



MEMORANDUM

Date: January 17, 2014

To: The Honorable Chair and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator *[Signature]*

Re: **Arroyo Chico Final Construction Phase for High School Wash and Conflict with the Streetcar and Fourth Avenue Street Fair**

Introduction

There has been some recent publicity regarding the Fourth Avenue Street Fair and the reduction in the number of vendor spaces that has been attributed to streetcar testing, as well as the final phase of the Arroyo Chico project – the High School Wash box culvert connection and extension.

There have also been a number of conflicting reports about who caused what with respect to Street Fair disruption. Given the likelihood of additional conflict over this issue, I am providing the Board this status report of what we now know about the project and how it may interface with the City of Tucson streetcar testing, as well as the Fourth Avenue Street Fair.

Arroyo Chico Multi-use Project

First, some background on the Arroyo Chico project. This is a multimillion dollar federal flood control project sponsored by the Pima County Regional Flood Control District (RFCD). It has been developed in several phases over time, beginning in the late 1980s. The first phase related to the reconstruction of the Dell Urich Golf Course into a detention/ retention basin, followed by the Cherry Field Detention Basin. The third phase of detention basins known as the Park Avenue Detention Basins was then completed. The final phase of improvements, to what is known as High School Wash, was designed to eliminate flooding in the downtown and Fourth Avenue areas.

The High School Wash/Arroyo Chico project affects Eighth Street and Third Avenue, not Fourth Avenue. The timing of the construction schedule is predicated on the timely relocation of a 48-inch reclaimed waterline that can only be modified and/or relocated during nonpeak turf irrigation season, which is winter. We had hoped to be nearing construction now, as Tucson Water has required that the 48-inch waterline be relocated and completely operational by May 1, 2014.

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We now understand the City will delay or not issue a permit for RFCD work until after March 24, 2014, which will apparently eliminate certain conflicts with the Fourth Avenue Spring Street Fair, since apparently, the City has decided not to defer any of their streetcar testing for a few days.

The actual impact of this decision on the project and meeting the terms and conditions of Tucson Water is uncertain. We have heard, but not confirmed, that the May 1 date may be extended. I have asked RFCD staff to obtain written confirmation from the City regarding what they intend to do/not do with regard to delaying permit issuance or extending the date of completion for the waterline. This will have a direct effect on whether the project can move forward this year.

I do not intend to place the RFCD in any liability position for performance-related penalties regarding construction of this last phase of the Arroyo Chico improvements. This includes any penalty for not relocating the reclaimed waterline in the timeframe specified by the City, as well as a potential delay charge of \$25,500 from the City's contractor, Pure Technology, if construction work is not completed by March 27, 2014. This final phase of the project is an important component of the overall project to address chronic flooding problems along Fourth Avenue, to facilitate development of the City's Regional Transportation Authority Links project, and to remove a significant amount of real and improved property from the floodplain.

We have accommodated a number of requests of the City of Tucson through their Transportation Department to provide additional improvements, including additional storm drain laterals and other features to collect flood flows from Third Avenue and Eighth Street. These project modifications are deemed to be "betterments" by the US Army Corps of Engineers (Corps) and become an entirely locally sponsored cost. The County will be contributing an additional \$652,000 (Corps estimate) in betterments requested by the City for this project (see Attachment 1, City of Tucson letter dated July 18, 2013 and RFCD letter dated July 30, 2013).

Project Cost and Funding Allocations

The total cost for this final phase of the Arroyo Chico project is shown in the table below, along with the cost allocation. The total project cost is estimated to be \$5.9 million with a federal share being paid by the Corps of approximately \$3.72 million. The County is required to match the federal funding with \$1.08 million. In addition, the County, through the RFCD, agreed to contribute an additional \$652,000 for City-requested betterments. The County, through the RFCD, is now facing a utility relocation cost of \$425,000. It

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should be noted that the cost to the City of Tucson for this project is zero, even though they are the primary beneficiary.

