

ORDINANCE NO. _____

1 AN ORDINANCE amending Chapter 23.10 of the Lincoln Municipal Code by
2 amending Section 23.10.010 to adopt the 2002 edition of the National Electrical Code (NEC);
3 amending Section 23.10.190 to allow inspection requests to be made by electronic
4 transmission; amending Section 23.10.290 to require approval metallic conduit, nonmetallic
5 conduit, electric nonmetallic tubing, manufactured wiring systems to be specifically approved
6 by the authority having jurisdiction; amending Section 23.10.312 to amend Article 100
7 Definitions to add definitions for “service conductors” and “special permission”; adding a new
8 section numbered 23.10.320 to amend Section 210.8(B) of the NEC to add provisions regarding
9 ground fault protection for personnel other than dwelling units; adding a new section numbered
10 23.10.324 to delete Section 210.12 from the NEC; amending Section 23.10.330 to amend
11 Section 210.63 of the NEC to amend provisions regarding heating, air conditioning, and
12 refrigeration equipment outlets; amending Section 23.10.331 amending Section 210.70 of the
13 NEC to clarify provisions regarding wall switches to be located on interior stairways; amending
14 Section 23.10.345 amending Section 240.20 of the NEC to clarify references to the Code;
15 amending Section 23.10.350 amending Section 250.24 of the NEC to change a reference to
16 Article 250; adding a new section numbered 23.10.385 to amend §314.16(B)4 of the NEC to
17 modify provisions regarding box fill; amending Section 23.10.390 to change a reference from
18 Section 336-5 to 334.12 of the NEC as being amended; repealing Section 23.10.392 amending
19 §370.16(b)(4) of the NEC; adding a new section numbered 23.10.393 to amend Section 406.8
20 of the NEC to modify provisions regarding receptacles in damp or wet locations; adding a new
21 section numbered 23.10.395 to amend Section 408.21 of the NEC to revise provisions regarding

1 grounded conductor terminations; adding a new section numbered 23.10.417 to amend Article
2 430.102 of the NEC to provide provisions regarding the location of motor disconnects; adding
3 a new section numbered 23.10.425 to delete Section 500.7(k) from the NEC; amending Section
4 23.10.460 to change a reference from Section 680.6(a)(1) to Section 680.22(A) of the NEC;
5 amending Section 23.10.475 to change a reference from Section 680.20(a)(2) to Section
6 680.23(A)(4) of the NEC; amending Section 23.10.480 to change a reference from Section
7 680.22 to Section 680.26 of the NEC; amending Section 23.10.490 to change a reference from
8 680.41(a)(3) to Section 680.43(A)(3) of the NEC; amending Section 23.10.495 to change a
9 reference from Section 680.71 to Section 680.72 of the NEC; amending Section 23.10.520 to
10 revise the combined fee and price schedule; and repealing Sections 23.10.010, 23.10.190,
11 23.10.290, 23.10.312, 23.10.330, 23.10.331, 23.10.345, 23.10.350, 23.10.390, 23.10.460,
12 23.10.475, 23.10.480, 23.10.490, 23.10.495, and 23.10.520 of the Lincoln Municipal Code as
13 hitherto existing.

14 BE IT ORDAINED by the City Council of the City of Lincoln, Nebraska:

15 Section 1. That Section 23.10.010 of the Lincoln Municipal Code be amended
16 to read as follows:

17 **23.10.010 Adoption of the National Electrical Code, ~~1999~~ 2002 Edition.**

18 Except as hereinafter provided by specific changes, the National Electrical Code (~~1999~~
19 2002 edition), hereinafter the National Electrical Code, sponsored by the National Fire
20 Protection Association under the auspices of the American National Standards Institute is
21 hereby adopted. Three printed copies of this document have been filed in the office of the
22 Director of Building and Safety of the City of Lincoln for the use of and examination by the

1 public. The City Clerk shall maintain one printed copy of this document, in book form, with the
2 official records of the city.

3 Section 2. That Section 23.10.190 of the Lincoln Municipal code be amended to
4 read as follows:

5 **23.10.190 Inspections, Request for.**

6 Inspections of the installation, alteration, repair, or addition to electrical equipment under
7 the provisions of this code shall be requested by the person, firm, corporation or authorized
8 representative holding the permit for such work. The Building Official may require that every
9 request for inspection be filed at least one working day before the inspection is desired. Such
10 request may be in writing, by electronic transmission, or by telephone, at the option of the
11 Building Official. Requests for inspection must include the permit number, electrical contractor
12 name, address and suite number, if applicable, and means of access. Appointments for
13 required inspections shall not be made with the exception that inspection requests may be
14 scheduled for a given day. It shall be the duty of the person requesting inspection of electrical
15 equipment to provide access to and a means for proper inspection of such equipment. The
16 person requesting final inspection shall determine that the electrical equipment is operational
17 before requesting such final inspection.

