

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ORLANDO, FLORIDA, RELATING TO CHAPTER 22, ORLANDO CITY CODE, "ELECTRICAL CODE" BY AMENDING ARTICLES I, II, AND III TO REFLECT ADOPTION OF THE NATIONAL ELECTRIC CODE, TERMINOLOGY CHANGES AND PROVIDING FOR SEVERABILITY, CODIFICATION, CORRECTION OF SCRIVENER'S ERRORS, AND AN EFFECTIVE DATE.

NOW, THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF ORLANDO, FLORIDA:

SECTION 1. CHAPTER 22, AMENDED. Chapter 22, Code of the City of Orlando, Florida, is hereby amended as follows:

ARTICLE I. - ADMINISTRATIVE

Sec. 22.01. - Definitions.

The following words and phrases, when used in this Chapter, shall have the meaning respectively ascribed to them in this section:

Board. The ~~Building Adjustment and Appeals Board~~Building and Fire Codes Board of Appeal~~created and provided for in Section 13.04 of this Code.~~

Electrical Contractor. A person, firm or corporation engaging in the business of electrical contracting. The person in charge of the electrical installations for such person, firm or corporation shall have qualified ~~as a master electrician according to the provisions of this Chapter and shall possess a master electrician's certificate paid to date by the Electrical Contractors Licensing Board ("ECLB").~~

Journeyman Electrician. A person who possesses the necessary qualifications, training and technical knowledge to install electrical wiring, apparatus or equipment for light, heat or power and who is qualified under the terms and provisions of this Chapter, and he shall be capable of doing electrical work according to the plans and specifications furnished to him in accordance with the rules and regulations governing wiring installations in the City.

Master Electrician. A person who possesses the necessary qualifications, training and technical knowledge to plan, layout and supervise the installation of electrical wiring, apparatus,

or equipment for light, heat or power and who is qualified under the provisions of ~~this Chapter~~the ECLB.

National Electric Code. The most recently adopted edition of the National Electric Code by the Florida Building Commission.

Qualified Person. A person qualified under the provisions of this Chapter and licensed under ~~this Chapter by the City~~the ECLB.

~~Residential Journeyman Electrician. Residential only: buildings three stories or less.~~

~~Sec. 22.03-1. Journeyman Electrician; Master Electrician Qualification to Take Examination.~~

~~(1)~~

~~Before an applicant shall qualify to take the Block and Associates examination for journeyman electrician, he shall submit proof of three (3) years experience. Credit for verified satisfactory trade school attendance will be accepted in lieu of experience with such credit not to exceed one (1) year and two (2) years being field construction type experience, commercial or residential.~~

~~(2)~~

~~Before an applicant shall qualify to take the Block and Associates examination for master electrician, he shall submit proof of not less than two (2) years experience as a journeyman electrician or as a master electrician, or their equivalent in some other jurisdiction.~~

~~Sec. 22.03-2. Residential Journeyman Qualification.~~

~~Must submit proof of one (1) year experience in the electrical field with one year at an accredited trade school, or two (2) years at the trade in the field.~~

~~Sec. 22.04. Same Examination; Issuance of Certificate of Competency.~~

~~Every master and journeyman electrician, before carrying on his trade or business in the City, shall appear in person before the City Building Inspector or his designee, and pass an examination as to his competency as provided in this section.~~

~~The City Building Inspector shall examine all applicants who make application for such examination as master or journeyman electrician.~~

~~Master and journeyman electricians, before being granted a certificate of competency shall be required to first pass an examination, with a grade of seventy five (75) or better, prepared and proctored by Block and Associates of Gainesville, Florida, for master or journeyman electricians, whichever examination is applicable. This provision does not apply to those master or~~

~~journeyman electricians who are presently holders of a certificate of competency under the provisions of this Chapter prior to August 8, 1966.~~

~~Said examinations shall be conducted four (4) times a year, at a place and time to be furnished the applicant, and shall be held on the second Saturday in the months of February, May, August and November, or an adjusted time, if these dates be on a holiday or otherwise unsuitable.~~

~~The City of Orlando will recognize the competency of any master or journeyman electrician having passed the Block and Associates examination which was proctored by the said Block and Associates and if a journeyman or master electrician currently holds a certificate of competency from any governmental unit by virtue of passing a Block and Associates examination, he shall not be required to take any other examination to determine his competency; provided, however, that in order to qualify for a City of Orlando Certificate of Competency through reciprocity with any city or county sponsoring the Block examination, the applicant must submit proof of experience as provided in Section 22.03-1, Section 22.03-2 of this Code, or a permanent journeyman electrician card from Orange County, Winter Park, Seminole County or Sanford.~~

~~Sec. 22.05. -- Certificates of Competency Required; Exception.~~

~~It shall be unlawful for any person to whom a certificate of competency has not been issued in accordance with the provisions of this Chapter to do any electrical construction, or make repairs, alterations, additions or changes to any existing system of electrical wiring, apparatus or equipment for light, heat or power within the limits of the City, except as provided in this section and Section 22.14 of this Code.~~

~~The following work may be performed for their employers by regular employees of public utility companies, who are regularly engaged in the manufacture or distribution of electrical energy for light, heat or power, or regularly engaged in the operation of a signalling system or in the transmission of intelligence; provided, that all such work shall be performed under the supervision of the duly authorized officials of such utilities:~~

~~(1) Outside construction work, either overhead or underground.~~

~~(2) The installation and maintenance of underground service conductors and all primary services, service equipment or metering equipment on consumer premises.~~

