



CITY OF ALBUQUERQUE

RAIL SPUR TRAIL FEASIBILITY STUDY

NOVEMBER 2021

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TABLE OF CONTENTS

TABLE OF CONTENTS	3				
ACKNOWLEDGMENTS	5				
EXECUTIVE SUMMARY	6				
Purpose	6				
Findings and Recommendations	6				
<i>Opportunities and Constraints</i>	6				
<i>Alignment Options</i>	7				
<i>Phasing Strategy</i>	8				
<i>Stakeholder Input</i>	10				
<i>Conclusion</i>	10				
INTRODUCTION	12				
Purpose	12				
Study Overview	12				
Project Area	12				
Background	12				
Vision Statement	13				
Benefits of Trails	14				
REGULATORY FRAMEWORK	16				
ABC to Z Comp Plan (2017)	16				
North Corridor Metropolitan Redevelopment Area Plan (MRA Plan) (2020)	16				
Albuquerque Bikeways and Trail Facilities Plan (2015)	16				
Rail Corridor: Central Avenue to Lomas Boulevard (2019)	16				
Development Process Manual, City of Albuquerque... 17					
PRECEDENT PROJECTS	18				
		National Projects	18		
		<i>Atlanta Beltline</i>	18		
		<i>Midtown Greenway (Minneapolis)</i>	19		
		<i>Dequindre Cut Greenway (Detroit)</i>	19		
		<i>Richmond Greenway (California)</i>	19		
		<i>Charlotte Rail Trail (North Carolina)</i>	20		
		<i>Monon Trail (Indiana)</i>	20		
		Local Projects	21		
		<i>Santa Fe Rail Trail</i>	21		
		<i>Los Lunas Multi-Use Trail</i>	21		
		Elevated Projects	21		
		<i>High Line, New York City</i>	21		
		<i>Bloomingdale Trail, Chicago</i>	22		
		PLANNING PROCESS	22		
		Stakeholder Meetings	22		
		EXISTING CONDITIONS ANALYSIS	23		
		Area History	23		
		Opportunities and Constraints	23		
		Land Use and Zoning Analysis	26		
		Right-of-Way Analysis	27		
		ALIGNMENT OPTIONS	30		
		Alignment Option 1	30		
		Alignment Option 2 'Get Elevated'	30		
		Alignment Option 3	30		
		Opportunity Sites	30		
		CONCEPT DESIGN	35		
		Trail Sections	35		
		CPTED Design Interventions	39		
		KEY IMPLEMENTATION STRATEGIES	40		
		Potential Right-of-Way Acquisition	40		
		Phasing Strategy	40		
		APPENDIX A	45		
		APPENDIX B	50		
		APPENDIX C	53		

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EXECUTIVE SUMMARY

PURPOSE

The Rail Spur Trail Feasibility Study, commissioned by the City of Albuquerque Parks and Recreation Department, examines the feasibility of a proposed multi-use trail that connects downtown Albuquerque with the Sawmill District following the NMDOT-owned railway spur as it travels north and west of downtown. The trail is proposed to follow the existing rail alignment that runs north parallel to First Street to the rail spur that extends west to the Sawmill District, a distance of approximately 2.25 miles. This multi-use trail would connect to the larger multi-use trail network, providing better connections for commuters, recreational opportunities for workers and residents by connecting to the I-40 trail to the west, and to the new rail trail currently in design to the south, ultimately creating better connections through the Downtown area. The proximity to Albuquerque's major tourist destinations creates not only a local customer base but also draws tourists to the area. This feasibility study assesses existing conditions, highlights precedent rail trail examples across the country, evaluates alignment options and design concepts, and reviews key implementation strategies. It also investigates long-term effects of a new trail for business and property owners of the area.

