RESOLUTION NO. 10-7811

A RESOLUTION OF THE CITY OF SANTA CLARA, CALIFORNIA, MAKING EXPRESS FINDINGS REQUIRED BY SECTION 17958.7 OF THE CALIFORNIA HEALTH AND SAFETY CODE THAT CERTAIN LOCAL MODIFICATIONS AND AMENDMENTS TO THE FOLLOWING MODEL CODES, AS AMENDED BY THE STATE OF CALIFORNIA, ARE NEEDED FOR THE CITY OF SANTA CLARA AND SETTING FORTH THE JUSTIFICATION FOR THE CHANGES:

1) **INTERNATIONAL BUILDING CODE (2009 EDITION)**
2) **INTERNATIONAL RESIDENTIAL CODE (2009 EDITION)**
3) **NATIONAL ELECTRICAL CODE (2008 EDITION)**
4) **UNIFORM MECHANICAL CODE (2009 EDITION)**
5) **UNIFORM PLUMBING CODE (2009 EDITION)**
6) **INTERNATIONAL EXISTING BUILDING CODE (2009 EDITION)**

BE IT RESOLVED BY THE CITY OF SANTA CLARA AS FOLLOWS:

WHEREAS, the State of California recently adopted and amended the Model Codes of the International Code Council and related uniform code publishers, and they will become applicable to all California cities on January 3, 2011;

WHEREAS, pursuant to the authority granted in Health and Safety Code section 17958, the City may adopt local amendments to the Model Codes;

WHEREAS, the City has worked with other Bay Area jurisdictions and the International Code Council chapters to adopt local amendments which are prudent and necessary based upon our climatic, topographical or geological changes; and,

WHEREAS, the City must set forth the justifications for those local amendments.

NOW THEREFORE, BE IT FURTHER RESOLVED BY THE CITY OF SANTA CLARA AS FOLLOWS:

1. 2009 International Building Code. That the City Council of the City of Santa Clara hereby expressly finds the modifications and amendments set forth in **Exhibit "A"** necessary for

the reasons set forth in **Exhibit "A-1."** Both exhibits are attached hereto and incorporated by this reference.

2. 2009 International Residential Code. That the City Council of the City of Santa Clara hereby expressly finds the modifications and amendments set forth in **Exhibit "B"** necessary for the reasons set forth in **Exhibit "B-1."** Both exhibits are attached hereto and incorporated by this reference.

3. 2008 National Electrical Code. That the City Council of the City of Santa Clara hereby expressly finds the modifications and amendments set forth in **Exhibit "C"** necessary for the reasons set forth in **Exhibit "C-1."** Both exhibits are attached hereto and incorporated by this reference.

4. 2009 Uniform Mechanical Code. That the City Council of the City of Santa Clara hereby expressly finds the modifications and amendments set forth in **Exhibit "D"** necessary for the reasons set forth in **Exhibit "D-1."** Both exhibits are attached hereto and incorporated by this reference.

5. 2009 Uniform Plumbing Code. That the City Council of the City of Santa Clara hereby expressly finds the modifications and amendments set forth in **Exhibit "E"** necessary for the reasons set forth in **Exhibit "E-1."** Both exhibits are attached hereto and incorporated by this reference.

6. 2009 International Existing Building Code. That the City Council of the City of Santa Clara hereby expressly finds the modifications and amendments set forth in **Exhibit "F"** necessary for the reasons set forth in **Exhibit "F-1."** Both exhibits are attached hereto and incorporated by this reference.

7. Public Record of Findings. That the City Clerk of the City of Santa Clara is hereby authorized and directed to have available as a public record in the City Clerk's office a copy of the findings as to the necessity of the modifications or amendments. The City Clerk is furthermore authorized and directed to transmit a copy of the findings to be filed with the California Building Standards Commission as required by Section 17958.7 of the California Health and Safety Code.

8. Constitutionality, severability. If any section, subsection, sentence, clause, phrase, or word of this resolution is for any reason held by a court of competent jurisdiction to be unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining portions of the resolution. The City of Santa Clara, California, hereby declares that it would have passed this resolution and each section, subsection, sentence, clause, phrase, and word thereof, irrespective of the fact that any one or more section(s), subsection(s), sentence(s), clause(s), phrase(s), or word(s) be declared invalid.

