



# Federal Emergency Management Agency

Washington, D.C. 20472

August 21, 2015

RECEIVED AUG 25 2015

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

IN REPLY REFER TO:  
Case No.: 15-05-0455P

The Honorable Del Rae Williams  
Mayor, City of Moorhead  
Moorhead City Hall  
500 Center Avenue  
Moorhead, MN 56561

Community Name: City Of Moorhead, MN  
Community No.: 275244  
FIRM Panel Affected: 27027C0456E,  
27027C0457E,  
27027C0459E

116

Dear Mayor Williams:

In a Letter of Map Revision (LOMR) dated March 30, 2015, you were notified of proposed flood hazard determinations affecting the Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) report for the City Of Moorhead, Clay County, Minnesota. These determinations were for The Red River of the North - from approximately 5,800 feet downstream of Interstate 94 to approximately 10,700 feet upstream of Interstate 94. The 90-day appeal period that was initiated on April 16, 2015, when the Department of Homeland Security's Federal Emergency Management Agency (FEMA) published a notice of proposed Flood Hazard Determinations in *The Extra* has elapsed.

FEMA received no valid requests for changes to the modified flood hazard information. Therefore, the modified flood hazard information for your community that became effective on August 14, 2015, remains valid and revises the FIRM that was in effect prior to that date.

The modifications are pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (Public Law 93-234) and are in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, Public Law 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. The community number(s) and suffix code(s) are unaffected by this revision. The community number and appropriate suffix code as shown above will be used by the National Flood Insurance Program (NFIP) for all flood insurance policies and renewals issued for your community.

FEMA has developed criteria for floodplain management as required under the above-mentioned Acts of 1968 and 1973. To continue participation in the NFIP, your community must use the modified flood hazard information to carry out the floodplain management regulations for the NFIP. The modified flood hazard information will also be used to calculate the appropriate flood insurance premium rates for all new buildings and their contents and for the second layer of insurance on existing buildings and their contents.

If you have any questions regarding the necessary floodplain management measures for your community or the NFIP in general, please contact the Mitigation Division Director, FEMA Region V, in Chicago, Illinois, either by telephone at (312) 408-5500, or in writing at 536 South Clark Street, Sixth Floor, Chicago, Illinois 60605.

If you have any questions regarding the LOMR, the proposed flood hazard determinations, or mapping issues in general, please call the FEMA Map Information eXchange, toll free, at (877) 336-2627 (877-FEMA MAP).

Sincerely,

A handwritten signature in black ink, appearing to read 'Luis Rodriguez', written in a cursive style.

Luis Rodriguez, P.E., Chief  
Engineering Management Branch  
Federal Insurance and Mitigation Administration

cc: Mr. Nathan Boerdoom

Ms. Ceil Strauss, CFM

Mr. Jeffrey Klein, CFM

Ms. Andrea Crabtree Naves, CFM

Mr. Robert A. Zimmerman, PhD, P.E.

Mr. Gregory Thompson, CFM, P.E.



# Federal Emergency Management Agency

Washington, D.C. 20472

March 30, 2015

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

The Honorable Del Rae Williams  
Mayor, City of Moorhead  
Moorhead City Hall  
500 Center Avenue  
Moorhead, MN 56561

IN REPLY REFER TO:

Case No.: 15-05-0455P  
Community Name: City Of Moorhead, MN  
Community No.: 275244  
Effective Date of  
This Revision: August 14, 2015

Dear Mayor Williams:

The Flood Insurance Rate Map for your community has been revised by this Letter of Map Revision (LOMR). Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals issued in your community.

Additional documents are enclosed which provide information regarding this LOMR. Please see the List of Enclosures below to determine which documents are included. Other attachments specific to this request may be included as referenced in the Determination Document. If you have any questions regarding floodplain management regulations for your community or the National Flood Insurance Program (NFIP) in general, please contact the Consultation Coordination Officer for your community. If you have any technical questions regarding this LOMR, please contact the Director, Mitigation Division of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) in Chicago, Illinois, at (312) 408-5500, or the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <http://www.fema.gov/business/nfip>.

