

PLAN AND ZONING COMMISSION MEETING

CITY OF DAVENPORT, IOWA

TUESDAY, NOVEMBER 14, 2017; 5:00 PM

CITY COUNCIL CHAMBERS

COMBINED PUBLIC HEARING AND REGULAR MEETING

COMBINED PUBLIC HEARING AND REGULAR MEETING AGENDAS

PUBLIC HEARING AGENDA

I. Next Public Hearing

- A. Tuesday, December 05, 2017 at 5:00 P.M. in the Council Chambers of Davenport City Hall – 226 West 4th Street.

REGULAR MEETING AGENDA

I. Roll Call

II. Report of the City Council Authority

- A. Council action on Commission items at the November 08, 2017 City Council meeting

III. Secretary's Report

- A. October 31, 2017 meeting minutes

IV. Report of the Comprehensive Plan Committee

V. Zoning Activity

A. Old Business

- i. Case No. REZ17-08: Request of Aaron Christopher on behalf of Palmer College of Chiropractic to rezone 38.65 acres, more or less, generally located between Harrison Street and Pershing Avenue and between East 12th and 5th Streets from: "R-4" Moderate Density Dwelling District, "R-6M" High Density Dwelling District, "C-O" Office-Shop District, "C-1" Neighborhood Commercial District, "C-2" General Commercial District, "C-4" Central Business District and "M-1" Light Industrial District to "PID" Planned Institutional District. **This case remains tabled (no action necessary).**

B. New Business

VI. Subdivision Activity

A. Old Business

B. New Business

VII. Future Business

- A. Preview of items for the December 05, 2017 public hearing and/or regular meeting (note-not all items to be heard may be listed)

VIII. Communications

- A. (Time open for citizens wishing to address the Commission on matters not on the established agenda)

IX. Other Business

- A. **Case No. FPV17-01:** Request of 321 Partners LLC for a floodplain variance at 321 East 2nd Street to allow a historic exemption to floodplain regulations. The developer is proposing a substantial improvement/renovation to allow a mixed-use (commercial-residential) building.

X. Adjourn

- A.
- Note: Pursuant to §17.60.030 and §2.64.120 of the Davenport City Code the Commission is required to act on this item within 30 days unless the petitioner waives this requirement.
 - Pursuant to the city code if the Commission does not act and report on this item within 30 days' time this agenda item is to be construed as approved by the Commission.
 - Note: The Plan and Zoning Commission meeting is not a public hearing. It is time for the commission to discuss the issue(s) with City staff and if questions rise, with the developer. A rezoning or ordinance text amendment has a second public hearing before the City Council at its Committee of the Whole meeting. Notification of that meeting will be sent to surrounding owners following the Plan and Zoning Commission meeting.

Next Public Hearing/Regular Plan & Zoning Meeting: Tuesday, December 05, 2017 at 5:00 P.M. in the Council Chambers of Davenport City Hall 226 West 4th Street.

City of Davenport
Plan and Zoning Commission

Department: Community Planning & Economic Development
Contact Info: Matt Flynn 888-2286

Date
11/14/2017

Subject:

PUBLIC HEARING AGENDA

REVIEWERS:

Department	Reviewer	Action	Date
City Clerk	Wille, Wayne	Approved	11/9/2017 - 3:46 PM

City of Davenport
Plan and Zoning Commission

Department: Community Planning & Economic Development
Contact Info: Matt Flynn 888-2286

Date
11/14/2017

Subject:

Tuesday, December 05, 2017 at 5:00 P.M. in the Council Chambers of Davenport City Hall – 226 West 4th Street.

REVIEWERS:

Department	Reviewer	Action	Date
City Clerk	Wille, Wayne	Approved	11/9/2017 - 3:47 PM

City of Davenport
Plan and Zoning Commission

Department: Community Planning & Economic Development
Contact Info: Matt Flynn 888-2286

Date
11/14/2017

Subject:
Council action on Commission items at the November 08, 2017 City Council meeting

ATTACHMENTS:

Type	Description
Backup Material	Council Activity Report

REVIEWERS:

Department	Reviewer	Action	Date
City Clerk	Wille, Wayne	Approved	11/9/2017 - 3:47 PM

Report of City Council Activity

November 08, 2017 Meeting –

Adopted Ordinance 2017-472 for Case No. ROW17-05 being the request of of Genesis Health Systems at 3200 West Kimberly Road (corner of Kimberly Rd Elsie Ave) to vacate a portion of a sanitary sewer easement which would be located under the proposed medical building. Existing facilities located in the area to be vacated will be located adjacent to the proposed building in the remaining portion of the sanitary sewer easement.

City of Davenport
Plan and Zoning Commission

Department: Community Planning & Economic Development
Contact Info: Matt Flynn 888-2286

Date
11/14/2017

Subject:
October 31, 2017 meeting minutes

ATTACHMENTS:

Type	Description
▣ Backup Material	Minutes 10-31-2017 meeting

REVIEWERS:

Department	Reviewer	Action	Date
City Clerk	Wille, Wayne	Approved	11/9/2017 - 3:47 PM

**CITY PLAN AND ZONING COMMISSION
CITY OF DAVENPORT, IOWA**

**TUESDAY OCTOBER 31, 2017 • 5:00 PM
COUNCIL CHAMBERS – DAVENPORT CITY HALL
226 W 4TH STREET DAVENPORT, IA**

MINUTES

PUBLIC HEARING AGENDA

OLD BUSINESS –

NEW BUSINESS –

Next Public Hearing:

Tuesday, November 14, 2017 at 5:00 P.M. in the Council Chambers of Davenport City Hall –
226 West 4th Street.

REGULAR MEETING AGENDA

The regular meeting was called to order at 5:00 P.M. there was no public hearing.

I. Roll Call of the Membership

Present: Connell, Hepner, Inghram, Kelling, Lammers, Maness, Quinn, Reinartz and Tallman

Excused: Martinez and Medd

Absent:

Staff: Flynn, Leabhart and Wille

II. Report of the City Council Activity

III. Secretary's Report October 17, 2017 meeting minutes were approved

IV. Report of the Comprehensive Plan Committee

1. Case No. CP17-01: Request of the City of Davenport – CPED to adopt the Scott County Multi-Jurisdictional Hazard Mitigation Plan and add it as an element to Davenport 2025: Comprehensive Plan for the City. The draft plan and the 2013 plan documents may found at the following link:

<https://www.scottcountyiowa.com/planning/hazard-mitigation-plan>

Findings:

- The City of Davenport first adopted a Hazard Mitigation Plan in 2003 and this plan acts as an update to the 2007 Pre-Disaster Mitigation Plan.
- The adopted disaster mitigation plan is required for Davenport to receive federal grant funds for disaster mitigation and recovery.
- This is a first step to integrate hazard mitigation into the full range of community planning activities thereby increasing the public's awareness.

- As an element of Davenport 2025 the plan becomes the basis for a more comprehensive hazard/environmental element in future comprehensive plans.

City staff recommends that the Plan and Zoning Commission forward case CP17-01 to the City Council with a recommendation for adoption of the Scott County Multi-Jurisdictional Hazard Mitigation Plan and place it as an element of the *Davenport 2025: Comprehensive Plan of the City*.

A motion by Tallman, seconded by Connell, to forward case CP17-01 to the City Council with a recommendation for adoption of the Scott County Multi-Jurisdictional Hazard Mitigation Plan and place it as an element of the *Davenport 2025: Comprehensive Plan of the City* was unanimously approved: 8-yes, 0-no and 0-abstention

V. Zoning Activity

A. Old Business –

1. Case No. REZ17-08: Request of Aaron Christopher on behalf of Palmer College of Chiropractic to rezone 38.65 acres, more or less, generally located between Harrison Street and Pershing Avenue and between East 12th and 5th Streets from: “R-4” Moderate Density Dwelling District, “R-6M” High Density Dwelling District, “C-O” Office-Shop District, “C-1” Neighborhood Commercial District, “C-2” General Commercial District, “C-4” Central Business District and “M-1” Light Industrial District to “PID” Planned Institutional District.

This case remains tabled (no action necessary).

B. New Business -

VI. Subdivision Activity

A. Old Business –

B. New Business –

VII. Other Business – Development discussion

VIII. Future Business – Preview of items for the November 14th public hearing and/or regular meeting (*note-not all items to be heard may be listed*):

- Case No. FPV17-01: Request of 321 Partners LLC for a floodplain variance at 321 East 2nd Street to allow a historic exemption to floodplain regulations. The developer is proposing a substantial improvement/renovation to allow a mixed-use (commercial-residential) building.

IX. Communications (Time open for citizens wishing to address the Commission on matters not on the established agenda)

X. Adjourn – the meeting was adjourned at approximately 5:25 p.m.

- *Note: Pursuant to §17.60.030 and §2.64.120 of the Davenport City Code the Commission is required to act on this item within 30 days unless the petitioner waives this requirement. Pursuant to the city code if the Commission does not act and report on this item within 30 days’ time this agenda item is to be construed as approved by the Commission.*
- *Note: The Plan and Zoning Commission meeting is not a public hearing. It is time for the commission to discuss the issue(s) with City staff and if questions rise, with the developer.*

- *A rezoning or ordinance text amendment has a second public hearing before the City Council at its Committee of the Whole meeting. Notification of that meeting will be sent to surrounding owners following the Plan and Zoning Commission meeting.*

Next Public Hearing/Regular Plan & Zoning Meeting:

Tuesday, November 14, 2017 at 5:00 P.M. in the Council Chambers of Davenport City Hall 226 West 4th Street.

Report of City Council Activity

October 25, 2017 Meeting –

City of Davenport
Plan and Zoning Commission

Department: Community Planning & Economic Development
Contact Info: Matt Flynn 888-2286

Date
11/14/2017

Subject:

Case No. REZ17-08: Request of Aaron Christopher on behalf of Palmer College of Chiropractic to rezone 38.65 acres, more or less, generally located between Harrison Street and Pershing Avenue and between East 12th and 5th Streets from: "R-4" Moderate Density Dwelling District, "R-6M" High Density Dwelling District, "C-O" Office-Shop District, "C-1" Neighborhood Commercial District, "C-2" General Commercial District, "C-4" Central Business District and "M-1" Light Industrial District to "PID" Planned Institutional District. **This case remains tabled (no action necessary).**

REVIEWERS:

Department	Reviewer	Action	Date
City Clerk	Wille, Wayne	Approved	11/9/2017 - 3:47 PM

City of Davenport
Plan and Zoning Commission

Department: Community Planning & Economic Development
Contact Info: Matt Flynn 888-2286

Date
11/14/2017

Subject:

Preview of items for the December 05, 2017 public hearing and/or regular meeting (note-not all items to be heard may be listed)

REVIEWERS:

Department	Reviewer	Action	Date
City Clerk	Wille, Wayne	Approved	11/9/2017 - 3:48 PM

City of Davenport
Plan and Zoning Commission

Department: Community Planning & Economic Development
Contact Info: Matt Flynn 888-2286

Date
11/14/2017

Subject:

(Time open for citizens wishing to address the Commission on matters not on the established agenda)

REVIEWERS:

Department	Reviewer	Action	Date
City Clerk	Wille, Wayne	Approved	11/9/2017 - 3:48 PM

City of Davenport
Plan and Zoning Commission

Department: Community Planning & Economic Development
Contact Info: Matt Flynn 888-2286

Date
11/14/2017

Subject:

Case No. FPV17-01: Request of 321 Partners LLC for a floodplain variance at 321 East 2nd Street to allow a historic exemption to floodplain regulations. The developer is proposing a substantial improvement/renovation to allow a mixed-use (commercial-residential) building.

ATTACHMENTS:

Type	Description
▢ Resolution Letter	FPV17-01 Staff Report
▢ Backup Material	Exhibit A
▢ Backup Material	Exhibit A-2 GIS plot
▢ Backup Material	Exhibit B Elev Cert
▢ Backup Material	Exhibit C Eligibility Arch & Hist Survey
▢ Backup Material	Exhibit C-1 Downtown Survey 2017
▢ Backup Material	Exhibit D Variance Procedures
▢ Backup Material	Exhibit E Petitioner response/structural info
▢ Backup Material	Exhibit F FEMA guidance
▢ Backup Material	Exhibit G renovation plans
▢ Backup Material	Exhibit H FEMA P-467 Historic Structures

REVIEWERS:

Department	Reviewer	Action	Date
City Clerk	Wille, Wayne	Approved	11/9/2017 - 3:48 PM



PLAN AND ZONING COMMISSION

Meeting Date: November 14, 2017
Request: Floodplain Variance
Location: 321 East 2nd Street
Case No.: FPV17-01
Applicant: 321 Partners LLC

INTRODUCTION

The petitioner is requesting a historic exemption to the City's Flood Damage Prevention regulations. The developer is proposing to rehabilitate/renovate the existing structure to all a mixed-use (commercial/residential) development. The cost of the renovation makes the proposal a "substantial improvement" which must meet the elevation or flood-proofing requirements of Chapter 15.44 entitled "Flood Damage Prevention. The petitioner is proposing not to fully comply or floodproofing requirement.

Recommendation: Staff recommends the Plan and Zoning Commission accept the listed findings, approve the request subject to the listed conditions and forward Case No. FPV17-01 to the Iowa Department of Natural Resources for its concurrence.

BACKGROUND:

Terminology: The following terms are defined in the City's Flood Damage Prevention ordinance and are pertinent to this review.

- "Free-board" is defined as an increment of of elevation added to the base flood elevation to provide a factor of safety for uncertainties in calculations (development outside the City's control), unknown localized conditions, wave actions and unpredictable effects such as those caused by ice or debris jams.
- "Flood-proofing" is defined as any combination of structural or nonstructural changes, or adjustments to structures, including utility and sanitary facilities, which will reduce or eliminate flood damage to such structures.
- "Substantial Improvement" is defined in part as any repair, reconstruction, rehabilitation, addition, or other improvement that exceeds 50 percent of the market value of the structure before the start of construction or any addition that increases the original floor area by 25 percent or more.
- "Variance" is defined as a grant of relief to a person from the requirements of this chapter which permits construction in a manner otherwise prohibited...where specific enforcement would result in unnecessary hardship. The requirements for variance are set out in Section 15.44.190.
- "Historic structure" is defined as any structure that is:

- a. Listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- b. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- c. Individually listed on the State Inventory of Historic Places which inventory is part of a historic preservation program approved by the Secretary of the Interior; or
- d. Individually listed on the local inventory of historic places in communities with historic preservation programs that have been certified either (1) by an approved state program as determined by the Secretary of the Interior or (2) directly by the Secretary of the Interior in states without approved programs.

Acronyms:

BFE Base Flood Elevations = 1% annual chance flood = 100-year flood elevation
 FEMA Federal Emergency Management Agency
 FIRM Flood Insurance Rate Map
 FIS Flood Insurance Study
 IDNR Iowa Department of Natural Resources
 NFIP National Flood Insurance Program
 NGVD National Geodetic Vertical Datum equated to 1929 sea level

Regulations:

- 15.44.110 Flood hazard reduction – Nonresidential construction (included mixed-use)
- New construction or substantial improvement of any commercial...structure shall either have the lowest floor, including basement, elevated to a minimum of one foot above the base flood elevation or, together with attendant utility and sanitary facilities, be floodproofed to that level so that the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

01-30-2014 FEMA Guidance for Mixed Use Development

- If the lowest floor of a new or substantially improved mixed use building is below the BFE, the lowest floor can only be used for non-residential purposes provided the non-residential areas of the building is floodproofed.

15.44.190 D. Variance Procedures –

- Variances may be issued for the repair or rehabilitation of Historic Structuresd upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

Exhibits:

Exhibit "A" Flood Insurance Rate Map
 Exhibit "A-2" City GIS with contour layer (elevations)
 Exhibit "B" Elevation Certificate
 Exhibit "C" Historic Eligibility Statement

Exhibit "D"	Section 15.44.190 Variance Procedures
Exhibit "E"	Petitioner's Response & Structural Letter
Exhibit "F"	FEMA Guidance for Mixed Use Development
Exhibit "G"	Proposed Plans
Exhibit "H"	FEMA P-467-2 Floodplain Management Bulletin Historic Structures

History: The City of Davenport joined the regular program of the National Flood Insurance Program in March of 1978. The first Flood Damage Prevention ordinance was adopted in February of 1978. At that time the specific requirement was that any new construction or substantial improvement was required to be elevated or flood-proofed to or above the base (100-year) flood elevation. Currently the State requires one-foot of free-board or the base flood elevation plus one foot (BFE+1-foot) as is reflected in the City's ordinance.

According to the City Directories a commercial use of the property first appears in 1913 and continues to the present.

Proposal: The petitioner is proposing a significant rehabilitation of the building facilitating a first floor commercial use (restaurant & brew pub) with upper story residential units. More than 25-percent of the total floor area will be devoted to residential use which will impact flood insurance rating of the property. The basement will remain vacant and be allowed to flood through groundwater seepage to equalize hydrostatic pressure. The next higher floor (main level) is made of concrete and will contain the commercial uses. According to the Elevation Certificate the basement floor is over ten (10.2) feet below the flood elevation and the next higher floor (first floor) is over one (1.2) foot below the flood elevation. The variance is requested to maintain the historic character and design of the building by not floodproofing the building.

Determination: The current assessed value of the building is \$183,980. The proposed improvements (renovation/rehabilitation) cost is \$2,119,000. Since the value of the improvements exceeds 50-percent of the current value of the existing building this is considered a substantial improvement (SI). FEMA requires that as an SI the lowest floor (including basement) must be either elevated (residential) or floodproofed (non-residential or commercial) to one foot above the flood elevation (BFE+1).

Regulations (see Exhibit F): A mixed-use building contains both residential and commercial uses.

- A. For a residential use the lowest floor including basement must be elevated and cannot be floodproofed. The lowest floor of a residential building cannot be below grade; for example if elevated on a lower level parking area the floor of the parking area must be at or above grade.
- B. For a commercial use both elevation and/or floodproofing is allowable. The lowest floor of a commercial use may be below the BFE (even below grade) as long as it is certified as dry-floodproofed.

FEMA has provided guidance for mixed use development in floodplains (see Exhibit F).

1. The lowest floor of all residential areas must be elevated (BFE+1). This includes the lobby/foyer/other finished ancillary areas.

2. All utilities for the residential areas must be elevated or designed/located to prevent water from entering or accumulating in the components.
3. If an enclosed access is provided and the enclosed access is below the BFE, the access must be built with flood resistant materials and have opening to allow flood waters to enter.
4. Elevators located below the BFE must meet the requirements of NFIP Technical Bulletin 4 (November 2010)
5. If the lowest floor is below the BFE it can only be used for non-residential purposes and must be certified to be dry-floodproofed.

Existing conditions: According to the Elevation Certificate (EC):

565.0 feet	Base Flood Elevation (1% annual chance or 100-year flood elevation)
554.8 feet	Elevation of lowest floor (basement)
563.8 feet	Elevation of next higher floor (main level)
563.8 feet	Elevation of machinery/equipment servicing the building

According to the EC the basement is 10.2 feet below the flood elevation (BFE) and the next higher floor (main level) is 1.2 feet below the BFE. The City's ordinance, based on both FEMA and the State of Iowa minimum regulations requires flood proofing to at least 566.0 feet (BFE+1).

An added scenario is that according to the State Historic Preservation Office the structure, while not individually significant, is listed as contributing to a potential district. And the developer has applied for Historic Tax Credits to aid in the renovation/rehabilitation. The NFIP regulations provide for relief for historic structures "*provided that the rehabilitation will not precluded the structure's continual designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure*".

