BEFORE THE TOWN COUNCIL OF THE TOWN OF MORAGA

In the matter of:

Repealing and Replacing Moraga Municipal Code (MMC) Chapter 15.04 "Buildings and Construction" of Title 15 and Adopting by Reference Certain Sections of Contra Costa County Ordinance No. 2022-35, which Adopts the 2022 California Building Code, the 2022 California Residential Code, the 2022 California Green Building Standards Code, the 2022 California Electrical Code, the 2022 California Plumbing Code, the 2022 California Mechanical Code, and the 2022 California Existing Building Code (California Code of Regulation, Title 24 Parts 2, 2.5, 11, 3, 5, 4 and 10); and Making Certain Amendments Thereto and Finding the Ordinance Exempt from California Environmental Quality Act	)	**ORDINANCE NO. 310**

WHEREAS, on June 17, 1975, the Town of Moraga ("Town") entered into a Joint Exercise of Powers Agreement with the County of Contra Costa ("County") requiring the Town to enact and maintain building code ordinances that are "identical in all material respects with the corresponding County Codes now in force in the County;" and

WHEREAS, on November 8, 2022 the County Board of Supervisors adopted County Ordinance No. 2022-35 (the "County Ordinance") adopting the 2022 California Building Code, the 2022 California Residential Code, the 2022 California Green Building Standards Code, the 2022 California Electrical Code, the 2022 California Plumbing Code, and the 2022 California Mechanical Code and 2022 California Existing Buildings Code (collectively, the "Statewide Codes") which are found at the California Code of Regulations, Title 24, Parts 2, 2.5, 11, 3, 5, 4 and 10) with amendments pursuant to Health and Safety Code Sections 17958.5 and 18941.5; and

WHEREAS, in connection with adoption of the County Ordinance, the County made certain findings (the "County Findings") required by Health and Safety Code Sections 17985.7 related to the local climatic, geological, topographical, and environmental conditions that make reasonably necessary the County Ordinance's amendments to the Statewide Codes; and

WHEREAS, the Town has reviewed the County Ordinance and the County Findings and now desires to adopt by reference the County Ordinance and to independently make the findings required pursuant to Health and Safety Code Section 17985.7; and

WHEREAS, the Town held a Study Session meeting on April 12, 2023 to discuss reach codes adopted by Contra Costa County Board of Supervisors. Town Council provided direction to staff to bring forward changes proposed with this Ordinance; and

WHEREAS, a copy of this Ordinance, the County Ordinance, and the Statewide Codes have been on file and available for public inspection in the office of the Town Clerk for at least 72 hours prior to consideration of the Ordinance and will continue to be available for as long as this Ordinance remains in effect.

WHEREAS, on May 24, 2023, the Town Council held a duly noticed public hearing, took testimony in the form of a staff report, staff presentation and opened and closed public comment, and made a motion to wave the First Reading and introduced by title only Ordinance ___ Repealing and Replacing Moraga Municipal Code (MMC) Chapter 15.04 "Building Codes" of Title 15 and Adopting by Reference Certain Sections of Contra Costa County Ordinance No. 2022-35, which Adopts the 2022 California Building Code, the 2022 California Residential Code, the 2022 California Green Building Standards Code, the 2022 California Electrical Code, the 2022 California Plumbing Code, the 2022 California Mechanical Code, and the 2022 California Existing Building Code and Making Certain Amendments. Town Council scheduled the public hearing date for the second reading of the Ordinance for June 14, 2023; and

WHEREAS, the Town has given proper notice of the adoption of the various building codes and standards by reference pursuant to California Government Code sections 50022.2 and 50022.3.

THE TOWN COUNCIL OF THE TOWN OF MORAGA DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1 Repeal and Replace.

Moraga Municipal Code Section 15.04 – "Buildings and Construction" within Title 15 is deleted in its entirety and replaced with the following:

Title 15 - BUILDINGS AND CONSTRUCTION

CHAPTER 15.04 - BUILDING CODES

15.04.010 – Findings regarding local climatic, topographical, and geological conditions pursuant to Health and Safety Code Section 17958.7.

The California Building Standards Commission has adopted and published the 2022 Building Standards Code, which is comprised of the 2022 California Building, Residential,

Green Building Standards, Electrical, Plumbing, Mechanical, and Existing Building Codes. These codes are enforced in Contra Costa County by the Building Inspection Division of the Department of Conservation and Development which also provides building inspection services to the town.

