



SAN ANTONIO
RIVER AUTHORITY

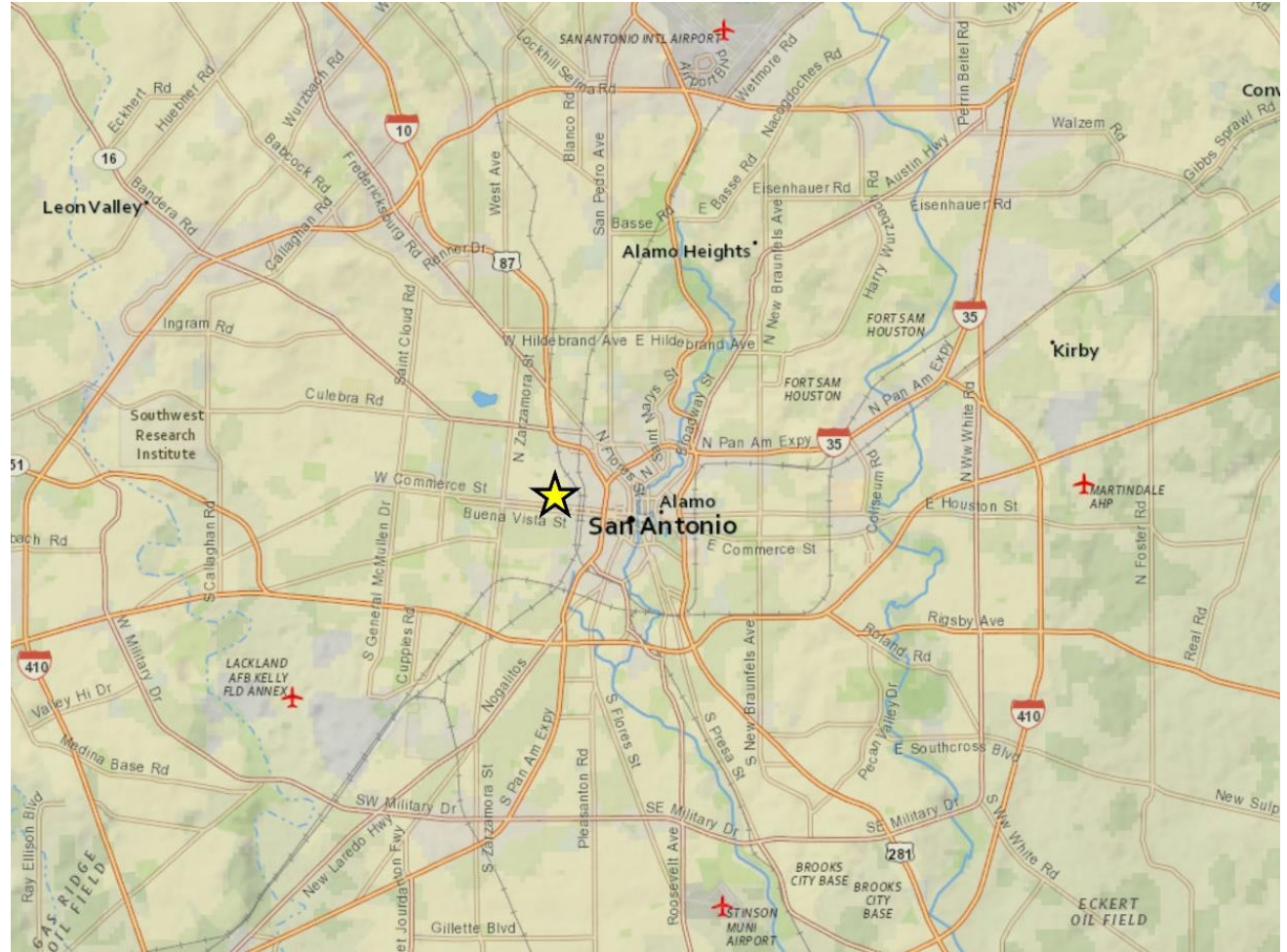
Leaders in Watershed Solutions

Trash and Floatables: Alazan Reinstallation December 19, 2017

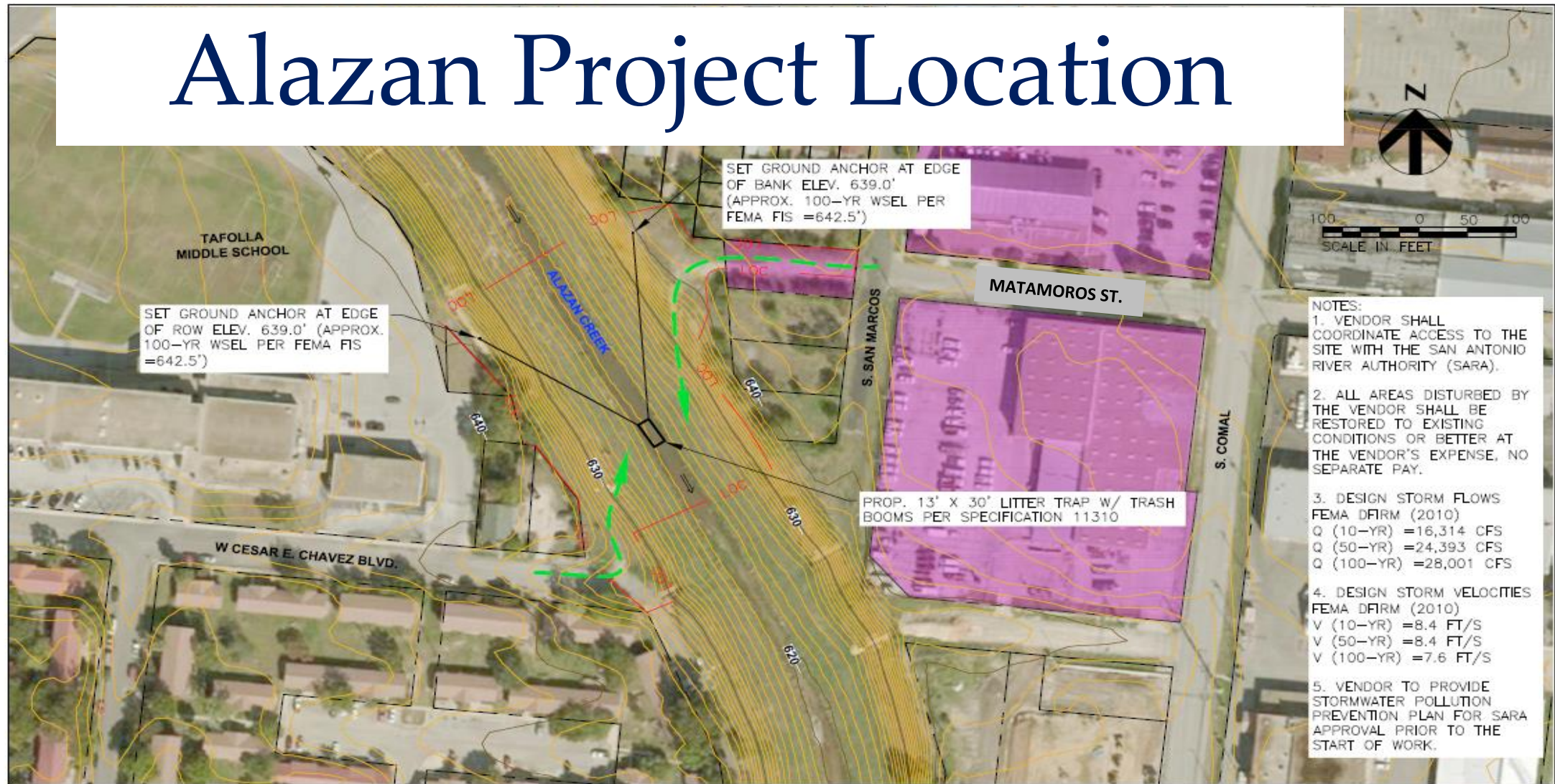
INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS

Alazan Project Location

- Litter Trap with Trash Boom installation on Alazan Creek
- Upstream of El Paso and downstream of S. Colorado Street



Alazan Project Location



SET GROUND ANCHOR AT EDGE OF ROW ELEV. 639.0' (APPROX. 100-YR WSEL PER FEMA FIS =642.5')

SET GROUND ANCHOR AT EDGE OF BANK ELEV. 639.0' (APPROX. 100-YR WSEL PER FEMA FIS =642.5')

PROP. 13' X 30' LITTER TRAP W/ TRASH BOOMS PER SPECIFICATION 11310

- NOTES:
1. VENDOR SHALL COORDINATE ACCESS TO THE SITE WITH THE SAN ANTONIO RIVER AUTHORITY (SARA).
 2. ALL AREAS DISTURBED BY THE VENDOR SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER AT THE VENDOR'S EXPENSE, NO SEPARATE PAY.
 3. DESIGN STORM FLOWS
FEMA DFIRM (2010)
Q (10-YR) =16,314 CFS
Q (50-YR) =24,393 CFS
Q (100-YR) =28,001 CFS
 4. DESIGN STORM VELOCITIES
FEMA DFIRM (2010)
V (10-YR) =8.4 FT/S
V (50-YR) =8.4 FT/S
V (100-YR) =7.6 FT/S
 5. VENDOR TO PROVIDE STORMWATER POLLUTION PREVENTION PLAN FOR SARA APPROVAL PRIOR TO THE START OF WORK.

LEGEND

- MINOR CONTOUR
- MAJOR CONTOUR
- PROPERTY LINE
- ELEVATION CONTOUR SOURCE: BEXAR COUNTY YEAR-2010 LIDAR
- PROP. ACCESS ROUTE
- LIMITS OF CONSTRUCTION
- CITY OF SAN ANTONIO PROPERTY



PROJECT TITLE TRASH AND FLOATABLES
SHEET TITLE
**ALAZAN CREEK
LITTER TRAP AND TRASH BOOM**



PROJECT NUMBER
00000000273190
PROJECT MANAGER
CRIS PARKER
DATE
02/24/2016

REFERENCE SHEET
-
REFERENCE DOCUMENT
-
EXHIBIT NUMBER
1 of 1

Alazan Project Location



Alazan Creek Looking Downstream



Alazan Creek Looking Upstream



Litter Trap with Trash Boom System



Litter Trap with Trash Boom System



Litter Trap with Trash Boom System



Rain Event on December 2, 2016



Rain Event on December 2, 2016



Rain Event on December 2, 2016



Reinstallation on December 4, 2017



Reinstallation on December 4, 2017



Rain Event on December 6, 2017



Rain Event on December 6, 2017





SAN ANTONIO
RIVER AUTHORITY

Leaders in Watershed Solutions

Martinez Creek Sewer Line Coordination

December 19, 2017

INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS

WSC Ecosystem Restoration

- Ultimate Goals for Martinez Creek (WSC)
 - SARA's vision is to transform the WSC from a utilitarian, engineering drainage system to a restored creek environment that enhances aquatic health while maintaining drainage capacity and includes recreational opportunities for their surrounding neighborhoods

