



Agenda Item #: \_\_\_\_\_

# Staff Report

## City of Manhattan Beach

**TO:** Honorable Mayor Fahey and Members of the City Council

**THROUGH:** Geoff Dolan, City Manager

**FROM:** Richard Thompson, Director of Community Development Department  
Carol Jacobson, Building Official

**DATE:** June 21, 2005

**SUBJECT:** Consideration of an Ordinance to Adopt the Most Recent California Electrical Code and City Amendments

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**RECOMMENDATION:**

Staff recommends that Council conduct a **PUBLIC HEARING** and **ADOPT** the attached ordinance.

**FISCAL IMPLICATION:**

There are no fiscal implications associated with the recommended action.

**BACKGROUND:**

The California Electrical Code is published every three years, which is routinely approved and adopted by the City. The State amendments include a new administrative section as well as improvements for residential and non-residential methods of electrical installation and materials. The California Department of Housing and Community Development has recently adopted this code making it effective statewide on August 1. Therefore, the City should adopt this code with any amendments by this date.

At the City Council meeting on May 17, Council introduced the ordinance to adopt the most current electrical code and City amendments per California requirements and set the public hearing for June 21, 2005.

**DISCUSSION:**

Staff is proposing amendments to the code, which have been in effect for the last several years. The amendments are administrative and technical. The most significant amendments are:

1. Adopt portions of the administrative code article regarding permits, plan review, and violations of the Code that is otherwise informative only.
2. Continue the current requirements for undergrounding or stubbing out of utilities for major remodels and new construction because of safety concerns.

3. Continue to disallow aluminum conductors because of our unique weather conditions, which can cause arcing and sparking from aluminum conductors.

According to the California Health and Safety Code Section 17958.7, we must find specific needs to support amendments more restrictive than the State-adopted Uniform Code. These findings are included in the attached ordinance and, after City Council approval, will be filed with the California Building Standards Commission.

The most recent California Electrical Code that will be effective statewide is the 2004 edition. The State construction code with amendments is based on a model code as determined by the California Building Standards Commission. The electrical code is based on the 2003 National Electrical Code which is published by the National Fire Protection Association.

To adopt the code, the procedure is as follows: introduce the title and ordinance, publish notification for two successive weeks, and conduct a public hearing and adopt the ordinance. The public has been duly noticed. If the Council adopts the proposed ordinance after the public hearing, it would become effective on August 1, 2005 to coincide with the statewide effective date.

This proposed ordinance will not have a significant effect on the environment, and is therefore exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15061 (b)(3) of the CEQA Guidelines.

Attachments: A. Ordinance No. 2077

ORDINANCE NO. 2077

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MANHATTAN BEACH, CALIFORNIA, AMENDING CHAPTER 12 OF THE MANHATTAN BEACH MUNICIPAL CODE TO ADOPT BY REFERENCE THE RULES, REGULATIONS, PROVISIONS AND CONDITIONS SET FORTH IN THE MOST RECENT CALIFORNIA ELECTRICAL CODE AND CITY AMENDMENTS

THE CITY COUNCIL OF THE CITY OF MANHATTAN BEACH, CALIFORNIA, DOES ORDAIN AS FOLLOWS:

SECTION 1. The City Council of the City of Manhattan Beach, California, hereby finds as follows:

- A. The State of California has adopted the California Electrical Code that must in turn be adopted or utilized by each city or county. Certain of the provisions of these Codes are inappropriate for use within the City of Manhattan Beach because of unique climatic, geological and topographical conditions prevailing within the City. The California Health and Safety Code Sections 17958, 17985.7 and 17958.5 provide for certain amendments to the California Building Standard Codes provided findings of necessity can be made. The findings are:
  - 1. Adverse climate conditions such as salt fog air and strong winds such as those in existence in the City of Manhattan Beach increase the likelihood of fire spreading (conflagration) from one building to another.
  - 2. Geological conditions of the City of Manhattan Beach are affected by the nearby locations of earthquake faults that can create tremendous loss of life and structures in the City.
  - 3. Topographical conditions of the City of Manhattan Beach coupled with the density of buildings, limited setbacks, narrow access to buildings, small lots and narrow streets would potentially create a problem for governmental agencies to respond to emergency conditions.
  - 4. There is a need for proposing certain amendments in the California Building Standard Codes because of climatic, geological and topographical conditions.
- B. This project will not have a significant effect on the environment, and is therefore exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15061 (b)(3) of the CEQA Guidelines.

