

CITY OF BESSEMER TRANSPORTATION PLAN FY2020



CITY OF BESSEMER

AUGUST 2019

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City of Bessemer Transportation Plan

Chapter 1 Project List

Priority Projects

- **Lakeshore Parkway Extension.** Extending Lakeshore Parkway between SR 150 and Morgan Road will provide direct interstate access to Bessemer’s existing industrial uses and distribution centers along both Lakeshore Parkway and Morgan Road. It also will provide access to proposed new industrial and commercial development in both the City of Bessemer and unincorporated Jefferson County. Extending Lakeshore Parkway will provide a route alternative for I-65 and I-459 in case of a traffic incident. Finally, connecting Lakeshore Park to Morgan Road will divert freight travel away from the residential areas located of Morgan Road.

Because this proposed roadway project has potential impacts to both the City of Bessemer’s and Jefferson County’s traffic movement and future economic development, both entities should consider jointly developing the facility.

- **Morgan Road.** Improving Morgan Road between I-459 and SR 150 will improve traveler safety and address traffic congestion resulting from increased industrial development. Currently, Morgan Road is characterized as a two-lane high-volume facility with a mix of residential, commercial, industrial, and institutional uses along its length. At a minimum, improvements to the roadway should add shoulders and turn lanes. Shoulders will provide vehicles the ability to recover in case of roadway departures; turn lanes will enable turning traffic, especially left-turning vehicles, to separate themselves from through traffic minimizing the opportunity for rear-end collisions and providing congestion relief. Improvements to intersections near and along this project should be prioritized.

The proposed Morgan Road improvement project has potential impact to both the City of Bessemer and Jefferson County, both entities should consider jointly developing the facility.

- **I-59/20 Exit 113 Interchange Modification Study.** Exit 113, 18th Street, provides a critical connection to an industrial employment center, access from I-59/20 at exit 113 via Griffin Drive and J. Terrell Wooten Drive. Recommended improvements include expanding the southbound ramp’s capacity to accommodate truck parking for vehicles queuing on the ramp toward westbound 18th street. Recommended improvements also include roadway pavement rehabilitation, restriping with retroreflective paint, new retroreflective signage, and adding lighting.
- **J. Terrell Wooten Drive.** J. Terrell Wooten Drive provides access to an industrial cluster comprised of a grocery distribution center, an automobile auction and salvage facility, industrial pipe paining, and a rail materials and parts operation. Recommended improvements include roadway pavement rehabilitation, bringing the roadway up to freight design standards, and (intersection improvements at J. Terrell Wooten and Griffin Drive, and Griffin Drive and 18th Avenue.
- **Prince Street.** Realigning the intersection of Prince Street with Alabama Adventure Parkway will improve traveler safety

- **McCalla Road Phase.** McCalla Road links neighborhoods in South Bessemer with the Promenade at Tannehill commercial/retail center and provides a direct connection to the Interstate 459 access at Eastern Valley Roadway. The McCalla Road project is currently divided into two (2) phases:

Phase 1. McCalla Road Phase 1 improves traveler safety by adding shoulders along the roadway between the Norfolk Southern rail line and Eastern Valley Road.

Phase 2. McCalla Road Phase 2 improves traveler safety by realigning the roadway between the Norfolk Southern rail line and 4th Avenue SW. This realignment will improve the driver sightlines for vehicles entering 4th Avenue from McCalla Road, and slowing traffic exiting/turning from 4th Avenue onto McCalla Road.

- **Intersection Improvements.** Intersection improvements are typically intended to improve roadway operations and safety for both vehicles and non-motorized traffic. While the City of Bessemer has several intersection improvements that it desires to pursue, two (2) intersections are identified as high priorities for the City. They are:

Eastern Valley Road at Grant Avenue. Improvements at the intersection of Eastern Valley Road and Grant Avenue will add a left-turn from northbound Eastern Valley onto westbound Grant Avenue and a right-turn lane from eastbound Grant Avenue onto southbound Eastern Valley. The Eastern Valley Road improvement project is of interest to both the City of Bessemer and Jefferson County. As such, both the City and the County should consider partnering to complete the improvements.

4th Avenue at Grant Avenue. Improvements at the intersection of 4th Avenue SW/Old Tuscaloosa Highway and Grant Street will add a left-turn lane from southbound 4th Avenue SW onto eastbound Grant Avenue and a right-turn lane from eastbound Grant Avenue onto southbound Eastern Valley.

- **Bicycle and Pedestrian Projects.** The City of Bessemer opened its initial rail-trail, a multiuse trail facility that sits atop an elevated facility that was once the Atlantic Coast Line Railroad. The trail parallels State Route 150/14th Street South. Additional Project Phases identified as priorities for the City include:

Bessemer Multiuse Trail Phase 2. Phase 2 of the Bessemer Multiuse Trail project will extend the trail from its current termini at Berkley Avenue to Carolina Avenue, reconstructing the viaduct bridges over Berkley Avenue and Arlington Avenue.

Bessemer Multiuse Trail Phase 3. Phase 3 of the Bessemer Multiuse Trail project will build a pedestrian bridge over SR 150/14th Street from the multiuse trail facility to the Bessemer Recreation Center. The pedestrian bridge provides a critical connection between the neighborhoods east of SR 150/14th Street. It also addresses pedestrian safety. SR 150/14th Street is a significant mobility and accessibility barrier to bicycle and pedestrian movements from the neighborhoods east of SR 150/14th Street to the recreation facilities located west of the roadway.

- **Bessemer Multiuse Trail Phase 4.** Phase 4 of the Bessemer Multiuse Trail project will extend the multiuse trail facility from Carolina Avenue to DeBardeleben Park located in downtown Bessemer. Phase 4 will replace/rebuild an elevated steel rail bridge over Carolina Avenue and the still active Norfolk Southern Crescent rail corridor.
- **Bessemer Active Transportation Master Plan.** The City of Bessemer will develop a Active Transportation Master Plan to inform/guide the placement of new sidewalks, guide the repair or replacement of existing sidewalks, the development of urban and greenway trails, and the location

and typology of on-street bicycle facilities. The plan is intended to provide a comprehensive strategy for developing the City's active transportation network, address issues of mobility and accessibility, and address Federal requirements related to reasonable accommodations on roadways and the Americans with Disabilities Act (ADA).

Five-Year Priority Action Plan (Constrained Projects)

Proj. No.	Corridor Name		Description	Project Cost	Funding Source
	From	To	Project Type		
1	Lakeshore Extension		Roadway extension of Lakeshore Parkway to serve existing and new industrial development, and provide a route alternative for traffic.	Project Cost	Funding Source
	SR 150	Morgan Road	Safety; Freight; Economic Development; Congestion Management		
2	Morgan Road		Repave, striping, and signage; add shoulders; intersection improvements along corridor length.	Project Cost	Funding Source
	SR 150	I-459	Safety; Freight; Congestion Management		
3	Prince Street		Realign Prince Street 600' East to become the 4 th leg of intersection with Dolonah Road at Alabama Adventure Parkway.	Project Cost	ATRIP II
	Alabama Adv. Pkwy.	2 nd Street	Safety; Freight		
4	I-59/20 Exit 113 Interchange Modification Study		Widen existing shoulders; roadway pavement rehabilitation; striping; signage; lighting.		MPO
	I-59/20 SB	18 th Street	Safety		
5	J. Terrell Wooten Drive/Griffin Drive		Roadway reconfiguration from 2-lanes to 3-lanes; repave, restripe, improve signage, and add shoulders; intersection improvements at Woodward Rd and Griffin Dr., and Griffin Dr. at 18 th Street.	\$450,000	Unknown
	Woodward Rd	18th Ave	Safety; Freight		
6	McCalla Road Phase 1		Add shoulders to McCalla Road to address roadway safety.	\$1,000,000	ATRIP
	Eastern Valley Road	Norfolk Southern Rail	Safety		
7	McCalla Road Phase 2		Realign McCalla Road to eliminate existing awkward intersection at 4 th Ave SW/create a T-intersection at 4 th Ave. SW; construct new roadway segment to current roadway standards and minimize property impacts.	\$500,000	MPO
	Norfolk Southern Rail	4 th Ave SW	Safety		
8	Eastern Valley Road @ Grant Street Intersection Improvement		Intersection improvement - add turn-lanes	Project Cost	
	Eastern Valley Road	Grant Avenue	Safety; Congestion Management		
9	4th Avenue SW @ Grant Street Intersection Improvement		Intersection improvement - add turn-lanes	Project Cost	
	4 th Avenue SW	Grant Avenue	Safety; Congestion Management		
10	Bessemer Multiuse Trail Phases 2		Extend trail from current termini; replace viaduct bridges	Project Cost	CMQ
	Berkley Avenue	Carolina Avenue	Bicycle and Pedestrian		

