City of Bellaire

BUILDING AND STANDARDS COMMISSION DECEMBER 19, 2018

Council Chamber Regular Session 6:30 PM

FIRST FLOOR OF CITY HALL 7008 S. RICE AVENUE BELLAIRE, TX 77401

Agenda

Chair	Commissioner	
Laura Thurmond	George Williams	
Vice Chair	Commissioner	Commissioner
Danny Spencer	Dan R. Collins	Paul Coselli
Commissioner	Commissioner	
Lee Hampton	Christina Stone	

Mission Statement:

The City of Bellaire is dedicated to outstanding quality service and facilities to ensure an open, progressive, and secure community.

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I. REGULAR SESSION

- A. Call to Order
- B. Announcement of Quourm
- C. Rules for Public Comment
 - 1. Sign up forms will be available at all Regular and Special meetings for registering the names of members of the Public who wish to either: i) speak on an agenda item, provided such items have not been the subject of a prior public hearing; or ii) make a general comment related to the Commission business. These forms will be given to the Secretary prior to the start of the meeting so that the person's name can be called to address the Commission at the appropriate time.
 - 2. Public Comments on agenda items will be made at the time an agenda item appears in the Order of Business and before the Commission's consideration of that item.
 - 3. Public Comments of a general nature shall be made at the time designated by the Order of Business.
 - 4. All public comments shall be limited to six (6) minutes per speaker with extensions of two (2) minute increments as approved by a majority vote of Commission members present.
 - 5. Public Comment at Workshop meetings will be allowed at the discretion of the Chair. Any comments will be limited as described in Article IV Sec 8.
- D. Approval or Correction of the Minutes
 - 1. Building and Standards Commission Regular Session Sep 26, 2018 6:30 PM
- E. Public Comment
- F. Report from Building Official
- **G.** Reports of Committees and Communications
 - 1. Communications to Commission members outside of posted meetings
 - 2. Committee Reports
 - 3. Reports from Staff other than the Building Official
- H. Old Business
 - 1. Discussion, consideration, and possible action to bring forward for City Council consideration an Ordinance to revise the City of Bellaire Code of Ordinances, Chapter 9, Buildings, Sections 9-17, 9-18, 9-38, 9-39, 9-70, 9-92, and 9-363 to modify, remove, or add the items in Appendix A.

- I. New Business
 - 1. The Chair shall recognize any Commissioner who wishes to bring New Business to the attention of the Commission. Consideration of New Business shall be for the limited purpose of determining whether the matter is appropriate for inclusion on a future agenda of the Commission or referral to Staff for investigation.
- J. Public Hearings
- K. Announcements & Comments by Commissioners
- L. Adjournment

City of Bellaire

BUILDING AND STANDARDS COMMISSION SEPTEMBER 26, 2018

Council Chamber Regular Session 6:30 PM

FIRST FLOOR OF CITY HALL 7008 S. RICE AVENUE BELLAIRE, TX 77401

I. REGULAR SESSION

A. Call to Order

Vice Chairman Spencer called the meeting to order at 6:30 PM.

B. Announcement of Quourm

Vice Chairman Spencer announced that a quorum was present, consisting of the following members:

Attendee Name	Title	Status	Arrived
Laura Thurmond	Chair	Absent	
Danny Spencer	Vice Chair	Present	
Lee Hampton	Commissioner	Present	
George Williams	Commissioner	Present	
Dan R. Collins	Commissioner	Present	
Christina Stone	Commissioner	Late	
Paul Coselli	Commissioner	Present	
William Davidson	Building Official	Present	
David R. Montague	Council Member	Present	

C. Rules for Public Comment

Vice Chair Spencer skipped this section of the agenda due to the fact that there were no members of the public in attendance.

- 1. Sign up forms will be available at all Regular and Special meetings for registering the names of members of the Public who wish to either: i) speak on an agenda item, provided such items have not been the subject of a prior public hearing; or ii) make a general comment related to the Commission business. These forms will be given to the Secretary prior to the start of the meeting so that the person's name can be called to address the Commission at the appropriate time.
- 2. Public Comments on agenda items will be made at the time an agenda item appears in the Order of Business and before the Commission's consideration of that item.
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- 4. All public comments shall be limited to six (6) minutes per speaker with extensions of two (2) minute increments as approved by a majority vote of Commission members present.
- 5. Public Comment at Workshop meetings will be allowed at the discretion of the Chair. Any comments will be limited as described in Article IV Sec 8.

D. Approval or Correction of the Minutes

Building and Standards Commission - Regular Session - Jul 25, 2018 7:00 PM
 Commissioner Coselli asked for a correction on page nine of the minutes under "Closure of the Public Hearing." His name was misspelled.

Vice Chair Spencer noted the correction.

RESULT: APPROVED AS CORRECTED [UNANIMOUS]

MOVER: Paul Coselli, Commissioner
SECONDER: George Williams, Commissioner

AYES: Spencer, Hampton, Williams, Collins, Coselli

ABSENT: Thurmond, Stone

E. Public Comment

There were no public comments.

F. Report from Building Official

The Building Official, William Davidson, noted public workshop sessions for the new code changes.

Vice Chair Spencer asked if the meeting on December 12th will be in place of the meeting that usually landed on Christmas.

Mr. Davidson stated that was correct. The meeting was originally scheduled for the day after Christmas, the 26th of December, which is a staff holiday. City staff had contemplated having the meeting on December 19th however, that was still too close to Christmas.

Commissioner Collins asked about the status of the property at 4515 Maple.

Mr. Davidson said that the City has begun the process of demolition. He has ordered the topographical survey of the property, which will take a while, as well as working to get the utilities disconnected. He noted there are three different bids from demolition contractors to find the contractor they are most comfortable with. The City will move forward with demolition since the 30 days has elapsed.

Mr. Collins asked if the homeowner has caused any issues recently.

Mr. Davidson noted that he has not spoken to Mr. Kuykendahl since the last meeting. The City has sent the executed order via regular and certified mail. The notification sent about the meeting was returned to the sender, however, the certified mail was not.

He added that he did have cause to run a report that stated roughly 1,060 new home permits have been applied for since the flood map change in 2007. This means that roughly 950 houses have been constructed under the new regulations.

G. Reports of Committees and Communications

1. Communications to Commission members outside of posted meetings

There were no communications to report.

2. Committee Reports

There were no committee reports.

3. Reports from Staff other than the Building Official

The Commission's Council Liaison, Councilman Montague, asked for the Building Official to send him the slide alone with the cover slide to keep for his records and information. He noted that on July 25th the Commission was questioned as to whether it is performing the duties that it has been tasked to perform. The report will be released next week, in the form of a workshop. He specifically wants the cover slide that will state the purpose of each workshop. He noted that the Building and Standards Commission went to City Council in December with a recommendation regarding the required width of sidewalks. The City Council accepted the recommendation pending input from the City Engineer. Council Member Montague stated that the City Engineer came to the City Council meeting and noted that, in his opinion, the City should adopt five-foot width as the standard. He noted that during the vote in December there was a discussion about changing the width from four feet to three feet. Council Member Montague noted that it was best that the Commission read a previous blog post made by the Mayor regarding the sidewalks. He noted that the slide show attached to the blog showed the progression of the City of Bellaire. Since the slide show, the Mayor proposed that the City maintain the four-foot standard for the sidewalks. Under those propositions, the Council has operated under the four-foot standard for the last several votes. In regards to the Bonds for Better Bellaire in 2016, they voted to use money to improve sidewalks and street drainage. The bond proposal was originally discussed with streets and drainage, waste water, water lines, and sidewalks. The proposal for the sidewalks was then added to the streets and drainage portion of the proposal; therefore, leading the public to question the transparency of the Commission not letting the City vote on the sidewalks separately. The sidewalks involved two groups: the street and drainage sidewalks and the stand-alone sidewalks. The stand-alone sidewalks are to connect schools, parks, etc., (D1) and connecting to the City and downtown (D2); where voting on D3 was postponed indefinitely leaving the main discussion to be about D1 and D2. Council Member Montague stated that during the discussion for D1, the sidewalks inside the loop were approved and the sidewalks outside of the loop were excluded. On Monday night, blocks filed petitions in regards to D2 and were told that if they didn't want the sidewalks, they were not forced to have them; those were excluded and the others that did not have a discussion were approved. An issue became prevalent when most of the sidewalks on the block were built and nearly complete but, the few houses that did not want to have sidewalks and petitioned against it, did not have sidewalks. That left the decision to be made to construct sidewalks regardless of what the homeowners thought as the sidewalk was the connection between Rice and Ferris. The last item would be next week and that entails new homes. Council Member Montague mentioned that there was an ordinance that required new homeowners to put a sidewalk in front of their homes. Later, they gave the homeowners an option to pay a fee instead of having a sidewalk in

front of their home if a sidewalk were to ever come down their street. Until 18 months ago, the City Council adopted the five-foot sidewalk regulation where it was stated that the City would make new homeowners put the five-foot sidewalks in front of their homes. Council Member Montague noted that the process was put on hold as the new Commission had been debating whether to leave the sidewalks at the five-foot regulation or move it to four feet. He stated that staff will come in the following week and ask the City Council what they choose to do; the five-foot requirement, the four-foot requirement, pay a fee, or nothing. He plans on speaking with the Director of Development Services, ChaVonne Sampson, in regards to his opinions. Currently the guidelines for the City dictate that the sidewalks should be five-feet in width unless circumstances dictate otherwise. He noted that in order to get the new sidewalks the same width as the rest of the City, you would need a map of the entire city. He noted that the main concern with the public is that there is no master plan or map available to be able to determine the width of the sidewalks and which type of sidewalks are to be placed where. He added that the bond process is too long and once the process is complete, they're already on the next City Council. He asked that there be an overall definition of what is expected for the sidewalks.

