



City of Emeryville

CALIFORNIA

MEMORANDUM

DATE: November 1, 2022

TO: Adam Politzer, Interim City Manager

FROM: Charles S. Bryant, Community Development Director

SUBJECT: **Adoption Of 2022 California Building Standards Code And Local Amendments**

An Ordinance Of The City Council Of The City Of Emeryville Repealing And Replacing Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, And 10 Of Title 8 Of The Emeryville Municipal Code, Entitled “Building Regulations”, And Making Required Findings Relating To The Adoption And Amendment Of The California Building Standards Code (CEQA Determination: Exempt Pursuant To CEQA Guidelines Sections 15061(b)(3) And 15378(b)(2) and (5))

An Ordinance Of The City Council Of The City Of Emeryville Repealing And Replacing Chapter 5 Of Title 4 Of The Emeryville Municipal Code, Entitled “Fire Code” And Making Required Findings Relating To The Adoption And Amendment Of The California Building Standards Code (CEQA Determination: Exempt Pursuant To CEQA Guidelines Sections 15061(b)(3) And 15378(b)(2) and (5))

STAFF RECOMMENDATION

Staff recommends that the City Council approve the first reading and introduction of the above-entitled Ordinances repealing and replacing Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 of Title 8 of the Emeryville Municipal Code, entitled “Building Regulations”, and repealing and replacing Chapter 5 of Title 4 of the Emeryville Municipal Code, entitled “Fire Code”, along with amendments based on local conditions, and making required findings. If approved by the City Council, both Ordinances would take effect on January 1, 2023.

BACKGROUND

Title 8 of the Emeryville Municipal Code (EMC), entitled “Building Regulations”, and Chapter 5 of Title 4, entitled “Fire Code”, were last updated in December 2019. Staff recommends that the existing Title 8 and Chapter 5 of Title 4 be updated to reflect the current California codes.

Title 24 of the California Code of Regulations, the California Building Standards Code, (also known as the California Building Code or CBC) is published in its entirety every three years,

with supplements and amendments published in intervening years. The California legislature delegated authority to the California Building Standards Commission to create building regulations to implement State statutes, and these building regulations have the force of law. Earlier this year, the State of California adopted the 2021 International Building Code (IBC) with modifications.¹ The IBC includes codes for building, residential, mechanical, plumbing, electrical, green building, property maintenance, and energy. As a result, the “2022 California Building Code (CBC)” as amended by the California Building Standards Commission, is now codified in Title 24 of the California Code of Regulations, which also includes the 2022 California Fire Code.

Significant changes in the 2022 California Building Standards Code, as proposed for adoption and amendment by the City of Emeryville, include the following:

California Building Code, Part 1:

- Revises Permit Expiration. Revises permit expiration from 180 days to 12 months. Includes a provision stipulating that every permit shall remain valid if the work on the site authorized by the permit is commenced within 12 months after its issuance. This amendment also allows for permit extensions; the exception being when the work authorized by the permit is determined to have been abandoned. This section is applicable to Building, Mechanical, Electrical, Plumbing and Fire permits as referenced in each respective code.

California Building Code, Part 2:

- Tall Wood/Mass Timber provisions in various chapters of Part 2. Sections regarding construction elements of Tall Wood/Mass Timber and Heavy Timber were adopted by various state agencies as amendments to the 2019 California Building Code during the 2019 Intervening Code Adoption Cycle and issued as a supplement with a July 1, 2021, effective date. These amendments are repealed, as they are now included in the adopted 2021 International Building Code and codified in the 2022 CBC.

California Residential Code, Part 2.5:

- Revises Permit Expiration. Revises permit expiration from 180 days to 12 months. Includes a provision stipulating that every permit shall remain valid if the work on the site authorized by the permit is commenced within 12 months after its issuance. This amendment also allows for permit extensions; the exception being when the work authorized by the permit is determined to have been abandoned.
- Elevated photovoltaic (PV) support structures. Added new sections to establish appropriate fire testing and listing criteria for overhead photovoltaic (PV) support structures that could have people or vehicles in the space beneath them.

California Electrical Code, Part 3:

- Sections of the California Electrical Code were amended by the California Energy Commission to assist code users by identifying additional applicable energy

¹ The International Building Code is used, with local amendments, in all 50 states.

efficiency-based electrical requirements in the California Energy Code that are applicable to the following systems: Electrical power distribution systems; panelboards in single-family and multifamily buildings; heat pump water heaters, electric cooktops, electric clothes dryers, and their electric readiness in single-family and multifamily buildings.

- Added electrical requirements for energy storage systems and their electric readiness in multifamily buildings.