Proj. No.	Corridor Name		Description	Project Cost	Funding Source
	From	To	Project Type		
11	Bessemer Multiuse Trail Phase 3		New pedestrian bridge across SR 150 connecting adjacent residential neighborhoods to Bessemer Recreation Center. Safety; Bicycle and Pedestrian	1,500,000	CMAQ
	Bessemer Rec. Center Pedestrian Bridge	Rail Trail			
12	Bessemer Multiuse Trail Phase 4		Extend trail from Carolina Avenue to DeBardeleben Park; replace/rebuild steel rail bridge over Carolina Avenue; add/improve pedestrian facilities on 16 th Street Bicycle and Pedestrian	Project Cost	CMAQ
	Carolina Avenue	2 nd Avenue N.			
13	Active Transportation Master Plan		Develop a plan to guide the construction/placement, repair and replacement of active transportation facilities across the City to address bicycle and pedestrian mobility and accessibility, as well as Federal requirements related to reasonable accommodations on roadways and the Americans with Disabilities Act (ADA). Planning	\$200,000	CMAQ MPO Planning
	Citywide	Citywide			

Unconstrained Project List

- **U.S. 11 Bridge Replacement.** The historic U.S. 11 bridge between 19th Street North and 22nd Street North provides a critical connection into/out of the Bessemer downtown area. The bridge spans the CSX rail line as it enters/exits the downtown area and links with the existing intermodal freight facility. The bridge is functionally obsolete and slated for replacement by the Alabama Department of Transportation. It is proposed that the bridge be extended approximately 700' from its current termini at 22nd Street North to 23rd Street North to ease the slope of the bridge and improve driver sight lines.
- **Dolonah Road.** Dolonah Road provides an alternative connection between Alabama Adventure Parkway and U.S.11, connecting the former West Lake Mall and the former Watermark Place Outlet Mall and the Alabama Adventure and Splash Adventure waterpark. Dolonah Road is proposed to be repaved from Alabama Adventure Parkway to Cedar Hill Drive.
- Recommended improvements include roadway pavement rehabilitation, bringing the roadway up to freight design standards, and (intersection improvements at J. Terrell Wooten and Griffin Drive, and Griffin Drive and 18th Avenue.
- **Alabama Splash Adventure Parkway.** Alabama Splash Adventure Parkway is proposed to be repaved between I-59/20 and Powder Plant Road, building up the pavement to freight design standards. The roadway is also proposed to expand and improve the existing shoulders so that vehicles, specifically truck traffic, can pull off of the roadway safely. The paved shoulders will also provide vehicles the ability to recover if they should depart from the roadway.

Alabama Splash Adventure Parkway provides a critical connection from Interstate 59 and 20 and Powder Plant Road and the industrial land uses located there. Alabama Splash Adventure Parkway also provides access to the Alabama Splash Adventure waterpark and the former WaterMark Place Outlet mall. With the development of the Amazon Fulfillment a Distribution Center, it is expected that freight traffic along Alabama Adventure Parkway will increase with trucks and package delivery vans entering and exiting the facility. The area served by Alabama Splash Adventure Parkway, specifically Powder Plant Road also is targeted for increased economic development activity by both the City of Bessemer and Jefferson County.

- **Prince Street Extension.** Prince Street is proposed to be extended from its current termini just beyond the Alabama Splash Adventure facility to Premiere Parkway north of the Bessemer City High School. The extended roadway will parallel the Interstate 59 and 20 corridor providing a through connection between Alabama Splash Adventure Parkway and Academy Drive, and opening a large swath of land for development.
- **Aviation Road SE.** Aviation Road SE's crossing with the CSX rail line is proposed to be grade separated between Morgan Road and Seales Road. The CSX rail line is very active and often blocks traffic seeking to continue travel onto the Aviation Road to the Bessemer Municipal Airport. The queuing distance between the rail crossing's gates and the Aviation Road/Morgan Road intersection is approximately 250 feet and has the potential to impact vehicle storage on the Aviation Road and subsequently Morgan Road as there is currently no southbound right-turn lane and no northbound left-turn lane.

- **Freight Accessibility and Mobility Project.** The Bessemer Freight Accessibility and Mobility Project will explore the potential to extend and/or improve certain streets adjacent to Bessemer’s downtown between the CSX Intermodal Facility and the Interstate 59/20 corridor. Facilities under consideration include:

32nd Street Improvements. Extending 32nd Street South between U.S. 11/9th Avenue North and 12th Avenue North has the potential to provide a more direct truck route from the CSX intermodal facility and I-59/20, minimizing truck traffic intrusion into residential neighborhoods thereby improving traveler safety. The possible extension of this corridor requires additional evaluation.

22nd Street/19th Street Improvements. Improving 22nd Street between 5th Avenue North and U.S. 11/9th Avenue North and 19th Street between US 11 and I-59/20 will improve the existing roadways making it possible to designate these streets as truck routes and minimize incursions into residential neighborhoods.

- **Asset Management Plan.** Given the scale of asset management needs in the Bessemer, the City should create a dedicated asset management plan when possible. This plan will apply the strategies developed here to the full range of short and long-term roadway and bridge maintenance needs found throughout the City. The Asset Management Plan should provide a constrained maintenance agenda that prioritizes the most critical needs.

Unconstrained Project List

Proj. No.	Corridor Name		Description	Project Cost	Funding Source
	From	To	Project Type		
1	U.S. 11 Bridge Replacement		Replace functionally obsolete bridge with historic significance; extend bridge run 800' to 23 rd Street	Project Cost	Funding Source
	19 th Street	23 rd Street	Safety; Freight.		
2	Dolonah Road		Pavement rehabilitation/repave, striping, and signage; add shoulders; intersection improvements along corridor length.	Project Cost	Funding Source
	Alabama Adv. Pkwy.	Cedar Hill Drive	Safety; Maintenance		
3	Alabama Splash Adventure Parkway		Repave and widen/pave existing shoulders; improve roadway to freight design standards		
	I-59/20 SB Ramps	Powder Plant Road	Safety; Freight;		
4	Prince Street Extension		Extend Prince Street from its current termini to Premiere Parkway to provide additional access to developable land for economic development.	Project Cost	Funding Source
	Prince Street	Premiere Parkway	Economic Development		
5	Aviation Road CSX Rail Crossing Grade Separation		Grade separate Aviation Road SE as it crosses the CSX Rail line east of Morgan Road		
	Morgan Road	Seales Road	Safety; Congestion Management; Economic Development		
6	19th Street		Improve existing roadway by bringing facility to freight design standards to better accommodate truck traffic and improve traveler safety.	Project Cost	Funding Source
	U.S. 11/9 th Ave. N.	I-59/20 Ramps			
	22nd Street		Improve existing roadway by bringing facility to freight design standards to better accommodate truck traffic and improve traveler safety.		
	5 th Ave. N.	U.S. 11/9 th Ave. N.			
	32nd Street Extension		Extend existing roadway to improve traveler safety by removing truck traffic from residential neighborhood and improve freight access.		
	SR 150	I-459	Safety; Freight; economic development.		
7	Asset Management Plan		Develop a strategy to guide the regular maintenance of transportation system infrastructure and inform both short and long-term capital budgeting priorities.	\$125,000	MPO
	Citywide	Citywide	Planning		

Chapter 2 Asset Management

Policies and Facility Maintenance Program Recommendations

Historically impoverished communities such as Bessemer are challenged to plan for their ongoing growth and the provision of new infrastructure that will allow for increased mobility. Maintaining a state of good repair on the existing transportation network increases the functional life of assets and decreases the overall burden of supporting an expanded transportation network. This maintenance involves repaving and resurfacing existing roadways, repairing bridges before they require severe rehabilitation, and optimizing the network of traffic signals to limit the need for major capacity improvements.

Roadway Maintenance. The City of Bessemer is responsible for maintaining local roads. This includes paving, leveling and resurfacing of city streets, including accepted subdivision streets and dead-end streets. Through this transportation plan, the City of Bessemer will specify those road segments that it will pave during the year using local funds and funds from the Rebuild Alabama Act. The Rebuild Alabama Act provides formulaic funding to cities that may be used to help with roadway maintenance improvements that include engineering, utility adjustments, resurfacing, adding turn lanes, bridge projects and maintenance, and other things.

Because of the maintenance backlog, it is recommended that the City of Bessemer identify funding for and establish an annual roadway maintenance program to resurface and rebuild its local streets. The City of Bessemer should also identify funding to help leverage state and federal money to assist both the State of Alabama and Jefferson County with maintaining state and county roadways respectively. As new projects are constructed in Bessemer, the City should plan for the additional roadway maintenance needs that will be required by the expanded roadway network.