The NFIP definition of a "historic structure" is any structure that is:

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

The developer is applying for the floodplain variance based on the property meeting the definition of a historic structure as noted above.

Discussion and Review of Ordinance Criteria

Basic references also used in this review beside the City's Flood Damage Prevention ordinance are the *Iowa DNR Floodplain Management Desk Reference*, *FEMA P-936 Floodproofing Non-Residential Buildings*, *FEMA P-467-2 Floodplain Management Bulletin: Historic Structures* as well as various guidance documents.

A variance is a grant of relief by a community from the terms of regulations. Because a floodplain variance has the potential to increase the risk to life and property these should be rare. Granting a variance must be based on NFIP criteria, state law and local provision. Variances are based on the general principal of zoning law that they pertain to the piece of property and are not personal, including a business, in nature.

One factor in all this review is that these regulations are also designed to protect the investment made by the property owner. As such, if the variance is granted flood insurance is required and is commensurate with the risk. Insurance is based on property exposure to risk which in this scenario is the premium which is calculated using the elevation of the lowest below the BFE.

Criteria review (please refer to Exhibit D):

E.1. The danger that materials may be swept into other lands or downstream to the injury of others.

The rehabilitation is located within an existing masonry structure, except for window areas along the north side (opposite the river) of the building. The basement area is to remain vacant and allowed to flood due to ground water seepage to aid in equalizing the hydrostatic pressures on the below grade and exposed foundation walls. The commercial level of the building (next higher floor) is just over one foot below the BFE. The hydrostatic pressure here is not likely to cause significant damage to the windows or door openings that would allow for floatation of furniture and/or materials.

E.2. The danger to life and property due to flooding, increased flood heights or erosion damage.

There is typically several day, even weeks of warning for flooding on the Mississippi River. This building, as well as others nearby, receive the benefit of the City's flood protection initiatives to keep open the access to the Rock Island Arsenal via the Government Bridge approach (East 2nd Street is the primary approach to the Government Bridge). Residential uses in the building are located on the levels above the commercial level and are elevated above even record flooding. If the City's flood protection were to fail or be over-topped outside access to the building could be compromised thereby isolating residents in the building. While building services/utilities should be protected (elevated/floodproofed) those services to the building may be compromised causing electrical outage.

E.3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.

The existing building is masonry construction with the basement and next higher floor being concrete. Even if flood resistant materials are used during

construction (required) such as interior walls, equipment and furnishings (furniture) would be subject to at least minimal damage.

E.4. The proposed water supply and sanitation systems and the ability of the systems to prevent contamination, disease and unsanitary conditions.

It will need to be verified that backflow prevention is to be added to both the sanitary and potable water systems to prevent contamination during flood events.

E.5. The importance of the services provided by the proposed facility to the community.

The petitioner has indicated that the proposed upgrade/conversion from retail to service and residential would be an economic benefit to the downtown area in terms of both tax base and maintaining a stable occupancy in this older commercial buildings.

E.6. The necessity to the facility of a floodplain and/or waterfront location.

The building was apparently constructed in the early 1920's. The central business district or downtown location is important to the use. The building is located on the landward side of US 67 or River Drive away from the Mississippi River.

E.7. The availability of alternative locations, nor subject to flooding or erosion damage, for the proposed use.

Again, this is an existing building. The alternate location would leave a building vacant or making a minimal investment in the property potentially allowing for further deterioration of the building. According to the developer, relocation is not an available option nor financially feasible.

E.8. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.

Staff agrees that the proposed use is compatible with the existing development in this area and could lead to additional redevelopment within this older commercial area.

E.9. The relationship of the proposed use to the comprehensive plan and floodplain management program for the community and that area.

The Historic Preservation chapter of *Davenport 2025: A Comprehensive Plan for the City* lists the following programs recommendations relating to historic preservation:

- o Encourage adaptive re-use and infill projects...
- o Identify and market opportunities for redevelopment, adaptive re-use...
- o Improve housing option within the downtown district.
- o Identify adaptive reuse opportunities for housing...

The above recommendations represent just some of the opportunities for reuse of historic as well as downtown buildings.

While floodplain management practices would prefer mitigation of uses in the floodplain this must be tempered by preservation of historic resources.

E.10. The safety of access to the property in times of flood for ordinary and emergency vehicles.

This building, as well as others nearby, receive the benefit of the City's flood protection initiatives to keep open the access to the Rock Island Arsenal via the Government Bridge approach (East 2nd Street is the primary approach to the Government Bridge). Residential uses in the building are located on the levels above the commercial level and are elevated above even record flooding. If the City's flood protection were to fail or be over-topped outside access to the building could be compromised thereby isolating residents in the building. There would appear to be sufficient warning time (12-24 hours) for any failure of or over-topping of the flood protection system in this area to allow for evacuation of the residential units.

E.11. The expected heights, velocities, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site.

There is a narrow parking area located t the upstream of this building, then another set of building. This building adjacent to the east should be sufficient to reduce any velocity flow (current) acting directly upon the subject building. Location of surrounding buildings to the riverward side as well would mitigate any wave action created.

E.12. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

This is an existing commercial area with all public services provided. The proposed rehabilitation should not have an impact or increase the costs of providing or maintenance of these services during or after a flood event. Again, this building, as well as others nearby, receive the benefit of the City's flood protection initiatives to keep open the access to the Rock Island Arsenal via the Government Bridge approach (East 2nd Street is the primary approach to the Government Bridge).

E.13. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing sections E.1. through E.12. have been fully considered. As lot size increases beyond the one-half acre, technical justification required for issuing the variance increases.

The property contains approximately 13,500 square feet with the building at the property lines on three sides.

In addition to the above review of criteria the following must be considered.

15.44.190 F. states that upon consideration of the factors listed above and the purposes of this chapter, the city plan and zoning commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter. Such conditioning may include but not be limited to:

1. Modification of the water supply and/or waste disposal systems;
2. Limitation of the periods of use and operation;
3. Imposition of operational controls, sureties and/or deed restrictions;
4. Requirements for channel modification, dikes, levees and/or other protective measures provided such are approved by the Iowa Department of Natural Resources

and are deemed the only practical alternative to achieve the stated purposes of this chapter.

Of the above four areas for consideration item #1 and #3 have significant bearing on the grant of this variance. Utility services typically have no impact on the historic determination of a structure therefore any water service or sanitary service with openings below the base flood elevation plus one foot will need to be protected to avoid contamination. This can most easily be accomplished through the use of back-flow prevention systems. The developer has indicated that emergency measures will meet the needs of protection the first floor. The operations plan and what the measures are, who will perform them, and the time sequence and time frame in which these measure will occur will need to be submitted as the operations plan.

15.44.190 G. lists the conditions for variances.

1. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief. According to the State, the variance should allow only the minimum deviation from the local requirements.

The variance is to exempt those floodproofing measures that will jeopardize the historic designation of this property. That is why the requirements for maintaining protection of the utilities and the use of flood resistant materials on the interior can be maintained. This request must receive concurrence through the state to allow waiver of the state's requirement.

2. Variances shall only be issued upon:

a. Showing of good and sufficient cause;

According to FEMA good and sufficient cause does not include a drop in property value, inconvenience to the property owner, insufficient funds to comply, a different look to the neighborhood or the construction was started without permit and will now cost a lot to bring the building into compliance. The theme here is that the finances of the owner should not enter into the consideration.

b. Determination that failure to grant the variance would result in exceptional hardship to the applicant;

The applicant has the burden of providing unnecessary hardship. The reasons should be substantial and proof compelling. Financial hardships, inconvenience, personal preferences do not qualify as exceptional hardships.

The local consideration must weigh the applicant's plea of hardship against the purpose of the ordinance. With respect to a variance in exempting a floodproofing requirement, consideration as to whether the applicant's claims outweighs the long-term risk to the owners and occupants would face, as well as the community's need to protect its citizens from flood danger and damage.

and

c. Determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.

These effects would appear to be minimal given the location and elevation of the proposed structure as stated in the criteria review.

3. Any applicant to whom a variance is granted shall be given a written notice that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation and that such construction increases the risk to life and property.

If the minimum NFIP elevation is maintained, the impact of insurance may be minimal. The flood insurance premiums are based on BFE and not a local free-board requirement. However, the recent changes to the NFIP insurance program will impact the owner.

4. The designated official shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

5. All variances granted shall have the concurrence or approval of the Department of Natural Resources.

While the current designation (2005) is that this property is contributing to a potential district, a more recent survey is in progress. Some preliminary information shows that the State Historic Preservation Office is recommending that a historic district based on the East 2nd Street area deemed eligible by the consultant. These districts would be submitted for federal designation.

The City's Flood Damage Prevention allows for two options; the first is a straight exemption for historic properties, and the second is the variance procedure. The City has chosen the variance procedure as was done with the Riverwalk Lofts project on West River Drive in 2007. A third projects met the floodproofing criteria but that building had previously received Local Landmark status and its first floor was located above the BFE.

Recommendation:

Findings

- The subject property is designated as contributing structure in an area eligible for district nomination;
- The downtown association is proceeding with the nomination of this district;
- While floodplain management practices would prefer mitigation of uses in the floodplain this must be tempered by preservation of historic resources.
- The proposed development meets the goals of the City's Comprehensive Plan, specifically the Historic Preservation Chapter.
- The proposed development fosters the economic redevelopment of this portion of the downtowns eastern core.
- As conditioned the proposed development is the minimum variance necessary.

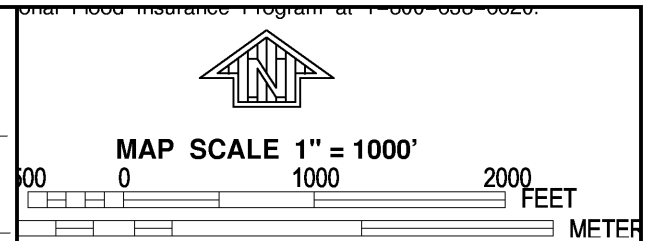
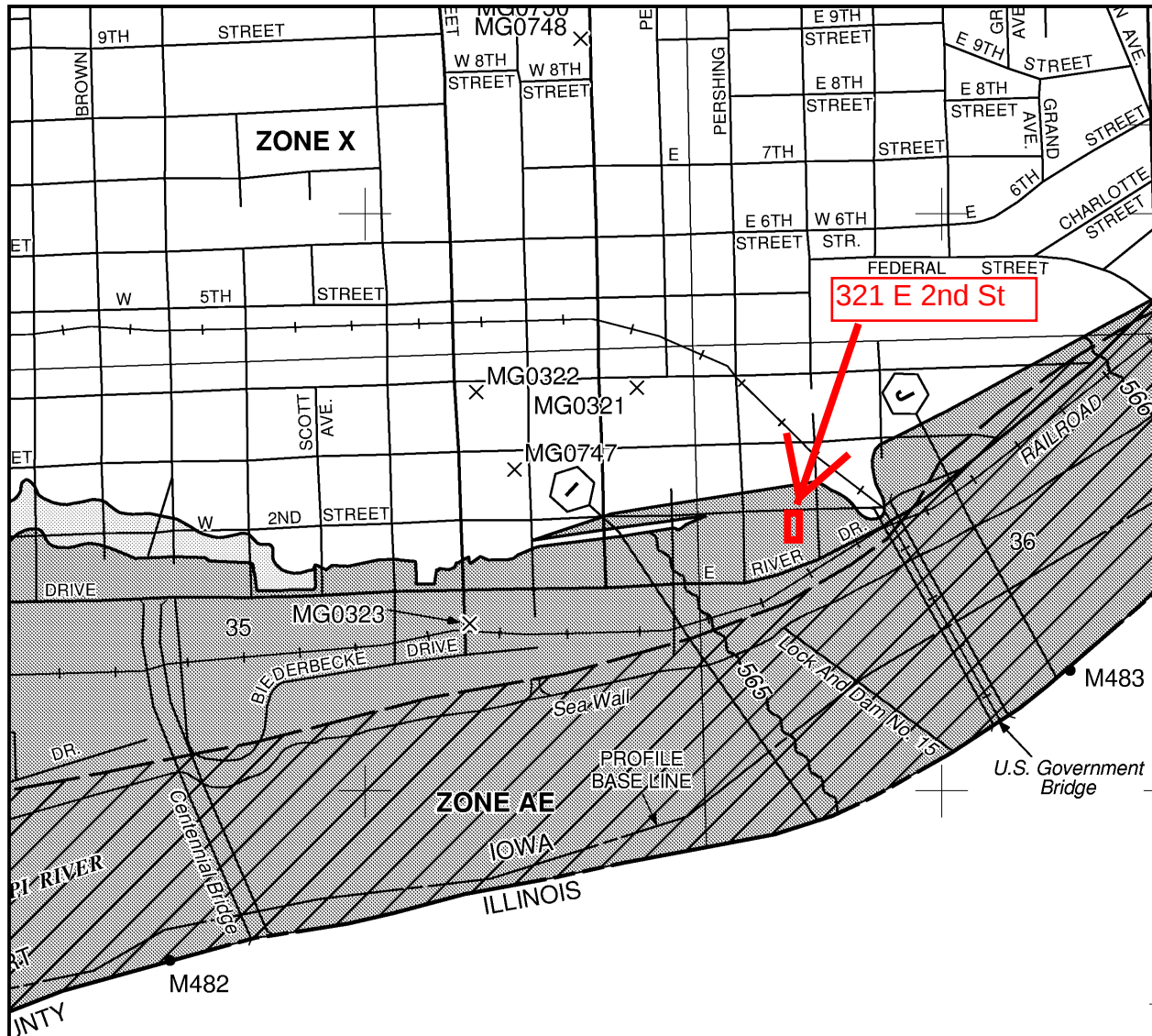
Staff recommends the Plan and Zoning Commission accept the listed findings, approve the request subject to the following conditions and forward Case No. FPV15-01 to the Iowa Department of Natural Resources for its concurrence.

1. that the existing and proposed utility systems meet the elevation and/or floodproofing requirements. Backflow prevention, is required for water and sanitary services located below the BFE plus one-foot.

2. that the Iowa Department of Natural Resources concurrence is required prior to issuance of a floodplain development permit and building permit. This concurrence shall be provided with application for these permits.
3. that the petitioner provide a the comments from the State Historic Preservation Office regarding the impact of floodproofing measures on the property's continued eligibility as a contributing structure.

Prepared by:

Wayne Wille, CFM
Planner II



NFIP

PANEL 0365F

FIRM
FLOOD INSURANCE RATE MAP
SCOTT COUNTY,
IOWA
AND INCORPORATED AREAS

PANEL 365 OF 500

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DAVENPORT, CITY OF	190242	0365	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

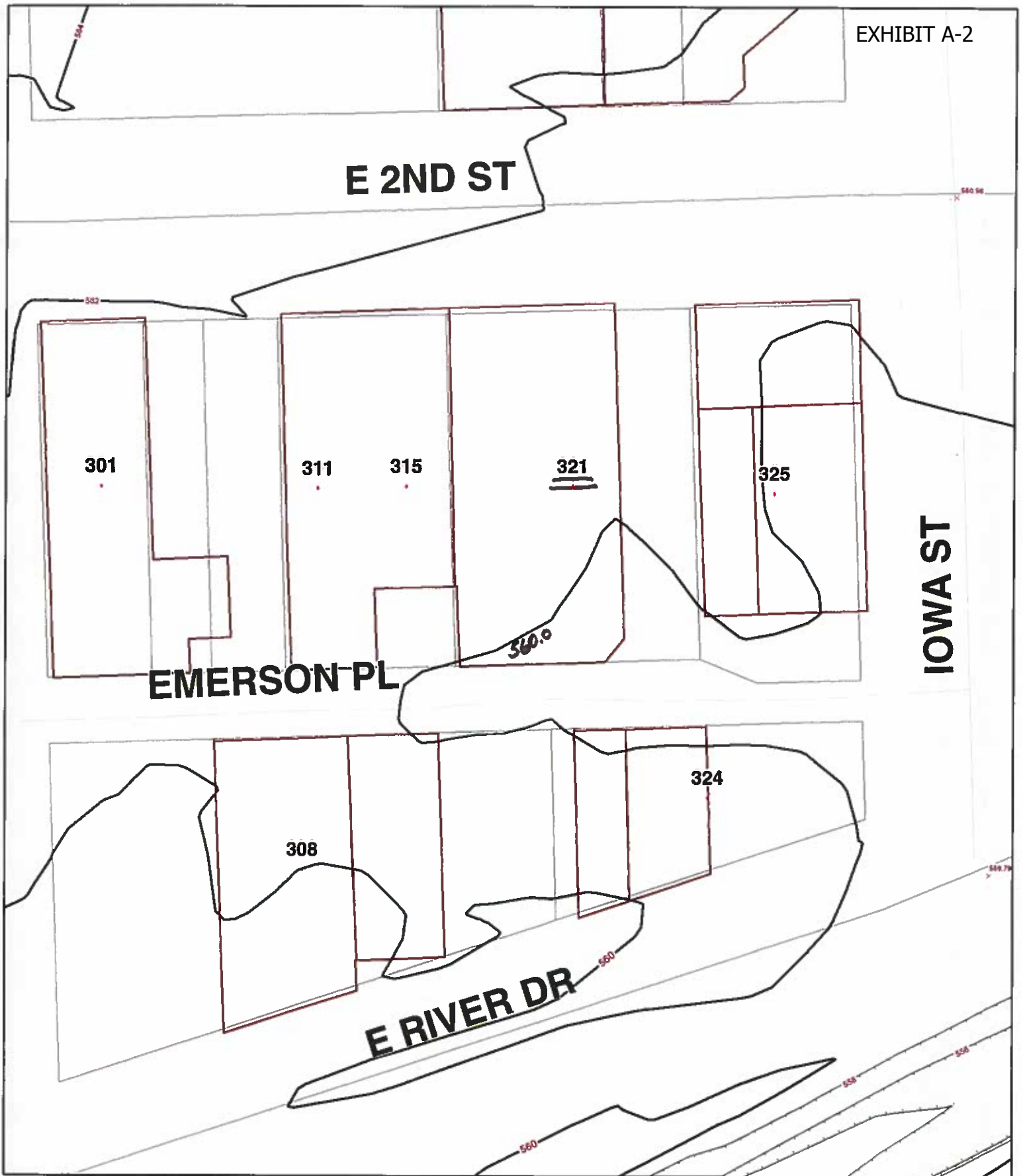


MAP NUMBER
19163C0365F

EFFECTIVE DATE
FEBRUARY 18, 2011

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



BASE FLOOD ELEVATION

564.9 FT NGVD29 FIRM/FIS DATUM
564.7 FT NAVD88 CITY CONTOUR DATUM

0 25 50 100 Feet



ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1-9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A - PROPERTY INFORMATION				FOR INSURANCE COMPANY USE	
A1. Building Owner's Name J & T Enterprises				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 321 E. 2nd Street				Company NAIC Number:	
City Davenport		State Iowa		ZIP Code 52803	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Lot 12, Part of Lot 13, Block 63, LeClaire's 3rd Add. to City of Davenport, Scott County, Iowa					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>non-residential</u>					
A5. Latitude/Longitude: Lat. <u>41d31'216.23"N</u> Long. <u>90d34'13.17"W</u> Horizontal Datum: ☐ NAD 1927 ☒ NAD 1983					
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number <u>2A</u>					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) <u>8,320</u> sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>0</u>					
c) Total net area of flood openings in A8.b <u>0</u> sq in					
d) Engineered flood openings? ☐ Yes ☒ No					
A9. For a building with an attached garage:					
a) Square footage of attached garage <u> </u> sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u> </u>					
c) Total net area of flood openings in A9.b <u> </u> sq in					
d) Engineered flood openings? ☐ Yes ☐ No					
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number			B2. County Name Scott		B3. State Iowa
B4. Map/Panel Number 19163C0365F	B5. Suffix F	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date 02/18/2011	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 565.0'
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: ☒ FIS Profile ☐ FIRM ☐ Community Determined ☐ Other/Source: <u> </u>					
B11. Indicate elevation datum used for BFE in Item B9: ☒ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: <u> </u>					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No Designation Date: <u> </u> ☐ CBRS ☐ OPA					

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 321 E. 2nd Street			Policy Number:	
City Davenport	State Iowa	ZIP Code 52803	Company NAIC Number	

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

- C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☒ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

- C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO.
Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: GPS acquired Vertical Datum: _____

Indicate elevation datum used for the elevations in items a) through h) below.

