

ORDINANCE NO. 16-

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CUPERTINO RESCINDING AND REENACTING CUPERTINO MUNICIPAL CODE CHAPTER 16.52 REGARDING PREVENTION OF FLOOD DAMAGE FOR PROPERTIES WITHIN THE CITY

WHEREAS, this Ordinance is determined to be not a project under the requirements of the California Quality Act of 1970, together with related State CEQA Guidelines (collectively, "CEQA") in that proposed Ordinance is not a project within the meaning of section 15378 of the California Environmental Quality Act ("CEQA") Guidelines because it has no potential for resulting in physical change in the environment, either directly or ultimately. In the event that this Ordinance is found to be a project under CEQA, it is subject to the CEQA exemption contained in CEQA Guidelines section 15061(b)(3) because it can be seen with certainty to have no possibility of a significant effect on the environment.

WHEREAS, the City Council is the decision-making body for this Ordinance; and

WHEREAS, the City Council before taking action on this Ordinance has reviewed the not a project determination and exemption, and using its independent judgment, determines the Ordinance to be not a project or exempt from CEQA as stated above;

**NOW, THEREFORE, THE CITY COUNCIL OF THE OF CITY OF CUPERTINO DOES
ORDAIN AS FOLLOWS:**

16.52.001 Statutory Authorization.

The Legislature of the State of California has in Government Code Sections 65302, 65560, and 65800 conferred upon local governments the authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the City of Cupertino does hereby adopt the following floodplain management regulations.

16.52.010 Definitions

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

A. "A zone" - see "Special flood hazard area".

B. "Accessory structure" means a structure that is either:

1. Solely for the parking of no more than 2 cars; or
2. A small, low cost shed for limited storage, less than 150 square feet and \$1,500 in value.

C. "Accessory use" means a use which is incidental and subordinate to the principal use of the parcel of land on which it is located.

D. "Alluvial fan" means a geomorphologic feature characterized by a cone or fan-shaped deposit of boulders, gravel, and fine sediments that have been eroded from mountain slopes, transported by flood flows, and then deposited on the valley floors, and which is subject to flash flooding, high velocity flows, debris flows, erosion, sediment movement and deposition, and channel migration.

E. "Apex" means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

F. "Appeal" means a request for a review of the Floodplain Administrator's interpretation of any provision of this ordinance.

G. "Area of shallow flooding" means a designated AO or AH Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

H. "Area of special flood hazard" - See "Special flood hazard area."

I. "Base flood" means a flood which has a one percent chance of being equaled or exceeded in any given year (also called the "100-year flood"). Base flood is the term used throughout this ordinance.

J. "Base flood elevation" (BFE) means the elevation shown on the Flood Insurance Rate Map for Zones AE, AH, A1-30, VE and V1-V30 that indicates the water surface elevation resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year.

K. "Basement" means any area of the building having its floor subgrade - i.e., below ground level - on all sides.

L. "Building" - see "Structure".

M. "City" shall refer to the City of Cupertino, a municipal corporation in the State of California, County of Santa Clara.

N. "Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

O. "Encroachment" means the advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain which may impede or alter the flow capacity of a floodplain.

P. "Existing manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before **May 1, 1980**.

Q. "Expansion to an existing manufactured home park or subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

R. "Flood, flooding, or flood water" means:

1. A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters; the unusual and rapid accumulation or runoff of surface waters from any source; and/or mudslides (i.e., mudflows); and
2. The condition resulting from flood-related erosion.

S. "Flood Boundary and Floodway Map (FBFM)" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the floodway.

T. "Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

U. "Flood Insurance Study" means the official report provided by the Federal Emergency Management Administration that includes flood profiles, the Flood Insurance Rate Map, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.

V. "Floodplain or flood-prone area" means any land area susceptible to being inundated by water from any source - see **"Flooding."**

W. "Floodplain Administrator" is the City Engineer, or other community official designated by title to administer and enforce the floodplain management regulations.

X. "Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and applicable general master plans.

Y. "Floodplain management regulations" means this ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as grading and erosion control) and other application of police power which control development in flood-prone areas. This term describes federal, state or local regulations in any combination thereof which provide standards for preventing and reducing flood loss and damage.