Funding Source	Amount
Federal Share	\$3,720,000
County Share	1,080,000
Additional County Contribution for Storm Drain Betterments	652,000
County Cost for Utility Relocation	425,000
Total	\$5,877,000

Streetcar Maintenance Facility and the 100-year Floodplain

An issue that did arise was with regard to the streetcar maintenance facility and whether it was within the 100-year floodplain. Based on my own field inspection on January 16, 2014, as well as a certification provided by the project engineer employed by the City (Attachment 2), the streetcar facility is likely not impacted by the floodplain. This means that if flooding were to occur today, the streetcar maintenance facility would likely not be adversely impacted. Unfortunately, raising the streetcar maintenance facility out of the floodplain will adversely affect surrounding properties should flooding occur between now and the time the County's final phase of the Arroyo Chico project is completed.

The floodplain boundaries and location of the streetcar maintenance facility are shown in Attachment 3A. Actual pre- and post-project floodplains are shown in Attachment 3B. We have no concern over the flooding potential of the streetcar maintenance facility; but given its potential adverse effects on surrounding properties, we believe completing the final phase of the Arroyo Chico project should be viewed with some urgency to minimize potential future flooding liability claims against the City.

City/County Intergovernmental Agreement for Utility Relocation

Given a thorough review of the details of this project, I am now somewhat concerned about our automatic assumption of the full cost associated with utility relocation. The County and City have an intergovernmental agreement (IGA) for such, and the IGA indicates this would normally be a shared cost between the City and County. However, as I understand in talking with RFCD staff, the City has taken the position that there is a technical distinction between the County and "County Flood Control District;" the IGA does not apply; and the County RFCD is obligated to pay the entire utility relocation cost.

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As the Board knows, in application and in reality, the terms County, the RFCD, and County Library District are used interchangeably. Given the tremendous benefit the City is receiving from RFCD's agreement to pay over \$650,000 in City-requested betterments, one would expect better treatment from a true partner, particularly since the entire benefit of this project accrues to the City of Tucson.

I will ask the County Attorney to discuss with the Tucson City Attorney the fine-line definition that apparently is being imposed on this utility relocation cost and hope that there is a reasonable outcome.

Summary

We will continue to proceed with this project costing the County and federal government nearly \$6 million for the entire benefit of the City of Tucson. We have no intention of disrupting the Fourth Avenue Street Fair. However, we do ask that all those involved understand the reality and urgency of resolving the flooding issues on Fourth Avenue and downtown through this final project phase. We further request that the City make those accommodations necessary so as not to penalize the County further with regard to enforcing strict reclaimed waterline relocation dates, particularly when the City appears to be delaying issuing permits for this project in an attempt to avoid interference with the Street Fair.

Finally, I am hopeful the City of Tucson will view this project in a spirit of partnership and agree to pay half of the utility relocation cost that a fair reading of our IGA with the City would provide.

CHH/mjk

Attachments

c: John Bernal, Deputy County Administrator for Public Works
Suzanne Shields, Director, Regional Flood Control District

ATTACHMENT 1

RECEIVED

JUL 30 2013

RFCD



July 18, 2013

Suzanne Shields, P.E., Director
Pima County Regional Flood Control District
97 East Congress Street
Tucson, Arizona 85701-1797

CITY OF
TUCSON
DEPARTMENT OF
TRANSPORTATION

Subject: High School Wash Betterments

Dear Ms. Shields:

The Tucson Department of Transportation respectfully submits this request for Pima County Regional Flood Control District to provide funding in the amount of approximately \$140,000. The City would like to add improvements to Increment 4 of the pending Army Corps of Engineers drainage project that will reroute the High School Wash, to alleviate flooding in the Fourth Avenue area. Despite these proposed improvements, it is expected that approximately 600 cfs will bypass this new feature and continue on to Fourth Avenue. County engineers and HDR have proposed additional improvements that would intercept this break-out flow to ensure the Fourth Avenue businesses can be removed from the 100-year floodplain. These improvements are as follows:

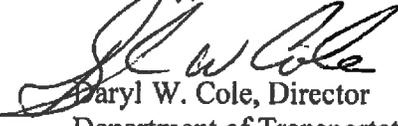
1. Increase the box culvert size from 10' X 8' to 12' X 8'. The cost for this has been offset since the City built an additional 95 feet of this box during the recent Eighth Street culvert project so that the Corps would not need to disturb Fourth Avenue nor reconstruct the Modern Streetcar tracks with the Segment 4 construction. (Tetra Tech is designing this modification and the difference in construction cost is not currently known).
2. Build a large grated inlet over the top of the existing High School Wash culvert at the location of the existing small inlet on the TUSD campus. A short wall or berm would be built along the west side of the campus to ensure the flow enters the inlet. (Approximate Cost is \$35,000).
3. Build a pair of curb-opening inlets on Eighth Street just east of Third Avenue that outfall into the new box culvert. (Approximate Cost is \$43,000).
4. Build a pair of curb-opening inlets on Eighth Street just west of Third Avenue that outfall into the new box culvert. (Approximate Cost is \$21,000).

5. Build a pair of curb-opening inlets on Third Avenue just north of Eighth Street that outfall into the new box culvert. (Approximate Cost is \$39,000).

The City of Tucson understands that these would be considered betterments and therefore not eligible for ACOE funding. Given the long history of these flood control project and past flooding problems that have impacted the Fourth Avenue businesses, we believe this is a wise investment to ensure that the area is dried up once and for all.

In advance, we appreciate your consideration of this request. If you or your staff have any questions, please have them contact Mr. Sam Credio of my staff, at 837-6641.

Sincerely,


Daryl W. Cole, Director
Department of Transportation

DC/AM/rw

- c: Albert Elias, Assistant City Manager
- Fred Felix, Interim Engineering Administrator
- Sam Credio, Project Manager
- Larry Robison, PC RFCD

County Flood Control
District

652 \$140^k betterment
\$70^k utility relocation
425 (water & sewer)



**PIMA COUNTY
REGIONAL FLOOD CONTROL DISTRICT
97 EAST CONGRESS STREET, THIRD FLOOR
TUCSON, ARIZONA 85701-1797**

**SUZANNE SHIELDS, P.E.
DIRECTOR**

**(520) 243-1800
FAX (520) 243-1821**

July 30, 2013

Daryl Cole, Director
City of Tucson, Department of Transportation
P.O. Box 27210
Tucson, AZ 85726-7210

Subject: High School Wash Betterments

Dear Mr. Cole:

We will be happy to include the request for improvements noted in your July 18, 2013 letter. We share the City's goal to alleviate flooding in the Fourth Avenue business area. My staff will be working with HDR and the U. S. Army Corps of Engineers to see that these improvements are added to the project with the District providing the necessary funding.

Once the project is completed we will also process revisions to the floodplain maps through the Federal Emergency Management Agency.

Sincerely,

A handwritten signature in blue ink, appearing to read "S Shields", is written over a faint, larger version of the signature.

Suzanne Shields, P.E.
Director and Chief Engineer

SS/tj

c: Albert Elias, Assistant City Manager
Fred Flex, Interim Engineering Administrator – City of Tucson DOT
Sam Credio, Project Manager – City of Tucson DOT
Bill Zimmerman, Deputy Director – Regional Flood Control District
Larry Robison, Division Manager – Regional Flood Control District

ATTACHMENT 2

**FLOODPROOFING CERTIFICATE
 FOR NON-RESIDENTIAL STRUCTURES**

OMB No. 1660-0008
 Expiration Date: July 31, 2015

The floodproofing of non-residential buildings may be permitted as an alternative to elevating to or above the Base Flood Elevation; however, a floodproofing design certification is required. This form is to be used for that certification. Floodproofing of a residential building does not alter a community's floodplain management elevation requirements or affect the insurance rating unless the community has been issued an exception by FEMA to allow floodproofed residential basements. The permitting of a floodproofed residential basement requires a separate certification specifying that the design complies with the local floodplain management ordinance.