☒ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____

Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

- | | | |
|---|--------------|--|
| a) Top of bottom floor (including basement, crawlspace, or enclosure floor) | <u>554.8</u> | ☒ feet ☐ meters |
| b) Top of the next higher floor | <u>563.8</u> | ☒ feet ☐ meters |
| c) Bottom of the lowest horizontal structural member (V Zones only) | <u>N/A</u> | ☒ feet ☐ meters |
| d) Attached garage (top of slab) | <u>N/A</u> | ☒ feet ☐ meters |
| e) Lowest elevation of machinery or equipment servicing the building
(Describe type of equipment and location in Comments) | <u>563.8</u> | ☒ feet ☐ meters |
| f) Lowest adjacent (finished) grade next to building (LAG) | <u>560.1</u> | ☒ feet ☐ meters |
| g) Highest adjacent (finished) grade next to building (HAG) | <u>561.0</u> | ☒ feet ☐ meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support | <u>560.1</u> | ☒ feet ☐ meters |

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No ☐ Check here if attachments.

Certifier's Name Michael D. Richmond		License Number 23503
Title Licensed Land Surveyor		
Company Name Townsend Engineering		
Address 2224 E. 12th Street		
City Davenport	State Iowa	ZIP Code 52803
Signature <i>Michael D. Richmond</i>	Date 8-31-16	Telephone (563) 386-4236



Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)
HVAC and HW heater on next higher floor. Electric wires and lighting on basement ceiling.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 321 E. 2nd Street			Policy Number:
City Davenport	State Iowa	ZIP Code 52803	Company NAIC Number

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.
- E3. Attached garage (top of slab) is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.
- E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name			
Address	City	State	ZIP Code
Signature	Date	Telephone	
Comments			

☐ Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 321 E. 2nd Street			Policy Number:
City Davenport	State Iowa	ZIP Code 52803	Company NAIC Number

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

- G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3. ☐ The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued
-------------------	------------------------	---

- G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement
- G8. Elevation of as-built lowest floor (including basement) of the building: _____ ☐ feet ☐ meters Datum _____
- G9. BFE or (in Zone AO) depth of flooding at the building site: _____ ☐ feet ☐ meters Datum _____
- G10. Community's design flood elevation: _____ ☐ feet ☐ meters Datum _____

Local Official's Name	Title
-----------------------	-------

Community Name	Telephone
----------------	-----------

Signature	Date
-----------	------

Comments (including type of equipment and location, per C2(e), if applicable)

☐ Check here if attachments.

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.
321 E. 2nd Street

FOR INSURANCE COMPANY USE

Policy Number:

City
Davenport

State
Iowa

ZIP Code
52803

Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.



Photo One

Photo One Caption North - front side



Photo Two

Photo Two Caption East side

Site Inventory FormState Historical Society of Iowa
7/10/2005 Printed from DatabaseInventory #: **82-05395**Criteria Considerations
A B C D A B C D E F GOpinion
Not Eligible
In District:Source - Year
Consultant-2005Review & Compliance
NRHP Listed:Non-Extant: **No** Non-Extant Year:**1. Name of Property**historic name: **Iowa Bearing Co.**
other names:**2. Location**street & number: **321 E 2nd St**
City: **Davenport**Vicinity: **No** County: **Scott**Legal Description: (If Rural)
(If Urban)Subdivision: **LeClaire's 3rd Add.**Block: **63**Lot: **12****5. Classification**

Category of Property:

Building(s)

Number of Resources within Property

Contributing: Non-Contributing:

1	0	Buildings
0	0	Sites
0	0	Structures
0	0	Objects
1	0	Total

Name of related survey or MPS

6. Function or Use

Historic Functions

COMMERCE/TRADE/business

Current Functions

OTHER**7. Description**

Architectural Classification

Roof Form: Flat

Materials

Foundation: **Stone**Walls: **Brick**

Roof:

Other:

8. Statement of Significance

Applicable National Register Criteria

Y A: Significant Events

N B: Significant Persons

N C: Architectural Characteristics

N D: Archaeology

(Y=Yes N=No M=More Research Recommended)

Area of Significance

Commerce

Criteria Considerations

A: Religious Institution

B: Moved

C: Birthplace or Grave

D: Cemetery

E: Reconstructed

F: Commemorative Property

G: Less than 50 Years of Age

Significant Dates

Construction Year:

1922

Circa

Other Dates:

Significant Person:

Architect:

Builder

10. Geographic Data

UTM References:

Iowa Department of Cultural Affairs
State Historical Society of Iowa
Iowa Site Inventory Form
Continuation Sheet

Site Number 82-05395
Related District Number _____

Page 1

Name of Property Iowa Bearing Co., Inc. County Scott

Address 321 E. 2nd Street City Davenport

SITE DESCRIPTION

The Iowa Bearing Co. building is located on Lot 12, Block 63 of LeClaire's 3rd Addition to the Original Town of Davenport. The structure is sited on the south side of E. 2nd Street, near the middle of the block; its façade faces north. It is neighbored on the east by a parking lot and adjoined on the west by a commercial structure of similar scale and construction period. An east-west alley bisects the block at its rear. A public sidewalk runs the perimeter of the block and flush to the building, providing access to its entrance on E. 2nd Street.

PROPERTY DESCRIPTION

The Iowa Bearing Co. building is a doublewide, two-story, brick structure constructed on a stone foundation. The structure is rectangular in form, with the flat roof typical of commercial structures.

Also typical of commercial structures, the façade is broken into three basic parts: the street level, the upper wall and the cornice. In this building, the street level façade features a centralized entrance with a pedimented surround. Paired, oversized windows flank the entrance, each with a metal, rolled awning. The windows on the east retain their historic configuration, while a single, fixed pane of glass fills each of those on the west.

The upper story of this structure features an unusual grouping of windows; three sets of two at the center with a single window set apart on either side. All are undersized, 1/1 double-hung windows, visually united by a running header, which ends at the piers of the outside walls.

The horizontal banding of the running header, defines the upper portion of the façade and provides the transition to the parapet.

Condition

As a masonry construction, the greatest concern for this building is the condition of its brick, which shows no apparent evidence of joint loss or brick deterioration. The sash of the upper story windows appear to be original and are in need of maintenance (not replacement.)

Despite the retrofitting of some of the street level windows and the addition of the rolled awnings, the Iowa Bearing Co. building retains a high level of historic integrity.

PROPERTY HISTORY

The Iowa Bearing Co. building was constructed in c.1922, though its original occupant is not known. By the 1940s, Iowa Bearing Co. occupied the structure. By the mid-1950s the Federal Distributing Company was located in the building.

STATEMENT OF SIGNIFICANCE

The Iowa Bearing Co. is not considered individually eligible for listing in the National Register of Historic Places, however, in association with the history of commerce in Davenport, the structure is considered a contributing resource to a historic district, should a case be made for such a district.

Iowa Department of Cultural Affairs
State Historical Society of Iowa
Iowa Site Inventory Form
Continuation Sheet

Site Number 82-05395
Related District Number

Page 2

Name of Property Iowa Bearing Co., Inc. County Scott

Address 321 E. 2nd Street City Davenport



View of the primary (north) elevation, looking southeast across E. 2nd Street.

(SOURCE: AKAY Consulting – November 2004)

Iowa Department of Cultural Affairs
State Historical Society of Iowa
Iowa Site Inventory Form
Continuation Sheet

Site Number 82-05395
Related District Number

Page 3

Name of Property Iowa Bearing Co., Inc. County Scott

Address 321 E. 2nd Street City Davenport



View of the primary (north) and east elevations, looking southwest across E. 2nd Street.

(SOURCE: AKAY Consulting – November 2004)

Iowa Department of Cultural Affairs
State Historical Society of Iowa
Iowa Site Inventory Form
Continuation Sheet

Site Number 82-05395
Related District Number

Page 4

Name of Property Iowa Bearing Co., Inc. County Scott

Address 321 E. 2nd Street City Davenport



View of the rear (south) elevation.

(SOURCE: AKAY Consulting – November 2004)

Iowa Department of Cultural Affairs
State Historical Society of Iowa
Iowa Site Inventory Form
Continuation Sheet

Site Number 82-05395
Related District Number _____

Page 5

Name of Property Iowa Bearing Co., Inc. County Scott

Address 321 E. 2nd Street City Davenport



View of Iowa Bearing Co., Inc. within the context of its streetscape (looking east along E. 2nd Street from Pershing.)

(SOURCE: AKAY Consulting – November 2004)

Iowa Department of Cultural Affairs
State Historical Society of Iowa
Iowa Site Inventory Form
Continuation Sheet

Site Number 82-05395
Related District Number _____

Page 6

Name of Property Iowa Bearing Co., Inc. County Scott

Address 321 E. 2nd Street City Davenport



This c.1945 image documents the Iowa Bearing Co.'s mid-century appearance.

(SOURCE: Image courtesy of the Richardson-Sloane Special Collection of the Davenport Public Library.)

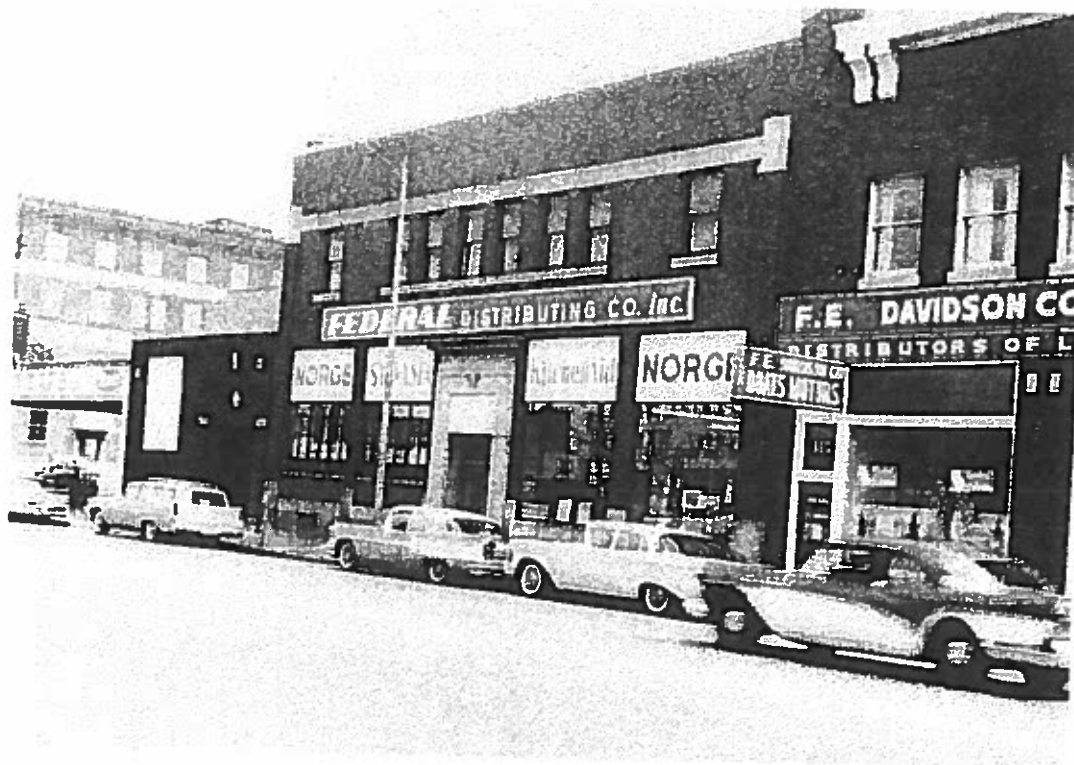
Iowa Department of Cultural Affairs
State Historical Society of Iowa
Iowa Site Inventory Form
Continuation Sheet

Site Number 82-05395
Related District Number _____

Page 7

Name of Property Iowa Bearing Co., Inc. County Scott

Address 321 E. 2nd Street City Davenport



This c.1955 image of a portion of E. 2nd Street shows the Iowa Bearing Co. building at center, providing documentation that the early façade was largely intact at that time.

Note that the one-story building to the east has been razed; the only remnant a wall on the alley side.

(SOURCE: Putnam Museum of History and Natural Science - Davenport, Iowa.)

Iowa Department of Cultural Affairs
State Historical Society of Iowa
Iowa Site Inventory Form
Continuation Sheet

Site Number 82-05395
Related District Number

Page 8

Name of Property Iowa Bearing Co., Inc. County Scott

Address 321 E. 2nd Street City Davenport



This 1966 view of E. 2nd Street shows the Iowa Bearing Co. building within the context of its mid-century streetscape.

(SOURCE: Putnam Museum of History and Natural Science - Davenport, Iowa.)

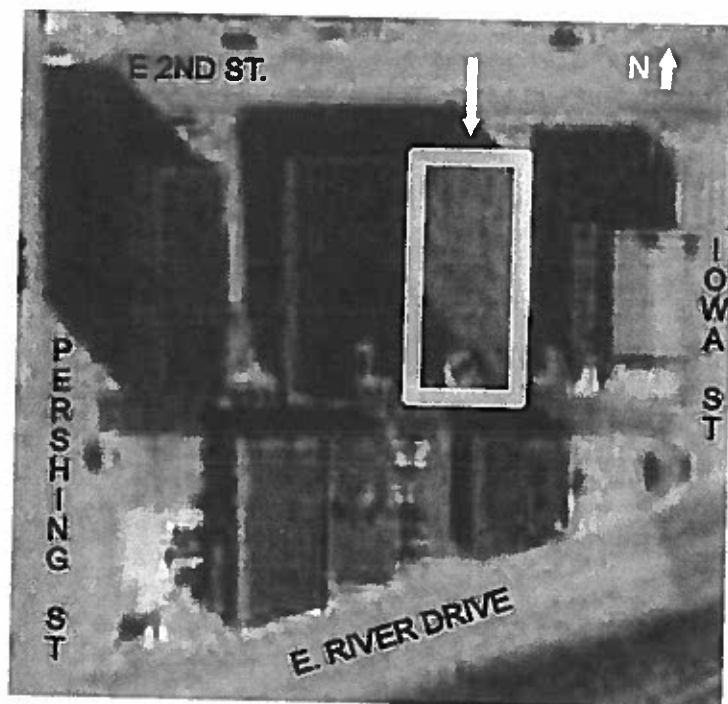
Iowa Department of Cultural Affairs
State Historical Society of Iowa
Iowa Site Inventory Form
Continuation Sheet

Site Number 82-05395
Related District Number

Page 9

Name of Property Iowa Bearing Co., Inc. County Scott

Address 321 E. 2nd Street City Davenport



The arrow indicates the location of the Iowa Bearing Co. building.

(SOURCE: City of Davenport – Planning Department – 1/2005)

Iowa Department of Cultural Affairs
State Historical Society of Iowa
Iowa Site Inventory Form
Continuation Sheet

Site Number 82-05395
Related District Number _____

Page 10

Name of Property Iowa Bearing Co., Inc. County Scott

Address 321 E. 2nd Street City Davenport

BIBLIOGRAPHIC REFERENCES

Special Collections

Davenport Public Library; Richardson-Sloane Special Collections
Davenport City Directory Collection 1890-1940
Sanborn Fire Insurance Map Collection
Quad Cities Photograph Collection

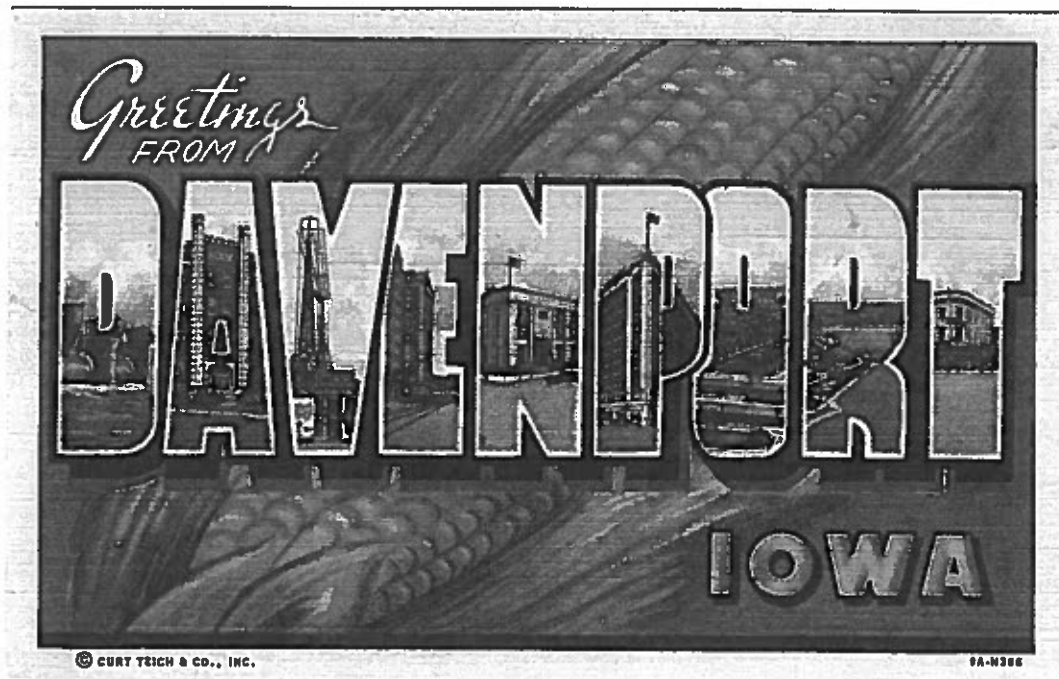
Putnam Museum of History and Natural Science. Davenport, Iowa.

Local Publications

Svendsen, Marlys. "Davenport, Where the River Runs West: A Survey of Davenport History & Architecture". ND.

Internet Resources

www.scottcountyiowa.com/assessor. Scott County Assessor.



ARCHITECTURAL & HISTORICAL SURVEY

"Davenport Central Business District"

2004-2005

Completed for

The City of Davenport

Completed by

AKAY Consulting
Alexa McDowell, Architectural Historian
Boone, Iowa

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number _____ F _____ Page _____ 18 _____

Davenport Central Business District

Summary of Survey Results, cont'd.