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9. Effective date. This resolution shall become effective on January 3, 2011.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE COPY OF A RESOLUTION PASSED AND ADOPTED BY THE CITY OF SANTA CLARA, CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE 7th DAY OF DECEMBER, 2010, BY THE FOLLOWING VOTE:

AYES:	COUNCILORS:	Caserta, Kennedy, Kornder, McLeod and Moore and Mayor Mahan
NOES:	COUNCILORS:	None
ABSENT:	COUNCILORS:	Matthews
ABSTAINED:	COUNCILORS:	None

ATTEST: _____
ROD DIRIDON, JR.
CITY CLERK
CITY OF SANTA CLARA

Attachments incorporated by reference:
1. Exhibits A and A-1: 2009 International Building Code modifications/amendments and reasons therefor
2. Exhibits B and B-1: 2009 International Residential Code modifications/amendments and reasons therefor
3. Exhibits C and C-1: 2008 National Electrical Code modifications/amendments and reasons therefor
4. Exhibits D and D-1: 2009 Uniform Mechanical Code modifications/amendments and reasons therefor
5. Exhibits E and E-1: 2009 Uniform Plumbing Code modifications/amendments and reasons therefor
6. Exhibits F and F-1: 2009 International Existing Building Code modifications/amendments and reasons therefor

EXHIBIT "A"

CITY OF SANTA CLARA
MODIFICATIONS AND AMENDMENTS TO
THE INTERNATIONAL BUILDING CODE [2009 Edition]

The following modifications and amendments are a part of the International Building Code, 2009 Edition. They are to add to, replace, or supersede the respective sections and subsections appearing in said code prior to such modifications.

(A) **Sections 101.4.1, 101.4.2, 101.4.3, 101.4.4, 101.4.6, 102.6, and 103 through 116, inclusive.** Administrative. Not adopted.

(B) **Section 1613.8 – Modification to ASCE 7-05.**

1613.8 ASCE 7, Section 12.8.7. Modify ASCE 7, Section 12.8.7 by amending Equation 12.8-16 as follows:

$$\theta = \frac{P_x \Delta I}{V_x h_{sx} C_d} \qquad (12.8\text{-}16)$$

Where I is the importance factor

(C) **Section 1704.4 - Concrete Construction.** Modifications.

1704.4 Concrete Construction. The *special inspections* and verifications for concrete construction shall be as required by this section and TABLE 1704.4.

Exceptions: *Special inspections* shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above *grade plane* that are fully supported on earth or rock, where the structural design of the footing is based on a specified compressive strength, f'c, no greater than 2,500 pound per square inch (psi) (17.2 Mpa).

(D) **Section 1908.1.8 ACI 318, Section 22.10.1** - Replace ACI 318-08, Section 22.10.1.

22.10.1- Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:

(a) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.

Exception: In detached one and two-family dwelling three stories or less in height, the projection of the footing beyond the face of the supported member is permitted to exceed the footing thickness.

(b) Plain concrete footing supporting walls are permitted, provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. A minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

Exception:

In detached one and two-family dwellings three stores or less in height and constructed with stud bearing walls, plain concrete footings with at least two continuous longitudinal reinforcing bars not smaller than No. 4 are permitted to have a total area of less than 0.002 times the gross cross – sectional area of the footing.

(E) **Chapter 29 – Plumbing Systems.** Not adopted.

(F) **Appendix Chapter J - Grading.** Adopted.

EXHIBIT "A-1"

CITY OF SANTA CLARA
JUSTIFICATION FOR
MODIFICATIONS AND AMENDMENTS TO:
THE INTERNATIONAL BUILDING CODE [2009 Edition]

(A) Sections 101.4.1, 101.4.2, 101.4.3, 101.4.4, 101.4.6, 102.6, and 103 through 116, inclusive. Administrative. Not adopted.

Justification: Contained in the Administrative Code.

(B) Section 1613.8 – Modification to ASCE 7-05.

Justification: The importance factor, I, was omitted from Equation 12.8-16 by mistake while transcribing it from the 2003 NEHRP Recommended Provisions (FEMA 450) Equation 5.2-16. For buildings with importance factor, I, higher than 1.0, the stability coefficient should include the importance factor. The proposed modification is consistent with the provisions adopted by DSA-SS and OSHPD as reflected in Section 1615.10.7 of the 2010 California Building Code. It is also consistent with ASCE 7-10 Equation 12.8-16 that will be adopted in the next code cycle. TUCC had supported the proposed modification during the 2007 code adoption process. This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle and is necessary due to the geological condition of Santa Clara.

(C) Section 1704.4 Concrete Construction modification.

Justification: Results from studies after the 1994 Northridge earthquake indicated that a lot of the damages were attributed to lack of quality control during construction. The proposed amendment limits the type of concrete footings (compressive strength, f'c, no greater than 2,500 psi) without special inspections and improves quality control during construction and therefore needs to be incorporated into the Code. This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle, and is necessary due to the geological condition of Santa Clara.

(D) 1908.1.8 ACI 318, Section 22.10.1. Replace ACI 318-08, section 22.10.1.

