



Federal Emergency Management Agency

Washington, D.C. 20472

June 28, 2016

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable Jonathan Rothschild
Mayor, City of Tucson
City Hall
255 West Alameda Street, 10th Floor
Tucson, AZ 85701

IN REPLY REFER TO:

Case No.: 15-09-2903P
Follows Conditional
Case No.: 11-09-2928R
Community Name: City of Tucson, AZ
Community No.: 040076
Effective Date of
This Revision: **November 9, 2016**

Dear Mayor Rothschild:

The Flood Insurance Study Report and Flood Insurance Rate Map for your community have been revised by this Letter of Map Revision (LOMR). Please use the enclosed annotated map panel(s) 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 Oakland, California, at (510) 627-7175, 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,

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

List of Enclosures:

Letter of Map Revision Determination Document
Annotated Flood Insurance Rate Map
Annotated Flood Insurance Study Report

cc: Mr. Fred Felix, P.E.
City Engineer
City of Tucson

Mr. Terry Hendricks, CFM
Chief Hydrologist
Pima County Regional Flood Control District

Mr. Adam Raczynski, P.E., CFM
Project Manager
Tetra Tech, Inc.

Follows Conditional Case No.: 11-09-2928R



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 Tucson Pima County Arizona	CULVERT LEVEE	FLOODWAY HYDRAULIC ANALYSIS HYDROLOGIC ANALYSIS LEVEE CERTIFICATION UPDATED TOPOGRAPHIC DATA
	COMMUNITY NO.: 040076		
IDENTIFIER	Saint Mary's Hospital	APPROXIMATE LATITUDE & LONGITUDE: 33.225, -111.007 SOURCE: USGS QUADRANGLE DATUM: NAD 83	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM*	NO.: 04019C2260L DATE: June 16, 2011	DATE OF EFFECTIVE FLOOD INSURANCE STUDY: September 28, 2012 PROFILE(S): 238P FLOODWAY DATA TABLE: TABLE 8 SUMMARY OF DISCHARGES TABLE: TABLE 6	
TYPE: FIRM*	NO.: 04019C2276L DATE: June 16, 2011		

Enclosures reflect changes to flooding sources affected by this revision.

* FIRM - Flood Insurance Rate Map

FLOODING SOURCE(S) & REVISED REACH(ES)

Silvercroft Wash - from approximately 450 feet downstream of St. Mary's Road to approximately 1,100 feet upstream

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Silvercroft Wash	Zone A	Floodway	NONE	YES
	Zone A	Zone X (shaded)	NONE	YES
	BFEs*	BFEs*	YES	YES
	Zone AE	Zone AE	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>.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

15-09-2903P

102-I-A-C



Federal Emergency Management Agency
Washington, D.C. 20472

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

OTHER FLOODING SOURCES AFFECTED BY THIS REVISION

FLOODING SOURCE(S) & REVISED REACH(ES)

Silvercroft Wash - from approximately 450 feet downstream of St. Mary's Road to approximately 1,100 feet upstream

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Silvercroft Wash	Zone A	Zone AE	YES	NONE

* BFEs - Base Flood Elevations

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>.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services 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 discharges computed in the submitted hydrologic model. Future development of projects upstream could cause increased discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on discharges and could, therefore, indicate that greater flood hazards exist 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>.

A handwritten signature in black ink, appearing to read "Rick F. Sacbibit".

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services 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. Jeffrey D. Lusk
Director, Mitigation Division
Federal Emergency Management Agency, Region IX
1111 Broadway Street, Suite 1200
Oakland, CA 94607-4052
(510) 627-7175

STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel(s) and FIS report 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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Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