18 Section 3. That Section 23.10.290 of the Lincoln Municipal Code be amended
19 to read as follows:

20 **23.10.290 Wiring Methods.**

21 (a) Approved metallic conduit, nonmetallic conduit, electric nonmetallic tubing,
22 manufactured wiring systems specifically approved by the authority have jurisdiction, and
23 approved wireway; or cable tray shall be used in the installation of all electrical equipment in or

1 on all other buildings, structures, tents, and premises than those enumerated in subsection (b)
2 of this section. All metallic wire enclosures shall be electrically and mechanically continuous
3 and grounded. The above wiring methods shall also be acceptable for those occupancies listed
4 in subsection (b) of this section. Flexible metal conduit may be used for fished-in connections,
5 where flexibility or sound isolation is required and for extensions of approved raceway systems
6 where their installation is not possible because of building requirements. Flexible metal conduit
7 shall not be used as a general wiring method. Where exposed to weather or in wet or damp
8 locations, liquid-tight flexible metallic or nonmetallic conduit or heavy gauge steel flexible metal
9 conduit shall be used with the appropriate conductors and listed connectors. Assemblies spe-
10 cifically listed or approved as a grounding means shall be allowed. All other flexible metal or
11 liquid-tight flexible metal raceways shall incorporate an equipment grounding conductor. Plastic
12 fiber ducts and strips may be used for surface extensions. Where electrical nonmetallic tubing
13 is installed through steel studs, grommets shall be installed.

14 It is the intent of this section to require a substantial, approved raceway system in which
15 conductors may be installed.

16 EXCEPTION (1): Fire alarm systems of fifty volts or less and installed in accordance
17 with NEC Article 760 shall not be required to be installed in a conduit system, except if required
18 to comply with NEC Article 300.22.

19 (b) Nonmetallic sheathed cable may be used for the installation of all concealed
20 electrical equipment within the following buildings:

- 21 (1) Single-family dwellings;
- 22 (2) Private garages with six parking stalls or less, which are used in
23 connection with private or multi-family dwellings;

1 (3) Outbuildings used in connection with a private or multi-family dwelling,
2 such as tool houses, hobby shops, and similar structures;

3 (4) Buildings now wired with metallic protected wiring which will be used in
4 the future for dwelling purposes only;

5 (5) Multi-family dwellings (apartment houses) not exceeding three stories
6 above grade, where each unit within such dwelling has individual distribution panels located in
7 each unit; however, all feeders or subfeeders to each unit shall be installed in rigid metal
8 conduit, intermediate metal conduit, electrical metallic tubing, or rigid nonmetallic conduit.

9 EXCEPTION: In existing structures only, service equipment and sub-panels may be
10 located in a common area accessible to all occupants, provided individual dwelling unit home
11 runs are routed in a raceway between the sub-panel and the unit.

12 The word "concealed" as used in this section shall mean protected from mechanical
13 injury by being installed between or through holes bored in rafters, studding, floor joists, or being
14 fished in the air voids in masonry walls or partitions of buildings.

15 (c) Nonmetallic boxes. Where nonmetallic boxes are used with open wiring or
16 concealed knob-and-tube wiring, the conductors shall enter the box through individual holes.
17 Where flexible tubing is used to encase the conductors, the tubing shall extend from the last
18 insulating support to no less than one-fourth inch inside the box. Where nonmetallic sheathed
19 cable is used, the cable assembly, including the sheath, shall extend into the box no less than
20 one-fourth inch through a nonmetallic sheathed cable knockout opening. Where nonmetallic
21 sheathed cable is used with nonmetallic boxes and where the cable is fastened within eight
22 inches of the box measured along the sheath and where the sheath extends into the box no less

1 than one-fourth inch, securing the cable to the box shall not be required. In all other instances,
2 individual conductors and cables shall be secured to nonmetallic boxes.

3 (d) Underground conductors shall be installed as follows: Direct burial conductors,
4 30 inches minimum; non-metallic raceways, a minimum of 18 inches of cover; asphaltum
5 protected or PVC coated rigid or IMC conduits, a minimum of 6 inches of cover. Electrical
6 Metallic Tubing (EMT) shall not be used for direct earth burial.

