

ZARZAMORA STREET

Zarzamora St Corridor Overview

CONTEXT

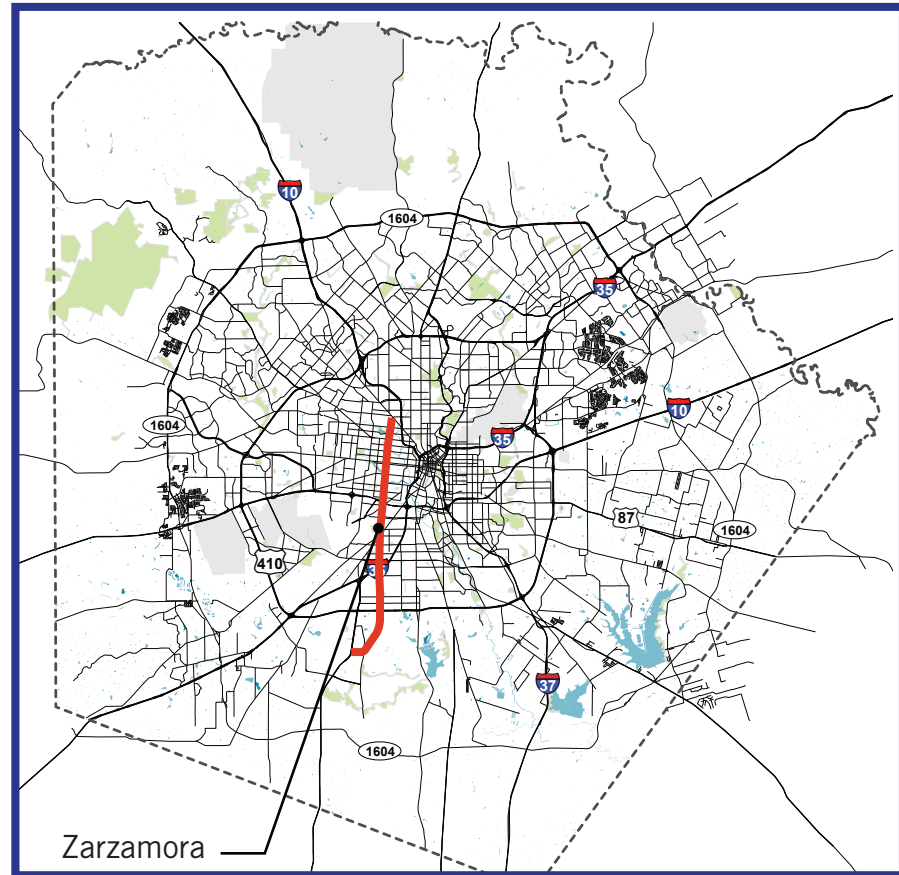
The Zarzamora Corridor varies greatly from one end to the other. At the south end, it is nearly rural with little access. As it moves northward, it becomes increasingly urban and narrows from a wide right-of-way with four and six-lane divided cross-sections to a very narrow 50 foot four-lane undivided cross-section north of US 90. In the narrow rights-of-way, the undivided sections of the road require confining through movements to a single lane at intersections to accommodate left turns. Most of the frontage is commercial though there are residential sections where houses occupy parcels along the road. With some exceptions, most of those take their access from a cross-street, but are within close proximity to the activity on Zarzamora.

The character of the development along the road changes from small business operations in the north to larger “big box” type businesses and office complexes as the road moves south. Much of the Zarzamora land use in the north is mature residential development that has transitioned to service commercial uses along the road over time. The southerly portions of the corridor are newer and reflect a suburban character. The integrity of the established neighborhoods is strong.

Growing demand will exceed the already strained capacity of the corridor unless actions are taken to widen the road with the associated effects on adjacent properties or provide additional capacity through alternative modes. Actions could include improved transit services or restructured traffic control practices. Access management, including the consolidation of driveways and closing left turns into driveways and some streets during peak times will be needed as both a stopgap and long term measure.

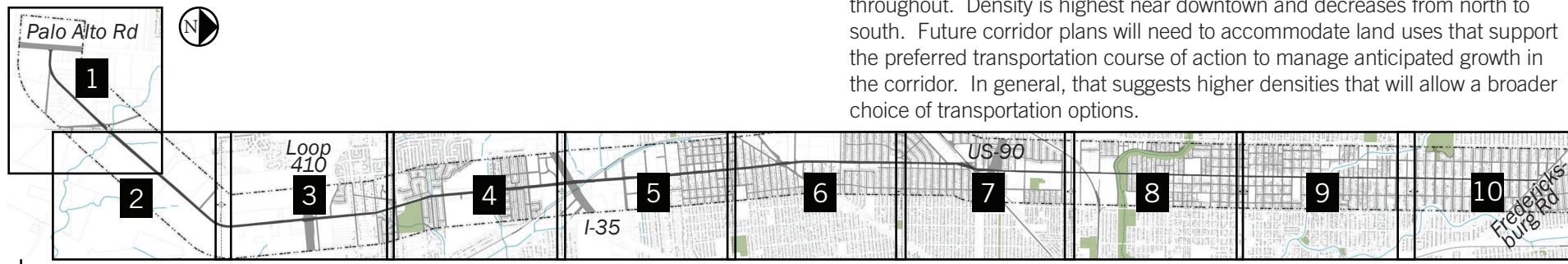
Save a few gaps, most of the corridor has paved sidewalks or a solid walking surface for pedestrians, but the treatment is inconsistent. There are numerous driveways and curb cuts and narrow 4-foot strips adjacent to travel lanes, while others sections are set back from the roadway separated by a wide parkway. Many of these are not ADA compliant. The the southerly end of the corridor has no sidewalks, but can readily accommodate them.

In general, much of the corridor does not lend itself to bicycle usage because of limited rights-of-way. Bicycle use on Zarzamora is not advisable under current conditions. High traffic volumes discourage bicycle use throughout the day. An active transportation network that offers



users a choice of travel options must be developed to support mobility in the Zarzamora corridor, most likely on parallel facilities located within close proximity to the corridor that will complement the corridor and its multimodal solutions.

Land use in the corridor is urban to suburban, but of relatively low density throughout. Density is highest near downtown and decreases from north to south. Future corridor plans will need to accommodate land uses that support the preferred transportation course of action to manage anticipated growth in the corridor. In general, that suggests higher densities that will allow a broader choice of transportation options.



Zarzamora Sheet Set Key

11.8 Miles

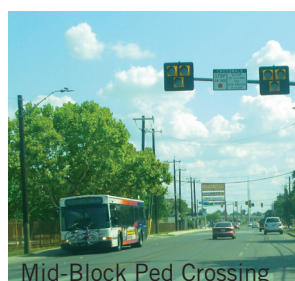
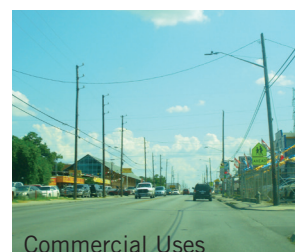
Observations, Challenges & Vision

Vision

Zarzamora will continue to be a primary north-south link on the west side of downtown, but needs to better meet the needs of local residents and businesses. While offering a broad range of travel options that encourage transit supportive land use, the street should prioritize Vision Zero initiatives. The future Zarzamora will serve travelers effectively by eliminating existing physical and geometric issues and introducing creative multimodal options that activate the corridor.

Future

- As the region grows, projected traffic volumes will exceed the capacity of the existing roadway by a substantial margin. The options to mitigate some of the anticipated congestion are to carry more people in fewer vehicles or to acquire property to accommodate additional roadway capacity.
- Forecasts rise to over 40,000 vehicles a day throughout the corridor by 2040. The available practices to expedite traffic flow at such high volumes will be insufficient to address the challenges of the additional demand within the existing right-of-way.
- VIA plans a mixed flow Primo service on Zarzamora beginning in 2018
- The corridor will need to investigate the effect of changing technologies on the solutions proposed to address growing travel demand
- Land uses in the corridor will also need to shift from a car-oriented focus to an emphasis on regional activity centers and more compact character that can shorten trips or reduce demand for trips
- In the absence of additional ROW a feasibility analysis should be conducted to evaluate if vehicle travel lanes can be reduced in order to accommodate bicycle facilities that can continue to serve the needs of the Zarzamora corridor and community. Coordination with VIA will be necessary since the Vision 2040 Plan calls for improved transit service, possibly in a dedicated lane.