Z. "Floodproofing" means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents. For guidelines on dry and wet floodproofing, see FEMA Technical Bulletins TB 1-93, TB 3-93, and TB 7-93.

AA. "Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. Also referred to as "Regulatory Floodway."

BB. "Floodway fringe" is that area of the floodplain on either side of the "Regulatory Floodway" where encroachment may be permitted.

CC. "Governing body" is the Planning Commission, which is empowered to adopt and implement regulations to provide for the public health, safety and general welfare of its

citizenry. In the event that the Planning Commission defers a decision to the City Council, or a Planning Commission decision is appealed, the Governing Body will be the City Council.

DD. "Hardship" as related to Sections 16.52.060 through 16.52.062 of this ordinance means the exceptional hardship that would result from a failure to grant the requested variance. The City of Cupertino requires that the variance be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors likewise cannot, as a rule, qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

EE. "Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

FF. "Historic structure" means any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states without approved programs.
5. Individually listed on a local inventory of historic places in the approved General Plan, publicly adopted by the City Council.

GG. "Levee" means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water so as to provide protection from temporary flooding.

HH. "Levee system" means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accord with sound engineering practices.

II. "Lowest floor" means the lowest floor of the lowest enclosed area, including basement (see **"Basement"** definition).

1. An unfinished or flood resistant enclosure below the lowest floor that is usable solely for parking of vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor provided it conforms to applicable non-elevation design requirements, including, but not limited to:
 - a. The flood openings standard in Section 16.52.043.C;
 - b. The anchoring standards in Section 16.52.041;
 - c. The construction materials and methods standards in Section 16.52.042; and
 - d. The standards for utilities in Section 16.52.044.
2. For residential structures, all subgrade enclosed areas are prohibited as they are considered to be basements (see **"Basement"** definition). This prohibition includes below-grade garages and storage areas.

JJ. "Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

KK. "Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

LL. "Market value" is defined in the City of Cupertino substantial damage/improvement procedures. See Section 16.52.021.B.

MM. "Mean sea level" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD) of 1988, or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

NN. "New construction", for floodplain management purposes, means structures for which

the "start of construction" commenced on or after May 1, 1980, and includes any subsequent improvements to such structures.

OO. "New manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after May 1, 1980.

PP. "Obstruction" includes, but is not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, or due to its location, its propensity to snare or collect debris carried by the flow of water, or its likelihood of being carried downstream.

QQ. "One-hundred-year flood" or "100-year flood" - see "Base flood."

RR. "Program deficiency" means a defect in a community's floodplain management regulations or administrative procedures that impairs effective implementation of those floodplain management regulations.

SS. "Public safety and nuisance" as related to Section 16.52.060 through 16.52.062 of this ordinance, means that the granting of a variance must not result in anything which is injurious to safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

TT. "Recreational vehicle" means a vehicle which is:

1. Built on a single chassis;
2. 400 square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light-duty truck; and
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Recreational Vehicles shall not be on any site for more than 180 consecutive days

UU. "Regulatory floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

VV. "Remedy a violation" means to bring the structure or other development into compliance with State or local floodplain management regulations, or if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing State or Federal financial exposure with regard to the structure or other development.

WW. "Riverine" means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

XX. "Sheet flow area" - see "Area of shallow flooding."

YY. "Special flood hazard area (SFHA)" means an area in the floodplain subject to a 1 percent or greater chance of flooding in any given year. It is shown on an FHBM or FIRM as Zone A, AO, A1-A30, AE, A99, or, AH.

ZZ. "Start of construction" includes substantial improvement and other proposed new development and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufacture home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

AAA. "Structure" means a walled and roofed building that is principally above ground; this includes a gas or liquid storage tank or a manufactured home.

BBB. "Substantial damage" means:

1. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred; or
2. Flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred. This is also known as "repetitive loss."

CCC. "Substantial improvement" means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations or state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
2. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

DDD. "Variance" means a grant of relief from the requirements of this ordinance which permits construction in a manner that would otherwise be prohibited by this ordinance.

EEE. "Violation" means the failure of a structure or other development to be fully compliant with this ordinance. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

FFF. "Watercourse" means a lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

16.52.011 Lands to Which this Ordinance Applies.

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of the City of Cupertino.