Sincerely,

Luis Rodriguez, P.E., Chief  
Engineering Management Branch  
Federal Insurance and Mitigation Administration

List of Enclosures:

Letter of Map Revision Determination Document  
Annotated Flood Insurance Rate Map

cc: Mr. Nathan Boerdoom

Ms. Ceil Strauss, CFM

Mr. Jeffrey Klein, CFM

Ms. Andrea Crabtree Naves, CFM

Mr. Robert A. Zimmerman, PhD, P.E.

Mr. Gregory Thompson, CFM, P.E.



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	City Of Moorhead Clay County Minnesota	LEVEE	HYDRAULIC ANALYSIS LEVEE CERTIFICATION
	COMMUNITY NO.: 275244		
IDENTIFIER	Horn Park Flood Mitigation Project	APPROXIMATE LATITUDE & LONGITUDE: 46.846, -96.779 SOURCE: USGS QUADRANGLE DATUM: NAD 83	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM* NO.: 27027C0456E DATE: April 17, 2012 TYPE: FIRM* NO.: 27027C0457E DATE: April 17, 2012 TYPE: FIRM* NO.: 27027C0459E DATE: April 17, 2012		NO REVISION TO THE FLOOD INSURANCE STUDY REPORT	

Enclosures reflect changes to flooding sources affected by this revision.

\* FIRM - Flood Insurance Rate Map

### FLOODING SOURCE & REVISED REACH

The Red River of the North - From approximately 5,800 feet downstream of Interstate 94 to approximately 10,700 feet upstream of Interstate 94.

### SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
The Red River of the North	Zone AE	Zone AE	NONE	YES
	Zone X (shaded)	Zone X (shaded)	YES	YES
	Zone AE	Zone X (shaded)	NONE	YES
	BFEs*	BFEs	NONE	YES

\* BFEs - Base Flood Elevations

### DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Luis Rodriguez, P.E., Chief  
Engineering Management Branch  
Federal Insurance and Mitigation Administration



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

### COMMUNITY INFORMATION

#### APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

NFIP regulations Subparagraph 60.3(b)(7) requires communities to ensure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained. This provision is incorporated into your community's existing floodplain management ordinances; therefore, responsibility for maintenance of the altered or relocated watercourse, including any related appurtenances such as bridges, culverts, and other drainage structures, rests with your community. We may request that your community submit a description and schedule of maintenance activities necessary to ensure this requirement.

#### COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance flood discharges computed in the FIS for your community without considering subsequent changes in watershed characteristics that could increase flood discharges. Future development of projects upstream could cause increased flood discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on flood discharges subsequent to the publication of the FIS report for your community and could, therefore, establish greater flood hazards in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

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Luis Rodriguez, P.E., Chief  
Engineering Management Branch  
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency  
Washington, D.C. 20472

**LETTER OF MAP REVISION  
DETERMINATION DOCUMENT (CONTINUED)**

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Ms. Christine Stack  
Director, Mitigation Division  
Federal Emergency Management Agency, Region V  
536 South Clark Street, Sixth Floor  
Chicago, IL 60605  
(312) 408-5500

**STATUS OF THE COMMUNITY NFIP MAPS**

We will not physically revise and republish the FIRM for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panels warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

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Luis Rodriguez, P.E., Chief  
Engineering Management Branch  
Federal Insurance and Mitigation Administration



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

### COMMUNITY INFORMATION (CONTINUED)

A notice of changes will be published in the Federal Register. This information also will be published in your local newspaper on or about the dates listed below and through FEMA's Flood Hazard Mapping website at [https://www.floodmaps.fema.gov/fhm/Scripts/bfe\\_main.asp](https://www.floodmaps.fema.gov/fhm/Scripts/bfe_main.asp).