FINDINGS AND RECOMMENDATIONS

Opportunities and Constraints

Conditions within the rail corridor present both opportunities and constraints for the installation of a multi-use trail in the area. Because of its location, the proposed trail can connect the area's destinations and fill a gap to connect to existing multi-use trails. The I-40 Trail passes to the northwest of the proposed Rail Spur Trail, with the potential to connect the two trails along Mill Pond Rd. A multi-use trail loop is envisioned that connects the Rail Yards to the Paseo del Bosque Trail, travels north to the I-40 Trail, then turns west along the I-40 Trail to intersect with the proposed Rail Spur Trail and travels east and south to loop back to the Rail Yards along the rail line. This loop totals eight miles and incorporates the major destinations of the area including the Rail Yards, the Rio Grande Zoo, ABQ BioPark, Old Town, Sawmill District with its new development, downtown, and the Convention Center. A dedicated pedestrian and bicycle path would serve to directly connect these destinations in a safe and sustainable way.

Rail traffic along the rail spur is infrequent, averaging four to five times a week, normally during nighttime, according to NMDOT. The industries using the rail spur are located east of Twelfth St; trains do not operate west of Twelfth St and therefore the Sawmill District does not see any train traffic. Since the bulk of trail use is during the daytime,



users would not have to contend with trains actively running alongside the trail.

The Wells Park neighborhood and the Sawmill District are home to eight breweries and distilleries that draw residents from the Albuquerque area and tourists from beyond. The trail is proposed to generally follow the existing rail spur with connections to businesses located along the proposed trail alignments so that recreational access is enabled. This could increase the customer base and spur economic development. The rail corridor also presents an opportunity to address the growing issue of encampments created by people experiencing homelessness who illegally trespass along the rail corridor. The installation of trails along with an increase in recreational users has contributed to a reduction in vandalism and littering in other trail projects across the country.

The rail corridor also presents some constraints, as the rail is still active and industries along the spur line are served east of Twelfth St. NMDOT, the owner of the rail spur whose tenant is BNSF, requires a 25-ft minimum buffer between the tracks and a potential trail with a separation fence. The multi-use trail should be 15-ft minimum width according to the City of Albuquerque's Development Process Manual (DPM), including a soft shoulder on both sides of a paved pathway. Thus a total width of 40 feet minimum is required along either side of the tracks. This presents major issues in some sections of the rail spur. Encroachment agreements along the tracks narrow the right-of-way and do not allow the minimum width required for a multi-use trail. There are two parcels within the rail corridor that

are not owned by NMDOT. These parcels are located west of Twelfth St and therefore do not serve any industries. However, negotiations with these owners must take place in order to coordinate trail installation. It is recommended to complete a right-of-way acquisition plan or needs assessment in coordination with NMDOT in order to help the City negotiate with property owners as development continues along the rail spur.

Multiple road crossings occur along the rail corridor at regular intervals, usually between 350 - 400 feet. The presence of significant north-south traffic along with the frequency of crossings in this area poses safety issues to potential trail crossings.

Economic benefits of the installation of a multi-use trail through this area are multifaceted:

- > *Contributes to the revitalization of the Wells Park neighborhood and Sawmill District*
- > *Increases local and/or private investment in underutilized properties*
- > *Improves pedestrian and bike access to and visibility of existing businesses*
- > *Provides a safe and interesting off-street network for the community as well as visitors to the downtown area*
- > *Makes neighborhood more attractive place to live and work*
- > *Grows network of local small businesses in the area*
- > *Creates a regional recreational destination that attracts new visitors to area*
- > *Reduces medical costs by encouraging exercise and other healthy outdoor activities*

Alignment Options

Alignment Option 1 was created after considering the significant right-of-way constraints along the rail corridor. Completely avoiding these sections while also considering the ease of trail navigation led to an alignment that follows the established street network as close as possible to the rail corridor and turns onto the rail corridor where the right-of-way width allows. This option allows for a shorter timeframe for implementation and is less expensive, as it does not require any acquisition of right-of-way or construction of an elevated trail. This option also allows for engagement of a greater section of the neighborhood since it winds through residential streets away from the rail corridor. This option, however, does not directly follow the rail spur tracks and requires multiple turns for users which leads to a decreased ease of use and convenience. Coordination with City departments is also needed because of the use of the street rights-of-way.