The Special Flood Hazard Area identified by the Federal Insurance Administration in a scientific and engineering report entitled “The Flood Insurance Study for the City of Cupertino,” dated November, 1979, and as amended from time to time, with accompanying Flood Insurance Rate Maps as amended from time to time, is adopted by reference and declared to be a part of this chapter. The Flood Insurance Study is on file in the Department of Public Works.

16.52.012 Basis for Establishing the Areas of Special Flood Hazard.

The areas of special flood hazard identified by the Federal Emergency Management Agency (FEMA) in the “Flood Insurance Study (FIS) for the City of Cupertino” dated November, 1979, with accompanying Flood Insurance Rate Maps (FIRM’s) and Flood Boundary and Floodway Maps (FBFM’s), dated May 1, 1980, and all subsequent amendments and/or revisions, are hereby adopted by reference and declared to be a part of this ordinance. This FIS and attendant mapping is the minimum area of applicability of this ordinance and may be supplemented by studies for other areas which allow implementation of this ordinance and which are recommended to the City Council by the Floodplain Administrator. The study, FIRM’s and FBFM’s are on file at the Department of Public Works.

16.52.013 Compliance.

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the requirements (including violations of conditions and safeguards) shall constitute a misdemeanor. Nothing herein shall prevent the City of Cupertino from taking such lawful action as is necessary to prevent or remedy any violation.

16.52.014 Abrogation and Greater Restrictions.

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

16.52.015 Interpretation.

In the interpretation and application of this ordinance, all provisions shall be:

- A. Considered as minimum requirements;

- B. Strictly construed in favor of the governing body; and
- C. Deemed neither to limit nor repeal any other powers granted under state statutes.

16.52.016 Warning and Disclaimer Of Liability.

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the City, any officer or employee thereof, the State of California, or the Federal Emergency Management Agency, for any flood damages that may result from reliance on this ordinance or any administrative decision lawfully made hereunder.

16.52.017 Severability.

This ordinance and the various parts thereof are hereby declared to be severable. Should any section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.

16.52.020 Designation of the Floodplain Administrator.

The City Engineer is hereby designate the Floodplain Administrator for the City, and is appointed to administer and implement this ordinance by granting or denying development permits in accord with its provisions.

16.52.021 Duties and Responsibilities of the Floodplain Administrator.

The duties and responsibilities of the Floodplain Administrator shall include, but not be limited to the following:

A. Permit Review.

Review all development permits to determine:

1. Permit requirements of this ordinance have been satisfied, including ensuring that the Building Official has made a determination of substantial improvement and substantial damage of existing structures;
2. All other required state and federal permits have been obtained;

3. The site is reasonably safe from flooding;
4. The proposed development does not adversely affect the carrying capacity of areas where base flood elevations have been determined but a floodway has not been designated. This means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than 1 foot at any point within the County; and
5. All Letters of Map Revision (LOMR's) for flood control projects are approved prior to the issuance of building permits. Building Permits must not be issued based on Conditional Letters of Map Revision (CLOMR's). Approved CLOMR's allow construction of the proposed flood control project and land preparation as specified in the "start of construction" definition.

B. Substantial Improvement and Substantial Damage Procedures.

Determination of Substantial Improvements and Substantial Damages shall follow the City's policy titled "Alterations and Additions Located in Special Flood Hazard Areas", dated June 1, 2016, and any subsequent revisions approved and implemented by the Building Official.

C. Review, Use and Development of Other Base Flood Data.

When base flood elevation data has not been provided in accordance with Section 16.52.012 (Basis for Establishing the Areas of Special Flood Hazard), the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal or state agency, or other source, in order to administer Sections 16.52.040 through 16.52.055.

NOTE: A base flood elevation shall be obtained using one of two methods from the FEMA publication, FEMA 265, "Managing Floodplain Development in Approximate Zone A Areas – A Guide for Obtaining and Developing Base (100-year) Flood Elevations" dated July 1995.

