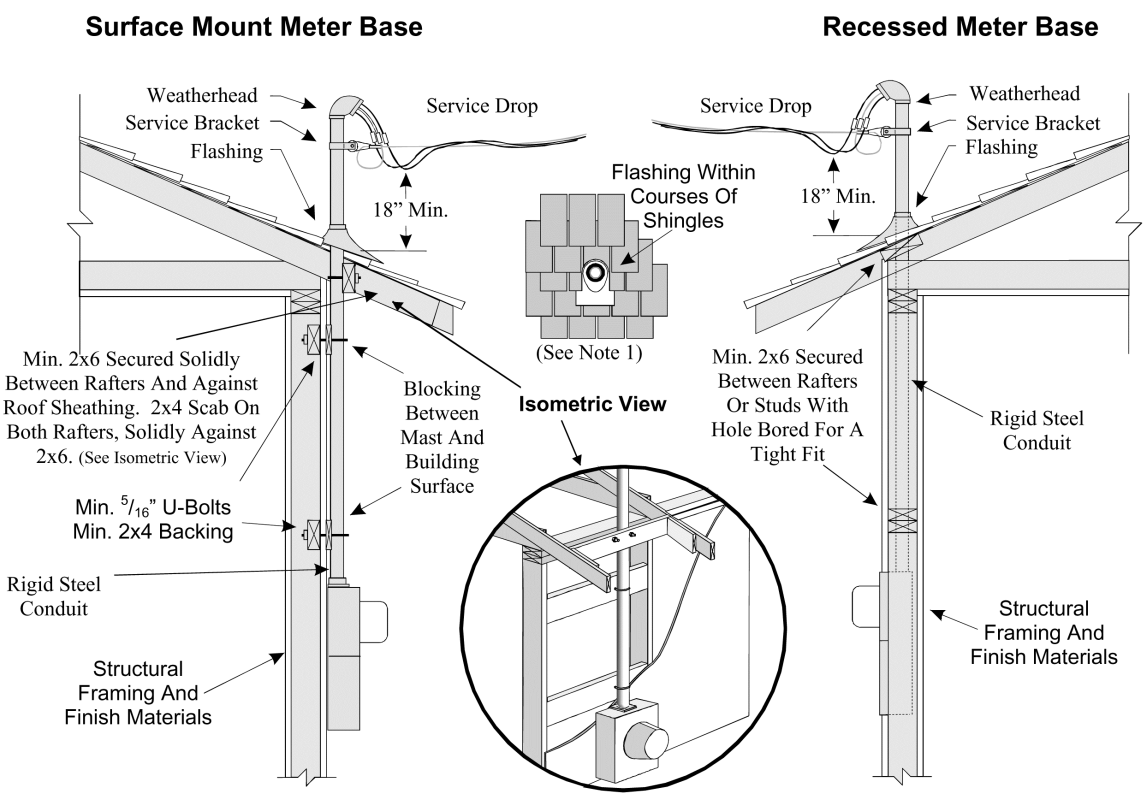
(3) The height of the center of the service meter must be as required by the serving utility. Secondary instrument transformer metering conductor(s) are not permitted in the service raceway.

028 Service or other masts.

(4) Conduit extended through the roof to provide means of attaching:

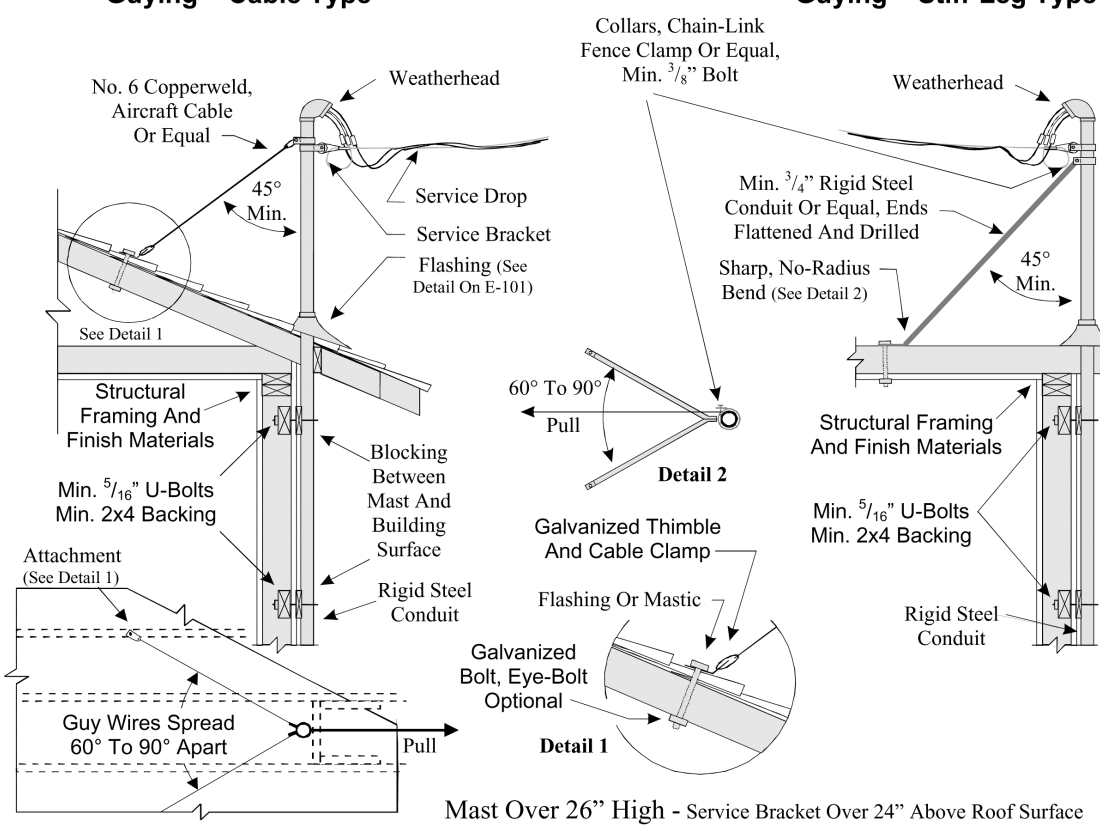
(a) All overhead drops for service, feeder, or branch circuits exceeding #1 AWG aluminum or #3 AWG copper must be rigid steel galvanized conduit no smaller than two inches.