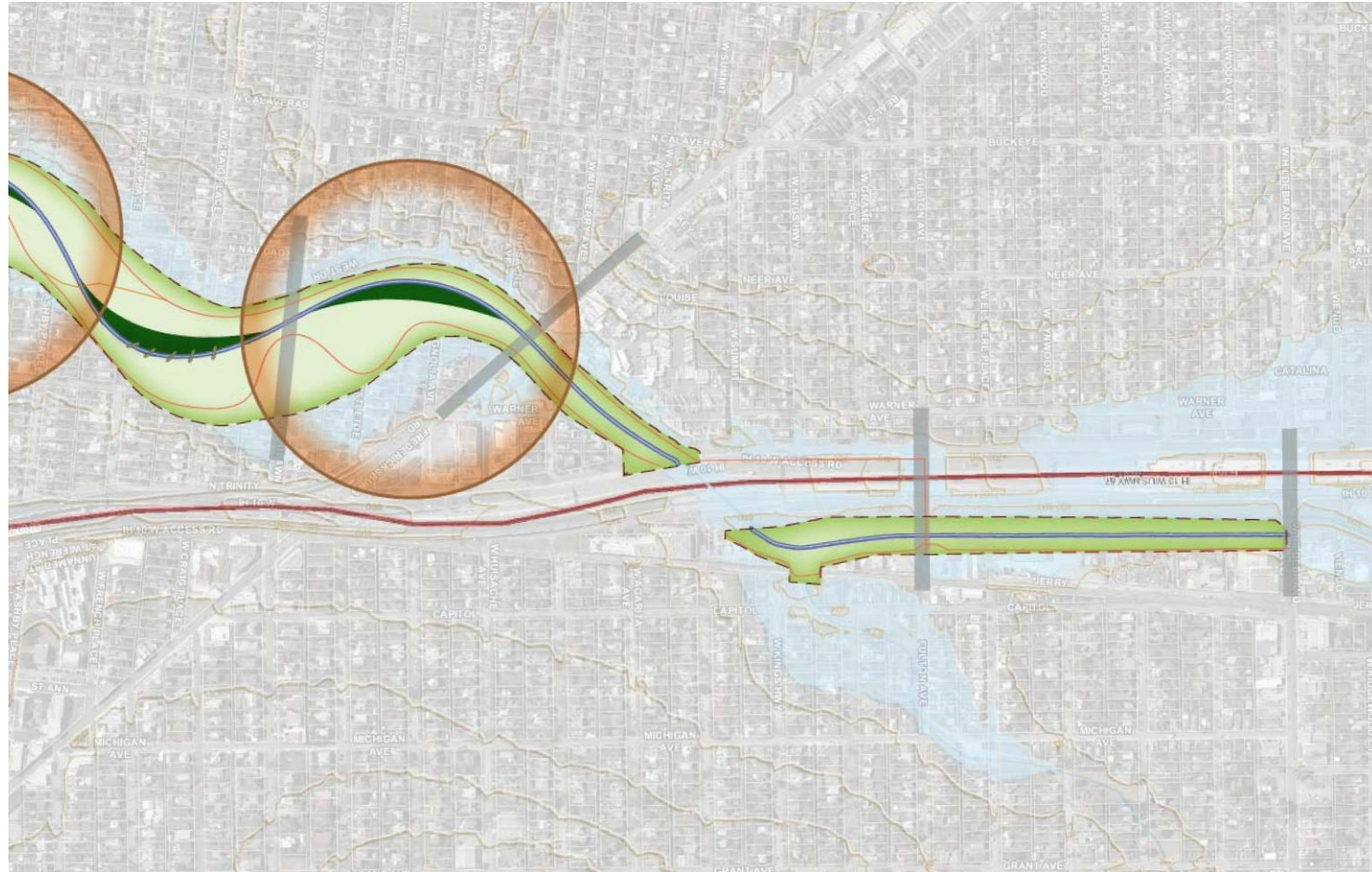


WSC Restoration Project Background

- Conceptual plan developed between 2009-11 and finalized by AECOM in June 2011. Developed:
 - H&H Models
 - Profiles & X-sec
- San Antonio Channel Improvement Project, General Re-evaluation Report (GRR) & Env. Assessment finalized by USACE/SARA in Jan 2014.
 - *“The single largest reason for the significant increase in cost for Alternative 7 is associated with utility relocations required to implement the pilot channel management measure. The estimated utility relocation cost is approximately \$10.9 million...”*



WSC Restoration Project Background (contd.)



WSC Restoration Project Background (contd.)

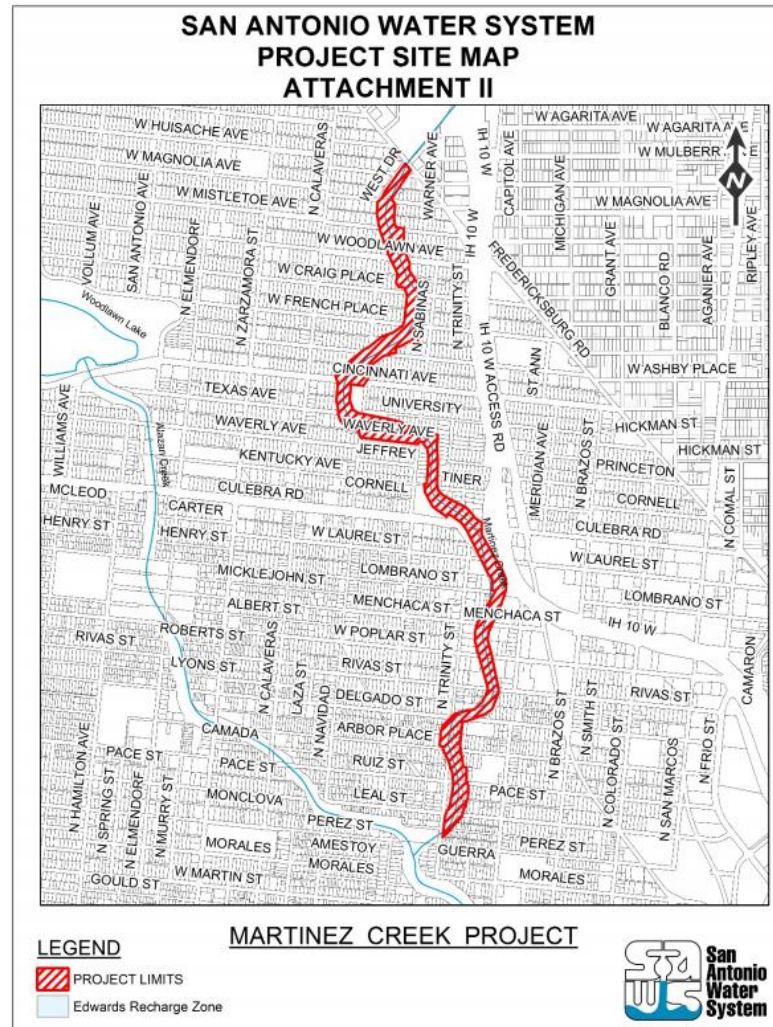


SAWS Scope of Work

- Project part of Consent Decree (Job 15-4802)
 - The Project will replace and upsize approximately two miles of existing 24-inch, 33-inch and 36-inch gravity sewer main. Manholes and laterals replaced at specified locations.
 - Project limits are from Fredericksburg Rd. to Alazan Creek Confluence.



Martinez Creek Proposed Profile



WSC Ecosystem Restoration Martinez Creek Proposed Profile



WSC Ecosystem Restoration

- As a continued effort to implement natural channel design on portions of Martinez Creek, SARA & SAWS worked closely together to avoid any potential utility conflicts that can interfere with the future WSC restoration project to minimize the estimated \$10.9M utility relocation expenses.