D. Notification of Other Agencies.

1. Alteration or relocation of a watercourse. The Floodplain Administrator shall:
 - a. Notify adjacent communities, Santa Clara Valley Water District, and the

California Department of Water Resources prior to alteration or relocation;

- b. Submit evidence of such notification to the Federal Emergency Management Agency; and
 - c. Assure that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained.
2. Base Flood Elevation changes due to physical alterations:
- a. Within 6 months of information becoming available or project completion, whichever comes first, the floodplain administrator shall submit or assure that the permit applicant submits technical or scientific data to FEMA for a Letter of Map Revision (LOMR).
 - b. All LOMR's for flood control projects are approved prior to the issuance of building permits. Building Permits must not be issued based on Conditional Letters of Map Revision (CLOMR's). Approved CLOMR's allow construction of the proposed flood control project and land preparation as specified in the "start of construction" definition.

Such submissions are necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements are based on current data.

3. Changes in corporate boundaries:

Notify FEMA in writing whenever the corporate boundaries have been modified by annexation or other means and include a copy of a map of the community clearly delineating the new corporate limits.

E. Documentation of Floodplain Development.

The Floodplain Administrator shall obtain and maintain for public inspection and make available as needed the following:

1. Certification required by Section 16.52.043.A and Section 16.52.53 (lowest floor elevations);
2. Certification required by Section 16.52.043.B (elevation or floodproofing of nonresidential structures);

3. Certification required by Section 16.52.043.C(flood openings);
4. Certification of elevation required by Section 16.52.045.A.3 (subdivisions and other proposed development standards);
5. Certification required by Section 16.52.055.B (floodway encroachments); and
6. Maintain a record of all variance actions, including justification for their issuance.

F. Map Determination.

The Floodplain Administrator shall make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazard, where there appears to be a conflict between a mapped boundary and actual field conditions. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 16.52.030, 16.52.060 through 16.52.062.

G. Remedial Action.

The Floodplain Administrator shall take action to remedy violations of this ordinance as specified in 16.52.013.

H. Planning.

The Floodplain Administrator shall assure the community's General Plan is consistent with floodplain management objectives herein.

I. Non-conversion of Enclosed Areas Below the Lowest Floor.

To ensure that the areas below the BFE shall be used solely for parking vehicles, limited storage, or access to the building and not be finished for use as habitable space without first becoming fully compliant with the floodplain management ordinance in effect at the time of conversion, the Floodplain Administrator shall:

1. Ensure the Building Official has determined which applicants for new construction and/or substantial improvements have fully enclosed areas below the lowest floor that are 5 feet or higher;

2. Ensure the applicant enters into a “NON-CONVERSION AGREEMENT FOR CONSTRUCTION WITHIN FLOOD HAZARD AREAS” or equivalent with the City of Cupertino. The agreement shall be recorded with the Office of the Recorder at the County of Santa Clara as a deed restriction. The non-conversion agreement shall be in a form acceptable to the Floodplain Administrator and City Attorney; and
3. Verify that the “NON-CONVERSION AGREEMENT” provides the authority to inspect any area of a structure below the base flood elevation to ensure compliance upon prior notice of at least 72 hours.

16.52.022 Development Permit.

A development permit shall be obtained before any construction or other development, including placement of prefabricated buildings and manufactured homes, within any area of special flood hazard established in 16.52.012. Application for a development permit shall be made on forms furnished by the City of Cupertino. The applicant shall provide the following minimum information:

A. Plans, drawn to scale, showing:

- A. Location, dimensions, and elevation of the area in question, existing or proposed structures, storage of materials and equipment and their location;
 - B. Proposed locations of water supply, sanitary sewer, storm drainage and other utilities;
 - C. Grading information showing existing and proposed contours, any proposed fill, and drainage facilities;
 - D. Location of the regulatory floodway when applicable;
 - E. Base flood elevation information as specified in Section 16.52.012;
 - F. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; and
 - G. Proposed elevation in relation to mean sea level to which any nonresidential structure will be floodproofed, as required in Section 16.52.043.B of this ordinance and detailed in FEMA Technical Bulletin TB 3-93.
- A. Certification from a registered civil engineer or architect that any nonresidential floodproofed buildings meet the floodproofing criteria in Section 16.52.043.B.**
- B. For a crawl-space foundation, the location and total net area of foundation openings**

as required in Section 16.52.043.C of this ordinance and detailed in FEMA Technical Bulletins 1-93 and 7-93.

C. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

D. All appropriate certifications listed in Section 16.52.021.E of this ordinance.

16.52.030 Appeals.

The Planning Commission of The City of Cupertino shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance.

A. Any person aggrieved by the decision of the Planning Commission may appeal such decision to the City Council, in accordance with Section 8 of Procedural Ordinance No. 652.

16.52.040 Standards of Construction.

All Special Flood Hazard Areas are governed by the general standards set forth in Sections 16.52.040 through 16.52.044.

16.52.041 Anchoring.

All new construction and substantial improvements of structures, including manufactured homes, shall be adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

16.52.042 Construction Materials and Methods.

All new construction and substantial improvements of structures, including manufactured homes, shall be constructed:

- A. With flood resistant materials, and utility equipment resistant to flood damage for areas below the base flood elevation;
- B. Using methods and practices that minimize flood damage;
- C. With electrical, heating, ventilation, plumbing and air conditioning equipment and

other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding; and

- D. Within Zones AH or AO, so that there are adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

16.52.043 Elevation and Floodproofing.

A. Residential construction.

All new construction or substantial improvements of residential structures shall have the lowest floor, including basement:

1. In AE, AH, A1-30 Zones, elevated to one foot or more above the base flood elevation.
2. In an AO zone, elevated above the highest adjacent grade to a height one foot or more above the depth number specified in feet on the FIRM, or elevated at least 3 feet above the highest adjacent grade if no depth number is specified.
3. In an A zone, without BFE's specified on the FIRM [unnumbered A zone], elevated to one foot or more above the base flood elevation; as determined under Section 16.5.021.C.

Upon the completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a registered civil engineer or licensed land surveyor, and verified by the community building inspector to be properly elevated. Such certification and verification shall be provided to the Floodplain Administrator.

B. Nonresidential construction.

All new construction or substantial improvements of nonresidential structures shall either be elevated to conform with Section 16.52.043.A or:

1. Be floodproofed, together with attendant utility and sanitary facilities, below the elevation recommended under Section 16.52.043.A, so that the structure is watertight with walls substantially impermeable to the passage of water;
2. Have structural components capable of resisting hydrostatic and hydrodynamic

loads and effects of buoyancy; and

3. Be certified by a registered civil engineer or architect that the standards of Section 16.52.043.B.1 & 2 are satisfied. Such certification shall be provided to the Floodplain Administrator.

C. Flood openings.

All new construction and substantial improvements of structures with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement must meet the following minimum criteria:

1. For non-engineered openings:
 - a. Have a minimum of two openings on different sides having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
 - b. The bottom of all openings shall be no higher than one foot above grade;
 - c. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwater; and
 - d. Buildings with more than one enclosed area must have openings on exterior walls for each area to allow flood water to directly enter; or
2. Be certified by a registered civil engineer or architect.

D. Manufactured homes.

- a. See Section 16.52.053.

E. Garages and low cost accessory structures.

1. Attached garages.
 - a. A garage attached to a residential structure, constructed with the garage floor

slab below the BFE, must be designed to allow for the automatic entry of flood waters. See Section 16.52.043.C. Areas of the garage below the BFE must be constructed with flood resistant materials. See Section 16.52.042.

- b. A garage attached to a nonresidential structure must meet the above requirements or be dry floodproofed. For guidance on below grade parking areas, see FEMA Technical Bulletin TB-6.

2. Detached garages and accessory structures.

- a. "Accessory structures" used solely for parking (2 car detached garages or smaller) or limited storage (small, low-cost sheds), as defined in Section 16.52.010, may be constructed such that its floor is below the base flood elevation (BFE), provided the structure is designed and constructed in accordance with the following requirements:
 - 1) Use of the accessory structure must be limited to parking or limited storage;
 - 2) The portions of the accessory structure located below the BFE must be built using flood-resistant materials;
 - 3) The accessory structure must be adequately anchored to prevent flotation, collapse and lateral movement;
 - 4) Any mechanical and utility equipment in the accessory structure must be elevated or floodproofed to one foot or more above the BFE;
 - 5) The accessory structure must comply with floodplain encroachment provisions in Section 16.52.055; and
 - 6) The accessory structure must be designed to allow for the automatic entry of flood waters in accordance with Section 16.52.043.C.
- 2. Detached garages and accessory structures not meeting the above standards must be constructed in accordance with all applicable standards in Sections 16.52.040 through 16.52.043.