Vice Chair Spencer thanked Council Member Montague for his explanation of the issues with sidewalks in Bellaire. He asked if the sidewalks were the main discussion topic or were there any other discussion topics.

Council Member Montague added that flooding continues to be a big topic discussed. He said it is worth noting that progress is being made on the Flood Mitigation Task Force recommendations and TxDot. They are impressed there are people who are listening and actively working towards fixing the flooding issues. Soon the City will be asked to approve money being used (\$315,000) for hydraulic and other flood studies to be done on drainage. They have spoken with TxDot to see if they are willing to expand and/or pay for some of the study. Council Member Montague added it will take time for changes to be seen. He suggested there be a monthly update in the City's newspaper with regard to the steps taken (action plan, expenditures, etc.) to implement the flood plans. There have been over 300 people who have communicated with the City their concerns regarding sidewalks. He understands communicating with the public to keep them informed can be a tough task and knows that it will take time. Council Member Montague noted that staff is working very hard as well as the Council, although they may have different views regarding the sidewalks.

Commissioner Collins noted that the City of Houston raised their flood building requirements to two feet over the base flood elevation (BFE). This Commission thought it was unnecessary to do the same thing in the City of Bellaire. He asked whether Mr. Montague has received any feedback regarding the decision Houston made, or if it is something that needs to be further addressed in Bellaire.

Councilman Montague stated that he had a couple of citizens ask why Bellaire was not adopting the same policies the City of Houston made but has not heard of any serious questions or concerns. He noted that the Building Official would have more information.

Mr. Davidson noted that in the second week of September the City received a number of concerned inquiries regarding the elevation change. He noted they were surprised to learn the City of Bellaire maintains its own municipal standards. He has received some complaints from builders about Houston's elevation changes but they were informed of the situation.

Council Member Montague noted it was discussed during meetings of the Flood Mitigation Task

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Force, as well as in the final report. He said that of the 900 or so homes that have been built to one foot above BFE, only 47 flooded. The 47 homes that flooded were more due to local ponding versus overall flood level. They were putting a 100-year standard against a "5,000" year storm.

Commissioner Stone asked if any of the new homes that flooded in Southdale were above the 100-year standard.

Mr. Davidson said yes. They received damage to the low-lying first level areas in their home. The amount of water they got into the house was measured in inches and not in feet, and was due to wave activity or if the home was built on one of the southernmost streets. When people started to get water into their homes, it was because the drainage stopped working.

Vice Chair Spencer asked for clarification that if someone wants to build higher than the minimum standard elevation, they are welcome to.

Mr. Davidson confirmed that is correct.

Councilman Montague added that there will be an ordinance coming to City Council in regards to people driving up and down the streets at high speeds during a flooding event, as that creates unnecessary flooding that could cause damage to people's homes.

Commissioner Collins asked if this Commission has any involvement in regards to the sidewalks being constructed in front of new homes, aside from the width of the sidewalks.

Mr. Davidson clarified the way the topic was brought up to Council was not from Building Standards, but from the Council itself. .

Commissioner Collins asked if it is a planning and zoning requirement more than a building and standards requirement.

Mr. Davidson clarified that the fact that one has to be built makes it a building standard. However, all roads lead to the Council so they have the ability to approve building standards as they have a higher authority when it comes to voting. Therefore, the Council can approve a voting standard without their input.

Commissioner Stone asked Council Member Montague for clarification that on Monday when they approved the construction of sidewalks that were already part of the plan, on streets that weren't objecting, they also stated the sidewalks would be four feet wide.

Councilman Montague confirmed that was correct.

Commissioner Stone said that even though they previously said five feet, on Monday they said four-foot sidewalks in front of the new homes that did not object to the sidewalks.

Commissioner Collins clarified that was on the projects that had been presented to the public and had received feedback on the four-foot discussion.

Commissioner Stone said, yes, and clarified that the Council made a differentiation between the streets where the majority of the people did not want sidewalks and those where people did not object. Then they stated they were going to go ahead with the construction.

Mr. Davidson clarified there is an ordinance requiring a five-foot sidewalk in front of all new residential construction which is up for consideration by the Council on Monday. The Council

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could decide to refer it to the Building and Standards Commission or they could choose to take action on their own.

Commissioner Collins noted that when the Building and Standards Commission recommended that they go to four-foot sidewalks, there were no five-foot sidewalks under construction and therefore the Building Official was able to notify the contractors of the regulation change. The problem is that time has passed and if that changes again, he asked if the four-foot sidewalks under construction would be "grandfathered" in.

Mr. Davidson stated that if a Certificate of Occupancy was issued before the ordinance change was made then the City would not require that the sidewalks change to a five-foot sidewalk. Regardless, he will be sending a long email to all the registered builders in Bellaire with the outcome of the meeting on Monday. That will be the policy that his inspectors follow.

Commissioner Collins noted the Council could make a decision on any pre-existing projects.

Councilman Montague is interested in what the staff recommends. He would rather there be a regulation where if a sidewalk is in front of someone's home, it would be "X" in regards to the width of the sidewalk, whether it is on your side of the street or not. So, each new home gives "X" to the fund and then sidewalks will be placed in due course.

Vice Chair Spencer agreed and added if they could come up with a plan.

Council Member Montague added it would cut the ambiguity out of it and would reduce frustration. It should just state that new homes will be funding sidewalks while the City decides more on the regulations of the sidewalks.

Vice Chair Spencer stated that it was a discussion that was had, it was put into the meeting notes, they worked it out, and they came up with a decision. He is unsure if there is any reason why the Commission would need to say they revisited the issue as a group. He thinks they should stand by their decision. Vice Chairman Spencer noted that if they feel passionate about the issue they should speak up and stand by their decision.

Commissioner Coselli added that the Commission made a decision and there was nothing that was brought before them that would change their mind.

Vice Chair Spencer noted they are unable to discuss the issue that way according to the protocol; it is not something they are supposed to be discussing.

Mr. Davidson agreed but added that on an individual basis, members could have that discussion with the City Council. They just need to be careful when they discuss new business that is not on the agenda.

Councilman Montague noted the City Council heard the Commission's recommendation, as well as the City Engineer's recommendation, and the City Engineer noted that other cities follow similar guidelines.

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H. Old Business

There was no Old Business.

I. New Business

1. Discussion of upcoming changes to building standards and codes, and proposed Ordinance changes, for Electrical and Commercial Projects in the City of Bellaire, including inspections and plan review.

Mr. Davidson stated that despite the commercial code being the most complex, Bellaire does not build a lot of buildings in most of the occupancies that are governed by the commercial building code. Fortunately, very few requirements come up in Bellaire. Multifamily residential properties are not constructed in Bellaire and the schools are already constructed with the exception of the rebuild of Bellaire High School. While they do have some hospital type occupancies, there are no huge medical centers being constructed in Bellaire anytime soon. Mr. Davidson then presented a slide show. First, he started off with the electrical code. The only major code change is that the outlets for garages need to be on a separate circuit; which has been the best practice of most electricians. The City Staff will be proposing to add a section to the electrical code allowing the Building Official to allow the use of aluminum wiring for electrical services and special circumstances. Those being primarily on busy streets where copper wiring creates a theft risk. Next, he noted the commercial code changes. He explained that the 2015 code has a lot of changes that don't impact Bellaire. Mr. Davidson has a detailed version of the 2015 code available at the board's request. He noted the significant changes book is about an inch thick and so he is providing a summary of the important parts of the book and not the reorganizations of existing chapters or clarifications. They have added a section allowing roofs to be used as assembly spaces, which may be something the Commission will want to discuss further in the future because the use of a roof as an assembly occupancy poses some hazards. Examples of an assembly occupancy would be a bar, nightclub, or sporting event; which would have a lot of people standing around, some of whom may be inebriated and/or children may be present. They don't have an objection to the change because the City's zoning ordinance regulates the use of such spaces.

Commissioner Williams asked if there are regulations to the type of safety rating on the roof for spaces like that.

Mr. Davidson stated that there are.

Mr. Davidson explained the relevant changes to the International Building Code, as concerns Commercial construction. The biggest changes regarded use and occupancy of buildings, and the fact that turnstiles may be placed in egress pathways. The Commission discussed possible problems with obstructing egress pathways.

Mr. Davidson added that the City was contemplating adding an exception to the work hours regulations, in response to a perceived need with Commercial construction projects. Additionally, the City would be looking at increasing the necessary insurance coverage for registration as a contractor in the City of Bellaire.

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Commissioner Stone asked if the use of the aluminum wire creates any hazards.

Mr. Davidson added that the City would be adding a formal exception process to allow the use of Aluminum wiring in commercial districts where theft was considered a problem.

The Commission reviewed the past history of safety issues surrounding the use of aluminum wiring, and agreed that this use did not pose a safety hazard.

