



# STAFF REPORT

## CITY COUNCIL

DATE: November 1, 2022

TO: Honorable Mayor and City Councilmembers

FROM: Linda Smith, City Manager

SUBJECT: Updates to the City’s Construction and Fire Codes in Accordance with Requirements of State Law  
*Prepared by: Gregory Shreeve Sr., Chief Building Official*

### EXECUTIVE SUMMARY:

The City Council will consider introducing an Ordinance repealing the 2019 California Building Standards Code and adopting the 2022 California Building Code and setting a public hearing for November 15, 2022. In connection with this action, the City Council will be asked to approve findings relating to the City’s local amendments to the California Building Standards Code. The 2022 Edition of the California Building Standards Code was approved by the California Building Standards Commission earlier this year and will go into effect on January 1, 2023. The City must adopt an Ordinance incorporating the updated provisions to ensure accuracy and alignment with state law.

### STAFF RECOMMENDATION:

Take the following actions: 1) Waive the first reading and INTRODUCE the Ordinance Repealing and Replacing Chapters 5.08 (Fire Code), 7.28 (Building Regulation Administration Code), 7.32 (Building Code), 7.34 (Residential Code), 7.36 (Electrical Code), 7.40 (Plumbing Code), 7.44 (Mechanical Code), 7.48 (Building Maintenance Code) and 7.94 (Green Building Code) of the Dublin Municipal Code, and Repealing Chapter 7.24 (Flood Control) and Adopting Chapter 7.24 (Floodplain Management Regulations and Adding Chapter 7.46 (Existing Building Code) to the Dublin Municipal Code, in Order to Adopt by Reference and Amend Provisions of the 2022 Edition of the California Building Standards Code, Title 24, California Code of Regulations, and Adding Chapter 7.45 (Swimming Pool and Spa Code) to the Dublin Municipal Code in Order to Adopt by Reference and Amend Provisions of the 2021 Edition of the International Swimming Pool and Spa Code; and 2) Set the public hearing for November 15, 2022, to waive the second reading and adopt said Ordinance and adopt the Resolution Approving the Finding of Necessity for Amendments to the 2022 California Building Standards Code.

## FINANCIAL IMPACT:

The cost associated with implementing the new codes, such as materials and training, have been included in the Fiscal Year 2022-23 Budget.

## DESCRIPTION:

### Background

The California Building Standards Commission, along with other State agencies, reviews and amends Title 24 of the California Building Standards Code (CBSC) approximately every three years. The CBSC contains several codes including the California Building Code and the California Electrical Code. Each of these codes are applicable and enforceable at the local level. The 2022 Edition of the CBSC was approved by the California Building Standards Commission earlier this year and will go into effect on January 1, 2023. The City must adopt an ordinance incorporating the updated provisions to ensure accuracy and alignment with state law.

Local jurisdictions may amend the provisions of the CBSC with the adoption of a resolution finding that the changes are necessary to account for local climatic, geological, or topographical conditions. However, these amendments must be at least as stringent as those outlined in the CBSC.

The City Council made several such amendments with the adoption of the 2019 Edition of the codes. These previously adopted local amendments have been incorporated into the proposed code update adopting the 2022 Edition, with several modifications as discussed later in this Staff Report.

### Proposed Ordinance

The proposed Ordinance will amend Chapters 5.08, 7.24, 7.28, 7.32, 7.34, 7.36, 7.40, 7.44, 7.48 and 7.94 of the Dublin Municipal Code (DMC) and add Chapters 7.45 and 7.46 to the DMC. The proposed Ordinance does not adopt the permit fee tables in the codes, thus maintaining the City's current permit fees. The proposed Ordinance will supersede and replace the previously adopted codes, and will benefit the City by:

1. Ensuring the City's compliance with the States building standards laws;
2. Ensuring consistency with neighboring jurisdictions and the Bay Area;
3. Providing internally consistent, coherent, and easier-to-use codes; and
4. Making it easier for the public to review and to understand the model code requirements.

