



# City of Grand Island

Tuesday, February 22, 2005

Council Session

## Item F3

**#8955 - Consideration of Amendments to Chapter 8 of the City Code Relative to International Building Codes**

Staff Contact: Craig Lewis

# **Council Agenda Memo**

**From:** Craig A. Lewis, Building Department Director

**Meeting:** February 22, 2005

**Subject:** Adoption of 2003 International Building and Residential Codes

**Item #'s:** F-3

**Presenter(s):** Craig Lewis, Building Department Director

## **Background**

The City of Grand Island has for generations adopted and enforced codes which regulate the construction of buildings within the Grand Island jurisdictional area. The purpose of these codes is to provide minimum requirements to safeguard the public safety, health and general welfare, through affordability, structural strength, means of egress facilities, stability, sanitation, light and ventilation, energy conservation and safety to life and property from fire and other hazards attributed to the built environment and to provide safety to firefighters and emergency responders during emergency operations.

## **Discussion**

The City currently adopts and enforces the 1997 Uniform Building code. The City of Grand Island's Building Code Advisory Board has reviewed the 2003 International Building Code and the 2003 International Residential Code and recommends adoption with the revisions outlined in the attached amended chapter 8 of the City Code. The State of Nebraska has additionally in the recent past approved legislation which establishes a State Building Code and requires political subdivisions who chose to adopt and enforce a Building Code adopt the State Building Code which is the latest edition of the International Codes. The 2003 editions are the latest editions.

## **Alternatives**

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

1. Approve the request and amend the City Code to adopt the International Building and Residential Codes
2. Disapprove or /Deny the request
3. Modify the request to meet the wishes of the Council
4. Table the issue

### **Recommendation**

City Administration recommends that the Council approve the recommendation of the Building Code Advisory Board and Adopt the International Codes.

### **Sample Motion**

A motion to approve ordinance # 8955 amending Chapter 8 of the Grand Island city code and adopting the 2003 International Building and Residential Code with specified revisions.



**INTEROFFICE  
MEMORANDUM  
BUILDING DEPT.**

*Working Together for a  
Better Tomorrow. Today.*

DATE: February 17, 2005  
TO: City Council  
FROM: Craig Lewis  
RE: Adoption of International Building Codes

At the February 15, 2005 City Council study session a question was raised about the effects of this new International Building Code on the potential redevelopment of downtown buildings. To clarify my response a fire sprinkler system would be required if the building had a dwelling, or any number of dwelling units proposed. The International Residential Code addresses one and two family dwellings and does not require these buildings to be protected with a fire sprinkler system, that code does however **only** address one and two family detached buildings. The development of a building which has a retail or mercantile use in a part of the building and a dwelling or a series of dwellings in another part of the building, either on a second floor or on the ground floor would be regulated by the International Building Code and would be required to be protected by a fire sprinkler system.

There would be some alternatives as to either protecting the entire building or if fire barrier walls were installed to separate the different occupancies only the dwellings would need to be protected with a fire sprinkler system.

The following is part of a published International Building Code Commentary concerning fire sprinklers in residential occupancies; With respect to life safety, the need for a sprinkler system is dependent on the occupants' proximity to the fire and the ability to respond to a fire emergency. Group R occupancies could contain occupants who may require assistances to evacuate, such as infants and those with a disability or who may simply be asleep. While the presence of a sprinkler system cannot always protect occupants in residential buildings who are aware of the ignition and either do not respond or respond inappropriately, it can prevent fatalities outside of the area of the fire origin, regardless of the occupant's response.

The recent loss of a commercial building with dwelling units on the second floor in the Hastings downtown area is an unfortunate example of what can happen with these types of mixed occupancy buildings with limited fire protection systems.

I hope this helps to clarify the requirements that the State adopted building code requires if you have any additional questions, or need any additional information please contact me.

