Town of Miami Trail System Study

Needs and Gap Analysis

June 19, 2025



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Background

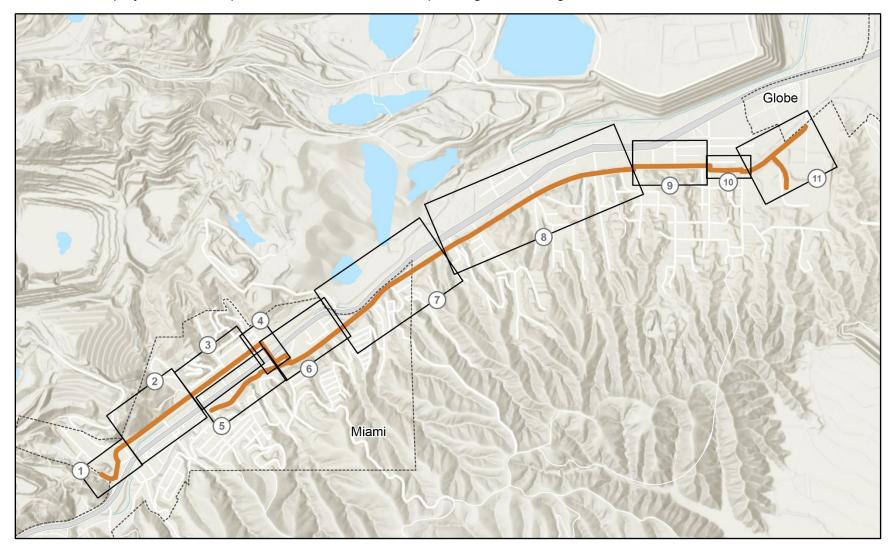
The Town of Miami Trail System Study (Study) aims to complete a trails study to improve walking, biking and rolling (e-scooters, wheelchairs and mobility devices) for the Miami community. With funding and support from the Arizona Department of Transportation (ADOT), the Town of Miami (Town) identified a trail alignment that extends from Bullion Plaza Cultural Center & Museum to the Miami Unified School District (MUSD). Guiding factors for the Study include increasing safety for vulnerable road users (those who walk, bike and roll), improving connectivity to key community destinations and providing economic development opportunities.

In March 2025, the Study team completed an Existing and Future Conditions report that provides an overview of current and future socioeconomic and demographic conditions in Miami, reviewed past studies and assessed existing physical conditions along the trail alignment. This Needs and Gap Analysis report builds on the Existing and Future Conditions report, identifying needed improvements and network gaps along the trail alignment.

Following the Needs and Gap Analysis section is information on preliminary evaluation criteria. The evaluation criteria will be used to assess potential improvements and develop final recommendations.

Needs and Gap Analysis

This section outlines the existing needs and gaps for each of the 11 discrete segments along the trail alignment. The segment extents are displayed on the map below, with numbers corresponding to each segment's location.



The table below details the format for this section, providing examples of low, medium and high levels of need along the alignment.

Short description of the segment that provides land use and community context as well as level of improvements needed.

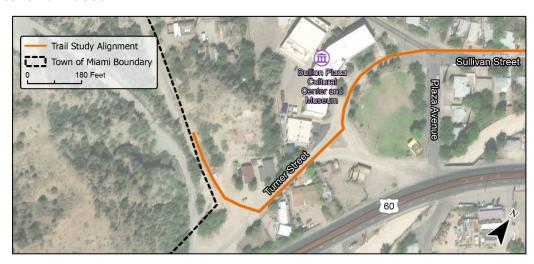
[Aerial map showing segment limits.]

improvements needed.		
Topics	Need	Criteria Ratings
	•	Pedestrian and/or bicycle infrastructure is in place and functional today, minor improvements necessary.
Existing Ped/Bike Infrastructure		Pedestrian and/or bicycle infrastructure is in place; however gaps or improvements needed.
Illiastructure		No existing pedestrian/bicycle infrastructure. May be characterized by uneven topography, unpaved roadways or other travel barriers for current/future users.
	•	Lighting in place.
Lighting		Existing lighting; however inadequate to effectively light pedestrian and/or bicycle infrastructure.
		No lighting.
		Drainage not an issue, or existing drainage infrastructure (e.g., curb, culvert) is effective.
Drainage		Drainage infrastructure appears inadequate or drainage issues exist (e.g., runoff, ponding).
		Drainage is a concern and inadequate drainage infrastructure in place.
		Shade is found throughout the segment (e.g., street trees, buildings).
Shade		Shade is present, but provides coverage for less than 20% of the segment.
		No shade along segment.
		Crossings are marked and/or signalized.
Crossings		Crossing markings are faded, lack of signals or signage.
		No crossing markings exist.
		Segment has existing direct pedestrian and/or bicycle connections.
Neighborhood Access		Segment access may be limited or partially obstructed.
7.0000		Segment lacks access to adjoining neighborhoods.
Additional Comments	•	Space to expand upon any needs/gaps that don't align with the above elements; may also highlight conditions that would impact trail improvements along the segment.