This report focuses on Staff-recommended local amendments to the 2022 Edition of the code, and modifications to local amendments that were previously adopted by the City Council during the last code update.

### Analysis

The following is an overview of the proposed local amendments to the Dublin Municipal Code. Attachments 1 and 2 provide a complete list of all proposed local amendments to the Construction and Fire Codes, and associated findings. The draft Ordinance is provided as Attachment 3.

### **Fire Code – DMC Chapter 5.08**

The amendments to the Fire Code (Attachment 4) are required to adopt the latest California Fire Codes. Staff recommends deleting the following local amendment that was previously adopted by the City Council:

1. Section 5.08.120, the table for separation distances between wood pallet stacks and buildings. *This requirement is now in the California Fire Code.*

### **Floodplain Management Regulations (Formally the Flood Control Chapter) – DMC Chapter 7.24**

The adoption of the Floodplain Management Regulations is required as a replacement for the Flood Control Chapter. The City's existing Flood Control Chapter is based on an outdated version of the Floodplain Management Regulations of the Federal Emergency Management Agency (FEMA) and the California Department of Water Resources (DWR).

Staff recommends the following higher standards for the model Floodplain Management Regulations be included in this code:

1. Cumulative Substantial Improvement — These amendments will require a review of the 10-year history of permitted work on a property. The 10-year period will begin January 1, 2023. This is a change from current practice of reviewing a three-year history of permits. As the beginning date of the review period changes to January 1, 2023, this new requirement will not affect projects until after January 1, 2026. *One of the objectives of the National Flood Insurance Program (NFIP) is to reduce the long-term exposure of buildings to flood damage. To achieve this objective, the NFIP requires that existing buildings be brought into compliance if improvements, including additions and repairs, are determined to be Substantial Improvement. If the cost of proposed improvements equals or exceeds 50 percent of the market value of the building before improvements are started, the building will be required to be brought into compliance for new construction.*
2. Dwelling Design — new one- and two-family dwellings and substantial improvements to these buildings that are located in a flood hazard area will be required to be designed to a higher standard to account for the potential for flood loads. *This modification is necessary to account for rising sea levels that have the potential to create conditions such as fast-moving floodwater, flood depths greater than a few feet, wave action, and potential scour and erosion.*
3. Nonconversion agreements — these amendments will require builders of elevated buildings located in a flood plain to record a nonconversion agreement. The nonconversion agreement is used to inform buyers of the property that the area below the elevated building is limited to parking of vehicles, storage, and building access. *NFIP flood insurance coverage is more expensive if buildings have enclosed areas and coverage of enclosures is limited. This regulation will require builders and or property owners to record a signed nonconversion agreement to acknowledge the restrictions on use of enclosures below elevated buildings and to agree not to modify or convert the enclosures. The objective is to reduce the likelihood that owners, including future owners, might convert enclosures to*

*uses other than those permitted.*

4. Repetitive Flood Damage loss — one of the objectives of the NFIP is to break the cycle of damage, repair, and damage again. *To achieve this objective, the NFIP requires that existing buildings be brought into compliance when they incur Substantial Damage. A building is determined to have incurred Substantial Damage if it is damaged by any cause and the cost to repair the building to its pre-damage condition equals or exceeds the 50 percent of the market value of the building before the damage occurred. Per the NFIP, when communities adopt a definition for Substantial Damage that includes “repetitive loss,” owners of NFIP – insured structures that sustain repetitive flood damage may also be eligible to apply for Increased Cost of Compliance funds even if the damage does not meet the standard 50 percent threshold for Substantial Damage by a single-event. For property owners to qualify, communities must adopt and enforce the repetitive loss provision on all buildings, not just those that are covered by NFIP flood insurance.*
5. Determination of Base Flood Elevation (BFE) — Dublin has areas within the City where the Flood Insurance Rate Map (FIRM) does not show the base flood elevations. These areas are called “unnumbered Zone A” or “approximate Zone A.” The NFIP regulations state that where flood elevation data has not been provided, communities must “obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source.” However, some data from other sources is old and out of date and may not reasonably represent current flood hazards. *This modification will require the applicant to include base flood elevation data prepared by a qualified professional engineer in accordance with accepted techniques. The modification is necessary to reasonable protect new construction from flood damage caused by rising sea levels.*

The DWR, on behalf of the State and FEMA, has reviewed and approved the proposed regulations.