~~(3) The installation and maintenance of electrical wiring apparatus and equipment necessary for the operation of the utility in central stations, substations, plants or exchanges owned or occupied by such public utility companies.~~

~~Sec. 22.06. -- Examination Fees for Certificate of Competency.~~

~~The fee that each applicant shall pay shall be the cost of the Block and Associates examination, prorated among those applicants taking the examination; however, a fee as set by the City Council of the City of Orlando, by Resolution, will be charged those persons taking the examination for master electrician and journeyman electrician.~~

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108 ~~Sec. 22.07. -- Temporary Certificates of Competency.~~

109 ~~When and if it becomes advisable, temporary journeyman electrician's certificates may be issued~~
 110 ~~to electrical workers for a period not exceeding sixty (60) consecutive days; provided, that such~~
 111 ~~period does not extend beyond any regular examination date. No temporary certificate of~~
 112 ~~competency shall be issued to an applicant for a master electrician's certificate.~~

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114 ~~Sec. 22.08. -- Suspension and Revocation of Certificates of Competency -- Grounds.~~

115 ~~The Building Adjustment and Appeals Board shall have the power, in addition to all other~~
 116 ~~powers provided for in this Chapter, to suspend for a length of time not to exceed one (1) year or~~
 117 ~~to revoke the certificate of competency of any master, journeyman or maintenance electrician~~
 118 ~~who shall be guilty of any one or more of the following acts or omissions:~~

- 119 ~~(1) Fraud or deceit in obtaining a license certificate or certificate of competency.~~
 120 ~~(2) Negligence, incompetency or misconduct in the practice or contracting within the~~
 121 ~~meaning of this Chapter.~~
 122 ~~(3) Willful and deliberate disregard and violation of this Chapter or of the Electrical Code of~~
 123 ~~the State.~~

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125 ~~Sec. 22.09. -- Same -- Method.~~

126 ~~(1) Any person directly interested, the Building Official or electrical inspector of the City, the~~
 127 ~~architect or engineer of any building or construction may prefer charges against a master,~~
 128 ~~journeyman or maintenance electrician under this Chapter. Such charges must be made in~~
 129 ~~writing and sworn to by the complainant and submitted to the Board. It will then be the duty of~~
 130 ~~the Board at the earliest possible date and not later than thirty (30) days thereafter to~~
 131 ~~investigate the charge and render their decision without undue delay. A copy of the charge,~~
 132 ~~together with the time and place of hearing, shall be served on the accused at least five (5)~~
 133 ~~days before the date fixed for the hearing. At the hearing the accused shall have the right to~~
 134 ~~appear personally and by counsel and to cross-examine witnesses against him and to produce~~
 135 ~~witnesses and evidence in his defense.~~

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137 ~~(2) If, after the hearing, the Board's decision is that the accused has been guilty of the charges~~
 138 ~~preferred against him, the Board shall thereupon suspend for a period of time or revoke the~~
 139 ~~accused's certificate of competency, which suspension or revocation shall become effective~~
 140 ~~upon approval of the City Council.~~

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~~(3) Upon the revocation of the accused's certificate of competency any and all license certificates issued by the City for the doing of electrical work shall be revoked and withdrawn and no refunds shall be made on such license certificates.~~

~~(4) If the decision of the Board is to suspend the certificate of competency for a length of time, the license certificate issued by the City to the accused will be suspended for the same period of time and no refund shall be made on such license certificate.~~

~~(5) It shall be unlawful for any electrician to engage in work at the business or trade of electrician in the City when his certificate of competency has been revoked and it shall be unlawful for any electrician, either journeyman, maintenance or master, to work in the trade or business of electrician during such time when his certificate of competency has been suspended.~~

~~**Sec. 22.10. - Master Electrician—License Certificate Required.**~~

~~It shall be required of every person obtaining a master electrician's certificate, before engaging in the business of electrical contractor, to pay to the City Tax Collector the amount provided for such occupation according to Chapter 36 of this Code.~~

Sec. 22.11. - Same—Bond.

Before a ~~license certificate as a master electrician is issued to any applicant~~ permit can be issued, a Registered Electrical Contractor, ~~he~~ shall file with the Director of Finance or his designee a surety bond payable to the City, in the amount of five thousand dollars (\$5,000.00). Such bond shall be executed by the master electrician as principal and by a surety company licensed to do business in the state as surety and shall be conditioned as follows: That the principal therein shall protect the City and the owner of the premises upon which the principal does any work, against all loss or damage occasioned by the negligence of the principal in failing to promptly perform and protect all work done by him, or his employees, or under his direction or supervision; and from all loss or damage occasioned by or arising in any manner from any such work done by the principal or his employees, or under his direction or supervision, which is not caused by negligence of the City, its agents or employees; and that the principal therein shall keep and observe all ordinances at any time in force in the City relating in any way to electrical wiring and installations. The bond shall also be for the benefit of all persons injured or aggrieved by any violation of or neglect to observe this Chapter or the rules and regulations established under the authority thereof. Such bond shall be renewed at the end of each license year, as a condition precedent to obtaining a renewal of a certificate of competency.

Sec. 22.12. - Expiration of License Certificates and Bonds; Certificate Renewals.