A single area, with a concentration of historic resources, and bearing a reasonable level of historic integrity, was identified during the present survey and evaluation of the Davenport Central Business District. Referred to here as the "East End Historic District", this potential district represents the transition between the commercial sector that historically dominated the west portion of the Central Business District and the wholesale and manufacturing area at the east end of the downtown. This approximately three-block district stands alone as an intact grouping of historic resources with the majority of its historic structures retaining a reasonable level of historic integrity. The potential district provides a good cross-section of property types and of architectural styles, with representatives of construction eras ranging from c. 1886-c. 1945. Along with the numerous individually eligible resources, the structures that comprise the "East End Historic District" are listed on the following pages with their associated contexts.

I. **THE IMPACT OF COMMERCE & INDUSTRY (c.1836-1960).** This Property Types includes districts, buildings, structures, sites, and features associated with *The Impact of Commerce & Industry (c.1836-1960)*

A. Description

Throughout its history, Davenport has relied on a wide range of commercial and industrial enterprises to drive its economy. In its earliest years, lumbering and milling were crucial in the process of jump-starting the fledgling community. As the town grew it began to take on the role of urban center, its downtown retail and wholesale sector serving a regional market.

This robust cross-section of commerce and industry resulted in a commingling of functions with pockets of concentrated property types. Retail business was historically centered along West Second Street and industry stayed nearer the riverfront east and west of the downtown core. The transitional areas between the core retail and outlying industrial interests commonly housed wholesale and manufacturing operations. Also important to note is that, as commerce and industry grew, concentrations of residential structures, common along River Drive (aka Front Street) and at the fringes of the survey area were removed to accommodate the developing commercial district.

Today, little evidence of the city's earliest large commercial and light industrial sector remains. However, the surviving resources represent a broad array of architectural styles and construction eras. Concentrations of early twentieth century manufacturing and wholesale businesses are found on the east and west ends of the survey area, and include the J.F. Kelly Wholesale Grocery Warehouse, Nash Finch Co., and G.F. Knostman & Sons on East Second, with Midwest-Timmerman, Builder's Lime & Cement, the Linograph Co., and International Harvester situated at the opposite end of Second Street.

The commercial core is comprised of a wide assortment of resources, ranging from the modest, early Victorian era buildings of the Davenport Plow Works to the multiple-story, modern hotels of the pre-World

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number F Page 19

Davenport Central Business District

"The Impact of Commerce and Industry", cont'd.

War II era. A handful of important examples of early residences also remain within the boundaries of the survey area. Of particular note are the Ranzow House and its neighbor across Western Avenue, the small, shotgun house of Julius Schreiber. These residences are included under the context of "The Impact of Commerce & Industry" in their ability to illustrate the commingling of commercial and residential structures common in the west end of the Davenport downtown.

On the whole, the Davenport Central Business District, while fragmented, retains the ability to tell the story of a long and important commercial and industrial history that boasts significant contributions to the growth and development of the city and the region it served.

B. Significance

The significance of a historic resource relies on its ability to illustrate The Impact of Commerce & Industry on the physical growth and development of the city in general, and the neighborhood (district) in which the resource is located, specifically.

For example, G.F. Knostman & Sons, a furniture store on East Second Street, is considered significant in its historic association with the retail and wholesale marketing of furniture during the last quarter of the 19th Century. As such, the building provides an important view of the city's commercial success during that period of its history. Likewise, the Putnam-Parker building, constructed some thirty years after the Knostman building, continues the story of the city's commercial contributions.

C. Registration Requirements

"Registration Requirements" outline the specific criteria that should be used to determine each resource's historic association with the context. Each "Criterion", addresses a resource's specific association within the historic context. Does the resource contribute to our understanding of the history of "The Impact of Commerce & Industry" in Davenport in its direct association with the context? In its association with persons significant to the context? Or in its architecture, which may reflect a style or building technology specific to the context?

For example, as a manufacturing facility of the early twentieth century, the Linograph Building on West River Drive is considered significant in its specific association with the historic context of "The Impact of Commerce & Industry" (Criterion A). The building also bears potential significance as an example of industrial construction technology of the early twentieth century (Criterion C).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number _____ F _____ Page _____ 20 _____

Davenport Central Business District

"The Impact of Commerce and Industry", cont'd.

The "Registration Requirements" are as follows:

1. **Significance.** Significance as it relates to the context *The Impact of Commerce & Industry (c.1836-c.1960)*.
 - a. Criterion A: Resources that directly illustrate "The Impact of Commerce & Industry" on the physical growth and development of the community.
 - b. Criterion B: Resources directly associated with individuals who played an important role specific to "The Impact of Commerce & Industry".
 - c. Criterion C: Resources with significant architectural styles or influences reflective of "The Impact of Commerce and Industry" on the development of the community.
 - d. Criterion D: Site of non-extant properties that contain intact subsurface deposits with the potential to provide information concerning the material culture of identifiable resources associated with "The Impact of Commerce & Industry".
2. **Qualifying resource types.** Qualifying resource types will include those with direct or *significant* indirect relationship(s) to the context of "The Impact of Commerce & Industry" (c.1836-1960).
3. **Building Materials.** Qualifying building materials include wood, stone, brick, metal, concrete, and iron.
4. **Relocated resources.** If a resource has been relocated, the relocation must have taken place more than fifty years ago, and the resource's integrity should not have been significantly compromised by the move. Issues to consider when assessing potential loss of integrity include the retention of significant architectural elements, limitation of alterations due to the move, and a context sympathetic to the resource.
5. **Integrity Considerations.** The measure for determining the integrity of each resource is the retention of sufficient stylistic elements, materials, and setting as corresponds to the period of significance.

Stylistic elements are those features, which together, create the building's historic character. The elements vary from resource to resource and may include the shape of the roof, the style and shape of the window openings, applied ornamentation (i.e. columns, cornice), and exterior materials. The question to be asked when assessing the integrity of a resource is: Does the

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number _____ F _____ Page _____ 21 _____

Davenport Central Business District

"The Impact of Commerce and Industry", cont'd.

resource, in its present condition, retain a solid sense of its historic character? Or have the changes made to its exterior masked or erased that character? While this assessment can be somewhat subjective, the following guidelines will aid in making a reasonable determination of a resource's historic integrity. They are organized by property type to assist in their use.

Parks. No landscape resources have been identified under this context. Should resources be identified, integrity considerations should be addressed.

Commercial Resources. The basic shape and proportion of commercial resources must be intact, though additions to or loss of parts of the original structure may be acceptable if they do not diminish the integrity of the resource as determined by its period significance. For example, the addition of the elevator shaft to the exterior of the Blackhawk Hotel, while ungainly, does not infringe on the overall impact of its original shape and proportion and so does not significantly diminish its historic integrity.

The assessment of facade fenestration (windows) should address original placement as well as changes in form, light configuration (the number and shape of the individual panes of glass set within the window sash), and applied ornament. The loss or infill of upper story windows can dramatically alter the character of a commercial resource, making a thorough assessment of their historic integrity particularly important. As noted, pay specific attention to windows that have been moved or permanently filled in. Also make note of the loss of shape (i.e. is the header flat rather than its original curved form?), light configuration (i.e. have modern, fixed pane windows replaced the original double-hung sash?), and applied ornament (i.e. have the historic window hoods been removed?)

The retention of style defining elements is crucial to the resource's historic character. The removal or covering of style (character) defining elements may significantly reduce the historic integrity of a resource.

In commercial structures, the loss of character defining elements is commonly an issue at the storefront level where multiple changes in ownership and function often result in the most drastic loss of historic character. Balance any loss of storefront integrity with that of the upper façade, as the resource's overall historic character is of the greatest importance.

Residences. As was noted with commercial structures, the basic shape and proportion of residential resources must be intact. Additions to or removal of sections of the original structure may be acceptable if they do not diminish the integrity of the resource as determined by its period significance.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number _____ F _____ Page _____ 22 _____

Davenport Central Business District

"The Impact of Commerce and Industry", cont'd.

Likewise, consideration of facade fenestration (windows) should address original placement as well as changes in form, light configuration (the number and shape of the individual panes of glass set within the window sash), and applied ornament. As noted previously, the retention of style defining elements is crucial as their absence can result in the loss of visual identity. Because the addition of artificial siding is a common occurrence in residential construction, an assessment of the impact of any modern siding should be carefully considered. Be particularly alert for the loss or masking of historic details such as window headers and sills, finish trim and cornice molding. Any introduction of artificial siding must not detract from the resource's integrity and should be considered acceptable on a *very limited* basis. It is especially important that resources under consideration for individual eligibility (versus a contributing property to a historic district) should hold firm to this standard.

Districts. As indicated previously, historic districts are comprised of a grouping of significant resources that, as a whole, contribute to our understanding of history (events, persons, architecture, etc.) Individual properties that are considered contributing resources to a district must convey a sense of historic integrity associated with the era of significance.

In addition to a demonstrated contribution to the significance of the district, the integrity of the contributing resources should be assessed in a similar manner to that discussed in the above paragraphs. When considering their historic integrity, the key structures in the district should be held to a high standard, with few, if any, alterations. Modern siding, new windows, additions, and other significant alterations should be carefully reviewed when assessing contributing properties.

- 5. Eligible or Potentially Eligible Properties.** Through the course of the 2004-2005 survey and evaluation project, the resources listed on the following pages were identified as bearing the potential for inclusion in the National Register of Historic Places. They are organized as district or individual resources.

Please note that the designation of a district resource as "contributing" is specific to this context. Some resources may contribute in a single contextual association, others in multiple contexts, and, a few, do not contribute to the significance of the district at all.

See following pages.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number _____ F _____ Page _____ 23 _____

Davenport Central Business District

"The Impact of Commerce and Industry", cont'd.

Historic District - "East End Historic District"

Property Address	Historic Name	Other Name	Status
111 Perry St.	Nash Finch Co.		Contributing
117 Perry St.	Hose Station No. 1		Register Listed
201 E. 2nd St.		Major Art & Hobby	Contributing
205 E. 2nd St.		Blue Hue Tattoo	Contributing
207 E. 2nd St.	G.F. Knostman & Son		Ind. Eligible
217 E. 2nd St.	Crane Co.		Contributing
225 E. 2nd St.	J.F. Kelly Wholesale Grocery		Contributing
208 E. River Dr.	Front Street Brewery		Contributing
211 Pershing		Vacant	Non-contributing
318 E. 2nd St.	Davenport Buick		Contributing
322 E. 2nd St.		Vacant	Non-contributing
210 Iowa St.	Lujack-Schierbrock		Contributing
218 Iowa St.	Emeis Electric		Contributing
313 E. 3rd St.		Storage	Contributing
323 E. 3rd St.		Sergeant Pepper's	Non-contributing
301 E. 3rd St.	Firestone		Ind. Eligible
301 E. 2nd St.	Davenport Bag & Paper		Ind. Eligible
311 E. 2nd St.	Motor Rim & Wheel		Contributing
321 E. 2nd St.	Iowa Bearing Co.		Contributing
325 E. 2nd St.		Iowa Pawn	Contributing
324 E. River Dr.		Scuba Adventures	Non-contributing

Individually Eligible Resources

Property Address	Historic Name	Other Name
104 W. 2nd St.	Putnam-Parker Building	
601 W. 2nd St.	International Harvester	
301 E. 2nd St.	Davenport Bag & Paper	
207 E. 2nd St.	G.F. Knostman & Son	
225 E. 2nd St.	J.F. Kelly Wholesale Grocery Warehouse	
110 W. 3rd St.	Scott County Savings Bank	
224 W. 3rd St.		Del Rich Co.
304 W. 3rd St.		Dalton's Sports Bar

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number _____ F _____ Page _____ 29 _____

Davenport Central Business District

"The Impact of the Immigrant", cont'd.

Individually Eligible Resources

Property Address	Historic Name	Other Name
207 E. 2nd St.	G.F. Knostman & Sons	
527 W. 4th St.	Ferd Haak-Victor Animatograph Co.	
609 W. 4th St.	Danish Brotherhood	
332 Harrison St.	U.N. Roberts & Co.	Jacobsen Cigar Co.
114 Western Ave.	Midwest-Timmerman Co.	

III. **Property Type:** District, buildings, structures, sites, and features associated with the context of *The Impact of Architecture (c.1880-1960)*

A. Description

The architecture, or built environment of a community of any size or configuration, tells the story; the story of settlement, growth and development, its people, and its struggles – all set over a period of many years. This storytelling is done through an interpretation of the resources; their location, relationship to surrounding structures or natural environmental features (i.e. the river), architectural style, construction materials, architect, and significant human associations all illustrate the impact a district, building, structure, site or object may have on its community.

The context of "The Impact of Architecture" is utilized to identify the impact of various forces on the resources of the survey area. Because Davenport is located on the Mississippi River between the metropolitan areas of St. Louis and Chicago, "big city" influences are evident. Architectural stylistic trends and technological advancements found their way to Davenport with some ease, the significance of that influence is considered in this context of "The Impact of Architecture".

B. Significance

Significance relies on a resource's ability to illustrate "The Impact of Architecture (c.1880-c.1960)" on the physical growth and development of the city in general, and the neighborhood (district) in which the resource is located, specifically.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number F Page 30

Davenport Central Business District

"The Impact of Architecture", cont'd.

C. Registration Requirements

"Registration Requirements" outline the specific criteria that should be used to determine each resource's historic association with the context. Each "Criterion", addresses a resource's specific association within the historic context. Does the resource contribute to our understanding of the history of "The Impact of Architecture" in Davenport in its direct association with the context? In its association with persons significant to the context? Or in its architecture, which may reflect a style or building technology specific to the context?

For example, the present Scott County Courthouse, constructed in 1955, is an important example of the use of the technologies and stylistic influences of the Modern Movement, most obvious in the use of stainless steel panels as its exterior finish material. The Petersen building on West Second Street was listed in the National Register, significant for its architecture, the design of which is directly attributed to the influence of the Chicago School. Further, the Petersen building is significant in its association with the local architect Frederick G. Clausen.

The "Registration Requirements" are as follows:

1. **Significance.** Significance as it relates to "The Impact of Architecture (c.1880-c.1960)".
 - a. **Criterion A:** Resources that directly illustrate "The Impact of Architecture".
 - b. **Criterion B:** Resources directly associated with individuals who played an important role specific to "The Impact of Architecture."
 - c. **Criterion C:** Resources with significant architectural styles or influences reflective of "The Impact of Architecture".
 - d. **Criterion D:** Site of non-extant properties that contain intact subsurface deposits with the potential to provide information concerning the material culture of identifiable resources associated with "The Impact of Architecture."
2. **Qualifying resource types.** Qualifying resource types will include those with direct or significant indirect relationship(s) to the context of "The Impact of Architecture (c.1880-c.1960)".
3. **Qualifying building materials.** Qualifying building materials include wood, stone, brick, metal, concrete, and iron.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number _____ F _____ Page _____ 31 _____

Davenport Central Business District

"The Impact of Architecture", cont'd.

4. **Relocated Resources.** If a resource has been relocated, the relocation must have taken place more than fifty years ago, and the resource's integrity should not have been significantly compromised by the move. Issues to consider when assessing potential loss of integrity include the retention of significant architectural elements, limitation of alterations due to the move, and a context sympathetic to the resource.
5. **Integrity Considerations.** The measure for determining the integrity of each resource is the retention of sufficient elements of the stylistic elements, materials, and setting as corresponds to the period of significance.

Stylistic elements are those features, which together, create the building's historic character. The elements vary from resource to resource and may include the shape of the roof, the style and shape of the window openings, applied ornamentation (i.e. columns, cornice), and exterior materials. The question to be asked when assessing the integrity of a resource is: Does the resource, in its present condition, retain a solid sense of its historic character? Or have the changes made to its exterior masked or erased that character?

While this assessment can be rather subjective, the following guidelines will aid in making a reasonable determination of a resource's historic integrity. They are organized by property type to assist in their use.

Parks. No landscape resources have been identified under this context. Should resources be identified, integrity considerations should be addressed.

Commercial Resources. The basic shape and proportion of commercial resources must be intact, though additions to or loss of parts of the original structure may be acceptable if they do not diminish the integrity of the resource as determined by its period significance.

For example, the addition of the elevator shaft to the exterior of the Blackhawk Hotel, while ungainly, does not infringe on the overall impact of its original shape and proportion and so does not significantly diminish its historic integrity.

The assessment of facade fenestration (windows) should address original placement as well as changes in form, light configuration (the number and shape of the individual panes of glass set within the window sash), and applied ornament. The loss or infill of upper story windows can dramatically alter the character of a commercial resource, making a thorough assessment of their historic integrity particularly important. As noted, pay specific attention to windows that have been moved or permanently filled in. Also make note of the loss of shape (i.e. is the header flat rather than its original curved form?), light configuration (i.e. have modern, fixed

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number _____ F _____ Page 32 _____

Davenport Central Business District

"The Impact of Architecture", cont'd.

pane windows replaced the original double-hung sash?), and applied ornament (i.e. have the historic window hoods been removed?)

The retention of style defining elements is crucial to the resource's historic character. The removal or covering of style (character) defining elements may significantly reduce the historic integrity of a resource.

In commercial structures, the loss of character defining elements is commonly an issue at the storefront level where multiple changes in ownership and function often result in the most drastic loss of historic character. Balance any loss of storefront integrity with that of the upper façade, as the resource's overall historic character is of the greatest importance.

Residences. As was noted with commercial structures, the basic shape and proportion of residential resources must be intact. Additions to or removal of sections of the original structure may be acceptable if they do not diminish the integrity of the resource as determined by its period significance.

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In addition to a demonstrated contribution to the significance of the district, the integrity of the contributing resources should be assessed in a similar manner to that discussed in the above paragraphs. When considering their historic integrity, the key structures in the district should

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number F Page 33

Davenport Central Business District

"The Impact of Architecture", cont'd.

be held to a high standard, with few, if any, alterations. Modern siding, new windows, additions, and other significant alterations should be carefully reviewed when assessing contributing properties.

5. Eligible or Potentially Eligible Properties. Through the course of the 2004-2005 survey and evaluation project, the following resources were identified as bearing the potential for listing in the National Register of Historic Places. They are organized as district or individual resources. Please note that the designation of a district resource as "contributing" is specific to this context. Some resources may contribute in a single contextual association, others in multiple contexts, and, a few, do not contribute to the significance of the district at all.

Historic District - "East End Historic District"

Property Address	Historic Name	Other Name	Status
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117 Perry St.	Hose Station No. 1		Register Listed
201 E. 2nd St.		Major Art & Hobby	Non-contributing
205 E. 2nd St.		Blue Hue Tattoo	Non-contributing
207 E. 2nd St.	G.F. Knostman & Son		Ind. Eligible
217 E. 2nd St.	Crane Co.		Contributing
225 E. 2nd St.	J.F. Kelly Wholesale Grocery		Contributing
208 E. River Dr.	Front Street Brewery		Contributing
211 Pershing		Vacant	Non-contributing
318 E. 2nd St.	Davenport Buick		Contributing
322 E. 2nd St.		Vacant	Non-contributing
210 Iowa St.	Lujack-Schierbrock		Contributing
218 Iowa St.	Emeis Electric		Contributing
313 E. 3rd St.		Storage	Non-contributing
323 E. 3rd St.		Sergeant Pepper's	Non-contributing
301 E. 3rd St.	Firestone		Ind. Eligible
301 E. 2nd St.	Davenport Bag & Paper		Ind. Eligible
311 E. 2nd St.	Motor Rim & Wheel		Non-contributing
321 E. 2nd St.	Iowa Bearing Co.		Non-contributing
325 E. 2nd St.		Iowa Pawn	Non-contributing
324 E. River Dr.		Scuba Adventures	Non-contributing



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Downtown Davenport Historic Resources Survey

**From Michael Allen, Director
June 28, 2017**

Progress

The intensive survey of downtown Davenport was completed this May, with inventory sheets generated for each building within the survey area, along with basic archival research. The survey forms included photographs of each building and assignment of a date of construction.