1. Sullivan Street - Bullion Plaza Cultural Center and Museum

This segment provides connectivity to Bullion Plaza Cultural Center and Museum, a key community destination. The area has a mix of commercially zoned and residentially zoned parcels, and there are low traffic volumes.

Minor improvements to existing pedestrian infrastructure and amenities would increase safety and comfort for people who walk, bike and roll between Bullion Plaza and the surrounding community.



Topics	Need	Comments
Existing Ped/Bike Infrastructure	•	 Sidewalks present on both sides of Plaza Circle/Plaza Avenue. No continuous sidewalk on Turner Street south of Bullion Plaza. Limited ADA ramps. High curbs along Plaza Circle, with steps to ground level flanked by ADA railings. No existing bicycle infrastructure. On street parking narrows useable roadway.
Lighting		 Streetlights on both sides of roadway near Plaza Circle. Limited lighting on the east side of Turner Street.
Drainage		Drainage addressed with high curbs (which are over 1-foot and create safety concerns).
Shade		Trees on both sides of roadway along most of Plaza Circle.
Crossings	•	 Unmarked street crossings at Plaza Circle/Turner Street and Plaza Avenue/Sullivan Street. One crosswalk on Plaza Circle (in front of Bullion Plaza entrance), but markings are worn; no marked crossings on Turner Street or at Plaza Avenue/Sullivan Street intersection.
Neighborhood Access		Good neighborhood access.
Additional Comments		n ADA ramp or other improvements along Plaza Cricle may improve accessibility for people using the Bullion Plaza ark or walking/rolling in front of the cultural center.

2. Sullivan Street - Plaza Avenue to Davis Canyon Road

This segment connects Bullion Plaza Cultural Center and Museum to historic downtown Miami while also providing trail access to adjacent residential properties.

Minor improvements to existing pedestrian infrastructure would benefit community members living along this segment.



Topics	Need	Comments
Existing Ped/Bike Infrastructure	-	 Sidewalk only on south side of Sullivan Street for most of segment. Cracks and uneven surfacing in some areas where large trees are located. Sloped surfaces near driveways. No bicycle infrastructure. No shoulder on north side of Sullivan Street, which abuts steep hillsides that are separated from the roadway by chain link fencing. Diagonal ADA ramps at Plaza Avenue and Reppy Avenue intersections.
Lighting		Streetlights on south side of roadway for most of segment, with one light on north side at Reppy Avenue.
Drainage		Drainage addressed through street curbs.
Shade		Some shade trees present on south side of roadway.
Crossings		 Unmarked street crossings at Plaza Avenue and Reppy Avenue. One crosswalk present west of Davis Canyon Road, near historic church. Lacks ADA curb ramps.
Neighborhood Access		Generally good access to neighborhoods and businesses throughout segment.
Additional Comments	• 5	Residential driveways on the south side of the street create conflict points for sidewalk users. Steep hillside and chain link fence at edge of pavement on north side of the roadway may complicate any path north of the roadway.

3. Sullivan Street - Davis Canyon Road to Miami Avenue

This segment provides access to historic downtown Miami, a key community destination. The area is largely commercial, with residential neighborhoods located north and west of the segment.

Pedestrian infrastructure, streetscape enhancements and bicycle amenities would improve user safety and comfort in this segment.



Topics	Need	Comments
Existing Ped/Bike Infrastructure	•	 Sidewalks present on both sides of roadway. No bicycle infrastructure. Diagonal ADA ramps at intersections. Some pedestrian amenities/street furniture such as benches.
Lighting		 Streetlights on both sides of roadway, with decorative string lighting throughout the area.
Drainage		Drainage addressed through street curbs.
Shade		 Trees present near the park. Some business façades have awnings that provide limited shade.
Crossings		 Unmarked street crossings at Forest Avenue, Cordova Avenue, Inspiration Avenue, and Keystone Avenue. While this segment has the most crossings, there are no marked crosswalks.
Neighborhood Access		Generally good access to neighborhoods and businesses throughout segment.
Additional Comments	 On-street parking for most of this segment. Markings or signs would be needed to create a safe route if bicycles share the road along this segment. Occasional commercial driveways disrupt the sidewalk and create conflict points. Street furniture and utility poles restrict useable sidewalk space in some areas, which may negatively impact accessibility. 	