LOCAL NEWSPAPER      Name: *The Extra*  
                                      Dates: April 9, 2015 and April 16, 2015

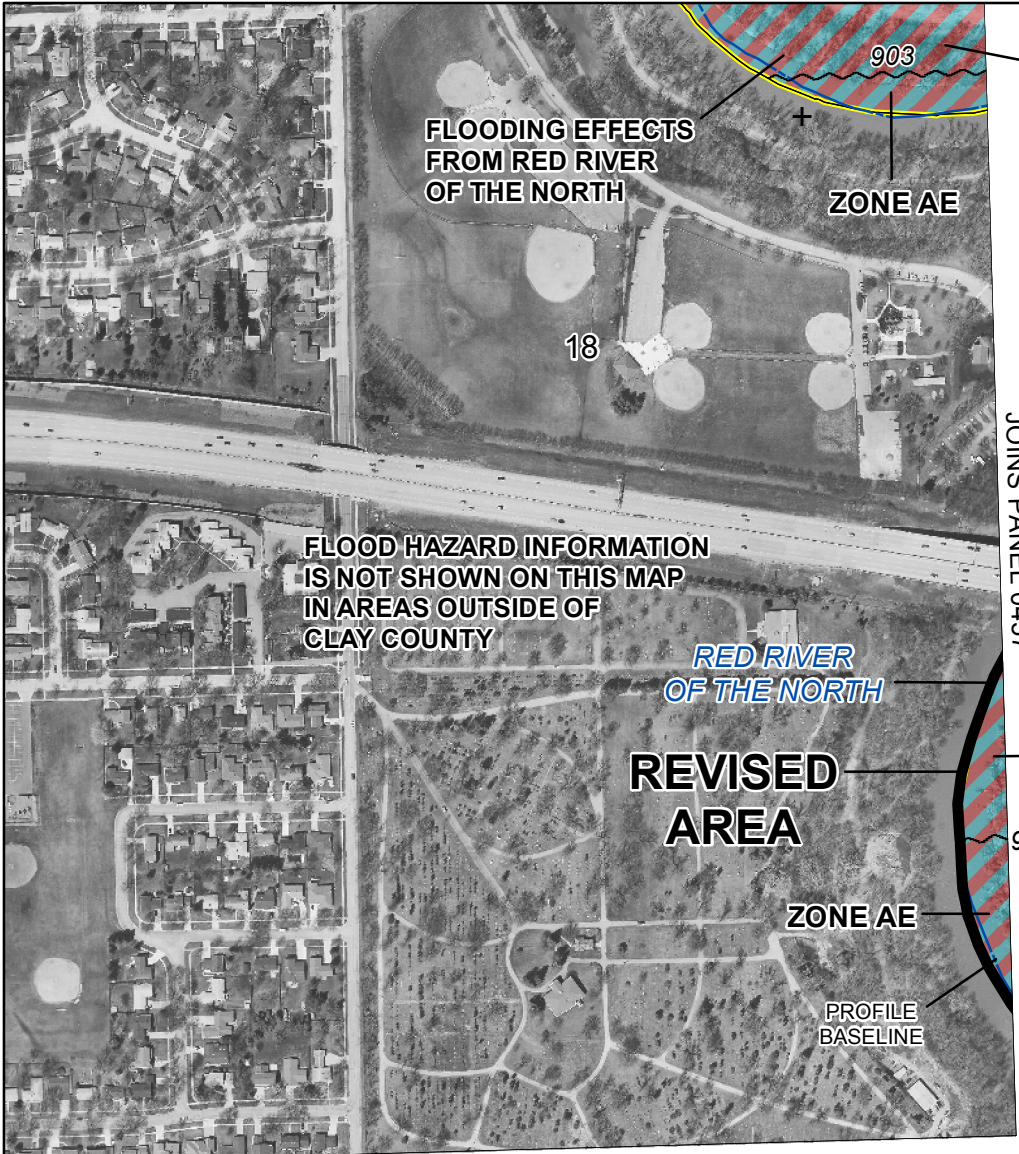
Within 90 days of the second publication in the local newspaper, a citizen may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised flood hazard determination presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

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Luis Rodriguez, P.E., Chief  
Engineering Management Branch  
Federal Insurance and Mitigation Administration





City of Moorhead  
275244







City of Moorhead  
275244

JOINS PANEL 0458

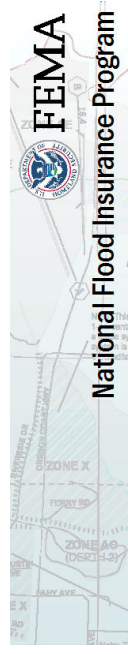
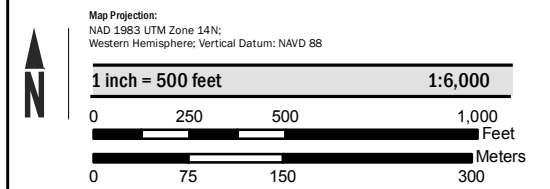
96° 46' 7.5"