Commissioner Stone asked what an occupied roof was.

Mr. Davidson gave an example, if he owned a four-story building and wanted the fourth story to be a roof/bar or a roof/observation deck. The building code has to give it a name and define how they are going to use it.

Commissioner Collins asked if there is an estimated time frame on when the change would be made for the plastic conduit.

Mr. Davidson stated the plan was to present that to Council along with all the other amendments which would be at the first of the year. When they get into residential areas, as far as code changes and such, there will be more issues and comments to be made. The energy code will have more recommendations on how the City is going to approve the code going forward.

2. The Chair shall recognize any Commissioner who wishes to bring New Business to the attention of the Commission. Consideration of New Business shall be for the limited purpose of determining whether the matter is appropriate for inclusion on a future agenda of the Commission or referral to Staff for investigation.

Commissioner Collins asked who owns the standards for design and insulation of utility poles.

Mr. Davidson stated that they are CenterPoint's service standards. There is little the City of Bellaire can do. He added that there is another electrical code that governs those installations, which he is not familiar with because in Texas they have no authority over utility lines.

Commissioner Collins asked if CenterPoint governs from the weather head to the ground.

Mr. Davidson stated, yes, they govern that. CenterPoint supplies the pole.

Commissioner Collins and Mr. Davidson discussed small cell towers and the City's regulations thereof. Mr. Davidson explained that the City's ordinances were in a section of the Code outside the purvue of the Building Standards Commission. Mr. Collins asked for clarification of the actions the Council might take to better regulate such structures.

Mr. Davidson asked Councilman Montague to explain the Council's actions, and Councilman Montague explained that the City is limited in its ability to enforce, but

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that the City would be regulating the location as much as possible, to mitigate the appearance of "eye sores".

Mr. Davidson added that there are legislative restraints with regard to the installation of telecommunications because they are held to different rules than regular contractors are.

Commissioner Collins noted he is not necessarily proposing this as a new item, but asked if it will be something that the Commission will address, and if they could add it to a future agenda to assist the Building Official and the permits that will be required.

Mr. Davidson said he will have thoughts put together on that issue at the next meeting.

Commissioner Collins asked if it would be beneficial for the Commission to look at parking garages, as there will be two that will be under construction within the City soon, and possibly a third in the near future.

Mr. Davidson clarified that the public hearing for the proposed parking garage at the former Chevron property has gone forth, but action has not been taken.

Commissioner Collins asked if Mr. Davidson or any other Commissioners see a need to address the best practices or any requirements relating to the parking garages.

Mr. Davidson stated that he will discuss this with his staff and find out what role the Building and Standards Commission may play in regards to parking garages for the next meeting. He noted it is definitely something they should look, at least from a safety and design standpoint, as that would be under Building Standards.

J. Public Hearings

There were no public hearings.

K. Announcements & Comments by Commissioners

Council Member Montague read a text aloud from Chairwoman Thurmond where she stated, "I must have missed the agenda completely. I looked for my email yesterday and didn't find it. I figured that they had cancelled given the parliamentary training tomorrow. I can't come tonight due to work obligations."

Commissioner Stone apologized for being late.

L. Adjournment

Motion: a motion was made by Commissioner Stone and seconded by Commissioner Coselli to adjourn the meeting.

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Vote: the motion passed with a vote of 6-0.

The meeting was adjourned at 8:00 pm.

1.H.1

Building and Standards Commission

City of Bellaire

Meeting: 12/19/18 06:30 PM
Department: Development Services
Category: Code Amendment
Department Head: ChaVonne Sampson
DOC ID: 2769

Council Chamber, First Floor of City Hall Bellaire, TX 77401

SCHEDULED ACTION ITEM (ID # 2769)

Item Title:

Discussion, consideration, and possible action to bring forward for City Council consideration an Ordinance to revise the City of Bellaire Code of Ordinances, Chapter 9, Buildings, Sections 9-17, 9-18, 9-38, 9-39, 9-70, 9-92, and 9-363 to modify, remove, or add the items in Appendix A.

Background/Summary:

Background/Summary:

The City of Bellaire will be adopting new building codes by January 1st, 2019. The Building Official and the Building Standards commission have reviewed the new and existing codes, and found that several items need revision. These items consist of changes to the requirements for construction, including flood damage prevention, and the electrical and mechanical codes.

The first item consists of modifying the City's construction hours to allow exeptions to be made when necessary. As with all exceptions to regulations, any such ruling by the Building Official must be made in writing, and with any necessary conditions provided to the applicant. The other exeption being added convers situations where the City's requirements for residential drainage plans conflict with the Building Code, and allow the City to follow the building code.

Secondly, in light of ever-increasing complexity in Air Conditioning system design and installation, the Building Official is recommending that the City require all contractors building new homes to submit a statement that the building code and functional intent are being met. The Commission offered a great deal of input on this change, and the provisions are a result of those discussions.

Thirdly, the City's Building Code amendments have several sections that refer to outdated or relocated sections of the Building Code. Likewise, two sections of the Code of Ordinances that govern residential foundation construction should be moved to the relevant "Code Amendments" section rather than their current location.

Furthermore, in order to provide the City and the public with a clear guideline for obtaining repair permits following a storm, and to ensure that process meets all relevant regulations, a section should be added to the flood damage prevention section of the Ordinances. This addition lays out the additional requirements for permits for flood repairs, and explains the City's process during times of severe flooding events.

The Building Official has asked that one regulation, on the type of conduit allowed for electrical installations, be repealed as obsolete. The Commission has agreed that this regulation is no longer necessary, given that modern conduit and the current electrical code serve to protect the public.

Updated: 12/14/2018 3:39 PM by William Davidson

Staff Recommendation:

Staff recommends that the Building Standards Commission forward these items, as written, to the City Council for consideration.

ATTACHMENTS:

Proposed CH 9 Changes (DOC)

Sec. 9-17. - Amendments to building code.

The building code adopted by the provisions of this article is hereby amended, altered and changed in the following respects:

- 105. Section 105, Permits, of the Building Code is hereby amended with respect to subsection 105.2, Work Exempt from Permit, by deleting subsections 105.2.2, 105.2.4, 105.2.6, 105.2.7 and 105.2.12.
- 105. Section 105, Permits, of the Building Code is hereby amended by adding a new subsection thereto, numbered and reading as follows:

Sec. 105.1.a. It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, demolish, equip, use, occupy or maintain any building or premises or cause or permit the same to be done without having obtained a building contractor's license issued by the City of Bellaire prior to the commencement of any such work.

105. Section 105, Permits, of the Building Code is hereby amended by adding a new subsection thereto, numbered and reading as follows:

Sec. 105.1.b.

- Building permits shall be issued only to building contractors who are currently licensed by the City of Bellaire or to persons who wish to do work on 1 and 2 family dwellings which are owned and occupied by them as a single family residence.
- The annual fee for a building contractor's license shall be established by the City Manager or his designee. All building contractors' licenses shall expire on October 1, following the date of their issuance.
- 3. Application for a license as a building contractor shall be made in writing to the building official on a form furnished for that purpose.
- 4. No building permit shall be issued to any building contractor until he shall have arranged to carry the following insurance or, having been issued, may be revoked if such insurance is not kept in force:
 - (a) Worker's compensation insurance on each and every one of his employees and this insurance shall be in accordance with the provision of the Worker's Compensation Act of the state;
 - (b) Bodily injury liability insurance to the extent of \$300,000.00 for any one occurrence and \$300,000.00 in the aggregate;
 - (c) Property damage insurance to the extent of \$100,000.00 for any one occurrence and \$100,000.00 in the aggregate; or a combined single limit of \$300,000.00 per occurrence and in the aggregate;
 - (d) Such insurance shall be written by an admitted company under the supervision of the State Board of Insurance of the state.
 - Evidence of the compliance with the above insurance requirements shall be considered as having been met when the policy, a copy thereof or a certificate of insurance has been filed with and approved by the building official. Such policy shall include an endorsement thereon that the building official will be notified at least ten days in advance in the event the policy or policies are canceled or expire before the expiration of the license.
- 5. Licenses issued under the provisions hereof shall not be transferable, but the building contractor's license of any active member, officer or supervisory employee of a partnership, firm or corporation shall be sufficient to qualify the partnership, firm or corporation to engage in the business of building contracting, if the license holder is

employed by that firm only and does in fact supervise and control those installations and alterations of buildings which are required by this Code to be installed or altered by a person licensed under the provisions hereof.

