Chapter 17
ELECTRICAL CODE

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6. Electrical Work Within Flood Hazard Districts and Developments Adjacent to Drainage Facilities


Sections:
17-1.1 Title—Purpose.
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Sec. 17-1.1 Title—Purpose.
(a) Title. This chapter shall be known as the "electrical code," may be cited as such, and is referred to herein as "this code."
(b) Purpose. The purpose of this code is to reduce the hazards to persons and property arising from faulty electrical work. To accomplish this purpose, the requirements set forth in this chapter are intended to provide minimum standards for electrical work in the city.

(Sec. 17-1.1, R.O. 1978 (1983 Ed.))

Sec. 17-1.2 Scope—Interpretation.
(a) Scope. The provisions of this code shall apply to all electrical work and installations in the city except the following:
(1) Electrical work on buildings or premises owned by or under the direct control of the United States or the State of Hawaii.
(2) Electrical work by an electrical utility or serving agency supplying electricity, operating under a franchise or charter granted by the State of Hawaii on the following:
(A) Any generating plant, receiving station, switching station or distributing station, under the control of such activity or serving agency;
(B) Any electrical wiring for supply lines or mains under the control of such utility or serving agency; and
(C) Any electrical wiring for overhead service drops, or underground or station service supply conductors under the control of such utility or serving agency.
(3) Electrical work by a public telephone or telegraph communication system subject to regulation by the public utilities commission of the State of Hawaii.
(4) The physical placement and reassembly of an electric sign, X-ray equipment or household appliance.
(5) Existing electrical installations which complied with the laws, ordinances and regulations in effect when the electrical work thereon was performed, provided that such installations shall be subject to the provisions of subsection (c) of Section 17 3.1.
(6) Electrical work in accordance with the laws, ordinances and regulations in effect prior to the effective date of this code under a permit therefor issued prior to such date.
(7) Electrical work related to work regulated by HRS Chapter 397, as amended, relating to the Elevator Code, but not including electrical work for the supply of power to the control panels of elevators, dumbwaiters, escalators, moving walks and manlifts.
(8) Replacement or repair of devices and apparatus of air conditioning and refrigeration systems, except electrical work on overcurrent devices which are not physically attached to, or physically mounted on, such systems.
(9) Any streetlight or traffic signal light work being performed under the control of the City and County of Honolulu.
(b) Interpretation—Same Subject Matter. If there are two or more provisions in this code or any other ordinances or statutes, covering the same subject matter, the provisions which provide the greater safety to life or limb, property or public welfare shall prevail.


Article 2. Definitions

Sections:
17-2.1 Definitions.

Sec. 17-2.1 Definitions.
The following words and phrases when used in this code shall have the meaning respectively ascribed to them in this section unless it is apparent from the context that a different meaning is intended:
"Building official" means the director of the department of planning and permitting of the city or such person's authorized representative.
"Department" means the department of planning and permitting of the city.
"Duly licensed electrician" means any person licensed as an electrician under the provisions of HRS Chapter 448E.

"Electrical wiring" means any conductor, material, device, fitting, apparatus, appliance, fixture or equipment, constituting a part of or connected to any electrical installation, attached or fastened to any building, structure or premises and which installation or portion thereof is designed, intended or used to generate, transmit, transform or utilize electrical energy within the scope and purpose of the National Electrical Code referred to in Section 17-5.1 of this chapter.

"Electrical work" means the installation, alteration, reconstruction or repair of electrical wiring.

"Emergency electrical work" means repair of electrical wiring to restore electrical service to a building following a fire, remedy a power failure and protect persons and property against short circuiting and open circuits.


Article 3. Administration and Enforcement

Sections:

17-3.1 Authority—Entry—Defective installations—Inspection—Notice.
17-3.2 Nonliability of city for damages.
17-3.3 Appeals and petitions.
17-3.4 Electrically charged fences or structures.
17-3.5 Meter installation.
17-3.5A Meter to measure created energy.
17-3.6 Violation—Penalties—Notice—Enforcement.

Sec. 17-3.1 Authority—Entry—Defective installations—Inspection—Notice.

(a) Authority. The building official shall administer and enforce the provisions of this code.