4. Miami Avenue

This segment includes a signalized crossing of US 60, providing a critical connection between community destinations and neighborhoods north and south of US 60.

Crossing improvements and enhanced pedestrian/bicycle infrastructure would increase safety along this segment.



Topics	Need	Comments
Existing Ped/Bike Infrastructure	••	 Sidewalks present on both sides of roadway north of US 60, with varying widths along this segment. No sidewalk south of US 60. Wide but uneven sidewalks on both sides of the bridge, with poor surfacing where the bridge meets flat sidewalk near the US 60 intersection. Some pedestrian amenities/street furniture such as benches. ADA ramps present, but there are accessibility issues such as tall curbs/sidewalks with no guardrail.
Lighting		 Streetlights on both sides of roadway, with historic lights at the bridge.
Drainage		Drainage addressed through street curbs.
Shade		 Limited shade provided by buildings and business façade awnings.
Crossings		 Marked crosswalks at US 60 intersection, with pedestrian push buttons at each corner.
Neighborhood Access		Generally good access to neighborhoods and businesses throughout segment.
Additional Comments	• S m • S	ehicles parked on both sides of the roadway. idewalk improvements to the bridge crossing Bloody Tanks Wash may warrant additional design consideration to naintain the safety and structural integrity of the bridge. treet furniture and utility poles restrict useable sidewalk space in some areas, which impact accessibility. tility box and poles restrict sidewalk on the northwest corner of the US 60 intersection, which makes it more difficult or path users (particularly those who may use mobility devices) to comfortably cross.

5. Cactus Alley/Railroad Avenue - Forest Avenue to Miami Avenue

This segment connects hillside neighborhoods to key community destinations both north of US 60 and east of Miami. The area consists largely of residential properties south of the alignment, with some commercial uses to the north. Miami Memorial Library, a key destination, is also located to the south.

With no existing pedestrian/bicycle infrastructure, major improvements would be needed to make this segment a safe and useable route for community members.

Need: ■ Low ■■ Med ■■■ High



Topics	Need	Comments
		No existing pedestrian or bicycle infrastructure along this segment.
Existing		 Most of the alignment in this segment is unpaved; where pavement is present, the surface condition is
Ped/Bike		often poor.
Infrastructure		 Steep and uneven slopes in many areas, with obstructions such as debris and heavily overgrown
		vegetation. Large ruts and ditches in some areas.
Lighting		 Lack of streetlighting. Areas with overgrown vegetation lack visibility from nearby neighborhoods.
Drainage		Ruts and ditches along alignment suggest drainage issues.
Shade		 While there are some sparse trees in this segment, most vegetation consists of shrubs and does not
Silaue		provide adequate shade cover.
Crossings		 No marked crosswalks present at the crossings of Forest Avenue, Cordova Avenue and Adonis Avenue.
Neighborhood		Some areas of this segment are inaccessible due to debris, vegetation or other obstructions.
Access		, ,
		ight-of-way along this segment is largely inaccessible.
Additional		ny potential path would require coordinating with adjacent property owners, some of which currently have vehicles
Comments		nd other obstructions limiting access to the alignment.
		onsider how community members living in hillside neighborhoods could access any portion of this segment,
	es	specially those in neighborhoods to the west of the defined alignment.

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6. Cactus Alley/Railroad Avenue - Miami Avenue to Latham Boulevard

This segment provides a defined route through an area of Miami with no existing pedestrian/bicycle infrastructure. There are residential properties to the south and commercial uses to the north of the alignment.

Major improvements would be needed to create a safe, useable pathway through this segment.