- 6. (a) The Building Official may revoke or suspend a building contractor's license or deny a building contractor's license application if the building contractor:
 - (1) Has repeated or continuing violations of any laws or regulations relating to any construction work covered by this chapter, including the city's building codes, this chapter, or any of the technical codes adopted under this chapter; or
 - (2) Intentionally gave false or misleading information on its licensing form, any document submitted for building permits, or any other document submitted to the city for review.
 - (b) A suspension or revocation of a building contractor's license may be for a period of up to one year. The Building Official will give written notice to the license holder of the Building Official's intent to revoke or suspend the license not less than ten (10) business days prior to the date of revocation or suspension. The written notice will include:
 - A clear statement of the reason the Building Official intends to revoke or suspend the license;
 - (2) The date the revocation or suspension will become effective, which will not be less than ten (10) business days from the date the written notice is given; and
 - (3) A statement that the license holder may file a written appeal with the Building Official of the proposed revocation or suspension within five (5) business days of the date of the notice.
 - (c) A denial of a building contractor's license shall be effective for one (1) year. If the Building Official denies a building contractor's application for a license, the Building Official will give written notice of the denial to the applicant as soon as reasonably possible, but not more than five (5) business days after the decision is made to deny the application for a building contractor's license. The written notice will include:
 - (1) A clear statement of the reason for the Building Official's denial; and
 - (2) A statement that the applicant may appeal the denial of the building contractor's license by filing a written notice of appeal with the Building Official within five (5) days of the effective date of the notice of denial.
 - (d) Appeals.
 - (1) A person may appeal a denial of a license, the proposed revocation of a license, or the proposed suspension of a license, by filing a completed written appeal with the Building Official setting forth the basis for the appeal, along with any required filing fee. The completed appeal must be filed within five (5) business days of the effective date of the notice of the denial, revocation, or suspension.
 - (2) The City Manager will hold an informal hearing on an appeal as soon as is reasonably possible, but not more than ten (10) business days after the date the appeal is properly filed. The Building Official, the person appealing, and any interested party, may present evidence and argument to the City Manager to the extent the City Manager believes the same are relevant to the appeal.

(3) After completion of the hearing, the City Manager will render a written decision on the appeal within five (5) business days. The City Manager may affirm, reverse or modify the decision of the Building Official. A copy of the written decision will be provided to the person filing the appeal.

105. Section 105, Permits, of the Building Code is hereby amended by adding a new section 105.8, Construction Hours, to read as follows:

Sec. 105.8. Construction Hours. Within the City of Bellaire, Texas, the construction of buildings and structures and related activities, any of which requires a building permit, other than a homeowner permit, from the City of Bellaire, is permitted during the following time periods only:

Monday through Sunday 7:00 a.m. to 7:00 p.m.

The building official shall include written notice of these construction hours within each building permit, other than a homeowner permit, issued.

The Building Official may approve exceptions to these work hours, upon receipt of written application for an exception. This exception must be granted in writing, listing all conditions for the exception.

105. Section 105, Permits, of the Building Code is hereby amended by adding a new subsection thereto, numbered and reading as follows:

Sec. 105.9. Permit for temporary use. No permit for temporary use shall be for a longer period than three months, and at the end or three months after approval the building official shall issue written instructions to the electric public service company or other person having control of the supply of energy to the installation, to disconnect service to the temporary installation, unless a permanent approval or an additional temporary approval shall have been given by the building official. To facilitate disconnecting of a temporary installation, ten days before the period of temporary approval is up, the building official shall notify the electric public service company, or other person having control of the supply of energy to the temporary installation, and shall notify the owner of the installation. A letter addressed to "occupant" at the address of the temporary installation shall be deemed as being sufficient to notify the owner, if name and address of owner are not known by the building official.

111. Section 111, Certificate of Occupancy, of the Building Code is hereby amended by adding a new subsection thereto, numbered and reading as follows:

Sec 111.5 Occupancy Certificate: the Building Official shall not issue a Certificate of Occupancy until a certification is provided by the Contractor that the AC and Mechanical systems meet all the sizing and installation requirements of the International Mechanical Code and manufacturer's instructions, and that the system functions as intended.

Sec. 114.1. Violations. No person, firm, or corporation shall erect, construct, enlarge, alter, repair, move, improve, remove, demolish, equip, use, occupy, or maintain any building or premises or cause or permit the same to be done, contrary to or in violation of any of the provisions of this Code or any order issued by the building official hereunder. Any person violating the provisions of this section shall be guilty of a misdemeanor for each day such violation continues, and as such shall be liable to a fine of not less than \$25.00 nor more than \$200.00 for each day's violation.

116. Section 116, Unsafe Structures and Equipment, of the Building Code is hereby amended to read as follows:

116.1 Section 116.1, Unsafe Structures and Equipment, Conditions

Sec 116.1 Conditions All buildings or structures which are not structurally safe or not provided with adequate egress, or which constitute a fire hazard, or are otherwise dangerous to human life, or which in relation to existing use constitute a hazard to safety or health, or public welfare, by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster damage, or abandonment, as specified in this Code or any other effective ordinance, are, for the purpose of this section, unsafe buildings. All such unsafe buildings are hereby declared to be public nuisances and shall be abated by repair, rehabilitation, demolition, or removal in accordance with the procedure specified in the current edition of the Uniform Housing Code, International Building Code as adopted and published by the International Code Council and as adopted by section 9-80 of this Code and further as certified by the building official of the city to the city clerk as provided in this chapter.

202. Section 202, Definitions, of the Building Code is hereby amended by deleting there from the definition of "story" as it appears therein, and substituting in its place the following:

STORY is that portion of a building included between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above. If the finished floor level directly above a basement, cellar or unused under-floor space is more than six feet above grade as defined herein for more than 50 percent of the total perimeter or is more than 11 feet, six inches above grade as defined herein at any point, such basement, cellar or unused under-floor space shall be considered as a story.

304. Section 304.1, Scope, Business Group "B", of the Building Code is hereby amended to read as follows:

Special provisions for Group B, Division 2 Office Occupancies and Group R, Division 1 Occupancies.

Sec. 304.1. 304.1.1 Scope. These requirements shall apply to buildings housing Group B, Division 2 Occupancies used primarily as offices and to Group R, Division 1 Occupancies.

Such buildings three stories or more in height or located more than 30 feet above the lowest level of the fire department vehicle access shall conform to the requirements of this Code. It is specifically provided that the entirety of the building shall conform and not only that part which is in excess of 30 feet above the lowest level of fire department vehicle access. For the purposes of this section, building access shall be defined as an exterior door opening conforming to all of the following:

- 1. Suitable and available for fire department use.
- 2. Located not more than two feet above the adjacent ground.
- 3. Leading to a space, room or area having foot traffic communication capabilities with the remainder of the building.
- 4. Designed to permit penetration through the use of fire department forcible entry tools and equipment unless other approved arrangements have been made with the building official.

429. Section 429.1 of the Building Code shall be amended by adding thereto the following additional provision:

The building code is hereby amended to allow private carports in commercial districts, which are in Fire Zone 1, to carry no fire rating, provided that the same shall be of steel construction with no enclosed or concealed areas allowed.

903. Section 903.2.42 of the Building Code is hereby amended to read as follows:

Sec. 903.2.12. All Occupancies except Group M and Group R, Division 3 shall have an automatic sprinkler system installed:

- 1. At the top of rubbish and linen chutes and in their terminal rooms. Chutes extending through three or more floors shall have additional sprinkler heads installed at alternate floors. Sprinkler heads shall be accessible for servicing.
- 2. In rooms where nitrate film is stored or handled.
- 3. In protected combustible fiber storage vaults as defined in the fire code.
- 4. In every story or basement of all buildings which exceed two stories in height except when the building is intended for occupancy as a single-family residence.
- 5. All occupancies exceeding 7,000 square feet, except where required in the Uniform Building Code to be less square footage.

905. Section 905.3 of the Building Code is hereby amended to read as follows:

Sec. 905.3 Where required. Wet standpipes extending from the cellar or basement into the topmost story shall be provided in Group A, Divisions 1, 2 and 2.1 Occupancies with an occupant load exceeding 1,000; in Groups E, I, H, B and R, Division 1 Occupancies three or more stories in height; and in Groups H and B, Divisions 1, 2, and 3 Occupancies having a floor area exceeding 20,000 square feet per floor.

EXCEPTION:

- Wet standpipes are not required in buildings equipped throughout with an automatic fire-extinguishing system.
- Wet standpipes are not required in basements or cellars equipped with a complete automatic fire-extinguishing system.

905. Table No. 905.3 of the Building Code is hereby amended to read as follows:

TABLE NO. 905.3 — STANDPIPE REQUIREMENTS

	NONSPRINKLERED BUILDING 2		SPRINKLERED	BUILDING 3, 4
OCCUPANCY 1	STANDPIPE CLASS	HOSE REQUIREMENT	STANDPIPE CLASS	HOSE REQUIREMENT
Occupancies exceeding 150 ft. in height and more than one story	III	YES	III	NO

2. Occupancies 3 stories or more but less than 150 ft. in height, except Group R, Div. 3	I and II-5 or	YES	l (or III)	NO
3. Group A Occupancies with occupant load exceeding 1,000	II	YES	No Requirement	NO
4. Group A, Div. 2.1 Occupancies with over 5,000 square feet in area used for exhibition.	II	YES	II	YES
5. Group I, H, B, Divs. 1, 2 or 3 Occupancies less than three stories in height but greater than 20,000 square feet per floor	II ⁵	YES	No Requirement	NO

- 2. Class II standpipes need not be provided in assembly areas used solely for worship.
- 3. Class II standpipes need not be provided in basements having an automatic fireextinguishing system throughout such basement.
- Combined systems with their related water supplies may be used in sprinklered buildings.
- 5. Portions of otherwise sprinklered buildings which are not protected by automatic sprinklers shall have Class II standpipes installed as required for the unsprinklered portions.
- 6. In open structures where Class II standpipes may be damaged by freezing, the building official may authorize the use of Class I standpipes which are located as required for Class II standpipes.
- 7. Hose is required for Class II standpipes only.
- 905. Section 905.8 of the Building Code is hereby amended to read as follows:

Sec. 905.8. Where required. All buildings, three or more stories in height, shall be equipped with one or more dry standpipes.