ORDINANCE NO. 8955

An ordinance to amend Chapter 8 of the Grand Island City Code; to amend Article I, Division 1, Sections 8-1 through 8-25 of Chapter 8 to adopt the International Building Code; to repeal Article I, Division 1, Sections 8-1 through 8-25 as now existing, and any ordinance or parts of ordinances in conflict herewith; and to provide for publication and the effective date of this ordinance.

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA:

SECTION 1. Article I, Division 1, Sections 8-1 through 8-25 of the Grand Island City Code is hereby amended to read as follows:

**Article I. General**

**Division 1. International Building Code**

**§8-1. International Building Code (IBC) Adopted**

The International Building Code, 2003 Edition, published by the International Code Council, is hereby adopted, together with any amendments thereto as may be made from time to time, except such portions as are hereinafter deleted, modified, or amended by ordinance and set forth in this chapter of the City Code. The following sections of the Appendix shall also be adopted:

Appendix C Group U – Agricultural Buildings  
Appendix I – Patio Covers

One copy of the International Building Code, 2003 Edition, and all supplements or amendments thereto shall be filed in the office of the city clerk as provided by law.

**§8-2. International Residential Code (IRC) Adopted**

The International Residential Code, 2003 Edition, published by the International Code Council, is hereby adopted, together with any amendments thereto as may be made from time to time, except such portions as are hereinafter deleted, modified, or amended by ordinance and set forth in this chapter of the City Code.

One copy of the International Residential Code, 2003 Edition, and all supplements or amendments thereto shall be filed in the office of the City Clerk as provided by law.

**§8-3. International Building Code (IBC) and International Residential Code (IRC); Standards Adopted**

The following standards shall be used with the International Building Code and the International Residential Code adopted by §8-1 and §8-2 above:

Acceptable Wind Load Design Procedures:  
2003 I.B.C. - Basic Wind Speed 90 mph  
Exposure C only  
Roof Snow Load - 30 pounds per sq. ft.  
Frost Depth - 36 inch minimum  
Seismic Design Category A, Site Class D  
IRC, Table R301.5 Amend live load for sleeping rooms from 30 pounds to 40 pounds per square foot.

Approved as to Form    ✕ \_\_\_\_\_  
February 16, 2005      ✕ City Attorney

## ORDINANCE NO. 8955 (Cont.)

### **§8-4. IBC - Certain Sections Not Adopted**

It is especially provided that the following chapters, sections, and tables of the International Building Code are not adopted or approved, and the same shall be of no force and effect:

Chapter 1

Section 101.4.1 Electrical

Section 101.4.2 Gas

Section 101.4.3 Mechanical

Section 101.4.4 Plumbing

Section 101.4.5 Property Maintenance

Section 101.4.7 Energy

Section 103 Department of Safety

Section 107 Temporary Structures and Uses

Section 112 Board of Appeals

Chapter 13 – Energy Efficiency

Chapter 18

Section 1805.2.1(2) – Frost Protection; Constructing in accordance with ASCE-32

Chapter 27 – Electrical

Chapter 28 – Mechanical

Chapter 30 – Elevators and Conveying Systems

Chapter 32 – Encroachments into the Public Right-of-Way

Chapter 33 – Safeguards During Construction

Chapter 34 – Existing Structures

Appendix A Employee Qualifications

Appendix B Board of Appeals

Appendix D Fire Districts

Appendix E Supplementary Accessibility Requirements

Appendix F Rodent Proofing

Appendix G Flood-Resistant Construction

Appendix H Signs

Appendix J Grading

### **§8-5. IRC – Certain Sections and Parts Not Adopted**

It is especially provided that the following parts, chapters, and sections of the International Residential Code are not adopted or approved, and the same shall be of no force and effect:

Section R101.2 – Scope; Exception

Section R102.7 – Existing Structures

Section R107 – Temporary Structures and Uses

Section R109.1.3 – Floodplain Inspections

Section R112 – Board of Appeals

Section R323 – Flood-Resistant Construction

Section R403.1.4.1(2) Frost Protection; Constructing in Accordance with Section R403.3