Topics	Need	Comments
Existing Ped/Bike Infrastructure		 No pedestrian or bicycle infrastructure along this segment. Some sections of this segment are impassable. It is largely unpaved, with large rocks, debris, vegetation and other overgrown natural features on both sides of the unused AZER tracks.
Lighting		 Limited lighting near industrial businesses and the substation on Cactus Alley. Limited visibility in alleyway.
Drainage		Some drainage ditches are present along this segment (with some of those ditches substantially eroded).
Shade		 While there are some sparse trees in this segment, most vegetation consists of shrubs and does not provide adequate shade cover.
Crossings		No marked crosswalks present.
Neighborhood Access		 The majority of this segment is largely impassible and would be difficult to access from hillside neighborhoods.
Additional Comments	• C	ZER tracks run along most of this segment but appear to be inactive. Railroad coordination would be needed for any ath. Right-of-way to the north and south of the tracks is largely inaccessible. Coordination with property owners may be needed for the section of Cactus Alley near Miami Avenue. Some tructures are vacant, and outside storage of abandoned vehicles, equipment and materials creates an unsafe nvironment for path users. Consider how to navigate the area of overgrown vegetation near the substation. teep hillsides adjacent to the AZER tracks may complicate any path improvements in the segment.

7. Cactus Alley/Railroad Avenue – Latham Boulevard to Marion Street

This segment provides an alternate pedestrian/bicycle route off of US 60, connecting neighborhoods and key destinations in the Town of Miami with those east in unincorporated Gila County. The area is largely residential south of the alignment, with limited commercial parcels north of US 60.

Major improvements would be needed to provide a safe and attractive alternative route to US 60 along this segment.



Topics	Need	Comments
Existing		No pedestrian or bicycle infrastructure along this segment.
Ped/Bike		Segment is unpaved.
Infrastructure		 Large rocks, vegetation and other overgrown natural features obstruct the right-of-way.
Lighting		Streetlighting is limited or nonexistent in most parts of the segment.
Drainage		Drainage crossings and channels are located near Mill Street and Michaels Way, and near Kent Street.
Shade		 Several large shade trees between Kent Street and Loomis Avenue. Shade is otherwise sparse or nonexistent.
Crossings		 No marked crosswalks at the street crossings at Latham Boulevard, Highland Avenue, Mill Street and Marion Street.
Neighborhood Access		Neighborhood access facilitated with the cross streets.
Additional Comments	• W	/ide right-of-way in most of this segment provides space for a path.

8. Railroad Avenue - Marion Street to Pineway Street

This segment connects the Miami community and neighborhoods in unincorporated Gila County with key destinations to the east, such as MUSD. Neighborhoods are located south of the alignment, with commercial developments north of the alignment.

Improvements to the existing roadway and right-ofway would support pedestrian/bicycle use and make the alignment a safer, attractive alternative to US 60.



Topics	Need	Comments
Existing Ped/Bike Infrastructure		 No existing pedestrian or bicycle infrastructure. Narrow pavement widths and limited shoulder space. Utility poles restrict useable right-of-way space.
Lighting		 Limited streetlighting west of New Street (with many lights oriented towards the railroad tracks rather than the roadway).
Drainage		Drainage ditch/culvert near Pineway Street. Steep grades on either side of roadway west of New Street.
Shade	•	 Trees and shrubs exist along many of the hillside slopes of this segment but do not provide adequate shade cover. Some trees are planted on residential properties south of the roadway.
Crossings		 No marked crosswalks at the street crossings at Marion Street, New Street, Grover Canyon Road and Pineway Street.
Neighborhood Access		Several cross streets provide alignment access for hillside neighborhoods.
Additional Comments	 Roadway striping ends at edge of pavement in most areas; limited shoulder space south of the roadway would complicate any path. Constrained right-of-way near Grover Canyon Road and Calle de Loma. Any potential path north of the roadway would require coordination with AZER and adequate safety measures. Wire fencing separates the right-of-way and railroad west of New Street, but east of New Street there is no barrier. Active railroad 20 feet from edge of pavement near New Street. Lack of pedestrian/bicycle facilities at railroad crossings may be a barrier to users accessing the trail from the north. 	

9. Locomotive Drive - Pineway Street to Old Oak Street

This segment provides unincorporated Gila County neighborhoods with access to key destinations in Miami and the surrounding areas, including MUSD. The area has a mix of residential and commercial development.

Minor pedestrian/bicycle improvements in this segment would increase safety and comfort for users.



Topics	Need	Comments
Existing		No existing pedestrian or bicycle infrastructure along segment.
Ped/Bike		Roadway encompasses existing pavement (no shoulder).
Infrastructure		There is no barrier between railroad and street.
Lighting		Limited streetlights on north side of street.
Lighting		 Residences on north side of street provide a secure route that is visible to the community.
Drainage		Storm runoff is channeled under the railroad tracks and drains between the street and railroad to the east.
Shade		 No shade on south side of roadway, several mature trees adjacent to north edge of roadway.
Crossings		 Crossings at both Pineway and Old Oak Streets of street and railroad. No marked crosswalks.
Neighborhood Access		Railroad parallel to Locomotive Drive limits access from the south.
Additional Comments	 A path on either the north or south side of the street, if feasible, would impact existing on-street parallel parking. Numerous residential driveways intersecting the street create conflict points for any facility on the north side. Existing drainage on the south side of the street may impact any path. A safety barrier would be required between any pedestrian/bicycle facilities and the railroad. Right-of-way is constrained west of El Camino. 	