Research is needed to more correctly identify dates of construction for about half of the buildings. Previous surveys did not record those dates, and the Scott County Assessor records seem to be inaccurate.

The consultant submitted an eligibility assessment for a single National Register of Historic Places district centered on a contiguous mass of resources in the core of downtown. The Iowa State Historic Preservation Office responded by suggesting a larger boundary as well as the submission of a second district concentration on Second Street identified as eligible by the consultant. These districts cannot be combined due to lack of connecting historic building mass at the River Center, although they could otherwise be joined in one district. Demolitions preclude listing of resources outside of these two areas except possible individually significant buildings.

The districts will advance to secure federal designation, but no local designation will be sought. Therefore no regulations on building exteriors or interiors accompany the next phase of work.

The consultant obtained all necessary streetscape photographs for the districts in May.

Current Goal

The consultant is at work on the next phase of tasks:

Completion of archival research to conclusively establish exact or circa dates for each building in the survey;

Completion of context research on Davenport that establishes historic significance for the two districts;

Completion of National Register of Historic Places nominations for each district.

The main nomination will be submitted in August to meet the Iowa State Historic Preservation Office's quarterly review cycle. This cycle includes mandatory consideration by the Iowa Historic Sites Advisory Council, which meets next in November. After that meeting, the nomination would be sent to the National Park Service for formal listing within 60 days. Since Iowa already agrees that the main district is eligible through formal review, the process should result in success and only entail technical corrections.

The Second Street district will be submitted in August or later depending on development of an argument for significance. Since it is a smaller group of buildings isolated from the main district, the argument may need to be quite lengthy.

EXHIBIT D

15.44.190 Variance procedures.

A. The city plan and zoning commission as established by the city shall hear and decide appeals and requests for variances from the requirements of this chapter.

B. The city plan and zoning commission shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the designated official in the enforcement or administration of this chapter.

C. Any person aggrieved by the decision of the city plan and zoning commission or any taxpayer may appeal such decision to the district court of Scott County as provided by law.

D. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

E. In passing upon such applications, the city plan and zoning commission shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and:

1. The danger that materials may be swept onto other lands or downstream to the injury of others;
2. The danger to life and property due to flooding, increased flood heights or erosion damage;
3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
4. The proposed water supply and sanitation systems and the ability of the systems to prevent contamination, disease and unsanitary conditions;
5. The importance of the services provided by the proposed facility to the community;
6. The necessity to the facility of a flood plain and or waterfront location;
7. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
8. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future;
9. The relationship of the proposed use to the comprehensive plan and floodplain management program for the community and that area;
10. The safety of access to the property in times of flood for ordinary and emergency vehicles;
11. 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; and
12. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges;
13. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing subdivisions E.1 through E.12 have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

F. Upon consideration of the factors listed above and the purposes of this chapter, the city plan and zoning commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter. Such conditioning may include but not be limited to:

1. Modification of the water supply and/or waste disposal systems;
2. Limitation of the periods of use and operation;
3. Imposition of operational controls, sureties and/or deed restrictions;

4. Requirements for channel modification, dikes, levees and/or other protective measures provided such are approved by the Iowa Department of Natural Resources and are deemed the only practical alternative to achieve the stated purposes of this chapter.

G. Variances shall not be issued within any designated floodway, if any increase in flood levels during the base flood discharge would result.

H. Conditions for variances.

1. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

2. Variances shall only be issued upon:

a. Showing of good and sufficient cause;

b. Determination that failure to grant the variance would result in exceptional hardship to the applicant; and

c. Determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.

3. Any applicant to whom a variance is granted shall be given a written notice that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation and that such construction increases the risk to life and property.

4. The designated official shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

5. All variances granted shall have the concurrence or approval of the Department of Natural Resources. (Ord. 90-146 § 9: Ord. 87-206: Ord. 78-128 (part): prior code § 14.001 -- 16).

10-19-2017

Mr. Wayne Wille

Community Planning Division

City of Davenport

In response to your letter dated October 11th, 2017, 321 Partners LLC is requesting a floodplain variance that fit the criteria outlined by said communication. Of the three options presented by you, option three is the most appropriate for this historic tax credit redevelopment. As you pointed out, this building has an opinion of eligibility from 2005 and now has an approved Part 2 from the State Historic Preservation Office.

I'd like to address section H: conditions for variances specifically subsections 2b and 2c that outline the conditions most applicable to our historic redevelopment.

2. Variances shall only be issues upon:

b. Determination that failure to grant the variance would result in exceptional hardship to the applicant and

c. Determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.

2b: Failure to grant this variance shall prevent a development that intends to invest \$3,400,000 into a building currently assessed at \$198,090 from moving forward. The first floor tenants are vital to the success of this project. Requiring flood proofing one foot above base flood elevation, essentially more than 2 feet above the 1st floor, will: a) cause 321 Partners to incur expenses above and beyond an already expensive total project cost that will make the project financially infeasible & b) would be in direct violation of our historic preservation efforts.

The flood protection measures suggested in your letter would be in excess of the current value of the building which to me is the definition of financially infeasible. Even if 321 Partners were to only

complete \$100,000 of improvement work to building – which is not much – those improvements would still be classified as a “substantial improvement” and require hundreds of thousands of dollars to provide flood protection.

2c: The granting of this variance should have no impact on flood heights in downtown Davenport as the City currently uses the HESCO system for protection of this area. Frankly, if the City didn't employ their successful flood control techniques we wouldn't be considering this development.

321 Partners had engineers review the existing conditions and analyze the structural integrity of the building for flood conditions – as reflected in their letter, there would be no increased risk to the public safety due to granting the variances or create any nuisances/public expenses. Further, requiring an in-fill of the basement would not only be against the historical requirements of this building, it would potentially increase the flood heights (as the water would not fill-in the basement) which is against the intent of this requirement. Also, as stated by the structural engineer, not allowing the water to fill in the basement may actually result in increased structural loads (by not having the water in the basement to counter increased outside forces) which may pose additional threats to public safety.

In conclusion, the granting of this variance will continue the progress of development in Downtown Davenport and at the N.O. Nelson building. We thank you for your consideration and commitment to a vibrant downtown area and look forward to starting construction on this unique addition to the city of Davenport.

Sincerely,

Pete Stopulos

Member – 321 Partners LLC

NO Nelson Historic Renovation
321 East 2nd Street, Davenport, IA
Project Description

321 Partners is redeveloping the property at 321 E 2nd St using state and federal historic tax credits, into two 1st floor commercial spaces with outdoor patio to the east, eight 2nd floor apartments with a 3rd floor roof deck and a penthouse unit occupying the 3rd, 4th and 5th floors in what is current a former grain tower. The basement will be left unfinished and the basement elevator stop will be removed.

The first floor tenant on the west side will be Bootleg Hill Meadery, a tenant currently in Illinois and relocating their business to downtown Davenport. Bootleg hill will have a tasting room on the north side of their space with Mead production on the south side. Both the tasting room and the production area will accentuate the historic nature of the N.O. Nelson building by preserving the concrete columns and capitals, the concrete floors and the large glass windows looking out on to second street.

The east side first floor tenant will be a 4,000sf restaurant also new to the downtown area. The restaurant will feature a design that incorporates all the historical charm of the N.O. Nelson building while providing a modern culinary experience. An outdoor patio to the east will service the restaurant and Mead tenants.

Apartment design will continue the historic theme from the first floor by maintaining the exposed brick walls and concrete columns as well as adding fixtures that harken back to the original industrial use of the property. High end finishes will be used to provide a first class living experience for tenants at the N.O. Nelson building.

September 29, 2017

RE: Effects of Flooding on Structural Integrity on the Structure
at 321 E. 2nd St. Davenport, IA

To whom it may concern:

Select Structural Engineering (SSE) was contracted by 321 Partners, LLC through Russell Construction and Design Build By Architect to determine the effects of flooding on the structural integrity of the existing structure. Per the Federal Emergency Management Administration (FEMA), the Base Flood Elevation (BFE) occurs 3'-6" above existing average finished grade level. Since the first floor finished elevation is 2'-2" above finished grade, the basement, first floor, and overall structural integrity of the structure were reviewed.

In the event of a flood event, temporary measures will be taken to prevent flooding of the first floor of the building. However, the basement will not be made impervious to ground water and will be allowed to flood. Thus, additional hydrostatic pressure due to the flooding will be equalized. The walls of the basement are solid concrete and free from noticeable cracking, spalling, or other defects that would indicate structural failure. The concrete floor of the basement is in similar condition.

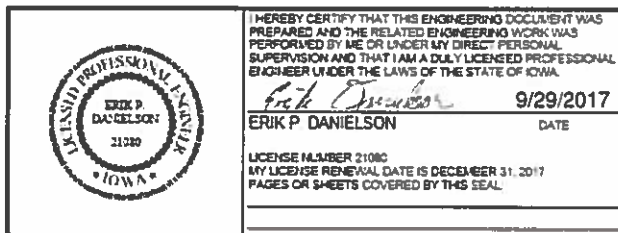
Assuming the interior of the first floor is to be kept dry during a flooding event, calculations on the exterior masonry curtain walls were performed to verify their ability to resist the additional loading. Based on the highest recorded current speed in the Mississippi River in the Davenport area of 5 feet per second, the maximum pressure exerted on the exterior masonry walls was determined approximately 60 pounds per linear foot (plf) on the wall directly facing the current and would be concentrated at the bottom of the wall. Assuming the brick is grouted solid, the shear stress induced in the wall would be negligible. Therefore, the walls should be capable of resisting the applied flood loading.

Finally, since hydrostatic pressure on all sides of the building would effectively cancel each other out and no attempt will be made to prevent water from entering the basement, the force placed on the structure is negligible compared to the other lateral and vertical design forces, i.e. wind or seismic, that the building is already designed to resist.

SSE believes that the flood action plan outlined by 321 Partners, LLC will not negatively affect the building's structural integrity.

Observation and report by Andrew Sederquist, EI

Reviewed by Erik Danielson, PE



APPENDIX

$$V := 5 \frac{ft}{sec} \quad \text{Based on the 1993 Mississippi flood}$$

$$\rho := 62 \text{ pcf} \quad \text{Water density}$$

$$g := 32.2 \frac{ft}{sec^2} \quad \text{Acceleration due to gravity}$$

$$f_k := \frac{1}{2} \cdot \rho \cdot \frac{V^2}{2 \cdot g} = 12.034 \text{ psf} \quad \text{Force of moving water on flat surface}$$

$$h := 565 \text{ ft} - 563.8 \text{ ft} = 1.2 \text{ ft} \quad \text{Difference of base flood elevation (BFE) and first floor}$$

$$f_h := \frac{1}{2} \cdot \rho \cdot h = 37.2 \text{ psf} \quad \text{Average hydrostatic pressure}$$

$$w := h \cdot (f_k + f_h) = 59.081 \text{ plf} \quad \text{Linear wall load due to flood}$$

$$t := 12 \text{ in} \quad \text{Wall thickness}$$

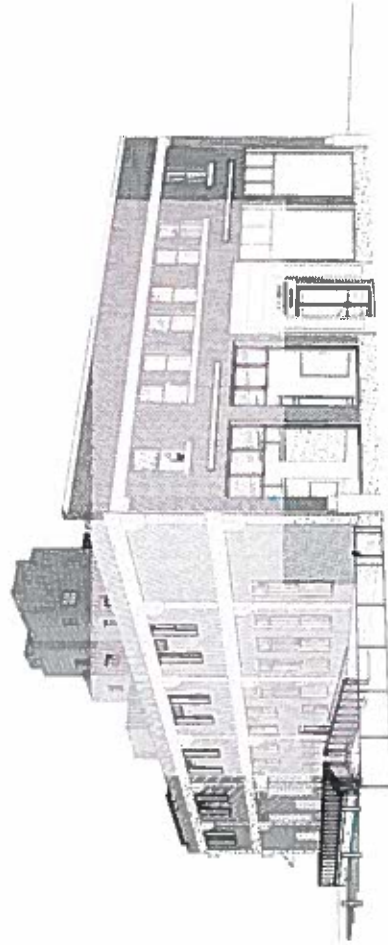
$$\tau := \frac{3}{2} \cdot \frac{w}{t} = 0.615 \text{ psi} \quad \begin{array}{l} < 35 \text{ psi min. per Masonry Standards Joint Committee} \\ \text{Shear stress in wall due to flood water} \end{array}$$

N.O. NELSON BUILDING

HISTORIC RENOVATION

321 E. SECOND ST.
DAVENPORT, IA 52807

BUILDING PERMIT SET
09-12-2017



① EXTERIOR VIEW FROM 1

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I HEREBY CERTIFY THAT THE PORTION OF THIS PERMIT SET INDICATED BY THE CIRCLE WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF IOWA.

PRINTED OR TYPED NAME: ANDREW J. DAVIDSON
SIGNATURE: [Signature]
I CERTIFY THAT I AM NOT PROVIDING ANY OTHER SERVICE TO THE CLIENT FOR THIS PROJECT.

DATE: 09-12-2017
PROJECT: 321 PARTNERS, LLC - BALDWIN & SONS RESTAURANT

Sheet Number	Sheet Name
A000	COVER SHEET
A001	USE SAFETY PLANS
A002	EXISTING BUILDING SITE PLAN
A003	EXISTING BUILDING SECTIONS
S-101	BASEMENT FIRST FLOOR MEZZANINE PLANS
S-102	SECOND THIRD FLOOR OPENING PLANS
S-103	THIRD FLOOR LOFT FOURTH FIFTH FLOOR FRAMING
S-104	ROOF PLAN
S-105	EXTERIOR WALKWAY
S-106	ELEVATOR PLAN
S-107	ELEVATOR AND STEEL FRAMING DETAILS
S-108	EXTERIOR FINISHES
S-109	STAIR DETAILS
A010	FIRST FLOOR & MEZZANINE DEMOLITION
A011	SECOND & THIRD FLOOR DEMOLITION
A012	FOURTH & FIFTH FLOOR DEMOLITION
A013	NORTH & SOUTH ELEVATIONS - DEMOLITION
A014	EAST & WEST ELEVATIONS - DEMOLITION
A015	BASEMENT & FIRST FLOOR PLAN
A016	MEZZANINE & SECOND FLOOR PLANS
A017	THIRD FLOOR LOFT
A018	FOURTH FLOOR
A019	FIFTH FLOOR
A020	ROOF - FIRST & SECOND
A021	ROOF - THIRD, FOURTH & FIFTH
A022	NORTH & SOUTH BUILDING ELEVATIONS
A023	EAST & WEST BUILDING ELEVATIONS
A024	BUILDING SECTIONS
A025	BUILDING SECTIONS
A026	BUILDING SECTIONS
A027	BUILDING SECTIONS
A028	BUILDING SECTIONS
A029	BUILDING SECTIONS
A030	BUILDING SECTIONS
A031	BUILDING SECTIONS
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A099	BUILDING SECTIONS
A100	BUILDING SECTIONS

Project Number	16-002
Drawn By	17-001
Checked By	17-001
Scale	A00
Sheet	A000



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Exterior
-Sidewalk
Grade = 0'-0"

CALL THE METERS

1. HALL BASE TO BE VENTED AND PROVIDED BY OWNER
2. WINDOW AND EXTERIOR TRIM TO BE INSTALLED BY OWNER REQUEST
3. SWITCH ON THE PAIR 8 WE CE SUPPLY
4. AS LOCATION OF BRICK TO FLOOR CALLS JOHN TO WATCH MECHANICAL

① MEZZANINE FLOOR PLAN - PROPOSED
1/8" = 1'-0"

Guidance for Mixed Use Development in Special Flood Hazard Areas

Floodplain Management Requirements for Residential and Non-Residential Structures under the National Flood Insurance Program (NFIP)

- Under the NFIP, all new and substantially improved residential and non-residential structures in Special Flood Hazard Areas (SFHAs) must be elevated to or above the Base Flood Elevation (BFE) (non-residential structures may be dry floodproofed to the BFE only in Zone A SFHA's).
- The NFIP allows new or substantially improved non-residential buildings in A Zones to have the lowest floor below the BFE provided the structure has been designed, constructed, and certified to be dry floodproofed and to meet established criteria. [44 CFR § 60.3(c)(3), (c)(4), and (c)(8)].
- The NFIP does not permit dry floodproofing of new or substantially improved residential structures in A Zones. [44 CFR § 60.3(c)(2)].
- In A Zones, all new and substantially improved structures are allowed to have enclosed areas below the lowest floor that are used solely for parking, building access, or storage in an area other than a basement which are subject to flooding, provided the enclosures meet certain requirements: flood openings [44 CFR 60.3 (c) (5)], flood damage-resistant materials [44 CFR 60.3 (a)(3)(ii), and equipment and utilities [44 CFR 60.3 (a) (3) (iv)]
- In V Zones, construction or substantial improvement of a structure with its lowest floor below the BFE is not allowed and dry floodproofing techniques are not permitted [44 CFR § 60.3(e)].

Mixed Use Structures

For determining what constitutes a "mixed use" structures, FEMA will not rely on community definitions for "mixed use" that communities may define as part of their land use regulations. A community's definition of "mixed use" is generally not based on flood hazards and the need to apply flood protection measures into the project. In addition, the square footage allocated between the residential and non-residential areas of mixed use structures has no bearing on the NFIP floodplain management requirements for mixed use structures. FEMA considers a building to be "mixed use" if it contains both non-residential (commercial) and residential uses.

The requirements for a new or substantially improved mixed use structures in an A Zone with residential areas and non-residential areas are as follows:

1. The lowest floor of all residential areas must be elevated to or above the BFE. The residential area includes all residential units, a lobby and foyer, and other finished ancillary areas (including, but not limited to laundry rooms, offices, mail room, party and board room, and exercise rooms) which support the residential units in the building.
2. The residential areas must have electrical, heating, ventilation, plumbing, and air conditioning equipment and other service equipment elevated to or above the BFE or designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding .
3. Any area below the lowest floor of the residential area that is enclosed to provide parking, access to the residential areas, or storage must be built with flood resistant materials and include flood openings in enclosure walls so that floodwaters can enter the enclosure to minimize damages [44 CFR 60.3(c)(5)]. If an enclosed access is provided from other than below the lowest floor of the residential area in a mixed use building and the enclosed access is below the BFE, the access must be built with flood resistant materials and have openings to allow flood waters to enter.
4. Elevators are a means of access to the areas above ground floor level. Certain elevator equipment that, by necessity, must be located at the bottom of the elevator shaft is allowed. (See NFIP Technical Bulletin 4 / November 2010 *Elevator Installation for Buildings located in Special Flood Hazard Areas in Accordance with the National Flood Insurance Program*)
5. The NFIP allows a new or substantially improved non-residential building in A Zones to have the lowest floor below the BFE, provided that the building is designed, constructed, and certified to be dry floodproofed and to meet established criteria. [44 CFR § 60.3(c)(3), (c)(4), and (c)(8)]. If the lowest floor of a new or substantially improved mixed use building is below the BFE, the lowest floor can only be used for non-residential purposes provided the non-residential areas of the building is floodproofed.