SECTION 2. Chapter 1 of Title 12 of the Manhattan Beach Municipal Code is hereby amended in its entirety as follows:

**Chapter 12. Electrical Code.**

**9.12.010 Adoption of California Electrical Code and Electrical Administrative Code Provisions.**

Pursuant to the provisions of Section 50022.1 to 50022.10, inclusive of the Government Code of the State and subject to the particular additions, amendments, and deletions set forth in this chapter, the rules, regulations, provisions, and conditions set forth in those certain Codes entitled "California Electrical Code, 2004 Edition ("CEC"), (and Article 80 Administration and Enforcement excluding sections 80.15, 80.25, 80.27, 80.29, and 80.35,) but including the Appendices and Tables therein contained, promulgated and published by the National Fire Protection Association of Quincy, Massachusetts and the California Building Standards Commission, 2004 edition as published by the International Code Council Inc. , including the appendices and tables therein contained, one (1) full

printed copy of which, printed as a Code in book form, was by the Council ordered filed and which has been actually filed in the office of the City Clerk, expressly incorporated herein and made a part hereof as fully and for all intents and purposes as though set forth herein at length, are hereby established and adopted as the rules, regulations, standards, provisions, and conditions to be observed and followed in the installation, arrangement, alteration, repair, use, and operation of electrical wire connections, fixtures, and other electrical appliances, and subject to the additions, amendments, and deletions set forth in this chapter, said Code with its Appendices and Tables, containing said rules, regulations, standards, provisions, and conditions, is hereby established and adopted, and the same shall be designated, known, and referred to as the "Electrical Code" of and for the City.

**9.12.020 Fees.**

**Electrical Administrative Code, Section 80.19 (E) is hereby amended to add the following paragraph for administrative requirements to read as follows:**

- (E) ELECTRICAL PERMIT AND ELECTRICAL PLAN REVIEW FEES. Any person desiring an electrical permit shall, at the time of filing an application therefor, pay to the City fees established by the Council under the Fee Resolution in accordance to the building permit and building plan review fees or may be based on an hourly rate as established in the applicable fee resolution.

**9.12.030 Plans and specifications.**

**Electrical Administrative Code, Section 80.21 (D) is hereby added for administrative requirements as follows:**

- (D) Electrical Plans and Specifications. When required by the Building Official, electrical plans, specifications, and applications shall be filed and approved by the Building Official prior to any electrical wiring or installations.

Electrical plans and specifications for all occupancies listed in the current adopted Uniform Building Code shall be prepared by an Electrical Engineer who possesses a valid Professional Electrical Engineering Registration issued pursuant to and in accordance with the laws of the State of California. All electrical sheets shall be wet stamped and have a wet signature by the licensed Professional Electrical Engineer.

Residential electrical plans shall include but are not limited to load schedule, wiring diagrams, homeruns, wire sizes, location and size of service panels and subpanels, method of grounding of service. The following must be included:

- (1) All Commercial and Industrial tenant improvements, additions, and service changes.
- (2) The mixed Occupancy of R Division 1 and U Occupancy Division 1 where U Occupancy Division 1 is between 1000 and 3000 square feet and over 200 amps.
- (3) R Occupancy Division 3 and U Occupancy Division 1 when service is over 200 amps.

"Green Sheet" Plans shall be prepared and submitted by a licensed electrical contractor and/or owner/builder under the following conditions:

- (1) R Occupancy Division 3 including new construction, additions, and service changes.
- (2) U Occupancy Division 1 (which is part of the R Occupancy Division 3), which does not exceed 1000 square feet in area.

Exception: The Building Official may waive the submission of electrical plans, calculations, etc., if it is found that the nature of the work applied for is such that reviewing of electrical plans is not necessary to obtain compliance with this Code.