16.52.044 Standards for Utilities.

- A. All new and replacement water supply and sanitary sewage systems shall be

designed to minimize or eliminate:

1. Infiltration of flood waters into the systems; and
 2. Discharge from the systems into flood waters.
- B.** On-site waste disposal systems shall be located to avoid impairment to them, or contamination from them during flooding.
- C.** Crawlspace Construction.

This sub-section applies to buildings with crawl spaces up to 2 feet below grade. Below-grade crawl space construction in accordance with the requirements listed below will not be considered basements.

1. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Crawl space construction is not allowed in areas with flood velocities greater than 5 feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer;
2. The crawl space is an enclosed area below the BFE and, as such, must have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. For guidance on flood openings, see FEMA Technical Bulletin 1-93;
3. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawl space used to elevate the building, but also any joists, insulation, or other materials that extend below the BFE; and
4. Any building utility systems within the crawl space must be elevated to one foot or more above BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions.
5. Requirements for all below-grade crawl space construction, in addition to the above requirements, shall include the following:
 - a. The interior grade of a crawl space below the BFE must not be more than 2 feet below the lowest adjacent exterior grade (LAG), shown as D in figure

3 of FEMA Technical Bulletin 11-01;

- b. The height of the below-grade crawl space, measured from the interior grade of the crawl space to the top of the crawl space foundation wall must not exceed 4 feet (shown as L in figure 3 of FEMA Technical Bulletin 11-01) at any point;
- c. There must be an adequate drainage system that removes floodwaters from the interior area of the crawl space within a reasonable period of time after a flood event, not to exceed 72 hours; and
- d. The velocity of floodwaters at the site should not exceed 5 feet per second for any crawl space. For velocities in excess of 5 feet per second, other foundation types should be used, or the foundation must be designed and reviewed by a qualified design professional.

16.52.045 Standards for Subdivisions and other Proposed Development.

- A. All new subdivisions proposals and other proposed development, including proposals for manufactured home parks and subdivisions, greater than 50 lots or 5 acres, whichever is the lesser, shall:
 - 1. Identify the Special Flood Hazard Areas (SFHA) and Base Flood Elevations (BFE).
 - 2. Identify the elevations of lowest floors of all proposed structures and pads on the final plans.
 - 3. If the site is filled above the base flood elevation, the following as-built information for each structure shall be certified by a registered civil engineer or licensed land surveyor and provided as part of an application for a Letter of Map Revision based on Fill (LOMR-F) to the Floodplain Administrator:
 - a. Lowest floor elevation.
 - b. Pad elevation.
 - c. Lowest adjacent grade.
- B. All subdivision proposals and other proposed development shall be consistent with

the need to minimize flood damage.

- C. All subdivision proposals and other proposed development shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
- D. All subdivisions and other proposed development shall provide adequate drainage to reduce exposure to flood hazards.

16.52.053 Standards for Manufactured Homes.

- A. All manufactured homes that are placed or substantially improved, on sites located:
(1) outside of a manufactured home park or subdivision; (2) in a new manufactured home park or subdivision; (3) in an expansion to an existing manufactured home park or subdivision; or (4) in an existing manufactured home park or subdivision upon which a manufactured home has incurred "substantial damage" as the result of a flood, shall:
 - 1. Within Zones A1-30, AH, and AE on the community's Flood Insurance Rate Map, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to one foot or more above the base flood elevation and be securely fastened to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- B. All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1-30, AH, and AE on the community's Flood Insurance Rate Map that are not subject to the provisions of Section 16.52.053.A will be securely fastened to an adequately anchored foundation system to resist flotation, collapse, and lateral movement, and be elevated so that either the:
 - 1. Lowest floor of the manufactured home is at one foot or more above the base flood elevation; or
 - 2. Manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade.

Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered civil engineer or licensed land surveyor, and verified by the community building inspector to be properly elevated. Such certification and

verification shall be provided to the Floodplain Administrator.