7 Exception 1. A minimum 24 inches of cover shall be provided for any raceway
8 installed beneath streets, roads, alleys, driveways, parking lots, or runways.

9 Exception 2. The authority having jurisdiction may grant special permission for
10 lesser depths when location, construction parameters, etc., provide the same level of safety.

11 (e) Overhead conductors running from pole to pole, building to building, or pole to
12 building, may be installed as open conductors approved for that purpose by the Building Official.

13 (f) Branch circuits or feeders supplying power to sub-panels, appliances, or other
14 utilization equipment shall incorporate a separate equipment grounding means.

15 (g) Branch circuit or feeder conductors No. 6 and smaller shall be copper.

16 (h) Alternate energy sources: Prior to the installation of any electrical generating
17 equipment, whether or not said equipment is capable of co-generation, plans and specifications
18 for such shall be submitted to and approved by the Building Official and the power supplier.

19 NOTE: Persons wishing to install such equipment should first contact their power
20 supplier and the City of Lincoln Department of Building and Safety.

21 Two permanent plaques shall be installed, one at the main disconnect for the normal
22 power supply and one at the meter location of the power supplier stating the location of the
23 disconnecting means for the alternate energy source.

1 Section 4. That Section 23.10.312 of the Lincoln Municipal Code be amended
2 to read as follows:

3 **23.10.312 Article 100 Definitions Amended; Service Conductors; Special**
4 **Permission.**

5 Article 100 of the National Electrical Code is amended to include the definitions of
6 "Service Conductors" and "Special Permission" as follows:

7 Service Conductors: The conductors from the service point or other source of power to
8 the service disconnecting means.

9 Special Permission: The consent of the authority having jurisdiction.

10 Section 5. That Chapter 23.10 of the Lincoln Municipal Code be amended by
11 adding a new section numbered 23.10.320 to read as follows:

12 **23.10.320 Section 210.8(B) Amended; Ground Fault Protection for Personnel,**
13 **Receptacles Other Than Dwelling Units**

14 Section 210.8(B) of the National Electrical Code is hereby amended to read as follows:

15 **210.8(B) Ground Fault Protection for Personnel, Other Than Dwelling Units.**

16 All 125-volt, single-phase, 15- and 20-ampere receptacles installed in the locations specified
17 in (1), (2), (3), (4), and (5) shall have ground-fault circuit-interrupter protection for personnel:

18 (1) Bathrooms

19 (2) Rooftops

20 (3) Kitchens

21 (4) Wet bar sinks, where the receptacles are installed to serve the countertop

22 surfaces, and are located within 1.8m (6 feet) of the outside edge of the wet bar sink.

1 (5) Receptacles within 1.8m (6 feet) of wet work areas such as wash down areas and
2 utility sinks.

3 Exception 1. Receptacle outlets for refrigeration equipment.

4 Exception 2. Receptacles which are not readily accessible and are supplied from
5 a dedicated branch circuit for electric snow-meting or de-icing equipment shall be permitted to
6 be installed in accordance with the applicable provisions of Article 426.

7 FPN: It is the intent of this section to require ground-fault circuit-interrupter
8 protection in areas where electricity is being used in close proximity to water sources.

9 Section 6. That Chapter 23.10 of the Lincoln Municipal Code be amended by
10 adding a new section numbered 23.10.324 to read as follows:

11 **23.10.324 Section 210.12 Deleted; Arc Fault Circuit Interrupters.**

12 Section 210.12 of the 2002 National Electrical Code is hereby deleted in its entirety.

13 Section 7. That Section 23.10.330 of the Lincoln Municipal Code be amended
14 to read as follows:

15 **23.10.330 Section 210.63 Amended; Heating, Air-Conditioning, and Refrigeration**
16 **Equipment Outlet.**

17 Section 210.63 of the National Electrical Code is hereby amended to read as follows:

18 **210.63. Heating, Air-Conditioning, and Refrigeration Equipment Outlet.** This
19 section of the National Electrical Code shall apply to new installations only. For the purposes
20 of this section, 'new installations' shall mean all new construction, and existing structures which
21 are being equipped with an air conditioner or heat pump for the first time. It is not the intent of
22 this section to require a receptacle to be installed for replacement units. ~~A 125-volt, single-~~
23 ~~phase, 15- or 20-ampere-rated receptacle outlet shall be installed at an accessible location for~~

1 ~~the servicing of new installations of heating, air-conditioning, and refrigeration equipment. The~~
2 ~~receptacle shall be located on the same level and within 25 feet (7.62 m) of the heating, air-~~
3 ~~conditioning, and refrigeration equipment. The receptacle outlet shall not be connected to the~~
4 ~~load side of the equipment disconnecting means.~~

5 This receptacle, whether located at grade level or on rooftops, shall be ground fault
6 circuit interrupter protected. An existing receptacle fulfilling all the criteria of this section shall
7 be considered as meeting the intent of this requirement.