Justification: The proposed amendment addresses the problem of poor performance of plain or under-reinforced concrete footings during a seismic event. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint

Task Force that investigated the poor performance of plain and under-reinforced concrete footings observed in 1994 Northridge earthquake. This amendment is necessary because of the geological condition of City of Santa Clara.

(E) **Chapter 29 – Plumbing Systems.** Not adopted.

Justification: Fixture count and plumbing requirements are covered in the Plumbing code. Amendment eliminates conflicts between the two codes.

(F) **Appendix Chapter J** - Grading. Adopted.

Justification: Permit is required for grading operations and will control isolated excavations or fills where no building permit is required.

EXHIBIT "B"

CITY OF SANTA CLARA
MODIFICATIONS AND AMENDMENTS TO
THE INTERNATIONAL RESIDENTIAL CODE [2009 Edition]

The following modifications and amendments are a part of the International Residential Code, 2009 Edition. They are to add to, replace, or supersede the respective sections and subsections appearing in said code prior to such modifications.

(A) **Sections R103 through R114, inclusive.** Administrative. Not adopted.

(B) **Section R403.1.3. – Seismic Reinforcing.** Modification.

R403.1.3 Seismic reinforcing. Concrete footings located in Seismic Design Categories D0, D1 and D2, as established in Table R301.2(1), shall have minimum reinforcement of at least two continuous longitudinal reinforcing bars not smaller than No. 4 bars. Bottom reinforcement shall be located a minimum of 3 inches (76 mm) clear from the bottom of the footing.

In Seismic Design Categories D0, D1 and D2 where a construction joint is created between a concrete footing and a stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing, have a standard hook and extend a minimum of 14 inches (357 mm) into the stem wall.

In Seismic Design Categories D0, D1 and D2 where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing and have a standard hook.

In Seismic Design Categories D0, D1 and D2 masonry stem walls without solid grout and vertical reinforcing are not permitted.

Exception: In detached one- and two-family *dwellings* which are three stories or less in height and constructed with stud bearing walls, isolated plain concrete footings supporting columns or pedestals are permitted.

(C) **Section R602.10.2.1 and Table R602.10.1.2(2).** Modifications.

Add a new footnote "d" to the end of Table R602.10.1.2(2), to read:

d. In Seismic Design Categories D_0, D_1, and D_2, Method GB is not permitted and the use of Method PCP is limited to one-story single family dwellings and accessory structures.

Add the "d" footnote notation in the title of Table R602.10.1.2(2) after the three footnotes currently shown, to read:

TABLE R602.10.1.2(2)[a,b,c,d]

Add a new subsection R602.10.2.1.1, to read:

R602.10.2.1.1 Limits on methods GB and PCP. In Seismic Design Categories D_0, D_1, and D_2, Method GB is not permitted for use as intermittent braced wall panels, but gypsum board is permitted to be installed when required by this Section to be placed on the opposite side of the studs from other types of braced wall panel sheathing. In Seismic Design Categories D_0, D_1, and D_2, the use of Method PCP is limited to one-story single family dwellings and accessory structures.

(D) **Chapters 11 through 43, inclusive.** Not adopted.

(E) **Appendix Chapter H. Patio Covers.** Adopted.

(F) **Appendix Chapter K. Sound Transmission.** Adopted.

EXHIBIT "B-1"

CITY OF SANTA CLARA
MODIFICATIONS AND AMENDMENTS TO
THE INTERNATIONAL RESIDENTIAL CODE [2009 Edition]

(A) Sections R103 through R114, inclusive. Administrative. Not adopted.

Justification: Covered in the Administrative Code.

(B) Section R403.1.3. Modification.

Justification: This proposed amendment is made to be consistent with the amendment in the International Building Code that modifies the plain concrete provisions in Section 1908.1.8 and ACI 318 Section 22.10.1. This proposed amendment addresses the problem of poor performance of plain or under-reinforced concrete footings during a seismic event. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOC) and the Los Angeles City Joint Task Force that investigated the poor performance of plain and under-reinforced concrete footings observed in 1994 Northridge earthquake. The amendment is required because of the geological condition of City of Santa Clara.

(C) Section R602.10.2.1 and Table R602.10.1.2(2). Modifications and addition.

Justification: The proposed amendment addresses the problem of poor performance of gypsum wallboard and Portland cement plaster as wall bracing materials in high seismic areas. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance of these bracing materials that were observed in 1994 Northridge earthquake. The amendment is necessary due to the geological condition of City of Santa Clara.

(D) Chapters 11 through 43, inclusive. Not adopted.

Justification: Regulations are covered by other codes.