All license certificates and bonds shall expire on September thirtieth of each year, and no electrical work shall be done by and no permit shall be issued to any ~~master electrician~~ Electrical

~~Contractor~~ who has no such license certificate and bond, as hereinbefore provided, in full force and effect. ~~The fee for renewing the certificate of competency shall be thirty dollars (\$30.00) for a master's license certificate and fifteen dollars (\$15.00) for a journeyman's certificate. Application for renewal shall be made to the Board for the renewing of the certificate on or before September thirtieth of each year before the expiration of the certificate. All money received hereunder shall be paid into the fund provided for the operation of the electrical inspection department of the City.~~

• **Sec. 22.13. - ~~Master Electrician~~Electrical Contractor Not to Allow Use of Name.**

No licensed ~~master electrician~~Electrical Contractor shall allow his name to be used by any person or party other than himself or his principal employer directly or indirectly, either for the purpose of obtaining a permit, or do any work under his license certificate.

• ~~**Sec. 22.14. - Electricians Holding Certificates of Competency Required on Electrical Work.**~~

~~An electrical contractor shall not employ a person on any job in the capacity of an electrician, unless such person has in his possession a certificate of competency as provided for in Section 22.04 of this Code; provided, that nothing in this Chapter shall be held to prohibit the working of helpers or apprentices on any job of electrical construction, when the work of such helpers or apprentices is performed under the personal supervision and accompanied by an electrician holding a certificate of competency.~~

• **Sec. 22.15. - ~~Master Electricians~~Electrical Contractor; Limitations in Connection Therewith.**

The ~~master electrician~~Electrical Contractor may be the owner, proprietor, employee or corporation officer but shall, in all cases, be the person who is directly responsible for the physical and mechanical manner in which electrical material, equipment and devices are placed or installed.

A ~~master electrician~~Electrical Contractor or authorized supervisory employee shall countersign all applications for electrical permits and supervise electrical work authorized by such permit.

~~The name of the master electrician authorized as such for the person from whom permit applications are to be countersigned shall be set forth in the business license certificate, and no persons shall be entitled to a license certificate to carry on the business of electrical contracting in the City who is not himself or does not have at all times a master electrician in his employ.~~

~~It shall be unlawful for any master electrician to countersign permit applications for more than one person, firm or corporation.~~

~~It shall be unlawful for any master electrician to permit his name to be used or to knowingly permit himself to be held out as an officer or employee of any person holding an electrical contractor's license certificate unless he is, in fact, such officer or employee and does, in fact, supervise the doing or installation of electrical work performed under such electrical license certificate.~~

An Electrical Contractor ~~master electrician~~ may be relieved from the responsibility under any permit countersigned by him if notice in writing to that effect is filed with the chief inspector of electrical installations prior to the actual construction covered by the permit or upon the discharge or termination of the services of such master electrician.

No person shall receive a certificate of competency as a master electrician who has not attained the age of twenty-one (21) years.

No person shall engage in or carry on the business of electrical contracting or install, alter or repair any electrical wiring for which a permit is required ~~without first registering in the chief inspector of electrical installations' office the name of the master electrician who is directly responsible for the manner in which the electrical installation is made.~~

~~Whenever a master electrician shall leave or be discharged from the employ of any person holding an electrical contractor's license certificate, notice in writing thereof shall be given, within five (5) days, by the employer and employee to the chief inspector of electrical installations, and all electrical construction work being carried on by such employer shall, without further order or action, stand suspended until such employer has reemployed the same or another master electrician and notice in writing has been given by the employer to the chief inspector of electrical installations, countersigned by such reemployed or other master electrician or until the employer has qualified as a master electrician.~~

Sec. 22.16. - Installation of Wiring or Equipment by Homeowner.

Nothing herein shall prohibit a bona fide owner from personally installing electrical wiring or the installation of electrical equipment within his own bona fide residence; providing that he is a qualified person and work is in a single-family residence used exclusively by him or his family. Such privilege does not convey the right to violate any of the provisions of this Chapter, nor is it to be construed as exempting any such property owner from obtaining a permit and paying required fees thereof. He shall comply with the following:

- (1) File plans and specifications and prove qualifications satisfactorily to the chief inspector of electrical installations, which plan, specifications and qualifications must be approved by the said inspector.
- (2) Apply for and secure a permit.
- (3) Do work in accordance with ~~this Chapter~~ the most recently adopted edition of the National Electric Code with the State of Florida.
- (4) Receive the approval of installation by the chief inspector of electrical installations.

(5) ~~The term "qualified person" as used in this Chapter shall be held to mean any person qualified under the terms and provisions of this Chapter to perform electrical work, including any homeowner who desires to perform electrical work on his premises in accordance with the terms and provisions of this Chapter.~~

~~Personal installation by the owner (other than electrical contractor) shall be by himself in his own building without compensation or pay from any other person for such labor or installation. The owner exercising this privilege shall conform to all the requirements of this Chapter in the installation of wiring. The owner exercising this privilege shall not set himself up as an electrical contractor nor shall he employ journeyman electricians, maintenance electricians or helpers. He shall furnish affidavits to the above statements if required by the chief inspector of electrical installations.~~

~~**Sec. 22.17. - Permit for Electrical Construction—Application; Issuance, etc.**~~

~~Before any electrical wiring or electrical apparatus or equipment for light, heat or power shall be installed within or attached to any building or structure, either public or private within the limits of the City, a written application for a permit to do so must be made to the chief inspector of electrical installations by a master electrician intending to install the work, and the permit when issued shall be to such applicant. The application shall be accompanied by a complete set of plans, specifications and schedule, as may be necessary to determine whether the installation as described will be in conformity with the requirements of this Chapter. On rewiring, the chief inspector of electrical installations may waive regulations for plans and specifications. If it shall be found by the chief inspector of electrical installations that the installation as described will in general conform with the requirements of this Chapter, and if the applicant has complied with all the provisions of this Chapter, a permit for such installation shall be issued by the chief inspector of electrical installations. The permit when issued shall be for such installation as is described in the application, and no deviation shall be made from the installation so described without the approval of the chief inspector of electrical installations.~~

Sec. 22.18. - Same—Fees.