(b) Right of Entry. Upon presentation of proper credentials, the building official may enter at reasonable times any building, structure or premises in the City and County of Honolulu to perform any duty imposed upon the building official by this code; provided, that such entry shall be made in such manner as to cause the least possible inconvenience to the persons in possession; and provided further, that an order of a court authorizing such entry shall be obtained in the event such entry is denied or resisted.

(c) Defective Electrical Installations.

(1) Whenever any electrical installation is found to have been installed, altered, changed or reconstructed contrary to the provisions of this code or any other law; whenever any electrical installation is found to be in use contrary to the provisions of this code or any other law; or whenever any electrical installation, which complied with the existing laws, ordinances and regulations in effect when the electrical work thereon was performed, is found to be unsafe or dangerous to persons or property, the building official shall give the owner or the person in control of such installation a written notice stating the findings with respect to such installation and order the owner or such other person to make the corrections to be set forth in such written notice within 10 days from the date of service of such notice or within such further time as the building official may allow.

(2) In addition, the building official may disconnect such installation from its source of electrical energy and order the supplying of electrical energy to such installation to be stopped. Thereafter, no person shall use or supply electrical energy to such installation before the corrections set forth in the notice have been made.

(d) Final Inspection Required.

(1) No person shall use or supply electrical energy to any electrical installation on which electrical work was or is being performed under a permit issued pursuant to the provisions of Section 17-4.1, before the building official has completed all inspections, provided, that the building official may authorize the use of, and the supply of electrical energy to, such installation before completion of such inspections when the use of, and the supply of electrical energy to, such installation will not endanger life or property and there is good cause for making such exception.

(2) No notice of completion shall be issued unless such installation has been inspected and approved in accordance with the following:

(A) The building official had inspected the roughing-in of the installation and the completed installation during the building official’s regular working hours and when requested, in the company of the duly licensed electrician performing the electrical work thereon;

(B) The completed installation had been inspected after all piping and tubing, including gas, steam, water, sewer and furnace piping and tubing, located near such installation were in place, and in the case of an installation that is to be concealed, after all lathing strips, furring, bridging, backing and headers were in place; and

(C) The inspection of the completed installation had not been prevented by obstructions.

(3) For photovoltaic systems, including related upgrades to the power distribution system required therefor, the building official shall have the authority to accept reports of inspection by approved special inspection agencies or individuals, provided that:

(A) The building official has not completed all required inspections within 5 working days of the inspection date requested pursuant to this section;

(B) The approved special inspection agencies or individuals shall not be the same person, firm, or corporation as or an employee or agent of the contractor performing the electrical work for which the inspection is requested; and

(C) The approved special inspection agencies or individuals shall be:
Sec. 17-3.5 Meter installation.*

(a) Electric watt-hour meters shall not be installed to serve illegal dwelling units. No more than one electric watt-hour meter shall be installed to serve a legal dwelling unit, except as provided in subsection (b) and Section 17-3.5A.

(b) One additional electric watt-hour meter may be installed to serve a legal dwelling unit, provided that:

1. The meter measures electricity used solely for the purpose of charging an electric vehicle; and
2. A permit is issued for the installation of the meter by the director of planning and permitting pursuant to Chapter 18.

(c) In addition to any other information required to be provided under Chapter 18, the applicant for the additional electric watt-hour meter permitted under subsection (b) shall provide the director of planning and permitting with the following information with the permit application:

1. A current certificate of motor vehicle registration issued to the applicant or an occupant of the applicant's dwelling unit to verify that the applicant or occupant is the registered owner of the electric vehicle; and
2. A copy of a sales contract or a lease agreement for the electric vehicle.

(d) Within 15 days after either:

1. An electric vehicle ceases to be under the registered ownership of the permittee or a resident of the permittee's dwelling unit; or
2. The permittee no longer resides at the dwelling unit; the permittee shall notify the director of planning and permitting and the utility company responsible for the installation of the electric meter of the occurrence of the event described in subdivision (1) or (2).