Bridge Maintenance. Bridges, like roads, require regular maintenance. Bridge replacement and repair can be forestalled by several years with proper maintenance. The FHWA warns, "Delaying or forgoing warranted preservation treatments will result in worsening condition and can escalate the feasible treatment from preservation to replacement. The latter will result in extensive work and higher cost.

With the provision of revenues from the Rebuild Alabama Act, the City of Bessemer will experience an increase of local gas tax funds which may be applied to bridge maintenance projects. Competent bridge and culvert maintenance reduce the need for bridge repair and replacement projects later. Additionally, repair projects can be completed at a fraction of the cost of the larger replacement projects. The city does not currently have a bridge repair program. However, establishing a funded program should be considered for the future.

APPENDIX A: CONSTRAINED PROJECTS MAPS AND PROJECT DESCRIPTIONS

Project No. 1 - Lakeshore Parkway Extension



NOT TO SCALE

Improve/Repare

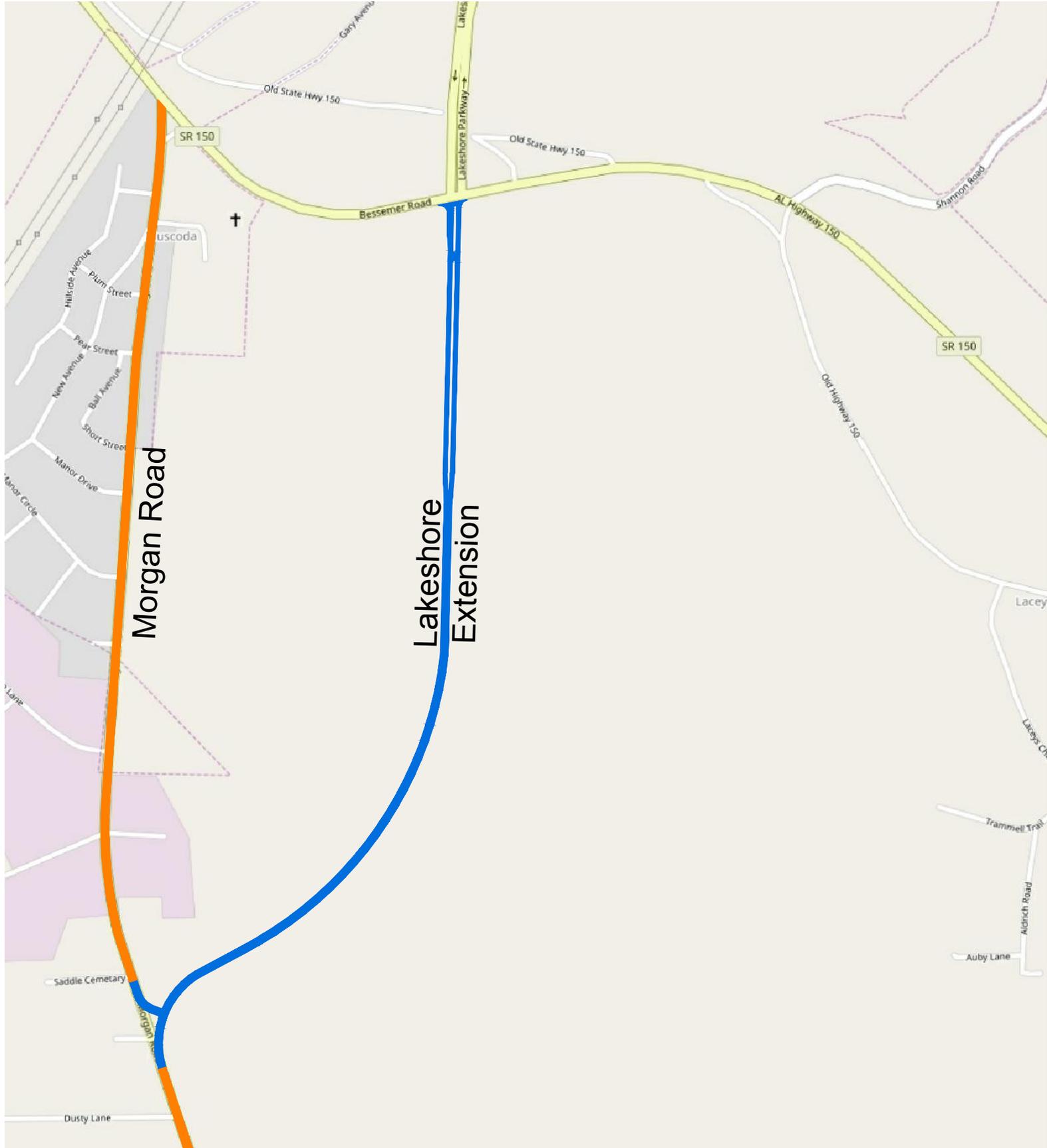


New Pavement



* Constrained Project

- Extend Lakeshore Parkway between SR 150 and Morgan Road.
- Improve Morgan Road from SR 150 to intersection of Lakeshore Extension and Morgan Road



Project No. 2 - Morgan Road Improvements



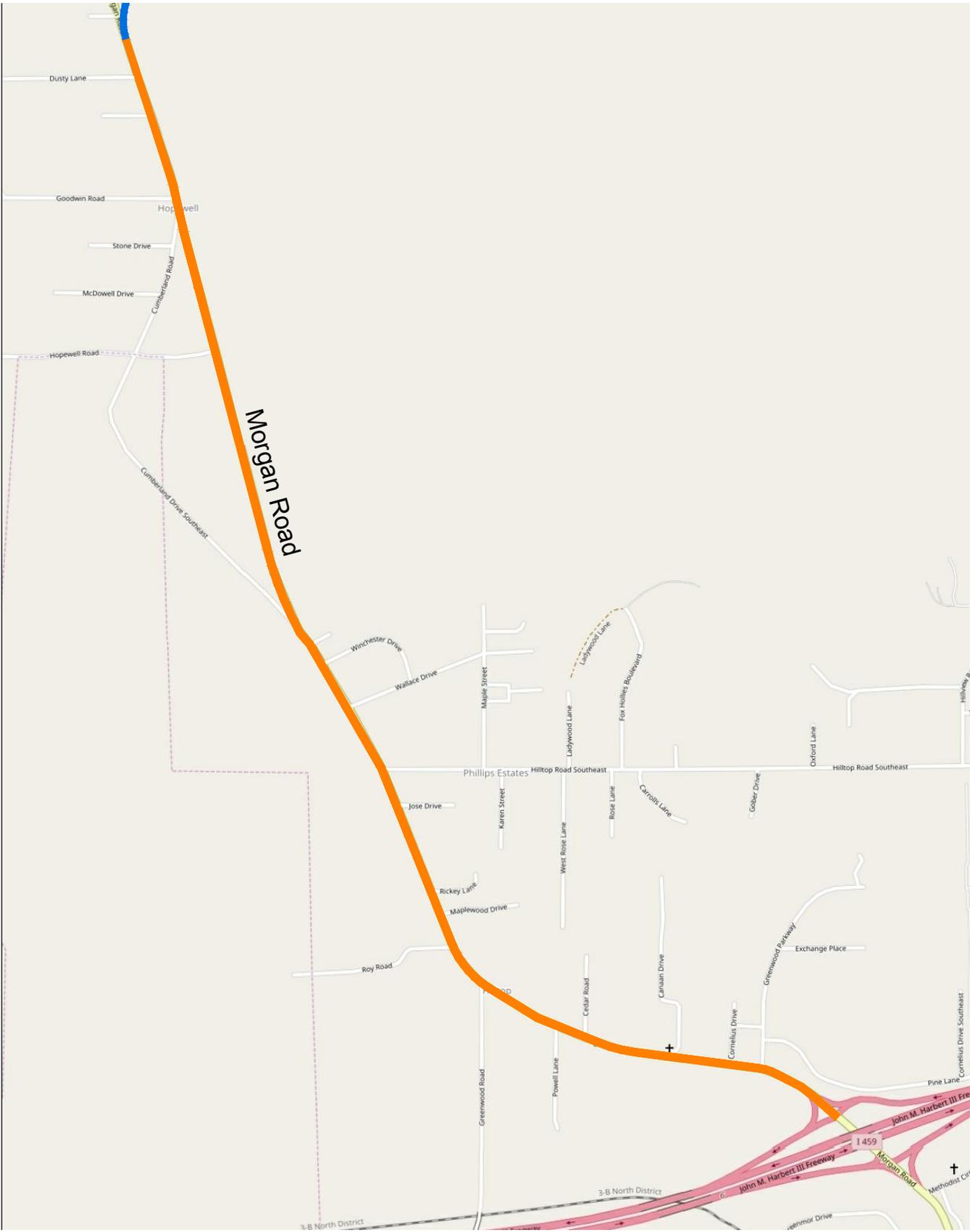
NOT TO SCALE

- Add shoulders and turn lanes along Morgan Road.
- Improve intersections and add shoulders/turn lanes along Morgan Road from intersection of Lakeshore Extension to I-459

* Constrained Project

Improve/Repave

New Pavement

Project No. 3 - Prince Street at Visionland Parkway Realignment



NOT TO SCALE

* Constrained Project

Improve/Repave

New Pavement

- Realign Prince Street at Alabama Splash Adventure Parkway with Dolonah Road.