Policy & Guidance

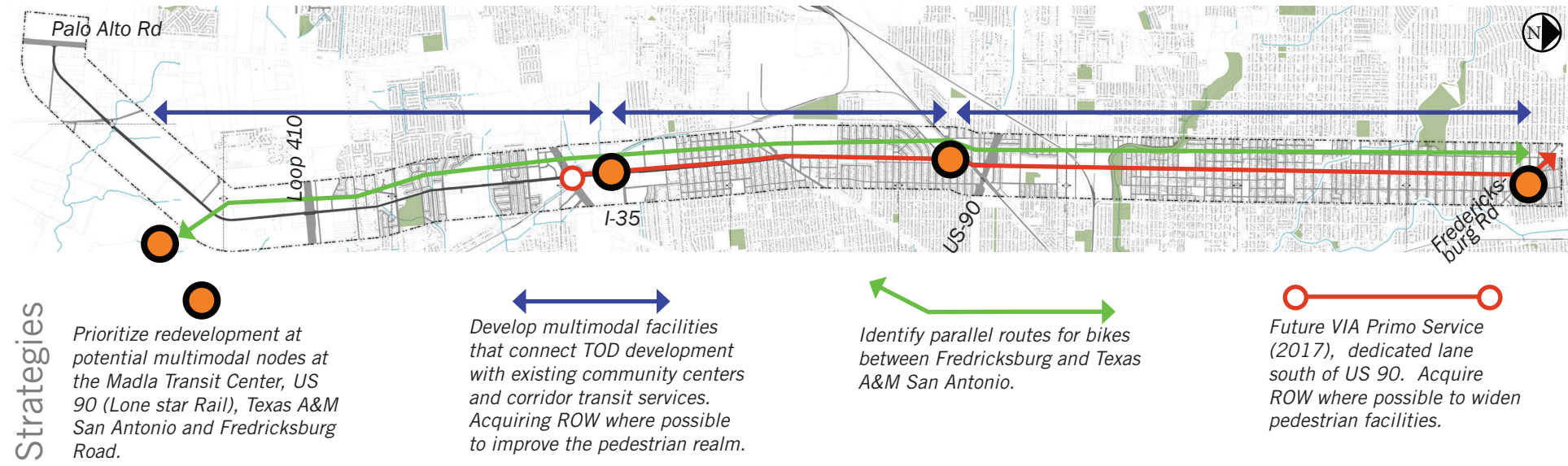
- Dynamic Access Management** – Close duplicative driveways and some intersection left turns during critical times to improve traffic flow.
- Pedestrian Service** – Establish a plan to provide ADA compatible and attractive sidewalks to encourage improved pedestrian mobility within the corridor.
- Zoning** – Create an overlay district with land use and supporting regulations that allocate and guide growth in ways that minimize development contributions to congestion and encourage the use of alternative modes
- Land Use Planning** – Encourage redevelopment of underused land uses to accommodate growth and create a multimodal supportive character within the corridor.
- Vision Zero** – Focus on safety for all modes of travel in this corridor, choosing improvements that incorporate design features that protect people biking and walking from vehicular traffic.

Analysis/Issues

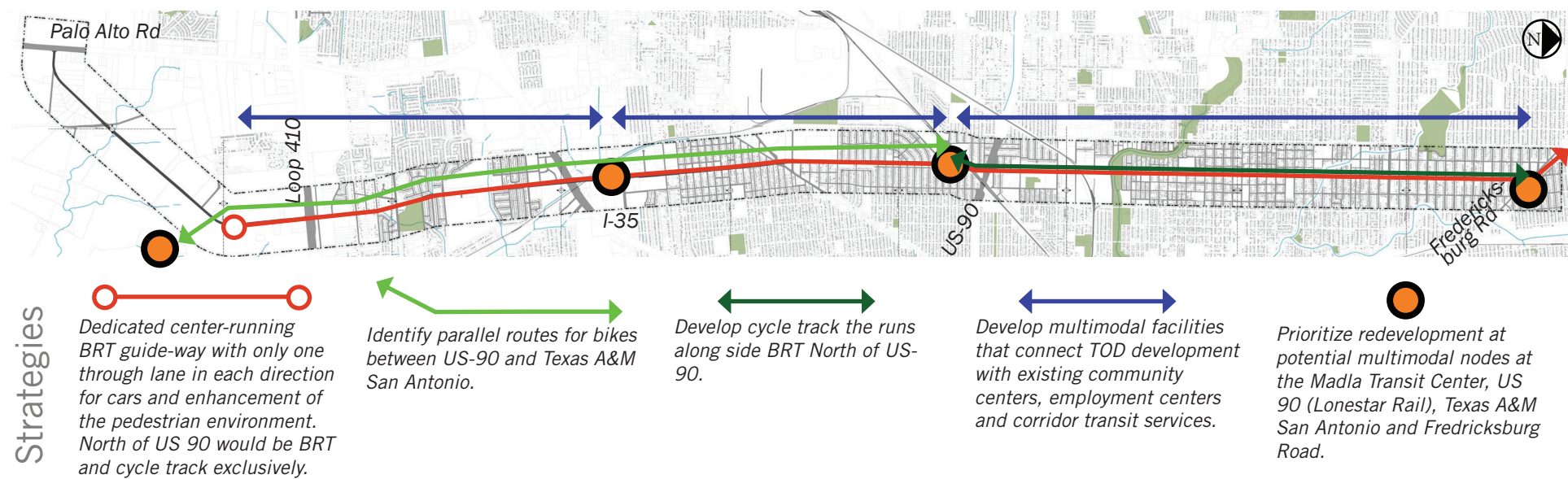
- Roadway** - The variation in the roadway cross-section is a major characteristic of Zarzamora. The adjacent land uses are defined by the dense grid of streets that border Zarzamora. Access management will be an important factor in preserving the corridor's ability to carry the anticipated demand.
- Transit** – Zarzamora carries VIA route 520 at 15 minute headways along its entire length. The high ridership levels have prompted VIA to deploy a new Primo route starting in 2018 with transit signal priority and limited stops. VIA's proposed Primo route will be an improvement, but cannot achieve its full potential without significant improvements to the corridor.
- Bicycles** – There is a short segment of Zarzamora south of US 90 that has a bike lane, but it is not connected to the rest of the network. Corridor bicycle use will need to be moved to a parallel street such as Calaveras north of Highway 90. The lack of bicycle facilities along the corridor is an impediment to multimodal options.
- Pedestrian** – The incomplete and inadequate facilities along Zarzamora will require substantial investment to address the corridor's pedestrian needs.

Long Term Multimodal Options

Future Option 1: VIA Primo Service + Multi-Modal Investment

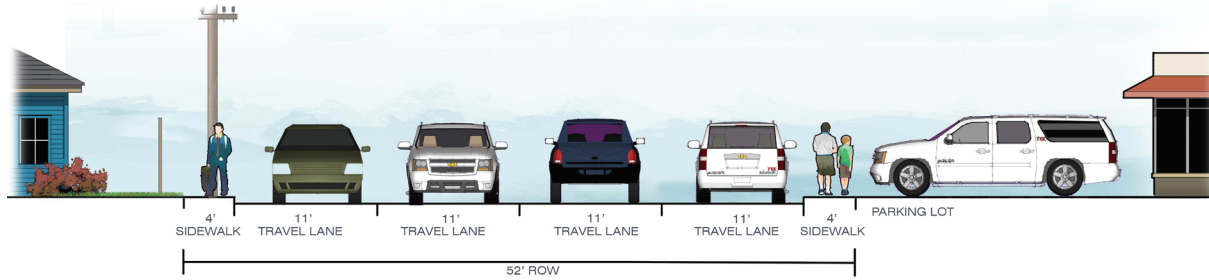


Future Option 2: Dedicated BRT + Multi-Modal Investment



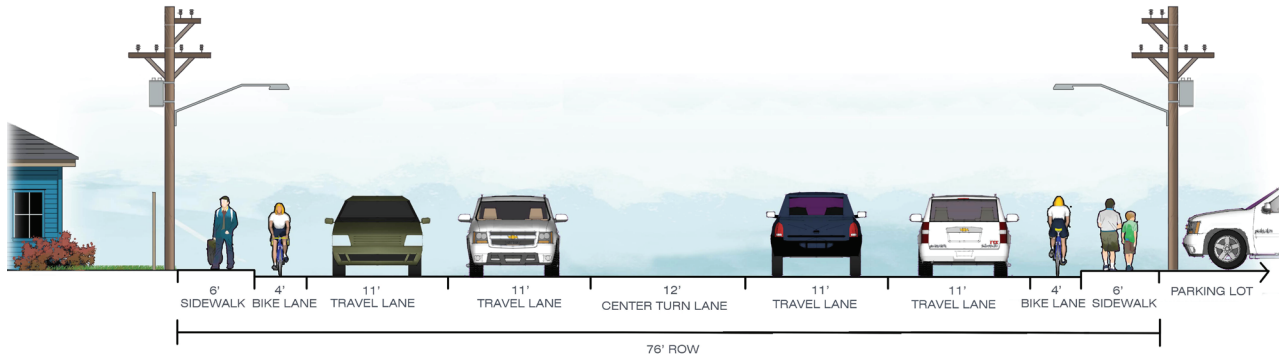
Long Term Multimodal Options: Existing Cross Sections