(b) All overhead drops for service, feeder or branch circuits not exceeding #1 AWG aluminum or #3 AWG copper must be rigid steel galvanized conduit no smaller than 1 1/4 inches. The installation must comply with drawings E-101 and/or E-102, or must provide equivalent strength by other approved means. Masts for altered or relocated installations will be permitted to comply with drawing E-103.

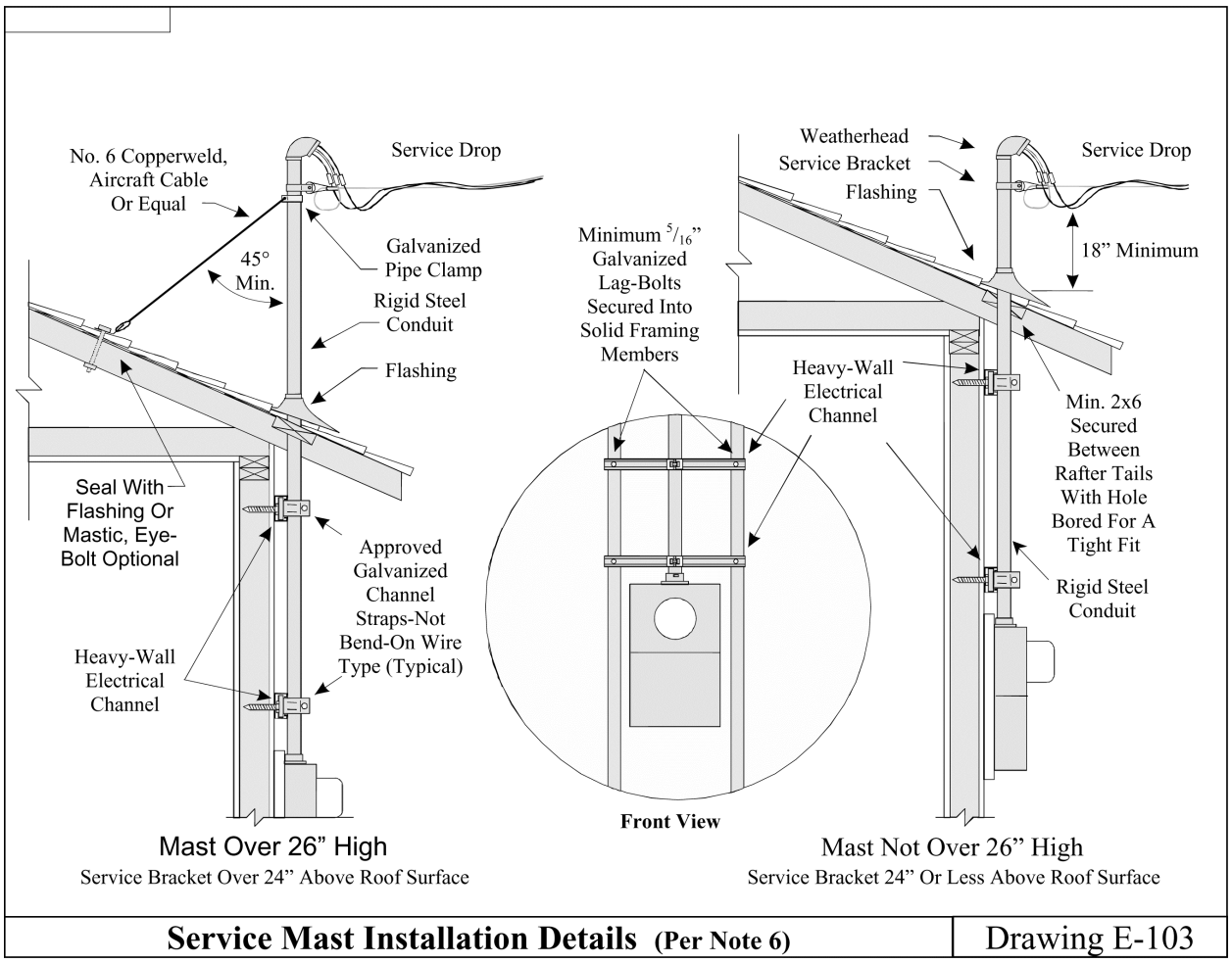


Mast Not Over 26" High - Service Bracket 24" Or Less Above Roof Surface

Service Mast Installation Details	Drawing E-101



Service Mast Installation Details	Drawing E-102



Service Mast Installation Details (Per Note 6) | Drawing E-103

Notes to drawings E-101, E-102, and E-103

(1) An approved roof flashing must be installed on each mast where it passes through a roof. Plastic, nonhardening mastic must be placed between lead-type flashings and the conduit. Neoprene type flashings will also be permitted to be used.

(2) Masts must be braced, secured, and supported in such a manner that no pressure from the attached conductors will be exerted on a roof flashing, meter base, or other enclosures.

