

AN ORDINANCE OF THE CITY OF KIRKLAND AMENDING PORTIONS OF THE KIRKLAND ELECTRICAL CODE AND THE KIRKLAND MECHANICAL CODE.

Be it ordained by the City Council of the City of Kirkland as follows:

Section 1. Section 21.70.050 of the Kirkland Municipal Code is hereby amended to read as follows:

**21.70.050 Electrical Codes Adopted.**

The National Electrical Code issued by the National Fire Protection Association ~~1993~~ 1996 Edition, together with amendments and/or additions thereto, is adopted in its entirety.

The Uniform Administrative Code Provisions, ~~1993~~ 1996 Edition, as published by the International Conference of Building Officials, together with amendments and/or additions thereto, is hereby adopted in its entirety.

Section 2. Section 21.70.060 of the Kirkland Municipal Code is hereby amended to read as follows:

**21.70.060 Permits.**

Section 301 of the Uniform Administrative Code Provisions is amended and supplemented to read as follows:

**Sec. 301. (a) Permits Required.** Except as specified in Subsection (b) of this section, no electrical system regulated by this code shall be installed, altered, repaired, replaced or remodeled unless a separate electrical permit for each building or structure has first been obtained from the building official.

~~A separate permit is required for each building of an apartment or condominium complex.~~

The building official may authorize issuance of a single permit for multiple Group U Division 1 occupancies when located on the same parcel. However the permit fees shall not be reduced.

The electrical permit shall be posted on the job site at the service switch or other conspicuous place and shall remain so posted during the entire course of work.

(b) **Exempt Work.** An electrical permit shall not be required for the following:

1. Portable motors or other portable appliances energized by means of a cord or cable having an attachment plug end to be connected to an approved receptacle when that cord or cable is permitted by the National Electrical Code;

2. Repair or replacement of fixed motors, transformers or fixed approved appliances or devices rated 50 amps or less with the same type and rating in the same location;
3. Temporary decorative lighting;
4. Repair or replacement of current-carrying parts of any switch, conductor or control device of up to 100 amperes capacity;
5. Reinstallation of attachment plug receptacles, but not the outlets therefor;
6. Repair or replacement of any over current device of the required capacity in the same location;
7. Repair or replacement of electrodes or transformers of the same size and capacity for signs or gas tube systems;
8. Taping joints;
9. Removal of electrical wiring;
10. Temporary wiring for experimental purposes in suitable experimental laboratories;
11. Electrical wiring, devices, appliances, apparatus or equipment operating at less than 25 volts and not capable of supplying more than 50 watts of energy.

Exceptions; Permits shall be required for the following:

- a. Electrical systems required (by the Uniform Building , Fire or Mechanical Codes or Kirkland Municipal Ordinance 21.35 regarding Fire Alarms) for fire protection and building occupant safety (fire alarms, nurse call, public address systems, etc.)
  - b. Electrical systems installed in hazardous locations as defined in the National Electrical Code.
12. Low-energy power, control and signal circuits of Classes II and III as defined in the National Electrical Code;
  13. Replacing flush or snap switches, fuses, lamp sockets, receptacles, or ballasts.
- (c) **Violations Prohibited.** Exemption from the permit requirements of subsection (b) of this Section shall not be deemed to grant authorization for work to be done in violation of the provisions of the National Electrical Code or other laws or ordinances of the city.

Section 3. Section 21.70.070 of the Kirkland Municipal Code is hereby amended to read as follows:

### 21.70.070 Application for Permits.

Section 302 of the Uniform Administrative Code Provisions is amended and supplemented to read as follows:

- (a) **Application.** Application for an electrical permit shall be made on a form provided by the building official. Each application shall state the name and address of the owner, vendee or occupant in possession of the building or premises where the work is to be done, the name of the licensed contractor, if any, making the application, and such other information as the building official may require. The building official may refuse to issue or revoke a permit if any statement in permit application is found to be untrue.
- (b) **Plans and Specifications.**
1. **General.** In addition to the requirements of Section 302 (a), two sets of plans and specifications shall be submitted with each application for an electrical permit for and installation of: services or feeders of 400 amperes or over, all switches or circuit breakers rated 400 amperes or over, any proposed installation which cannot be adequately described on the application form, and installation of emergency generators.

Exception: Plans and specifications shall not be required for installations for one and two family dwellings.

Plan review shall be required for all All electrical plans for new or altered electrical installations in educational, institutional, and health or personal care occupancies classified or defined in WAC 296-46-130 and as indicated in WAC 296-46-140, 150, ~~Table 1 or 2,~~ shall be reviewed and approved by the Washington State Department of Labor and Industries Electrical Division before a permit is issued and/or the electrical installation or alteration is begun.