Although these codes apply statewide, Health and Safety Code Sections 17958.5 and 18941.5 authorize a local jurisdiction to modify or change these codes and establish more restrictive building standards if the jurisdiction finds that the modifications and changes are reasonably necessary because of local climatic, geological, or topographical conditions. For amendments to the California Green Building Standards Code, local climatic, geological, and topographical conditions include local environmental conditions.

Contra Costa County Ordinance No. 2022-35 adopts the statewide codes and amends them to address local conditions. Pursuant to Health and Safety Code section 17958.7, the Contra Costa County Board of Supervisors found, and the Town Council of Moraga similarly finds, that most of the more restrictive standards contained in Ordinance No. 2022-35 are reasonably necessary because of the local climatic, geological, and topographic conditions that are described below and exist in the Town of Moraga, within Contra Costa County and support the local amendments.

I. Local Conditions.

A. Geological and Topographic.

1. Seismicity.

(a) Conditions.

Contra Costa County is located in Seismic Design Categories D and E which designates very high risk for earthquakes. Buildings and other structures in these zones can experience major seismic damage. Contra Costa County is near numerous earthquake faults including the San Andreas Fault, and all or portions of the Hayward, Calaveras, Concord, Antioch, Mt. Diablo, and other lesser faults. A 4.1 earthquake with its epicenter in Concord occurred in 1958, and a 5.4 earthquake with its epicenter also in Concord occurred in 1955. E, which designates very high risk for earthquakes. Buildings and other structures in these zones can experience major seismic damage. Contra Costa County is near numerous earthquake faults including the San Andreas Fault, and all or portions of the Hayward, Calaveras, Concord, Antioch, Mt. Diablo, and other lesser faults. A 4.1 earthquake with its epicenter in Concord occurred in 1958, and a 5.4 earthquake with its epicenter also in Concord occurred in 1955. The Concord and Antioch faults have a potential for a Richter 6 earthquake and the Hayward and Calaveras faults have the potential for a Richter 7 earthquake. Minor tremblers from seismic activity are not uncommon in the area. A study released in 2015 by the Working Group of California Earthquake Probabilities predicts that for the San Francisco region, the 30-year likelihood of one or more earthquake of 6.7 or larger magnitude is seventy-two (72) percent. The purpose of this Working Group is to develop statewide, time-dependent Earthquake Rupture Forecasts for California that use best available science, and are endorsed by

the United States Geological Survey, the Southern California Earthquake Center, and the California Geological Survey. Scientists, therefore, believe that an earthquake of a magnitude 6.7 or larger is now slightly more than twice as likely to occur as to not occur in, approximately, the next thirty (30) years.

Interstates 680, 80, 580 and State Route 4 run throughout Contra Costa County. These interstates and state route divide the County into west, south, north, and east areas. An overpass or undercrossing collapse would significantly alter the response route and time for responding emergency equipment.

Earthquakes of the magnitude noted above could cause major damage to electrical transmission facilities and to gas and electrical lines in buildings, causing disruption and potentially starting fires throughout the county.

(b) Impact.

A major earthquake could severely restrict the response of Contra Costa County Fire Districts and their capability to control fires. When buildings not equipped with earthquake structural support move off their foundations, gas pipes may rupture. Fires may develop from line ruptures and spread from house to house, causing an extreme demand for fire protection resources. The proximity of large areas within the county to fault traces necessitates adopting stricter structural construction standards.

2. Soils.

(a) Conditions.

The area is replete with various soils, many of which are expansive. Many areas have landslide prone soils and some areas are potentially liquefiable during severe seismic shaking. Throughout Contra Costa County, the topography and development growth has created a network of older, narrow roads. These roads vary from gravel to asphalt surface and vary in percent of slope, many exceeding twenty (20) percent. Several of these roads extend up through the winding passageways in the hills providing access to remote, affluent housing subdivisions. The majority of these roads are private with no established maintenance program. During inclement weather, these roads are subject to rock and mudslides, as well as downed trees, obstructing all vehicle traffic. It is anticipated that during an earthquake, several of these roads would be unpassable preventing fire protection resources from reaching fires caused by gas line ruptures or other sources.

3. Topographic.

(a) Conditions.