46° 50' 7.5"

JOINS PANEL 0457

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
OTHER AREAS OF FLOOD HAZARD		Area with Reduced Flood Risk due to Levee See Notes. <i>Zone X</i>

SCALE



NATIONAL FLOOD INSURANCE PROGRAM  
FLOOD INSURANCE RATE MAP  
CLAY COUNTY, MINNESOTA  
AND INCORPORATED AREAS

PANEL **456** OF **635**

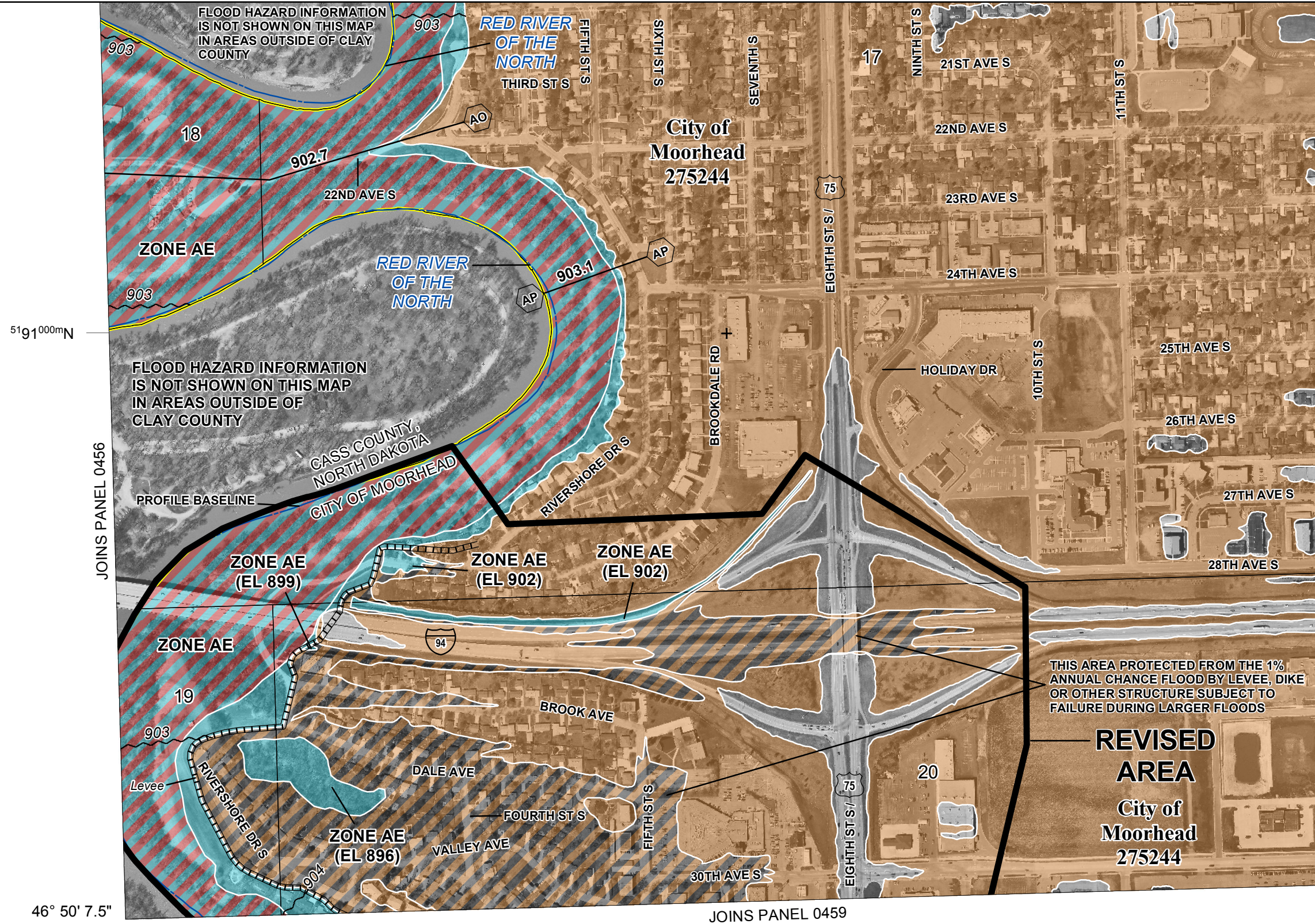
Panel Contains:  
COMMUNITY MOORHEAD, CITY OF      NUMBER 275244      PANEL 0456      SUFFIX E