Existing Section



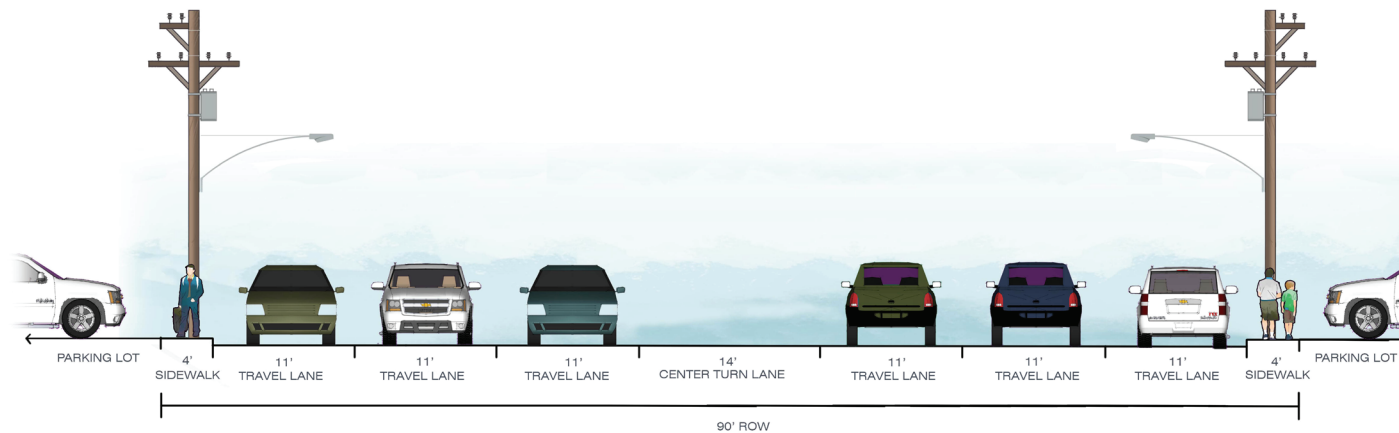
EXISTING SECTION: ZARZAMORA: FREDRICKSBURG TO US 90

Typical Section



EXISTING SECTION: ZARZAMORA: US 90 TO NOGALITOS

Typical Section



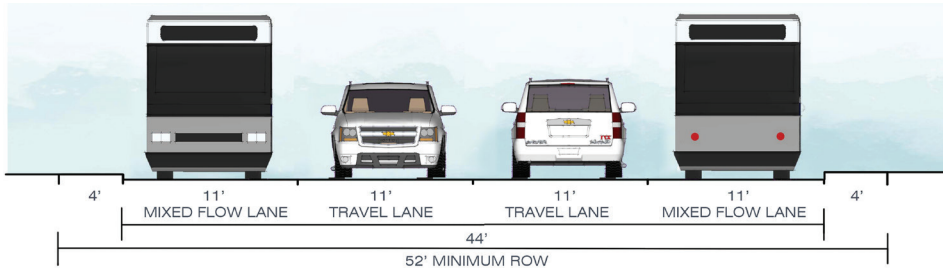
EXISTING SECTION: NOGALITOS TO APPLEWHITE

Long Term Multimodal Options

Multimodal Opportunities

Zarzamora is a corridor that currently has high ridership, and with connections to other high capacity transit routes on SW Military Dr and Fredericksburg, it will be a key link in the City's transit network. North of US 90, the right of way on Zarzamora is extremely narrow. With four narrow travel lanes and narrow sidewalks (often with poles obstructing the pedestrian pathway), major corridor-wide improvements would either require a reduction in travel lanes or additional right of way. The presence of houses, apartments, and churches adjacent to Zarzamora makes the acquisition of a sufficient amount of right of way throughout the corridor unlikely. Removing a travel lane could provide for improved sidewalks or bike facilities. However, an analysis of the projected traffic volumes show a three lane section would greatly increase delay and more than double travel times. With buses required to be in mixed flow, this increase in congestion would limit the performance of transit service.

Future Option 1: VIA Primo Service + Multimodal Investment



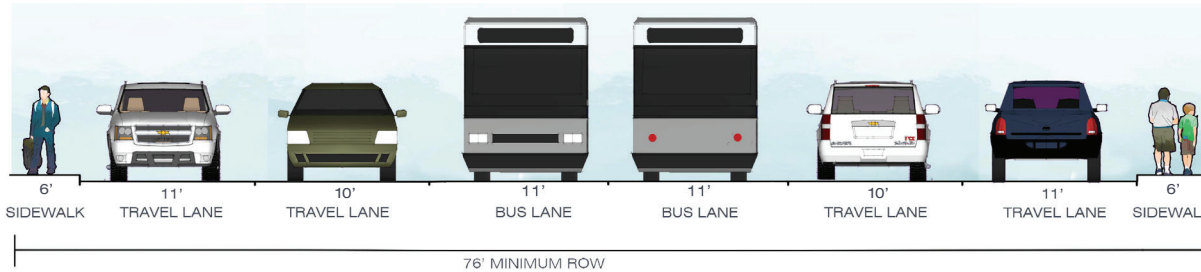
Note: The only difference between Option 1 and Option 2 is the northernmost segment. The southern portions are the same and there is only one version.

Description: The northerly segment of Zarzamora is narrow and a new Primo route will need to be accommodated within the limited right-of-way. It will operate in mixed flow with other vehicles in the outside lane.

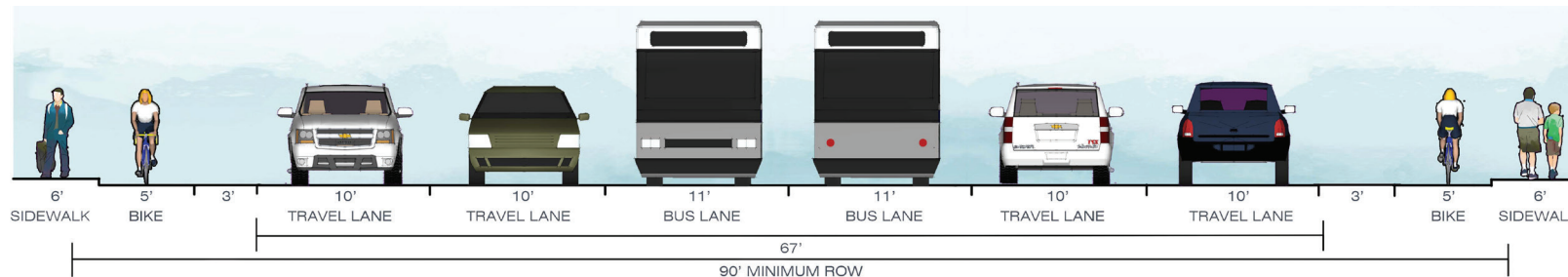
ZARZAMORA: FREDERICKSBURG TO US 90

Opportunities: Proposed VIA Primo service will encourage transit ridership and set the stage for more robust service going forward. Land use plans that support transit can help bring a sense of renewal and place to the corridor that can help maintain and strengthen neighborhood integrity.

Challenges: The narrow right-of-way in the northerly segment limits how the roadway can be used. Mixed flow buses will continue to impact other traffic flow. Bicycle and pedestrian activity will continue to rely on incomplete or underdeveloped networks.