2. **Clarity of Plans.** Plans shall be drawn to a clearly indicated an commonly accepted scale of not less than 1/8 inch to 1 foot upon substantial paper such as blueprint quality or standard drafting paper. Plans shall indicate the nature and extent of the work proposed and shall show in detail that it will conform to the provisions of this code. All electrical work shall be readily distinguishable from other mechanical work. If plans are incomplete, unintelligible or indefinite, the building official may require that the plans be prepared by a licensed electrical engineer, or may reject or refuse to examine such plans, even though a plan examination fee has been paid.
3. **Information on Plans and Specifications.** Plans and specification shall indicate the following:
  - a. The proposed use or occupancy of the various portions of the building in which the installation is to be made.

- b. A complete riser diagram.
- c. The calculated load schedule and demand factor selected for each branch circuit, feeder, subfeeder, main feeder and service. Panel and circuit schedules shall be shown.
- d. Fault current calculations and the listed interrupting rating for feeder or service installation or alteration.
- e. A key to any symbols used.
- f. Letters and numbers designating mains, feeders, branch circuits and distribution panels.
- g. Wattage, number of sockets and type of lighting fixture.
- h. Wattage and purpose of all other outlets.
- i. Voltage at which any equipment will operate.
- j. Identification of size of wires, type of insulation and all conduit sizes.
- k. Any other information as may be required by the plans examiner.

Section 4. Section 21.70.090 of the Kirkland Municipal Code is hereby amended to read as follows:

**21.70.090 Electrical Permit Fees**

Table No. 3A of the Uniform Administrative Code Provisions is amended and supplemented to read as follows:

**TABLE 3-A -- ELECTRICAL PERMIT FEES:**

**One- and Two-Family Dwellings:**

New Construction:

200-amp service and circuits.....	<del>\$55</del> <u>70</u>
Larger than 200-amp service and circuits.....	<del>\$75</del> <u>100</u>

Service Change:

200-amp (includes added circuits).....	\$55
Larger than 200 amps.....	<del>\$75</del> <u>80</u>

Installation of New Circuits Only:

1-5 circuits.....	<del>\$30</del> <u>40</u>
6 or more circuits.....	\$55

**Commercial, and Multi-Family:**

The fee is based on the Contract Price/Time and Materials of the installation and calculated according to the following schedule. A separate permit is required for each building:

up to \$1,000	<del>\$250</del> .....	\$30
\$1,000	<del>\$251</del> to \$5,000.....	\$45 plus 1.5% of the cost over \$1,000 <del>\$250</del>
\$5,001 to \$20,000.....	\$105 plus 1% of the cost over \$5,000	
\$20,001 to \$50,000.....	\$290 plus 0.9% of the cost over \$20,000	



- (b) In residential installation, #14 American Wire Gauge copper.
- (c) In all installations, no aluminum wire shall be used.

Exceptions:

1. Service entrance conductors
2. Branch circuits of 50 amperes or greater

- (a) In all commercial buildings a minimum of one duplex receptacle shall be installed on opposite walls in each room or office.

Exceptions:

1. Restrooms
2. Rooms used exclusively for storage.
3. Subject to the approval of the building official, other areas where receptacles are unlikely to be needed.

Section 6. A new Section 21.70.115 is hereby added to Chapter 21.70 of the Kirkland Municipal Code to read as follows:

**21.70.115 Ground Fault Circuit Interrupter ("G.F.C.I.")  
Protection for Personnel**

All 125-volt single-phase, 15- and 20-ampere receptacles installed outside of buildings and within six (6) feet of a sink, other fixed water sources or other areas used or intended to be used under wet or damp conditions shall have G.F.C.I. protection.

Exception: A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that in normal use is not easily moved from one place to another, and that is cord- and plug-connected in accordance with Section 400-7(a)(6), (a)(7), or (a)(8).

Section 7. Section 21.70.120 of the Kirkland Municipal Code is hereby amended to read as follows:

**21.70.120 Effect of chapter on existing wiring.**

- (a) The provisions of this chapter are not intended to apply to electrical installations in existence at the time of its adoption, except in those cases which, in the opinion of the building official, are found to be dangerous to life or property, and except as is otherwise specifically provided in this chapter.
- (b) When more than 50% of the wiring of any circuit, as measured in lineal feet, is changed, then the entire circuit must be rewired to bring it into conformance with this chapter.
- (c) Whenever an existing electrical service is to be moved, altered or enlarged, the service equipment must be reinstalled in conformance with this chapter.