**REVISED TO REFLECT LOMR EFFECTIVE AUGUST 14, 2015**

VERSION NUMBER 1.0.0.0  
MAP NUMBER 27027C0456E  
EFFECTIVE DATE April 17, 2012





5191000mN

46° 50' 7.5"

96° 46' 7.5"

JOINS PANEL 0456

JOINS PANEL 0459

FLOOD HAZARD INFORMATION IS NOT SHOWN ON THIS MAP IN AREAS OUTSIDE OF CLAY COUNTY

FLOOD HAZARD INFORMATION IS NOT SHOWN ON THIS MAP IN AREAS OUTSIDE OF CLAY COUNTY

CASS COUNTY, NORTH DAKOTA  
CITY OF MOORHEAD

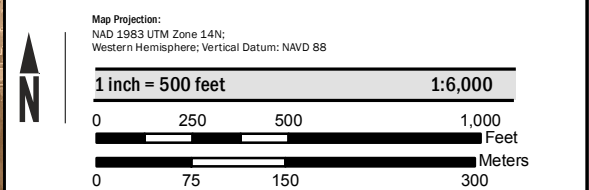
City of Moorhead  
275244

THIS AREA PROTECTED FROM THE 1% ANNUAL CHANCE FLOOD BY LEVEE, DIKE OR OTHER STRUCTURE SUBJECT TO FAILURE DURING LARGER FLOODS

**REVISED AREA**  
City of Moorhead  
275244

SPECIAL FLOOD HAZARD AREAS	
	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway
	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee See Notes. Zone X

**SCALE**



**NATIONAL FLOOD INSURANCE PROGRAM**  
FLOOD INSURANCE RATE MAP

CLAY COUNTY, MINNESOTA  
AND INCORPORATED AREAS

**PANEL 457 OF 635**

Panel Contains:  
COMMUNITY MOORHEAD, CITY OF      NUMBER 275244      PANEL 0457      SUFFIX E

**REVISED TO REFLECT LOMR EFFECTIVE AUGUST 14, 2015**

VERSION NUMBER 1.0.0.0  
MAP NUMBER 27027C0457E  
EFFECTIVE DATE April 17, 2012



671000mE

670000mE

96° 46' 7.5"