Alignment Option 2, titled 'Get Elevated' proposes following the rail corridor with no deviations despite right-of-way width challenges. This requires the construction of an elevated portion of the trail approximately 2,000 ft in length, creating a landmark destination for trail users. With trail alignment that follows the current rail corridor, there is an opportunity for additional activity and development potential along the Rail Spur Trail corridor. However, a longer timeframe for implementation is required because of the additional right-of-way acquisition and cost of construction.

Alignment Option 3 proposes diverting off the rail corridor after the switch at the main line to the east and reconnecting with the rail corridor west of Twelfth St. In this way, the active part of the rail spur is completely avoided. The parcels north of the rail spur between Eighth St and Twelfth St are owned by the Indian Pueblo Cultural Center (IPCC). An option to establish a public easement at the south property line or through the property connects the trail through this area. Coordination with IPCC would need to take place to establish this easement. This alignment offers the potential to extend the I-40 Trail south along the west side of Twelfth St to connect to the Rail Spur Trail. Currently, the I-40 Trail does not continue east of Seventh St.

After meeting with key stakeholders, Alignment Option 2 'Get Elevated' was preferred as the opportunity to be able to connect businesses to the rail corridor was seen as an asset, along with the novelty that an elevated trail would bring to the neighborhood.

The possibility exists that industries along the rail spur that currently use freight service will no longer find it economically viable to continue this servicing. If this point is reached, a trail along the tracks with no minimum buffer distance would be ideal. Since this rail corridor creates the best off-street right-of-way option through this neighborhood, a multi-use trail along this route is strongly recommended as the most ideal alignment.

Phasing Strategy

As some sections of the proposed alignment for the Rail Spur Trail will take more coordination and more funding than others, it is recommended to take a phasing approach for successful completion of the trail. The alignment is broken into three sections to be completed separately for all alignment options.

Phase 1 for **all alignment options** runs from Lomas Blvd to the beginning of the rail spur that turns west. Because this section will connect to the Central Ave to Lomas Blvd Rail Trail that is slated for construction in 2021, it will take little time to implement an extension north to the rail spur. The length of Phase 1 is approximately two-thirds of a mile and will require an agreement with NMDOT/BNSF for a short-term implementation.

Phase 2 runs from Twelfth St west to the New Mexico Museum of Natural History and Science. Negotiations surrounding parcels outside of NMDOT ownership are anticipated to take some time, indicating a mid-term implementation timeframe. This section of the trail, at three-quarters of a mile, is envisioned to serve as a community amenity for the Sawmill Community Land Trust and will include a connection to the I-40 Trail. **Phase 2** for **Alignment Option 2** extends south along Twelfth St to Bellamah Ave.

Phase 3 for **Alignment Option 1** runs from the beginning of the rail spur west of First St, cuts through a City-owned property, then proceeds along Aspen Ave to Fifth St, where it runs north to the rail spur corridor. At this point, the rail spur corridor has



The rail spur corridor extends into the Sawmill District, looking west at Aspen Ave and Timber Rd