(3) Utilization of couplings for a mast is permitted only below the point the mast is braced, secured, or supported. There must be a minimum of two means of support above any couplings used. A properly installed cable or stiff leg type support qualifies as one of the two required means of support.

(4) Except as otherwise required by the serving utility, service mast support guys must be installed if the service drop attaches to the mast more than 24 inches above the roof line or if the service drop is greater than 100 feet in length from the pole or support. Masts for support of other than service drops must comply with this requirement as well.

(5) Intermediate support masts must be installed in an approved manner with methods identical or equal to those required for service masts.

(6) For altered services, where it is impractical to install U bolt mast supports due to interior walls remaining closed, it will be permissible to use other alternate mast support methods such as

heavy gauge, galvanized, electrical channel material that is secured to two or more wooden studs with 5/16 inch diameter or larger galvanized lag bolts.

(7) Conductors must extend at least 18 inches from all mastheads to permit connection to the connecting overhead wiring.

040 Service conductors - Two-family and multiple-occupancy buildings.

(5) Two-family and multiple-occupancy buildings. A second or additional service drop or lateral to a building having more than one occupancy will be permitted to be installed at a location separate from other service drops or laterals to the building provided that all the following conditions are complied with:

(a) Each service drop or lateral must be sized in accordance with the NEC for the calculated load to be served by the conductors;

(b) Each service drop or lateral must terminate in listed metering/service equipment;

(c) Each occupant must have access to the occupant's service disconnecting means;

(d) No more than six service disconnects may be supplied from a single transformer;

(e) All service drops or laterals supplying a building must originate at the same transformer or power supply;

(f) A permanent identification plate must be placed at each service disconnect location that identifies all other service disconnect locations in or on the building, the area or units served by each, the total number of service disconnecting means on the building/structure and the area or units served. If a structure consists of multiple buildings (i.e., by virtue of fire separation), all service disconnects in or on the entire structure must be labeled to identify all service disconnects in or on the structure; and

(g) A permanent identification plate must be placed at each feeder disconnecting means identifying the area or units served if the feeder disconnecting means is remote from the area or unit served.

042 Service conductor - Size and rating.

(6) For other than one- or two-family dwelling services rated up to 400 amperes, if the service conductors have a lesser ampacity than the overcurrent protection, permitted by NEC 230.90 or NEC 310.15, or the equipment rating that they terminate in or on, an identification plate showing the ampacity of the conductors stating: "Service conductor ampacity: _____" must be installed on the service equipment.

043 Wiring methods for 1,000 volts, nominal or less.

(7) The installation of service conductors not exceeding 1,000 volts, nominal, within a building or structure is limited to the following methods: Galvanized or aluminum rigid metal conduit; galvanized intermediate metal conduit; wireways; busways; auxiliary gutters; minimum schedule 40 rigid polyvinyl chloride conduit; cablebus; or mineral-insulated, metal-sheathed cable (type MI). Exception: Wiring methods per NEC 230.43 shall be permitted for service conductors within a building or structure when those conductors are protected by customer owned supply side overcurrent protection sized per NEC 240.4.

(8) Existing electrical metallic tubing, installed prior to October 1984, which is properly grounded and used for service entrance conductors may be permitted to remain if the conduit is installed in a nonaccessible location and is the proper size for the installed conductors.

(9) In addition to methods allowed in the NEC, the grounded service conductor is permitted to be identified with a yellow jacket or with one or more yellow stripes.

070 Service equipment - Disconnecting means.

(10) The service disconnecting means must be installed at a readily accessible location in accordance with (a) or (b) of this subsection.

(a) Outside location: Service disconnecting means will be permitted on the building or structure or within sight and within 15 feet of the building or structure served. The building disconnecting means may supply only one building/structure. The service disconnecting means must have an identification plate with one-half-inch high letters identifying:

(i) The building/structure served; and

(ii) Its function as the building/structure main service disconnect(s).

(b) Inside location: When the service disconnecting means is installed inside the building or structure, it must be located so that the service raceway extends no more than 15 feet inside the building/structure. Exception: There is no limit to the length of service raceway when conductors are protected by customer owned supply side overcurrent protection sized per NEC 240.4.

((~~085(C)~~)) 70(E) Replacements.

(11) This subsection replaces NEC ((~~230.85(C)~~)) 230.70(E). When service equipment suppling one- and two-family dwellings is replaced, ((~~an emergency~~)) a service disconnecting means must be installed as required under NEC 230.70(A), NEC 2130.70(B), and NEC 230.70(C), whenever the service ampacity is increased or decreased, or when any of the following are relocated: Service disconnects, meter bases, overhead service masts, or underground service risers.

095 Ground-fault protection of equipment.

(12) Equipment ground-fault protection systems required by the NEC must be tested prior to being placed into service to verify proper installation and operation of the system as determined by the manufacturer's published instructions. This test or a subsequent test must include all service voltage feeders unless the installer can demonstrate, in a manner acceptable to the department, that there are no grounded conductor connections to the feeder(s). A firm having qualified personnel and proper equipment must perform the tests required. A copy of the manufacturer's performance testing instructions and a written performance acceptance test record signed by the person performing the test must be available for the inspector at the time of inspection. The performance acceptance test record must include test details including, but not limited to, all trip settings and measurements taken during the test.

NEW SECTION

WAC 296-46B-268 Services over 1000 volts ac, 1500 volts dc, nominal. The installation of service entrance conductors exceeding 1,000 volts ac, 1,500 volts dc, nominal, within a building or structure must be limited to the following methods: Galvanized rigid metal conduit, galvanized intermediate metal conduit, schedule 80 polyvinyl chloride conduit, metal-clad cable that is exposed for its entire length, cablebus, or busways. Exception: All wiring methods allowed by the NEC

shall be permitted for service conductors within a building or structure when customer owned overcurrent protection in accordance with NEC requirements is provided outside the building.