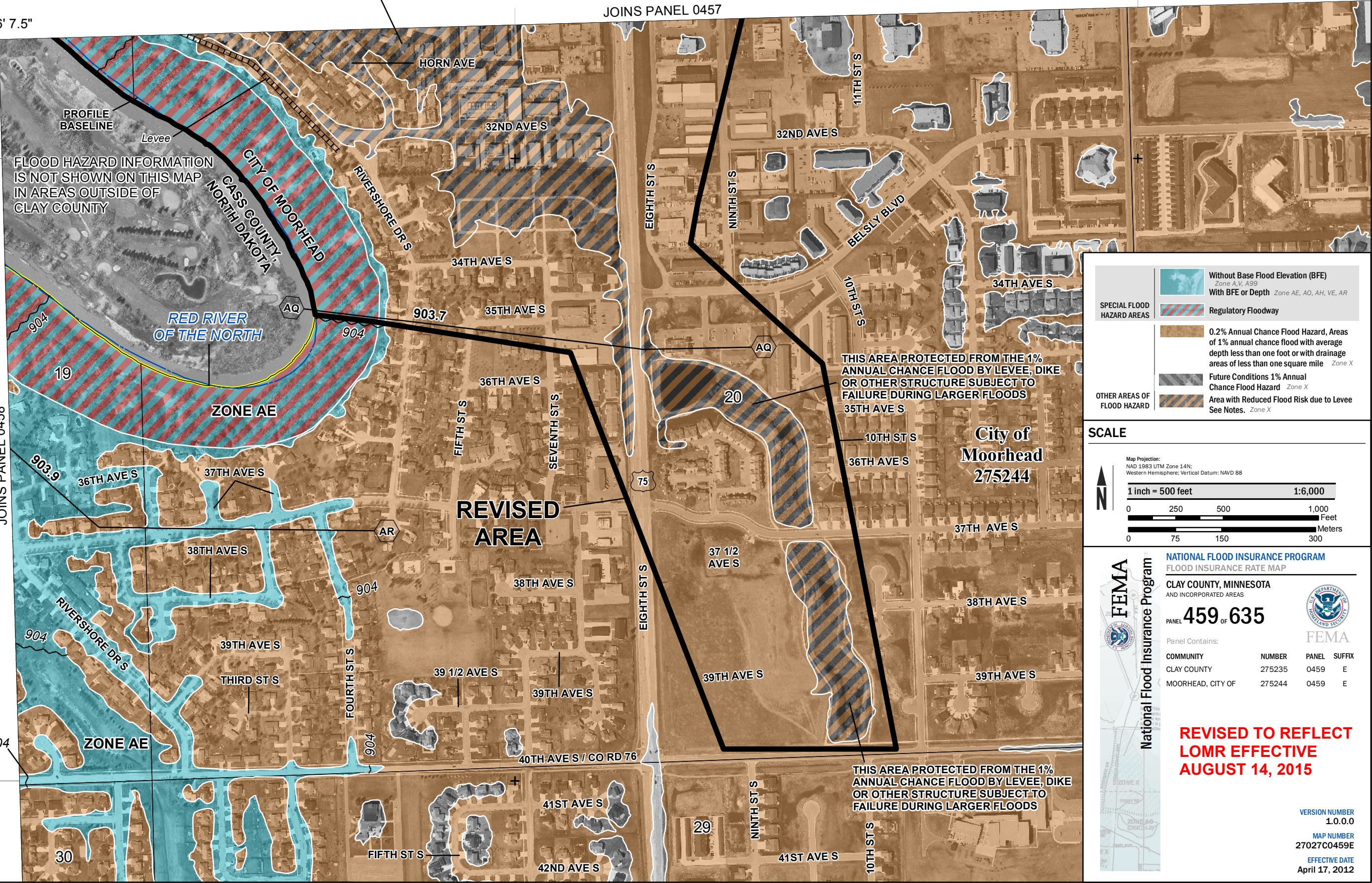
46° 50' 7.5"

5190000mN

5189000mN

THIS AREA PROTECTED FROM THE 1% ANNUAL CHANCE FLOOD BY LEVEE, DIKE OR OTHER STRUCTURE SUBJECT TO FAILURE DURING LARGER FLOODS

JOINS PANEL 0457



JOINS PANEL 0458

FLOOD HAZARD INFORMATION IS NOT SHOWN ON THIS MAP IN AREAS OUTSIDE OF CLAY COUNTY

THIS AREA PROTECTED FROM THE 1% ANNUAL CHANCE FLOOD BY LEVEE, DIKE OR OTHER STRUCTURE SUBJECT TO FAILURE DURING LARGER FLOODS

THIS AREA PROTECTED FROM THE 1% ANNUAL CHANCE FLOOD BY LEVEE, DIKE OR OTHER STRUCTURE SUBJECT TO FAILURE DURING LARGER FLOODS

**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee See Notes. Zone X

**SCALE**

Map Projection:  
NAD 1983 UTM Zone 14N;  
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 500 feet      1:6,000

0 250 500 1,000 Feet

0 75 150 300 Meters

**FEMA**  
National Flood Insurance Program

**NATIONAL FLOOD INSURANCE PROGRAM**  
FLOOD INSURANCE RATE MAP

CLAY COUNTY, MINNESOTA  
AND INCORPORATED AREAS

PANEL **459** OF **635**

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
CLAY COUNTY	275235	0459	E
MOORHEAD, CITY OF	275244	0459	E

**REVISED TO REFLECT LOMR EFFECTIVE AUGUST 14, 2015**

VERSION NUMBER 1.0.0.0  
MAP NUMBER 27027C0459E  
EFFECTIVE DATE April 17, 2012