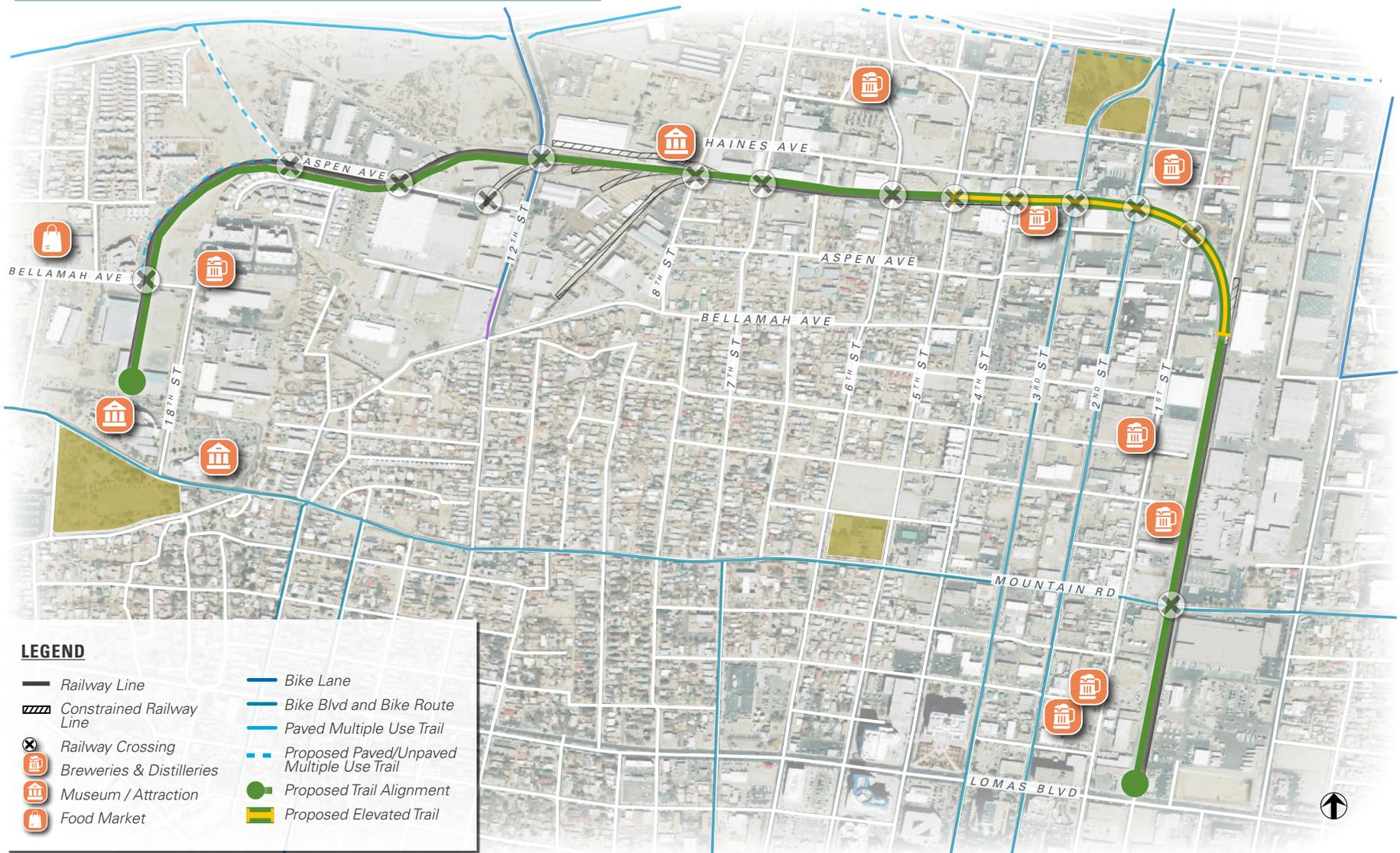


Sawmill Market, a local food hall in a renovated warehouse, opened in February 2020



The rail spur corridor looking east between Fifth St and Sixth St

FIGURE 1. ALIGNMENT OPTION 2 'GET ELEVATED' - PREFERRED ALIGNMENT



sufficient right-of-way to accommodate the trail until the intersection with Seventh St. The trail then turns south along Seventh St to Bellamah Ave where it runs west to Twelfth St. The length of this section is approximately a mile and requires coordination with the Municipal Development Department because of its use of street rights-of-way. Because this phase also incorporates a segment along the rail spur corridor, coordination NMDOT/BNSF is necessary for successful completion.

Phase 3 for Alignment Option 2 runs from the beginning of the rail spur west of First St to Twelfth St for 0.85 of a mile and will connect Phase 1 and Phase 2. This section includes the proposed elevated portion on the east end with a length of 2,000 feet as well as the portion on the west end that requires an access agreement between the City and the adjacent property owner. Since these elements are more time-consuming and costly, this section is considered within a long-term implementation timeframe, requiring extensive coordination with NMDOT/BNSF.