(E) Appendix Chapter H. Patio Covers. Adopted.

Justification: Provide standards for patio covers and patio enclosures.

(F) **Appendix Chapter K. Sound Transmission.** Adopted.

Justification: Provide standards for sound transmission between dwelling units.

EXHIBIT "C"

CITY OF SANTA CLARA
MODIFICATIONS AND AMENDMENTS TO:
THE NATIONAL ELECTRICAL CODE [2008 Edition]

The following amendment is a part of the National Electrical Code, 2008 Edition.

(A) **Article 90.4. Enforcement.** Not adopted.

EXHIBIT "C-1"

CITY OF SANTA CLARA
JUSTIFICATION FOR
MODIFICATIONS AND AMENDMENTS TO:
THE NATIONAL ELECTRICAL CODE [2008 Edition]

(A) **Section 90.4 Enforcement**. Administrative - Not adopted.

Justification: Contained in the Administrative Code.

EXHIBIT "D"

CITY OF SANTA CLARA
MODIFICATIONS AND AMENDMENTS TO:
THE UNIFORM MECHANICAL CODE [2009 Edition]

The following amendments are a part of the Uniform Mechanical Code, 2009 edition.

(A) **Sections 104 through 117, inclusive.** Administrative. Not adopted.

(B) **Appendix A – Uniform Mechanical Code Standard No. 6-5 Standard for Installation of Factory-Made Air Ducts.** Adopted.

EXHIBIT "D-1"

CITY OF SANTA CLARA
JUSTIFICATION FOR
MODIFICATIONS AND AMENDMENTS TO:
THE UNIFORM MECHANICAL CODE [2009 Edition]

(A) **Sections 104 through 117 inclusive**. Administrative - Not adopted.

Justification: Contained in the Administrative code.

(B) **Appendix A – Uniform Mechanical Code Standard No. 6-5 Standard for Installation of Factory-Made Air Ducts.** Adopted.

Justification: Provide installation standards for factory-made air ducts.

EXHIBIT "E"

CITY OF SANTA CLARA
MODIFICATIONS AND AMENDMENTS TO:
THE UNIFORM PLUMBING CODE [2009 Edition]

The following modifications and amendments are a part of the Uniform Plumbing Code, 2009 Edition. They are to add to, replace, or supersede the respective sections and subsections appearing in said Code prior to such modifications.

(A) **Sections 102 through 103.6 inclusive.** Administrative - Not adopted.

(B) **Appendix A, Recommended Rules for Sizing The Water Supply Systems.** Adopted.

(C) **Appendix B, Explanatory Notes on Combination Waste and Vent Systems.** Adopted.

(D) **Appendix D, Sizing Storm Water Drainage Systems.** Adopted.

(E) **Appendix I, Installation Standards.** Adopted.

(F) **Appendix L, Alternate Plumbing Systems.** Adopted.

EXHIBIT "E-1"

CITY OF SANTA CLARA
JUSTIFICATION FOR
MODIFICATIONS AND AMENDMENTS TO:
THE UNIFORM PLUMBING CODE [2009 Edition]

(A) **Section 102 through 103.6, inclusive**. Administration - Not adopted.

Justification: Contained in the Administrative Code.

(B) **Appendix A**, Recommended Rules for Sizing The Water Supply Systems. Adopted.

Justification: Provides standard for sizing water systems.

(C) **Appendix B**, Explanatory Notes on Combination Waste and Vent Systems. Adopted.

Justification: Provides standards for combination waste and vent systems.

(D) **Appendix D**, Sizing Storm Water Drainage Systems. Adopted.

Justification: Provides standards for rainwater systems.

(E) **Appendix I,** Installation Standards. Adopted.

Justification: Provide installation standards for various plumbing systems.

(F) **Appendix L,** Alternate Plumbing Systems. Adopted.

Justification: Provide procedures for the design of engineered plumbing systems, alternate materials, and equipment not specifically covered in the code.

EXHIBIT "F"

CITY OF SANTA CLARA
MODIFICATION AND AMENDMENTS TO:
THE INTERNATIONAL EXISTING BUILDING CODE [2009 Edition]

(A) **Chapter 9, Means of Egress, general -** Section 912.4. Adopted.

EXHIBIT "F-1"

CITY OF SANTA CLARA
JUSTIFICATION FOR
MODIFICATIONS AND AMENDMENTS TO:
THE INTERNATIONAL EXISTING BUILDING CODE [2009 Edition]

(A) Section 912.4 Means of egress, general. Adopted.

Justification: The means of egress hazard categories provisions for change in occupancy in existing buildings will help to clarify which sections of the code will need to be brought to be in compliance with the new code when there is a change in occupancy.