10. Railroad Avenue - Old Oak Street to Maple Leaf Street

This segment provides unincorporated Gila County neighborhoods with access to key destinations in Miami and the surrounding areas, including MUSD. The area is largely residential.

Minor pedestrian/bicycle improvements in this segment would increase safety and comfort for users.



Topics	Need	Comments
Existing Ped/Bike Infrastructure		 Narrow asphalt sidewalk north of roadway in poor condition, crumbling in some sections. No sidewalk south of roadway. North of sidewalk, the ground is uneven and slopes downward to the AZER tracks, with heavy vegetation. No bicycle infrastructure. Lack of ADA-compliant paths. ADA ramps at the southeast and southwest corners of Maple Leaf Street/Railroad Avenue. Utility poles and guardrail restrict useable right-of-way space near Maple Leaf Street.
Lighting		 Streetlights south of roadway, but limited lighting near Maple Leaf Street/Railroad Avenue intersection.
Drainage		Drainage addressed through street curbs.
Shade		Vegetation provides little to no shade in this segment.
Crossings		 Crossings at Old Oak Street and Maple Leaf Street, with marked crosswalks present at both intersections. Crosswalk markings fading.
Neighborhood Access		 Cross streets provide alignment access for hillside neighborhoods. Properties south of roadway provide visibility and safety for pedestrians/bicyclists along this segment.
Additional Comments	ir • N	lownward slopes and AZER tracks north of the roadway may present challenges to any path improvements to increase segment safety. Io barrier between roadway and AZER tracks in this segment. Residential driveways may create conflict points for any potential path improvements south of the roadway.
Need: ■ Low	■■ Med	■■■ High

11. Railroad Avenue - Maple Leaf Street to Ragus Road

This segment provides connectivity to a key community destination, MUSD.

Minor improvements to existing pedestrian infrastructure would create a safer walking/biking environment for students and other users.



Topics	Need	Comments
Existing		Concrete sidewalk south of roadway, no sidewalk north of roadway.
Ped/Bike		No bicycle infrastructure along this segment.
Infrastructure		ADA ramps at MUSD entrances.
Lighting		Streetlights present on both sides of roadway.
		Lights for MUSD are oriented towards the campus.
		 Lighting appears inadequate at Maple Leaf Steet intersection.
Drainage		Drainage addressed through street curbs.
Shade		There is no shade along this segment.
Crossings		Marked crosswalks present at MUSD entrances.
Neighborhood Access		Good neighborhood access.
Additional	No barrier between roadway and AZER tracks, but heavy vegetation and wide right-of-way provide a buffer.	
Comments		

Draft Evaluation Criteria

The following criteria were developed to assist with the evaluation of potential projects. This analysis will help determine preferred alternatives (when more than one solution is put forward) and the project prioritization of the recommendations for projects.

- Implementation cost
 - o Is the cost commensurate with the benefit?
- Complexity
 - o How difficult is the project implementation?
 - o Can the project implementation be phased?
 - Are there multiple competing interests/stakeholders (e.g. the Town, ADOT, railroad)?
- Safety for active transportation modes
 - Does the project provide meaningful safety improvements for people who walk, bike or roll?
- Comfort for active transportation modes
 - Does the project add comfort for users who walk, bike or roll (e.g. shade trees, physical separation from cars, direct/convenient route)?
- Community identity
 - Does the project enhance the community identity (e.g. visual/aesthetic improvements, elements of interest, branded wayfinding)?
- Parking impacts
 - o Does the project remove existing on-street parking, or contribute to parking?
- ROW constraints/impacts
 - Is the project constrained by the existing ROW and/or does the project require ROW acquisition?
- Private property impacts
 - o Does the project entail impacts on private properties?
- Topography/vegetation
 - Are there physical constraints that may complicate the project implementation (e.g. the need to regrade terrain, construct retaining walls or remove trees)?
- Network connectivity
 - o Does the project improve network connectivity by closing key gaps?
- Transit access improvements
 - Does the project improve access to transit stops from the surrounding areas (either by providing new access or by improving existing access)?

end.