BUILDING OWNER'S NAME City of Tucson	FOR INSURANCE COMPANY USE POLICY NUMBER COMPANY NAIC NUMBER
STREET ADDRESS (including Apt., Unit, Suite, and/or Bldg. Number) OR P.O. ROUTE AND BOX NUMBER 290 East 8th Street	
OTHER DESCRIPTION (Lot and Block Numbers, etc.) Part of Lot 1, NE of Stevens Ave, BLK 82	
CITY Tucson	STATE AZ ZIP CODE 85705

SECTION I – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Provide the following from the proper FIRM:

COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM INDEX	FIRM ZONE	BASE FLOOD ELEVATION (In AO Zones, Use Depth)
040076	2217	L	June 16, 2011	AE	2381.7

Indicate elevation datum used for Base Flood Elevation shown above: NGVD 1929 NAVD 1988 Other/Source: _____

SECTION II – FLOODPROOFING INFORMATION (By a Registered Professional Engineer or Architect)

Elevations are based on: Construction Drawings Building Under Construction Finished Construction

Floodproofing Design Elevation Information:

Building is floodproofed to an elevation of **2382.90** feet (In Puerto Rico only: _____ meters). NGVD 1929 NAVD 1988 Other/Source: _____
 (Elevation datum used must be the same as that used for the Base Flood Elevation.)

Height of floodproofing on the building above the lowest adjacent grade is **0.50** feet (In Puerto Rico only: _____ meters).

For Unnumbered A Zones Only:

Highest adjacent (finished) grade next to the building (HAG) **2382.89** feet (In Puerto Rico only: _____ meters)
 NGVD 1929 NAVD 1988 Other/Source: _____

(NOTE: For insurance rating purposes, the building's floodproofed design elevation must be at least 1 foot above the Base Flood Elevation to receive rating credit. If the building is floodproofed only to the Base Flood Elevation, then the building's insurance rating will result in a higher premium.)

SECTION III – CERTIFICATION (By a Registered Professional Engineer or Architect)

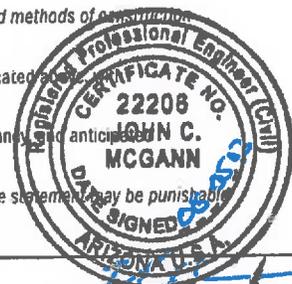
Non-Residential Floodproofed Construction Certification:

I certify that, based upon development and/or review of structural design, specifications, and plans for construction, the design and methods of construction are in accordance with accepted standards of practice for meeting the following provisions:

The structure, together with attendant utilities and sanitary facilities, is watertight to the floodproofed design elevation indicated at all walls that are substantially impermeable to the passage of water.

All structural components are capable of resisting hydrostatic and hydrodynamic flood forces, including the effects of buoyancy and anticipated debris impact forces.