905. Section 905.10 905.3 of the Building Code is hereby amended to read as follows: to add:

Sec. 905.10 905.3. Where required. Every building three stories or more in height shall be provided with not less than one standpipe for fire department use during construction. Such standpipes shall be installed when the progress of construction is not more than 30 feet in height above grade. Such standpipe shall be provided with fire department inlet connections at accessible locations adjacent to usable stairs. Such standpipe systems shall be extended as construction progresses to within one floor of the highest point of construction having secured decking or flooring.

In each floor there shall be provided a 2½ inch valve outlet for fire department use. Where construction height requires installation of a combination standpipe, fire pumps and water main connections shall be provided to serve the standpipe.

907. Section 907, Fire Detectors, of the Building Code is hereby amended to read as follows: to add:

Sec. 907. Fire detectors. An approved system which will provide for automatic detection of products of combustion other than heat shall be installed in every mechanical equipment room and in the return air portion of every air conditioning and mechanical ventilation system that serves floors other than the floor on which the equipment is located. The detectors shall be set to operate within the limitations of U.B.C. Standard No. 43-6 and shall be located at each opening into the vertical shaft. Activation of the products of combustion detector shall cut off electric current to the fan.

At least one approved products of combustion detector as required by NFPA Pamphlet No. 72F-1974 shall be installed in the following areas:

- Rooms containing vital equipment for life safety (i.e., fire pumps, elevator controls, communications, fire alarm system controls, sprinkler systems controls and standby emergency system components).
- 2. Elevator lobbies.
- 8. Exit corridors.

EXCEPTION:

Omit products of combustion detector for pressurization systems.

At least one approved rate of rise detector shall be installed in boiler and/or furnace rooms and kitchens.

A single products of combustion or rate of rise detector, upon actuation shall sound a signal in the main fire alarm and communications panel only. If the signal is not acknowledged within a period of three minutes, the general alarm shall sound on the floor of incidence, the floor above and the floor below, and shall relay signal to the Central Control Station to cause all other operations as are necessary to prevent recirculation of smoke and other functions required of the system.

Activation of any two detectors, each on a separate electrical circuit, or actuation of any manual fire alarm station, or any water flow detector shall sound the general alarm on the floor of incidence, the floor above and the floor below, and shall relay signal to the Central Control Station, to cause all other operations as are necessary to prevent recirculation of smoke and other functions required of the system.

Elevator lobbies shall be provided with at least two approved products of combustion detectors, each connected to a separate electrical circuit.

Each products of combustion detector or rate of rise detector shall not exceed its listed spacing and shall be located and spaced in accordance with NFPA Pamphlet 72E-1974.

907. Section 907.2.12.2, Voice Communication System, of the Building Code is hereby amended to read as follows:

Sec. 907.2.12.2. Voice communication system. There shall be two separate approved continuously electrically supervised voice communication systems, one for fire department communication system and the other a public voice communication (address) system between the Central Control Station and the following areas:

- 1. Elevators, elevator lobbies, corridors and stairways.
- 2. Every office area exceeding 1,000 square feet in area.
- Each dwelling unit and hotel guest room.

The entire fire alarm and communication system shall be continuously electrically supervised against component failure of the audio path including amplifiers, speakers, speaker wiring, switches and all electrical contacts, and must detect opens and shorts which might impair the function of the system. All equipment shall be located above grade. Manually operated voice controls shall not include volume controls with public access. Pre-recorded messages shall not be permitted.

The fire department systems shall include a two-way communication system for fire department use. The system shall include a telephone connection of uniform type at each elevator bank, and shall be connected to the Central Control Station. At least two portable telephone handsets per each ten stories in height or any portion thereof shall be provided at the Central Control Station. When approved, the fire department system may be combined with the public voice communication system and voice alarm system.

907. Section 907.2.12.3, Central Control Station, of the Building Code is hereby amended to read as follows:

Sec. 907.2.12.3 Central control station. A Central Control Station for fire department operations shall be located on the lowest building level having building access. The location shall be easily accessible from the outside. The location and its access shall be protected by a two-hour firerated occupancy separation.

The Central Control Station shall contain the voice communication systems panel, fire detection and alarm system panels, status indicators and controls for elevators and air handling systems, controls for unlocking stairway doors, a public telephone, sprinkler valve and water flow detectors, and standby power controls. All panels containing emergency communications equipment for fire alarm use required by these requirements shall be provided with locks suitable for opening with a master key as required by the City of Bellaire Fire Department.

909. Section 909, Smoke Control, of the Building Code is hereby amended read as follows: to add:

Sec. 909. Smoke control. Natural or mechanical ventilation for the removal of the products of combustion shall be provided in every story and shall consist of one or more of the following:

- 1. Panels or windows in the exterior wall which can be opened from an approved location other than the fire floor. Such venting facilities shall be provided at the rate of at least 20 square feet per 50 lineal feet of exterior wall in each story, and distributed around the perimeter at not more than 50 foot intervals. Such panels shall be clearly identified with letters of contrasting color not less than three inches in height.
- Approved tempered glass may be used in lieu of openable panels.
- 3. When fire sprinklers are installed in compliance with section 1807(m), the mechanical air handling equipment may be designed to assist smoke removal. Under fire conditions, the return and exhaust air shall be taken directly to the outside without recirculation to other sections of the building.
- 4. A shaft through which smoke and heat can be mechanically vented to the outdoors. The size of the shaft shall be uniform throughout and of such dimensions as to provide not less than 60 air changes per hour in the largest compartment served anywhere in the building. Openings into the shaft shall be protected with an automatic single piece shutter located as high in the room as possible and designed to vent the entire compartment.

5. Any other design which will produce equivalent results.

Section 1507.8 of the Building Code is hereby amended to read as follows:

Sec. 1507.8. Notwithstanding what is contained herein, wood shingles shall not be allowed for any new roof construction and additions to presently existing roofs.

Section 1507.9 of the Building Code is hereby amended to read as follows:

Sec. 1507.9. Notwithstanding what is contained herein, wood shakes shall not be allowed for any new roof construction and additions to presently existing roofs.

Sections R402.1 and R402.2 of the International Energy Conservation Code are hereby amended to include that:

In addition to the requirements of Sections R402.1 and R402.2 of the 2012 IECC, an air barrier and Class III Vapor Retarder shall be applied over all surfaces of the insulation facing the crawlspace, if the insulation does not effectively provide the same. No Class I or Class II Vapor Retarders shall be applied over the interior surface of the floor assembly above a crawlspace, except at shower pans and areas intended to hold water.

(Ord. No. 14-057, § 1, 10-6-2014; Ord. No. 15-031, § 1, 7-13-2015; Ord. No. 18-018, § 1(App. A), 3-19-2018)

Sec. 9-18. - Drainage requirements for residential construction.

- (a) Requirement for a drainage plan. Before a construction permit will be issued, a drainage plan must be approved for all residential sites requiring a permit for the construction of improvements or additions if 25 percent or 1,500 square feet, whichever is smaller, of the lot will be disturbed or regraded.
- (b) Objectives of drainage plan.
 - Prevent stormwater from flowing onto adjacent property unless appropriate drainage easement agreement is obtained; and
 - (2) Control fill that may increase flood damage.
- (c) Definitions. Unless specifically defined below, words or phrases used in this section shall be interpreted to give them the meaning they have in common usage and to give this section its most reasonable application.
 - (1) Special flood hazard area means the land in the floodplain subject to a one percent or greater chance of flooding in any given year.
 - (2) Base flood means the flood having a one percent chance of being equaled or exceeded in any given year.
 - (3) Structure means any area of a walled or roofed building.
 - (4) Elevated structure means any area of a walled or roofed building having the bottom of the lowest horizontal structure member of the floor elevated above the ground.
 - (5) Two-year frequency means a rainfall intensity having a 50 percent probability of occurrence in any given year that occurs on the average of every two years over a long period of time.
 - (6) No net increase means that the volume of material placed on a lot at any time must not be greater than the amount of material removed from the lot during demolition and subsequent grading operations.