**9.12.040 Penalties.**

**Electrical Administrative Code Section 80.23 (3) is hereby added with subsections (a) and (b) for administrative requirements.**

- (a) Any person, firm, or corporation violating any of the provisions of this Chapter, or of the Electrical Code adopted thereby, shall be guilty of a misdemeanor and upon conviction of any such violation such person shall be punishable by a fine of not more than one thousand dollars or by imprisonment for a period of not to exceed six months, or by both such fine and imprisonment in the discretion of the Court.
- (b) Every such person shall be deemed guilty of a separate offense for each and every day during which, or during any portion of which, any of the provisions of this Code are violated, committed, continued, or permitted by such person, and shall be punishable therefore as herein provided.

**9.12.050 Services undergrounding.**

**California Electrical Code Section 230.30 is amended per the above geological and topographical findings by the addition of section (A) to read as follows:**

- (A) **Underground Utilities Required.** All new buildings and structures in the City of Manhattan Beach shall provide underground electrical and communication service laterals on the premises to be served, as hereinafter required.
  - (1) **New Construction.** All electrical, telephone, cable television system, and similar service wires and cables which provide direct service to new main buildings, new accessory buildings, and structures, shall be installed underground in compliance with all applicable building and electrical codes, safety regulations, and orders, rules of the Public Utilities Commission of the State of California, and specifications or standards of the Public Works Department.
  - (2) **Existing Buildings.** Such service wires and cables shall also be placed underground when existing buildings, existing accessory buildings, and structures are repaired, remodeled, altered or expanded, except where the value, as determined for building permit fee purposes, by the Building Code of the City of Manhattan Beach, of such repairs or remodeling, or expansion does not exceed fifty percent (50%) of the value of the building or structure as determined by the Uniform Building Code.
  - (3) **Wiring between the accessory buildings and the main buildings shall be in an underground system.**
  - (4) **Responsibility for Compliance.** The Contractor and Owner are jointly and severally responsible for complying with the requirements of this section and shall make the necessary arrangements with the utility companies servicing the structure for the installation of such facilities.

If a proposed building or structure would create a situation which would make unreasonable, impractical, or physically impossible the continuance of overhead utility service to an existing adjacent property (or properties), then the Contractor and owner of the proposed building or structure shall be responsible for relocating such utilities per utility company specifications, and shall be installed underground in compliance with all applicable codes, safety regulations, and orders, rules of the Public Utilities Commission of the State of California, and specifications or standards of the Public Works Department.

- (5) Appurtenances. For the purpose of this section, appurtenances and associated equipment such as, but not limited to, service mounted transformers, pedestal mounted terminal boxes and meter cabinets may be placed above ground if permitted by and in accordance with the rules of the State Public Utilities Commission.
- (6) Waiver of Underground Requirements. If topographical, soil, or any other conditions make such underground installations unreasonable or impractical, a waiver of the requirements of this section may be granted by the Building Official, (a written approval from Southern California Edison is required when necessary) subject to the installation of all necessary electrical conduits, terminal boxes and other appurtenances as may be required to provide underground service in the future

If the utility pole(s) from which underground service would be provided are not situated on the same side of the public street as the permittee, or not within five (5) feet of the area enclosed by the extension of the side property lines to said public street, the permittee may have the alternative of installing all conduit, wires, pullboxes, electrical panel and other appurtenances which may be required for future underground utility services from the structure to an approved location on the property line of the parcel which will facilitate future underground service; and that the property may continue to be served by overhead wires until said future underground utility conversion.

If a building or structure is served by the rear from utilities not located in the public right-of-way, the permittee may have the alternative of installing all conduit, wires, pullboxes, electrical panel, and other appurtenances which may be required for future underground utility services from the building or structure to an approved location on the property line of the parcel which will facilitate future underground service; and that the property may continue to be served by overhead wires until said future underground utility conversion.

Exceptions: This section shall not apply to:

- (a) Utility lines which do not provide service to the area being developed.
- (b) Detached dwelling units with separate utility services which are not the subject of a common including permit.

**9.12.060 Services.**

**California Electrical Code Section 230.42 (D) is added per the above climatic findings as follows:**

- (D) Multi-family dwellings (including duplexes):
  - (1) Service Equipment: The minimum capacity of the service equipment for a multi-family dwelling shall be as follows:
    - a. The service entry conduit shall be not less than 1-1/2" in diameter of the rigid galvanized steel.