(e) Any person who violates the provisions of this section shall be subject to the penalties established in Section 17-3.6.
Sec. 17-3.5A Meter to measure created energy.*
(a) One additional electric watt-hour meter or net metering informational meter may be installed in a legal dwelling unit, provided that:
(1) The meter is used solely for the purpose of measuring energy produced by a solar photovoltaic or other alternative energy system;
(2) The solar photovoltaic or other alternative energy system has been preapproved by the building official; and
(3) A permit is issued for the installation of the meter by the director of planning and permitting pursuant to Chapter 18.
(b) The applicant for an additional electric watt-hour or net metering informational meter shall provide the director of planning and permitting with a copy of the net-energy metering agreement with the applicable public utility company within 60 days after completion of the permit.
(c) Within 15 days after the permittee no longer resides at the dwelling unit where the meter is installed, the permittee shall notify the director of planning and permitting and remove or cause the removal of the meter from the dwelling.
(d) Any person who violates the provisions of this section shall be subject to the penalties provided in Section 17-3.6.
(e) For the purposes of this section “alternative energy system” includes any system that produces energy from a source other than fossil fuels, or uses a process which does not use fossil fuels, and which source or process may include the sun, wind, or hydroelectric power.
(Added by Ord. 02-53) [*Effective date of Ord. 02-53 is 12/29/02.]

Sec. 17-3.6 Violation—Penalties—Notice—Enforcement.
(a) General. It is unlawful for any person, firm or corporation to perform any electrical work, or cause the same to be done, contrary to or in violation of any of the provisions of this chapter.
(b) Notice of Violation. Whenever any person, firm or corporation violates any provision of this chapter, the building official shall serve a notice of violation to the party responsible for the violation to make the building or structure or portion thereof comply with the requirements of this chapter. A notice of violation must be served upon responsible persons either personally or by certified mail. However, if the whereabouts of such persons are unknown and the same cannot be ascertained by the building official in the exercise of reasonable diligence and the building official provides an affidavit to that effect, then a notice of violation may be served by publishing the same once each week for two consecutive weeks in a daily or weekly publication in the city pursuant to HRS Section 1-28.5.

The notice of violation shall include at least the following information:
(1) Date of the notice;
(2) The name and address of the person noticed and the location of the violation;
(3) The section number of the ordinance, code or rule which has been violated;
(4) The nature of the violation; and
(5) The deadline for compliance with the notice.
(c) Criminal Prosecution.
(1) Any person, firm or corporation violating any of the provisions of this code is deemed guilty of a misdemeanor, and each such person is deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any provisions of this code is committed, continued or permitted, and upon conviction of any such violation such person shall be punishable by a fine of not more than $1,000.00, or by imprisonment for not more than one year, or by both fine and imprisonment.
(2) Any officer or inspector designated by the building official who has been deputized by the chief of police as a special officer for the purpose of enforcing the provisions of the building, plumbing, electrical or housing codes (hereinafter referred to as “authorized personnel”), may arrest without warrant alleged violators by issuing a summons or citation in accordance with the procedure specified in this section. Nothing in this section shall be construed as barring such authorized personnel from initiating prosecution by warrant or other judicial process as is permitted by statute or rule of court.
(3) Any authorized personnel designated by the building official, upon making an arrest for a violation of the building, plumbing, electrical or housing codes, may take the name and address of the alleged violator and shall issue to such person in writing a summons or citation hereinafter described, notifying such person to answer the complaint to be entered against such person at a place and at a time provided in the summons or citation.
(4) There shall be provided for use by authorized personnel a form of summons or citation for use in citing violators of the building, plumbing, electrical or housing codes which does not mandate the physical arrest of such violators. The form and content of such summons or citation shall be as adopted or prescribed by the administrative judge of the district court and shall be printed on a form commensurate with the form of other summonses or citations used in modern methods of arrest, so designed to include all necessary information to make the same valid within the laws and regulations of the State of Hawaii and the City and County of Honolulu.
(5) In every case when a citation is issued, the original of the same shall be given to the violator; provided, that the administrative judge of the district court may prescribe giving to the violator a carbon copy of the citation and provide for the disposition of the original and any other copies.
(6) Every citation shall be consecutively numbered and each carbon copy shall bear the number of its respective original.
(d) Administrative Enforcement. In lieu of or in addition to enforcement pursuant to subsection (c) of this section, if the building official determines that any person, firm or corporation is not complying with a notice of violation, the building official may have the party responsible for the violation served, by mail or delivery, with an order pursuant to this subsection. A notice of order must be served upon responsible persons either personally or by certified mail. However, if the whereabouts of such persons are unknown and the same cannot be ascertained by the building official in the exercise of
reasonable diligence and the building official provides an affidavit to that effect, then a notice of order may be served by publishing the same once each week for two consecutive weeks in a daily or weekly publication in the city pursuant to HRS Section 1-28.5.