#### **Building Regulations Administration Code – DMC Chapter 7.28**

The amendments to the Building Regulations Administrative Code (Attachment 6) are required to remain current with State Law. Staff recommends the following modifications and additions to local amendments previously adopted by the City Council:

1. Sections 7.28.100 and 7.28.110 — add definitions and process requirements for determining substantially improved and substantially damaged existing buildings in a flood hazard zone. *This action is necessary to codify existing procedures and to be consistent with DMC chapter 7.24, Floodplain Management Regulations.*
2. Section 7.28.120 — add the Swimming Pool and Spa Code and the Existing Building Code regulated by the Building Regulations Administration Code. *The modification is necessary to codify the administration regulations for these two codes.*
3. Section 7.28.260 — add the Swimming Pool and Spa Code and the Existing Building Code to the Code Conflicts section. *The modification is necessary to codify the administration regulations for potential conflicts between the State Codes and City amendments.*

4. Section 7.28.330 — modify the permit application submittal process to require all plans to be submitted in an electronic format. *This modification is necessary to codify current practices.*
5. Section 7.28.390 — add a requirement for the owner or the owner's authorized agent to post the live loads of floors under prescribed conditions. *This addition is necessary to remain current with State Law.*
6. Section 7.28.600 — amend the notifications of inspections as follows:
  - a. Inspection #F, Lowest Floor Elevation clarifying that the requirement is triggered by either the Floodplain Management Regulations (7.24) requirements, the Building Code (7.32) or Residential Code (7.34). *The requirements do not change.*
  - b. Inspection #M, adding the requirement for tall wood buildings connection protection inspection. *This is necessary to remain current with State Law and does not change the requirement.*
  - c. Inspection #Q, adding a requirement for Fire and Smoke – Resistant Penetrations inspections. *This is necessary to remain current with State Law and does not change the requirement.*
  - d. Inspection #U, adding a requirement for Flood Hazard Documentation. *This is necessary to remain current with State Law and Federal Regulations. This does not change the current requirement.*

### **Building Code – DMC Chapter 7.32**

The amendments to the Building Code (Attachment 7) are required to adopt the latest California Building Codes. Staff recommends a modification to the following local amendment that was previously adopted by the City Council:

1. Section 7.32.230 — update Wall Bracing requirements to include newly adopted forms of seismic sheathing of walls. *This modification is necessary to address Dublin's seismic risk and to be consistent with neighboring jurisdictions.*

In addition, Staff recommends the following new local amendments to this code:

1. Section 7.32.120 — add definitions for determination or substantially improved and substantially damaged existing buildings in a flood hazard zone. *This action is necessary to codify existing procedures and to be consistent with DMC chapter 7.24, Floodplain Management Regulations.*
2. Section 7.32.290 — modify to update the proper procedures for violations of the Floodplain Management Regulations requirements chapter in this code. *This is necessary to maintain consistency in the DMC.*
3. Section 7.32.300 — modify to designate the floodplain administrator. *This is necessary to maintain consistency in the DMC.*

### **Residential Code – DMC Chapter 7.34**

The amendments to the Residential Code (Attachment 8) are required to adopt the latest California Residential Code. Staff recommends the following modifications to local amendments previously adopted by the City Council:

1. Section 7.34.040 — modify to update the live/work exception. *This modification is necessary to remain consistent with State Law.*
2. Section 7.34.070C — modify to include an exception to the separate gas and electrical meter requirement by adding an exception for Junior Accessory Dwelling Units. *This modification is necessary to remain consistent with State Law.*
3. Section 7.34.120 — modify to update the design standards for buildings constructed under this code. *This modification is necessary to remain consistent with State Law.*

In addition, Staff recommends the following new local amendments to this code:

1. Section 7.34.110 — add definitions for determination or substantially improved and substantially damaged existing buildings in a flood hazard zone. *This action is necessary to codify existing procedures and to be consistent with DMC chapter 7.24, Floodplain Management Regulations.*
2. Sections 7.34.130 and 7.34.170 — modify to update the design requirements in flood hazard areas. *This action is necessary to be consistent with DMC chapter 7.24, Floodplain Management Regulations.*

Further, Staff recommends deleting the following local amendment that was previously adopted by the City Council:

1. Section 7.34.140 — originally deleted the fire sprinkler provisions in this code and referenced the Fire Code. *This deletion is no longer necessary as the two codes are now consistent.*

### **Electrical Code – DMC Chapter 7.36**

The amendments to the Electrical Code (Attachment 9) are required to adopt the latest California Electrical Codes. The existing modification setting standards for the location of electrical receptacles in office spaces has been brought forward.

### **Plumbing Code – DMC Chapter 7.40**

The amendments to the Plumbing Code (Attachment 10) are required to adopt the latest California Plumbing Codes. The existing local amendment restricting the installation of water piping under a concrete slab has been brought forward. Staff recommends one deletion from this code:

1. Section 7.40.090 — originally deleted the fire sprinkler provisions in this code and referenced the Fire Code. *This deletion is no longer necessary as the two codes are now*

*consistent.*

#### **Mechanical Code – DMC Chapter 7.44**

The amendments to the Mechanical Code (Attachment 11) are required to adopt the latest California Mechanical Codes. The existing local amendment deleting the administrative chapter has been brought forward.

#### **Swimming Pool and Spa Code – DMC Chapter 7.45**

The adoption of the Swimming Pool and Spa Code (Attachment 12) is required to adopt the International Swimming Pool and Spa Code (ISPSC) as a replacement for the swimming pool construction and safety codes that have been removed from the International Building Code, which is the basis for the California Building Code, and placed in this new code. Staff recommends the following modifications to the ISPSC to address conflicts with City and State Codes:

1. 7.45.060 — add this to modify the references to the International and National Codes to the California Codes. *This is necessary to stay current with State Law.*
2. 7.45.070 — modify to delete administrative sections of the ISPSC. *This is necessary to be consistent within the City's codes.*
3. 7.45.080 — modify to add definitions that are found in State Law that are missing from the ISPSC. *This is necessary to remain consistent with State Law.*
4. 7.45.090 — modify to amend definitions that are different between the ISPSC and State Law. *This is necessary to remain consistent with State Law.*
5. 7.45.100 — modify to amend the energy requirements in the ISPSC in favor of the California Energy Code. *This is necessary to remain consistent with State Law and the 2022 California Energy Code.*
6. 7.45.110 — modify to clarify the requirements of swimming pools and spas located in a flood hazard area. *This is necessary to remain consistent with chapter 7.24 Floodplain Management Regulations.*
7. 7.45.120 — modify to require all swimming pools to have barriers installed. *This amendment is necessary to remain consistent with State Law.*
8. 7.45.130 — modify to include water conservation efficiency in residential and public pools and spas. *This is necessary because of the City of Dublin has a dry period of at least five months each year. Additionally, the area is subject to occasional drought and this amendment is necessary to remain consistent with State Law.*
9. 7.45.140 — modify to delete chapter 9 for permanent spas. *This is necessary because this chapter provides exceptions from code requirements that are in conflict with State Law.*
10. 7.45.150 — add this to adopt the referenced codes and standards listed in the ISPSC. *This*

*is necessary to provide the tools necessary for the contractor and staff to properly enforce this code.*

11. 7.45.160 — modify to clarify that where the code references the Residential Code, those provision are related to systems in detached one- and two-family dwellings and townhouses not more than threes stories in height. *This amendment is necessary to remain consistent with State Law.*
12. 7.45.170 — add this to adopt the American National Standard for Water conservation efficiency in pools and spas. *This is necessary because of the City of Dublin has a dry period of at least five months each year. Additionally, the area is subject to occasional drought and this amendment is necessary to remain consistent with State Law.*