- (7) Fill credit means the volume of material removed from the lot during demolition of an existing structure that may be imported onto the lot for construction, grading and drainage purposes. The fill credit may be determined using the chart maintained by the building official or by calculating the volume of material removed from the lot during demolition and subsequent grading operations. Any fill above the base flood elevation (BFE) will not count against the fill credit for the lot.
- (8) Pier and beam foundation construction means the floor of the structure is elevated above the ground, supported by a number of piers and beams, such that floodwaters may rise and recede under the floor of the structure. The area under the structure should be graded such that water will not pond.
- (9) The height to which any point on the lot, other than the foundation, may be filled is limited to an elevation calculated by multiplying the distance from the curb by one percent per foot and adding the top of curb elevation. Existing elevations which are higher than the calculated elevations are not required to be cut to meet the requirements of this section. The calculation only applies to fill above the existing elevation. The one percent does not apply to proposed interior grades or cross-slopes of swales. In no case shall any point on the lot be filled more than eight inches above the existing (pre-construction) elevations.
- (10) A lot on which more than four inches of fill is placed shall be required to install pressuretreated rot boards or retaining walls on either side of the area in which the fill increases the elevation of the lot above that of its neighbors. Rot board or retaining wall height in front of the building line is limited to one inch above finished grade.
- (11) Yard Amenities are defined as pools, spas, fountains, waterfalls, outdoor kitchens, barbeque pits, fireplaces and other similar outdoor raised features. The one percent and eight inch maximum fill limit does not apply to yard amenities.
- (d) Contents of drainage plan.
 - (1) Survey and elevation data. The drainage plan shall include data obtained by a topographical survey performed under the supervision of and signed, sealed and dated by a professional land surveyor registered in the state. The topographical survey shall include as a minimum, the location and elevation of existing sidewalks, curb/gutters, ditches, storm sewers, sanitary sewers and the existing elevations of the lot. The survey should be completed prior to demolition of any structures on the property to provide baseline conditions to establish the fill credit for the property. The elevations shall be based on the current datum and vertical benchmark system being used by the city and should be at a maximum spacing of 20 feet throughout the property. The city will furnish, upon request, location and elevation of benchmarks available within the city. The drainage plan shall show the proposed finished floor elevation and the finished grade elevations of all proposed paving and grading on the site and shall include existing and planned spot elevations at a maximum of 20 feet spacing covering the lot:
 - a. Along the perimeter of the lot;
 - b. Grid across the lot; and
 - c. Finished floor and adjacent finished grade along the perimeter of all slabs, including but not limited to buildings, sidewalks, patios, driveways, and decks.
 - (2) Requirement to drain. Drainage of the lot may be obtained by surface or subsurface means, or a combination of the two, as is appropriate and necessary so that the stormwater falling on the residential lot upon which construction is planned will drain into the street, ditch or storm sewer system of the city and not onto adjacent property. However, as a minimum requirement, each lot will be required to provide drainage on each side, or in the case of a corner lot, on the sides adjoining the adjacent lots, designated to carry the two year design storm, sloping to the street, ditch, or storm sewer. Cross sectional elevation of the swale shall be shown on the drainage plan at three points: at the house, at the swale flow line, and at the side property line. A minimum of three elevations are required to adequately define a swale cross section. The

engineer preparing the drainage plan shall provide supporting calculations to demonstrate that the drainage system meets the design criteria. Cross section elevations of a swale shall be provided at the front property line, the front of the house, the midpoint of the house, the back of the house and at the beginning of the swale.

- (3) Limitation on lot fill for property located in the special flood hazard area.
 - a. Option 1 Elevated structure without fill. The proposed improvements to a property shall result in no net increase in volume of material on the lot with the exception of the small amount of concrete used for pier and beam foundation construction that may be permitted by the building official. The fill credit volume may be used to increase the elevation of the lot no more than the amount needed to create a maximum elevation equal to a one percent slope from the existing street, top of curb, edge of road (if no curb exists) or existing ditch high bank, but in no case shall more than eight inches of fill be allowed. The engineer preparing the drainage plan must provide calculations and supporting data demonstrating that no net increase in volume of material is proposed.
 - b. Option 2 Elevated structure with fill. If the existing ground elevation at the proposed structure is equal to or above the base flood elevation (BFE) and the finished floor of the proposed structure will be elevated to one foot above the BFE by means of fill, then no additional fill on the lot will be allowed. Any volume of material used to raise the existing lot elevation to the one percent or eight inch maximum fill limit for grading and drainage purposes must be mitigated by lowering the finished grade below the existing (preconstruction) elevation elsewhere on the lot. The engineer preparing the drainage plan must provide calculations and supporting data demonstrating that no net increase in volume of material is proposed with the exception of raising the finished floor to one foot above the BFE.
- (4) Limitations on lot fill for property not located in the special flood hazard area. Lot fill shall be limited to no more than the amount necessary to achieve adequate drainage based on generally accepted engineering design practices but no more than the amount needed to create a maximum elevation equal to a one percent slope from the existing street, top of curb, edge of road (if no curb exists) or existing ditch high bank. In no case shall more than eight inches of fill be allowed on any lot.
- (5) Engineer's seal. The drainage plan shall be prepared, certified, sealed and signed by a civil engineer licensed as a professional engineer in the state.
- (6) Conflicts. In the event of a conflict between this section and the Building Code, as adopted, the Building Official shall follow the provisions of the Building Code.
- (e) Certificate of occupancy. As a condition precedent to the issuance of any certificate of occupancy, a second topographical survey shall be made under the supervision of a registered professional land surveyor registered in the state which shall show the "as-built" elevation of the residence and the finished grade elevations of the lot, patios, drives, sidewalks, landscaped areas, etc. A civil engineer licensed as a professional engineer in the state shall review the "as-built" survey for conformance with the approved drainage plan. The engineer or an engineer-in-training in his employ shall conduct a site visit of the location shown on the survey at a date equal to or after the date of the "as-built" survey. The engineer shall draft a letter with the following statement to be attached to and submitted with the "as-built" survey:

I,, a Professional Engineer licensed in the state, have reviewed the "as-built" survey
of this property and, on the basis of that review and a visit to the site, state that it conforms to the
design and intent of the approved drainage plan submitted for permit and is in compliance with
Chapter 9, Buildings, Section 9-18, Drainage requirements for residential construction, of the Code
of Ordinances of the City of Bellaire, Texas.

(Date)	(Seal & Signature)

The building official shall deny a certificate of occupancy until the "as-built" survey and the Engineer's statement have been properly submitted and approved.

- (f) Duty to maintain drainage. All drainage improvements detailed in the drainage plan must be maintained to prevent stormwater runoff from flowing onto adjacent property. Interim measures to prevent stormwater from flowing onto adjacent properties shall be provided and maintained during construction. It is the responsibility of the owner and all subsequent owners to maintain the drainage on their property and to assure that no additional fill is added over the amount in the approved drainage plan. No alterations to the approved drainage plan shall be performed without first having submitted a revised drainage plan and obtaining the proper approval. The city building official shall maintain a copy of all drainage plans approved by the city.
- (g) Penalties. Any owner or agent of a residential building site or lot for which a drainage plan is required that fails to comply with, or is in violation of, any of the requirements or provisions of this section, or fails to maintain the approved drainage, shall be subject to a fine in an amount not to exceed \$500.00. Each day during which any such violation is committed or continues shall be considered a separate offense.
- (h) Variance.
 - (1) Where a baseline fill credit does not exist, as in the case of remodeling or yard amenity addition, the building official may allow excess fill credit for yard amenities, based upon the facts and circumstances of each application, as long as the objectives of the drainage plan continue to be met.
 - (2) The building and standards commission of the city, upon application and hearing, shall have the power and authority to allow a variance from the requirements of this section upon a finding that the strict application of the requirements of this section will affect a hardship of the property and that the proposed design complies with the spirit and intent of this section and provides protection to the neighboring properties at least equivalent to that provided by this section. The building and standards commission shall require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding such applications.

(Ord. No. 14-057, § 1, 10-6-2014)

Sec. 9-38. - Building foundations.

The following requirements shall control new single-family developments:

- (1) The design of support on all bearing walls shall be footings drilled and reamed to boring clay.
- (2) The minimum nine-inch pier shall be reinforced with a minimum of three each one-half inch diameter steel rods, tied with #2's top, center and bottom.
- (3) Post-tension slab design is prohibited.
- (4) Minimum concrete requirements are five sacks of cement per cubic yard of ready-mixed concrete.

(Ord. No. 14-057, § 1, 10-6-2014)

Sec. 9-39. - Additional requirements for new foundation construction.

- (a) The provisions of this section shall be applicable only to new foundation construction and shall not be applicable or affect foundation construction which is either characterized as add-on and/or remodeling unless the addition is greater than 1,000 square feet or two stories in height.
- (b) Prior to the pouring of any concrete, a soil engineer shall inspect the compaction, fill thickness verification, drilled footings, concrete and all other areas deemed pertinent and shall carefully examine all of the pre-pouring work that has been accomplished. Excess soil produced during the excavation for foundation piers and grade beams shall be removed from the site within two weeks after placement of the concrete.
- (c) A soil compaction inspection and testing shall be performed and shall include some grade testing and fill thickness. All fill soils shall be tested in lifts.
- (d) A structural engineer shall review the initial soil engineer's report and design the foundation accordingly. The structural engineer shall further inspect the work that may be engoing at any time and shall make as many inspections as necessary to ensure compliance with design criteria.
- (e) Prior to the start of any further construction, the soil engineer and structural engineer shall certify by letter to the city that the inspections as herein required have been made and, based upon the review of data, that the foundation as constructed and poured substantially conforms to the design and the intent of the soil exploration and foundation plan which has been submitted for a permit under other provisions of this Code.
- (f) For any crawl space, no wood products are allowed within 18 inches of grade.
- (g) For any crawl space, a minimum of two drains are required inside pier and beam foundations to provide positive drainage. The drains are to be connected to the lot drainage system. This drain system shall be included in the required drainage plan.

Sec. 9-70.5. - Definitions.