AMENDATORY SECTION (Amending WSR 24-05-085, filed 2/21/24, effective 4/1/24)

WAC 296-46B-450 Transformers and transformer vaults (including secondary ties).

027 Flammable-liquid or oil-filled transformers installed outdoors.

(1) Flammable-liquid or oil-filled transformers installed outdoors must meet the following requirements:

(a) A transformer installed adjacent to any combustible surface on a building/structure ((~~with any combustible surface~~)) may be located only in the shaded "Approved Transformer Area" shown in Figure 450-1;

"Approved Transformer Area" shown in Figure 450-1;

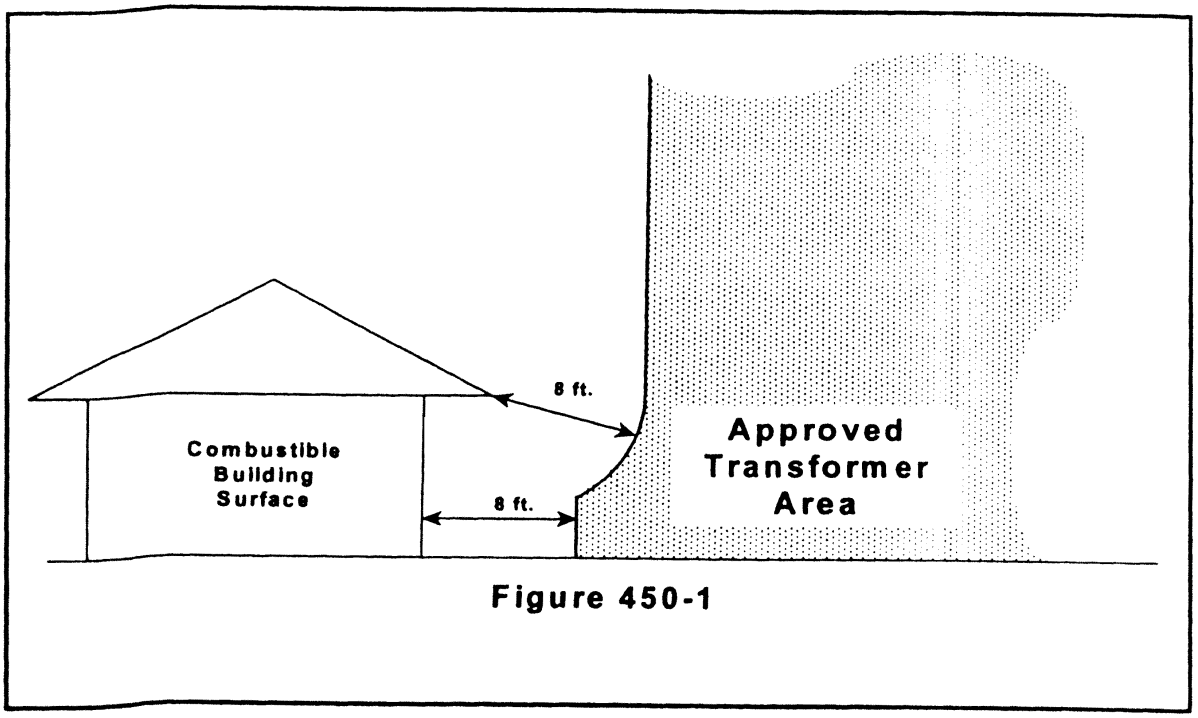


Figure 450-1

(b) A transformer installed adjacent to a three hour or greater fire resistance rated assembly on a building/structure ((~~with~~)) having no combustible surface(s) within eight feet of the transformer, may be located only in the shaded "Approved Transformer Area" shown in Figure 450-2;

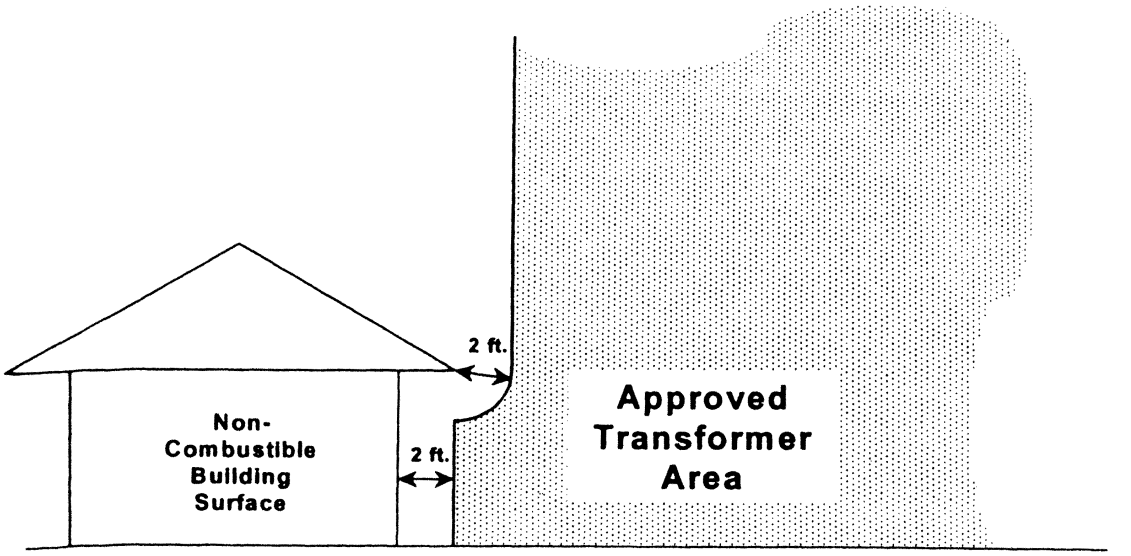


Figure 450-2

(c) In an area in which a transformer is to be installed next to a nonhabitable structure, the transformer may be no closer than two feet to the building/structure and must be outside a line extended vertically from the ends of the eaves or rooflines;

(d) A building/structure may have no doors, windows, stairways, or other openings closer than eight feet to the transformer;

(e) The finished grade at the location of the transformer must be such that any oil leaking from the transformer will flow away from the building/structure and will not pool; and

(f) If transformers are installed in areas subject to traffic other than pedestrian traffic, they must be provided with adequate guarding.