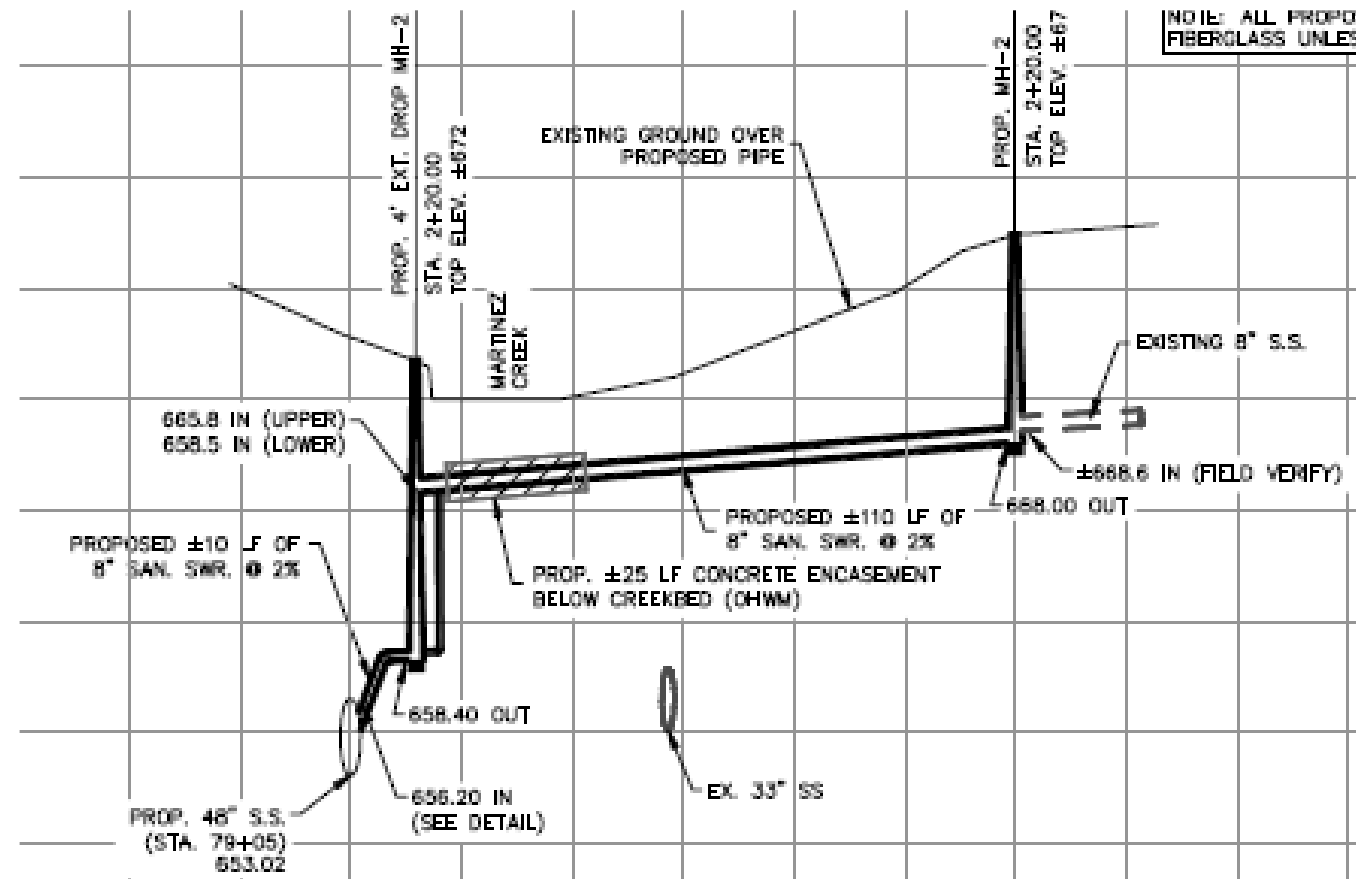


Proposed SS Line Conflicts

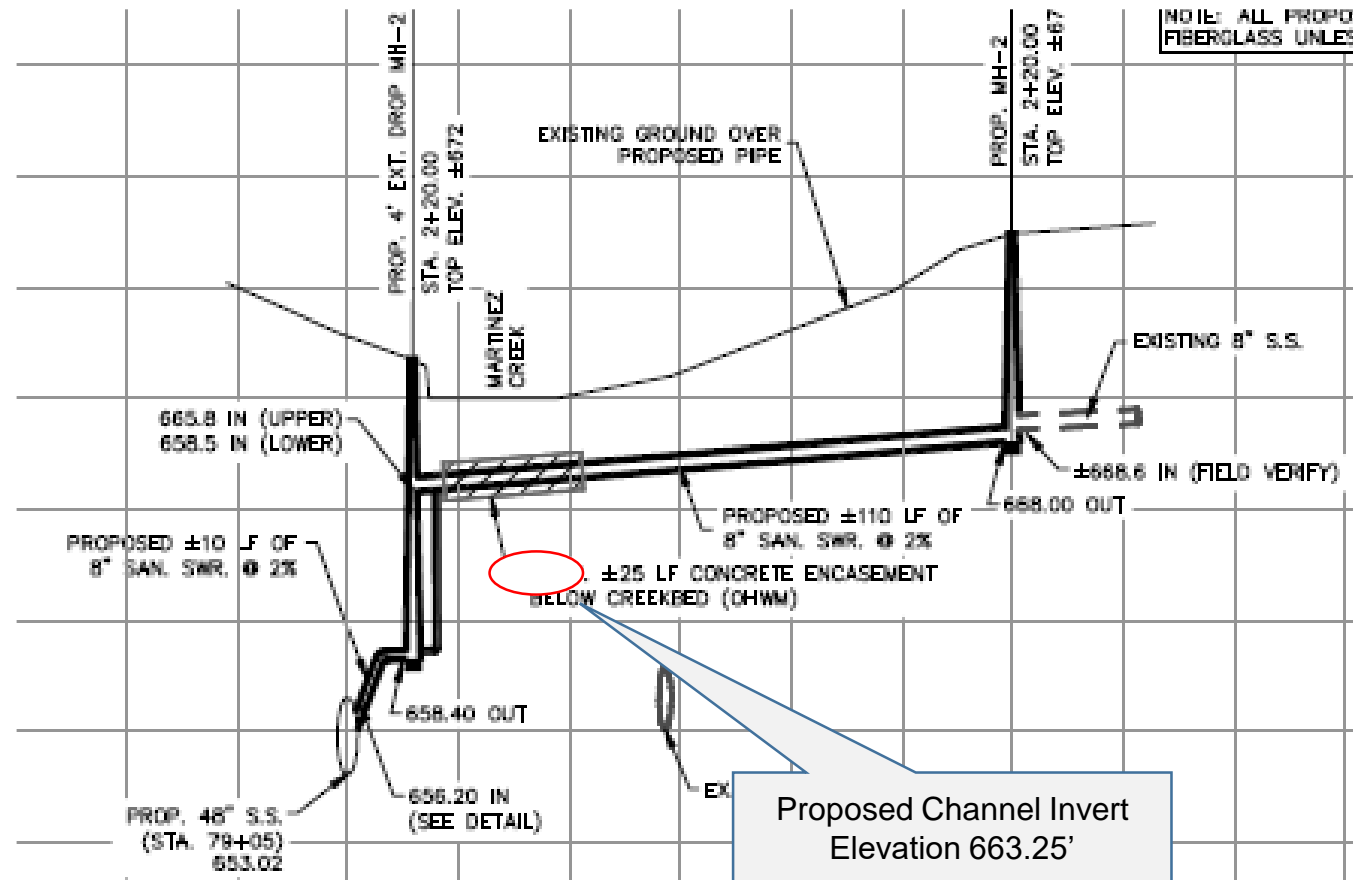
- Identified Conflicts for Job 15-4802
 - SARA Identified a total of 9 conflicts between the proposed channel geometry and the **proposed** sanitary sewer lines



Proposed SS Line Conflicts (Example at Ashby St.)



Proposed SS Line Conflicts (Example at Ashby St.)



Existing SS Line Conflicts

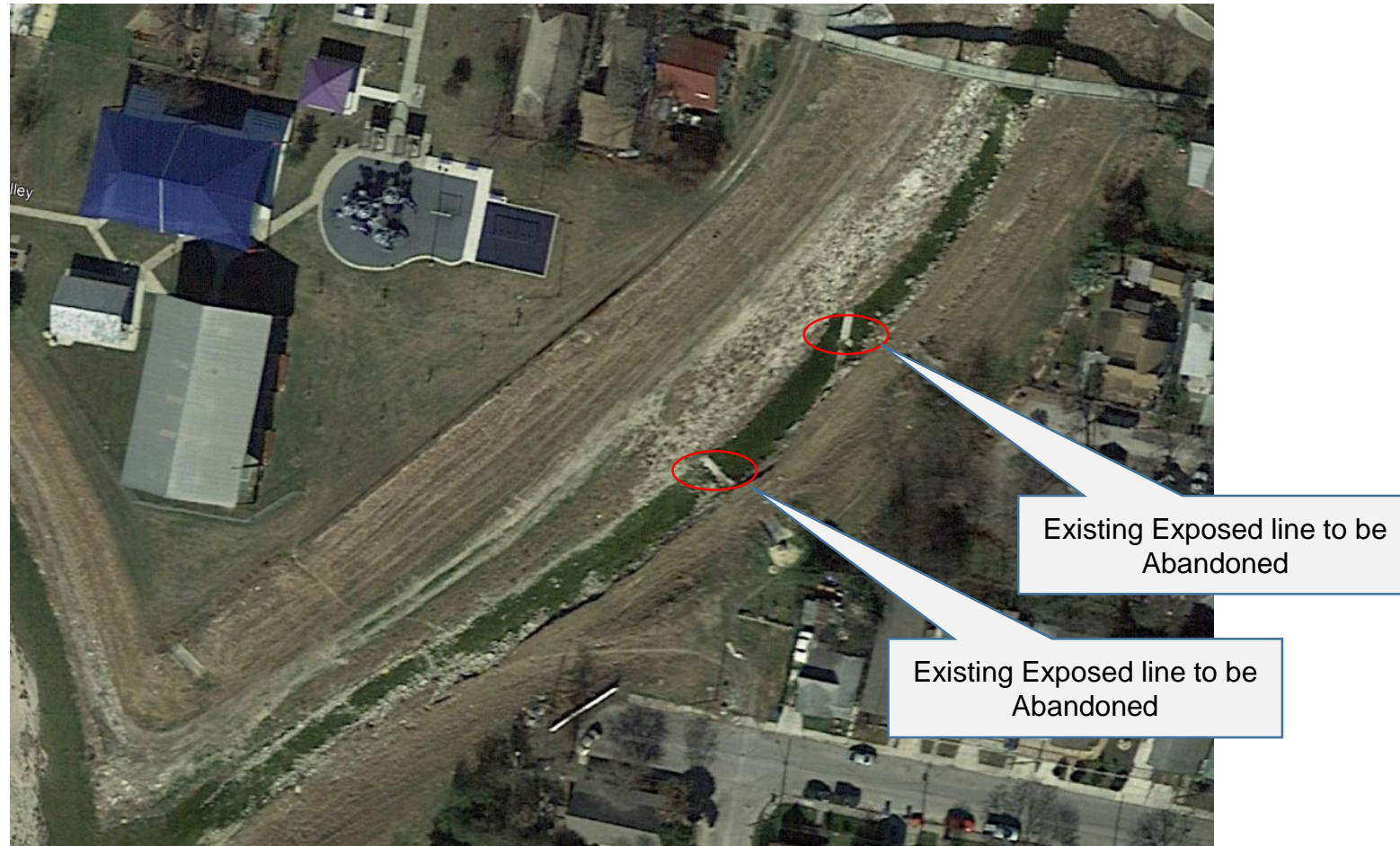
- Identified Conflicts for Existing Sewer Lines to be Abandoned
 - SARA Identified a total of 16 conflicts between the proposed channel geometry and the **existing** sanitary sewer lines that are to be abandoned



Existing SS Line Conflicts (Example at Ashby St.)



Existing SS Line Conflicts (Example at Ashby St.)



Conflict Solutions

- Solutions to Proposed SS Lines
 - SAWS worked with SARA's request to relocate proposed lines that were identified to be in conflict with the proposed channel geometry.
- Solutions to Existing SS Lines
 - Crush exposed/shallow pipe in place, backfill and compact to specified density
 - SAWS working on special specification to perform this work (to prevent release of contaminants)
 - SAWS to inform SARA once specification has been finalized
 - Standard practice is to grout and abandon in place





SAN PEDRO CREEK

Westside Creeks Restoration Oversight Committee Improvements Project
December 19, 2017

San Pedro Creek Status Update

- Updates
 - Phase 1.1 Construction
 - Phase 1.1 Design Enhancements
 - Phase 1.2 Design
 - Funding agreement with City
- Requested Actions by Commissioners Court
 - Approval of funding to advance design and construction on Segment 1.2 of the project

PHASE 1.1



Phase 1.1 Construction Update

- Sundt-Davila JV on schedule to complete construction of Segment 1.1 by May 5, 2018
- Ongoing coordination with design team



Recent History of the Project

- June 21 – Commissioners Court approved Second Amendment to the Construction Agreement with SARA
 - **Authorized project funding** for the construction of Segment 1.1 (Tunnel Inlet to north of Houston Street) that **will be completed by May 2018**.
 - Total committed funding to date is \$96.8M (design and construction).
- August to October – **Review and re-visioning of design elements** in Segment 2, **value engineering**, and **incorporating stakeholder feedback**

Phase 1.2 Design Update

- Proposed revisions to Segment 1.2 (Houston to Nueva Street)
 - **Reimagined Performance Plaza**, in lieu of an Amphitheater, to provide a **more flexible and versatile space adjacent to Alameda Theater.**
 - **Wider pedestrian access** from Commerce St. to accommodate the future TPR Headquarters while **maintaining Creek level experience with water features.**
 - Estimated savings (Houston to Commerce) **\$3.1M**

Phase 1.2 Design Update

- Proposed revisions to Segment 1.2 (Houston to Nueva Street)
 - **Eliminated foot bridge** at Spanish Governor's Palace. (Structural footings will be installed for future.)
 - Avoided the use of costly shaft walls in favor of **MSE block retaining walls** in various areas between Houston and Commerce, and Dolorosa to Nueva.
 - Deferred the construction of Nueva St. Gatehouse and bridge replacement until future segment.
 - Modified scope to provide **more opportunities for development** of City/County property along the Creek.
 - Estimated savings (Commerce to Nueva) **\$4.2M**

Phase 1.2 Design Update



Phase 1.2 Design Update



Phase 1.2 Design Update



Action Plan for Phase 1.2

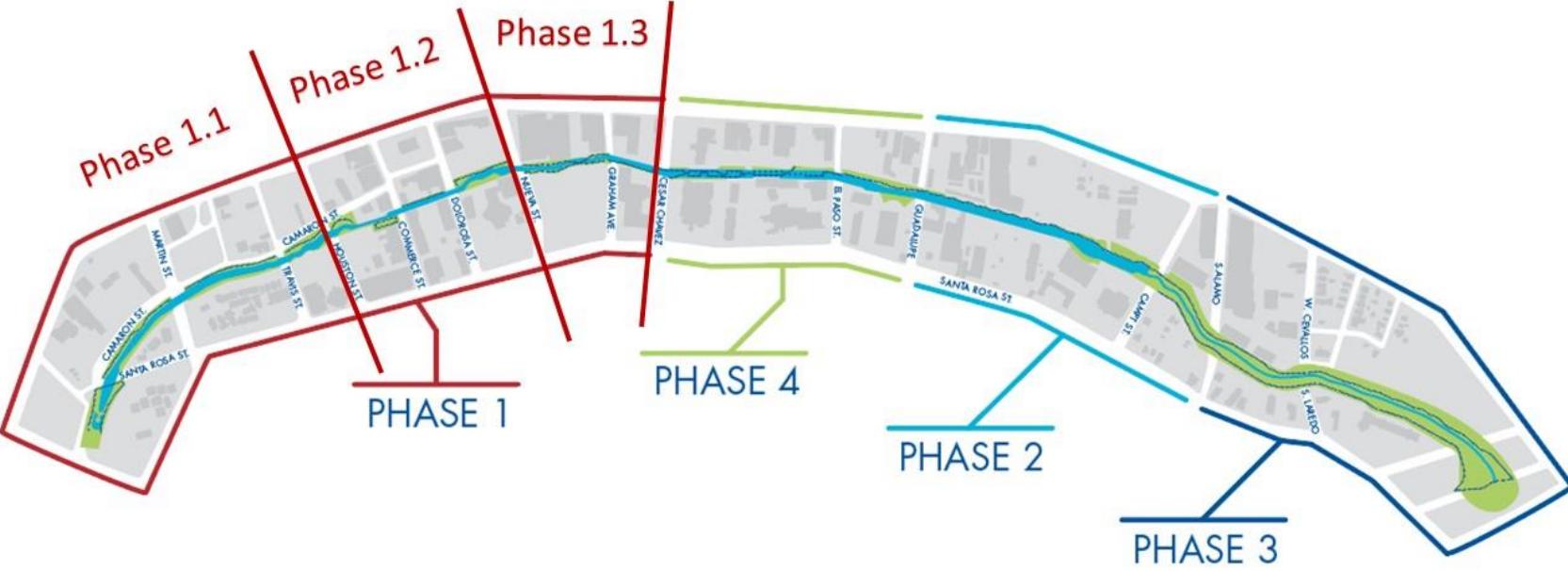
- October 12 –An “Action Plan” by Sundt/Davila was proposed that would **avoid disruption of construction activity** and **enable the project progress to continue** downstream of Houston Street.
 - **Obtain cost certainty** through timely contracting for civil and structural scope that is needed immediately.
 - **Avoid workforce shortages** resulting from Harvey recovery and a strong Texas economy.
 - Allow the design team **time to complete design** for the next segment of the project.