(1) Before any permit is issued for the installation or alteration of electrical wiring, devices or equipment, the ~~master electrician~~Electrical Contractor making application for such permit shall pay to the City a fee. Permit fees shall be set by the City Council of the City of Orlando, by Resolution, which may be amended from time to time. A certified copy of the Resolution setting forth current permit fees shall be on file with the City Clerk and the Building Official.

(2) *Failure to Obtain a Permit.* Where any electrical installation is commenced before a permit is obtained, the permit fees shall be doubled. Double fees shall not be charged if, prior to the start of any electrical work, a master electrician satisfies the chief electrical inspector that he is unable to obtain a permit prior to the start of the work. However, if the contractor does not obtain a permit within seventy-two (72) hours after the start of the work, double fees will be charged.

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293• **Sec. 22.20. - Application of National Electrical Code.**

294 The rules and regulations ~~of the 1993 Edition~~ of the National Electrical Code; as adopted ~~in~~
 295 ~~Article III of this Chapter, save and except for amendments, modifications and exceptions not~~
 296 ~~clearly indicated in the said code and provided in this Chapter, and except for provisions of said~~
 297 ~~code which may be in conflict with other provisions of this Chapter,~~ shall govern all electrical
 298 construction and all materials and appliances used in connection with the installation,
 299 maintenance and operation of electrical wiring, apparatus or equipment for light, heat or power
 300 within the City. ~~The scope of said code applies as set forth in Section 90-2 of the National~~
 301 ~~Electrical Code adopted in Article III of this Chapter, is applicable within the jurisdiction of the~~
 302 ~~City.~~

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304• **Sec. 22.21. - Conformance to Rules and Regulations.**

305 All electrical construction and all materials and appliances used in connection with the
 306 installation, maintenance and operation of electrical wiring, apparatus or equipment for light,
 307 heat or power within the limits of the City shall conform to the rules and regulations embodied in
 308 this Chapter and such as may be adopted as hereinbefore provided and shall conform with such
 309 construction and approved methods of construction as is reasonably necessary for safety to life or
 310 property. The current regulations, as laid down in the ~~1993~~ National Electrical Code, as approved
 311 by the American Standards Association; the National Safety Code, as approved by the American
 312 Standards Association; and other installation and safety regulations approved by the American
 313 Standards Association shall be prima facie evidence of such approved methods as of the time
 314 such regulations are laid down.

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316• **Sec. 22.23. - Powers and Duties Generally of Chief Inspector of Electrical**
 317 **Installations.**

318 It shall be the duty of the City Building Official to designate a chief inspector of electrical
 319 installations, who under the supervision and direction of the Building Official shall issue permits
 320 for, and inspect all electrical wiring, apparatus or equipment for light, heat or power, inside of or
 321 attached to buildings within the limits of the City, and to look after the enforcement of laws,
 322 rules and regulations relating to same, and to exercise a general supervision over all electrical
 323 construction, ~~and over all electricians licensed to carry on their business or trade under the~~
 324 ~~provisions of this Chapter.~~

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326• ~~**Sec. 22.25. - Inspection Procedure, etc.**~~

~~All plumbing and other piping or tube work must be in place on work to be concealed before the electrical wiring is inspected, and no such wiring shall be considered as complete until all such plumbing or piping is in place. Upon making an inspection of any electrical wiring or equipment, when the same is found to have been installed in a satisfactory manner and in accordance with the provisions of this Chapter, the City electrical inspector shall place a notice at the service switch or other suitable place stating that the electrical work has been inspected and found to be in accordance with the rules as prescribed and the provision of this Chapter. It shall be unlawful to lath, seal or in any manner conceal any electrical wiring or equipment until the same has been inspected and the notice posted as herewith required. It shall be unlawful to cover or fill any switch or outlet box with plaster, cement or other materials. When the electrical work in any building for which a permit has been obtained is ready for inspection, notice shall be given stating the location of the work, name of the owner, name of the master electrician having the permit and the name of the electrician doing the work to the City's chief inspector of electrical installations at his office. As soon as possible thereafter, the chief inspector of electrical installations shall notify the electrician in charge of the work when he will inspect same and the chief inspector of electrical installations shall test the work in the presence of the electrician or in any manner necessary to demonstrate that the work has been installed in a proper manner and in accordance with the provisions of this Chapter and with the plans and specifications previously submitted and approved.~~

~~Notice to inspect work must be given at the office of the chief inspector of electrical installations for morning inspection before 5:00 p.m. the preceding day, and for afternoon inspection before 12:00 noon the same day. A period of forty-eight (48) hours, exclusive of Sundays and holidays, will be required in which to make the inspection and report. After the entire completion of the work, a notice, the same as the foregoing, shall be given at the office of the chief inspector of electrical installations for a final inspection, and if the work has been properly done, he shall issue a final certificate of inspection upon the request of the master electrician holding the permit as provided for in this Chapter. This certificate shall not relieve the electrician of responsibility for any defective work which may have escaped the notice of the chief inspector of electrical installations. All electrical work shall be done in a workmanlike manner.~~