Below-Grade Parking Requirements: The NFIP provides guidance as to whether or not below-grade parking is permitted in Special Flood Hazards Areas in both riverine and coastal areas. See scenarios below. For purposes of the NFIP, below grade parking is considered a basement. A basement is defined by the NFIP as any area of a building having its floor subgrade (below ground level) on all sides.

- The amount of residential and non-residential areas that would make up what is considered a “mixed use” building under the Technical Bulletin 6-93 is not defined. However, guidance on the NFIP regulations clearly indicate that dry floodproofing of below-grade parking garages beneath residential structures is not allowed unless it is a “mixed use” building. FEMA applies the mixed use guidance in Technical Bulletin 6-93 to describe situations where the below-grade parking garage is dry floodproofed, provided the next higher floor above the parking garage is dedicated entirely to dry floodproofed non-residential areas of the building, and all residential units, lobby and foyer, and finished ancillary uses supporting residential uses are elevated above the BFE.

- | • Even if design and construction constraints for dry floodproofing of below-grade parking garages beneath a mixed use structure can be overcome, there are other constraints that may compromise the level of public safety and property protection such as:

--With any flood protection measure, residents may have a false sense of security that they are protected from flood events of any magnitude. If floodwaters exceed the elevation for which dry floodproofing measures are designed, the measures may fail catastrophically or the dry floodproofed areas will act as a bathtub and would fill to the level of the flood.

--Floodproofed measures that rely on sump pumps may not work if there is a loss of electricity or no available back-up power. People living in the building may stay behind to “flood fight” and implement protection measures for the dry floodproofed garage, placing them at significant risk.

--The potential for a false sense of security may exist and individuals may desire to access their cars. This is likely to occur if residents do not heed warnings to evacuate. It may not be prudent to stay in a structure that is surrounded by flood waters.

--Dry floodproofing generally requires human intervention and maintenance for the measures to work properly and effectively when flooding is imminent or actually occurring. Relying on individual residents to implement dry floodproofing measures may have significant life-safety consequences. Dry floodproofing is not a simple flood protection technique that can be ignored once it is installed or after the initial construction.

- **Below-grade parking garages in residential buildings in A Zones:** The NFIP regulations are clear that any area below grade on all sides is a basement, and basements are not permitted. A below-grade parking garage is considered a basement because it is below grade on all sides. Therefore, the construction of below-grade parking garages is prohibited beneath residential buildings in. [44 CFR § 60.3(c)(2)].
- **Below-grade parking garages in non-residential building in A Zone:** Below-grade parking garages in non-residential buildings in A Zones are permitted, including an AO Zone. However, because of the severe damage that can be caused by velocity waters and debris, below grade parking is not recommended in an AO Zone. Below-grade parking garages are permitted beneath non-residential buildings provided the buildings are dry floodproofed to the base flood level in accordance with the design performance criteria. [44 CFR § 60.3(c)(3) and (c)(8)]. Designs for dry floodproofing of below-grade parking garage and any other dry floodproofed non-residential areas must be certified in accordance with accepted standards and practice for meeting the requirements of NFIP [44 CFR§ 60.3(c)(4)].
- **Below-grade parking garages in V zones:** The floor of a below-grade garage would be considered the lowest floor of a V Zone building and therefore does not meet the requirement of having the lowest horizontal structural member of the lowest floor elevated to or above the BFE [44 CFR§ 60.3(e)(4)].
- See NFIP Technical Bulletin 3-93, *Non-Residential Floodproofing – Requirements and Certification for Buildings Located in the Special Flood Hazard Areas in accordance with the National Flood Insurance Program*.

Below-Grade Parking in Mixed Use Buildings

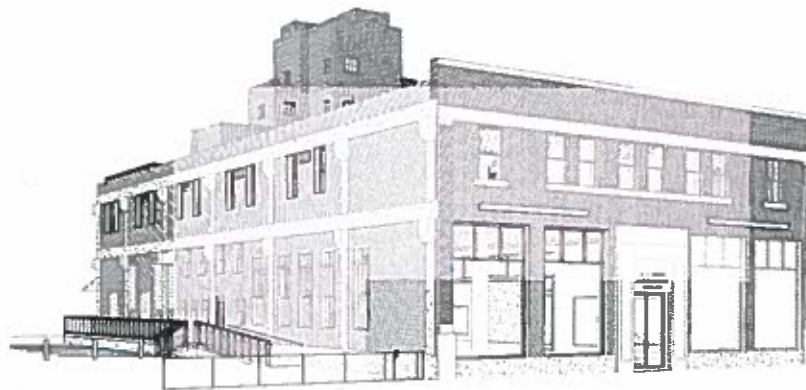
- The NFIP regulations are clear that below-grade parking is not allowed beneath residential buildings in A Zones and V Zones. [44 CFR §60.3(c)(2) and (e)] However, Technical Bulletin 6-93, allows that professionally designed buildings that have both non-residential and residential areas may be designed with dry floodproofed below-grade parking garages. [44 CFR § 60.3(c)(3), (c)(4), and (c)(8)] If this is done, then all residential areas must be elevated to or above the BFE as previously described above. Technical Bulletin 6-93 was developed to allow some flexibility for some mixed use buildings with below-grade parking where it could be reasonably certain that any human intervention necessary to implement floodproofing measures could be accomplished through the non-residential areas of the project on the first floor.

N.O. NELSON BUILDING

HISTORIC RENOVATION

321 E. SECOND ST.
DAVENPORT, IA 52807

BUILDING PERMIT SET
09-12-2017



① EXTERNAL VIEW CASE 1

Sheet List	
Sheet Number	Sheet Name
A000	COVER SHEET
A001	LIFE SAFETY PLANS
AS100	ARCHITECTURAL SITE PLAN
S-001	STRUCTURAL GENERAL NOTES
S-101	(BASEMENT) FIRST FLOOR/MEZZANINE PLAN
S-102	SECOND FLOOR/FLOOR OPENING PLANS
S-103	THIRD FLOOR LOFT/FOURTH/FIFTH FLOOR FRAMING
S-104	ROOF PLAN
S-110	EXTERIOR WALKWAY
S-112	ELEVATOR PLAN
S-113	ELEVATOR AND STEEL FRAMING DETAILS
S-114	SUSPENDED CEILING PLAN
S-116	STAIR DETAILS
AD100	FIRST FLOOR & MEZZANINE DEMOLITION
AD101	SECOND & THIRD FLOOR DEMOLITION
AD200	COURT & FIRST FLOOR DEMOLITION
AD200	NORTH & SOUTH ELEVATIONS DEMOLITION
AD201	EAST & WEST ELEVATIONS - DEMOLITION
A100	BASEMENT & FIRST FLOOR PLAN
A101	MEZZANINE & SECOND FLOOR PLANS
A102	THIRD-FIFTH FLOOR PLANS
A110	ROOF - FIRST & SECOND
A200	ROOF - THIRD, FOURTH & FIFTH
A200	NORTH & SOUTH BUILDING ELEVATIONS
A201	EAST & WEST BUILDING ELEVATION
A300	BUILDING SECTIONS
A301	BUILDING SECTIONS
A302	BUILDING SECTIONS
A400	ENLARGED PLANS
A401	ENLARGED PLANS
A402	INTERIOR ELEVATIONS
A403	INTERIOR ELEVATIONS
A500	EXISTING WINDOW DETAILS
A501	EXISTING WINDOW DETAILS
A502	EXISTING WINDOW DETAILS
A503	WINDOW DETAILS
A504	WINDOW DETAILS
A600	DOOR & WINDOW ELEVATIONS, & DETAILS
A700	FLOOR FINISH PLANS
T100	MEADOWY FLOOR PLAN

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I HEREBY CERTIFY THAT THE PORTION OF THIS
TECHNICAL SUBMISSION DESCRIBED BELOW WAS
PREPARED BY ME OR UNDER MY CLOSE SUPERVISION
AND IS RESPONSIBLE CHARGE. I AM A FULLY REGISTERED
ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.
PRINTED OR TYPED NAME: ANDREW J. DABDO
SIGNATURE: DATE: _____
REGISTRATION NUMBER: 50599 DATE ISSUED: 08/11/81
PAGES OR SHEETS COVERED BY THIS SEAL:
NONE - A FULL AND COMPLETE NOTIFICATION



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321 PARTNERS, LLC
N. O. NELSON
COVER SHEET

Prepared by/owner	18-032
Date	17-09-12
Drawn by	AJD
Checked by	AJD
A000	
Rozzle	

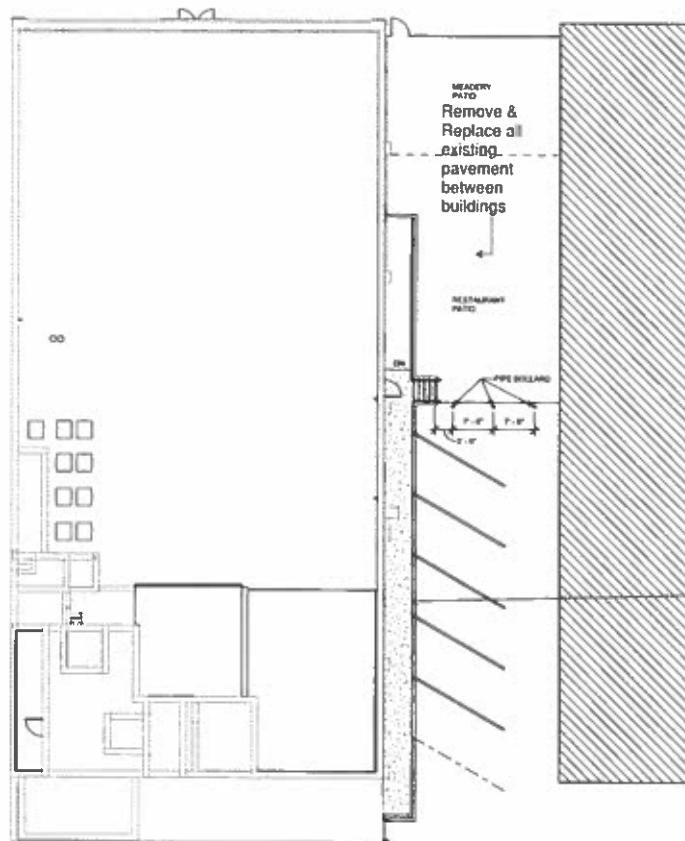


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① SITE PLAN
1" = 10'-0"

321 PARTNERS, LLC
N. O. NELSON
ARCHITECTURAL SITE
PLAN

Project number 19-032
Date 17-09-12
Drawn by AJO
Checked by AJO
AS100
Scale 1" = 10'-0"

17-09-12 10:00 AM



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[illegible]

321 PARTNERS, LLC
N. O. NELSON
BUILDING SECTIONS

Project number	16-032
Date	17-09-12
Drawn by	Author
Checked by	Checker
A300	
Scale	1/8" = 1'-0"

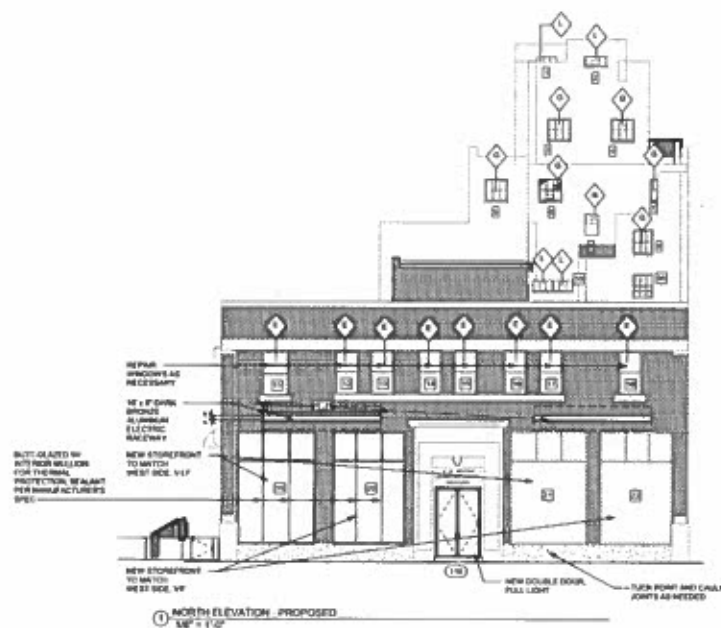


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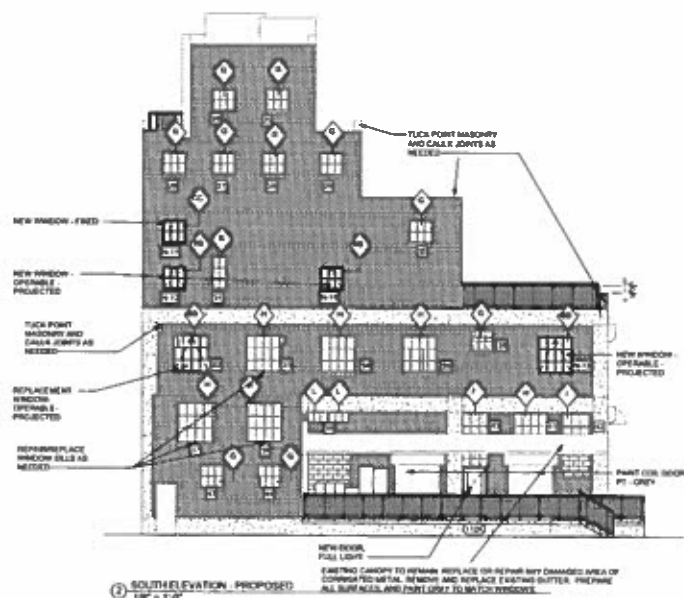
[design] by architects, P.L.C.

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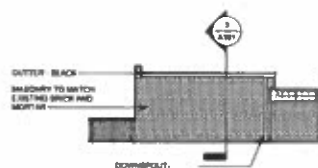
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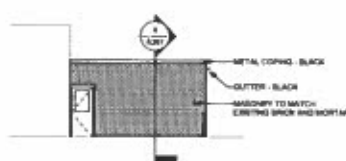
1 NORTH ELEVATION - PROPOSED
1/8" = 1'-0"



2 SOUTH ELEVATION - PROPOSED
1/8" = 1'-0"



3 NORTH ELEVATION - STAIR
1/8" = 1'-0"



4 EAST ELEVATION - STAIR
1/8" = 1'-0"



5 METER BANK ELEVATION
1/8" = 1'-0"

GENERAL NOTE:
1. ALL WINDOWS TO HAVE GLASS REPLACED WITH
W/ SINGLE FRAME GLASS UNLESS OTHERWISE NOTED
2. EXISTING CONCRETE ON FACADES TO REMAIN

321 PARTNERS, LLC
N. O. NELSON
NORTH & SOUTH
BUILDING
ELEVATIONS

Project number: 16-032

Date: 17-09-12

Drawn by: AJD

Checked by: AJD

A200

Scale: 1/8" = 1'-0"

0 1/2" x 11 1/2" x 11 1/2"



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② WEST ELEVATION - PROPOSED
1/8" = 1'-0"[illegible]

321 PARTNERS, LLC
N. O. NELSON
EAST & WEST
BUILDING ELEVATION

Project number	18-032
Date	17-08-17
Drawn by	AJD
Checked by	AJD
A201	
Scale	1/8" = 1'-0"



National Flood Insurance Program (NFIP)

Floodplain Management Bulletin
Historic Structures

FEMA P-467-2

May 2008



FEMA

Floodplain Management Bulletin

Historic Structures

This Floodplain Management Bulletin addresses how the National Flood Insurance Program (NFIP) treats historic structures. This bulletin also identifies mitigation measures that can be taken to protect historic structures from floods. The bulletin addresses the following topics:

Introduction	2
Background on the NFIP	2
The NFIP and Historic Structures	3
Definition of “Historic Structures”	3
Floodplain Management Requirements that Provide Relief for Historic Structures	4
Historic Structures in the Floodway	5
New Construction and Non-contributing Structures in Historic Districts.....	6
Substantial Improvements to Existing Structures in Historic Districts	7
Flood Insurance for Historic Structures	8
Minimizing the Impacts of Flooding on Historic Structures.....	9
Protection Measures for Historic Structures	9
Hazard Mitigation Planning Can Benefit Historic Structures.....	19
Further Information	20
State and Local Mitigation Planning “How-To” Guides	20
Other Mitigation Documents	21
Comments.....	22
Ordering Information	22

Introduction

The National Flood Insurance Program (NFIP) gives special consideration to the unique value of one of our Nation's most significant resources – its historic buildings, landmarks, and sites. It does so in two ways.

First, the NFIP floodplain management regulations provide significant relief to historic structures. Historic structures do not have to meet the floodplain management requirements of the program as long as they maintain their historic structure designation. They do not have to meet the new construction, substantial improvement, or substantial damage requirements of the program. This exclusion from these requirements serves as an incentive for property owners to maintain the historic character of the designated structure (44 CFR §60.3). It may also serve as an incentive for an owner to obtain historic designation of a structure.

Secondly, a designated historic structure can obtain the benefit of subsidized flood insurance through the NFIP even if it has been substantially improved or substantially damaged so long as the building maintains its historic designation. The amount of insurance premium charged the historic structure may be considerably less than what the NFIP would charge a new non-elevated structure built at the same level. Congress requires that the NFIP charge actuarial rates for all new construction and substantially improved structures (National Flood Insurance Act of 1968, 42 U.S.C. 4015).

Although the NFIP provides relief to historic structures from having to comply with NFIP floodplain management requirements for new construction, communities and owners of historic structures should give consideration to mitigation measures that can reduce the impacts of flooding on historic structures located in Special Flood Hazard Areas (44 CFR §60.3). Mitigation measures to minimize future flood damages should be considered when historic structures are rehabilitated or are repaired following a flood or other hazard event. Qualified professionals such as architects, historic architects, and engineers who have experience in flood mitigation techniques can help identify measures that can be taken to minimize the impacts of flooding on a historic structure while maintaining the structure's historic designation.

The purpose of this floodplain management bulletin is to explain how the NFIP defines historic structure and how it gives relief to historic structures from NFIP floodplain management requirements (44 CFR §60.3). This bulletin also provides guidance on mitigation measures that can be taken to minimize the devastating effects of flooding to historic structures.

Background on the NFIP

Congress created the NFIP in 1968 to provide federally supported flood insurance coverage, which generally was not available from private companies. The NFIP is based on a mutual agreement with communities that have been identified as having Special Flood Hazard Areas. The Federal Emergency Management Agency (FEMA) will make flood insurance coverage available in a

community provided that it adopts and enforces floodplain management regulations that meet or exceed the minimum requirements of the NFIP (44 CFR §60.3). This is accomplished through local floodplain management regulations.

The NFIP minimum building and development regulations that communities must adopt require that new and substantially improved and substantially damaged residential buildings be elevated so that the lowest floor is at or above the Base Flood Elevation (BFE) determined for the site. Non-residential buildings have the option of elevation or dry floodproofing to the BFE [44 CFR §60.3(c)(2), (c)(3), and (e)(4)]. Dry floodproofing means making a building watertight, substantially impermeable to floodwaters to the BFE.

Substantial improvement means *“any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred substantial damage regardless of the actual repair work performed.”*

Substantial improvement also includes the repair of buildings that have been substantially damaged. 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.”*

In summary, structures that are “substantially improved” and “substantially damaged” must be brought into compliance with the community’s floodplain management requirements [44 CFR §60.3(c)(2), (c)(3), and (e)(4)].

The NFIP and Historic Structures

This section provides information on the NFIP definition of “historic structure” and the floodplain management requirements that will be included in community floodplain management ordinances.