California Mechanical Code, Part 4:

- Revises Permit Expiration. Revises permit expiration from 180 days to 12 months. Includes a provision stipulating that every permit shall remain valid if the work on the site authorized by the permit is commenced within 12 months after its issuance. This amendment also allows for permit extensions; the exception being when the work authorized by the permit is determined to have been abandoned.

California Plumbing Code, Part 5:

- Revises Permit Expiration. Revises permit expiration from 180 days to 12 months. Includes a provision stipulating that every permit shall remain valid if the work on the site authorized by the permit is commenced within 12 months after its issuance. This amendment also allows for permit extensions; the exception being when the work authorized by the permit is determined to have been abandoned.
- Water Supply and Distribution. Removed residential fire sprinkler systems from the California Plumbing Code, and complies with California Residential Code and California Fire Code.

California Green Building Code, Part 11:

- Adopts a reach code prohibiting natural gas infrastructure or use in new construction, with the following exceptions:
 - Space heating in new construction classified as Laboratory (L), Manufacturing (F), Hazardous (H), or Business (B) occupancies;
 - Free-standing Accessory Dwelling Units smaller than 400 square feet;
 - Projects that have received a Planning Permit or Zoning Compliance Review prior to the effective date of this code;
 - Projects that do not require planning approval, for which a building permit application has been filed prior to the effective date of this code;
 - Projects demonstrating practical infeasibility, subject to Building Official approval.
- Where exemptions apply, wiring or conduit is required to enable future electrification.
- Backup power generation and outdoor cooking fueled by a free-standing fuel gas tank and which are not plumbed to a building, gas line, or gas main would be allowed.

DISCUSSION

Beginning January 1, 2023, local jurisdictions will be required to enforce the 2022 California Building Code, including the California Fire Code. State law allows local jurisdictions to adopt amendments to the State Building Code upon finding that such amendments are

reasonably necessary because of local climatic, geological, or topographical conditions specific to that jurisdiction. The local amendments must be more restrictive than the State code provisions. This allows each jurisdiction to amend the California Building Code to address conditions unique to their local area. Staff recommends adoption of local amendments, as described below.

Staff is recommending amendments to the California Building Code to include Standards for Construction Site Fire Safety. These standards are intended to prescribe minimum safeguards for new building construction projects to provide a reasonable degree of safety to life and property from fire during construction involving combustible materials. These standards were part of the adoption process in 2019 with historical data to indicate a positive response from applicable construction developments, stake holders and the community.

In addition, staff is recommending amendments to the California Plumbing Code to require Gas Shut-Off Valves. Automatic gas shut-off valves installed either in compliance with the plumbing code, or voluntarily pursuant to a plumbing permit, are used as a safety device to shut off natural gas lines in the event of an earthquake. They generally are installed on the exterior of a residence or business to stop gas flow when an earthquake of significant magnitude occurs. This will decrease the chances of a fire or explosion and prevent damage to structures. This typical code provision has become common in the East Bay region for over the past 20 years, including Contra Costa County, Berkeley, Milpitas, Pittsburg, and Alameda.

Staff is also recommending amendments to the California Green Building Code to require full electrification provisions for new single-family residences, multifamily, and commercial structures, with exceptions as noted above.

Finally, staff is recommending amendments to the California Building and Fire Codes to require an Automatic Fire Extinguishing System (i.e. sprinklers): (1) in all new structures that are at least 3,000 square feet in floor area, 35 feet in height, or three stories tall irrespective of height; (2) in all existing buildings of 3,000 square feet or more if the building is subdivided into multi-tenant spaces or condominiums, or there is a change in use or occupancy; and (3) in all renovated buildings or condominium units if the value of the improvements is equal to or greater than 50% of the replacement cost of the building or condominium unit. It should be noted that these local amendments have historically been adopted by the City of Emeryville. They are part of the current Emeryville Building Regulations and Fire Code, and staff proposes to continue their administration in conjunction with adoption of the 2022 CBC.

Amendments are also recommended to the administration provisions to reflect Emeryville's local procedures and practices. Finally, amendments are recommended to ensure internal consistency between the various model codes that make up the CBC and CFC.

Evidence to support the findings necessary for these amendments include the following:

- (1) Emeryville is located between 2 and 4 kilometers from the North Hayward fault, considered to be an active earthquake fault, and in seismic design category (SDC) D, a very high-risk earthquake area. Buildings and other structures in SDC D can experience seismic damage which could have an adverse impact on Fire protection. Any earth movement which causes buildings to move creates cracking and warping of fire walls, smoke barriers, door frames etc., thereby negating the effectiveness of these structural elements which are intended to prevent fire and smoke from spreading within the building. In the event of a fire in a large building, fire and smoke conditions can reach a magnitude which is beyond control capabilities of the fire department, thus resulting in major fire damage. The proposed amendments to the Building Code address the local geological conditions in Emeryville.
- (2) Emeryville is bisected topographically by Interstates 80 and 580. As a result, the City is divided into discrete districts. To travel between districts emergency vehicles must travel under and over vehicular bridges. The City's heavy traffic congestion on the surface streets and overpasses could act as a barrier for timely arrival of emergency vehicles. In the event of an accident or overpass failure due to an earthquake, sections of the City may become isolated, or response time by emergency vehicles may be significantly slowed to increase the risk or severity of injury or property damage. The proposed amendments to the Building Code address the local topographical conditions in Emeryville.
- (3) The amendments related to Standards for Construction Site Fire Safety; Requirements for Gas Shut-Off Valves; Electrification provisions for new single-family residences, multifamily residences, new commercial restaurants; and Automatic Fire Extinguishing System (i.e., sprinklers) are more restrictive than the provisions in the State Building Code in that they require such systems in certain circumstances in which they are not required by the State Building Code. These proposed amendments address the local climatic, geological, and topographical conditions in Emeryville.

Given these conditions specific to Emeryville, staff proposes amendments to the state building code as described above, which address these local geological and topographic conditions. The Alameda County Fire Department, which provides fire protection services to Emeryville, is concerned that the City's building stock warrants the continued administration of these provisions based on topographical and geographical conditions as discussed above. These structures could constitute an immediate threat to the health, welfare, and safety of the public without the benefit of these provisions.

It should be noted that the above findings concerning local conditions apply only to code amendments that establish building standards, and that any such amended standards must be equivalent to, or more restrictive than, the State standards. The proposed amendments regarding fire sprinklers establish building standards that are more restrictive than those of the State, and the findings discussed above apply to those proposed standards. Amendments that are procedural in nature do not require such findings. The attached ordinances contain numerous other local amendments to the Building,

Residential, Mechanical, Plumbing, and Fire codes; however, these amendments are all procedural in nature and do not establish building standards. Therefore, these amendments are permissible without making any findings regarding local conditions.

In addition, staff had originally proposed an amendment to Section 503.2.2 of the California Fire Code as follows (proposed new language underlined):

503.2.2 Authority. The fire code official shall have the authority to require or permit modifications to the required access widths where they are inadequate for fire or rescue operations or where necessary to meet the public safety objective of the City of Emeryville. The fire code official may allow a decrease in required access widths on a case by case basis to meet the urban design objectives of the City of Emeryville provided that public safety objectives are also met.

However, upon further consideration, following discussions with the Alameda County Fire Department and City Attorney, staff is no longer proposing this amendment. This is because the first sentence of Section 503.2.2, which already exists in the California Fire Code, provides sufficient authority for the fire code official to either increase or decrease access widths where necessary to meet public safety objectives. For example, access widths could be decreased at a pinch point along a bicycle boulevard where necessary to meet the public safety objective of protecting cyclists while still providing adequate maneuvering space for fire or rescue operations.

Since the State's printing of the codes in July 2022, staff has been involved in numerous training sessions to become familiar with and understand the technical aspects of the new codes. Building Division staff has also been working closely with the Fire Department, Planning Division, other local building departments and local building industry groups, architects, and the general public with the goal of establishing common application of the codes throughout the East Bay region. Staff expects to continue to provide information about the new codes to local architects, engineers, developers, and the public to enhance awareness and minimize transitional issues.

If the Council adopts the first reading of the proposed ordinances on November 1, 2022, with a second reading on November 15, 2022, the Building and Fire Code ordinances would take effect on January 1, 2023.

FISCAL IMPACT

Adoption of the updated Building and Fire Codes will have no direct fiscal impact on the City.

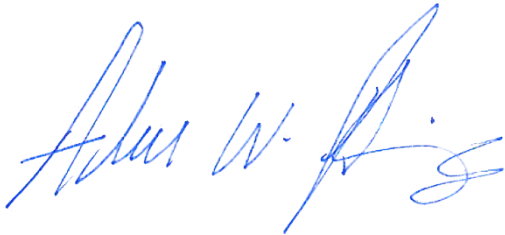
RECOMMENDATION

Staff recommends that the City Council take the following actions for each Ordinance:

1. The Ordinance be introduced after a motion to read by title only.
2. Public testimony be taken regarding the Ordinance.
3. The City Council adopt the first reading of the Ordinance.

PREPARED BY: Victor Gonzales, Chief Building Official

**APPROVED AND FORWARDED TO THE
CITY COUNCIL OF THE CITY OF EMERYVILLE:**



Adam Politzer, Interim City Manager

ATTACHMENTS

- Building Regulations Ordinance amending Title 8 of the Emeryville Municipal Code
- Fire Code Ordinance amending Chapter 5 of Title 4 of the Emeryville Municipal Code