(1) Contents of the Order.
   (A) The order may require the party responsible for the violation to do any or all of the following:
      (i) Correct the violation within the time specified in the order;
      (ii) Pay a civil fine not to exceed $1,000.00 in the manner, at the place and before the date specified in the order;
      (iii) Pay a civil fine not to exceed $1,000.00 per day for each day in which the violation persists, in the manner and at the time and place specified in the order.
   (B) The order shall advise the party responsible for the violation that the order shall become final 30 calendar days after the date of its delivery. The order shall also advise that the building official's action may be appealed to the building board of appeals.

(2) Effect of Order--Right to Appeal. The provisions of the order issued by the building official under this section shall become final 30 calendar days after the date of the delivery of the order. The party responsible for the violation may appeal the order to the building board of appeals as provided in Chapter 16. The appeal must be received in writing on or before the date the order becomes final. However, an appeal to the building board of appeals shall not stay any provision of the order.

(3) Judicial Enforcement of Order. The building official may institute a civil action in any court of competent jurisdiction for the enforcement of any order issued pursuant to this section. Where the civil action has been instituted to enforce the civil fine imposed by the order, the building official need only show that the notice of violation and order were served, that a civil fine was imposed, the amount of the civil fine imposed and that the fine imposed has not been paid.


Article 4. Permits and Inspection Fees

Sections:
17-4.1 Permit required.
17-4.2 Charge for extra inspection.

Sec. 17-4.1 Permit required.
A building permit is required to perform work covered by this code as provided under Chapter 18, ROH 1990, as amended.
(Sec. 17-4.1, R.O. 1978 (1983 Ed.))

Sec. 17-4.2 Charge for extra inspection.
(a) Extra Inspections. If, after notice to a permit holder, more than one inspection is necessary to ensure that deficient or defective electrical work under the permit has been corrected, the holder of the permit shall pay the director of budget and fiscal services $27.00 for each additional inspection.
(b) Miscellaneous Inspections. For the inspection of any electrical installation not covered by a fee specified in this code, the person requesting the inspection shall pay the director of budget and fiscal services $27.00 for each hour or portion thereof that is required to make the inspection and travel to and from the installation.
(c) Inspections Outside of Normal Business Hours. For a requested inspection of an electrical installation under a permit outside of normal business hours, the holder of the permit shall be charged at an hourly rate set by the city’s department of budget and fiscal services’ policies and procedures for a minimum of three hours. Eligibility for such inspection shall be as determined by the building official based upon the nature of the inspection requested and the availability of personnel to perform the inspection.


Article 5. Standards

Sections:
17-5.1 Standards for electrical work—Compliance.
17-5.2 Compliance with state statutes.

Sec. 17-5.1 Standards for electrical work—Compliance.
(a) Adoption of the National Electrical Code. The National Electrical Code, 2008 Edition, copyrighted 2007 by the National Fire Protection Association, One Batterymarch Park, Quincy, Massachusetts 02169-7471, is adopted by reference and made a part hereof. Three copies of said code shall be kept on file and be available for public inspection in the city clerk’s office. The scope, technical specifications and exemptions set forth in said code are adopted as a standard for electrical work covered by this chapter, provided there are no specific provisions in any other section of this chapter covering the particular matter.
(b) Compliance Required. No person shall do or cause to be done any electrical work which does not comply with the provisions of this code.


Sec. 17-5.2 Compliance with state statutes.
No person shall perform any work covered by this code in violation of the provisions of HRS Chapter 448E. (Sec. 17-5.2, R.O. 1978 (1983 Ed.))

Article 6. Electrical Work Within Flood Hazard Districts and Developments Adjacent to Drainage Facilities

Sections:
17-6.1 Applicability.
17-6.2 Definitions.
17-6.3 Requirements.