~~All wires at every outlet must extend out six (6) inches or more. On all jobs, where wires are installed in conduit or any wiring method used which is to be installed before wires are pulled in, the following inspections must be made:~~

- ~~(1) When installed as a complete system without the wires, where the same are to be concealed, the system must be inspected before covered.~~
- ~~(2) After wall plastering or ceiling has been completed and wires pulled in, and the wiring joints have been made and soldered, leaving outlet for fixtures.~~
- ~~(3) Upon completion of jobs with all conduits, wires, fixtures, fuses and receptacles in place, a final inspection will be made. In each case the contractor doing the wiring shall be held responsible for the resistance test on wiring, and the contractor installing the fixtures shall be held responsible for the insulation test on wires in fixtures.~~

~~(4) The chief inspector of electrical installations may ask for the presence, at the job site, of the master electrician in whose name the permit was issued, on each or any inspection, if he (the inspector) deems it necessary.~~

Sec. 22.27. - Electrical Work Not to be Delayed.

It shall be the duty of ~~a master electrician~~ an Electrical Contractor to construct and complete all electrical work entrusted to his care without unreasonable delay and with all possible diligence.

Sec. 22.31. - Service Wiring to be Installed by Electricians Doing Inside Work; Exceptions.

All service wires inside of a building for supplying electrical current for light, heat or power shall be installed by the ~~master or journeyman electrician~~ Electrical Contractor doing the inside wiring, except where service wires are to be primary or connected to an underground wiring system, in which case the electrical department of the Orlando Utilities Commission may install the service wires and meter equipment to the main service switch inside of the building; provided, that when service wires are installed by the electrical department of the Orlando Utilities Commission, they shall be installed in accordance with the rules and regulations of this Chapter.

ARTICLE II. - RULES AND REGULATIONS GOVERNING ELECTRICAL SIGN CONTRACTORS AND SERVICEMEN

Sec.22.35-22.42. *Reserved.*

~~**Sec. 22.35. -- Definitions.**~~

~~*Electrical Sign.* Electrical sign shall mean any sign which has characters, letters, figures, designs or outlines illuminated by electric lights or luminous tubes as part of the sign proper, or illuminated by independently located spotlights or floodlights, or any sign containing as part of its display an electrical moving part.~~

~~*Journeyman Electrical Sign Serviceman.* A person who possesses the necessary qualifications and technical training to locate defective parts, to service, maintain and repair a sign, to build or rebuild or install any sign on exterior walls or roofs of buildings, to change defective neon transformers or glass and to make all necessary repairs to existing systems of neon lighting or internally illuminated signs.~~

~~*Master Electrical Sign Serviceman.* A person who possesses the necessary qualifications and technical training to plan, lay-out and supervise the installation and maintenance of signs, both neon and internally illuminated.~~

~~*Electrical Sign Contractor.* A person, firm or corporation engaging in the business of electrical sign contracting. The person in charge of the electrical installation for such person, firm or corporation shall have qualified as a master electrical sign serviceman according to the provisions of this Chapter and shall possess a master electrical sign serviceman's certificate of competency, paid to date.~~

~~**Sec. 22.36. -- Same -- Examinations; Issuance of Certificate of Competency.**~~

~~Master and journeyman electrical sign servicemen, before being granted a certificate of competency shall be required first to pass with a grade of seventy five percent (75%) or higher an examination for master or journeyman electrical sign serviceman, whichever examination is applicable, held, prepared and proctored by Block and Associates. This provision does not apply to those master or journeyman neon servicemen who are presently holders of a current certificate of competency.~~

~~The City of Orlando will recognize the competency of any master or journeyman electrical sign serviceman having passed an examination for same that has been prepared, held and proctored by Block and Associates.~~

~~**Sec. 22.37. -- Certificates of Competency for Electrical Sign Servicemen Required.**~~

~~It shall be unlawful for any person to whom a certificate of competency has not been issued to engage in installing, servicing, or repairing neon or internally illuminated signs, either as master or journeyman electrical sign serviceman.~~

~~**Sec. 22.38. -- Examination Fees for Certificate of Competency.**~~

~~The fee that each applicant shall pay shall be the cost of the Block and Associates examination, prorated among those applicants taking the examination; however, a fee as set by Resolution of City Council will be charged those persons taking the examination for master electrical sign serviceman and journeyman electrical sign serviceman.~~

~~**Sec. 22.39. -- Journeymen Neon Servicemen and Master Neon Servicemen.**~~

~~Persons who have current certificates of competency as of the date of this amendment a journeyman neon serviceman and master neon serviceman shall be accorded the rights and privileges of journeymen electrical sign servicemen and master electrical sign servicemen, respectively. A journeyman neon serviceman who is issued a certificate of competency as journeyman electrical sign serviceman and a master neon serviceman who is issued a certificate of competency as an electrical sign serviceman shall pay the renewal fee upon issuance of a certificate of competency in their respective categories.~~

~~Sec. 22.40. -- Electrical Sign Servicemen Prohibited from Doing Certain Work.~~

~~No master electrical sign serviceman or journeyman electrical sign serviceman shall wire for or connect any neon or internally illuminated sign to the interior wiring system of any building or premises or disconnect same from the interior wiring system of any building or premises in the City.~~