(2) Enclosures for total underground flammable-liquid or oil-filled transformers must not be located within eight feet of a doorway, operable window, stairways or fire escape. Adequate space must be maintained above the enclosure so that a boom may be used to lift the transformer from the enclosure.

AMENDATORY SECTION (Amending WSR 24-05-085, filed 2/21/24, effective 4/1/24)

WAC 296-46B-517 Health care facilities.

001 Health care facilities.

In health care facilities, the following methods must be used to determine adequate capacity and ratings of equipment providing electrical power for the essential electrical systems defined in Article 517 NEC:

(1) Systems in new facilities:

(a) Essential electrical system: The essential electrical system must consist of three branches known as:

(i) Life safety branch: The feeder conductors and equipment used to supply electrical power to the life safety branch must be determined by summation of the connected loads as determined by Article ((~~220~~)) 120 NEC and may not be subjected to any reduction due to the diversity of the loads. Feeder and equipment will be subject to a 125 percent multiplier for continuous loads in accordance with Article ((~~220~~)) 120 NEC.

(ii) Critical branch: The feeder conductors and equipment must be calculated in accordance with Article ((~~220~~)) 120 NEC, including a level of diversity as determined by such article.

(iii) Equipment branch: The feeder conductors and equipment used to supply electrical power to the equipment branch of the essential electrical system must be calculated in accordance with Article ((~~220~~)) 120 NEC, including a level of diversity as determined by such article.

(b) Generator sizing: The rating of the generator(s) supplying electrical power to the essential system of a health care facility must meet or exceed the summation of the loads determined in (a) of this subsection with no additional demand factors applied. Momentary X-ray loads may be ignored if the generator is rated at least 300 percent of the largest momentary X-ray load connected.

(2) Existing essential systems in facilities to which additional load is to be added:

(a) Existing loads: The existing loads of the separate branches of the essential electrical system may be determined by WAC 296-46B-900 (3)(j).

(b) Added loads: Added loads to the separate branches of the essential electrical system must be determined by subsection (1) of this section.

(c) Generator sizing: The rating of the generator(s) supplying electrical power to the essential electrical system must meet or exceed the summation of the loads determined by (a) and (b) of this subsection with no additional demand factors applied.

013 Wiring methods.

(3) The last sentence of NEC 517.13(A) is modified to read: The metal raceway system, or metallic cable armor, or sheath assembly shall itself qualify as an equipment grounding conductor in accordance with 250.118 with the exception of 250.118 (10)(a).

017 Ground-fault protection of equipment.

(4) The applicability of NEC 700.31 ground-fault protection of equipment, specified by NEC 517.26 for the life safety branch, will also apply to the NEC 517 essential electrical system's critical branch(es) and equipment branch(es).

AMENDATORY SECTION (Amending WSR 24-05-085, filed 2/21/24, effective 4/1/24)

WAC 296-46B-550 Mobile homes, manufactured homes and mobile home parks.

001 Mobile/manufactured homes - Inspection.

(1) All alterations to the mobile/manufactured home electrical system must be permitted and inspected.

(a) Any circuit or feeder that is fed from the pedestal or panel from an outbuilding feeding the mobile/manufactured home requires a permit from the electrical section.

(b) Any circuit or feeder that originates from the mobile/manufactured home's (i.e., red factory assembled structures label) panel and feeds an addition or equipment that is attached (e.g., garage, heat pump, or air conditioning unit) requires an FAS alteration permit.

(c) Any circuit or feeder that originates in the mobile/manufactured home panel and feeds an unattached structure or equipment (e.g., detached garage, hot tub, pool, well, septic system, yard lighting, or generation equipment, etc.) requires two inspections. An FAS permit is required for the circuit or feeder from the panel and must terminate in a J-box located under the home's exterior wall near the rim joist. A second permit is required from the electrical section for electrical work from the J-box to the equipment or structure.

((~~032~~)) 051 Mobile/manufactured homes - Service.

(2) If an electrical service is installed on the mobile/manufactured home:

(a) The manufacturer's instructions allowing mounting of service equipment on the mobile/manufactured home must be available to the inspector at the installation site at the time of the first inspection of the electrical service. The instructions must be specific regarding the type of service allowed: Overhead or underground; or

(b) It must be installed only by the manufacturer, at the manufacturing plant. The manufacturer must complete the service except for service connections, meter, and grounding electrode conductor; and

(c) The owner or an electrical contractor must complete the service at the site.

((~~033~~)) 052(A) Mobile/manufactured homes - Feeder conductors.

(3) When the mobile or manufactured home is supplied with power using a permanent wiring method, the equipment grounding conductor will be permitted to be bare. Bare conductors used underground must be copper. For the purposes of this section, portable cord is not considered a permanent wiring method.

NEW SECTION

WAC 296-46B-706 Energy storage systems. For energy storage installations, a system design review, as defined in WAC 296-46B-100, must be available at the installation site at the time of the first inspection and until the inspection process is complete.