Sec. 17-6.1 Applicability.
(a) General.
(1) The provisions contained in this article are applicable to the construction of all new electrical systems, renovations and major alterations, additions or reconstruction of existing electrical systems within the flood hazard district as established on the flood boundary and floodway maps and flood insurance rate maps, and any amendments by the Federal Emergency Management Agency, on file with the department of land utilization, City and County of Honolulu.
(2) These provisions shall also apply to developments adjacent to drainage facilities outside the flood hazard district which are determined to be within a floodway area or a flood fringe area in accordance with Section 21-10.9-9.
(b) Existing Electrical Systems. Any electrical system thereof which was lawful before the effective date of this article but which is not in conformity with the provisions of this article may be continued subject to the provisions of Section 21-9.10-12.
(c) Exemption. The provisions contained herein shall not apply:
(1) To electrical systems serving buildings and structures exempted from the flood hazard district provisions under Section 21-9.10-13; and
(2) To electrical systems serving buildings and structures which have been granted a flood hazard variance under the provisions of Section 21-9.10-11.
(Sec. 17-6.1, R.O. 1978 (1983 Ed.); Am. Ord. 96-58)

Sec. 17-6.2 Definitions.
(a) For the purpose of this article, the following terms shall be as defined in Article 10, Chapter 21, ROH 1990, as amended:
"Flood elevation";
"Flood fringe";
"Flood hazard district";
"Flood proof";
"Floodway"; and
"Regulatory flood."
(b) For the purpose of this article, the following words and terms are also defined:
"Ground fault circuit interrupter (GFCI)" means a device or equipment which disconnects all ungrounded conductors of the faulted circuit to protect people from electrical shocks.
"Ground fault protector (GFP)" means a device or equipment which disconnects all ungrounded conductors of the faulted circuit to protect wiring and equipment from damage.
(Sec. 17-6.2, R.O. 1978 (1983 Ed.))

Sec. 17-6.3 Requirements.
For electrical work on projects subject to the provisions of this article, the provisions of this section shall supplement the requirements of Section 17-5.1.
(a) Main Power Service. The incoming main commercial power service equipment, including all metering equipment, shall be located above the regulatory flood elevation or in a waterproof enclosure or barrier with GFP on the main disconnecting means.
(b) Stationary and Portable Equipment. Switchgear, control centers, transformers, distribution and power or lighting panels shall be located above the regulatory flood elevation or in a waterproof enclosure or barrier with GFP on the main disconnecting means. Stationary and portable or movable electrical equipment shall be permitted to be located below the regulatory flood elevation provided that the circuit and equipment shall be protected with GFCI, except sump pump and its circuit may be without GFCI. In cases where GFCI cannot be installed because of amperage size or usage, GFP shall be installed.
(c) Normal and Emergency Lighting Circuits. All normal lighting circuits extending into areas below the regulatory flood elevation shall be energized from a common distribution panel located above the regulatory flood elevation or in a waterproof enclosure or barrier with GFP. All emergency lighting circuits into areas below the regulatory flood elevation shall be energized from an independent distribution panel also located above the regulatory flood elevation or in a waterproof enclosure or barrier with GFP.
(d) Emergency Lighting Requirements. All components of emergency lighting systems installed below the regulatory flood elevation shall be so located that no component of the emergency lighting system is within reach of personnel working at floor level in the areas where emergency lighting systems are utilized unless the emergency lighting circuits are provided with GFCI. The emergency lighting may be furnished by a storage battery, prime mover generator system, a separate commercial power supply system, the same commercial power system, or a combination thereof, subject to the following provisions:
(1) Storage Battery (including battery operated lighting units). Battery operated lighting units shall be completely self contained and shall indicate the state of charge of the battery at all times. Lighting units shall automatically provide light when the normal source of lighting in the areas is de energized.

(2) Separate Commercial Power Supply System. This source of energy shall have a degree of reliability satisfactory to the building official. A system fed from a transformer other than that used for the regular supply and not on the same poles (except service pole) as the regular supply is deemed to have the required degree of reliability. A secondary circuit fed from the same primary circuit as the regular supply shall be regarded as a separate system.

(3) Separate Commercial Power Supply System. The system shall be an underground secondary system and a separate service shall be connected on the line side of that service switch or breaker of the regular service.

(e) Receptacle Circuits Below Regulatory Flood Elevation. Receptacle circuits shall be permitted to be installed below the regulatory flood elevation, provided that these circuits shall be protected with GFCI.

(Sec. 17-6.3, R.O. 1978 (1983 Ed.))