TABLE 6- SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs)			
		10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
SABINO CREEK					
Upstream of confluence with Tanque Verde Creek	66.4	4,900	12,000	18,000	36,000
Upstream of confluence with Bear Creek	36.8	3,750	8,500	12,500	25,000
SAHUARA WASH					
At Pima Street	0.4	*	*	622	*
SAN JUAN WASH					
At La Cholla Boulevard	0.82	*	*	2,091	*
At confluence with West Branch Santa Cruz River	1.14	*	*	1,757	*
SANTA CLARA WASH					
At 12th Avenue	0.20	*	*	206	*
At Interstate Highway 19	0.39	*	*	338	*
SANTA CRUZ RIVER					
At Cortaro Road	3,503	21,800	48,000	70,000	107,400
Upstream of confluence with Canada del Oro Wash	3,232	21,800	48,000	70,000	107,400
Upstream of confluence with Rillito Creek	2,282	16,800	41,000	60,000	93,000
At Congress Street	2,222	16,800	41,000	60,000	93,000
At Drexel Road	2,101	16,800	41,000	60,000	93,000
At Continental Road	1,662	*	*	45,000	*
SILVERCROFT WASH					
At confluence with Santa Cruz River	13.24	3,500	7,500	9,700	16,100
At Grant Road	8.70	1,700	3,800	5,200	10,000
At Speedway Boulevard	2.84	910	2,050	2,750	5,500
At Anklam Road	2.3	1,119	2,405	2,968	4,625
← REVISED DATA					
SOPORI WASH					
At U.S. Highway 89	164.0	6,770	14,300	19,900	47,860
At upstream limit of detailed study	110.0	6,120	12,960	18,000	43,200
TANQUE VERDE CREEK					
Upstream of confluence with Rillito Creek	241.0	10,500	24,000	34,000	68,000
Upstream of confluence of Sabino Creek	149.0	8,700	20,000	28,000	56,000
Near confluence with Agua Caliente Wash	99.6	7,300	17,500	23,000	46,000
Upstream of confluence of Canyon del Salto Creek	43.1	5,000	12,500	16,000	32,000

FLOODING SOURCE		FLOODWAY				BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE	
Silvercroft Wash									
A	11,674	61	321	10.1	2,332.0	2,332.0	2,332.0	0.0	
B	11,917	67	357	7.7	2,334.0	2,334.0	2,334.0	0.0	
C	12,440	54	383	7.2	2,339.2	2,339.2	2,339.2	0.0	
D	12,714	51	301	9.1	2,340.9	2,340.9	2,340.9	0.0	
E	12,857	29	390	7.1	2,344.3	2,344.3	2,344.3	0.0	
F	12,968	43	330	8.3	2,345.8	2,345.8	2,345.9	0.1	
G	13,126	45	238	11.6	2,346.4	2,346.4	2,346.5	0.1	
H	13,670	41	276	10.0	2,352.5	2,352.5	2,352.8	0.3	
I	13,934	56	301	9.1	2,355.0	2,355.0	2,355.4	0.4	
J	14,388	50	276	10.0	2,357.2	2,357.2	2,357.3	0.1	
K	14,594	51	270	10.2	2,358.3	2,358.3	2,358.3	0.0	
L	15,080	47	244	11.3	2,362.2	2,362.2	2,362.6	0.4	
M	15,819	57	250	11.9	2,369.9	2,369.9	2,369.9	0.0	
N	16,060	60	206	14.4	2,371.4	2,371.4	2,371.4	0.0	
O	16,248	78	648	4.8	2,378.6	2,378.6	2,378.7	0.1	
P	16,924	80	442	7.9	2,382.4	2,382.4	2,383.4	1.0	
Q	17,152	80	312	12.0	2,383.6	2,383.6	2,383.7	0.1	
					REVISED DATA				