AMENDATORY SECTION (Amending WSR 24-05-085, filed 2/21/24, effective 4/1/24)

WAC 296-46B-800 General requirements for communications systems outside and entering buildings. Chapters 1 through 7, NEC, supplement and modify the requirements of chapter 8, NEC. If there are specific requirements or exceptions described in chapter 8, NEC, that are different from those in chapters 1 through 7, NEC, chapter 8 will prevail.

001 Installation.

(1) All telecommunications installations on an end-user's property, beyond the end-user's telecommunications network demarcation point, made by a telecommunications service provider, both inside and outside of a building or structure, must conform to all licensing, certification, installation, permitting, and inspection requirements described in chapter 19.28 RCW and this chapter.

(2) Telecommunications service providers including its subcontractors and agents must install and maintain points of demarcation in conformance with Code of Federal Regulations (C.F.R.), Title 47, Chapter 1, Part 68, Subpart B, Sec. 68.105 and may not place a point of demarcation further than 12 inches within an end-user's occupied space.

(3) The telecommunications service provider must identify the telecommunications network demarcation point(s) with an identification plate or label having:

(a) The provider's name;

(b) Customer/end-user's name; and

(c) If a CWSTP is used, the option type used.

(4) The C.F.R. prescribes that telecommunications service providers must choose either a MPOE (minimum point of entry) or CWSTP (cable wire service termination policy) which regulates where demarcations are placed within a multitenant environment.

(5) A telecommunications service provider, including its subcontractors and agents provisioning service for a second provider who is not the end-user of the service, must place the point of demarcation no further than 12 inches from the nearest POP (point of presence), of the serving provider, to the eventual end-user.

(6) Telecommunications service providers must designate each building that they provide services to with labeling at the terminating point(s) of their facilities indicating:

(a) Whether the building is under a MPOE policy; or

(b) Which option of a CWSTP is in effect.

(7) The CWSTP options for demarcation placement are as follows:

(a) All telecommunications service provider facilities will terminate at one location, mutually agreed upon by the provider and the building owner or designee, upon entry into the building, normally at the lowest common serving point. All demarcations will be placed no more than 12 inches from this point. The building owner and/or tenants will provide, manage and maintain building wire and cable placed beyond this demarcation point location.

(b) The telecommunications service provider's facilities will terminate at common locations, mutually agreed upon by the provider and the building owner or designee, throughout the building (terminal rooms, utility closets, etc.). The telecommunications service provider will provide, manage and maintain the building cable and registration jacks that denote the demarcation points. The demarcation points will be placed at these locations and will be accessible to end-users at these locations. This (b) is not an option for single tenant buildings.

(c) The telecommunications service provider will terminate facilities and place demarcations at locations, mutually agreed upon by the provider and the building owner or designee, within the individually occupied units, within 12 inches or a similarly reasonable distance of cable/wire entry. The provider will provide, manage and maintain the building cable, network terminating wire and registration jacks that denote the demarcation point. This (c) is not an option for single tenant buildings.

(d) All telecommunications service provider facilities and demarcations will terminate at one location on the property, mutually agreed upon by the provider and the building owner or designee. The building owner and/or tenants will provide, manage and maintain building wire and cable placed beyond the demarcation point location.

(8) The telecommunications installer must confer with the telecommunications provider when determining the point of demarcation.

002 Definitions.

(9) **"CWSTP (cable, wire and service termination policy)"** is the policy of the Federal Communications Commission (FCC) and the Washington utilities and transportation commission (WUTC) prescribed by tariff that governs negotiations between building owners and telecommunications service providers regarding the configuration of POP(s) and demarcation point(s) in multitenant buildings when a MPOE policy is not elected by the telecommunications service provider.

(10) **"MPOE (minimum point of entry)"** is a building wiring policy of the FCC and WUTC for multitenant environment locations that can be elected by telecommunications service providers. It prescribes that the telecommunications service provider will provide a single POP for access to its network and is located either at the closest practicable point to where a telecommunications service provider's facilities (fiber, coax, or copper) cross a property line or at the closest practicable point to where the wiring enters a multiunit building or buildings. All demarcations provided for customers and end-users by the provider will be placed within 12 inches of that POP.

(11) **"POP (point-of-presence),"** also called a **"POT (point-of-termination),"** is a designated point at or near a customer premise at which a telecommunications service provider's facilities for the provision of access service ends. This can be a fiber, coax, or copper connection point. Depending on the telecommunications service provider's CWSTP with the individual building owner, demarcations may be established at the POP or at other designated locations. When the customer of a telecommunications service provider is another carrier, the demarcation will be at the closest POP to the end-user. A telecommunications service provider may have multiple POPs within a multiple tenant environment.

AMENDATORY SECTION (Amending WSR 19-15-117, filed 7/23/19, effective 8/23/19)

WAC 296-46B-900 Electrical plan review.

Definition of occupancies.

(1) Occupancies are defined as follows:

(a) Educational facility refers to a building or portion of a building used primarily for educational purposes by six or more persons at one time for ((~~twelve~~)) 12 hours per week or four hours in any one day. Educational occupancy includes: Schools (preschool through grade ((~~twelve~~)) 12), colleges, academies, universities, and trade schools.

(b) Institutional facility refers to a building or portion of a building used primarily for detention or correctional occupancies where some degree of restraint or security is required for a time period of ((~~twenty-four~~)) 24 or more hours. Such occupancies include, but are not restricted to: Penal institutions, reformatories, jails,

detention centers, correctional centers, and residential-restrained care.