Project No. 4 - I-59/20 Exit 113 Improvements



NOT TO SCALE

* Constrained Project

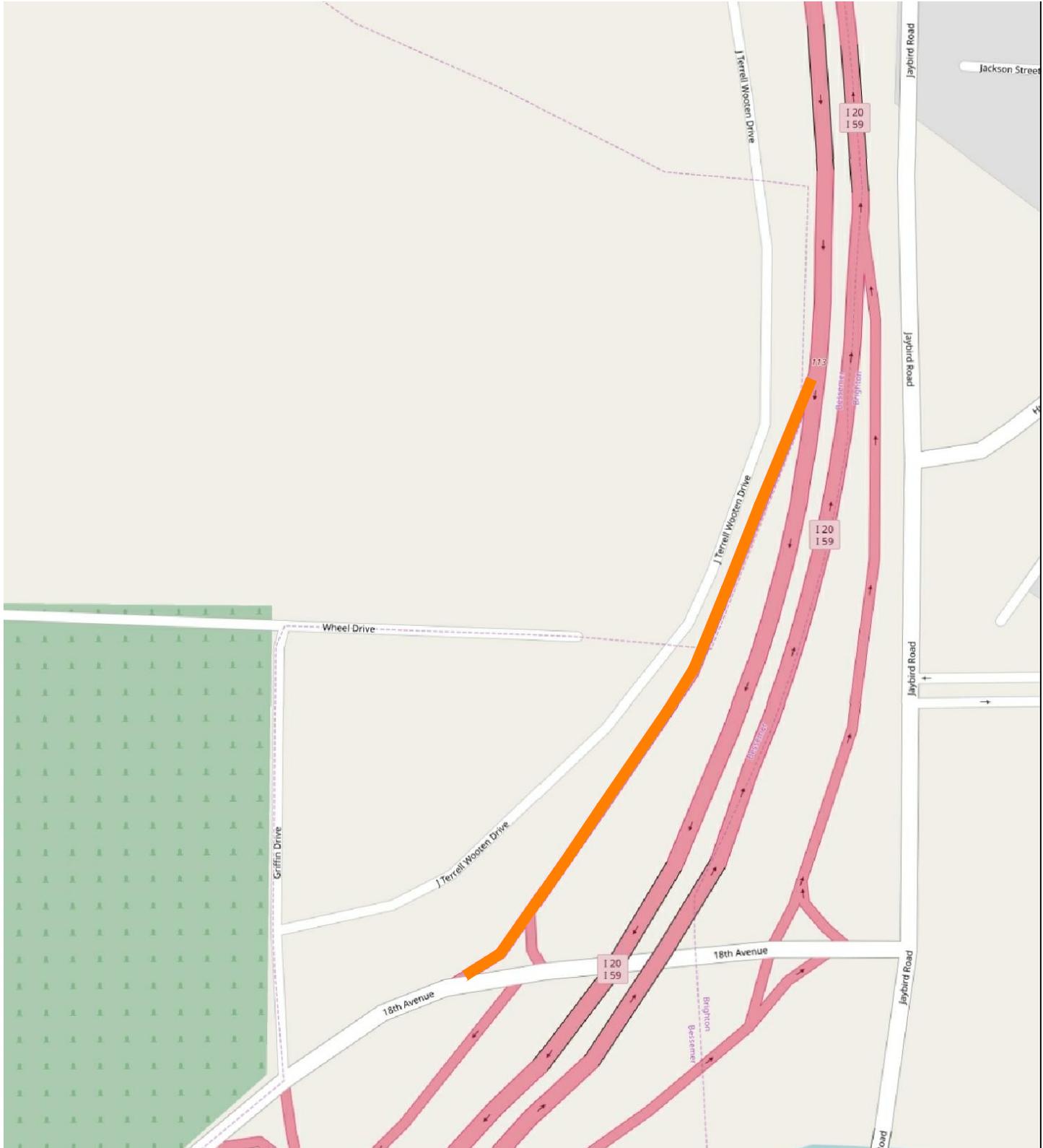
Improve/Repave



New Pavement



- Improve I-59/20 Exit 113 from I-59/20 Southbound to 18th Street.



Project No. 5 - J. Terrell Wooten Drive Improvements



NOT TO SCALE

Improve/Repave

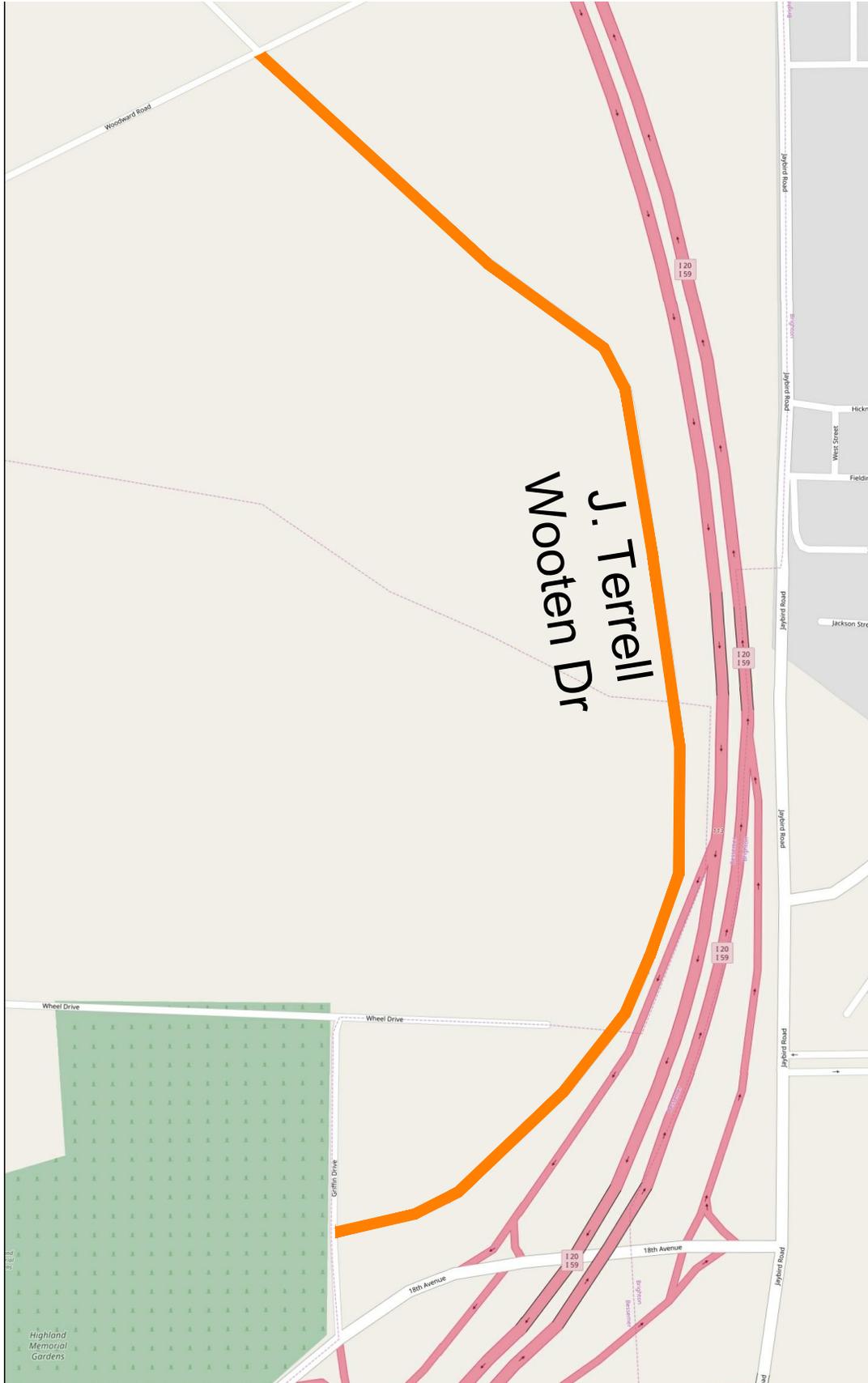


New Pavement



* Constrained Project

- Improve road standard to freight design and repave from Woodward Road.
- Intersection improvements at J. Terrell Wooten and Griffin Drive and Griffin Drive and 18th Avenue.