(i) Vegetation.

Highly combustible dry grass, weeds, and brush are common in the hilly and open space areas adjacent to built-up locations six to eight months of each year. Many of these areas frequently experience wildland fires, which threaten nearby buildings, particularly those with wood roofs, or sidings. This condition can be found throughout Contra Costa County, especially in those developed and developing areas of the county. Earthquake gas fires due to gas line ruptures can ignite grasslands and stress fire district resources.

(ii) Surface Features.

The arrangement and location of natural and manmade surface features, including hills, creeks, canals, freeways, housing tracts, commercial development, fire stations, streets, and roads, combine to limit feasible response routes for fire district resources in and to district areas.

(iii) Buildings, Landscaping, and Terrain.

Many of the newer large buildings and building complexes have building access and landscaping features and designs, which preclude or greatly limit any approach or operational access to them by fire district vehicles. In addition, the presence of security gates and roads of inadequate width and grades that are too steep for fire district vehicles adversely affect fire suppression efforts.

When fire district vehicles cannot gain access to buildings involved with fire, the potential for complete loss is realized. Difficulty reaching a fire site often impacts fire personnel response both in terms of the numbers that can reach the site and in the stamina of those fighting the fire. Access problems often result in severely delaying, misdirecting or making impossible fire and smoke control efforts. In existing structures where pitched roofs have been built over an existing roof, smoke detectors should be required to warn residents of smoke and fire before the arrival of fire personnel.

(b) Impact.

The above local geological and topographical conditions increase the magnitude, exposure, accessibility problems, and fire hazards presented to the Town's fire resources. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself. Most earthquake fires are caused by natural gas line ruptures. Hazardous materials, particularly toxic gases, could pose the greatest threat to the largest number, should a significant seismic event occur. Public safety resources would have to be prioritized to mitigate the greatest threat and may be unavailable for smaller single dwellings that affected or threatened by broken gas lines.

Other variables may intensify the situation:

1. The extent of damage to the water system.
2. The extent of isolation due to bridge and/or freeway overpass collapse.

3. The extent of roadway damage and/or amount of debris blocking the roadways.
4. Climatic condition (hot, dry weather with high winds).
5. Time of day will influence the amount of traffic on roadways and could intensify the risk to life during normal business hours.
6. The availability of timely mutual aid or military assistance.
7. The large portion of dwellings with wood shake or shingle coverings (both on the roof diaphragm and sides of the dwellings) could result in conflagrations.
8. The large number of dwellings that slip off their foundations and rupture gas lines and electrical systems resulting in further conflagrations.

More restrictive electric vehicle charging standards would not impact the availability of fire or public safety resources.

B. Climatic.

1. Precipitation and Relative Humidity.

(a) Conditions.

Precipitation ranges from fifteen (15) to twenty-four (24) inches per year with an average of approximately twenty (20) inches per year. Ninety-six (96) percent of precipitation falls during the months of October through April, and four percent from May through September. May through September is a dry five (5) month period each year. Additionally, the area is subject to occasional drought. Relative humidity remains in the middle range most of the time. It ranges from forty-five (45) to sixty-five (65) percent during spring, summer, and fall, and from sixty (60) to ninety (90) percent in the winter. It occasionally falls as low as fifteen (15) percent.

(b) Impact.

Locally experienced dry periods cause extreme dryness of untreated wood shakes and shingles on buildings and non-irrigated grass, brush and weeds, which are often near buildings with wood roofs and sidings. Such dryness causes these materials to ignite very readily and burn rapidly and intensely. Gas fires due to gas line ruptures can also spark and engulf a single- family residence during these dry periods.

Because of dryness, a rapidly burning gas fire or exterior building fine can quickly transfer to other buildings by means of radiation or flying brands, sparks or embers. A small fire can rapidly grow to a magnitude beyond the control capabilities of the fire district resulting in an excessive fire loss.

2. Greenhouse Gas Emissions.

(a) Conditions.