Section R403.1.4.1(3) Frost Protection; Constructing in Accordance with ASCE 32-01

Section R403.1.4.1 Frost Protection; Exceptions

Section R403.3 – Frost Protected Shallow Foundations

Section R403.3.1 – Foundations Adjoining Frost Protected Shallow Foundations

Section R403.3.1.1 – Attachment to Unheated Slab-on Ground Structure

Section R403.3.1.2 – Attachment to Heated Structure

Section R403.3.3.2 – Protection of Horizontal Insulation Below Ground

Section R403.3.3.3 – Drainage

Section R403.3.4 – Termite Damage

Section R406.2 – Concrete and masonry foundation waterproofing

Part IV - Energy Conservation

Part V - Mechanical

Part VI - Fuel Gas

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Part VII – Plumbing  
Part VIII – Electrical  
Part X - Appendices

### **§8-6. Building Code Advisory Board**

There is hereby established a Building Code Advisory Board set out as follows:

#### **BUILDING CODE ADVISORY BOARD**

The purpose of the Building Code Advisory Board is to determine the suitability of alternate materials and methods of construction.

*Purpose.* Whereas, there may arise a design or material that may not meet the exact criteria of the Uniform Building Code, especially in the areas of Energy Related projects, this Board shall examine the data available, and/or may require any additional data, to determine that the proposed material or method is at least equivalent of the purpose as set forth in the Building Codes. The Board may not waive any requirements of the Building Codes, but only approve in lieu of/alternate methods of materials.

*Member.* The Building Code Advisory Board members will be appointed by the mayor and approved by the city council. They shall be persons who are qualified by experience and training to pass upon matters pertaining to building construction. The Board shall consist of seven members. The chief building official shall be an ex officio member and will act as secretary of the Board. One city council member shall also act as an ex officio member. At least four members of the Board must be present to constitute a quorum and be able to act.

*Chairman/Officers; Length of Service.* A chairman and vice chairman will be selected from among the seven members and each will serve a two-year term. The seven members will serve two-year terms, alternating four and three on a yearly basis.

*Request Procedure.* The request process for the Board shall be as follows:

- (1) If an applicant shall be denied a building permit or shall receive disapproval from the chief building official, the applicant may file a request on the forms furnished by the Building Department, together with a request procedure fee in accordance with the City of Grand Island Fee Schedule, stating in full detail what the product or project is, the use, sections of the Code that cannot be fully complied with, what the alternative material or method will be, and sufficient evidence supporting the request. This shall be filed with the chief building official who shall then notify the officers of the Board, who shall set a time of meeting, and the meeting shall be within ten (10) days of the date of application.
- (2) The meeting of the Building Code Advisory Board shall be presided over by the chairman.
- (3) The Board shall hear all evidence by the party requesting consideration and a presentation by the chief building official.
- (4) After hearing all evidence presented, the Board shall determine whether the proposed alternate method of material is equivalent with the interest and safety of the Code, or may recommend changes to their satisfaction.
- (5) An order approving such a request shall require a "Yes" vote of four of the Board members.
- (6) The Board shall render all decisions in writing to the applicant and the chief building official within a reasonable period of time.

### **§8-7. IBC - Amendment of Section 1704**

Section 1704 of the International Building Code is hereby amended to read as follows:

Section 1704 General. Where application is made for construction as described in this section, the owner or the registered design professional in responsible charge acting as the owner's agent may be required to employ one or more special inspectors who shall provide inspections during construction on the types of work listed under Section 1704.

### **§8-8. IBC - Amendment of Section 108; Fees; Plan Review Fee**

Section 108 of the International Building Code is hereby amended to read as follows:

Section 108.

(a) *General.* Fees shall be assessed in accordance with the provisions of this section or shall be as set forth in the fee schedule adopted by the jurisdiction.