Project Nos. 6 & 7 - McCalla Road Realignment (Phase 1 & 2)



NOT TO SCALE

Improve/Repave

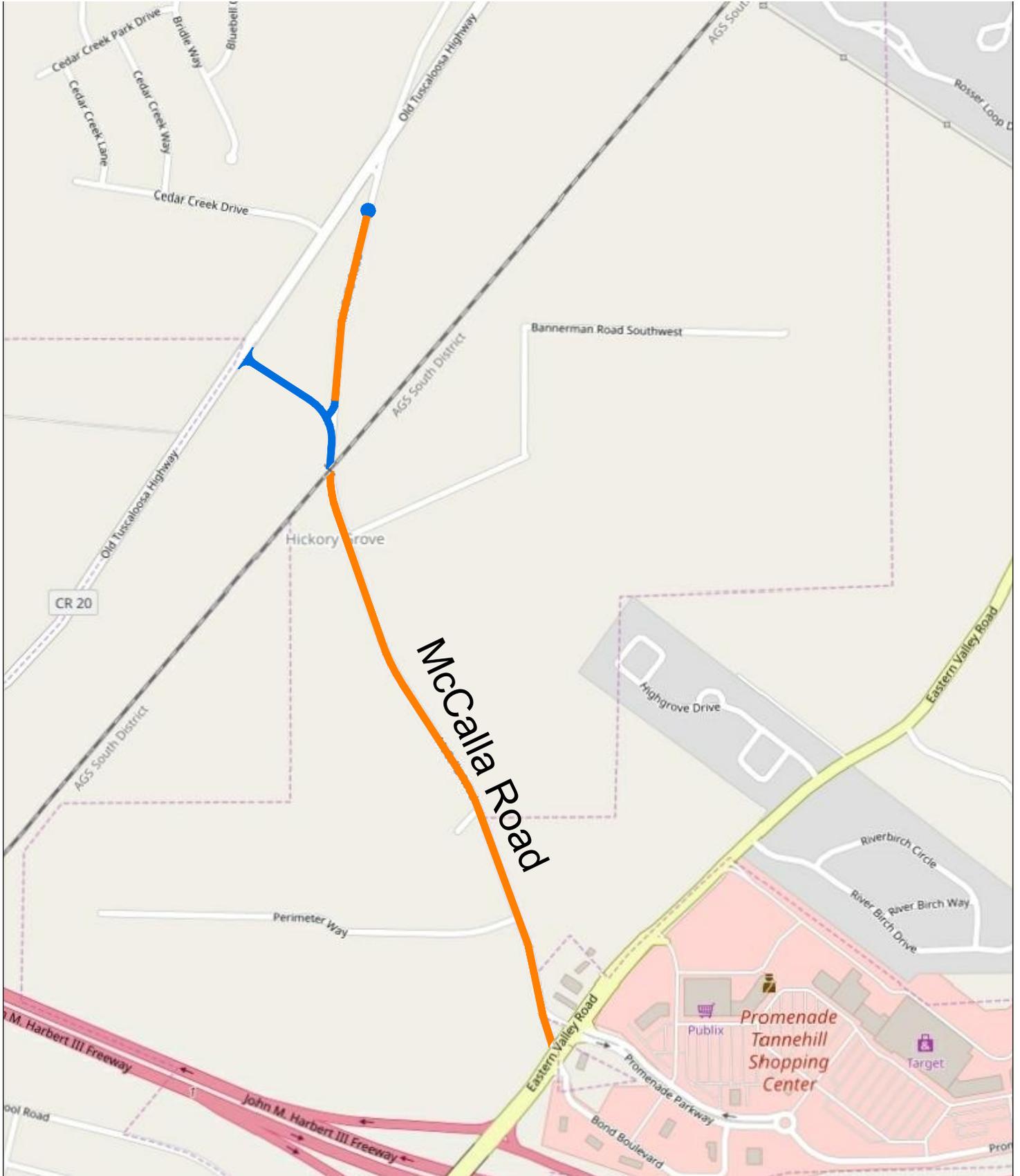


New Pavement



* Constrained Project

- Phase 1: Add shoulders along roadway between Norfolk Southern rail line and Eastern Valley Road.
- Phase 2: Realign McCalla Road to T-intersect with 4th Avenue. Add cul-de-sac to McCalla Road.



Project No. 8 - Eastern Valley Road at Grant Street Improvements



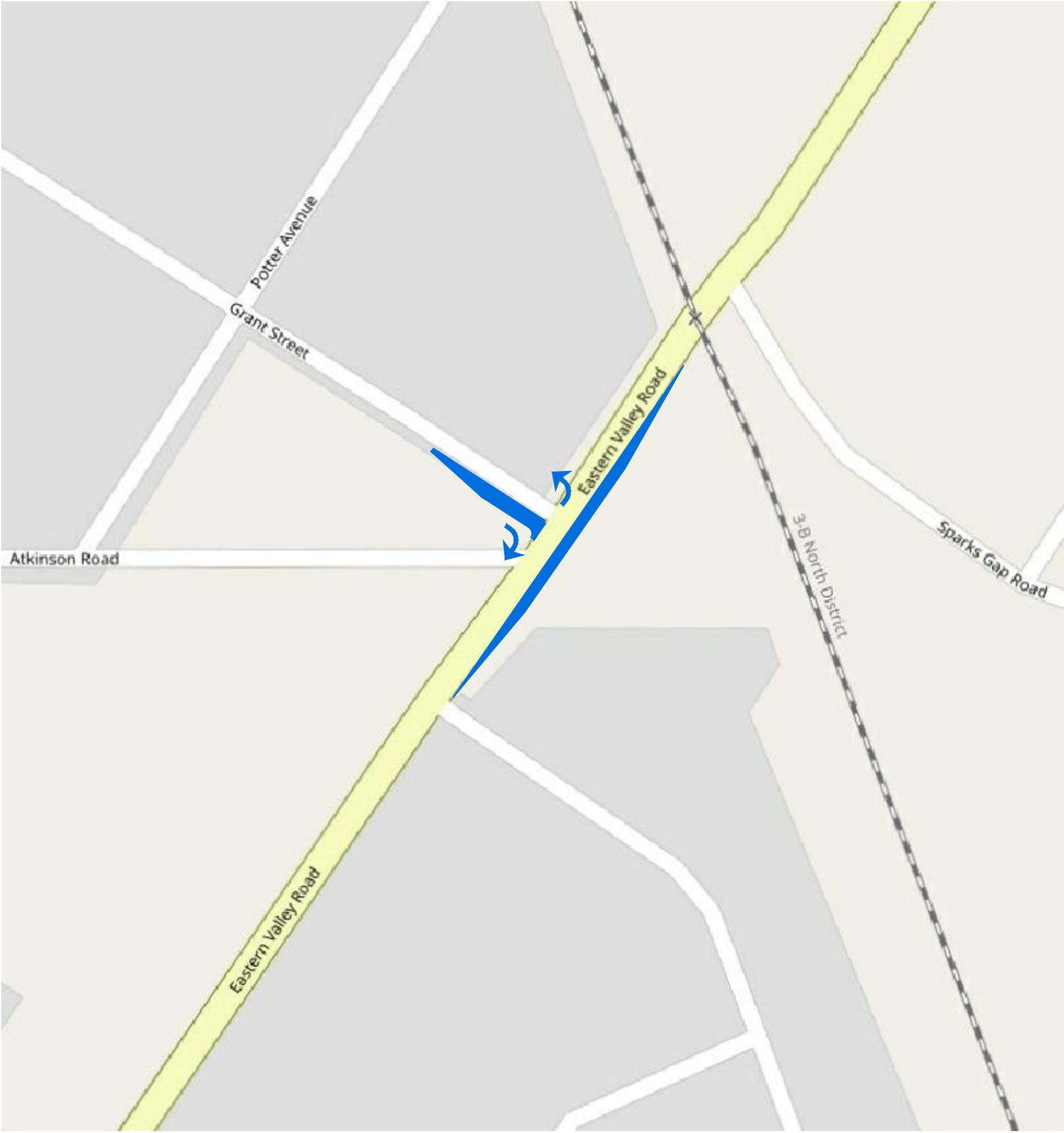
NOT TO SCALE

* Constrained Project

- Left-turn from northbound Eastern Valley onto westbound Grant Street.
- Right-turn from eastbound Grant Street onto southbound Eastern Valley.