- (42) Substantial damage means 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.
- (43) Substantial improvement means any combination reconstruction, rehabilitation, addition, or other improvement of a structure over a ten-year period taking place after two flood events, with the cost of which equals or exceeds 50 percent of the market value of the structure before "start of construction" of the improvement. This includes structures which have incurred "substantial damage," regardless of the actual repair work performed. This term includes structures that have incurred 'substantial damage,' regardless of the actual repair work performed. combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure over a ten-year period taking place after two flood events, with the cost of which equals or exceeds fifty percent of the market value of the structure before the work is started. This term includes structures that 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 of 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 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.'

DIVISION 4. - ADMINISTRATION

Sec. 9-70.13. - Designation of the floodplain administrator.

The <u>building official Development Services Director</u> is hereby appointed the floodplain administrator to administer and implement the provisions of this article and other appropriate sections of 44 CFR (National Flood Insurance Program regulations) pertaining to floodplain management.

(Ord. No. 14-057, § 1, 10-6-2014)

Sec. 9-70.13. - Designation of the floodplain administrator.

The building official is hereby appointed the floodplain administrator to administer and implement the provisions of this article and other appropriate sections of 44 CFR (National Flood Insurance Program regulations) pertaining to floodplain management.

(Ord. No. 14-057, § 1, 10-6-2014)

Sec. 9-70.14. - Duties and responsibilities of the floodplain administrator.

Duties and responsibilities of the floodplain administrator shall include, but not be limited to, the following:

- (1) Maintain and hold open for public inspection all records pertaining to the provisions of this article:
- Review permit applications to determine whether proposed building sites will be reasonably safe from flooding;
- (3) Review, approve or deny all applications for development permits required by adoption of this article;
- (4) Review permits for proposed development to assure that all necessary permits have been obtained from those federal, state or local governmental agencies (including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 USC 1334) from which prior approval is required;
- (5) Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), the floodplain administrator shall make the necessary interpretation;
- (6) Notify, in riverine situations, adjacent communities and the state coordinating agency which is [the] Texas Commission on Environmental Quality, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency;
- (7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained:

- (8) When base flood elevation data has not been provided in accordance with section 9-70.7, the floodplain administrator shall obtain, review and reasonably utilize any base flood elevation data and floodway data available from federal, state or other source, in order to administer the provisions of division 5;
- (9) When a regulatory floodway has not been designated, the floodplain administrator must require that no new construction, substantial improvements or other development (including fill) shall be permitted within zones A1-30 and AE on the community's FIRM, unless it is demonstrated 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 one foot at any one point within the community;
- (10) Under the provisions of 44 CFR chapter 1, § 65.12, of the National Flood Insurance Program regulations, a community may approve certain development in zones A1-30, AE, AH, on the community's FIRM which increases the water surface elevation of the base flood by more than one foot, provided that the community first applies for a conditional FIRM revision through FEMA.

(Ord. No. 14-057, § 1, 10-6-2014)

Sec. 9-70.15. - Permit procedures.

- (a) Application for a development permit in the floodplain shall be presented to the floodplain administrator on forms furnished by him and may include, but not be limited to, plans in duplicate drawn to scale showing the location, dimensions and elevation of proposed landscape alterations, existing and proposed structures, and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information is required:
 - Elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures;
 - (2) Elevation in relation to mean sea level to which any nonresidential structure shall be floodproofed;
 - (3) A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of section 9-70.18(2);
 - (4) Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development;
 - (5) Maintain a record of all such information in accordance with 9-70.14(1).
- (b) Approval or denial of a development permit by the floodplain administrator shall be based on all of the provisions of this article and the following relevant factors:
 - (1) The danger to life and property due to flooding or erosion damage;
 - (2) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - (3) The danger that materials may be swept onto other lands to the injury of others;
 - (4) The compatibility of the proposed use with existing and anticipated development;
 - (5) The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (6) The costs of providing governmental services during and after flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems;
 - (7) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;

- (8) The necessity to the facility of a waterfront location, where applicable;
- (9) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
- (10) The relationship of the proposed use to the comprehensive plan for that area.
- (c) The floodplain administrator shall deny any application for a substantial improvement

EXCEPTIONS:

- (1) The applicant provides an Elevation Certificate showing that the finished floor of the building is in compliance with the City's current elevation standard
- (2) The applicant elevates the structure into compliance with the City's current elevation standard
- (3) The applicant provides an appraisal of the property, performed by a state licensed appraiser, which shows the construction cost to be below 50% of the value of the structure
- (d) Following a flooding event, the following emergency procedures for repair permits shall be followed:
 - (1) The applicant shall submit an application showing the address, property owner's name, contractor's name, and cost of construction.
 - (2) The applicant shall submit the valuation of the property shown on the County Appraisal District.
 - (3) The applicant shall submit an itemized cost of repairs, including labor and materials
 - (4) The City will evaluate the value of the structure, based on square footage, age, and depreciation.
 - (5) In the event that the cost of repairs exceeds 50% of the value of the structure per the City's calculation, the Building Official shall make an inspection and evaluate the damage to the structure based on average repair costs for the area.
 - (6) Based on the Building Official's evaluation, buildings not found to be substantially damaged shall be issued a permit for repair.

(Ord. No. 14-057, § 1, 10-6-2014)

ARTICLE IV. - ELECTRICITY

Sec. 9-92. - Amendments.

The electrical code adopted by the provisions of this article is hereby amended, altered and changed as follows:

E3901.1. Section E3901.1 of the International Residential Codes is hereby amended by adding a new section thereto, numbered and reading as follows:

Section E3901.1a *Residential installations*. In residential installations, not more than eight current-consuming receptacles per circuit shall be installed. Conductors for general wiring shall be No. 12 A.W.G. or larger wire. (Ord. No. 79-058, § 4, 9-17-1979; Ord. No. 80-002, 1-21-1980; Ord. No. 85-043, § 18, 7-1-1985)

E703.2. Section E3703.2 of the International Residential Code is hereby amended to read as follows:

E3703.2 Kitchen and dining area receptacles. A minimum of two 20-ampere-rated branch circuits shall be provided to serve all wall and floor receptacle located in the kitchen, pantry, breakfast area, dining area or similar area of a dwelling. The kitchen countertop receptacles shall be served by a minimum of two 20-ampere-rated branch circuits. Additional circuits shall be provided for each freezer, refrigerator.

220-13A. The Electrical Code is hereby amended by adding a new section thereto, numbered and reading as follows:

220-13A. Load Demand Factors. Total amperage load for circuits in commercial installations shall not exceed 80 percent of the rated current carrying capacity of conductor used. No. 14 A.W.G. may be used for control circuits. All other wiring to be No. 12 A.W.G. or larger wire.

All wiring in commercial buildings must be installed in rigid conduit, metal tubing, BX cable or IMC conduit.

The use of rigid or nonmetallic conduit for concealed work may be permitted by the building official upon finding of special facts warranting such use when such use shall not cause an unnecessary hazard. If flexible conduit is used (maximum six feet), a separate bonding conductor sized for the largest fuse for a conductor in that raceway shall be required.

In residential construction up to three stories with wood frame construction, the use of copper romex wire is permissible.

In underground services extended above ground, the extensions shall be rigid or IMC conduit. In subfeeder conduits to remote panels, sealtite flexible conduit with grounding may be used to facilitate installation not to exceed six feet in length.

All wiring in any commercial building must be in rigid metallic conduit, metal tubing, or other metallic raceway approved by electrical examining board for certain classes of construction, except wiring in one- and two-family dwelling units in zones where wood frame construction is permitted.

In underground services and feeders extended above ground, the extensions shall be rigid or IMC conduit.

Any change in the electrical service or change to new type of service will require approval by the Electrical Inspector before the electricity utility may connect new service.

A request for temporary service for construction or testing of equipment will not be issued without a release of liabilities to the City of Bellaire, the inspection department, and all inspection officials, this release to be executed by the owner and the general contractor in a form prescribed by the City of Bellaire. A copy of such form may be examined in the office of the city clerk.

The Building Official may approve exceptions to allow the use of aluminum conductors in electrical services for commercial buildings, upon receipt of written application for an exception. This exception must be granted in writing, listing all conditions for the exception.

ARTICLE VI. - MECHANICAL CODE[8]

Footnotes:

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Editor's note— Ord. No. 14-057, § 1, adopted October 6, 2014, repealed and replaced art. VI, §§ 9-211—9-216, 9-221—9-232, 9-241—9-253, in its entirety; and enacted a new art. VI to read as set out herein. Former art. VI pertained to similar subject matter and was derived from Ord. No. 2127, §§ 4, 5, 6(a)—(c), (e), (f), 7, 8(a)—(e), (g)—(m), 9, 10, adopted July 21, 1975; Ord. No. 77-044, adopted June 20, 1977; Ord. No. 85-071, § 3, adopted November 11, 1985; Ord. No. 87-007, § 5, adopted February 16, 1987 and Ord. No. 01-099, §§ 2(9-211), 3(9-212), adopted December 17, 2001.

State Law reference— State license requirements for air conditioning and refrigeration contracting, V.T.C.A., Occupations Code § 1302.251 et seq.; Air Conditioning and Contractor License Law, V.T.C.A., Occupations Code § 1302.001 et seq.

DIVISION 1. - GENERALLY

Sec. 9-211. - Code adopted.