Definition of “Historic Structures”

The definition section of the NFIP [Code of Federal Regulations (CFR) 44 Part 59], defines “historic structure” as *“any structure that is:*

- (1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (This includes structures that are determined to be eligible for listing by the Secretary of the Interior as a historic structure. A determination of “eligibility” is a decision by the Department of the Interior that a district, site, building, structure or object meets the National Register criteria for evaluation although the property is not formally listed in the National Register.)*

- (2) *Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;*
- (3) *Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or*
- (4) *Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:*
 - (a) *By an approved state program as determined by the Secretary of the Interior or*
 - (b) *Directly by the Secretary of the Interior in States without approved programs."*

This definition was coordinated with the Department of Interior when it was added to the NFIP Regulations in 1989.

The purpose of this definition is to provide NFIP communities with criteria to distinguish between "historic structures" and the other existing buildings which remain subject to NFIP floodplain management requirements (44 CFR §60.3). While it is important to preserve historic structures and other cultural resources, it is also critical to ensure that other existing flood-prone structures are protected from flood damage when they are substantially improved or substantially damaged.

Floodplain Management Requirements that Provide Relief for Historic Structures

The NFIP floodplain management requirements contain two provisions that are intended to provide relief for "historic structures" located in Special Flood Hazard Areas:

- (1) The definition of "substantial improvement" at 44 CFR 59.1 includes the following exclusion for historic structures,

"Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as an "historic structure".
The same exemption also applies to "historic structures" that have been "substantially damaged".

This provision exempts historic structures from the substantial improvement and substantial damage requirements of the NFIP.

- (2) The other provision of the NFIP floodplain management regulations that provides relief for "historic structures" is the variance criteria at 44 CFR 60.6(a). This provision states:

"Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure."

Under the variance criteria, communities can place conditions to make the building more flood resistant and minimize flood damages, but such conditions should not affect the historic

character and design of the building. *See* the section on Minimizing the Impacts of Flooding on Historic Structures for ideas on conditions that could be established to make the building more flood resistant and to minimize flood damages.

Communities have the option of using either provision for addressing the unique needs of “historic structures”. Communities should adopt only one option to address “historic structures.” Some communities have chosen to adopt an ordinance that requires variances for improvements or repairs to “historic structures” and do not exclude such improvements from the substantial improvement definition in their ordinance. Other communities include the “historic structures” exemption as part of their “substantial improvement” definition. In either case, “historic structures” can be excluded from the NFIP elevation and floodproofing requirements. Whether a community exempts a “historic structure” under the substantial improvement definition or through the variance process, the exemption of the “historic structure” from the NFIP floodplain management requirements should be documented and maintained in the community permit files.

However, if plans to substantially improve a “historic structure” or repair a substantially damaged “historic structure” would result in loss of its designation as an “historic structure”, the structure no longer qualifies for the exemption and would be required to meet the NFIP floodplain management regulations (44 CFR §60.3). This determination needs to be made in advance of issuing a permit. This provides an incentive to the property owner to maintain the structure’s historic designation rather than altering the structure in such a way that it loses its designation as a “historic structure”.

Even if a “historic structure” is exempted from the substantial improvement and substantial damage requirements, consideration should be given to mitigation measures that can reduce the impacts of future flooding. There are mitigation measures that can reduce flood damages to historic structures without affecting the structure’s historic designation. *See* the section on Minimizing the Impacts of Flooding on Historic Structures.

Historic buildings may also be subject to the local building codes. Many States and communities use the International Codes as the basis for their buildings codes. The International Codes contain provisions for addressing historic buildings in a manner consistent with the NFIP.

Historic Structures in the Floodway

The NFIP floodplain management requirements could apply to an addition to a “historic structure”, if the structure or addition is located in a floodway. The floodway includes the channel of the river and the adjacent floodplain that must be reserved in an unobstructed condition in order to discharge the base flood without increasing flood levels by more than one foot (44 CFR § 59.1, “regulatory floodway”). All structures and improvements to structures, including additions to “historic structures”, must comply with the floodway encroachment provisions of 44 CFR § 60.3(c)(10) and (d)(3) of the NFIP Regulations.

44 CFR § 60.3(c)(10) applies to rivers and streams where FEMA has established BFEs, but has not provided the community with the data necessary to designate a floodway:

Require until a regulatory floodway is designated, 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 [Flood Insurance Rate Map], 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 point within the community.

§ 60.3(d)(3) applies to rivers and streams where FEMA has provided both established BFEs and provided the community with the data necessary to designate a floodway:

Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.

As an example, an addition, or any portion thereof, to a “historic structure” that expands the square footage of the structure beyond its footprint into the floodway must comply with the regulatory floodway criteria [44 CFR §60.3(c)(10) and (d)(3)]. These additions can obstruct flood flows and increase flood stages. Under 44 CFR § 60.3(d)(3), such an addition would be prohibited if any rise in the flood level would result from the addition. FEMA defines “any” as meaning a zero increase.

New Construction and Non-contributing Structures in Historic Districts

Generally, registered historic districts contain a mix of buildings. In addition to structures that contribute to the historic significance of the district, there will generally be structures in historic districts that have no historical significance and which do not contribute to the historic significance of a registered historic district (called “non-contributing” structures). In addition, there may be sites in these districts that are undeveloped or vacant land. Whole districts cannot be exempt from floodplain management regulations and a blanket variance cannot be issued for all land within these districts. The non-contributing structures and vacant lots in historic districts remain subject to all of the floodplain management requirements that apply to new construction and substantial improvements (44 CFR §60.3).

Some communities have argued that they should be allowed to grant variances for new buildings or for substantial improvements to non-contributing buildings in historic districts. They claim that requiring that the new structures or substantially improved structures be elevated to BFE could be harmful to the historic significance of the district. FEMA maintains that this would be contrary to the purposes of the NFIP and could result in greatly increased flood damages and, in some instance,

even result in loss of life. There are ways to elevate or floodproof new structures and substantially improve non-contributing structures so that they comply with the NFIP regulations, but that are still in harmony with the historic nature of the district. While the NFIP requires protection to the BFE, it does not specify the means (44 CFR §60.3). An architect should be able to design a new building that is both compliant with NFIP floodplain management requirements and compatible with the historic nature of the district. For example, the protection does not have to be achieved by unsightly mounds of dirt or bare pilings or other elevated foundations. The structure could be elevated on pilings or other foundation elements and the lower area then covered by an architecturally pleasing façade that will not impair the aesthetics of a historic district. The foundation could be camouflaged with landscaping, porches, or staircases (*See the examples in latter sections of this bulletin*).

The NFIP was specifically established by Congress to reduce threats to lives and the potential for damages to new construction in flood hazard areas in exchange for providing flood insurance. Exempting new construction from the NFIP elevation requirements in historic districts would be contrary to the National Flood Insurance Act of 1968, as amended, and it would create a significant flood risk to structures and to the health and safety of the population. Potentially thousands of buildings would be placed in harms way, if new or non-contributing structures are not protected.

Substantial Improvements to Existing Structures in Historic Districts

Some property owners have wanted to substantially improve a non-contributing structure in a historic district, so that it can become a contributing structure to the historical significance of the registered historic district. For example, this type of improvement could involve removal of modern additions to the building, replacement of modern siding or roofing materials with historic materials, and other actions to restore the historic nature of the structure. If the improvement is a substantial improvement to a non-contributing structure, the structure still could qualify for relief from the NFIP floodplain management requirements in the following ways (44 CFR §60.3):

- The property owner could apply through their State Historic Preservation Officer or Tribal Historic Preservation Officer for contributing status for the structure as is, prior to any improvements. If the building qualifies as “contributing to the historical significance of a registered historic district”, the community can grant a variance or exclude the improvements from the NFIP substantial improvement requirement depending on which provision the community has adopted [44 CFR §60.3(c)(2), (c)(3), and (e)(4)].
- The property owner could undertake the minimum work necessary to make the building a contributing structure, as long as the work is less than a substantial improvement. Once the structure is designated as “contributing”, any additional improvements including a substantial improvement could qualify for relief from the NFIP floodplain management requirements, so long as those improvements do not interfere with the designation as “contributing to the historical significance of a registered historic district” (44 CFR §60.3).
- If the property owner chooses to undertake a substantial improvement of the building all at once or the owner needs to undertake the substantial improvement in order for the building

to qualify as “contributing to the historical significance of a registered historic district”, the owner should contact the community for guidance on how they might qualify for relief from the NFIP substantial improvement requirement [44 CFR §60.3(c)(2), (c)(3), and (e)(4)]. In this situation, the community would have to issue a variance from the floodplain management ordinance. The community should obtain documentation for assurance that the improvements being proposed would qualify the building for “contributing” status before signing off on permits that would grant them relief under the NFIP. The owner should seek guidance from their State Historic Preservation Officer or Tribal Historic Preservation Officer on proposed improvements and on what documentation is needed to obtain preliminary approval. This information should be shared with the community.

In all cases, the property owner should discuss their proposed plans with the community and seek guidance from the State Historic Preservation Officer or Tribal Historic Preservation Officer before undertaking any improvements to make sure the proposed work would qualify the building for the designation as a contributing structure. For any of the options described above, the community should also encourage the property owner to undertake flood damage reduction measures as part of the improvement, as long as measures do not interfere with its designation as a “historic structure”.

Flood Insurance for Historic Structures

In addition to the relief from the NFIP floodplain management requirements described above, owners of “historic structures” can obtain and maintain flood insurance at subsidized rates. Flood insurance coverage is required for most mortgage loans and for obtaining Federal grants and other financial assistance. The ability to obtain flood insurance coverage is also important to ensuring that historic structures can be repaired and restored after a flood event.

The National Flood Insurance Act of 1968, as amended, requires that FEMA charge actuarial rates reflecting the flood risk to buildings built or substantially improved on or after the effective date of the initial Flood Insurance Rate Map (FIRM) for the community or after December 31, 1974, whichever is later. Actuarial rating assures that the risks associated with buildings in flood prone areas are borne by those located in such areas and not by the taxpayers at large. These buildings are referred to as Post-FIRM. The NFIP flood insurance rates are based on the degree of the flood risk. The flood insurance premium calculations take into account a number of factors including the flood risk zone shown on the FIRM, elevation of the lowest floor above or below the BFE, the type of building, the number of floors, and the existence of a basement or an enclosure. The NFIP floodplain management requirements not only are designed to protect buildings constructed in floodplains from flood damages; they also help keep flood insurance premiums affordable (44 CFR §60.3). Buildings not properly elevated will be charged a much higher flood insurance premium due to the increased flood risk. If substantially improved historic structures were not elevated and made subject to these rates, the annual insurance premiums could be many thousands of dollars a year. Allowing historic structures to continue to be insured at subsidized rates, even when they are substantially improved or substantially damaged, represents a significant financial benefit to these building owners.

Flood insurance at subsidized rates is available whether the “historic structure” is exempt from the NFIP substantial improvement requirement or is granted a variance under the variance provision. “Historic structures” are considered Pre-FIRM under the NFIP and are charged subsidized rates similar to existing structures. As long as a historic structure meets the definition of “historic structure” under the NFIP, it will not be actuarially rated (44 CFR §59.1).

If a “historic structure” is substantially improved such that it loses its historic designation without meeting the elevation requirements of the NFIP, it will be actuarially rated as a Post-FIRM structure. This can be significantly higher than the subsidized rate on a “historic structure.” Thus, the subsidized flood insurance rate on “historic structures” also serves as an incentive to maintain the historic designation of the structure.

Property owners of historic structures are encouraged to purchase NFIP flood insurance. Flood losses are not covered by homeowner’s insurance. Disaster assistance will not take care of all the financial needs, if the historic structure is damaged by flood. Even if disaster assistance is available, it is often in the form of a low-interest loan which has to be repaid, and it is only available if the President formally declares a disaster. Flood insurance compensates for all covered losses and is the best form of financial protection against the devastating effects of floods. Flood insurance policies purchased by individual property owners help them recover from flooding more quickly.

Increased Cost of Compliance (ICC) coverage is not available to a historic structure that is exempt from the floodplain management requirements if a historic structure is substantially damaged (44 CFR §60.3). ICC coverage provides for the payment of a claim for the cost to comply with State or community floodplain management laws or ordinances after a direct physical loss by floods. When a building covered by a State or community declares the building to be substantially or repetitively damaged, ICC will help pay up to \$30,000 for the cost to elevate, floodproof, demolish, or relocate the building. However, if an exemption is granted administratively through the community’s variance process, and conditions are placed in the variance requiring one of the mitigation measures that meet the local floodplain management criteria, ICC will be available if the structure is declared substantially damaged or repetitively damaged.

Minimizing the Impacts of Flooding on Historic Structures

Protection Measures for Historic Structures

The primary damage to historic buildings in a flood disaster is from immersion of building materials in floodwaters and the moving force of floodwaters that can cause structural collapse. Storm and sanitary sewer backup during flooding is also a major cause of flood damage to buildings. In addition, floods may cause a fire due to ruptured utility lines; result in the growth of mold and mildew; and lead to swelling, warping, and disintegration of materials due to prolonged presence of moisture.

Although “historic structures” are exempt from the NFIP floodplain management requirements for new and substantially improved construction, flood mitigation measures should be a consideration to minimize flood damages when rehabilitating a historic structure or repairing a damaged historic structure (44 CFR §60.3).

Rehabilitating or repairing a historic structure provides an opportunity to incorporate measures to reduce future flood damages. In addressing multiple historic structures in a historic district or a single historic structure, one of the first steps to undertake is to assess the flood risk and estimate the amount of potential flood losses. The “how-to” guides described in the Hazard Mitigation Planning Can Benefit Historic Structures section of this Bulletin can help in assessing the flood risk and the potential flood losses to historic structures. The “how-to” guides can also help in identifying, evaluating, and prioritizing possible mitigation measures that reduce flood damages.

Mitigation measures can take a variety of forms from simple low-cost improvements such as elevating utilities and mechanical equipment to structural measures such as elevation, dry floodproofing, or relocating the building to a site outside the Special Flood Hazard Area. Even the more costly measures such as elevation, dry-floodproofing, or relocation can have significant benefits relative to their cost including:

- Reduction of flood damages. The buildings may not sustain flood damages or at least those damages will be significantly less than if no mitigation measures were implemented.
- Reduction in flood insurance premiums. Buildings that are elevated to or above the BFE or relocated out of the floodplain can qualify for flood insurance at actuarial rates that are generally less expensive than even the subsidized flood insurance rates charged to existing structures.
- Long-term preservation of the building. Historic structures that are repeatedly flooded will deteriorate and eventually may have to be demolished unless they are protected from flooding. Mitigation measures can help preserve the building for future generations.

One of the challenges in mitigating the flood risk to a “historic structure” is the need to incorporate mitigation measures in such a way that the structure does not lose its historic designation. When evaluating mitigation measures for historic structures, care should be taken so that new designs and new materials do not obscure existing significant historic features. Retrofitting a historic structure to reduce flood damages can be done that it has minimal impact on the structure’s historic integrity and so that it maintains its historic designation.

A range of mitigation measures may be available for a particular historic structure. By adhering to the *Secretary of the Interior’s Standards for the Treatment of Historic Properties* and by seeking the help of an architect or engineering professional experienced in rehabilitating historic structures, a structure’s original historic setting, scale, and distinctive features can be preserved. You may want to also refer to the *Preservation Briefs* published by the National Park Service, which provide guidance on preserving, rehabilitating, and restoring historic buildings. You may also want to seek guidance from your State Historic Preservation Officer or Tribal Historic Preservation Officer.

There is a variety of relatively simple measures that can be implemented to minimize the effects of flooding. Although these measures are designed to reduce flood damages, they may not eliminate flooding altogether. Many of the techniques described below may have minimal impact on the character-defining design features of the historic structure and some are relatively inexpensive to implement. Several of these will require a design professional and licensed contractor to implement.

- Relocate contents to a safer location. For example, heirlooms and other cultural resources should be located above the BFE. At a minimum, valuable contents should be removed from flood-prone basements.
- Create positive drainage around the building. In places where ground slope against the building facade is either flat or toward the building, increase the grade immediately adjacent to the facade to achieve positive drainage away from the building. In some situations, existing masonry and concrete window wells around basement windows may need to be built up to retain the extra height of the fill.
- Protect mechanical and utility equipment. Elevating mechanical and utility equipment (including electrical, heating, ventilation, plumbing and air conditioning equipment) above the BFE can protect them from flood damage. Guidance for protecting mechanical and utility equipment from flooding can be found in the FEMA publication, *Protecting Building Utilities from Flood Damage, Principles and Practices for the Design and Construction of Flood Resistant Building Utility Systems* (FEMA 348/November 1999).
- Remove modern finished materials from basements or other areas that are floodprone. Often historic structures are constructed from materials that are relatively flood-resistant. For example, basements often had stone or rubble walls and dirt floors. These buildings often were repeatedly flooded with minimal flood damages except to building contents. In more recent years many of these areas have been finished off using modern materials that are less resistant to flood damage and building utilities added. It may be possible to wet-floodproof the building merely by removing these modern materials and restoring these areas to their original configuration.
- Use flood resistant materials below the BFE. When rehabilitating or repairing a damaged historic structure, use flood resistant materials below the BFE to improve the structure's ability to withstand flooding. Guidance for using flood resistant materials can be found in Technical Bulletin 2-93, *Flood-Resistant Materials Requirements for Buildings Located in Special Flood Hazard Area in accordance with the National Flood Insurance Programs*.
- Fill in the basement. For historic structures with basements, a simple solution to minimize flood damage and reduce the potential for structural damage is to abandon the basement, raise any mechanical and utility equipment, and fill in the basement with sand or gravel.
- Wet floodproofing the basement. This measure allows the internal flooding of a basement. Flooding of a structure's interior is intended to counteract hydrostatic pressure on the walls, surfaces, and supports of the structure by equalizing interior and exterior water levels during a flood. Inundation also reduces the danger of buoyancy from hydrostatic uplift forces. Such measures may require alteration of a basement's design and construction, use of flood-

resistant materials, adjustment of the basement's maintenance, relocation of equipment and contents, and emergency preparedness. Guidance for wet floodproofing a basement can be found in Technical Bulletin 7-93 *Wet Floodproofing Requirements for Structures Located in Special Flood Hazard Areas in accordance with the National Flood Insurance Program*.

- Install "mini"-floodwalls to protect openings, such as a window well. For low level flooding, a type of "mini"-floodwall can be used to permanently protect various types of openings. Possible materials for this use include brick, concrete block and poured concrete. They should be supported by and securely tied into a footing so that they will not be undercut by scouring and the soil under these walls should be fairly impervious to control seepage. Some form of sealant may be needed on the outside to control seepage.
- Temporary measures. Where it is not possible to use the above measures to protect a building from flooding, it may be possible to use temporary measures to reduce flood damages. Examples include sand-bagging openings, installing temporary barriers or flood shields in openings, and evacuating building contents to floors above the flood level. In order for this approach to work, one must develop an emergency plan and stock-pile the required materials ahead of time. The amount of flood warning time available for the site is critical and it must be ensured that adequate personnel are available to install the measures. Do not try to keep water out of buildings unless an engineering analysis is conducted to ensure that the walls are strong enough to withstand flood forces (hydrostatic, hydrodynamic, debris, and buoyancy).

Property owners may want to undertake more extensive mitigation measures, if there is a likelihood of significant or more frequent flood damage to the historic structure. These mitigation measures could include elevating, floodproofing, or relocating the structure to a site that is outside of the Special Flood Hazard Area. These mitigation measures are described below.