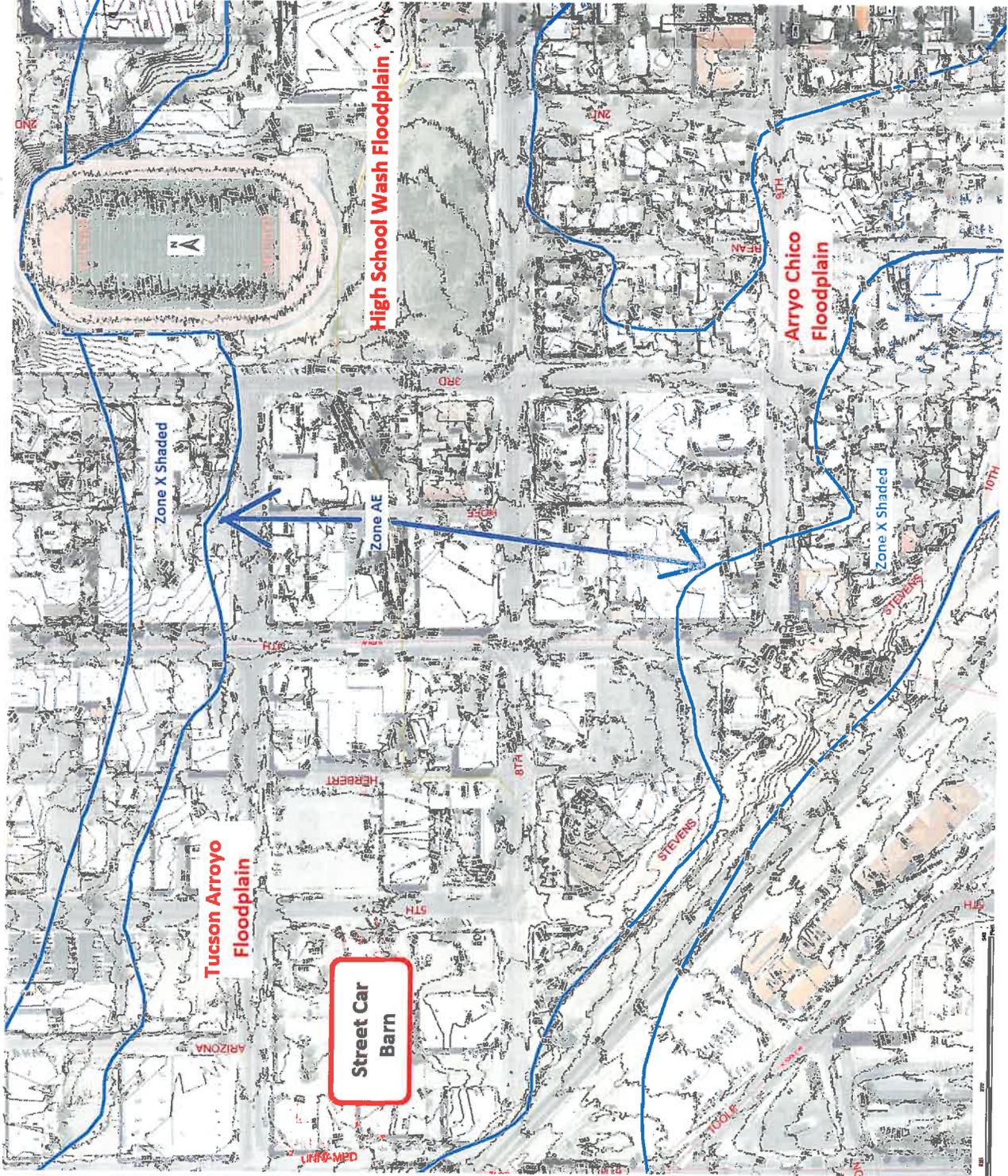
I certify that the information on this certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