(b) *Permit Fees.* The fee for each permit shall be as set forth in the City of Grand Island Fee Schedule. The determination of value or valuation under any of the provisions of this code shall be made by the building official. The value to be used in computing the building permit and building plan review fees shall be the total value of all

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construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire extinguishing systems and any other permanent equipment.

(c) *Plan Review Fees.* When a plan or other data are required to be submitted by Section 106, a plan review fee shall be paid in accordance with the City of Grand Island Fee Schedule at the time of submitting plans and specifications for review. The plan review fees specified in this subsection are separate fees from the permit fees, and are in addition to the permit fees.

Where plans are incomplete or changed so as to require additional plan review, an additional plan review fee shall be charged at the rate shown in the City of Grand Island Fee Schedule.

(d) *Expiration of Plan Review.* Applications for which no permit is issued within 180 days following the date of application shall expire by limitation, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the building official. The building official may extend the time for action by the applicant for a period not exceeding 180 days on request by the applicant showing that circumstances beyond the control of the applicant have prevented action from being taken. No application shall be extended more than once. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan review fee.

(e) *Investigation Fees: Work Without a Permit.*

(1) *Investigation.* Whenever any work for which a permit is required by this code has been commenced without first obtaining said permit, a special investigation shall be made before a permit may be issued for such work.

(2) *Fee.* An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be in accordance with the City of Grand Island Fee Schedule. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

(f) *Fee Refunds.* The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected.

The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.

The building official may authorize refunding of not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan reviewing is done.

The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment.

### **§8-9. IBC - Amendment of Section 109**

Section 109 of the International Building Code shall be amended to include the following subsection:  
Section 109.7. Reinspections.

A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This section is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available on the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the building official.

To obtain a reinspection, the applicant shall file an application therefore in writing on a form furnished for that purpose and pay the reinspection fee in accordance with the City of Grand Island Fee Schedule.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

### **§8-10. IBC - Amendment of Table 602**

Table 602 of the International Building Code is hereby amended by adding thereto the following:

The provisions set forth above for RD-Residential Development Zone as identified in Chapter 36 of the Grand Island City Code shall be determined not from the location of a structure from the property line but from the location of a primary structure to another primary structure located on an adjacent lot. All requirements



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pertaining to fire resistant walls and window opening protection as set forth in Table No. 602 shall be complied with when such adjacent primary structures are closer than ten feet apart. Distance shall be measured at right angles from the wall of one structure to the closest wall of an adjacent primary structure.

### **§8-11. IBC - Amendment of Section 1025.1 and IRC – Amendment of Section R310**

The following are hereby added as exceptions to Section 1025.1 of the International Building Code and Section R310 of the International Residential Code:

EXCEPTION: Basements used exclusively for the service of buildings and which do not exceed 300 square feet.

In existing single family residential occupancies other than apartments, a sleeping room may be added in an existing basement if the following conditions are met:

- (1) The sleeping room must have an openable window.
- (2) Smoke detectors have been installed in the sleeping room, the furnace room, and in the exitway of the basement.

### **§8-12. IBC - Amendment of Section 1805.1**

Section 1805.1 of the International Building Code is hereby amended by adding the following:

#### **Bearing Walls**

Bearing walls shall be supported on masonry or concrete foundations or piles or other approved foundation system which shall be of sufficient size to support all loads. Where a design is not provided herein, the minimum foundation requirements for stud bearing walls shall be as set forth in Table No. 1805.4.2.

#### **EXCEPTIONS:**

- (1) A one-story wood or metal frame building not used for human occupancy and not over 200 square feet in floor area, may be placed upon a concrete slab of four inch minimum thickness.
- (2) Detached accessory buildings not exceeding 625 feet in floor area may use a six-inch wide by eighteen inch deep foundation system with at least twelve inches below grade.