The current edition of the International Mechanical Code, including all appendices, as adopted and published by the International Code Council, Inc., and as certified by the building official of the city to the city clerk as herein provided, is hereby adopted as the mechanical code of the city as to all its terms and provisions and made a part of this Code as if repeated verbatim herein, with the qualifications, exceptions and additions as may, from time to time, be set out in this Code.

The building official of the city shall, from time to time, file a certificate with the city clerk, certifying the current edition of the International Mechanical Code, then in existence, for use in the city. Said certificate shall specify the edition, by date of publication, number or other designation, and shall specify that in accordance with the terms and provisions of this section, the same shall be deemed the mechanical code of the city and shall be controlling as to all matters in relation thereto on a date certain as set out in said certificate, said date to be no sooner than 30 days after said certificate is filed with the city clerk.

A copy of such certificate shall be maintained in the official files of the city by the city clerk. All amendments to any prior editions of the mechanical code as herein set out shall be deemed controlling as to the new edition unless the same shall have been repealed or otherwise amended by ordinance duly adopted by the city council, amending the Code.

(Ord. No. 14-057, § 1, 10-6-2014)

ARTICLE XII. - ADDITIONAL CODES ADOPTED

Sec. 9-360. - Residential code adopted.

The current edition of the international residential code, including all appendices, as adopted and published by the International Code Council, Inc. and as certified by the building official of the City of Bellaire to the city clerk as herein provided, is hereby adopted as the residential code of the city as to all its terms and provisions and made a part of this Code as if repeated verbatim herein, with the qualifications, exceptions and additions as may, from time to time, be set out in this Code.

The building official of the City of Bellaire shall, from time to time, file a certificate with the city clerk, certifying the current edition of the international residential code, then in existence, for use in the City of Bellaire. Said certificate shall specify the edition, by date of publication, number or other designation, and shall specify that in accordance with the terms and provisions of this section, the same shall be deemed the residential code of the City of Bellaire and shall be controlling as to all matters in relation thereto on a date certain as set out in said certificate, said date to be no sooner than 30 days after said certificate is filed with the city clerk of the City of Bellaire.

A copy of such certificate shall be maintained in the official files of the City of Bellaire by the city clerk. All amendments to any prior editions of the residential code as herein set out shall be deemed controlling as to the new edition unless the same shall have been repealed or otherwise amended by ordinance duly adopted by the city council of the City of Bellaire, amending the Code.

(Ord. No. 01-098, § 2(9-360), 12-17-2001)

State Law reference— International Residential Code, V.T.C.A., Local Government Code § 214.212.

Sec. 9-361. - Fuel gas code adopted.

The current edition of the International fuel gas code, including all appendices, as adopted and published by the International Code Council, Inc., and as certified by the building official of the City of Bellaire to the city clerk as herein provided, is hereby adopted as the fuel gas code of the city as to all its terms and provisions and made a part of this Code as if repeated verbatim herein, with the qualifications, exceptions and additions as may, from time to time, be set out in this Code.

The building official of the City of Bellaire shall, from time to time, file a certificate with the city clerk, certifying the current edition of the international fuel gas code, then in existence, for use in the City of Bellaire. Said certificate shall specify the edition, by date of publication, number or other designation, and shall specify that in accordance with the terms and provisions of this section, the same shall be deemed the fuel gas code of the City of Bellaire and shall be controlling as to all matters in relation thereto on a date certain as set out in said certificate, said date to be no sooner than 30 days after said certificate is filed with the city clerk of the City of Bellaire.

A copy of such certificate shall be maintained in the official files of the City of Bellaire by the city clerk. All amendments to any prior editions of the fuel gas code as herein set out shall be deemed controlling as to the new edition unless the same shall have been repealed or otherwise amended by ordinance duly adopted by the city council of the City of Bellaire, amending the Code.

(Ord. No. 01-098, § 3(9-361), 12-17-2001)

Sec. 9-362. - Energy code adopted.

The current edition of the international energy code, including all appendices, as adopted and published by the International Code Council, Inc., and as certified by the building official of the City of Bellaire to the city clerk as herein provided, is hereby adopted as the energy code of the city as to all its terms and provisions and made a part of this Code as if repeated verbatim herein, with the qualifications, exceptions and additions as may, from time to time, be set out in this Code.

The building official of the City of Bellaire shall, from time to time, file a certificate with the city clerk, certifying the current edition of the international energy code, then in existence, for use in the City of Bellaire. Said certificate shall specify the edition, by date of publication, number or other designation, and shall specify that in accordance with the terms and provisions of this section, the same shall be deemed the energy code of the City of Bellaire and shall be controlling as to all matters in relation thereto on a

date certain as set out in said certificate, said date to be no sooner than 30 days after said certificate is filed with the city clerk of the City of Bellaire.

A copy of such certificate shall be maintained in the official files of the City of Bellaire by the city clerk. All amendments to any prior editions of the energy code as herein set out shall be deemed controlling as to the new edition unless the same shall have been repealed or otherwise amended by ordinance duly adopted by the city council of the City of Bellaire, amending the Code.

(Ord. No. 01-098, § 4(9-362), 12-17-2001)

State Law reference— Home rule municipality may require buildings to comply with energy conservation standards, V.T.C.A., Local Government Code § 214.901.

Sec. 9-363. - Amendments to residential code.

R301. Section 301, of the Residential Code is hereby amended by adding a new section 301.9, Foundation Design, to read as follows:

301.9 Building foundations.

The following requirements shall control new single-family developments:

- (1) The design of support on all bearing walls shall be footings drilled and reamed to boring clay.
- (2) The minimum nine-inch pier shall be reinforced with a minimum of three each one-half inch diameter steel rods, tied with #2's top, center and bottom.
- (3) Post-tension slab design is prohibited.
- (4) Minimum concrete requirements are five sacks of cement per cubic yard of ready-mixed concrete.

(Ord. No. 14-057, § 1, 10-6-2014)

R301. Section 301, of the Residential Code is hereby amended by adding a new section 301.10, Additional Requirements for New Foundation Construction, to read as follows:

301.10. - Additional requirements for new foundation construction.

- (a) The provisions of this section shall be applicable only to new foundation construction and shall not be applicable or affect foundation construction which is either characterized as add-on and/or remodeling unless the addition is greater than 1,000 square feet or two stories in height.
- (b) Prior to the pouring of any concrete, a soil engineer shall inspect the compaction, fill thickness verification, drilled footings, concrete and all other areas deemed pertinent and shall carefully examine all of the pre-pouring work that has been accomplished. Excess soil produced during the excavation for foundation piers and grade beams shall be removed from the site within two weeks after placement of the concrete.
- (c) A soil compaction inspection and testing shall be performed and shall include some grade testing and fill thickness. All fill soils shall be tested in lifts.
- (d) A structural engineer shall review the initial soil engineer's report and design the foundation accordingly. The structural engineer shall further inspect the work that may be ongoing at any time and shall make as many inspections as necessary to ensure compliance with design criteria.

- (e) Prior to the start of any further construction, the soil engineer and structural engineer shall certify by letter to the city that the inspections as herein required have been made and, based upon the review of data, that the foundation as constructed and poured substantially conforms to the design and the intent of the soil exploration and foundation plan which has been submitted for a permit under other provisions of this Code.
- (f) For any crawl space, no wood products are allowed within 18 inches of grade.
- (g) For any crawl space, a minimum of two drains are required inside pier and beam foundations to provide positive drainage. The drains are to be connected to the lot drainage system. This drain system shall be included in the required drainage plan.
- R309.2. Section R309.2, Separation required, of the International Residential Code is hereby amended to read as follows:
 - R309.2 Separation required. For garages, it is required that not less than 5/8 -inch (15.88 mm) Type X gypsum wallboard shall be applied to the garage side on all sides and ceiling. This requirement shall apply to all attached garages and detached garages with habitable or possible future habitable space. Garages located less than 3 feet (914 mm) from a dwelling unit on the same lot shall be protected with not less than ½-inch (12.7 mm) gypsum board applied to the interior side of exterior walls that are within this area. Openings in these walls shall be regulated by Section R309.1. This provision does not apply to garage walls that are perpendicular to the adjacent dwelling unit wall.
- R311.5.4. Section 311.5.4, Landings for stairways, of the International Residential Code is hereby amended to read as follows:
 - R311.5.4 Landings for stairways. There shall be a floor or landing at the top and bottom of each stairway.

EXCEPTION:

- 1. A floor or landing is not required at the top of an interior flight of stairs, provided a door does not swing over the stairs. This exception, however, does not apply within an enclosed garage.
- 2. A flight of stairs shall not have a vertical rise larger than 12 feet (3658 mm) between floor levels or landings.
- 3. The width of each landing shall not be less than the width of the stairway served. Every landing shall have a minimum dimension of 36 inches (914 mm) measured in the direction of travel.
- R311.5.6. Section R311.5.6, Handrails, of the International Residential Code is hereby amended to read as follows:
 - R311.5.6 Handrails. Handrails shall be provided on at least one side of each continuous run of treads or flight with two or more risers.
- R312.2. Section R312.2, Guard opening limitations, of the International Residential Code is hereby amended to read as follows:
 - R312.2 Guard opening limitations. Required guards on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures which do not allow passage of a sphere 4 inches (102 mm) or more in diameter. Required guards shall not be constructed with horizontal rails or ornamental pattern that results in a ladder effect.

(Ord. No. 08-028, § 1(App. A), 6-16-2008)