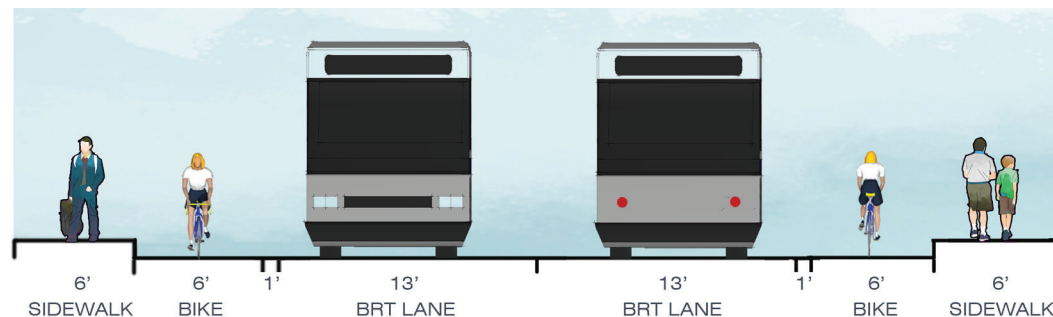


ZARZAMORA: US 90 TO NOGALITOS (76' ALTERNATIVE)



ZARZAMORA: US 90 TO APPLEWHITE (90' SECTION)

Future Option 2: Dedicated BRT + Multimodal Investment



Note: The only difference between Option 1 and Option 2 is the northernmost segment. The southern portions are the same and there is only one version.






ZARZAMORA: FREDRICKSBURG TO US 90

Description: The second option is to establish Zarzamora as a key north-south dedicated transit corridor. By removing other vehicles from the corridor, transit can flourish and be complemented effectively by both bike and pedestrian facilities within the same facility. The shared bike/vehicle lane can be studied by taking into account Vision Zero principles and safety concerns with dedicated BRT in the center since conflicts would occur where buses cross vehicle lanes to pick-up/drop-off passengers at stations. All proposed options for Zarzamora will need to be coordinated with VIA.

Opportunities: Providing priority treatment to transit vehicles throughout the corridor will establish Zarzamora as a major transit corridor that will draw economic development opportunities. Land uses in the corridor will evolve to support the transportation options available. Improved pedestrian and bicycle systems will improve safety of users and provide better access to transit

Challenges: Elimination of single occupant vehicles from even a portion of the corridor is difficult. Performance of all modes will depend on improvement or elimination of critical conflict points in the corridor.

Corridor Recommendations

					Recommendations	Benefits
					Prohibit left turns during peak hours at locations that can't support protected left turning movements	Prohibiting left turns during peak hours will benefit the functionality of the corridor during congested periods.
					Reduce driveway density	Consolidating driveways will concentrate turning movements to appropriate areas. This will reduce the number of conflict points between cyclists, pedestrians, and vehicles.
					Identify and designate parallel bike routes	If a dedicated bike route on Zarmora cannot be accommodated, consider an adjacent route that can serve as a viable alternative. Careful creation of a direct route will be essential to promoting bicycle movements within suburban-contexts of the corridor.
					Establish high capacity transit on the corridor	Establishing high capacity transit facilities on Zarmora will help to direct future growth to appropriate locations on the corridor, allowing for the avoidance of future vehicular congestion.
					Improve pedestrian facilities by completing the sidewalks network	The addition of improved sidewalks will not only make pedestrian travel safe and accessible, it will also improve access and encourage the use of transit.
					Introduce corridor-wide traffic signal coordination with transit priority	Development of transit - friendly signalization will aid in moving transit services efficiency within the congested corridor, encouraging transit use.
					Prioritize redevelopment at potential multimodal nodes such as the Madla Transit Center and Fredricksburg	Combining transit with new development allows growth to be directed to locations that are positioned to take full advantage of mobility options. The availability of multiple transportation options can help to alleviate vehicular pressure on streets.