### **§8-13. IRC – Amendment to Sections R403 and R404**

Sections R403 Footings and R404 Foundation Walls of the International Residential Code are hereby amended by adding the following to read as follows:

#### **Minimum Footing and Foundation Requirements for Residential Construction**

- (1) The minimum footing foundation requirement, balanced fill, for a one-story residence shall be six (6) inches in width by thirty-six (36) inches below grade, with two #4 horizontal rebar continuous.
- (2) The minimum footing foundation requirement, unbalanced fill, for a one- or two-story frame residence shall be sixteen (16) inches in width by eight (8) inches deep, with two #4 rebar continuous and a minimum eight (8) inch wall of block or concrete.
- (3) In addition to the requirements set forth in subparagraphs (1) and (2) above, the following reinforcement requirements for wall foundation must be met:
  - 8" solid concrete from 60" up to 84" unbalanced fill – three #4 horizontal strands, equally spaced throughout height of wall;
  - 8" block - from 48" to 60" unbalanced fill - one #4 rebar vertical, 4' on center to grade height;
  - 8" block - from 60" to 84" unbalanced fill - one #4 rebar vertical, 4' on center to top of foundation.

### **§8-14. IBC – Amendment of Section 1807 and IRC- Amendment of R406**

Section 1807 of the International Building Code and Section R406 of the International Residential Code is hereby amended by adding thereto the following:

#### **Backplaster and Dampproofing**

Exterior foundation walls below grade of any building consisting of masonry units having a basement shall be backplastered with one-half inch (1/2") Portland cement and sand mix (1:2 1/2 by volume) or two one-fourth inch (1/4") coats of Type M mortar, and with an approved dampproofing material. Poured concrete

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foundations shall be coated with dampproofing without back plaster. Alternative dampproofing may be approved by the building official.

### Subsurface Drainage Systems

All buildings constructed with basements or floor levels twenty-four (24) inches or more below the elevation of the center line of the adjacent public street shall be provided with a subsurface drainage system. A subsurface drainage system shall consist of the minimum following elements:

- (1) Minimum four (4") diameter perforated or scored drain pipe embedded in four inches (4") of coarse gravel installed around the inside of the perimeter footing such that no floor location is greater than ten feet (10') to such drain pipe.
- (2) Minimum fifteen inch (15") diameter by thirty inch (30") deep sump pump pit for each one thousand five hundred (1,500) square feet of floor area to be drained.
- (3) Minimum two inch (2") diameter weep holes through the footing at eight foot (8') on center intervals with a minimum of four inch (4") of gravel cover on the exterior of the footing.
- (4) Minimum four inch (4") gravel bed under floor slab.

### §8-15. IRC - Amendment of Section R105.2

Section R105.2 of the International Residential Code is hereby amended as follows:

Building: (1) One-story detached accessory structures, provided the floor area does not exceed 120 square feet.

### §8-16. IRC – Amendment of Section R301.2

Section R301.2 of the International Residential Code is hereby amended by deleting "and set forth in Table R301.2(1)."

### §8-17. IRC – Amendment of Section R302.1

The exception within Section R302.1 of the International Residential Code is hereby amended to read as follows:

Detached garages accessory to a dwelling located within 2 feet of a property line may have roof eaves projections not exceeding 12 inches.

### §8-18. IRC – Amendment of Section R311.4.3

Section R311.4.3 of the International Residential Code is hereby amended by deleting the following exception:

Where a stairway of two or fewer risers is located on the exterior side of a door, other than the required exit door, a landing is not required for the exterior side of the door.

### §8-19. IRC – Amendment of Section R311.5.3.1

Section R311.5.3.1 of the International Residential Code is hereby amended to reflect that the maximum riser height shall be 8 inches.

### §8-20. Reserved

### §8-21. Buildings Having Historical Significance

Buildings or structures which have been designated by official action of the Grand Island City Council as having special historical or architectural significance may comply with Section 3407 of the International Building Code for historic buildings.

Historical buildings shall be buildings which are currently listed on the National Register of Historical Buildings or are at least fifty years old and have one of the following characteristics: is associated with an important person or event which has contributed significantly to history, contains significant architectural or artistic design, or has significant archeological properties.