8 Section 8. That Section 23.10.331 of the Lincoln Municipal Code be amended
9 to read as follows:

10 **23.10.331 Section 210.70 Amended; Lighting Outlets Required.**

11 Section 210.70 of the National Electrical Code is hereby amended to read as follows:

12 **210.70 Lighting Outlets Required.** Lighting outlets shall be installed where specified
13 in (a), (b), and (c).

14 (a) Dwelling Units. In dwelling units, lighting outlets shall be installed in accordance
15 with (1), (2), and (3).

16 (1) Habitable Rooms. At least one wall switch-controlled lighting outlet shall
17 be installed in every habitable room and bathroom.

18 Exception No. 1: In other than kitchens and bathrooms, one or more
19 receptacles controlled by a wall switch shall be permitted in lieu of lighting outlets.

20 Exception No. 2: Lighting outlets shall be permitted to be controlled by
21 occupancy sensors that are (1) in addition to wall switches or (2) located at a customary wall
22 switch location and equipped with a manual override that will allow the sensor to function as a
23 wall switch.

1 (2) Additional Locations. At least one wall switch-controlled lighting outlet shall
2 be installed in hallways, stairways, attached garages, and detached garages with electric power;
3 and to provide illumination on the exterior side of outdoor entrances or exits with grade level
4 access. A vehicle door in a garage shall not be considered as an outdoor entrance or exit.
5 Where lighting outlets are installed in interior stairways, there shall be a wall switch at each floor
6 level to control the lighting outlet where the difference between floor levels is six steps (risers)
7 or more.

8 Exception: In hallways, stairways, and at outdoor entrances, remote,
9 central, or automatic control of lighting shall be permitted.

10 (3) Storage or Equipment Spaces. For attics, underfloor spaces, utility rooms,
11 and basements, at least one lighting outlet controlled by a wall switch shall be installed where
12 these spaces are used for storage or contain equipment requiring servicing. At least one point
13 of control shall be at the usual point of entry to these spaces. The lighting outlet shall be
14 provided at or near the equipment requiring servicing.

15 (b) Guest Rooms. At least one wall switch-controlled lighting outlet or wall switch-
16 controlled receptacle shall be installed in guest rooms in hotels, motels, or similar occupancies.

17 (c) Other Locations. For attics and underfloor spaces containing equipment requiring
18 servicing, such as heating, air-conditioning, and refrigeration equipment, at least one lighting
19 outlet controlled by a wall switch shall be installed in such spaces. At least one point of control
20 shall be at the usual point of entry to these spaces. The lighting outlet shall be provided at or
21 near the equipment requiring servicing.

22 Section 9. That Section 23.10.345 of the Lincoln Municipal Code be amended
23 to read as follows:

1 **23.10.345 Section 240.20 Amended; Ungrounded Conductors.**

2 Section 240.20 of the National Electrical Code is hereby amended to read as follows:

3 **240.20. Ungrounded Conductors.**

4 (a) Overcurrent Device Required. A fuse or an overcurrent trip unit of a circuit
5 breaker shall be connected in series with each ungrounded conductor. A combination of a
6 current transformer and overcurrent relay shall be considered equivalent to an overcurrent trip
7 unit.

8 (FPN): For motor circuits, see Parts ~~C, D, F, and K~~ III, IV, V, and X of Article 430.

9 (b) Circuit Breaker as Overcurrent Device. Circuit breakers shall open all
10 ungrounded conductors of the circuit simultaneously. Listed multi-pole circuit breakers shall be
11 utilized in circuits with more than one ungrounded conductor. ~~See Sections 210-4 and 210-10.~~

12 (c) Closed-Loop Power Distribution Systems. Listed devices providing equivalent
13 overcurrent protection in closed-loop power distribution systems shall be permitted as a
14 substitute for fuses or circuit breakers.