¹ Feet above confluence with Santa Cruz River

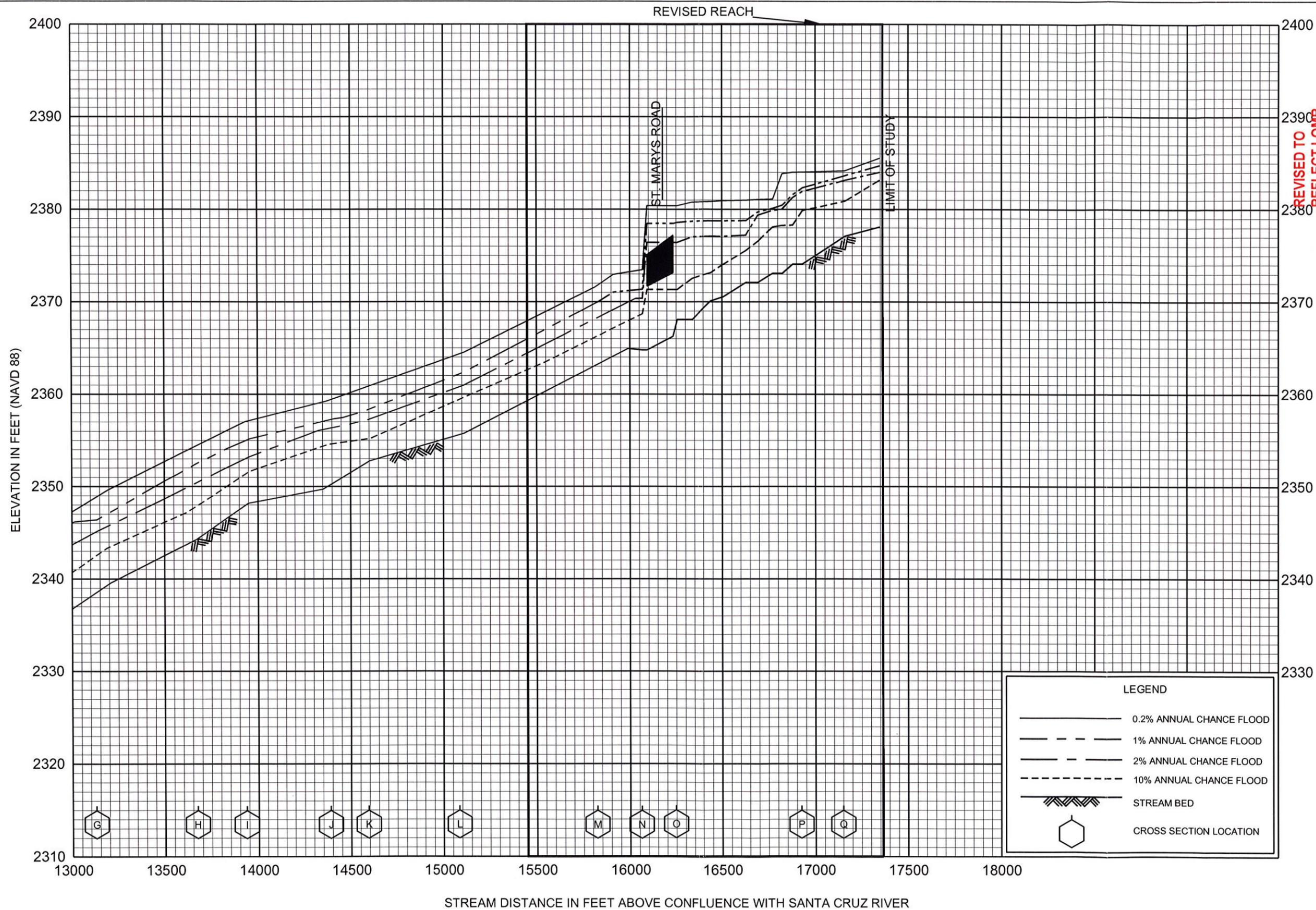
**REVISED TO
REFLECT LOMR
EFFECTIVE: November 9, 2016**

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY
PIMA COUNTY, AZ
AND INCORPORATED AREAS