Transit Improvements



Pedestrian Improvements



Bicycle Improvements



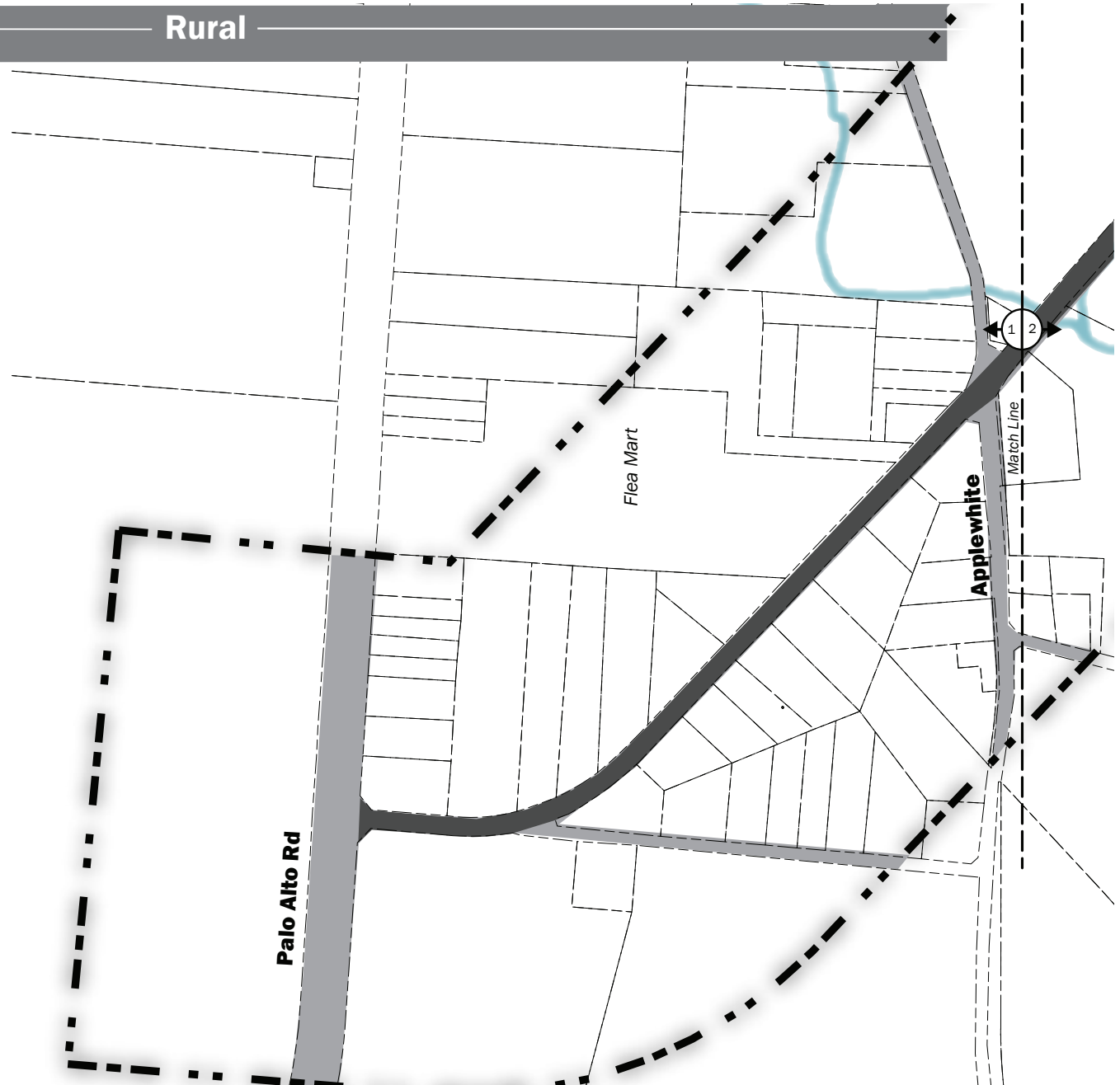
Vehicular Improvements



Land Use Improvements

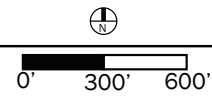
Rural

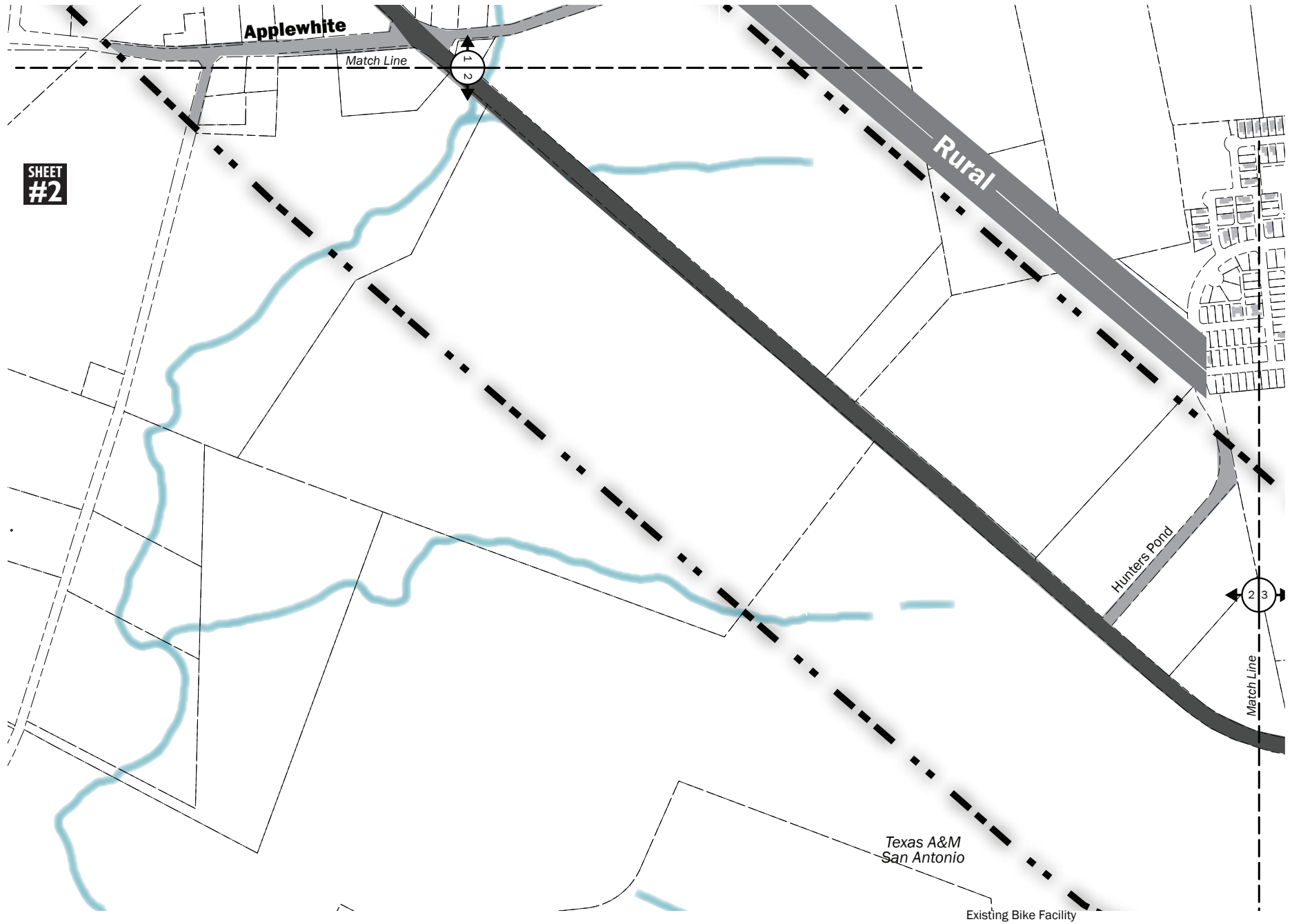
SHEET #1



Zarzamora Corridor Analysis: Sheet 1 Short Term Recommendations

- Open Space
- Future VIA Primo Service
- Study Area





SHEET #2

Zarzamora Corridor Analysis: Sheet 2 Short Term Recommendations

- Open Space
- Study Area

0' 300' 600'

SA TOMORROW

SUBURBAN

SHEET #3

Palo Alto College

Loop 410

Zarzamora

Wilaret Blvd

Gillette

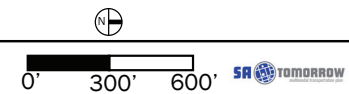
A

Short-term Recommendations

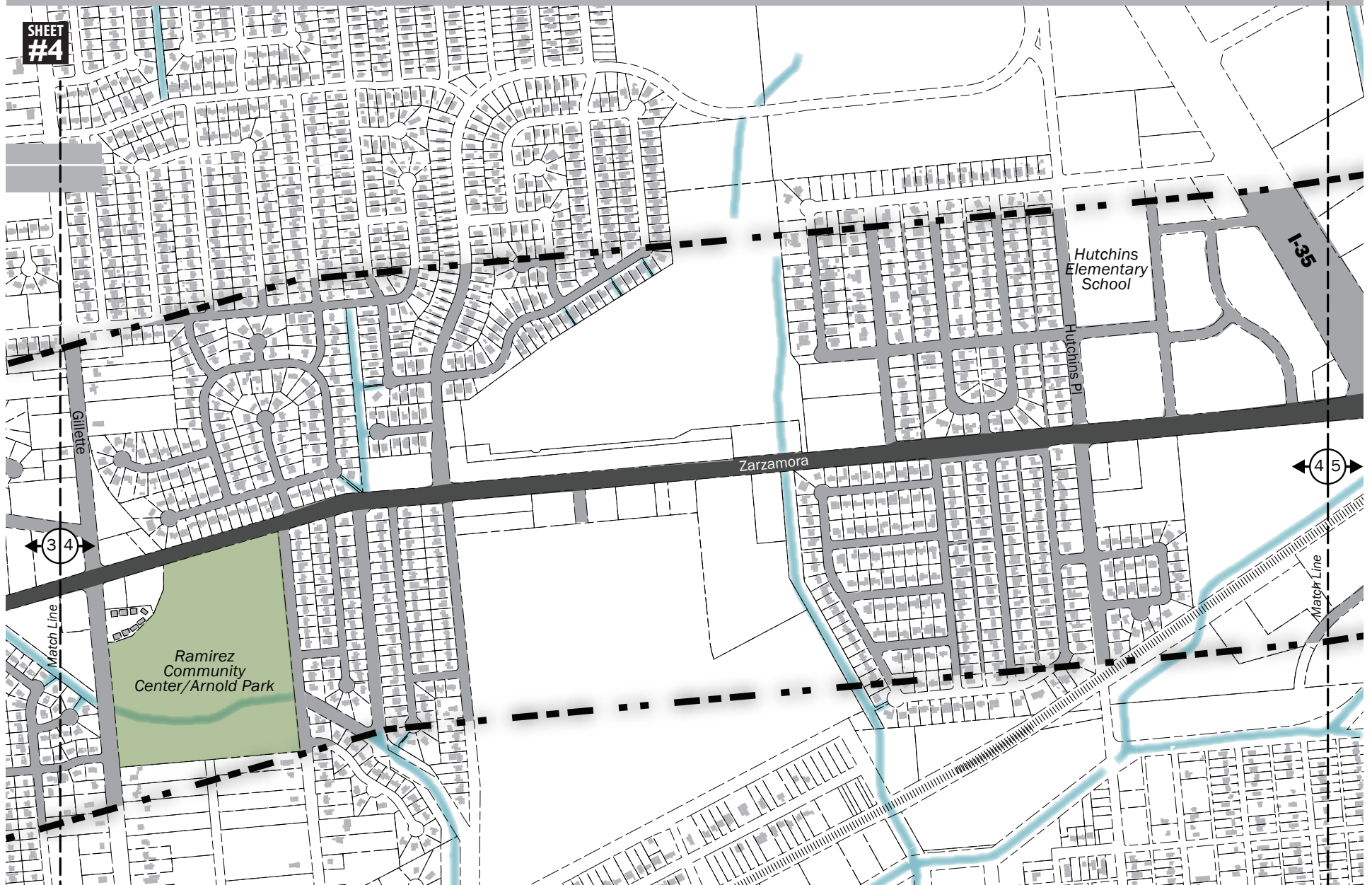
	Issue / Recommendation
A	Provide higher visibility beacons and advanced signs.