Action Plan for Phase 1.2

The Action Plan identifies **early work packages** and **key deliverable dates** that will enable the contractor to continue construction in anticipation of a completed design and keep their forces moving in an efficient manner:

- **Focus on Segment 1.2 – Houston to Nueva Street**
 - Segment includes Spanish Governor’s Palace, Alameda Theater, new TPR Headquarters, and the Plaza de Armas building
 - Most complicated construction located in this segment
 - Allows for expanded development opportunities for the County/City properties located at Dolorosa and Nueva Streets
 - Avoids conflicts with redesign of the Federal Courthouse (south of Nueva)
 - Final design details will be developed as early work commences.

Map with segments



Action Plan for Phase 1.2

Timeline of Deliverables for Phase 1.2:

- **Early Release Work Package 11** – Dollar General demolition and early utility work
 - Design documents submitted to SDJV on November 14th
- **Work Package 12** – Wall Stabilization, building underpinning, and heavy civil/structural scope
 - Design documents submitted to SDJV on December 5th
- **100% design** of Phase 1.2 (Houston to Nueva Street)
 - Design documents are due to SDJV by May 2018
- **Guaranteed Maximum Price** for Segment 1.2
 - Price Proposal is due from SDJV by July 2018

Action Plan for Segment 1.2

Anticipated Schedule of Activities

- Demolition of 323 W Commerce St. (Dollar General) and Commerce Street utility work to begin in January 2018
- Initiate excavation and heavy civil work in March 2018
- Completion of design documents by May 2018
- Guaranteed Maximum Price for Segment 1.2 by July 2018
- Commence with remainder of construction activity for Segment 1.2 by end of Summer 2018

Initial Work Packages for Segment 1.2

- **WP 11:** Demo of Dollar General building, bridges, surface demo, and electric and gas utilities
 - Price from SDJV \$ 4,223,296
- **WP 12:** Heavy Civil & Utility Work – Houston to Nueva Street
 - Estimated \$ 12,861,321
- **Additional Professional Services:** Design services, materials testing, pre-construction services
 - Estimated \$ 2,744,869

Total Requested Authorizations \$19,829,486

Recommended Motions

- Approval for SARA to authorize Sundt/Davila JV to proceed with Work Packages 11 and 12 to initiate construction in Phase 1.2 upon successful execution of an agreement and acceptance of a Guaranteed Maximum Price for this scope of work in an amount not to exceed \$17,084,617
- Approval for SARA to negotiate and execute agreements with HDR and Sundt/Davila for additional construction administration, design and pre-construction services in an amount not to exceed \$2,744,869
- Approval of Amendments to the Design Phase and Construction Phase Agreements between Bexar County and SARA to reflect these approvals.

City of San Antonio Funding Agreement

The City of San Antonio included two propositions in their 2017 Bond Initiatives

• Drainage and Flood Control	\$ 14,600,000
• Parks, Recreation and Open Space	<u>\$ 4,900,000</u>
Total Project Funds Committed by COSA	<u>\$ 19,500,000</u>

- Funds dedicated to Phases 1 & 2 of the Project.
- Funding Agreement between SARA and COSA was approved by City Council on December 14, 2017.
- The City has been and will continue to be involved with the design and construction of the Project.

Funding Authorizations

Total County Committed Funding	\$ 132,800,000*
Other Project Funding:	
City of San Antonio 2017 Bond Funds	\$ 19,500,000
Utility Reimbursements	<u>\$ 6,635,312</u>
Total Project Funding	<u>\$ 158,935,312</u>

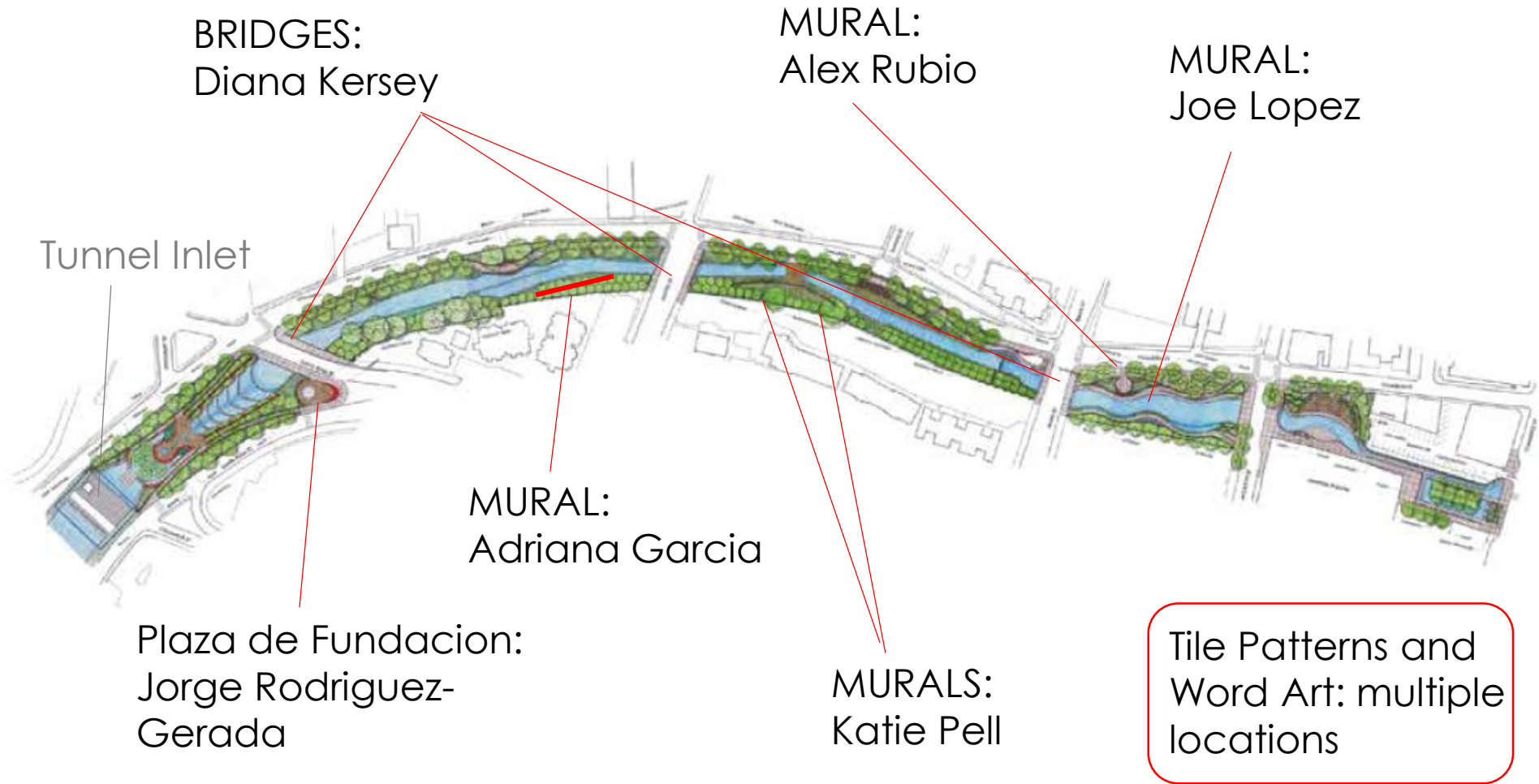
** Does not include additional federal reimbursement funds*





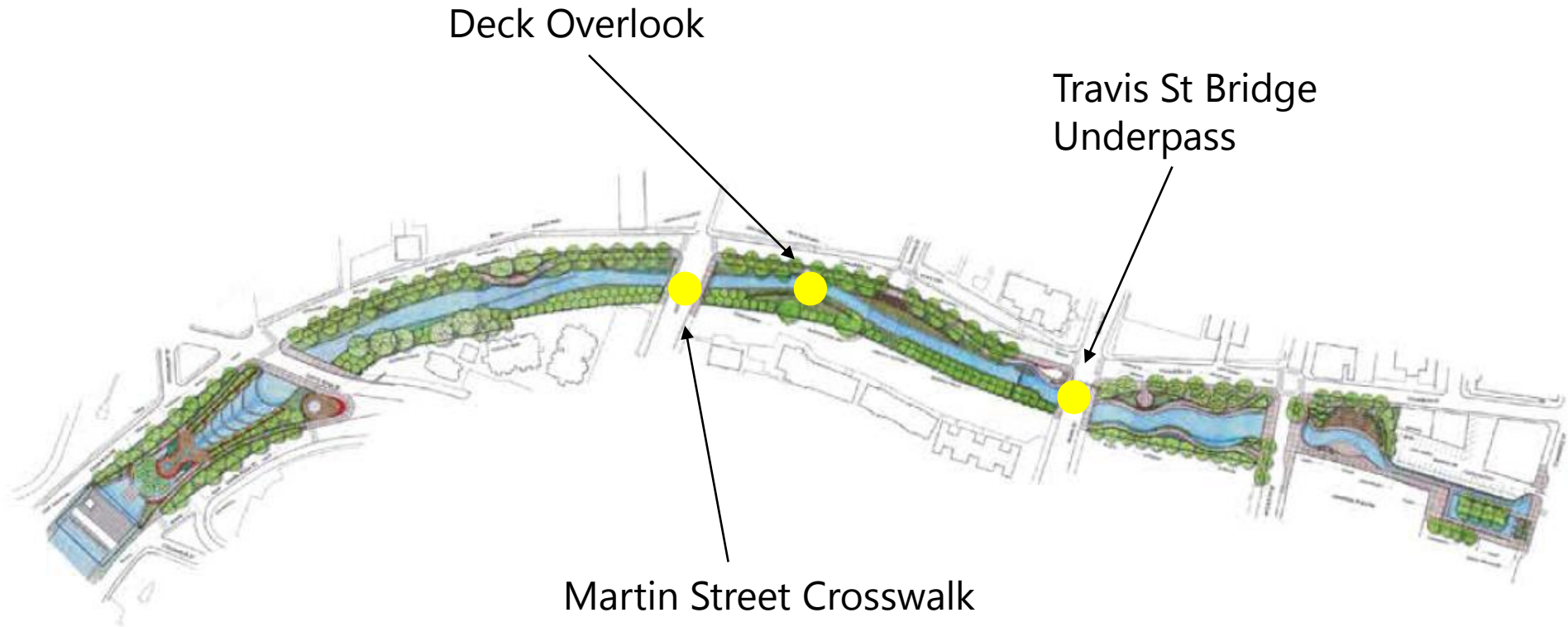
SAN PEDRO CREEK ARTS

Program Update



Permanent Artwork Overview





Temporary Artwork Overview



MICHAEL MENCHACA



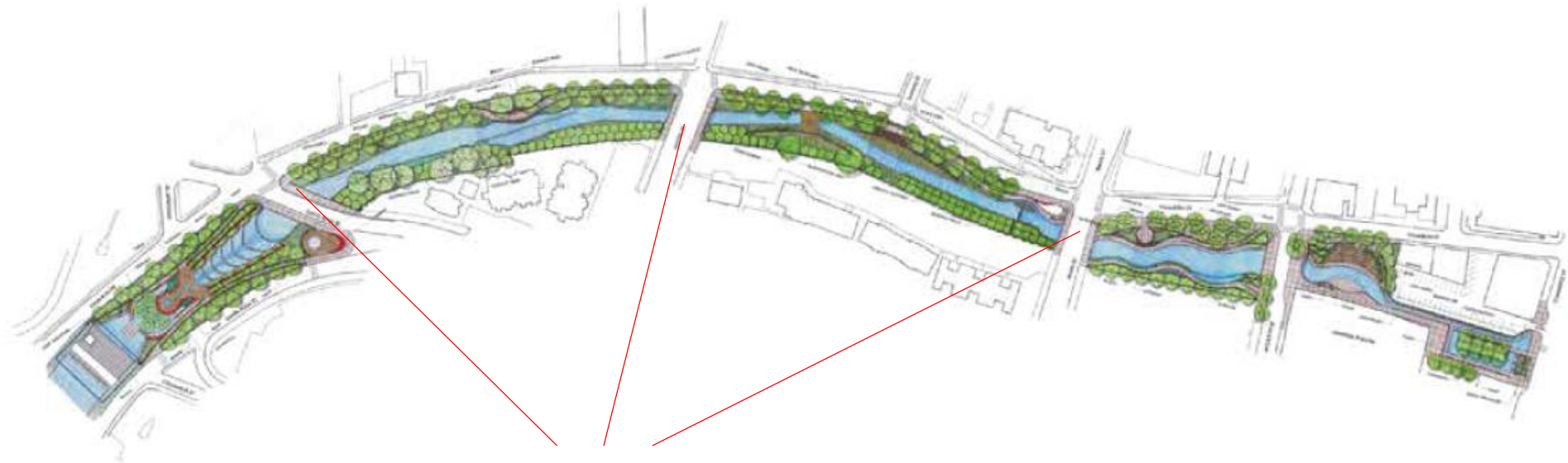
JOHN PHILLIP SANTOS



“In this place of herons
Where the grasses sway
In starlight I have flowed
Since the dawn of evermore”