FLOODWAY DATA

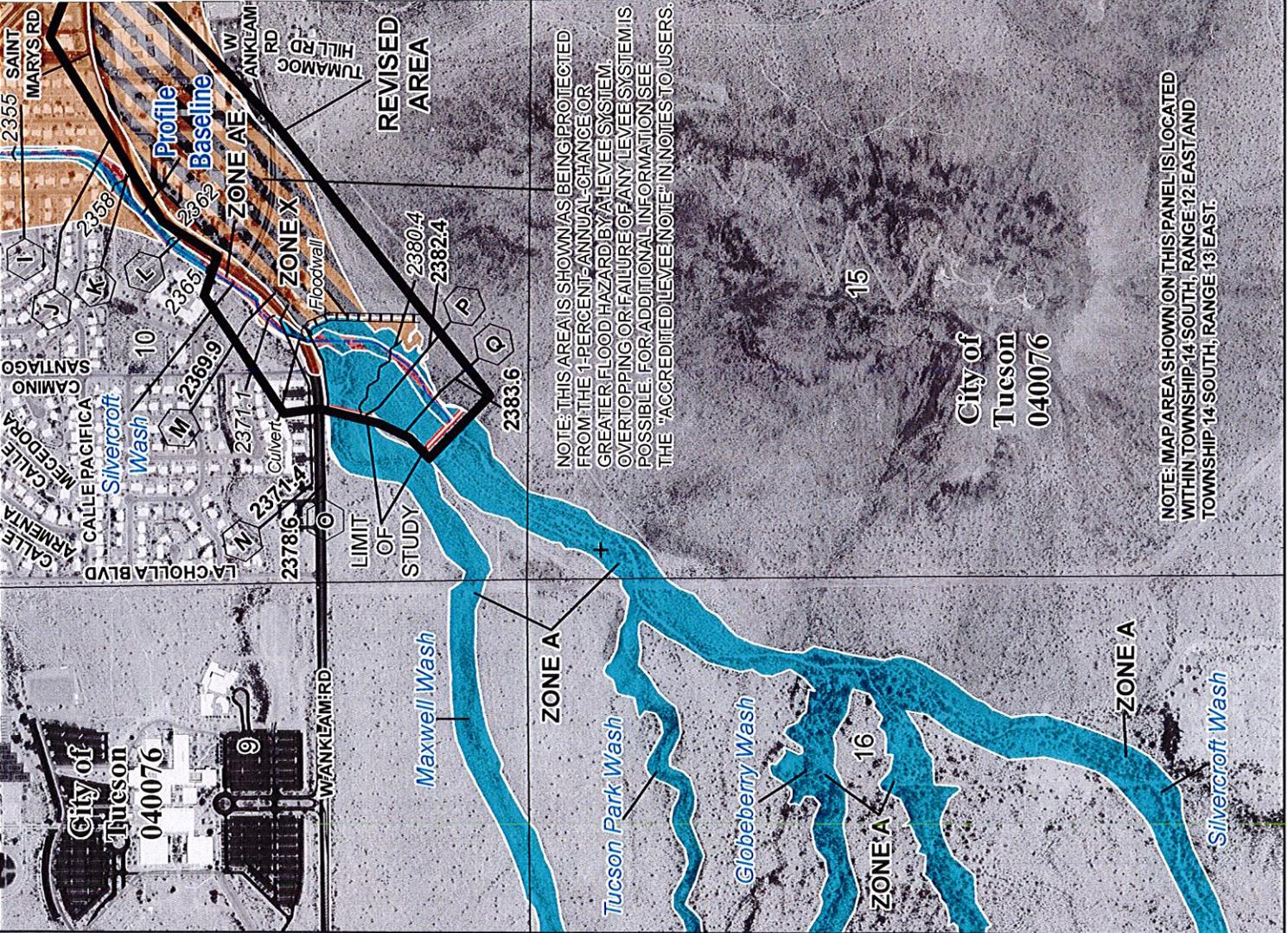
SILVERCROFT WASH



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FLOOD PROFILES
SILVERCROFT WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY
PIMA COUNTY, AZ
AND INCORPORATED AREAS



JOINS PANEL 2276

35°65'000mN

35°64'000mN

NOTE: THIS AREA IS SHOWN AS BEING PROTECTED FROM THE 1-PERCENT-ANNUAL-CHANCE OR GREATER FLOOD HAZARD BY A LEVEE SYSTEM. OVERTOPPING OR FAILURE OF ANY LEVEE SYSTEM IS POSSIBLE. FOR ADDITIONAL INFORMATION SEE THE "ACCREDITED LEEVE NOTE" IN NOTES TO USERS.

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 14 SOUTH, RANGE 12 EAST AND TOWNSHIP 14 SOUTH, RANGE 13 EAST.

ACCREDITED LEEVE NOTES TO USERS: If an accredited levee note appears on this panel check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfip/index.shtm>.

	Without Base Flood Elevation (BFE) Zone A, V, AGG
	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



Map Projection: NAD 1983 Hybrid StatePlane Arizona Central FIPS 5002 Feet Intl. Western Hemisphere, Vertical Datum: WAD 88