The California Air Resources Board has collected information on emissions from air pollution sources since 1969. This information is periodically compiled by State and local air pollution control agencies to create regional and statewide greenhouse gas emissions inventories. The California greenhouse gas emissions inventory maintains information on various air pollution sources and identifies " transportation" (all on-road vehicles such as automobiles and trucks, and off-road vehicles such as trains, ships, aircraft, and farm equipment) as a primary pollution source. According to the 2019 statewide inventory, the transportation sector remains the largest source of greenhouse gas emissions, accounting for thirty-nine-point seven (39.7) percent of the total greenhouse gas emissions. Emissions from recycling and waste, comprising 2% of the total greenhouse gas emissions, have grown by 20% since 2000, and 96% of that amount is landfill emissions. California adopted land use and transportation policies to help reduce greenhouse gas emissions by promoting the use of renewable energy sources and reducing landfill disposal.

(b) Impact.

More restrictive electric vehicle charging standards would be consistent with the intent of state legislation and county and town requirements to aggressively implement energy policies designed to ensure success in meeting their greenhouse gas emission reduction and reusable energy goals.

3. Temperature.

(a) Conditions.

Temperatures have been recorded as high as 114° F. Average summer highs are in the 75° to 90° range, with average maximums of 105° F in some areas of unincorporated Contra Costa County.

(b) Impact.

High temperatures cause rapid fatigue and heat exhaustion of firefighters, thereby reducing their effectiveness and ability to control large building, wildland fires, and fires caused by gas line ruptures.

Another impact from high temperatures is that combustible building material and non-irrigated weeds, grass and brush are preheated, thus causing these materials to ignite more readily and burn more rapidly and intensely. Additionally, the resultant higher temperature of the atmosphere surrounding the materials reduces the effectiveness of the water being applied to the burning materials. This requires that more water be applied, which in turn requires more fire resources in order to control a fire on a hot day. High temperatures directly contribute to the rapid growth of fires to an intensity and magnitude beyond the control capabilities of the fire districts in Contra Costa County. The change of temperatures throughout the county between very low and extreme highs contributes to a voltage drop in conductors used for power pole lines. This necessitates that voltage drops be considered. More restrictive electric vehicle

charging standards would not have a negative impact on the temperature conditions within the county.

4. Winds.

(a) Conditions.

Prevailing winds in many parts of Contra Costa County are from the north or northwest in the afternoons. However, winds are experienced from virtually every direction at one time or another. Velocities can reach fourteen (14) mph to twenty-three (23) mph ranges, gusting to twenty-five (25) to thirty- five (35) mph. Forty (40) mph winds are experienced occasionally and winds up to fifty-five (55) mph have been registered locally. During the winter half of the year, strong, dry, gusty winds from the north move through the area for several days creating extremely dry conditions.

(b) Impact.

Winds such as those experienced locally can and do exacerbate fires, both interior and exterior, to burn, and spread rapidly. Fires involving non- irrigated weeds, grass, brush, and fires caused by gas line ruptures can grow to a magnitude and be fanned to an intensity beyond the control capabilities of the fire services very quickly even by relatively moderate winds. When such fires are not controlled; they can extend to nearby buildings, particularly those with untreated wood shakes or shingles.

Winds of the type experienced locally also reduce the effectiveness of exterior water streams used by all Contra Costa County Fire Districts on fires involving large interior areas of buildings, fires which have vented through windows and roofs due to inadequate built-in fire protection and fires involving wood shake and shingle building exteriors. Local winds will continue to be a definite factor toward causing major fire losses to buildings not provided with fire resistive roof and siding materials and buildings with inadequately separated interior areas, or lacking automatic fire protection systems, or lacking proper gas shut-off devices to shut off gas when pipes are ruptured or lacking proper electrical systems. National statistics frequently cite wind conditions, such as those experienced locally, as a major factor where conflagrations have occurred.

More restrictive electric vehicle charging standards would not have a negative impact on the wind conditions within the County.

15.04.015 - Necessity of More Restrictive Standards

Because of the conditions described above, the Contra Costa County Board of Supervisors found and the Town Council of Moraga finds that there are building and fire hazards unique to Contra Costa County and the Town of Moraga that require more restrictive fire protection, structural and design load requirements, and energy and waste management policies set forth in Ordinance No. 2022-35.

15.04.020 - Adoption of portions of the Contra Costa County Ordinance Code.