15 Section 10. That Section 23.10.350 of the Lincoln Municipal Code be amended
16 to read as follows:

17 **23.10.350 Section 250.24 Amended; Grounding Service-Supplied Alternating-**
18 **Current Systems; System Grounding Connections.**

19 Section 250.24 of the National Electrical Code is hereby amended to read as follows:

20 **250.24 System Grounding Connections.** A premises wiring system that is supplied
21 by an ac service that is grounded shall have at each service a grounding electrode conductor
22 connected to a grounding electrode that complies with ~~Part I,~~ III of Article 250. The grounding
23 electrode conductor shall be connected to the grounded service conductor in the service

1 disconnecting means, and be run in one unspliced piece to the street side of the premises' water
2 meter or approved electrode.

3 EXCEPTION (1): By special permission.

4 EXCEPTION (2): As permitted in Section 23.10.300 (Note).

5 EXCEPTION (3): As permitted in Section 23.10.360 (Exception).

6 Where the transformer supplying the service is located outside the building, at least one
7 additional grounding connection shall be made from the grounded service conductor to a
8 grounding electrode, either at the transformer or elsewhere outside the building. A grounding
9 connection shall not be made to any grounded circuit conductor on the load side of the service
10 disconnecting means.

11 (FPN): See definition of "Service Drop" and "Service Lateral" in Article 100; see also
12 Section 230.21.

13 A grounding electrode conductor shall be connected to the grounded conductor of a
14 separately derived system in accordance with the provisions of Section 250.30(a)(2).

15 A grounding conductor connection shall be made at each separate building where
16 required by Section 250.32.

17 For ranges, counter-mounted cooking units, wall-mounted ovens, clothes dryers, and
18 meter enclosures as permitted by Section 250.61.

19 For services that are dual fed (double ended) in a common enclosure or grouped
20 together in separate enclosures and employing a secondary tie, a single grounding electrode
21 connection to the tie point of the grounded circuit conductors from each power source shall be
22 permitted.

1 Where the main bonding jumper specified in Section 250.28 is a wire or busbar, and is
2 installed from the neutral bar or bus to the equipment grounding terminal bar or bus in the
3 service equipment, the grounding electrode conductor shall be permitted to be connected to the
4 equipment grounding terminal bar or bus to which the main bonding jumper is connected.

5 The grounded conductor on a high-impedance grounded neutral system shall be
6 grounded in accordance with Section 250.36.

7 Section 11. That Chapter 23.10 of the Lincoln Municipal Code be amended by
8 adding a new section numbered 23.10.385 to read as follows:

9 **23.10.385 Section 314.16(B)4 Amended; Box Fill.**

10 Section 314.16(B)(4) of the National Electrical Code is hereby amended to read as
11 follows:

12 **314.16(B)4. Device or Equipment Fill.** For each yoke or strap containing one or
13 more devices or equipment, a single volume allowance in accordance with Table 314.16(B)
14 shall be made for each yoke or strap based on the largest conductor connected to a device(s)
15 or equipment supported by that yoke or strap.

16 Section 12. That Section 23.10.390 of the Lincoln Municipal Code be amended
17 to read as follows:

18 **23.10.390 Section 336-5 334.12 Amended; Nonmetallic Sheathed Cable, Uses Not**
19 **Permitted.**

20 Section 336-5 334.12 of the National Electrical Code is hereby amended to read as
21 follows:

1 **336-5 334.12. Uses Not Permitted.** Nonmetallic sheathed cable shall not be used
2 in any single family, duplex, multifamily dwelling, or other structure exceeding three floors above
3 grade. See Section 23.10.290 for approved wiring methods.

4 For the purpose of this article, the first floor of a building shall be that floor that has 50
5 percent or more of the exterior wall surface area level with or above finished grade. One
6 additional level that is the first level and not designed for human habitation and used only for
7 vehicle parking, storage, or similar use shall be permitted.