Phase 3 for Alignment Option 3 runs from the beginning of the rail spur west of First St, cuts through a City-owned property, then proceeds along Aspen Ave to Eighth St. At Eighth St, the alignment turns north and cuts west through the parcels north of the rail spur corridor. These parcels are owned by the Indian Pueblo Cultural Center. A public easement for the multi-use trail could potentially be established that runs either along the south property line, adjacent to the rail spur corridor, or through the property further to the north. At Twelfth

St, the trail would connect to Phase 2 as it continues west into the Sawmill District.

Stakeholder Input

Three stakeholder meetings were held to share project details and gather input. Because of the ongoing social distancing restrictions due to the COVID-19 pandemic, meetings were held virtually. They included a presentation of the study, including precedent examples, opportunities and constraints, trail alignment options, trail cross sections, and phasing strategies. Following the presentation, the project team held a discussion with participants for questions and comments. During and following the three stakeholder meetings, support for the project was expressed by multiple parties.

The first meeting was held with City personnel from various applicable departments. Staff were supportive of the Rail Spur Trail and especially liked the proposed phasing strategy. The second meeting was held with business and property owners in the study area. Participants were all generally supportive of the project and recognized the potential positive impact of the Rail Spur Trail on their respective businesses and landholdings. Many along the rail spur mentioned the potential to have an additional access point for trail users as an opportunity, as well as adding outdoor patio seating that faces the rail spur and trail. The third meeting was held with property owners and Neighborhood Association representatives in the study area. Participants were generally supportive and indicated an interest in seeing this project come to fruition.

Conclusion

While there are inherent constraints in developing a rail trail adjacent to the rail spur, this report concludes that it is feasible to create this type of facility. Of the three potential options for developing a rail trail, the preferred alternative is a combination of surface and elevated trail adjacent to the rail spur line. The phasing strategy outlined in this report would enable the construction of the relatively easier segments of the trail, from Lomas Blvd to Aspen Ave and from Twelfth St to the terminus in the Sawmill District. This phasing strategy would allow more time to tackle the most constrained portion of the study area located between the main north/south rail corridor and Twelfth St.

The inconsistent width of the right-of-way along the active rail corridor presents the greatest constraint while the opportunity exists to capitalize on current investment in the area for further revitalization of this area. Three alignments are proposed that take into account these opportunities and constraints of the rail corridor, with the second alignment utilizing an elevated portion of the trail where the rail corridor width is extremely constrained. The project team held several public engagement opportunities with local stakeholders and received extensive support for the installation of a multi-use trail from property and business owners.

With the existing rail spur that already connects downtown to Old Town and the Sawmill District, a Rail Spur Trail along this corridor would serve both residents of the neighborhood and act as a catalyst for revitalization of the area, bringing more visitors to the successful businesses located there.

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INTRODUCTION

PURPOSE

The Rail Spur Trail study was commissioned by the City of Albuquerque Parks and Recreation Department. It examines the feasibility of a proposed multi-use trail anticipated to connect downtown Albuquerque with the Sawmill District following the BNSF railway spur as it travels north and west of downtown. The trail is proposed to follow the existing rail alignment that runs north parallel to First Street to the rail spur that extends west to the Sawmill District, ending at the Museum of Natural History and Science, a distance of approximately 2.25 miles.

This multi-use trail would connect some of Albuquerque's "string of pearls," including the cluster of museums near Mountain Rd, Old Town, the Rail Yards, and the Convention Center. It would also connect some of Albuquerque's most popular breweries, including Marble Brewery, Dialogue Brewing, Bow and Arrow Brewing, Rio Bravo Brewing, Tractor Brewing and Ponderosa Brewing. Beer production and subsequent taprooms have established a strong presence in the study area, as the particular zoning districts allow for this use. The proximity to Albuquerque's major tourist destinations has created not only a local customer base but also draws tourists who want to sample the various national award-winning breweries of the area.