The following portions of the Ordinance Code of Contra Costa County, California are adopted by reference under the authority of Sections 50020-50022.9 of the California Government Code:

The provisions of County Ordinance 2022-35, approved by the Contra Costa County Board of Supervisors on November 8, 2022, adopting the 2022 California Building Code, the 2022 California Residential Code, the 2022 California Green Building Standards Code, the 2022 California Electrical Code, the 2022 California Plumbing Code, the 2022 California Mechanical Code, and the 2022 California Existing Building Code with changes, additions and deletions to the County Ordinance Code Sections as listed in Section II through Section X of said County Ordinance with the exemptions of Section III subsections 301.3.2, Waste Diversion, of the 2022 California Green Building Standards Code (CGBSC) Chapter 3, section 4.408.1 of the CGBSC Chapter 4 Construction Waste Management, section 4.408.2 of the CGBSC Chapter 4 Construction Waste Management Plan, section 4.408.5 of the CGBSC Chapter 4 Waste Management Plan Documentation, section 5.408.1 of the CGBSC Chapter 5 Nonresidential Construction Waste Management, section 5.408.1.1 of the CGBSC Chapter 5 Nonresidential Construction Waste Management Plan, section 5.408.1.4 Nonresidential Waste Management Plan Documentation, Section 100.0(e)(2)(A) of Subchapter 1 of the 2022 California Energy Code (CEnC) All-Electric Building Code, Section 100.0(b) of the CEnC Subchapter 1 All Electric Building Definition that are necessary because of local climatic, geological, or topographical conditions. The ordinance from which this chapter derives is adopted pursuant to Health and Safety Code Sections 17922, 17958, 17958.5, and 17958.7, and Government Code Sections 50020 through 50022.10.

15.04.030 - Amendment to Section 4.410 of the California Green Building Standards Code (aka CalGreen).

1.The maintenance and operations manuals for new buildings required under CalGreen Section 4.410 shall be provided as computer files on a suitable digital storage format, such as CDs, DVDs or flash drives and in a commonly used file format, such as Adobe pdf. The organization of the maintenance and operations manual shall follow the sample standard format from the State Department of Housing and Community Development.

2.Nothing in this Code shall prohibit the town from imposing stricter standards than those set forth in the mandatory requirements of CalGreen.

15.04.040 - Amendment to adopted portions of the Contra Costa County Ordinance Code relating to drainage.

Adopted by reference in Section II of this section, Contra Costa County Ordinance Code Section 74-6.004, Drainage Facility Requirements, is amended by changing subsection (c) to read as follows:

"(c) Drainage of water from swimming pools and similar improvements (but not waste from water treatment facilities) shall be conveyed in accordance with the requirements of the NPDES Municipal Stormwater Permit for the Contra Costa Clean Water Program."

15.04.050 - References to officials and offices.

In the Ordinance Code of Contra Costa County and each of the statewide codes adopted by reference, a reference to "board of supervisors" means the town council of the town of Moraga, and a reference to an office, official title or other designation means the office, official title or designation in the governmental structure of the town, or if there is none, the official or titleholder in the town who performs the function of the duty referred to.

SECTION 2 Publication.

The Town Clerk shall cause this Ordinance to be published in accordance with State Law.

SECTION 3. Environmental Review.

The proposed ordinance is exempt from the California Environmental Quality Act ("CEQA"), in that the adoption of State codes and the local amendments herein described do not have the potential for causing a significant effect on the environment, pursuant to Sections 15061(b) (3) and 15378(b) (5) of the CEQA Guidelines (Title 14, Chapter 3 of the California Code of Regulations)

SECTION 4. Severability.

The Town Council hereby declares that every section, paragraph, sentence, clause, and phrase of this ordinance is severable. If any section, paragraph, sentence, clause, or phrase of this ordinance is for any reason found to be invalid or unconstitutional, such invalidity or unconstitutionality shall not affect the validity or constitutionality of the remaining sections, paragraphs, sentences, clauses, or phrases.

SECTION 5. Effective Date.

This Ordinance shall be effective thirty days after the ordinance is adopted.

The foregoing Ordinance first reading was introduced at a regular meeting of the Town Council of the Town of Moraga held on May 24, 2023, and was adopted and ordered published at a regular meeting of the Town Council on June 14, 2023, by the following vote:

AYES:	Mayor Sos, Vice Mayor Onoda, Councilmembers Hillis, Shapiro, and Woehleke
NOES:	None
ABSTAIN:	None
ABSENT:	None

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Renata M. Sos, Mayor

ATTEST:

_____
Yashin Abbas, Interim Town Clerk