~~Sec. 22.41. -- Applicability of Regulations Set Forth in Sign, Building, Electrical and Zoning Codes.~~

~~The erection and installation of all electrical signs shall be subject to the sign regulations and all other provisions of the City of Orlando Land Development Code (Chapters 58 through and including 66 of the City Code); all provisions of the Standard Building Code; formerly known as The Southern Standard Building Code, as adopted and amended in Chapter 13 of the Code of the City of Orlando; all provisions of this Chapter (otherwise known as the Electrical Code) and all other applicable provisions of the Code of the City of Orlando. A separate building permit shall be required for each installation. Any holders of current master electrical sign serviceman competency cards shall be permitted to sign applications for building permits. A master electrical sign serviceman or journeyman shall be allowed to install or connect an electrical sign or service an electrical sign only after the wires are provided to the electrical sign outlet.~~

~~Sec. 22.42. -- Approval of Electrical Signs Required.~~

~~All electrical signs shall be approved by the chief inspector of electrical installations of the City before a building permit is issued.~~

~~ARTICLE III. -- NATIONAL ELECTRICAL CODE AND~~
~~AMENDMENTS~~ARTICLE III. Sec. 22.43 – Sec. 22.65 are hereby Reserved.

~~Sec. 22.43. -- National Electrical Code Adopted and Retained.~~

~~The National Electrical Code of 1993 (NFPA 70-93), as sponsored by the National Fire Protection Association, and amendments thereto contained in this Article, is hereby adopted by the City for the purpose of safeguarding persons and buildings and their contents from hazards arising from the use of electricity for light, heat, power, radio and television signalling, except for provisions of said code which may be in conflict with other provisions of this Chapter.~~

~~Not less than one copy of said code has been and is now filed with the City Clerk of the City of Orlando for public examination and inspection.~~

~~Sec. 22.44. -- Section 110-14 of the National Electrical Code Amended.~~

~~Section 110-14 of the National Electrical Code of 1993 is amended by the addition of subsection (d) to read as follows:~~

~~(d) Inhibitor (or suitable approved reduction agent) shall be applied to aluminum connections #8 wire size and larger.~~

~~**Sec. 22.45. -- Section 210-50 of the National Electrical Code Amended.**~~

~~Section 210-50 of the National Electrical Code of 1993 is amended by the addition of subsection (d) to read as follows:~~

~~(d) There shall be a minimum of two (2) receptacles in each office and classroom. They shall not be located on the same side wall.~~

~~**Sec. 22.46. -- Section 220-4 of the National Electrical Code Amended.**~~

~~Section 220-4 of the National Electrical Code of 1993 is amended by the addition of subsections (e) through and including (i) to read as follows:~~

~~(e) The maximum number of outlets per fifteen (15) and twenty (20) ampere circuit on residential buildings shall be ten (10) light outlets or six (6) duplex receptacle outlets or a combination of not more than five (5) receptacle outlets and three (3) light outlets.~~

~~(f) The minimum branch circuit rating for convenience receptacle outlets and general lighting in commercial buildings shall be twenty (20) amperes.~~

~~(g) The maximum number of receptacle outlets per twenty (20) ampere circuit in commercial buildings shall be six (6).~~

~~(h) NEC maximum loadings for lighting circuits of other ampacities apply.~~

~~(i) A maximum of two (2) duplex receptacle outlets shall be permitted on each of the two (2) required appliance receptacle branch circuits in the kitchen.~~

~~**Sec. 22.47. -- Section 230-28 of the National Electrical Code Amended.**~~

~~Section 230-28 of the National Electrical Code of 1993 is amended to read as follows:~~

~~Service Mast as Supports. Where a service mast is used for the support of service-drop conductors, it shall be a minimum of two (2) inch rigid steel conduit or IMC. Masts exceeding three (3) feet above the roof may require guying.~~

~~**Sec. 22.48. -- Section 230-70 of the National Electrical Code Amended.**~~

~~Section 230-70 of the National Electrical Code of 1993 is amended by the addition of subsection (d) to read as follows:~~

~~(d) The service disconnecting means, if residential, shall be installed on the outside of the building and in compliance with Section 230-71(a).~~

~~**Sec. 22.49. -- Section 230-71 of the National Electrical Code Amended.**~~

~~Section 230-71 of the National Electrical Code of 1993 is amended to read as follows:~~

~~(a) No building shall have more than six (6) operations of the hand for a main disconnecting means.~~

~~(b) Commercial Buildings. The 100A or over service disconnecting means shall comply with Article 230 of the National Electrical Code and shall be installed on the outside of the building as near the point of entrance of service wires as possible considering the type of building and accessibility in case of fire or other reason for opening the service switch and disconnecting the building. Upon special application to the inspecting authority, before any work is started, approval may be granted for the meter and/or service disconnecting means to be installed inside the building if accessible and available for meter reading, servicing and disconnecting in case of emergencies.~~

~~(c) On commercial or residential buildings, if the service disconnecting means is not readily apparent on the exterior of the building, it shall be properly indicated by a reasonable sign constructed of permanent materials with no less than one and one-half (1½) inches high letters designating its exact location. The sign shall be located on the exterior of the building at the service doorway. If the service disconnecting means is located at a point that is not accessible and available for meter reading, servicing, and disconnecting in case of emergencies, there shall be a shunt trip switch installed and so noted as above.~~