8 Section 13. That Section 23.10.392 of the Lincoln Municipal Code be and the
9 same is hereby repealed in its entirety:

10 ~~**23.10.392**~~ ~~**Section 370-16(b)4 Amended; Box Fill.**~~

11 ~~Section 370-16(b)4 of the National Electrical Code is hereby amended to read as follows:~~

12 ~~**370-16(b)4. Device or Equipment Fill.** For each yoke or strap containing one or~~
13 ~~more devices or equipment, a single volume allowance in accordance with Table 370-16(b) shall~~
14 ~~be made for each yoke or strap based on the largest conductor connected to a device(s) or~~
15 ~~equipment supported by that yoke or strap.~~

16 Section 14. That Chapter 23.10 of the Lincoln Municipal Code be amended by
17 adding a new section numbered 23.10.393 to read as follows:

18 **23.10.393** **Section 406.8 Amended; Receptacles in Damp or Wet Locations**

19 Section 406.8 of the National Electrical Code is hereby amended to read as follows:

20 **406.8 Receptacles in Damp or Wet Locations.**

21 (a) Damp Locations. A receptacle installed outdoors in a location protected from the
22 weather or in other damp locations shall have an enclosure for the receptacle that is

1 weatherproof when the receptacle is covered (attachment plug cap not inserted and receptacle
2 covers closed).

3 An installation suitable for wet locations shall also be considered suitable for
4 damp locations.

5 A receptacle shall be considered to be in a location protected from the weather
6 where located under roofed open porches, canopies, marquees, and the like, and will not be
7 subjected to a beating rain or water runoff.

8 (b) Wet Locations.

9 1. A receptacle installed in a wet location where the product intended to be
10 plugged into it is not attended while in use (e.g., sprinkler system controllers, landscape lighting,
11 holiday lights, etc.) shall have an enclosure that is weatherproof with the attachment plug cap
12 inserted or removed.

13 2. A receptacle installed in a wet location where the product intended to be
14 plugged into it will be attended while in use (e.g., portable tools, etc.) shall have an enclosure
15 that is weatherproof when the attachment plug cap is removed.

16 (c) Bathtub and Shower Space. A receptacle shall not be installed within a bathtub
17 or shower space.

18 (d) Protection for Floor Receptacles. Standpipes of floor receptacles shall allow
19 floor-cleaning equipment to be operated without damage to receptacles.

20 (e) Flush Mounting with Faceplate. The enclosure for a receptacle installed in an
21 outlet box flush-mounted on a wall surface shall be made weatherproof by means of a
22 weatherproof faceplate assembly that provides a watertight connection between the plate and
23 the wall surface.

1 (f) Installation. A receptacle outlet installed outdoors shall be located so that water
2 accumulation is not likely to touch the outlet cover or plate.

3 Section 15. That Chapter 23.10 of the Lincoln Municipal Code be amended by
4 adding a new section numbered 23.10.395 to read as follows:

5 **23.10.395 Section 408.21 Amended; Grounded Conductor Terminations.**

6 Section 408.21 of the National Electrical Code is hereby amended to read as follows:

7 **408.21 Grounded Conductor Terminations.** Each grounded conductor shall
8 terminate within the panelboard in an individual terminal that is not also used for another
9 conductor.

10 Exception 1: Grounding conductors of like material and size, and from the same
11 branch circuit shall be permitted to terminate in the same terminal as the grounded conductor,
12 if the terminal is identified for connection of more than one conductor.

13 Exception 2: Grounded conductors of circuits with parallel conductors shall be
14 permitted to terminate in a single terminal if the terminal is identified for connection of more than
15 one conductor.

16 Section 16. That Chapter 23.10 of the Lincoln Municipal Code be amended by
17 adding a new section numbered 23.10.417 to read as follows:

18 **23.10.417 Article 430.102 Amended; Location of Motor Disconnects.**

19 Article 430.102 of the National Electrical Code is hereby amended to read as follows:

20 **430.102. Location**

21 (a) Controller. An individual disconnecting means shall be provided for each
22 controller and shall disconnect the controller. The disconnecting means shall be located in sight
23 from the controller location.

1 Exception No. 1: For motor circuits over 600 volts, nominal, a controller
2 disconnecting means capable of being locked in the open position shall be permitted to be out
3 of sight of the controller, provided the controller is marked with a warning label giving the
4 location of the disconnecting means.

5 Exception No. 2: A single disconnecting means shall be permitted for a group of
6 coordinated controllers that drive several parts of a single machine or piece of apparatus. The
7 disconnecting means and the controllers shall be located in sight from the machine or
8 apparatus.

9 **(b) Motor. A disconnecting means shall be located in sight from the motor location**
10 **and the driven machinery location.**

11 Exception: A disconnecting means, in addition to the controller disconnecting
12 means as required in accordance with Section 430.102(a), shall not be required for the motor
13 where the disconnecting means for the controller is individually capable of being locked in the
14 open position.

15 FPN: For information on lockout/tagout procedures, see Standard for Electrical
16 Safety Requirements for Employee Workplaces, NFPA 70E.1995.