DIANA KERSEY



Santa Rosa, Martin, and Travis





SAN PEDRO CREEK ARTS

- Next steps
 - Oversee fabrication and installation of artwork
 - Frame and hang murals
 - Develop calendar of events for Segment 1
(May – December 2018)
 - Finalize artwork opportunities for Segment 2
 - Schedule next Arts & Culture Alliance meeting
 - Website update



Westside Creeks Restoration Oversight Committee Meeting

Westside Creeks



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Linear Creekway Trails and Elmendorf Lake Park

Jamie Taylor
December 19, 2017

Elmendorf Lake Park Pool Improvements



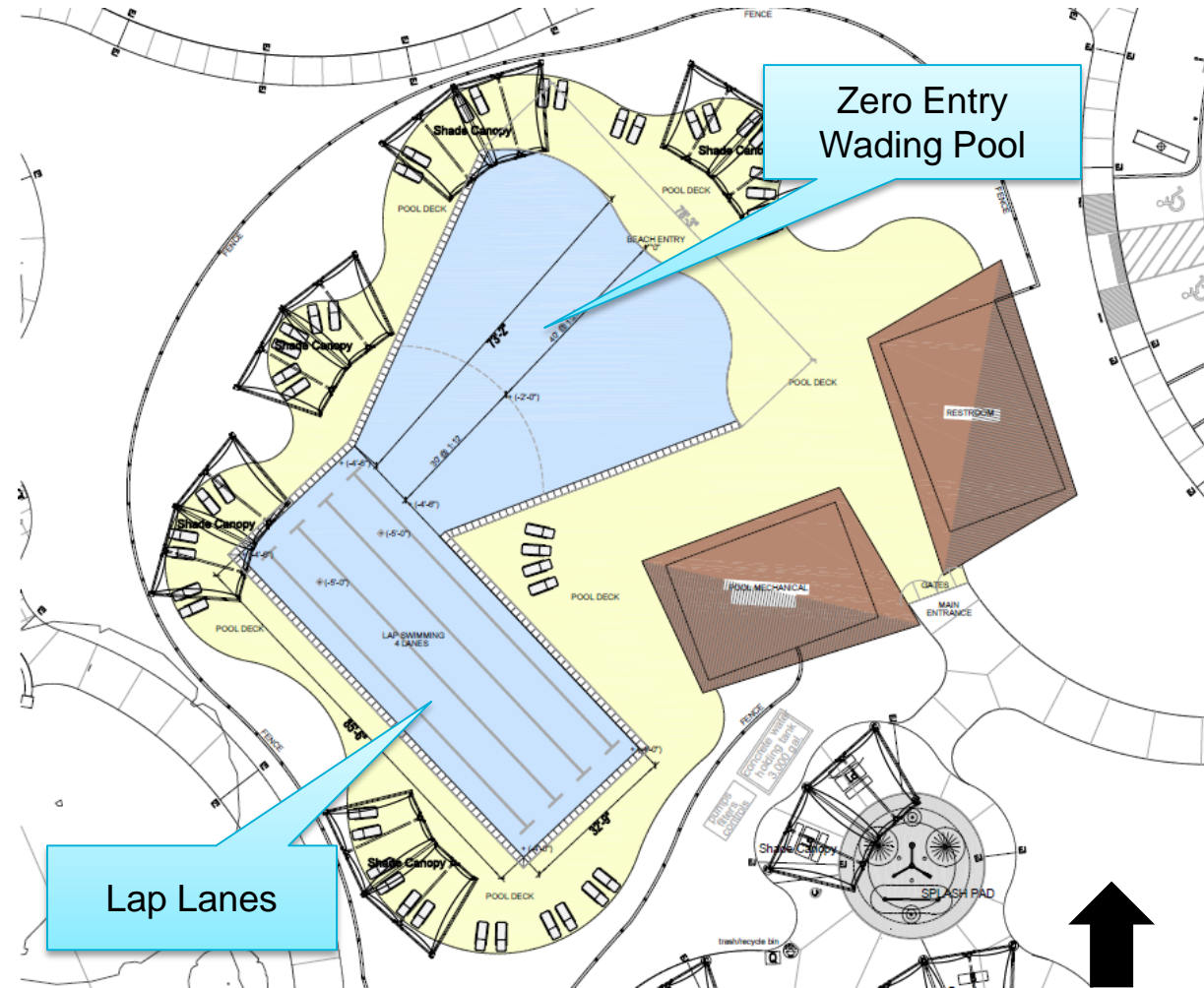
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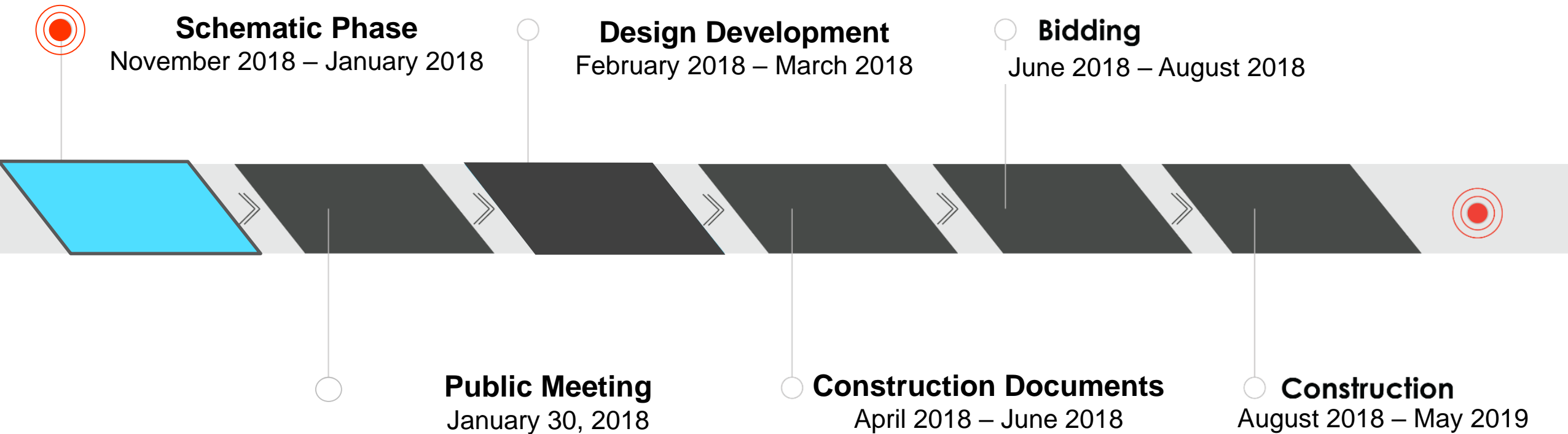


Elmendorf Lake Park Pool Improvements



- Funded by the City of San Antonio through the 2017 Bond Program Funding
- Managed by the San Antonio River Authority
- Schematic features zero entry wading pool (73'-2")
- Swimming area with 4 lap lanes (85'-6"x32'-9")
- Restrooms and seating areas

Elmendorf Pool Schedule



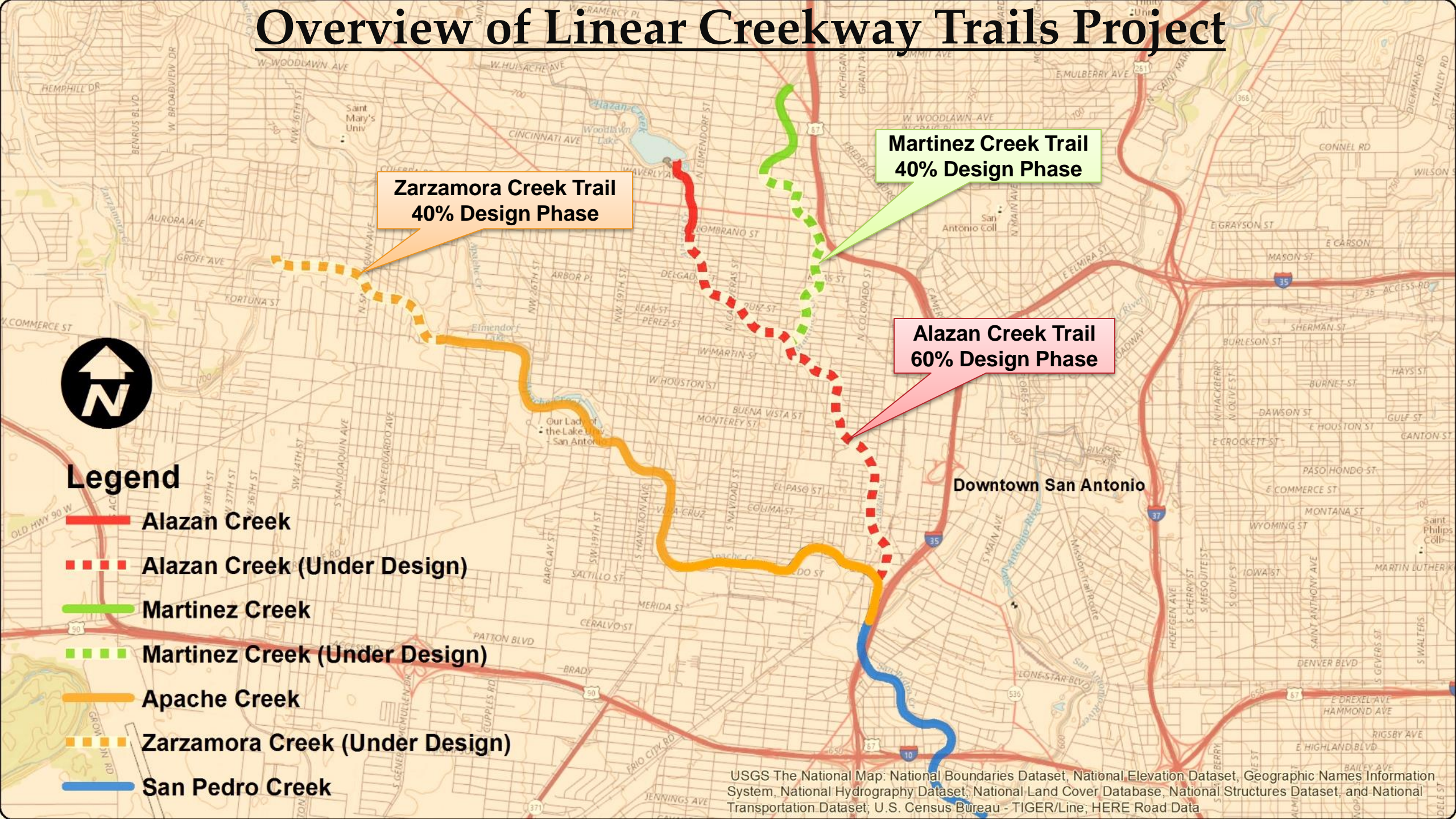
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Overview of Linear Creekway Trails Project