STUDY OVERVIEW

This feasibility study assesses existing conditions, highlights precedent rail trail examples across the country, evaluates different alignment options and design concepts, and reviews implementation strategies. It also investigates long-term effects of a new trail for business and property owners of the area.

PROJECT AREA

The trail study alignment starts at the rail line at Lomas Blvd, traveling north and west and ends at the Museum of Natural History and Science and Mountain Rd. The trail alignment generally follows the existing rail alignment that runs north parallel to First Street and continues along the rail spur that extends west to the Sawmill District.

The Rail Spur Trail is located within the greater context of this area's economic revitalization. Because of its location connecting the Rail Yards, downtown, the Sawmill District, and Old Town, it serves as an alternative connection that supports the area's economic revitalization with appropriate recreational and transportation options and affords the area room for growth. Within a larger context of this area of the City, a multi-use trail loop is suggested that connects the Rail Yards to the Paseo del Bosque Trail, travels north, then turns east along the I-40 Trail where it joins with the Rail Spur Trail and leads back to the Rail Yards to the south, illustrated in "[Figure 2. Trail Loop Connection](#)"

[on page 13](#). The total length of this loop is approximately eight miles.

Over time the Rail Spur Trail is anticipated to become a community amenity with recreational, business and housing opportunities adjacent to the proposed alignment, acting as a catalyst for additional development and revitalization in this area.

BACKGROUND

The urban core of Albuquerque is experiencing renewed investment; the Sawmill District has a new hotel, retail marketplace and housing. The downtown area has seen significant growth in new residential units, along with renewed investment in supporting small start-up businesses. The Albuquerque Rail Yards, a historic site to the south of the proposed trail corridor, is undergoing some redevelopment and is identified as a major priority for development by the City. The City has completed a study for another rail-trail alignment located south of the corridor, between Central Avenue and Lomas Boulevard, with recommendations for a trail profile and buffering from the active rail corridor. This study uses the proposed alignment for Central Ave to Lomas Blvd as a starting point to determine the feasibility and steps needed to continue the trail north and west to the Sawmill District along an active rail spur.

Since the decline of railway use for freight transport, a national trend for more active transportation and recreational trails has led to trail installation

along these rail corridors. More commonly, trails are installed along abandoned railways, as the right-of-way has already been established and can be easily transferred to local agencies. There is a significant percentage of existing rail corridors that are considered 'rails-with-trails,' which indicates development of multi-use trails alongside active freight, passenger and tourist rail lines. Rails-to-Trails Conservancy reported that there are a total of 386 rails-with-trails, with a total length of 985 miles (length of portions of trails adjacent to active rail corridors) among 45 states. As former industrial districts served by rail freight have now become blighted areas in communities, oftentimes needing significant environmental remediation, rail-trails and rails-with-trails have proven to increase redevelopment and revitalization in these areas and serve as a positive, unifying community asset.

VISION STATEMENT

It is the vision for the trail to become a community asset by connecting downtown Albuquerque with other major destinations to the northwest, including Old Town, the Indian Pueblo Cultural Center, museums and award-winning breweries along an active rail spur corridor and creating a recreational and commuter or active transportation facility in an underserved area that acts as a catalyst for revitalization of the area with development of business and housing opportunities.

FIGURE 2. TRAIL LOOP CONNECTION



BENEFITS OF TRAILS

A well-developed urban trail system incorporates numerous public health and safety benefits. It improves the overall health and wellness of individuals and has shown to improve the quality of life of a community. Safe, comfortable, and easy access to trails and parks are essential elements to encourage residents to participate in outdoor physical activity. An urban trail system also creates more multi-modal transportation options, is cost-effective, and provides safe, off-street neighborhood connections. Multi-use trails are inclusive spaces by nature, allowing individuals from all socioeconomic backgrounds to become users. Trails also decrease the amount of crime in areas, as more people frequent the area throughout the day and trail improvements often serve to beautify areas with landscaping and public art installations.