Improve/Repave

New Pavement

Project No. 9 - 4th Avenue SW at Grant Street Intersection Improvements



NOT TO SCALE

Improve/Repave

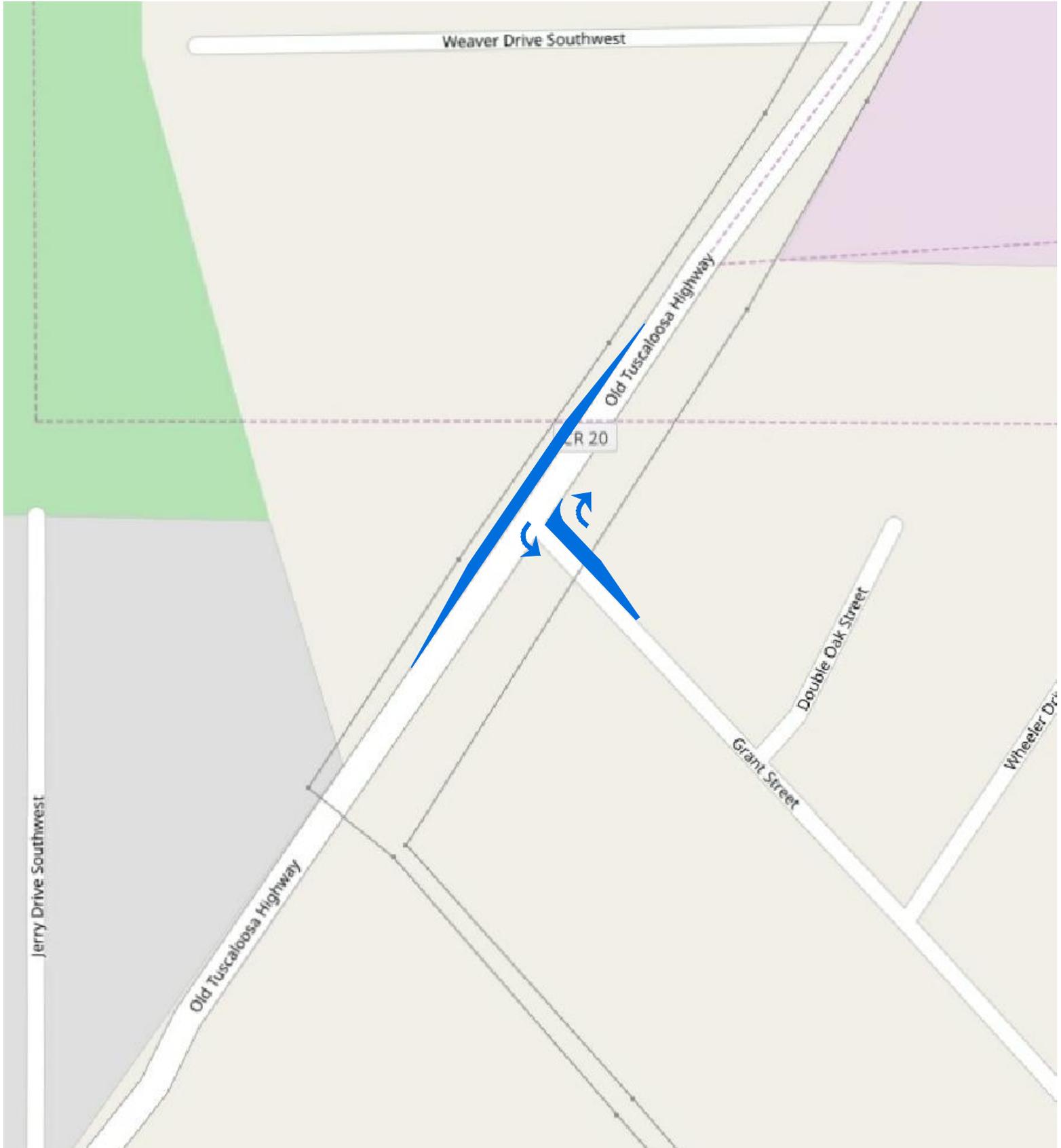


New Pavement



* Constrained Project

- Left-turn from southbound 4th Avenue onto eastbound Grant Street.
- Right-turn from northbound Grant Street onto northbound 4th Avenue.



Project Nos. 10, 11 & 12 - Bessemer Multiuse Trail (Phases 2, 3 & 4)

* Constrained Project

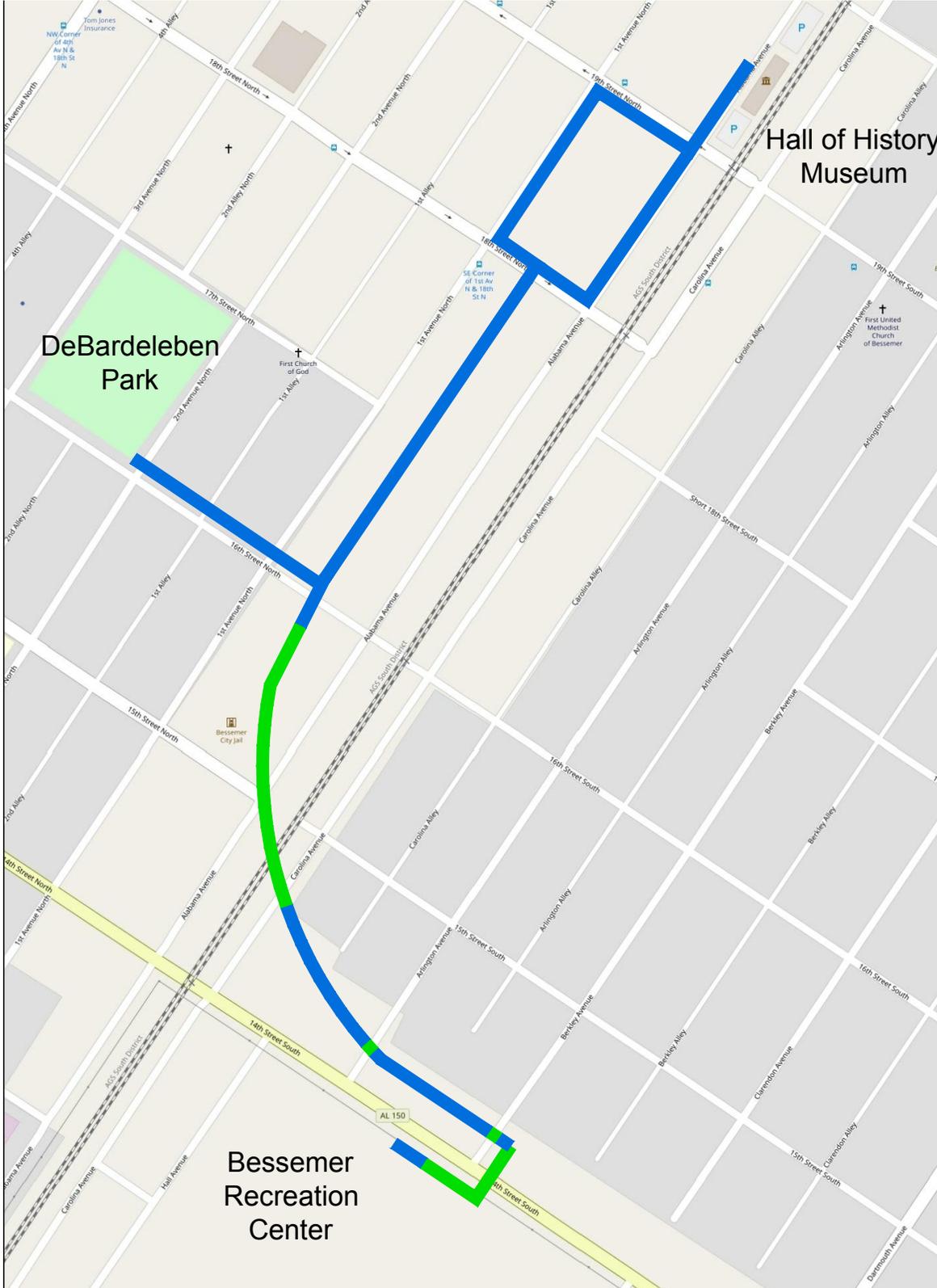


NOT TO SCALE

- Phase 2: Extend trail from Berkley Avenue to Carolina Avenue, reconstructing viaduct bridges Berkley and Arlington Avenue.
- Phase 3: Construct pedestrian bridge over SR 150 (14th Street) from multiuse trail to Bessemer Recreation Center.
- Phase 4: Extend multiuse trail from Carolina Avenue to DeBardeleben Park and the Hall of History Museum.