Alazan Creek Trail



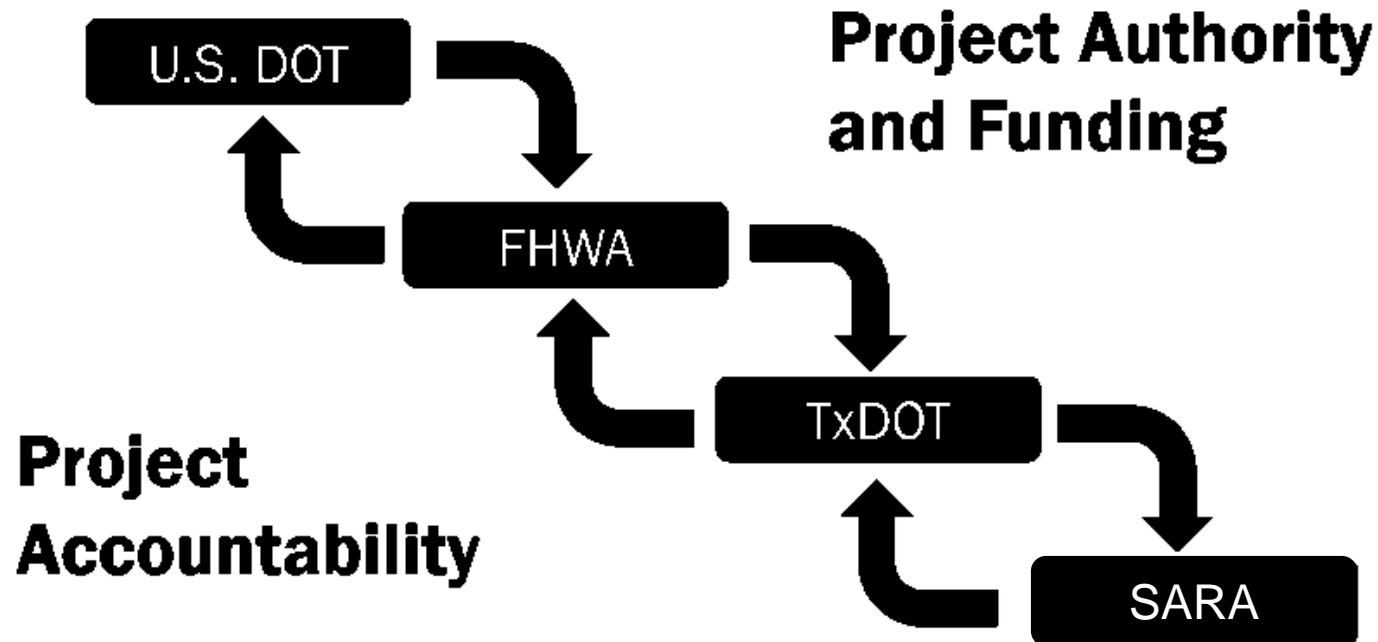
Alazan Creek Trail
60% Design Phase

Downtown San Antonio

Alazan Creek Trail – Federal Funding

AAMPO

AAMPO Selects STP-MM Projects for Funding



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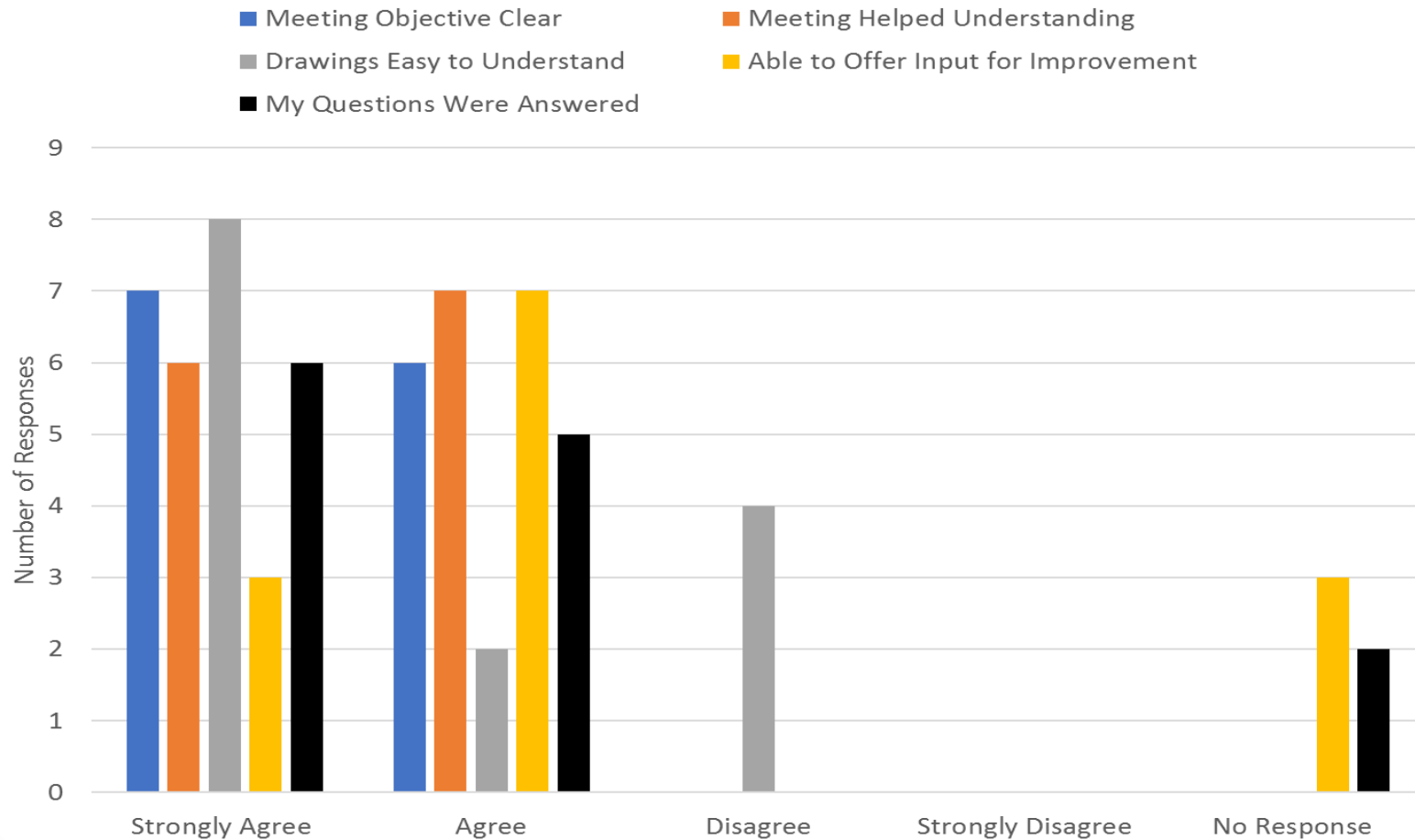


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Alazan Creek Trail - Participant Comments

Alazan Trail Comments - 66 Responses



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Alazan Creek Trail - Participant Comments

- Water fountains for pets- 2
- More restrooms- 3
- Need to actively convert HOUSING REDEVELOPMENT "to" be safe
- Serve the historically underserved
- Density of residents cannot get to trail without going to Guadalupe...too far!
- Provide rest areas, water, shade & security features- 2
- Maps were a bit too detailed
 - Using a less detailed map would have been easier to follow & understand- 2
- Outreach to local community
 - mailing cards was useful & we received one, but using social media and/or a radio announcement would have helped to attract more people more community members
 - Work through local high schools to hand out flyers for next meeting
- Show current bike lanes/future bike lanes on surrounding streets & how they connect to the proposed access points of the trail
- An interactive presentation, where you could follow the trail & see how it would progress would be awesome
- No concrete, want the trails to be asphalt
- Reflective lights on trail for bike lights, walkers with flash lights along trail
- Interested in having the trails along the Apache Creek extended up Zarzamora Creek at least as far as Callaghan Road or possibly Bandera Road and maybe a connection with Leon Creek Trail
- Emergency phones
- Pedestrian crossing light at Lombrano and Poplar crossings
- Historic marker for the Battle of Alazan Creek site
- Access to Guadalupe Street
- Neighborhood gardens along creek- adopt area for native planting



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Alazan Creek Trail - Summary of Comments

Comment	Number
Water for pets	2
Need for restrooms	5
Water and shade	2
Outreach efforts	2
Accessibility	1
Use simplified map	2
Improve safety around trail	1
Help the underserved	1
Show bike lanes	1
Interactive presentation	1
Trail material	1
Lighting	1
Security features	3
Crossing safety	1
Historic marker	1
Access at Guadalupe	1
Neighborhood gardens	1



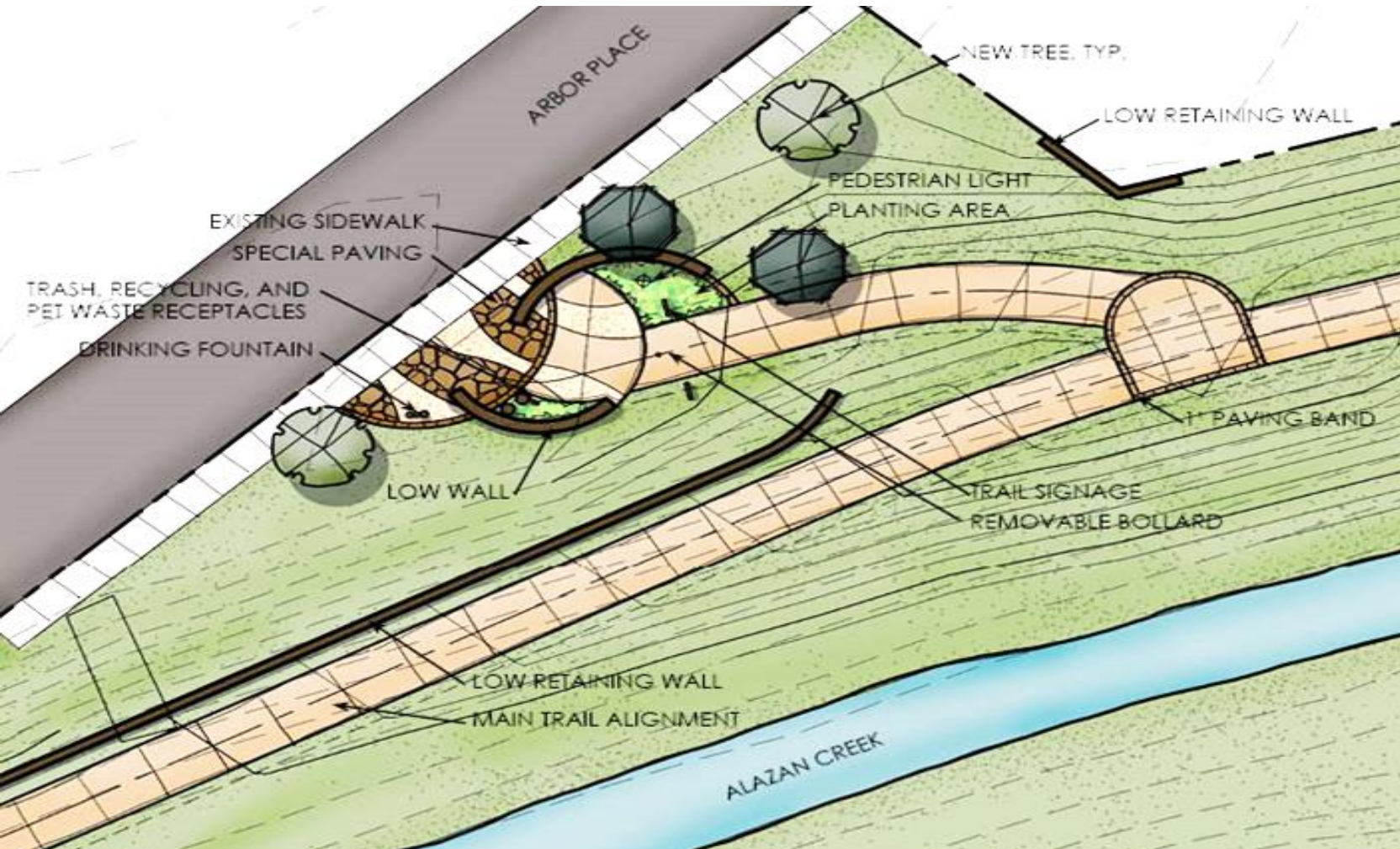
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Alazan Creek Trail