16.52.054 Standards for Recreational Vehicles.

- A.** All recreational vehicles placed in Zones A1-30, AH, and AE will either:
1. Be on the site for fewer than 180 consecutive days; or
 2. Be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or
 3. Meet the permit requirements of Section 16.52.022 of this ordinance and the elevation and anchoring requirements for manufactured homes in Section 16.52.053.A.

16.52.055 Floodways.

Since floodways are an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- A.** Until a regulatory floodway is adopted, no new construction, substantial development, or other development (including fill) shall be permitted within Zones A1-30 and AE, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other development, will not increase the water surface elevation of the base flood more than 1 foot at any point within the County of Santa Clara.
- B.** Within an adopted regulatory floodway, the City shall prohibit encroachments, including fill, new construction, substantial improvements, and other development, unless certification by a registered civil engineer is provided demonstrating that the proposed encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- C.** If Sections 16.52.055.A & B are satisfied, all new construction, substantial improvement, and other proposed new development shall comply with all other applicable flood hazard reduction provisions of Sections 16.52.040 through 16.52.055.

16.52.061 Conditions for Variances.

- A. Generally, variances may be issued for new construction, substantial improvement, and other proposed new development to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing that the procedures of Sections 16.52.020 through 16.52.055 of this ordinance have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.
- B. Variances may be issued for the repair or rehabilitation of "**historic structures**" (as defined in Section 16.52.010 of this ordinance) upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as an historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- C. Variances shall not be issued within any mapped regulatory floodway if any increase in flood levels during the base flood discharge would result.
- D. Variances shall only be issued upon a determination that the variance is the "minimum necessary" considering the flood hazard, to afford relief. "Minimum necessary" means to afford relief with a minimum of deviation from the requirements of this ordinance. For example, in the case of variances to an elevation requirement, this means the Planning Commission or City Council need not grant permission for the applicant to build at grade, or even to whatever elevation the applicant proposes, but only to that elevation which the Planning Commission or City Council believes will both provide relief and preserve the integrity of the local ordinance.
- E. Any applicant to whom a variance is granted shall be given written notice over the signature of a community official that:
 - 1. The issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage, and
 - 2. Such construction below the base flood level increases risks to life and property. It is recommended that a copy of the notice shall be recorded by the Floodplain Administrator in the Office of the Recorder of the County of Santa Clara, and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

- F. The Floodplain Administrator will maintain a record of all variance actions, including justification for their issuance, and provide information on such variances issued to the Federal Emergency Management Agency.

16.52.062 Appeal Board.

- A. In passing upon requests for variances, the Floodplain Administrator shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and the:

1. Danger that materials may be swept onto other lands to the injury of others;
2. Danger of life and property due to flooding or erosion damage;
3. Susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the existing individual owner and future owners of the property;
4. Importance of the services provided by the proposed facility to the community;
5. Necessity to the facility of a waterfront location, where applicable;
6. Availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
7. Compatibility of the proposed use with existing and anticipated development;
8. Relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
9. Safety of access to the property in time of flood for ordinary and emergency vehicles;
10. Expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and
11. Costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water system, and streets and bridges.

- B. Variances shall only be issued upon a:

1. Showing of good and sufficient cause;
2. Determination that failure to grant the variance would result in exceptional **"hardship"** to the applicant; and
3. Determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create a nuisance (see **"Public safety and nuisance"**), cause **"fraud and victimization"** of the public, or conflict with existing local laws or ordinances.

- C. Variances may be issued for new construction, substantial improvement, and other proposed new development necessary for the conduct of a functionally dependent use provided that the provisions of Sections 16.52.062.A through 16.52.062.D are satisfied and that the structure or other development is protected by methods that minimize flood damages during the base flood and does not result in additional threats to public safety and does not create a public nuisance.
- D. Upon consideration of the factors of Section 16.52.061.A and the purposes of this ordinance, the Planning Commission or City Council may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

INTRODUCED at a regular meeting of the Cupertino City Council the 18th day of October, 2016 and **ENACTED** at a regular meeting of the Cupertino City Council on this ____ of _____ 2016 by the following vote:

<u>Vote</u>	<u>Members of the City Council</u>
-------------	------------------------------------

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

APPROVED:

Grace Schmidt, City Clerk

Barry Chang, Mayor, City of Cupertino