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

PIMA COUNTY, ARIZONA
AND INCORPORATED AREAS

PANEL 2260 of 4750

Panel Contains:
COMMUNITY 040076
COUNTY PIMA
TUCSON, CITY OF

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

PIMA COUNTY, ARIZONA
AND INCORPORATED AREAS

PANEL 2260 of 4750

Panel Contains:
COMMUNITY 040076
COUNTY PIMA
TUCSON, CITY OF

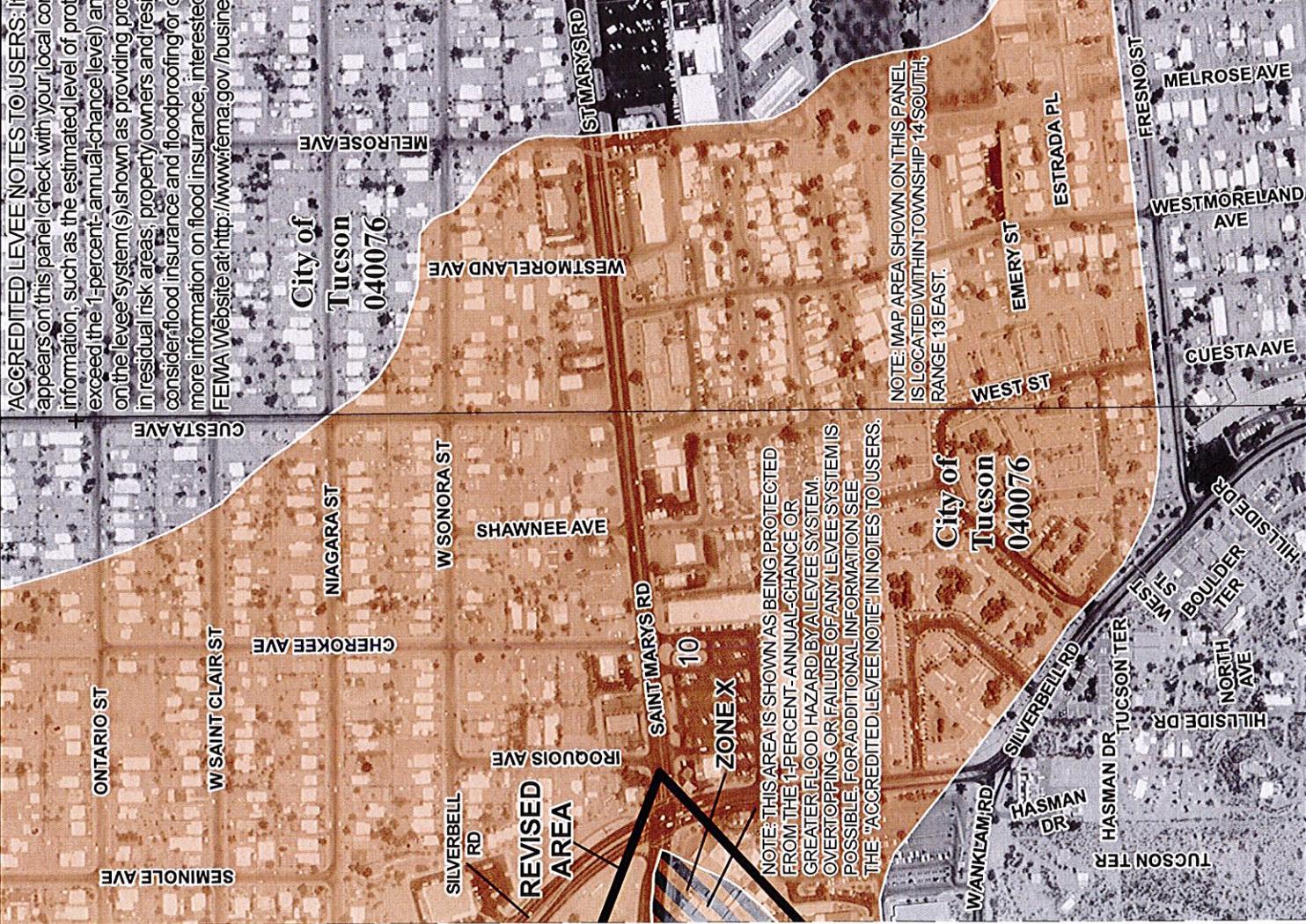
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EFFECTIVE: November 9, 2016

VERSION NUMBER 1.1.1.0
MAP NUMBER 04019C2260L
EFFECTIVE DATE JUNE 16, 2011

450000 FT

JOINS PANEL 2260

ACCREDITED LEEVE NOTES TO USERS: If an accredited levee note appears on this panel check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan on the levee system(s) shown as providing protection. To mitigate flood risk in residential areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfp/index.shtml>.



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

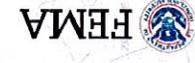
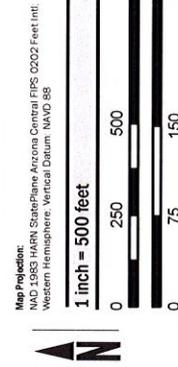
Future Conditions 1% Annual Chance Flood Hazard Zone X

Area with Reduced Flood Risk due to Levee
See Notes. Zone X

SPECIAL FLOOD HAZARD AREAS

OTHER AREAS OF FLOOD HAZARD

SCALE



National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP
PIMA COUNTY, ARIZONA
AND INCORPORATED AREAS

PANEL **2276** OF **4750**

Panel Contains:
COMMUNITY NUMBER 040076
TUCSON, CITY OF

REVISED TO REFLECT LOMR EFFECTIVE: November 9, 2016

VERSION NUMBER 1.1.1.0
MAP NUMBER 04019C2276L
EFFECTIVE DATE JUNE 16, 2011