- Typical street connection:
- Water fountain
- Waste/recycle/pet bins
- Benches
- Trees
- Bike fixit stations
- Removable bollards
- Trail signs

Alazan Creek Trail



EXISTING PEDESTRIAN BRIDGE

W. POPLAR STREET

BRIDGE ADJUSTMENTS

- ADD VEHICULAR CONTROL METHODS
- CREATE BIKE TRAIL CONNECTION
- MID-BLOCK CROSSING

EXISTING CHANNEL WALLS

POPLAR STREET CONNECTION

- LOW WALLS, DRINKING FOUNTAIN, SPECIAL PAVING, TRAIL SIGNAGE, TRASH RECEPTACLES
- CONNECTION TO SURROUNDING NEIGHBORHOOD
- ON-STREET PARKING

BRIDGE ADJUSTMENTS

- ADD VEHICULAR CONTROL METHODS
- CREATE BIKE TRAIL CONNECTION

TRAIL OUTSIDE OF CHANNEL

ENHANCE EXPERIENCE ALONG SAN ANTONIO HOUSING AUTHORITY (SAHA) PROPERTY EASEMENT

SAHA TRAILHEAD

- RESTRIPE ROAD FOR ONE WAY ANGLED PARKING (PER COSA)
- CREATE SPACE FOR TRAILHEAD AT EXISTING PARKING/PEDESTRIAN BRIDGE

LAMBRANO STREET

N. HAMILTON AVE.

N. ELMENDORF ST.

WEST SIDE PARK

IRVING MIDDLE SCHOOL

Alazan Creek Trail

ARBOR PL STREET CONNECTION

- LOW WALLS, DRINKING FOUNTAIN, SPECIAL PAVING, TRAIL SIGNAGE, TRASH RECEPTACLES
- CONNECTION TO SURROUNDING NEIGHBORHOOD
- ON-STREET PARKING



LOW WATER CROSSING #1

CROCKETT ELEMENTARY SCHOOL



Alazan Creek Trail



FARIAS PARK CONNECTION

- TIE INTO EXISTING PARK TRAILS
- CONNECT TO EXISTING NEIGHBORHOOD TRAILS

EXISTING SIDEWALK CONNECTION OVER BRIDGE

LOW WATER CROSSING #2

MARTIN STREET CONNECTION

- LOW WALLS, DRINKING FOUNTAIN, SPECIAL PAVING, TRAIL SIGNAGE, TRASH RECEPTACLES
- CONNECTION TO SURROUNDING NEIGHBORHOOD

Alazan Creek Trail



TRAVIS STREET CONNECTION

- CONNECT COMMUNITY CENTER TO PEDESTRIAN BRIDGE

COMMUNITY CENTER

EXISTING PEDESTRIAN BRIDGE

CONNECTION TO COSA MAINTENANCE FACILITY

COSA PARKS & RECREATION

TRAVIS STREET

S. SMITH STREET

COLORADO STREET

N. SAN JACINTO ST.

N. LAS MORALES ST.

CE STREET



Alazan Creek Trail



EXISTING MAINTENANCE ACCESS

COLORADO STREET

MONTEREY STREET

S. SAN MARCOS ST.

LOW WATER CROSSING #3

EL PASO STREET

TAFOLLA MIDDLE SCHOOL

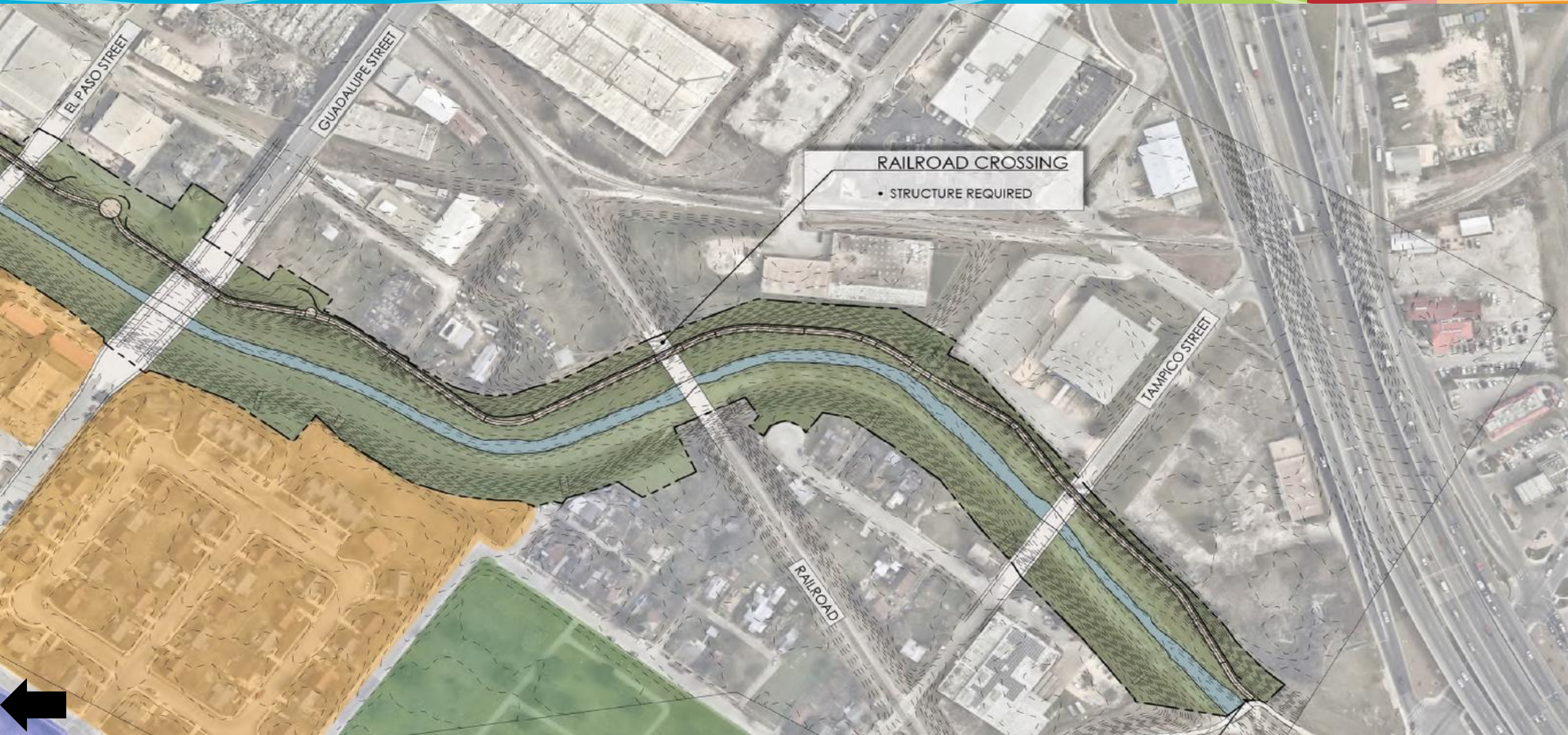
CHAVEZ STREET CONNECTION

- LOW WALLS, DRINKING FOUNTAIN, SPECIAL PAVING, TRAIL SIGNAGE, TRASH RECEPTACLES
- CONNECTION TO SURROUNDING NEIGHBORHOOD

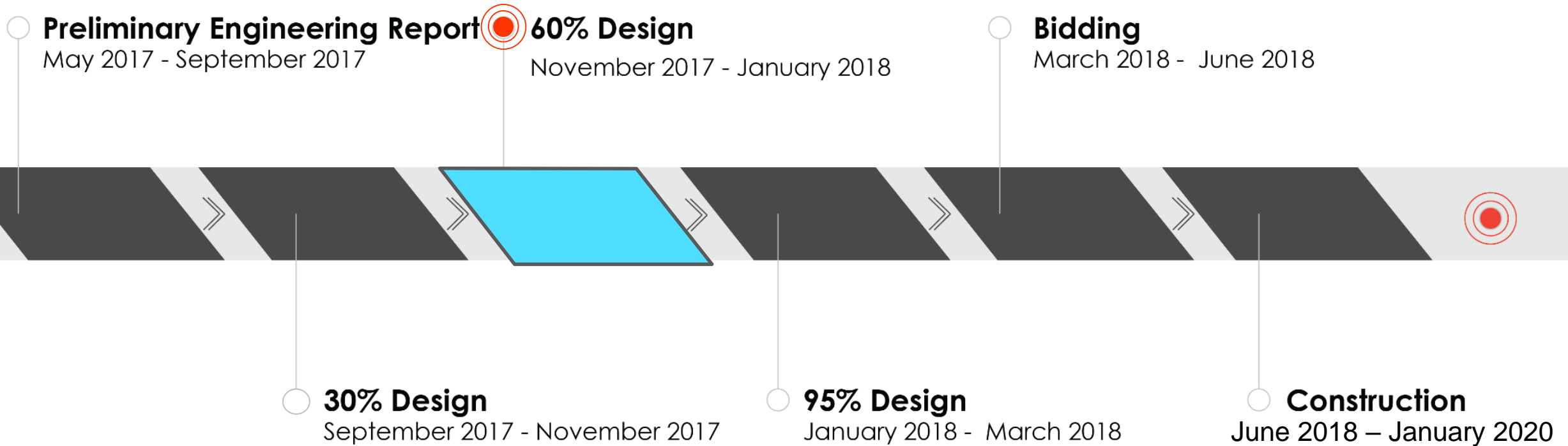
COLORADO STREET CONNECTION

- CONNECTION TO TAFOLLA MIDDLE SCHOOL, POOL, AND SURROUNDING NEIGHBORHOOD
- LOW WALLS, DRINKING FOUNTAIN, SPECIAL PAVING, TRAIL SIGNAGE, TRASH RECEPTACLES