~~(d) Where a property comprises more than one building under single management or in multiple occupancy buildings, a separate switch at service entrance equipment for each building must be installed (it may be a toggle switch) to disconnect the "House Lighting" circuits. This switch may be locked. It shall have an indicating sign at or on the switch.~~

~~**Sec. 22.50. -- Section 240-50 of the National Electrical Code Amended.**~~

~~Section 240-50 of the National Electrical Code of 1993 is amended to read as follows:~~

~~Plug fuse branch circuit panels shall not be permitted. Circuit breaker type panels shall be used.~~

~~**Sec. 22.51. -- Section 250-92(a) of the National Electrical Code Amended.**~~

~~Section 250-92(a) of the National Electrical Code of 1993 is amended to read as follows:~~

~~(a) A grounding electrode conductor shall be a minimum of #4 bare solid copper if run unprotected in an area free from exposure to physical damage. Also, a driven, identified ground rod at the meter location shall be used as per 250-81(a).~~

~~**Sec. 22.52. -- Section 250-95 of the National Electrical Code Amended.**~~

~~Section 250-95 of the National Electrical Code of 1993 is hereby amended to read as follows:~~

~~An equipment grounding conductor shall be provided in all electrical raceway systems to insure electrical continuity and shall have the capacity to conduct safely any fault current likely to be imposed.~~

~~**Sec. 22.53. -- Section 280-3 of the National Electrical Code Amended.**~~

~~Section 280-3 of the National Electrical Code of 1993 is amended to read as follows:~~

~~280-3. Number required. Where used at a point on a circuit, a surge arrester shall be connected to each ungrounded conductor. A single installation of such surge arresters shall be permitted to protect a number of interconnected circuits provided that no circuit is exposed to surges while disconnected from the surge arresters.~~

~~(a) Surge arresters shall be installed on all overhead services or any underground service terminating in an outside main. Only surge arresters that are listed and labeled by a nationally recognized testing and inspecting agency will be approved. Compatible arrester conductors may be installed under the main lugs with the service conductors.~~

~~(b) Surge arresters need not be installed on temporary services used for construction purposes, although their installation is always recommended.~~

~~**Sec. 22.54. -- Section 300-1 of the National Electrical Code Amended.**~~

~~Section 300-1 of the National Electrical Code of 1993 is amended by the addition of a subsection (e) to read as follows:~~

~~(e) Approved raceways, armored cable (AC), or metal-clad cable (MC) shall be required for all wiring used to conduct current for light, heat and power in churches, schools, theatres, public buildings, manufacturing and commercial business establishments of all kinds, apartment buildings over three (3) floors, recreation rooms, laundry rooms and similar buildings and underground wiring in connection with all apartments, condominiums and other above listed premises. Articles 318 and 328 are permitted for use where identified.~~

~~**Sec. 22.55. -- Section 300-4(b)(1) of the National Electrical Code Amended.**~~

~~Section 300-4(b)(1) of the National Electrical Code of 1993 is amended to read as follows:~~

~~(b)(1) Nonmetallic Sheathed Cable. In both exposed and concealed locations where nonmetallic sheathed cables or electrical non-metallic tubing pass through either factory or field punched, cut or drilled slots or holes in metal members, the cable or tubing shall be protected by bushings or grommets securely fastened in the opening prior to installation of the cable.~~

~~**Sec. 22.56. -- Section 333-3 of the National Electrical Code Amended.**~~

Section 333-3 of the National Electrical Code of 1993 is amended to read as follows:

~~Armored cable is approved for use when an equipment grounding conductor sized by Table 250-95 is included within the cable.~~

~~**Sec. 22.58. -- Section 336-13 of the National Electrical Code Amended.**~~

Section 336-13 of the National Electrical Code of 1993 is amended to read as follows:

~~Non-metallic cable (romex) shall not be run on top of ceiling joists or truss bottom chords where the vertical clear space is over forty-two (42) inches. N.E.C. conditions apply. See 333-12(a), (b).~~

~~**Sec. 22.59. -- Section 348-1 of the National Electrical Code Amended.**~~

Section 348-1 of the National Electrical Code of 1993 is amended to read as follows:

~~348-1. Use. The use of electrical metallic tubing shall be permitted for both exposed and concealed work. Electrical metallic tubing shall not be used (1) where, during installation or afterward, it will be subject to severe physical damage; (2) where protected from corrosion solely by enamel; (3) in cinder concrete or cinder fill where subject to permanent moisture unless protected on all sides by a layer of non-cinder concrete at least 2 inches (50.8 mm) thick or unless the tubing is at least 18 inches (457 mm) under the fill; (4) in any hazardous (classified) location except as permitted by Sections 502-4, 503-3, and 504-20; (5) for the support of fixtures or other equipment; or (6) Steel tube (EMT) shall not be used in unsuspended concrete slabs, underground, or Class I, II, and III Hazardous locations as defined in the N.E.C. Where practicable, dissimilar metals in contact anywhere in the system shall be avoided to eliminate the possibility of galvanic action.~~

~~**Sec. 22.60. -- Section 370-19 of the National Electrical Code Amended.**~~

Section 370-19 of the National Electrical Code of 1993 is amended to read as follows:

~~370-19. Boxes Enclosing Flush Devices. Boxes used to enclose flush devices will be completely enclosed on back and sides, and substantial support for the devices will be provided. Screws for supporting the box shall not be used in attachment of the device contained therein. There will be no junction boxes installed in attic spaces without prior permission from inspection authorities.~~