- (d) Additions or alterations to existing electrical systems shall be done using materials and methods equivalent to, or exceeding the materials and methods used in the existing system.
- (e) Abandoned electrical conductors shall be terminated in accordance with National Electrical Code 300-15(a) or removed.

Section 8. Section 21.70.140 of the Kirkland Municipal Code is hereby amended to read as follows:

**21.70.140 Grounding Procedures.**

Electrical systems shall be grounded by one or all of the following means:

- (a) An approved conductor sized in accordance with Table 250-94 of the National Electrical Code attached by approved means to the concrete foundation reinforcing steel;
- (b) An electrode encased by at least two inches (20.8 mm) of concrete, located within and near the bottom of a concrete foundation or footing that is in direct contact with the earth, consisting of at least 20 feet (6.1 m) of bare copper, sized in accordance with Table 250-94, 1996 NEC. The grounding electrode system inspection will be conducted with the footing inspection prior to placement of concrete.
- ~~(b)~~(c) Two electrodes, rod or pipe that are eight feet in length, installed in the following manner and series-connected:
  1. Electrodes of pipe or conduit shall be no smaller than three-quarter inch trade size and where iron or steel, shall have the outer surface galvanized or otherwise metal-coated for corrosion protection.
  2. Electrodes of rods of steel or iron shall be at least five-eighths of an inch in diameter. Nonferrous rods or their equivalent shall be listed and shall not be less than one-half inch in diameter.
  3. The two electrodes shall be installed no less than 16 feet apart, concrete encased electrodes per National Electrical Code 250-81 (c), shall be accepted only if inspected and approved prior to placing of concrete, electrodes placed horizontally in a trench, and plate electrodes, shall not be approved without written approval from the building official. The upper end of the electrodes shall be flush or below ground level unless the above-ground end and the grounding electrode conductor attachment are protected against physical damage as specified in Section 250-117 of the National Electrical Code.
  4. Section 250-83 of the National Electrical Code shall apply where none of the above are applicable.

Exception: Temporary construction services are permitted to have one made electrode, as permitted by the Department of Labor and Industries Policy 89-01R.

- (e) (d) All required grounding shall be fully installed and visible at rough in inspection.
- (d) (e) Flexible metal conduit shall contain an equipment grounding conductor sized per National Electrical Code Section 250-95.

Section 9. Section 21.70.150 of the Kirkland Municipal Code is hereby amended to read as follows:

**21.70.150 Raceways.**

Metal clad (M.C.) cable shall not be smaller than #14 AWG National Electrical Code copper, with a grounding conductor contained within the outer jacket, approved per National Electrical Code for use only with approved fittings. An anti-short insulating bushing shall be installed at each end of type M-C cable. The connector shall not replace the anti-short bushing.

Section 10. Section 21.24.020 of the Kirkland Municipal Code is hereby amended to read as follows:

**21.24.020 UMC Table No.**

1-A amended-Mechanical permit fees.

Table 1-A of the Uniform Mechanical Code is amended to read as follows:

**Permit Issuance**

- 1. For the issuance of each permit (when not part of a building permit) \$20.00
- 2. For the issuance of each permit (when part of a building permit) N/C

**Unit Fee Schedule**

- 1. For the installation or relocation of each forced-air or gravity-type furnace or burner, including ducts and vents attached to such appliance, up to and including 100,000 Btu/h \$9.00
- 2. For the installation or relocation of each forced-air or gravity-type furnace or burner, including ducts and vents attached to such appliance over 100,000 Btu/h \$11.00
- 3. For the installation or relocation of each floor furnace, including vent \$9.00
- 4. For the installation or relocation of each suspended heater, recessed wall heater or floor-mounted unit heater \$9.00