Elevation

One of the common methods of protecting flood-prone buildings is to elevate the lowest floor of a structure above the BFE (elevation of the one-percent-annual chance flood). Elevation is an effective mitigation measure, if designed and constructed appropriately to withstand flood forces. Although elevation is a practical solution for flooding problems, the flooding conditions and other hazards at the site must be carefully examined so that the most suitable technique and foundation type can be determined. There are two types of elevation to consider: (1) The entire building is lifted and placed on a new elevated foundation (columns, piers, posts, or raised foundation walls such as a crawl space). (2) In situations where it is possible to leave the exterior of the building the same, raise the interior floor of the building above the BFE. This may be an alternative for older stone buildings with high ceilings and elevated window sills.

Essentially, the steps required for elevating a building are largely the same in all cases. A cradle of steel beams is inserted under the structure; jacks are used to raise both the beams and structure to the desired height; a new elevated foundation for the house is constructed; and the structure is then lowered back onto the new foundation and reconnected. At a minimum, the foundation



Elevation of a historic residence in Mandeville, Louisiana

of the elevated structure must be able to withstand the expected loads at a site which may include hydrostatic pressure, hydrodynamic loads from velocity water and wave impacts, debris impact resulting from the flood, and buoyancy. The foundation must also be able to resist undermining by any expected erosion or scour. Therefore, the flooding characteristics and building type and condition will need to be examined to determine which type of foundation will be the most suitable.

While elevating a structure above the BFE will provide the structure the most protection, a less intrusive elevation may be desired or more feasible for a historic structure. Other protection measures, such as elevating utilities and equipment above the BFE, should be considered if elevating a historic structure to the BFE is not practicable.



Elevation of a historic residence in Mandeville, Louisiana

Elevation of a historic structure does not have to be achieved by unsightly pilings or other foundation that would impair the aesthetics of a historic district. The structure could be elevated on pilings or foundation walls and the foundation area could then be covered by an architecturally pleasing facade that is consistent with materials from the historic structure. The lower area can also be camouflaged with landscaping.

Elevation in South Carolina. 113

Calhoun Street is a 125-year old, three-story house that stands in the heart of the downtown historic district of Charleston, South Carolina. Already abandoned for several years by the time Hurricane Hugo struck in 1989, 113 Calhoun Street was in serious danger of collapse by 1997. Instead of demolishing the building, the City of Charleston donated it to the 113 Calhoun Street Foundation, a non-profit partnership formed between the South Carolina Sea Grant Consortium, Clemson University, and the City of Charleston.

Using creative design solutions the 113 Calhoun Street Foundation transformed the derelict building into an educational center. Primary funding for the initial construction was provided by FEMA, while additional support, including the donation of products and services, came from the private sector. It was determined that an elevation above the BFE would not have been appropriate for 113 Calhoun Street. Such an elevation would have raised the building more than 5 feet, which would not have been in keeping with the surrounding streetscape and character of the historic district. Instead, the organization elevated the house only one foot, undertaking a variety of other types of interior and exterior improvements to protect against hazards.

Even though it was elevated to below the BFE, the house is still protected from minor flooding events and suffers less damage in major flooding events. Improvements to the house included the following:

- Placing HVAC ductwork at ceiling level and returns above the BFE.
- Placing electrical, telephone, and computer outlets above the BFE, with no splices or connections below the BFE.



113 Calhoun at inception of project
Photo courtesy of 113 Calhoun Street Foundation.



113 Calhoun today
Photo courtesy of 113 Calhoun Street Foundation.

- Installing interior decorative wainscoting to the BFE. This wainscoting consisted of water-resistant material, and could be removed to dry after a flood event.
- Designing interior structural elements so that a continuous load path was created that minimized weak links in the building's structural system.
- Replacing the building's deteriorated original foundation of unreinforced masonry brick with a new foundation consisting of concrete footings with steel ties. This new system allowed new timber members to be bolted to the foundation, protecting against the twisting movements and other movements caused by seismic and wind forces. Brick from the original foundation was re-used as a veneer on the new foundation.

Elevation in Belhaven, North Carolina. The Town of Belhaven, North Carolina, along the Pungo River, is subject to repeated flooding. In its last flood event, over 60 percent of the town's buildings were damaged, including most of the buildings in the National Register-listed Belhaven Historic District. In an effort to retain the town's historic and economic link to the waterfront, the decision was made to elevate the 379 buildings in place rather than relocate them to higher ground or demolish and rebuild them.

With assistance from the North Carolina State Historic Preservation Officer, plans were developed for an elevation project that would best preserve the historic character of the district. In the plan, frame buildings were raised onto concrete block foundations faced with brick veneer. Brick buildings were elevated onto



Frame building elevated on concrete block foundation faced with brick veneer. Belhaven, North Carolina.

continuous concrete block foundations, which were also faced with brick veneer. A projecting brick course was used to demarcate where the original house ended and the new foundation began. Additional guidance was drafted for preserving porches, railings, balusters, and steps, and for replacing old materials with appropriate new materials where necessary.

To prepare for the elevation project, large-format archival photographs were taken of each building that would be included in the project. These photographs provided a permanent record of the historic appearance of the district. Due to all these extra planning efforts for preserving its historic properties, the Belhaven Historic District was able to maintain its National Register status.

By the time the next flood struck Belhaven, 32 of the planned 379 houses were elevated. It is estimated that elevation of these 32 properties alone saved the town over \$1.3 million in direct and indirect damages.

Floodproofing

Another alternative is to “floodproof” the building, so that it will not sustain damage or so that damages are minimized. There are two types of floodproofing commonly called “dry-floodproofing” and “wet-floodproofing.” Dry floodproofing means making a building watertight, substantially impermeable to floodwaters. This form of floodproofing requires that the building be properly anchored to resist flotation, collapse, and lateral movement. It also may require the reinforcement of walls to withstand flood forces and impact forces generated by floating debris; the use of membranes and other sealants to reduce seepage of floodwater through walls and wall penetrations; the installation of pumps to control interior water levels; the installation of check valves to prevent entrance of floodwater or sewage flows through utilities; and the location of electrical, mechanical, utility, and other valuable vulnerable equipment and contents above the expected flood level. Dry-floodproofing must be implemented with an appropriate design by a registered professional engineer or architect. Additional guidance on dry floodproofing can be found in Technical Bulletin 3-93 *Non-Residential Floodproofing – Requirements and Certification for Buildings Located in Special Flood Hazard Areas in accordance with the National Flood Insurance Program* and in *Floodproofing Non-Residential Structures* (FEMA 102/May 1986).

Wet-floodproofing allows for the flooding of a structure’s interior to equalize hydrostatic pressure on exterior walls, surfaces, and supports of the structure during a flood. Application of wet-floodproofing as a flood protection technique should be limited to specific situations in A Zones (including A, AE, A1-30, AH, AO, and AR zones).

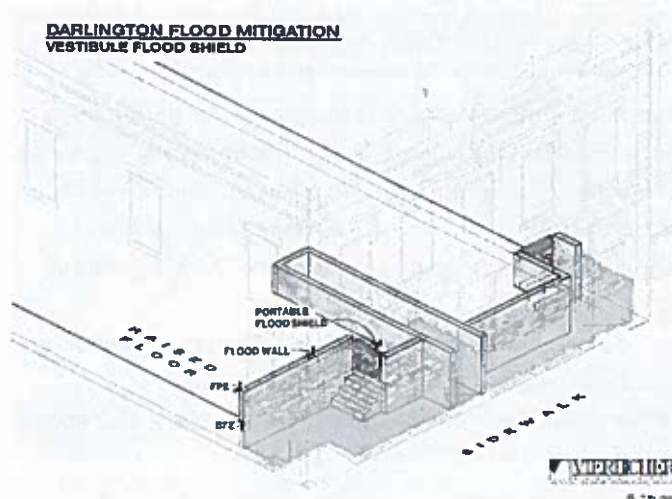
Flooding of a structure’s interior is intended to counteract hydrostatic flood forces on the exterior walls, surfaces, and supports of the structure during a flood. Inundation also reduces the danger of buoyancy from uplift forces. Use of wet floodproofing for historic structures requires careful consideration of protection techniques.

Building materials for the area that is to be wet-floodproofed should be replaced with flood resistant materials. Valuable contents should be relocated to or above the BFE. Light, portable furnishings should be able to be moved quickly and easily before a flood. Utilities and equipment should be elevated to or above the BFE or located on a platform that is above the BFE. Consideration must be given to flood duration, frequency, and depth to determine if wet-floodproofing is a viable option. For example, flood-prone basements may be modified, so that they can be flooded without damage to the building or foundation. Additional guidance on wet floodproofing can be found in Technical Bulletin 7-93 *Wet Floodproofing Requirements for Structures Located in Special Flood Hazard Areas in accordance with the National Flood Insurance Program*.

Floodproofing in Wisconsin. Flooding is an ongoing part of life in the rural riverside town of Darlington, Wisconsin, having caused millions of dollars in property damage over the past decade. Following the devastating damage from the 1993 floods, the town could follow one of the three routes: do nothing and continue to suffer the periodic floods; move the central business district out of the floodplain and upset the local economy and sense of community; or do something innovative.



Restored and retrofitted buildings in Downtown Darlington, Wisconsin



To provide additional protection against floodwater, removable watertight floodgates were incorporated into the buildings

building most vulnerable to flooding, and all utilities were upgraded and raised. All these measures were implemented without altering the exteriors or disrupting the historic integrity of these older buildings.

These mitigation measures resulted in the successful floodproofing of the historic central business district against the 100-year flood event, as well as the revitalization of Darlington's economy.

The successful integration of historic preservation and hazard mitigation earned Darlington a Preservation Achievement Award from the State Historical Society of Wisconsin.

Darlington chose innovation. It found creative solutions to retain the historic charm of its nineteenth century business district, while eliminating the threat of future flood devastation.

The town took advantage of the very high ceilings common to many of the older buildings in Darlington; their height allowed first floors to be elevated out of flood danger with minimal impact to other historic features. Basements were filled with sand and gravel, floodproofing that portion of the



Floodproofing the vestibule of a storefront

Relocation

Relocation is the mitigation measure that can offer the greatest security from future flooding. Relocation involves moving the entire structure out of the floodplain or it may involve dismantling a structure and rebuilding it elsewhere. It may be possible to relocate a building to a higher part of the same parcel or lot, but often it will be necessary to move the building to another site. In either case, it is the most reliable of all mitigation measures. In addition to relieving the property owner from future anxiety about flooding, this method can offer the opportunity to significantly reduce or



Built by John Holm in 1847, the Magnolia Hotel, badly damaged from Hurricane Camille in 1969, was moved 100 yards north and restored by the City of Biloxi in 1972. As a result, the hotel experienced only minimal flooding during Hurricane Katrina.

even eliminate the need for flood insurance. Relocation may be the best option in cases where the building site is subject to repeat flooding or severe flooding, where flood depths and velocities can have significant impact on the building.

Obviously, moving a structure is a complex operation and will have to be done by a professional with experience in relocating structures. Relocation generally involves raising the

building and placing it on a wheeled vehicle, usually a large flatbed trailer. The building is then transported to the new site and lowered onto a new foundation. In general, structures over a crawl space or basement are the easiest to relocate, while structures that are slab-on-grade or multi-story are more difficult. Masonry buildings, buildings with stone or brick veneer, and buildings with chimneys may require extensive bracing to prevent cracking or structural failure. As structures become larger, moving them may become more complicated and more expensive.

Relocation may, in some cases, be an appropriate option for historic structures by moving them out of harm's way. However, historic structures often share important features to the site, such as landscaping, outbuildings, alleyways, orientation, setback from the street, or other historical context. These contributing features often help to define a neighborhood's historic significance. If this option is being considered for a historic structure, consult with a historic preservation professional. The State Historic Preservation Officer or Tribal Historic Preservation Officer can also offer guidance. An example of a historic structure, which was relocated out of harm's way, follows.

Relocation in Fulton, New York. On January 19, 1996, floodwaters of the Schoharie Creek rose nearly 18 feet damaging many properties in the Town of Fulton, in Schoharie County, New York. The Town of Fulton submitted a Hazard Mitigation Grant Program application to FEMA for the acquisition and demolition of 12 properties. In reviewing the Town of Fulton's application, FEMA initiated consultation under section 106 of the National Historic Preservation Act. As a result, FEMA determined and the New York State Historic Preservation Officer concurred that one of the buildings in the application – known as the “Bruchmann residence” – was eligible for inclusion on the National Register of Historic Places and that its demolition would result in an “adverse effect.” The residence is significant as a notable and substantially intact example of a mid-19th century vernacular design and construction.



Dismantling of Bruchmann residence, May 2000

Based on the “adverse effect” determination, a Memorandum of Agreement (MOA) was negotiated between the State Historic Preservation Officer, FEMA, and the Town of Fulton wherein the town would explore alternatives to demolition. The town implemented an advertising campaign in an attempt to identify a party willing and able to relocate the structure to another site. After more than 2 years, an interested party submitted a statement of interest to the applicant and a deal was struck.

The house was re-erected on its new site in Delaware County.

Hazard Mitigation Planning Can Benefit Historic Structures

Historic properties and cultural resources are valuable, economic assets in communities throughout the United States. For many communities, historic and cultural resources are a catalyst for economic development. Often not considered are the potentially devastating effects that flooding can have on historic properties. When disaster strikes and a community's historic resources are damaged, the economic and social vitality of the community can be severely impacted. Communities can take steps to minimize the impacts of flooding on the community's historic resources by integrating historic property and cultural resource protection into hazard mitigation planning.

FEMA has developed a series of mitigation planning “how-to” guides for the purpose of assisting communities, States, and Tribes in developing an effective hazard mitigation plan. These guides have been developed by FEMA to provide an overview of the core elements associated with hazard mitigation planning. The four core elements include – organizing resources, assessing risks, developing a mitigation plan, and implementing the plan and monitoring progress. These “how-to series” include:

- Getting started with the mitigation planning process, including important considerations for how one can organize efforts to develop an effective mitigation plan (FEMA 386-1);
- Identifying hazards and assessing losses to community, State, or Tribe (FEMA 386-2);
- Setting mitigation priorities and goals for community, State, or Tribe, and writing the plan (FEMA 386-3); and
- Implementing the mitigation plan, including project funding and maintaining a dynamic plan that changes to meet new developments (FEMA 386-4).

One particular guide developed specifically to address historic properties and cultural resources is the FEMA publication titled *Integrating Historic Property and Cultural Resource Considerations Into Hazard Mitigation Planning* (FEMA 386-6 / May 2005). This guide should be used in conjunction with the four guides described above. This guide will help communities accomplish the following with respect to historic structures and historic districts:

- Identify and pull together resources for incorporating historic property and cultural resource considerations into a hazard mitigation plan;
- Determine which historic properties and cultural resources are likely to be damaged in a disaster and prioritize them for protection;
- Evaluate potential hazard mitigation actions for historic properties and cultural resources through the use of benefit-cost analysis and other decision-making tools; and
- Develop and implement a hazard mitigation plan that addresses historic properties and cultural resources.

To obtain copies of these publications, refer to Further Information section and Order Information section.

Further Information

State and Local Mitigation Planning “How-To” Guides

Getting Started – building support for mitigation planning, FEMA 386-1, September 2002.

Understanding Your Flood Risk – identifying hazards and estimating losses, FEMA 386-2, August 2001.

Developing the Mitigation Plan – identifying mitigation actions and implementation strategies, FEMA 386-3, April 2003.

Bringing the Plan to Life – implementing the hazard mitigation plan, FEMA 386-4, August 2003.

Integrating Historic Property and Cultural Resource Considerations Into Hazard Mitigation Planning, FEMA 386-6, May 2005.

Other Mitigation Documents

Homeowner's Guide to Retrofitting, Six Ways to Protect Your House from Flooding, FEMA 312, June 1998.

Floodproofing Non-Residential Structures, FEMA 102, May 1986.

Flood-Resistant Materials Requirements for Buildings Located in Special Flood Hazard Areas in Accordance with the National Flood Insurance Program, FEMA Technical Bulletin 2-93, FIA-TB-2. 4/93.

Hurricane Katrina in the Gulf Coast, Mitigation Assessment Team Report, Building Performance Observations, Recommendations, and Technical Guidance, FEMA 549, July 2006. Chapter 6 and Appendix J.

Openings in Foundation Walls for Buildings Located in Special Flood Hazard Areas in accordance with the National Flood Insurance Program, FEMA Technical Bulletin 1-93, FIA-TB-1 4/93.

Non-Residential Floodproofing-Requirements and Certification for Buildings Located in Special Flood Hazard Areas in accordance with the National Flood Insurance Program, FEMA Technical Bulletin 3-93, FIA-TB-3. 4/93.

Protecting Building Utilities From Flood Damage, Principles and Practices for the Design and Construction of Flood Resistant Building Utility Systems, FEMA 348, November 1999.

Recommended Residential Construction for the Gulf Coast, Building on Strong and Safe Foundations, FEMA 550, July 2006.

Repairing Your Flood Home, Federal Emergency Management Agency and the American Red Cross, ARC 4477 or FEMA 234, 1992.

Wet Floodproofing Requirements for Structures Located in Special Flood Hazard Areas in accordance with the National Flood Insurance Program, Technical Bulletin 7-93, FIA-TB-7 12/93.

To obtain a copy of these publications, see the section on Ordering Information. They are also available to view and download from <http://www.fema.gov/library/index.jsp>.

Comments

Any comments on the Floodplain Management Bulletin should be directed to:

DHS/FEMA
Mitigation Directorate
500 C St., SW
Crystal City
Washington, D.C. 20472

Ordering Information

This document can be downloaded from the following website:

<http://www.fema.gov/library/index.jsp>.

Copies of this bulletin and the above listed publications are available from:

FEMA Distribution Facility
P.O. Box 2012
Jessup, MD 20794-2012.

FEMA's Distribution Facility also accepts telephone requests (1-800-480-2520) and facsimile requests (301-362-5335).

This Bulletin represents FEMA's interpretation of a statutory or regulatory requirement. The Bulletin itself does not impose legally enforceable rights and obligations, but sets forth a standard operating procedure or agency practice that FEMA employees follow to be consistent, fair, and equitable in the implementation of the agency's authorities.

10



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City of Davenport
Plan and Zoning Commission

Department: Community Planning & Economic Development
Contact Info: Matt Flynn 888-2286

Date
11/14/2017

Subject:

- Note: Pursuant to §17.60.030 and §2.64.120 of the Davenport City Code the Commission is required to act on this item within 30 days unless the petitioner waives this requirement.
- Pursuant to the city code if the Commission does not act and report on this item within 30 days' time this agenda item is to be construed as approved by the Commission.
- Note: The Plan and Zoning Commission meeting is not a public hearing. It is time for the commission to discuss the issue(s) with City staff and if questions rise, with the developer. A rezoning or ordinance text amendment has a second public hearing before the City Council at its Committee of the Whole meeting. Notification of that meeting will be sent to surrounding owners following the Plan and Zoning Commission meeting.

Next Public Hearing/Regular Plan & Zoning Meeting: Tuesday, December 05, 2017 at 5:00 P.M. in the Council Chambers of Davenport City Hall 226 West 4th Street.

REVIEWERS:

Department	Reviewer	Action	Date
City Clerk	Wille, Wayne	Approved	11/9/2017 - 3:48 PM