New Bridge Structure █

New Pavement █



APPENDIX B: UNCONSTRAINED PROJECTS MAPS AND PROJECT DESCRIPTIONS

Project No. 1 - U.S. 11 Bridge Replacement



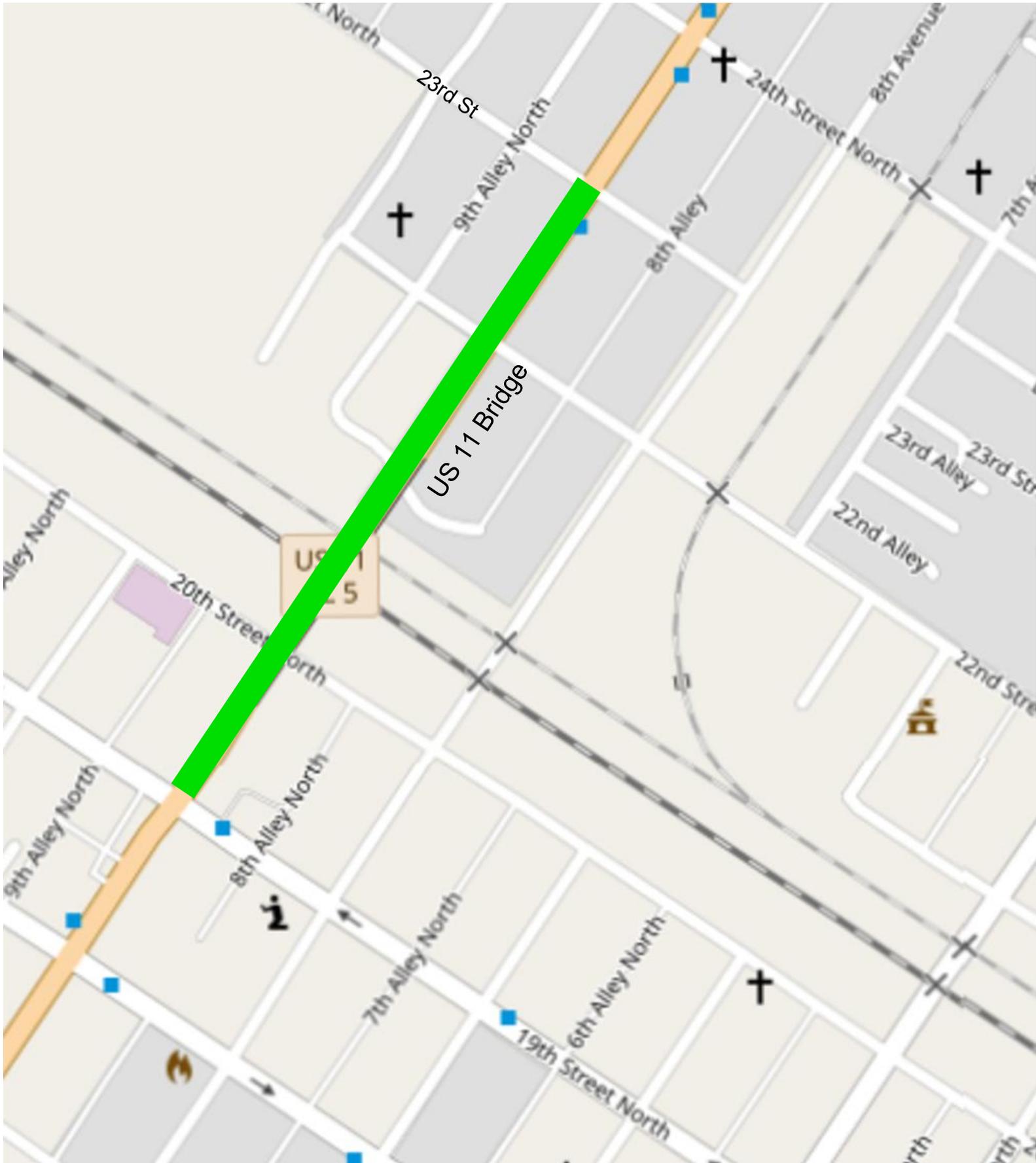
NOT TO SCALE

* Unconstrained Project

New Bridge Structure



- Replace and Extend U.S. 11 Bridge from 19th St North to 23rd St North.



Project No. 2 - Dolonah Road



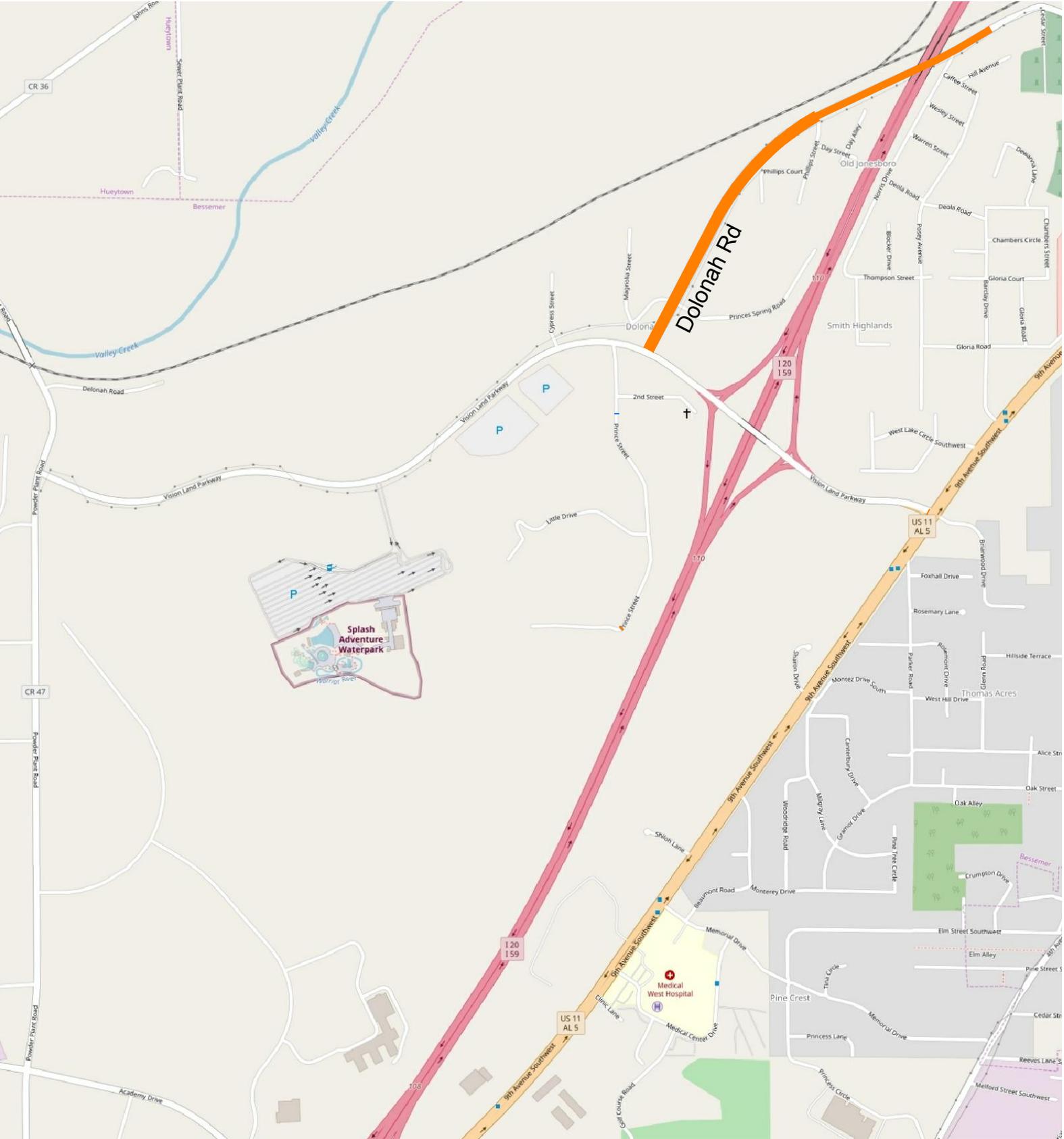
NOT TO SCALE

* Unconstrained Project

- Repave Dolonah from Alabama Splash Adventure to Hwy 11.

Improve/Repave

New Pavement

Project No. 3 - Alabama Splash Adventure Parkway Improvements



NOT TO SCALE

* Unconstrained Project

Improve/Repave

New Pavement

- Repave/Improve Alabama Splash Adventure Parkway from Powder Plant Road to 9th Avenue SW.