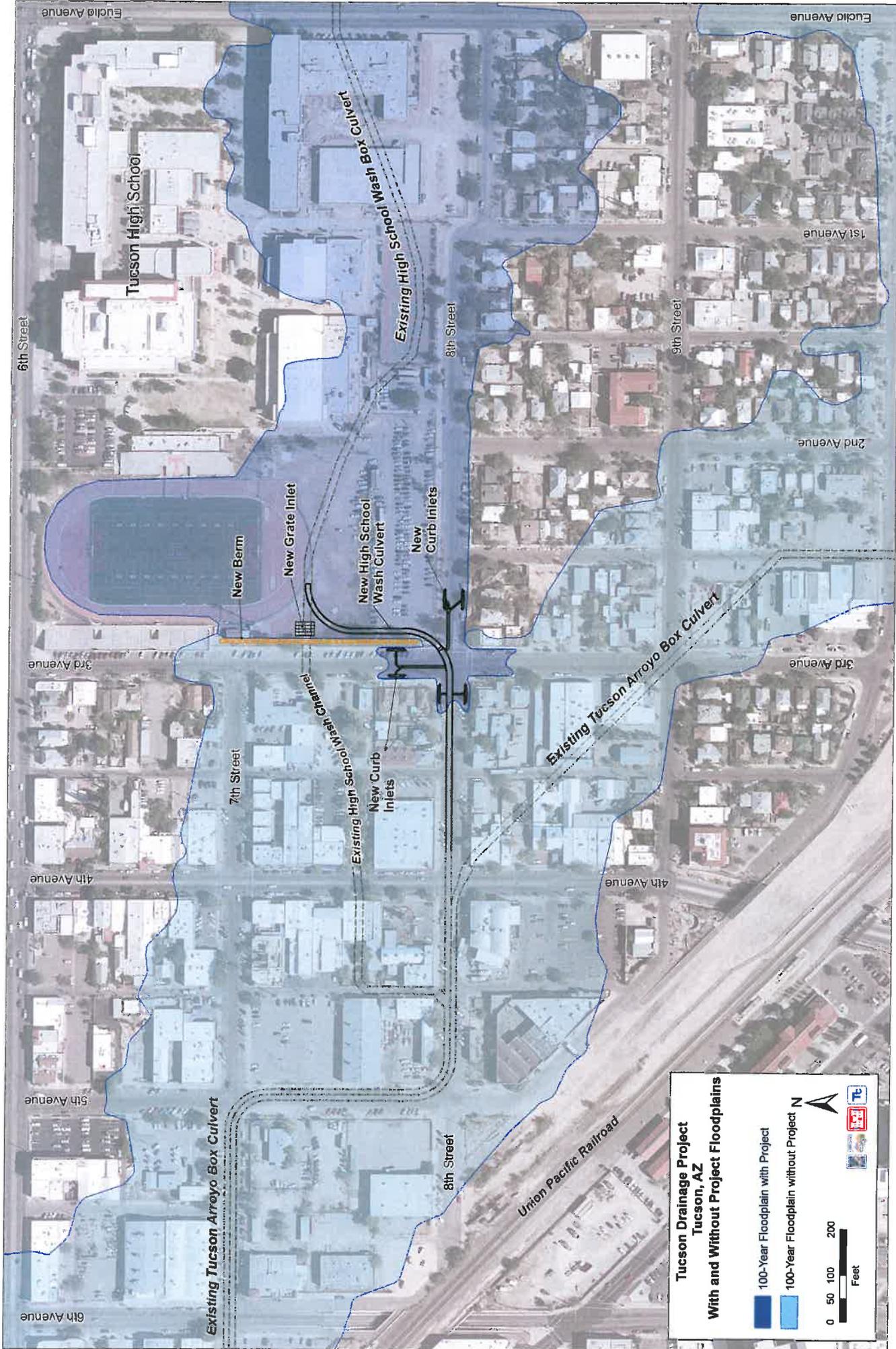


CERTIFIER'S NAME John C. McGann	LICENSE NUMBER (or Affix Seal) Arizona (Civil) 22206	Expires 09/30/15
TITLE Director Civil Engineering	COMPANY NAME GLHN Architects & Engineers Inc	
ADDRESS 2939 East Broadway Blvd	CITY Tucson	STATE AZ ZIP CODE 85716
SIGNATURE <i>[Signature]</i>	DATE Aug 5, 2013	PHONE 520.881.4546

Copies should be made of this Certificate for: 1) community official, 2) Insurance agent/company, and 3) building owner.

ATTACHMENT 3





**Tucson Drainage Project
Tucson, AZ**

With and Without Project Floodplains

- 100-Year Floodplain with Project
- 100-Year Floodplain without Project

0 50 100 200
Feet

N