17 Section 17. That Chapter 23.10 of the Lincoln Municipal Code be amended by
18 adding a new section numbered 23.10.425 to read as follows:

19 **23.10.425 Section 500.7(K) Deleted; Combustible Gas Detection Systems.**

20 Section 500.7(K) of the 2002 National Electrical Code is hereby deleted in its entirety.

21 Section 18. That Section 23.10.460 of the Lincoln Municipal Code be amended
22 to read as follows:

1 **23.10.460 Section ~~680-6(a)(1)~~ 680.22(A)(1) Amended; Pool and Fountain**
2 **Receptacle Locations, and Circuit GFCI Protection Requirements.**

3 Section ~~680-6(a)(1)~~ 680.22(A)(1) of the National Electrical Code is hereby amended to
4 read as follows:

5 ~~680-6(a)(1)~~ **680.22(A)(1)**: A receptacle that provides power for a water-pump motor
6 for a permanently installed pool or fountain as permitted in Section 680.7, shall be permitted not
7 less than five feet nor more than ten feet from the inside walls of the pool or fountain and shall
8 be single and of the locking and grounding types and all receptacles shall be protected by a
9 ground-fault circuit-interrupter. All circuits supplying power for pool equipment shall be
10 protected by ground-fault circuit-interrupters.

11 Other receptacles on the property shall be located at least 10 feet from the inside walls
12 of a pool or fountain.

13 Section 19. That Section 23.10.475 of the Lincoln Municipal Code be amended
14 to read as follows:

15 **23.10.475 Section ~~680-20(a)(2)~~ 680.23(A)(4) Amended; Swimming Pool Underwater**
16 **Lighting Fixtures Luminaries; Voltage Limitations.**

17 Section ~~680-20(a)(2)~~ 680.23(A)(4) of the National Electrical Code is hereby amended
18 to read as follows:

19 ~~680-20(a)(2)~~ **680.23(A)(4)**. **Underwater Lighting Fixtures Luminaries.** No lighting
20 fixture luminaire shall be installed for operation over 150 volts between conductors except by
21 special permission. Forming shells of nonmetallic construction for wet-niche fixtures shall be
22 allowed by special permission only.

1 Section 20. That Section 23.10.480 of the Lincoln Municipal Code be amended
2 to read as follows:

3 **23.10.480 Section ~~680-22~~ 680.26 Amended; Bonding Requirements.**

4 Section ~~680-22 Bonding~~ 680.26 of the National Electrical Code is hereby amended to
5 read as follows:

6 **~~680-22~~ 680.26. Bonding.** The No. 8 or larger solid bonding conductor shall be ex-
7 tended to the equipment grounding terminal of the sub-panel, or neutral bar of the service panel
8 which supplies power to the pool lights and equipment.

9 Section 21. That Section 23.10.490 of the Lincoln Municipal Code be amended
10 to read as follows:

11 **23.10.490 Section ~~680-41(a)(3)~~ 680.43(A)(3) Amended; GFCI Requirements for
12 Spas and Hot Tubs.**

13 Section ~~680-41(a)(3)~~ 680.43(A)(3) of the National Electrical Code is hereby amended
14 to read as follows:

15 **~~680-41(a)(3)~~ 680.43(A)(3).** Receptacles or permanent wiring supplying power to a spa
16 or hot tub shall be protected by ground-fault circuit interrupters.

17 Section 22. That Section 23.10.495 of the Lincoln Municipal Code be amended
18 to read as follows:

19 **23.10.495 Section ~~680-71~~ 680.72 Amended; Electrical Equipment Located in the
20 Vicinity of a Hydromassage Tub.**

21 Section ~~680-71~~ 680.72 of the National Electrical Code is hereby amended to read as
22 follows:

1 ~~680-71~~ **680.72.** ~~Lighting fixtures~~ Luminaries, switches, receptacles, and other electric
2 equipment located in the same room, and not directly associated with a hydromassage bathtub
3 shall be installed in accordance with the requirements of Chapters 1 through 4 in this code
4 covering the installation of that equipment in bathrooms. ~~Lighting fixtures~~ Luminaries, switches,
5 receptacles, and other electric equipment located within five feet measured horizontally from the
6 inside walls of the hydromassage bathtub shall be protected by ground fault circuit interrupter.

7 Section 23. That Section 23.10.520 of the Lincoln Municipal Code be amended
8 to read as follows:

9 **23.10.520 Permit Fees.**

10 Before a permit to install, alter, or add to electrical equipment shall be issued, a fee for
11 such permit shall be paid to the Building Official as set forth below. Said permit shall become
12 valid for a period of sixty days from the date of issuance, and remain valid as long as work on
13 the project is not abandoned for a period in excess of sixty days.