Zarzamora Corridor Analysis: Sheet 3 Short Term Recommendations

- Open Space
- Study Area



SUBURBAN



SHEET #4

Gilllette

Hutchins Elementary School

Hutchins Pl

I-35

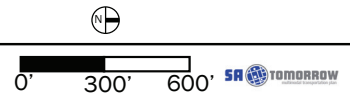
Zarzamora

Ramirez Community Center/Arnold Park

Match Line

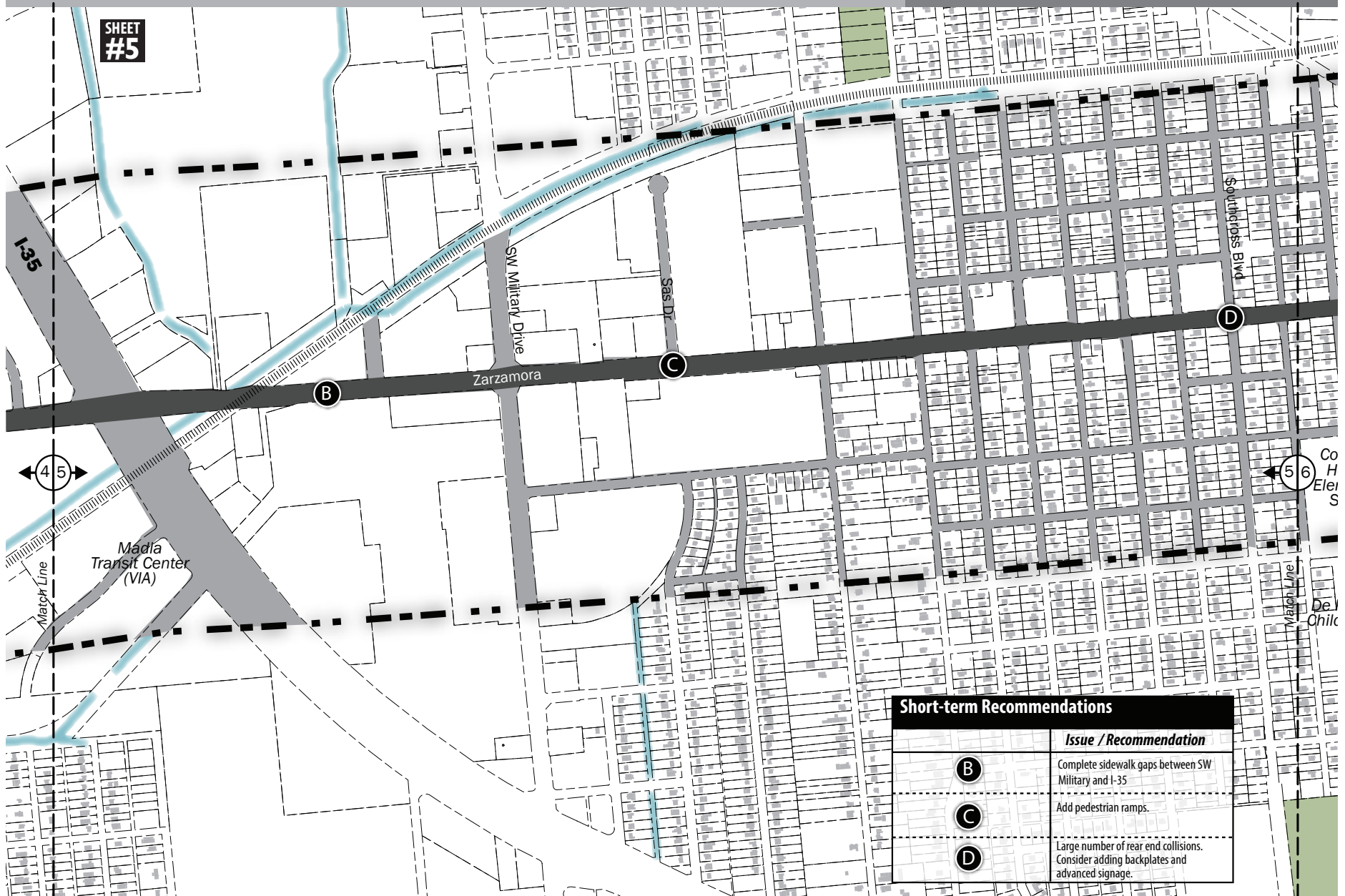
Zarzamora Corridor Analysis: Sheet 4 Short Term Recommendations

- Open Space
- Study Area



SUBURBAN

SHEET #5



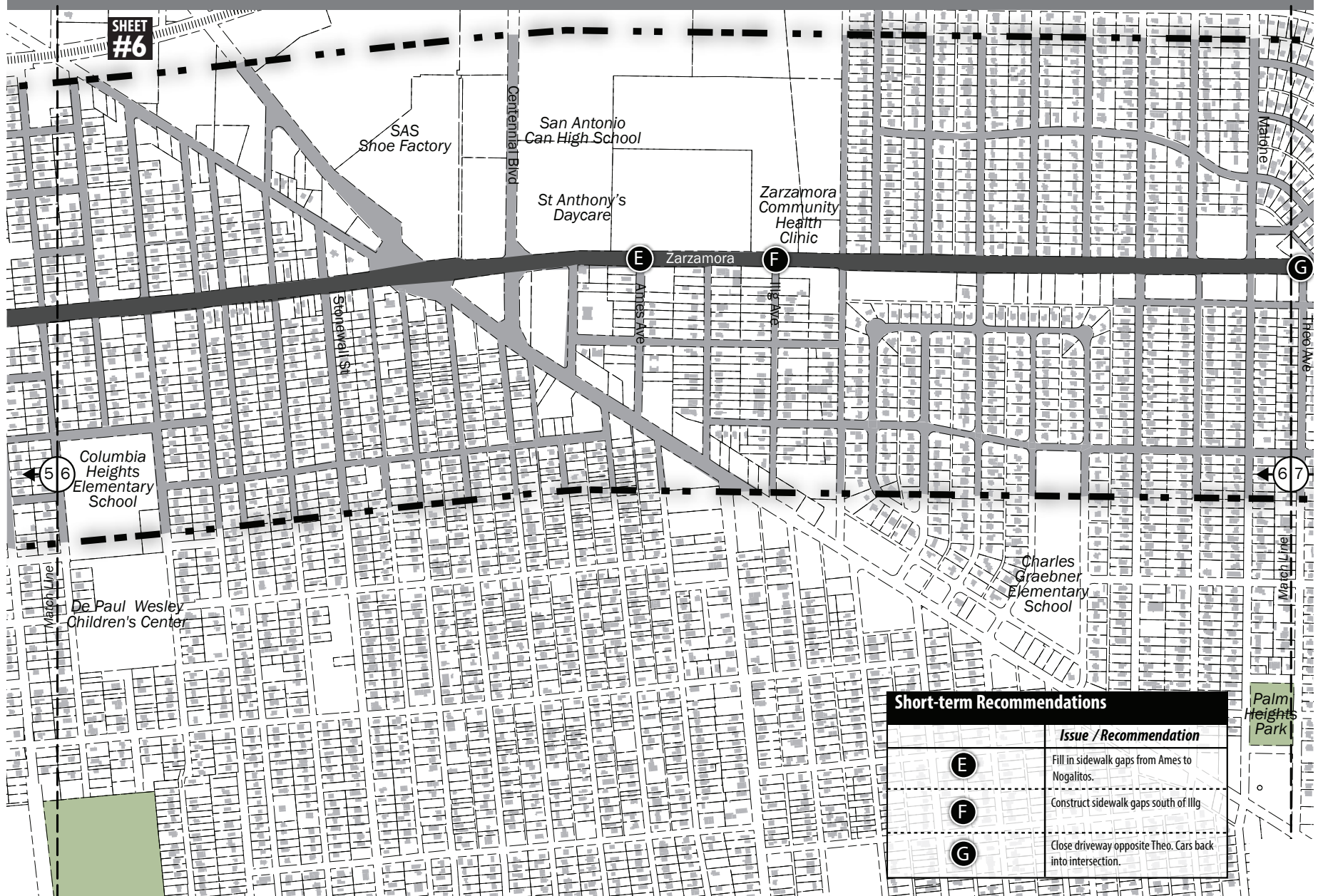
Short-term Recommendations	
	Issue / Recommendation
B	Complete sidewalk gaps between SW Military and I-35
C	Add pedestrian ramps.
D	Large number of rear end collisions. Consider adding backplates and advanced signage.

Zarzamora Corridor Analysis: Sheet 5 Short Term Recommendations

■ Open Space
 Study Area

0' 300' 600' SA TOMORROW

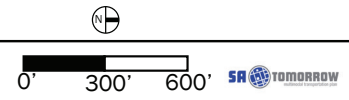
URBAN / SUBURBAN TRANSITION



Short-term Recommendations	
	Issue / Recommendation
E	Fill in sidewalk gaps from Ames to Nogalitos.
F	Construct sidewalk gaps south of Illg
G	Close driveway opposite Theo. Cars back into intersection.