#### **Existing Building Code – DMC Chapter 7.46**

The amendments to the Existing Building Code (Attachment 13) are required to adopt the California Existing Building Code (CEBC). Staff is recommending the following modification to this code:

1. Section 7.46.080 — add definitions for determination or substantially improved and substantially damaged existing buildings in a flood hazard zone. *This action is necessary to codify existing procedures and to be consistent with DMC chapter 7.24, Floodplain Management Regulations.*

#### **Building Maintenance Code – DMC Chapter 7.48**

The amendments to the Building Maintenance Code (Attachment 14) are required to adopt the latest International Property Maintenance Codes. The existing local amendments have been brought forward.

#### **Green Building Code – DMC Chapter 7.94**

The amendments to the Green Building Code (Attachment 15) are required to adopt the latest California Green Building Standards Code. The City’s amendment for Electric Vehicle (EV) Parking to be installed at the Tier 2 has been brought forward. Bringing this amendment forward will meet and, in some cases, exceed the City’s Climate Action Plan (CAP) requirements under measure SM-

1. Staff recommends the following new amendments to this code:

1. Section 7.94.050, 7.94.070 and 7.94.100 — add these to include requirements for new buildings to be all electric with exceptions. The exceptions in the recommendations include: a) multi-family and commercial projects where the design team has provided evidence that an all-electric building is unable to meet established requirements under the California Building Energy Efficiency Standards; and b) commercial buildings containing kitchens or having the potential to contain kitchens, upon application, may install gas to the building for use in the kitchen areas. *These modifications are necessary to limit the greenhouse gas (GHG) emissions from natural gas. It is estimated that without the requirement for all-electric buildings, new construction will add over three million therms of natural gas use in Dublin by 2045. In addition, all-electric buildings have been found to be less expensive to construct and operate in Dublin’s climate zone compared to*



*constructing buildings with both gas and electric utilities, especially when paired with solar photovoltaic (PV) installations. Coupled with the communitywide 100% carbon-free energy of Measure CF-1 in the CAP, new building electrification will result in homes and businesses that emit no GHGs. In addition, this amendment will meet the requirements of measure EE-1 of the CAP.*

STRATEGIC PLAN INITIATIVE:

None

NOTICING REQUIREMENTS/PUBLIC OUTREACH:

In accordance with Government Code Sections 50022.3 and 6066, notice of the public hearing scheduled to take place on November 15, 2022 will be published on November 5, 2022 and November 12, 2022 in the *East Bay Times*. Attachments were made available for public review prior to this public hearing in accordance with Government Code Sections 50022.1 et. Seq. and 6066. The City Council Agenda was posted.

ATTACHMENTS:

- 1) Resolution Approving Amendments to the California Building Standards Code
- 2) Exhibit A to the Resolution - 2022 California Building Standards Code Findings
- 3) Ordinance Amending Sections of the California Building Standards Code
- 4) Exhibit A to the Ordinance - DMC Chapter 5.08 Fire Code
- 5) Exhibit B to the Ordinance - DMC Chapter 7.24 Floodplain Management Regulations
- 6) Exhibit C to the Ordinance - DMC Chapter 7.28 Building Administration Code
- 7) Exhibit D to the Ordinance - DMC Chapter 7.32 Building Code
- 8) Exhibit E to the Ordinance - DMC Chapter 7.34 Residential Code
- 9) Exhibit F to the Ordinance - DMC Chapter 7.36 Electrical Code
- 10) Exhibit G to the Ordinance - DMC Chapter 7.40 Plumbing Code
- 11) Exhibit H to the Ordinance - DMC Chapter 7.44 Mechanical Code
- 12) Exhibit I to the Ordinance - DMC Chapter 7.45 Swimming Pool and Spa Code
- 13) Exhibit J to the Ordinance - DMC Chapter 7.46 Existing Building Code
- 14) Exhibit K to the Ordinance - DMC Chapter 7.48 Building Maintenance Code
- 15) Exhibit L to the Ordinance - DMC Chapter 7.94 Green Building Code