**9.12.070 Service Equipment.**

**California Electrical Code Section 230.62 is amended per the above climatic findings by the addition of section (C) as follows:**

- (C) Single Family Dwellings, Industrial and Commercial Structures Service Equipment. The minimum capacity of the service equipment for a single family dwelling, industrial, and commercial structures shall be as follows:
  - (1) A service entry conduit not less than 1-1/4" in diameter of rigid galvanized steel.

**9.12.080 Grounding and bonding.**

**California Electrical Code Section 230.63 is added per the above climatic findings to add section (A) as follows:**

- (A) Grounding and bonding. All services shall have a minimum 5/8" by 8-foot long ground rod added, if not existing, when a new electrical service, water main or repipe is installed.

**9.12.090 Ground Electrodes.**

**California Electrical Code Section 250.52 (A) (1) is amended per the above geological findings to add Exception No. 2 as follows:**

Exception No. 2: Grounding of electrical services replaced in existing residential buildings. When an electrical service in an existing R1 or R3 occupancy is replaced or upgraded, and the material of the water pipe in direct contact with the earth is unknown, the connection of the grounding conductor to the interior metal water pipe may be made at any accessible point, provided that at least one grounding electrode of a type specified in Sections 250-50 or 250-52 is installed as close as possible to the service and connected directly to the service equipment with an independent grounding electrode conductor.

**9.12.100 Conductor material.**

**California Electrical Code Section 310.2(B) is amended per the above climatic findings as follows:**

- (B) Conductor material. Conductors in this article shall be of copper unless otherwise approved by the Building Official.

**9.12.110 Aluminum conductor material.**

**California Electrical Code Section 310.14 per the above climatic findings is deleted.**

**9.12.120 Ampacities of various conductors.**

**California Electrical Code Tables 310.16, 310.17, 310.18, 310.19, 310.20, 310.21 including Notes to said Tables, are amended per the above climatic findings to delete all references to aluminum or copper-clad aluminum.**

SECTION 3. Any provisions of the Manhattan Beach Municipal Code, or appendices thereto, or any other ordinances of the City, to the extent that they are inconsistent with this ordinance, and no further, are hereby repealed.

SECTION 4. If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the ordinance. The City Council hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared invalid or unconstitutional.

SECTION 5. If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the ordinance. The City Council hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared invalid or unconstitutional.

SECTION 6. Any provisions of the Manhattan Beach Municipal Code, or appendices thereto, or any other ordinances of the City, to the extent that they are inconsistent with this ordinance, and no further, are hereby repealed.

SECTION 7. This notice shall be published by one insertion in *The Beach Reporter*, the official newspaper of the City, and this ordinance shall take effect and be in full force and operation thirty (30) days after its final passage and adoption.

SECTION 8. The City Clerk shall certify to the adoption of this ordinance; shall cause the same to be entered in the book of original ordinances of said City; shall make a minute of the passage and adoption thereof in the records of the meeting at which the same is passed and adopted; and shall within fifteen (15) days after the passage and adoption thereof cause the same to be published by one insertion in *The Beach Reporter*, the official newspaper of the City and a weekly newspaper of general circulation, published and circulated within the City of Manhattan Beach hereby designated for that purpose.

SECTION 9. This ordinance shall take effect and be in force on August 1, 2005.

SECTION 10. The City Clerk shall cause a summary of this Ordinance to be published as provided by law. The summary shall be published and a certified copy of the full text of this Ordinance shall be posted in the Office of the City Clerk at least five (5) days prior to the City Council meeting at which this Ordinance is to be adopted. Within fifteen (15) days after the adoption of this Ordinance, the City Clerk shall cause a summary to be published with the names of those City Council members voting for and against this Ordinance and shall post in the Office of the City Clerk a certified copy of the full text of this Ordinance along with the names of those City Council members voting for and against the Ordinance.

PASSED, APPROVED and ADOPTED this 21st day of June, 2005.

Ayes:  
Noes:  
Absent:  
Abstain:

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Mayor, City of Manhattan Beach

ATTEST:

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City Clerk