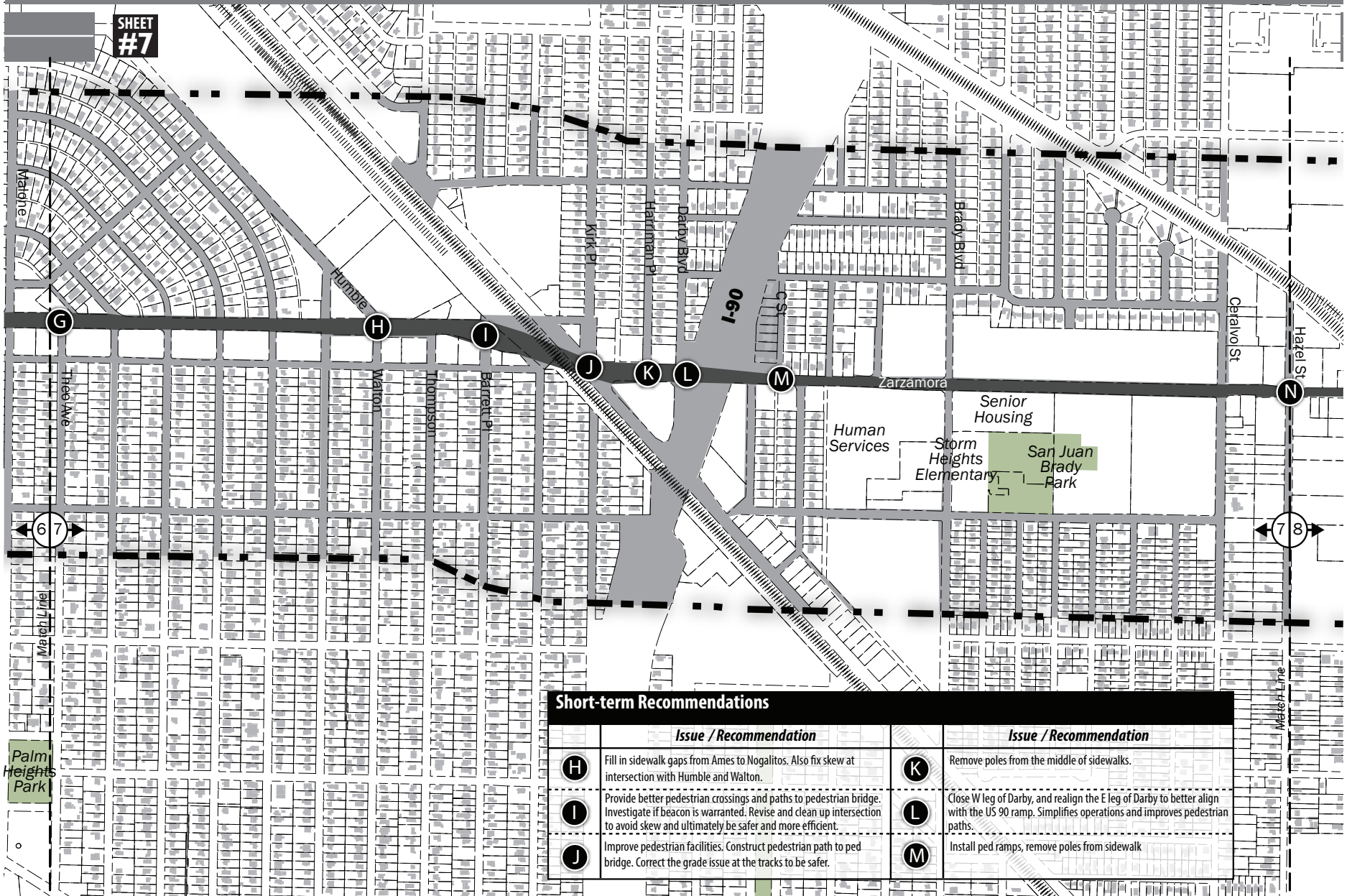
Zarzamora Corridor Analysis: Sheet 6 Short Term Recommendations

Open Space
 Study Area



URBAN / SUBURBAN TRANSITION

SHEET #7

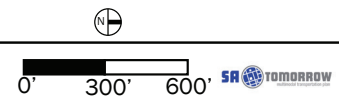


Short-term Recommendations

Issue / Recommendation		Issue / Recommendation	
H	Fill in sidewalk gaps from Ames to Nogalitos. Also fix skew at intersection with Humble and Walton.	K	Remove poles from the middle of sidewalks.
I	Provide better pedestrian crossings and paths to pedestrian bridge. Investigate if beacon is warranted. Revise and clean up intersection to avoid skew and ultimately be safer and more efficient.	L	Close W leg of Darby, and realign the E leg of Darby to better align with the US 90 ramp. Simplifies operations and improves pedestrian paths.
J	Improve pedestrian facilities. Construct pedestrian path to ped bridge. Correct the grade issue at the tracks to be safer.	M	Install ped ramps, remove poles from sidewalk

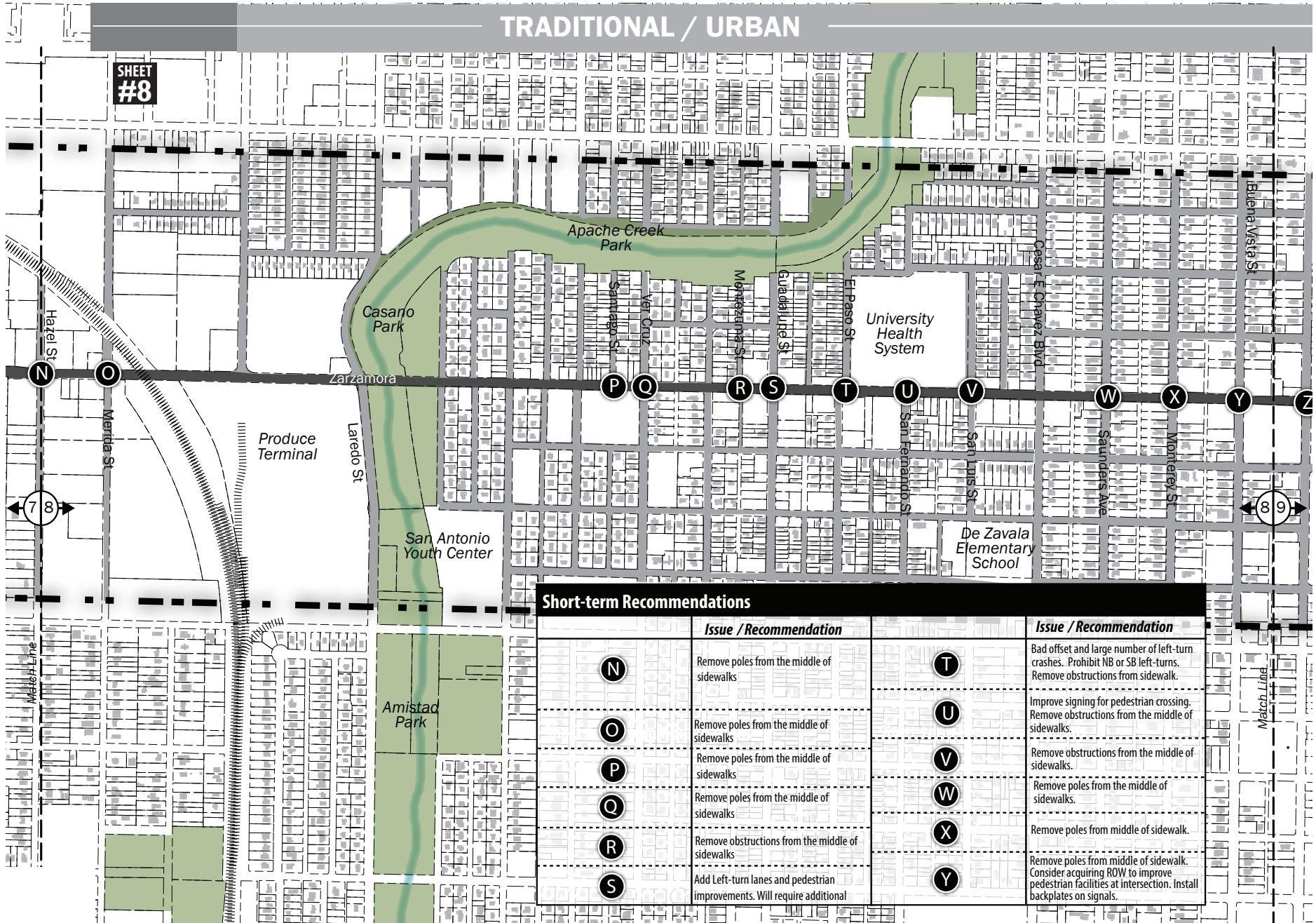
Zarzamora Corridor Analysis: Sheet 7 Short Term Recommendations