Alazan Creek Trail



Alazan Creek Trail Schedule



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Martinez Creek Trail



Martinez Creek Trail
40% Design Phase

Martinez Creek Trail



Martinez Creek Trail



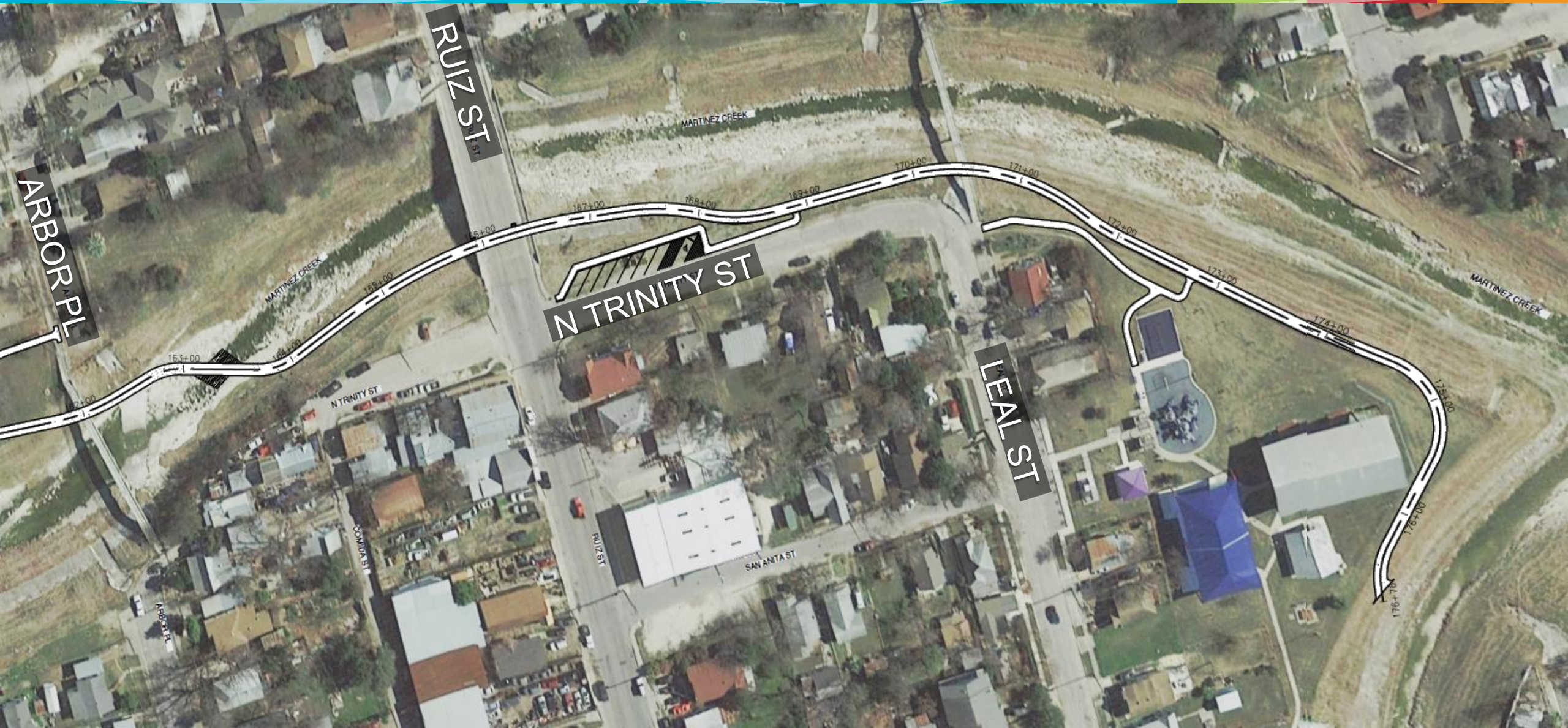
Martinez Creek Trail



Martinez Creek Trail



Martinez Creek Trail



Martinez Creek Trail Schedule

Preliminary Engineering Report
June 2017 – October 2017

70% Design Phase
January 2018 – April 2018

Bidding
June 2018 – August 2018

40% Design Phase
October 2017 – December 2017

95% Design Phase
April 2018 – June 2018

Construction
August 2018 – January 2020



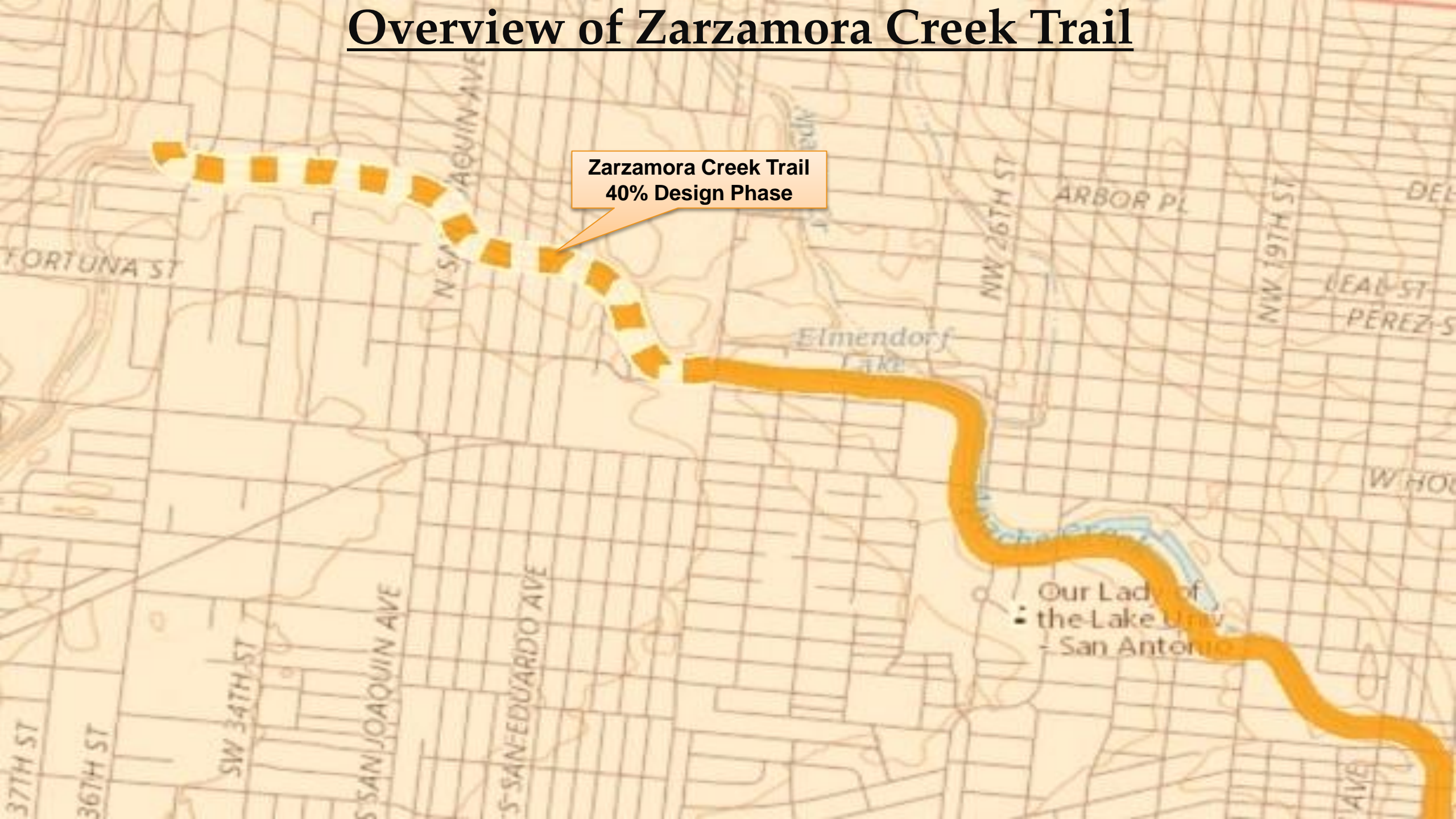
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Overview of Zarzamora Creek Trail



Zarzamora Creek Trail
40% Design Phase

FORTUNA ST

N SAN JOAQUIN AVE

Elmendorf Lake

NW 26TH ST

ARBOR PL

NW 19TH ST

DEAL ST
PEREZ ST

37TH ST

36TH ST

SW 34TH ST

S SAN JOAQUIN AVE

S SANFEDUARDO AVE

Our Lady of
the Lake Univ
- San Antonio

W HOU

AVE

Zarzamora Creek Trail



ALDERETE PARK

ESMERALDA DR

MAYBERRY AVE

ZARZAMORA CREEK

30TH ST

INEZ DR

TESLA DR

MARK

110+00

111+00

112+00

109+00

108+00

107+00

106+00

105+00

104+00

103+00

102+00

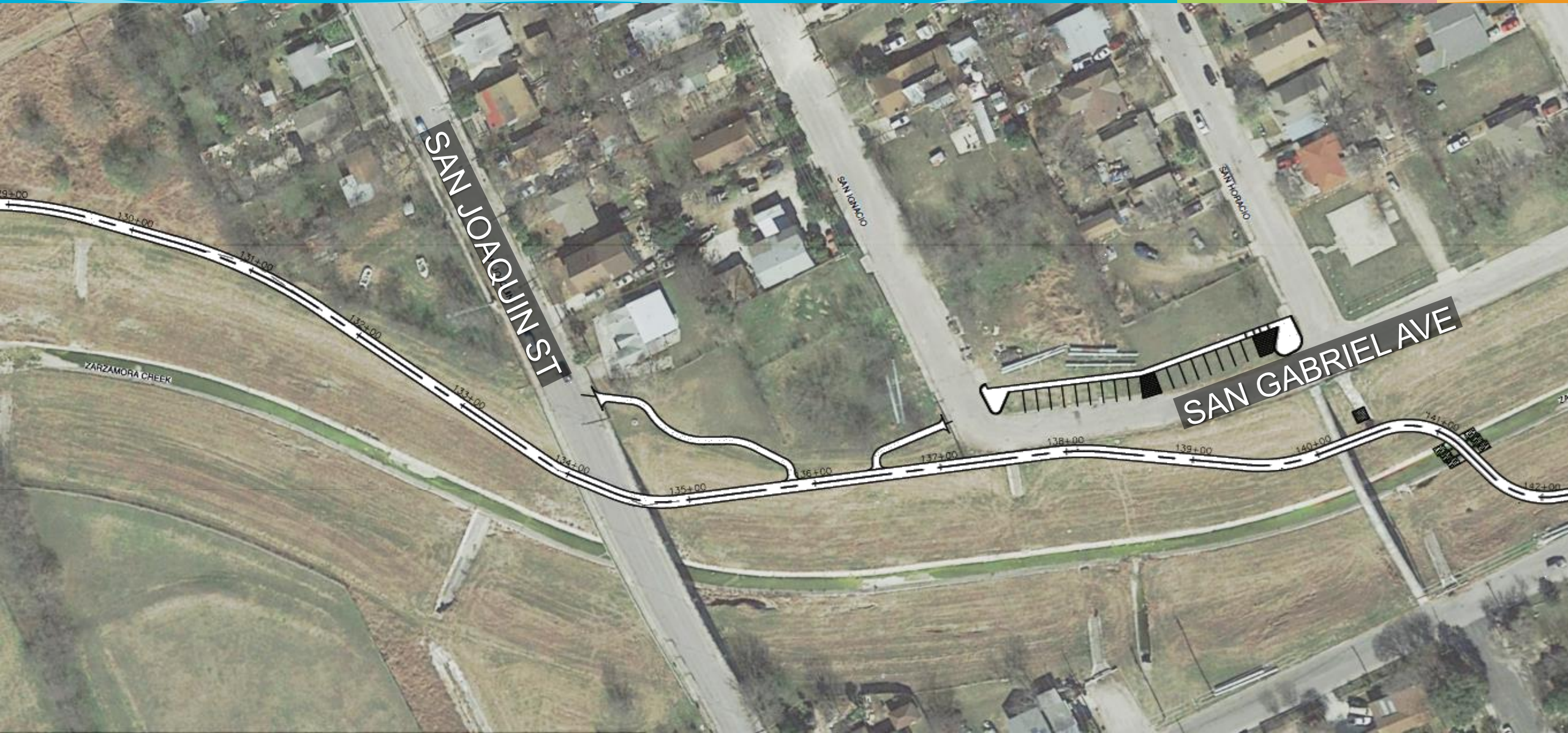
101+00

100+00

Zarzamora Creek Trail



Zarzamora Creek



Zarzamora Creek



GUS GARCIA
MIDDLE SCHOOL



Zarzamora Creek



ROSEDALE PARK

MARTIN ST

24TH ST

ZARZAMORA CREEK

SAN JUDAS

NORTHVIEW

Martinez Creek Trail Schedule

Preliminary Engineering Report
June 2017 – October 2017

70% Design Phase
January 2018 – April 2018

Bidding
June 2018 – August 2018

40% Design Phase
October 2017 – December 2017

95% Design Phase
April 2018 – June 2018

Construction
August 2018 – January 2020



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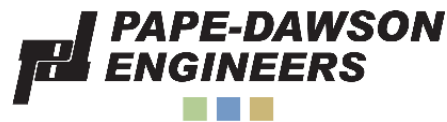


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Summary

- All projects are on schedule
- 40% design package due for Martinez and Zarzamora due 12/20/2017
- First public meeting for Martinez Creek Trail on 1/18/2018
- First public meeting for Elmendorf Pool on 1/30/2018
- First public meeting for Zarzamora Creek Trail on 2/6/2018
- Second public meeting for Alazan Creek Trail in March 2018



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Questions?



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