(c) Health or personal care facility. Health or personal care facility refers to buildings or parts of buildings that contain, but are not limited to, facilities that are required to be licensed by the department of social and health services or the department of health (e.g., hospitals, nursing homes, private alcoholism hospitals, private psychiatric hospitals, boarding homes, alcoholism treatment facilities, maternity homes, birth centers or childbirth centers, residential treatment facilities for psychiatrically impaired children and youths, and renal hemodialysis clinics) and medical, dental, or chiropractic offices or clinics, outpatient or ambulatory surgical clinics, and such other health care occupancies where patients who may be unable to provide for their own needs and safety without the assistance of another person are treated.

(i) "Hospital" means any institution, place, building, or agency providing accommodations, facilities, and services over a continuous period of ((~~twenty-four~~)) 24 hours or more, for observation, diagnosis, or care of two or more individuals not related to the operator who are suffering from illness, injury, deformity, abnormality, or from any other condition for which obstetrical, medical, or surgical services would be appropriate for care or diagnosis.

(ii) "Nursing home," "nursing home unit," or "long-term care unit" means a group of beds for the accommodation of patients who, because of chronic illness or physical infirmities, require skilled nursing care and related medical services but are not acutely ill and not in need of the highly technical or specialized services ordinarily a part of hospital care.

(iii) "Boarding home" means any home or other institution, however named, which is advertised, announced, or maintained for the express or implied purpose of providing board and domiciliary care to seven or more aged persons not related by blood or marriage to the operator. It must not include any home, institution, or section thereof which is otherwise licensed and regulated under the provisions of state law providing specifically for the licensing and regulation of such home, institution, or section thereof.

(iv) "Enhanced service facility (ESF)" means a facility, or a portion of a facility, that provides treatment and services to persons for whom acute inpatient treatment is not medically necessary and who have been determined by the department to be inappropriate for placement in other licensed facilities due to the complex needs that result in behavioral and security issues. For the purposes of this chapter, an enhanced services facility is not an evaluation and treatment facility certified under chapter 71.05 RCW.

(v) "Private alcoholism hospital" means an institution, facility, building, or equivalent designed, organized, maintained, or operated to provide diagnosis, treatment, and care of individuals demonstrating signs or symptoms of alcoholism, including the complications of associated substance use and other medical diseases that can be appropriately treated and cared for in the facility and providing accommodations, medical services, or other necessary services over a continuous period of ((~~twenty-four~~)) 24 hours or more for two or more individuals unrelated to the operator, provided that this chapter will not apply to any facility, agency, or other entity which is owned and operated by a public or governmental body.

(vi) "Private psychiatric hospital" means a privately owned and operated establishment or institution which: Provides accommodations

and services over a continuous period of ((~~twenty-four~~)) 24 hours or more, and is expressly and exclusively for observing, diagnosing, or caring for two or more individuals with signs or symptoms of mental illness who are not related to the licensee.

(vii) "Maternity home" means any home, place, hospital, or institution in which facilities are maintained for the care of four or more women, not related by blood or marriage to the operator, during pregnancy or during or within ((~~ten~~)) 10 days after delivery: Provided, however, that this definition will not apply to any hospital approved by the American College of Surgeons, American Osteopathic Association, or its successor.

(viii) "Birth center" or "childbirth center" means a type of maternity home which is a house, building, or equivalent organized to provide facilities and staff to support a birth service provided that the birth service is limited to low-risk maternal clients during the intrapartum period.

(ix) "Ambulatory surgical facility" means a facility, not a part of a hospital, providing surgical treatment to patients not requiring inpatient care in a hospital.

(x) "Hospice care center" means any building, facility, place, or equivalent, organized, maintained, or operated specifically to provide beds, accommodations, facilities, or services over a continuous period of ((~~twenty-four~~)) 24 hours or more for palliative care of two or more individuals, not related to the operator, who are diagnosed as being in the latter stages of an advanced disease which is expected to lead to death.

(xi) "Renal hemodialysis clinic" means a facility in a building or part of a building which is approved to furnish the full spectrum of diagnostic, therapeutic, or rehabilitative services required for the care of renal dialysis patients (including inpatient dialysis furnished directly or under arrangement). (NEC: Ambulatory Health Care Occupancy.)

(xii) "Medical, dental, and chiropractic clinic" means any clinic or physicians' office where patients are not regularly kept as bed patients for ((~~twenty-four~~)) 24 hours or more. Electrical plan review is not required.

(xiii) "Residential treatment facility" means a facility licensed and operated ((~~twenty-four~~)) 24 hours per day to provide health care to persons receiving services for a mental disorder or substance abuse.

(xiv) "Group care facility" means a facility other than a foster-family home maintained or operated for the care of a group of children on a ((~~twenty-four~~)) 24-hour basis.

Plan review for educational, institutional, or health care facilities/buildings.

(2) Plan review is a part of the electrical inspection process; its primary purpose is to determine:

(a) That service/feeder conductors are calculated and sized according to the proper NEC or WAC article or section;

(b) The classification of hazardous locations; and

(c) The proper design of emergency and standby systems.

(3) Electrical plan review.

(a) Electrical plan review is not required for:

(i) Low voltage systems;

(ii) Lighting specific projects that do not result in an electrical load increase on any feeder involved in the project;

(iii) Heating and cooling specific retrofit projects that do not result in an electrical load increase on any existing feeder involved in the project, provided there is not a corresponding increase in the available fault current in any feeder.

(iv) Stand-alone utility fed services that do not exceed 250 volts, 400 amperes where the project's distribution system does not include:

(A) Emergency systems other than listed unit equipment per NEC 700.12(F);

(B) An essential electrical system defined in NEC 517.2; or

(C) A required fire pump system.