5. For the installation, relocation or replacement of each appliance vent installed and not included in an appliance permit \$4.50
6. For the repair of, alteration of, or addition to each heating appliance, refrigeration unit, cooling unit, absorption unit, or each heating, cooling, absorption, or evaporative cooling system, including installation of controls regulated by this code \$9.00
7. For the installation or relocation of each boiler or compressor to and including three horsepower, or each absorption system to and including 100,000 Btu/h \$9.00
8. For the installation or relocation of each boiler or compressor over three horsepower to and including 15 horsepower, or each absorption system over 100,000 Btu/h to and including 500,000 Btu/h \$16.50
9. For the installation or relocation of each boiler or compressor over 15 horsepower to and including 30 horsepower, or each absorption system over 500,000 Btu/h to and including 1,000,000 Btu/h \$22.50
10. For the installation or relocation of each boiler or compressor over 30 horsepower to and including 50 horsepower, or for each absorption system over 1,000,000 Btu/h to and including 1,750,000 Btu/h \$33.50
11. For the installation or relocation of each boiler or refrigeration compressor over 50 horsepower, or each absorption system over 1,750,000 Btu/h \$56.00
12. For each air-handling unit to and including 10,000 cubic feet per minute, including ducts attached thereto \$6.50
13. For each air-handling unit over 10,000 cfm \$11.00
14. For each evaporative cooler other than portable type \$6.50
15. For each ventilation fan connected to a single duct \$4.50
16. For each ventilation system which is not a portion of any heating or air-conditioning system authorized by a permit \$6.50
17. For the installation of each hood which is served by mechanical exhaust, including the ducts for such hood \$6.50
18. For the installation or relocation of each domestic-type incinerator \$11.00
19. For the installation or relocation of each commercial or industrial-type incinerator \$45.00
20. For each appliance or piece of equipment regulated by this code but not classed other appliance categories, or for which no other fee is listed in this code \$6.50
21. When Appendix B, Chapter 13 is applicable (see Section 103), permit fees for fuel-gas piping shall be as follows:

Less than 100'	\$5.00
101' to 300'	\$10.00
Over 300'	\$5.00 per each 100' over

For the installation of or relocation of each:

22. Oil storage tank, including vent and flammable or combustible liquid tank, or LP gas tank	\$50.00
23. Conversion burner	\$9.00
24. Gas log lighter	\$6.50
25. Spa heater	\$6.50
26. Gas range	\$3.00
27. Gas BBQ	\$3.00
28. Gas or electric dryer	\$6.50
29. Wood burning stove, insert masonry fireplace, or factory-built "Zero Clearance" fireplace	\$10.00
30. <u>Thermostat wiring associated with installation of mechanical equipment</u>	<u>\$5.00</u>

Other Inspections and Fees:

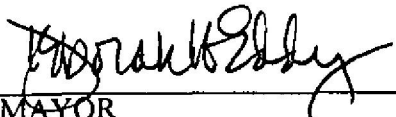
1. Inspections outside of normal business hours, per hour (minimum charge-two hours)	\$30.00
2. Reinspection fees assessed under provisions of Section 116.6, per inspection	\$30.00
3. Inspection for which no fee is specifically indicated, per hour (minimum charge-one-half hour)	\$30.00
4. Additional plan review required by changes, additions or revisions to plans or to plans for which an initial review has been completed (minimum charge-one-half hour)	\$30.00

Section 11. Severability. If any section, subsection, sentence, clause, phrase, part or portion of this ordinance is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance.


Section 12. Effective date. This ordinance shall be in force and effect five days from and after its passage by the Kirkland City Council and publication pursuant to Section 1.08.107, Kirkland Municipal Code in the summary form attached to the original of this ordinance and by this reference approved by the City Council

Passed by majority vote of the Kirkland City Council in regular,  
open meeting this 24th day of June, 1997.


Signed in authentication thereof this 24th day of  
June, 1997.

  
MAYOR

Attest:

  
City Clerk

Approved as to Form:

  
City Attorney

ORDELECODE

PUBLICATION SUMMARY  
OF ORDINANCE NO. 3588

AN ORDINANCE OF THE CITY OF KIRKLAND AMENDING PORTIONS OF THE KIRKLAND ELECTRICAL CODE AND THE KIRKLAND MECHANICAL CODE.

SECTIONS 1 - 5. Amend portions of Chapter 21.70 of the Kirkland Municipal Code relating to the Electrical Code.

SECTION 6. Adds a new Section 21.70.115 to the Kirkland Municipal Code relating to ground fault circuit interrupter protection.

SECTIONS 7-9. Amend portions of Chapter 20.70 of the Kirkland Municipal Code relating to the Electrical Code.

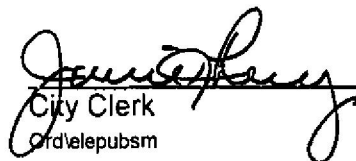
SECTION 10. Amends Section 21.24.020 of the Kirkland Municipal Code relating to mechanical permit fees.

SECTION 11. Provides a severability clause for the ordinance.

SECTION 12. Authorizes publication of the ordinance by summary, which summary is approved by the City Council pursuant to Section 1.08.017 Kirkland Municipal Code and establishes the effective date as five days after publication of summary.

The full text of this Ordinance will be mailed without charge to any person upon request made to the City Clerk for the City of Kirkland. The Ordinance was passed by the Kirkland City Council at its regular meeting on the 24th day of June, 1997.

I certify that the foregoing is a summary of Ordinance No. 3588 approved by the Kirkland City Council for summary publication.

  
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City Clerk  
Ord/elepubsm