Project No. 4 - Prince Street Extension



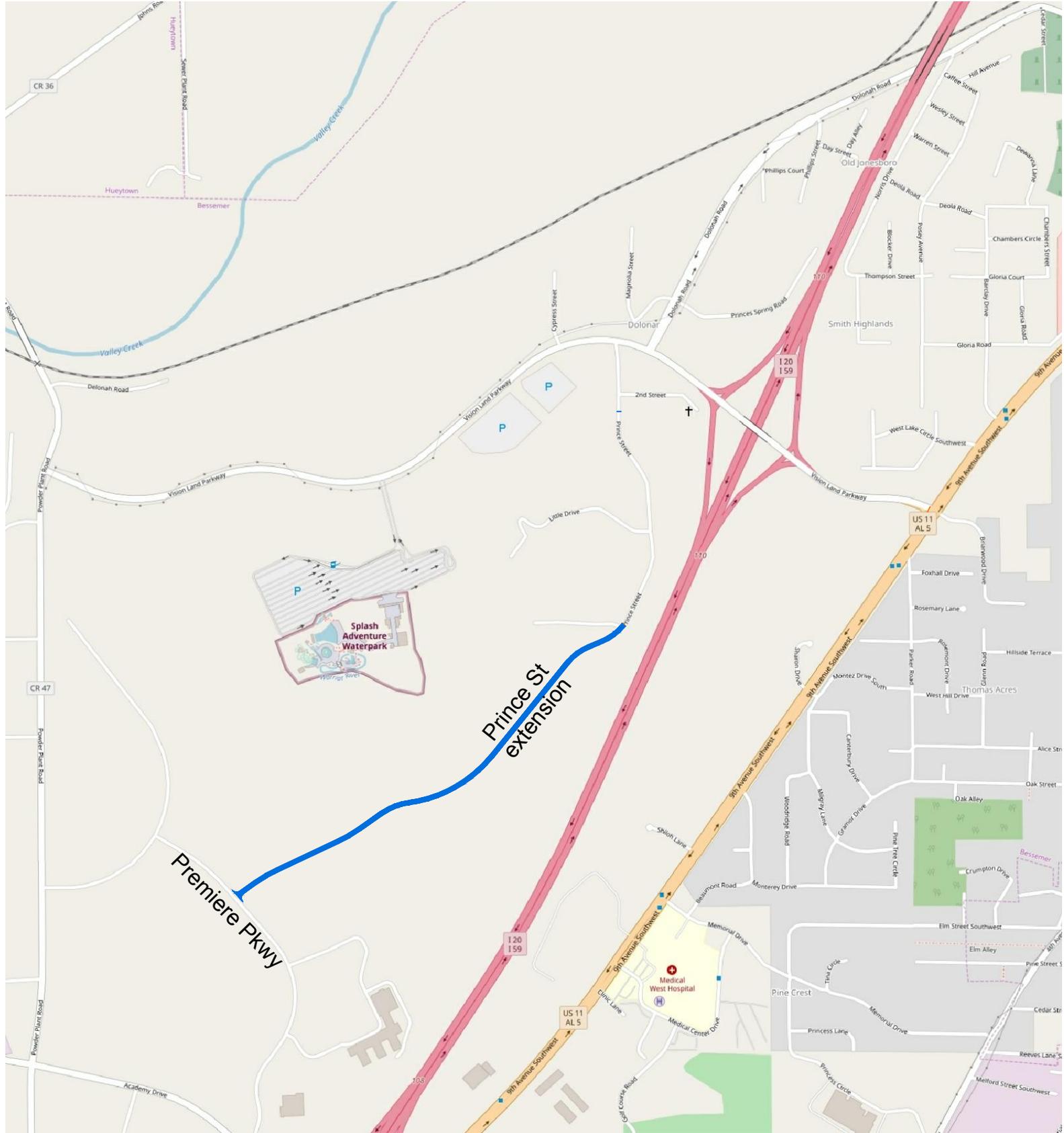
NOT TO SCALE

* Unconstrained Project

Improve/Repave

New Pavement

- Extend Prince Street to Premiere Parkway.



Project No. 5 - Aviation Road SE Bridge



NOT TO SCALE

* Unconstrained Project

- Add Bridge from Morgan Road over CSX railroad and adjacent creek and intersect Aviation Road.

New Bridge Structure

New Pavement




Project No. 6 - 19th Street Improvements



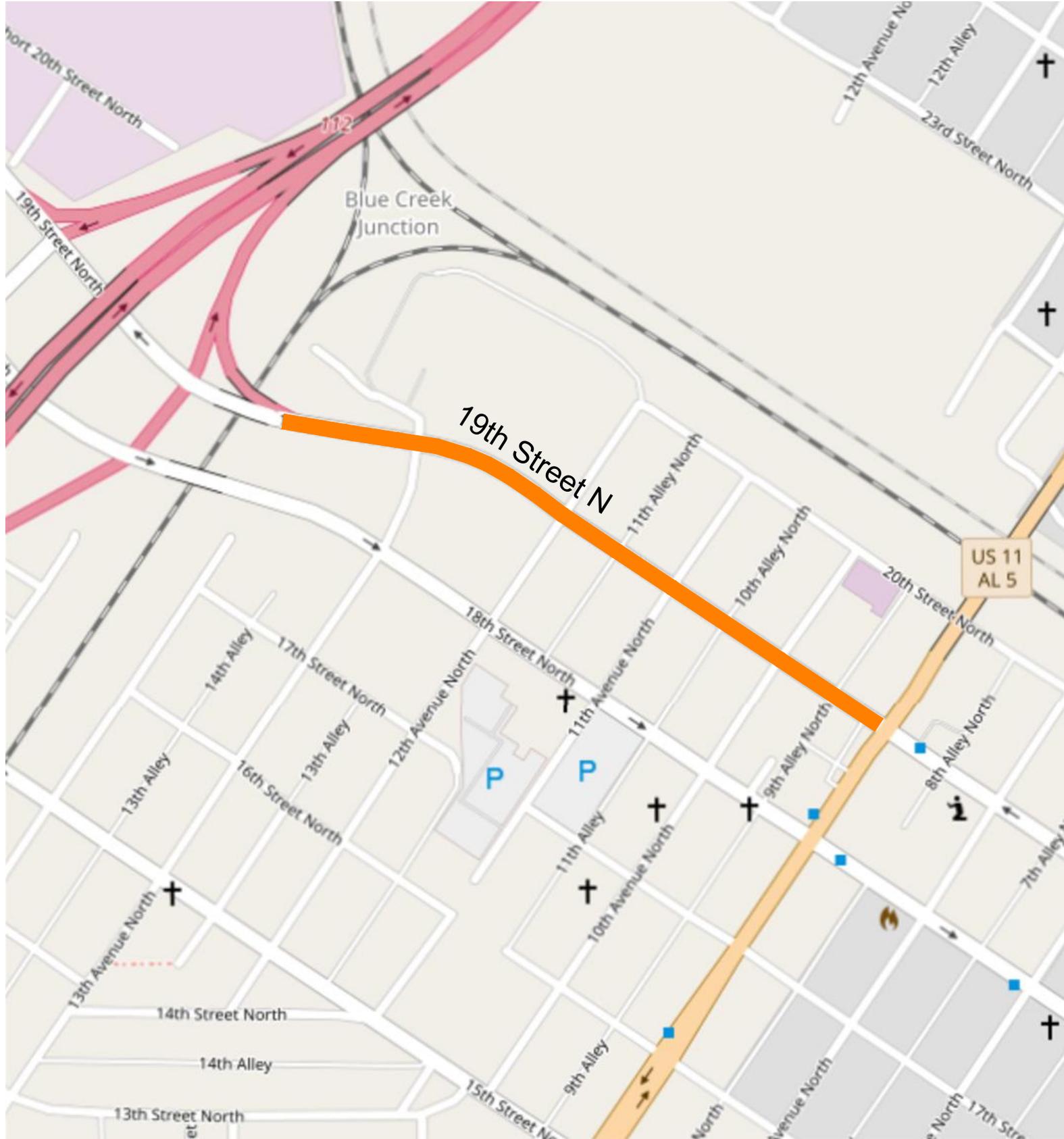
NOT TO SCALE

* Unconstrained Project

Improve/Repave

New Pavement

- Repave/Improve 19th Street from U.S. 11/9th Avenue North to I-59/20 Ramps.



Project No. 6 - 22nd Street Improvements



NOT TO SCALE

* Unconstrained Project

Improve/Repave



New Pavement



- Repave/Improve 22nd Street from 5th Avenue North to U.S. 11/9th Avenue North.