(v) Modifications to existing electrical installations where all of the following conditions are met:

(A) Service or distribution equipment involved is rated not more than 400 amperes and does not exceed 250 volts or for lighting circuits not exceeding 277 volts to ground;

(B) Does not involve emergency systems other than listed unit equipment per NEC 700.12(F);

(C) Does not involve branch circuits or feeders of an essential electrical system as defined in NEC 517.2; and

(D) Service or feeder loads are not increased by more than 5% of the rated capacity of the electrical equipment supplying the modified load(s).

(vi) Electric power production source(s) such as solar photovoltaic, fuel cell, or wind electric system(s) with a total rating of 9600 watts or less.

(vii) For installations in (a)(ii), (iii), and (v) of this subsection to be considered, the following must be available to the electrical inspector before the work is initiated:

(A) A clear and adequate description of the project's scope;

(B) A load calculation(s);

(C) What the load changes are, providing both before and after panel schedules as needed; and

(D) Provide information showing that the service and feeder(s) supplying the panel(s) where the work is taking place has adequate capacity for any increased load and has code compliant overcurrent protection for that supply.

(b) Electrical plan review is required for all other new or altered electrical projects in educational, institutional, or health care occupancies defined in this chapter.

(c) If a review is required, the electrical plan must be submitted for review and approval before the electrical work is begun.

(d) Electrical plans.

(i) The plan must be submitted for plan review prior to beginning any electrical inspection. If a plan is rejected during the plan review process, no electrical inspection(s) may proceed until the plan is resubmitted and a conditional acceptance is granted.

(ii) The submitted plan will receive a preliminary review within seven business days after receipt by the department or city authorized to do electrical inspections.

(iii) If the submitted plan:

(A) Is rejected at the preliminary review, no inspection(s) will be made on the project.

(B) Receives conditional acceptance, the permit holder may request a preliminary inspection(s) in writing to the department or city authorized to do electrical inspections. The request must note that

the preliminary inspection(s) is conditional and subject to any alterations required from the final plan review process.

(iv) Once the submitted plan has preliminary plan review approval, a copy of the submitted plan must be available on the job site for use by the electrical inspector.

(v) The final approved plan must be available on the job site, for use by the electrical inspector, after it is approved, but no later than prior to the final electrical inspection.

(vi) If the final approved plan requires changes from the conditionally accepted plan, alterations to the project may be required to make the project comply with the approved plan.

(vii) If the installer deviates from the service/feeder design shown on the final approved plan, a supplemental plan must be submitted for review before inspection can proceed. Load reductions or moving branch circuit locations within a panelboard do not require resubmission.

(e) All electrical plans for educational facilities, hospitals, and nursing homes must be prepared by, or under the direction of, a consulting engineer registered under chapter 18.43 RCW, and chapters 246-320, 180-29, and 388-97 WAC and stamped with the engineer's mark and signature.

(f) Refer plans for review to the Electrical Section, Department of Labor and Industries, P.O. Box 44460, Olympia, Washington 98504-4460 or the city authorized to do electrical inspections.

(g) Plans for projects within cities that perform electrical inspections must be submitted to that city for review.

(h) Plans to be reviewed must be legible, identify the name and classification of the facility, clearly indicate the scope and nature of the installation and the person or firm responsible for the electrical plans. The plans must clearly show the electrical installation or alteration in floor plan view, include all switchboard and panelboard schedules and when a service or feeder is to be installed or altered, must include a riser diagram, load calculation, fault current calculation, and interrupting rating of equipment. Where existing electrical systems are to supply additional loads, the plans must include documentation that proves adequate capacity and ratings. The plans must be submitted with a plan review submittal form available from the department or city authorized to do electrical inspections. Fees must be calculated based on the date the plans are received by the department or city authorized to do electrical inspections.

(i) The department may perform the plan review for new or altered electrical installations of other types of construction when the owner or electrical contractor makes a voluntary request for review. A city authorized to do electrical inspections may require a plan review of any electrical system.

(j) For existing structures where additions or alterations to feeders and services are proposed, NEC ((~~220.87(1)~~)) 120.87(1) may be used. If NEC ((~~220.87(1)~~)) 120.87(1) is used, the following is required:

(i) The date of the measurements.

(ii) A statement attesting to the validity of the demand data, signed by a professional electrical engineer or the electrical administrator of the electrical contractor performing the work.

(iii) A diagram of the electrical system identifying the point(s) of measurement.

(iv) Building demand measured continuously on the highest-loaded phase of the feeder or service over a ((~~thirty~~)) 30-day period, with

the demand peak clearly identified. Demand peak is defined as the maximum average demand over a ((~~fifteen~~)) 15-minute interval.

Notes to Tables 900-1 and 900-2.
1. A city authorized to do electrical inspections may require plan review on facility types not reviewed by the department.

Table 900-1
Health or Personal Care Facilities

Health or Personal Care Facility Type	Plan Review Required
Hospital	Yes
Nursing home unit or long-term care unit	Yes
Boarding home	Yes
Assisted living facility	Yes
Private alcoholism hospital	Yes
Private psychiatric hospital	Yes
Maternity home	Yes
Ambulatory surgery facility	Yes
Renal hemodialysis clinic	Yes
Residential treatment facility	Yes
Enhanced service facility	Yes
Adult residential rehabilitation center	Yes

Table 900-2
Educational and Institutional Facilities, Places of Assembly, or Other Facilities

Educational, Institutional, or Other Facility Types	Plan Review Required
Educational	Yes
Institutional	Yes

REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 296-46B-220	Branch circuit, feeder, and service calculations.
WAC 296-46B-235	Branch circuits, feeders, and services over 1,000 volts ac, 1,500 volts dc nominal.