Open Space
Study Area



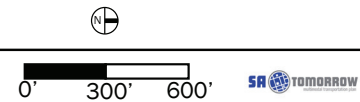
TRADITIONAL / URBAN

SHEET #8



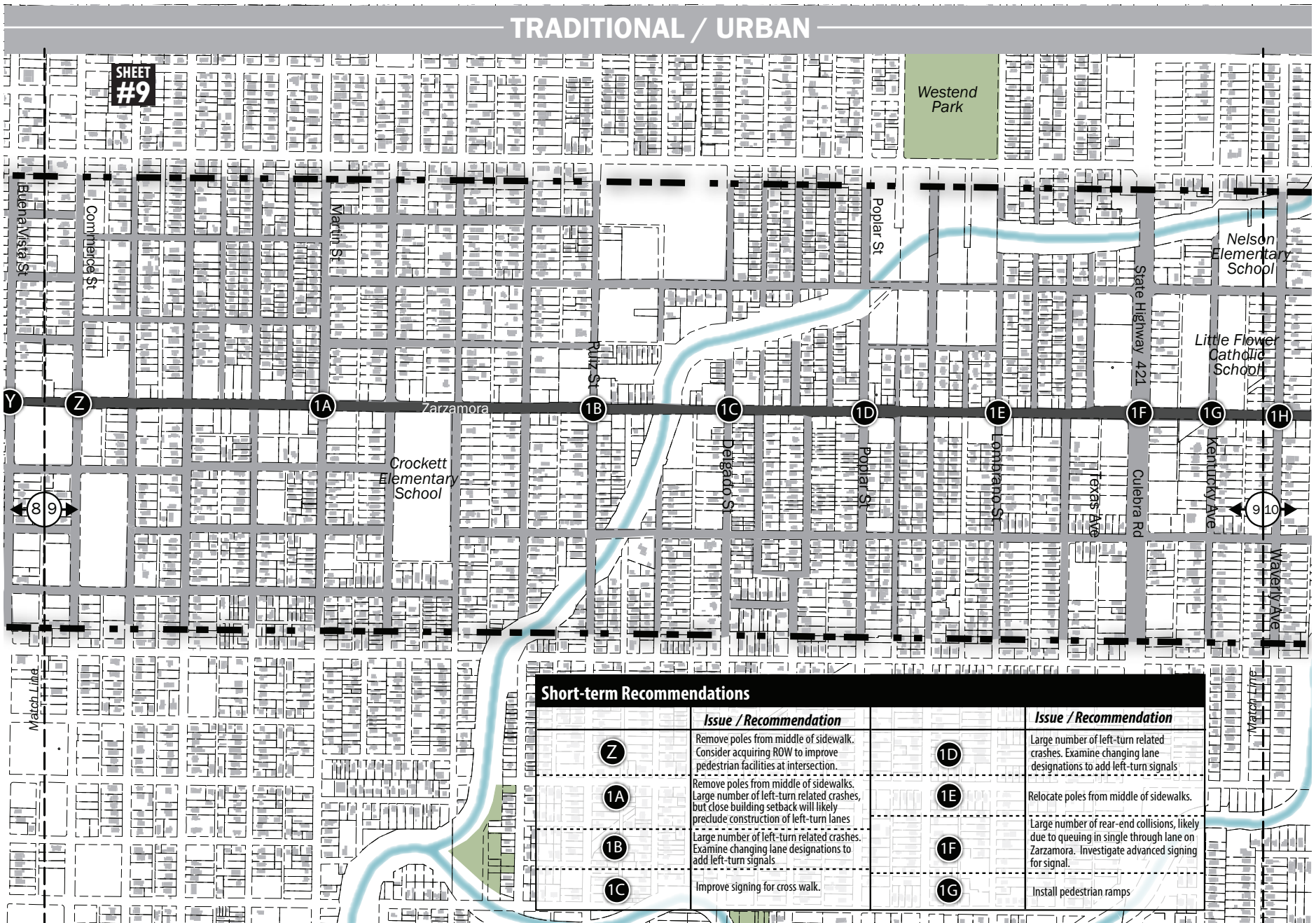
Zarzamora Corridor Analysis: Sheet 8 Short Term Recommendations

Open Space
Study Area



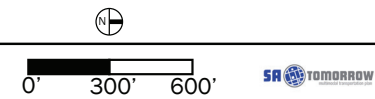
SR TOMORROW

TRADITIONAL / URBAN

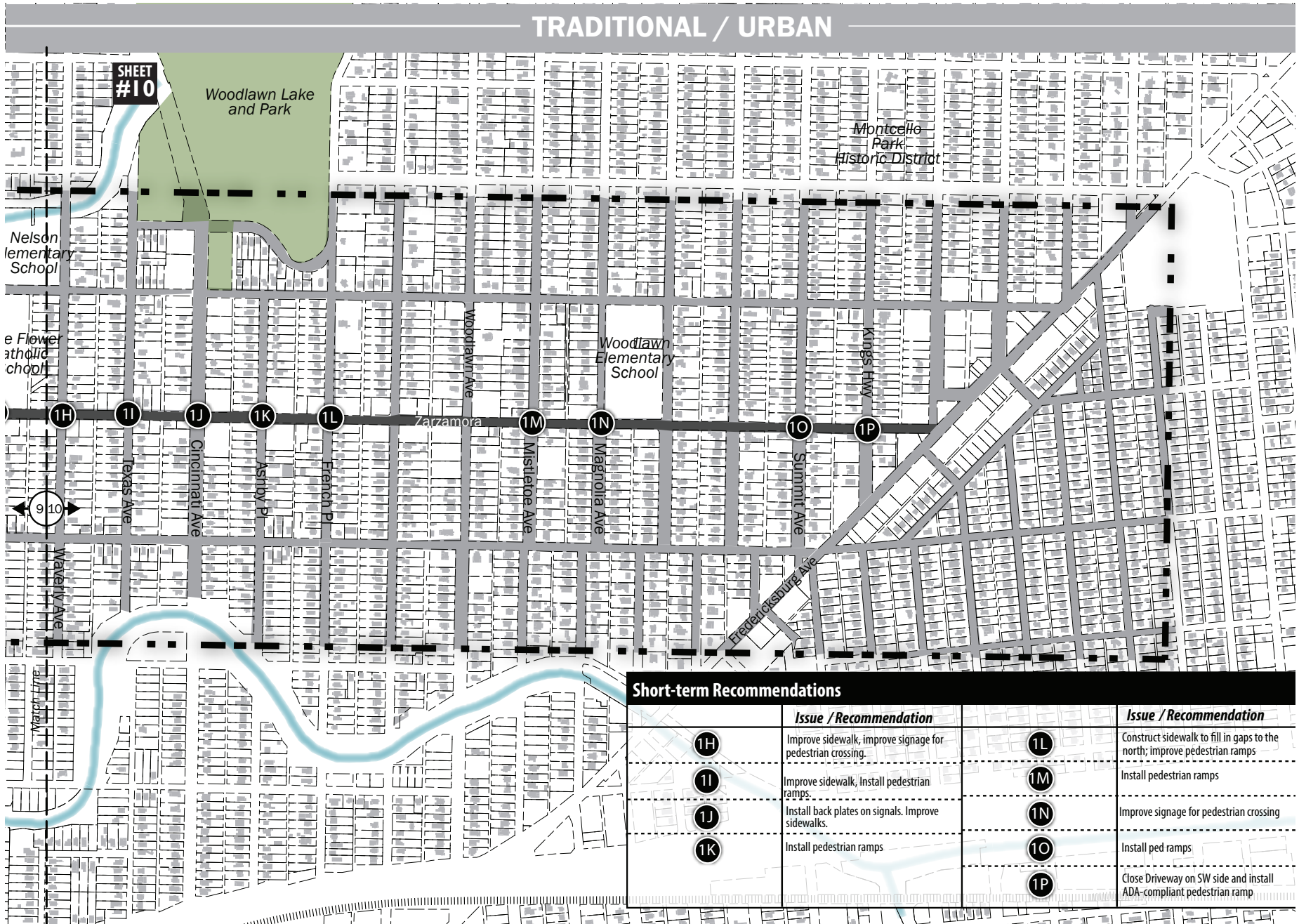


Zarzamora Corridor Analysis: Sheet 9 Short Term Recommendations

Open Space
Study Area



TRADITIONAL / URBAN



Zarzamora Corridor Analysis: Sheet 10 Short Term Recommendations

Open Space
Study Area