~~**Sec. 22.61. -- Section 380-2 of the National Electrical Code Amended.**~~

Section 380-2 of the National Electrical Code of 1993 is amended by the addition of subsection (e) to read as follows:

~~(c) Interior and exterior stairway lighting shall be controlled by three-way or four-way switches located at the top and bottom of the stairway, except in multiple dwellings or apartments or other public buildings where the stair lighting is controlled on special hall, corridor or house circuits that are energized at all hours of darkness. Six (6) or more steps is considered a stairway.~~

~~**Sec. 22.62. -- Section 424-19 of the National Electrical Code Amended.**~~

~~Section 424-19 of the National Electrical Code of 1993 is amended by the addition of a subsection (d) to read as follows:~~

~~(d) A disconnecting means shall be installed within sight and easy reach, in the ungrounded leads of each power circuit to all electric furnaces, duct heaters, compressors, condensing units and air handling units. A light outlet with fixture and lamp and a receptacle shall be installed within three (3) feet of the servicing side of heating and air conditioning equipment in attics, crawl spaces and isolated equipment spaces, where mechanical equipment will need servicing and there are no other easy reach sources of light and power receptacles.~~

~~"Within sight" is interpreted to be visible within fifty (50) feet. "Easy reach" is interpreted to be capable of being reached quickly for operation, renewal or inspection without requiring those to whom ready access is requisite to climb over or remove obstacles or to resort to portable ladders, chairs, etc.~~

~~**Sec. 22.63. -- Section 600-2(a) of the National Electrical Code Amended.**~~

~~Section 600-2(a) of the National Electrical Code of 1993 is amended to read as follows:~~

~~(a) In Sight of Sign. The disconnecting means shall be at the sign.~~

~~**Sec. 22.64. -- Section 680-8 of the National Electrical Code Amended.**~~

~~Section 680-8 of the National Electrical Code of 1993 is amended to read as follows:~~

~~680-8. Overhead Conductor Clearances. The following parts of pools shall not be placed under existing service drop conductors or any other open overhead wiring; nor shall such wiring be installed above the following: (1) pools and the area extending 10 feet (3.05 m) horizontally from the inside of the walls of the pool; (2) diving structures; (3) observation stands, towers, or platforms.~~

~~**Sec. 22.65. -- Section 725-15 of the National Electrical Code Amended.**~~

~~Section 725-15 of the National Electrical Code of 1993 is amended to read as follows:~~

~~(a) Conductors of Different Circuits in Same Cable, Enclosure or Raceway. Class 1 circuits shall be permitted to occupy the same cable, enclosure, or raceway without regard to~~

~~whether the individual circuits are alternating current or direct current, provided all conductors are insulated for the maximum voltage of any conductor in the cable, enclosure or raceway. Power supply and Class 1 circuit conductors shall be permitted in the same cable, enclosure, or raceway only where the equipment powered is functionally associated.~~

~~Exception No. 1: Where installed in factory or field assembled control centers.~~

~~Exception No. 2: Underground conductors in a manhole where one of the following conditions is met:~~

~~a. The power supply or Class 1 circuit conductors are in a metal enclosed cable, or type UF cable;~~

~~b. The conductors are permanently separated from the power supply conductors by a continuous firmly fixed nonconductor, such as flexible tubing, in addition to the insulation on the wire;~~

~~c. The conductors are permanently and effectively separated from the power supply conductors and securely fastened to racks, insulators, or other approved supports.~~

~~(b) All bell ringing transformers shall be located at the load center or an accessible place and the secondary wiring shall not enter the same box with the primary wiring. The bell or chime transformer may be placed in an approved manner on the ceiling or over the door of a closet and shall be accessible. It shall not be installed in the attic. It shall not be installed less than six (6) feet from the finished floor.~~

SECTION 2. SEVERABILITY. If any provision of this ordinance or its application to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of this ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are severable.

SECTION 3. CODIFICATION. The City Clerk and the City Attorney shall cause the Code of the City of Orlando, Florida, to be amended as provided by Section 1 of this ordinance and may renumber, re-letter, and rearrange the codified parts of this ordinance if necessary to facilitate the finding of the law.

SECTION 4. SCRIVENER'S ERROR. The City Attorney may correct scrivener's errors found in this ordinance by filing a corrected copy of this ordinance with the City Clerk.

SECTION 5. EFFECTIVE DATE. This ordinance takes effect immediately upon final passage.

DONE, THE FIRST READING, by the City Council of the City of Orlando, Florida, at a regular meeting, this _____ day of _____, 2015.

DONE, THE PUBLIC NOTICE, in a newspaper of general circulation in the City of Orlando, Florida, by the City Clerk of the City of Orlando, Florida, this _____ day of _____, 2015.

DONE, THE SECOND READING, AND ENACTED ON FINAL PASSAGE, by an affirmative vote of a majority of a quorum present of the City Council of the City of Orlando, Florida, at a regular meeting, this _____ day of _____, 2015.

BY THE MAYOR/MAYOR PRO TEMPORE OF
THE CITY OF ORLANDO, FLORIDA:

Mayor / Mayor Pro Tempore

ATTEST, BY THE CLERK OF THE
CITY COUNCIL OF THE CITY OF
ORLANDO, FLORIDA:

Celeste T. Brown, City Clerk

APPROVED AS TO FORM AND LEGALITY
FOR THE USE AND RELIANCE OF THE
CITY OF ORLANDO, FLORIDA:

Assistant City Attorney