### §8-22. Permits Required; Amendment of IBC Section 105 and IRC Section R105

Section 105 of the International Building Code and Section R105 of the International Residential Code shall be amended by adding the following:

No person, firm, or corporation shall erect, construct, enlarge, alter, repair, move, improve, remove, convert, or demolish, equip, use, occupy, or maintain any building or structure in the city, or cause the same to be done without first obtaining a separate building permit for each such building or structure from the Building

## ORDINANCE NO. 8955 (Cont.)

Department; provided, no permit shall be issued by the Building Department unless and until authorized by resolution of the City Council in any one or more of the following cases:

- (1) Where the real property described in the application for permit does not front upon a dedicated street or public road;
- (2) Where a subdivision as required by state statutes has not been lawfully approved and recorded with the Register of Deeds.
- (3) When the City Engineer certifies that surface water drainage is unavailable or inadequate to drain the public street or road abutting upon the real property described in the application for permit.
- (4) Where the City Engineer certifies that surface water drainage from the real property described in the application for permit will create or add to an impounding of surface water upon a public street or road.

### **§8-23. Temporary Retail Buildings; Restrictions**

No person, firm, or corporation shall erect, construct, equip, use, occupy, or maintain any temporary building or structure in the City or two-mile jurisdiction or cause the same to be done without first obtaining a separate building permit for each such temporary building from the Building Department.

Temporary buildings shall be those buildings built and designed for use no longer than 120 calendar days to facilitate special events or annual sales.

Temporary buildings shall be constructed to support required wind load, adequately anchored, and located no closer than 20 feet to any adjacent structure, or be separated by a two-hour fire wall. Exterior walls shall be one-hour fire resistive if less than 20 feet from a property line, and the allowable area shall comply with the adopted building code.

Exiting shall be provided as required for permanent buildings.

Temporary buildings shall not be connected to permanent utilities, e.g., sewer, water, electric, or gas.

Temporary buildings permits shall be limited to one per tract of land, not to exceed 120 days per calendar year. The fee for a temporary building permit shall be in accordance with the City of Grand Island Fee Schedule.

### **§8-24. Commercial Display Buildings; Definition; Restrictions**

No person, firm, or corporation shall place upon any property, any commercial display building without first obtaining a permit from the Building Department for the placement of such commercial display building(s).

Commercial display buildings shall be those structures which are offered for sale or used as display or inventory. They shall not be used for any other purpose, occupied, or used as storage facilities.

Commercial display buildings shall be constructed to support required wind loads, be adequately anchored, and in all other aspects comply with adopted building and zoning codes.

Commercial display buildings shall not be connected to permanent utilities.

The fee for commercial display buildings shall be in accordance with the City of Grand Island Fee Schedule.

### **§8-25. Barb Wire and Electrified Fences**

It shall be unlawful for any person, partnership, firm, or corporation, either in person or through his or their employees or agents, to erect or cause to be erected or to maintain any barb wire or electrified fence or any barb wire or electrified string along or upon any fence or string as a barrier within the city limits of the City of Grand Island, except that it shall be permissible to string not more than three strands of barb wire or electrified fence upon supports inclined at an angle not greater than sixty degrees with the horizontal plane, when such wires are strung so that they are suspended above and within the privately owned enclosed property, and the bottom strand of such barb wire or electrified fence is not less than six feet above the surface of the ground.

SECTION 2. Article I, Division 1, Sections 8-1 through 8-25 as now existing, and any ordinances or parts of ordinances in conflict herewith be, and hereby are, repealed.

ORDINANCE NO. 8955 (Cont.)

SECTION 3. That this ordinance shall be in force and take effect on March 31, 2005, after its passage and publication, within fifteen days in one issue of the Grand Island Independent as provided by law.

Enacted: February 22, 2005.

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Jay Vavricek, Mayor

Attest:

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RaNae Edwards, City Clerk