14 Where work for which a permit is required by this code is started prior to obtaining a
15 permit, the fees hereinafter specified shall be doubled; however, the payment of such double
16 fees shall not relieve any person, firm, or corporation from fully complying with the requirements
17 of this code.

18 There shall be no refunds or credits given on any permit which has expired. Permit
19 holders returning an unused or partially completed permit prior to the expiration date of the
20 permit shall be limited to a maximum refund amounting to two-thirds of the original fee for the
21 items not yet inspected, for total refund amounts of \$60.00 and less. For permit fee refund totals

in excess of \$60.00, a \$20.00 processing fee will be levied against the refund amount, but the two-thirds maximum shall not apply.

COMBINED FEE AND PRICE SCHEDULE

PERMIT FEES:

Minimum Permit Fee Charge ~~\$18.00~~ 20.00

There is no minimum permit fee for supplemental permits for shortages occurring on the original permit, and for which the work has been inspected.

Service Equipment:

30 ampere thru 400 ampere ~~30.00~~ 33.00
 401 ampere thru 1600 ampere ~~42.00~~ 50.00
 1601 ampere thru 3000 ampere ~~54.00~~ 60.00
 3001 ampere and over ~~65.00~~ 75.00
 Service Repair ~~21.00~~ 20.00
Change overhead to underground, with no change of panel 18.00
 Each additional meter ~~3.50~~ 4.00
 Each branch panel, sub-panel, or transfer switch ~~10.50~~ 12.00

High Voltage (>600v) Equipment:

per termination ~~3.00~~ 5.00

Outlets for lighting, receptacles, switches, and junction boxes (each opening)

. ~~.40~~ .50

Lighting fixtures, each

. ~~.40~~ .50

Baseboard heaters, each unit

. ~~3.00~~ 4.00

Ceiling Fans

. ~~3.50~~ 4.00

Motors:

Up to and including 3 H.P. ~~6.00~~ 7.00
 Over 3 H.P. ~~9.50~~ 10.00

Generators:

Up to and including 2.2 KW ~~6.00~~ 7.00
 Over 2.2 KW ~~9.50~~ 10.00

Transformers:

To 75 KVA ~~9.50~~ 10.00
 76 - 112 1/2 KVA ~~12.00~~ 15.00
 Over 112 1/2 KVA ~~18.00~~ 25.00

Exhaust fans and hoods:

Residential ~~2.50~~ 3.00
 Commercial ~~12.00~~ 18.00

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Pole lights, arc lights, vapor lights, yard lights	4.50 <u>5.00</u>
Appliances or receptacles for same: such as disposal, dishwasher, dryer, range, furnace, air conditioner, heat pumps, <u>roof top units (RTUs)</u> , unit heater, duct heater, water heater or receptacles for approved cord connected appliances of a like nature	4.00 <u>5.00</u>
Signs: Including time clock, disconnect, ballasts, etc.	18.00 <u>25.00</u>
Pool Grounding	42.00 <u>54.00</u>
Hot Tub or Spa	25.00 <u>30.00</u>
<u>Other NEC Article 680 items, such as fountains</u>	<u>20.00</u>
Hydro Massage Bathtub	15.00
Temporary Wiring, such as construction and exhibition <u>100 amperes and less</u>	18.00
<u>More than 100 amperes</u>	<u>Same fee schedule as services</u>
Reinspection fee (wrong address, work not complete, inaccessibility of equipment, and equipment that does not pass inspection)	35.00 <u>55.00</u>
For inspection of apparatus for which no other fee is herein provided	4.00 <u>5.00</u>
Fire Alarm Control Panel	24.00 <u>30.00</u>
Fire Alarm Devices and Signals	
1 - 15	20.00 <u>25.00</u>
16 - 50, an additional	15.00 <u>20.00</u>
51 - 100, an additional	10.00 <u>15.00</u>
For each additional 100, or fraction thereof, an additional	5.00 <u>10.00</u>

EXAMINATION FEE: All classes - per examination 50.00

REGISTRATION FEES:

City Master Electrician Registration Fee, annually	\$ 60.00
City Journeyman Electrician Registration Fee, annually	20.00
City Apprentice Electrician Registration, annually	12.00
Maintenance Electrician Registration Fee, annually	100.00