In addition to public health and safety benefits, an urban trail system also serves to increase economic vitality of the area. Urban trails increase property values between 5 to 10 percent, revitalize blighted areas through new development and investment, and increase GRT revenues. Trails improve pedestrian and bike access to and visibility of existing businesses in the area and often become a destination for metro area residents as well as a draw for trail-based tourism. Those choosing to live in an urban environment identify access to multi-use trails as one of their top priorities, according to the National Association of Realtors. Using multi-use trails for commuting in urban areas has become popular for city-dwellers who want to avoid traffic congestion and live a healthier lifestyle.

The ongoing COVID-19 pandemic has drastically increased trail use across the country. People have recognized the value of trails and open spaces as a means of safely exercising and socializing. States across the country are reporting increased trail usage with an average surge that is 79 percent higher than last year (Rails-to-Trails Conservancy). Almost half of people (46 percent) surveyed by the Rails-to-Trails Conservancy indicated that having access to open spaces has reduced their stress levels during the pandemic and over half (52 percent) are exercising outdoors in their immediate neighborhoods and on local trails. Locally, a survey conducted by the Mid-Region Council of Governments revealed that survey respondents overwhelmingly anticipate riding their bikes more after the pandemic (70 percent). According to trail counters, a 38.7 percent increase in total trail use was seen in April 2020 compared to April 2019 within the City.

The City of Albuquerque Climate Change Survey released a 2020 Summary Report that included significant support from the public for building more parks, trails, and recreational facilities in closer proximity to their homes as a strategy to improve time spent outdoors. Over half (55 percent) of survey respondents indicated this as a priority. In response to the survey question asking what would help improve your neighborhood, almost half (49 percent) of respondents said safer, more bike and pedestrian-friendly streets or paths would be an improvement. These responses indicate the community's support for more trails and bikeways, especially as it relates to sustainability and climate change mitigation strategies.



NM Steam Locomotive restoration project along the rail spur corridor



Sawmill Market, a local food hall in a renovated warehouse, opened in February 2020



A mural located along Haines Ave north of the rail spur corridor

FIGURE 3. RAIL SPUR CORRIDOR BUSINESSES



REGULATORY FRAMEWORK

The following section is a review of the regulatory framework that pertains to trails and pedestrian facilities and speaks to long-range plans for this specific area. The existing planning documents and studies that have been formulated for this area along with plans pertaining to biking and trail networks help to understand the goals and policies that have shaped and will continue to shape the area.

ABC TO Z COMP PLAN (2017)

The Albuquerque & Bernalillo County Comprehensive Plan sets forth a vision for the area in regards to growth and development. The Plan is comprehensive in nature, including everything from land use to resilience and sustainability. It organizes land into centers and corridors as well as areas of consistency and areas of change. In this way, Albuquerque and Bernalillo County can encourage and direct growth to specific areas by a holistic approach.

The study area is mostly within an Area of Change, which focuses on new urban-scale development that benefits job creation and expanded housing options mostly in the form of infill and redevelopment. The study area also contains a Main Street Corridor along Fourth St which intersects with the rail spur. The Plan defines Main Street Corridors as

“lively, highly walkable neighborhood streets lined with local-serving businesses, modeled after the American tradition of Main Street as a place for living, working, and shopping.” The Plan indicates that public investments in these areas should prioritize street and walkway improvements.

NORTH CORRIDOR METROPOLITAN REDEVELOPMENT AREA PLAN (MRA PLAN) (2020)

The purpose of the North Corridor Metropolitan Redevelopment Plan is to identify, prioritize and implement redevelopment strategies and projects to eliminate blight and stimulate private investment in order to revitalize the area. The southern boundaries extend to Granite Avenue on the south, the railroad tracks on the east, one property deep on the west side of Fourth Street to the west and the commercial properties that line Montano Rd to the north.

Public improvements listed include sidewalk improvements, traffic calming measures, key intersection improvements, implementation of the Alameda Drain and Trail Master Plan, beautification of the public realm and installation of historic route markers. One of the Catalytic Projects listed is a Warehouse District Plan. This focuses on the area of the MRA Plan that is south of I-40. Noting that this area is seeing some change with breweries, restaurants and art galleries now filling empty warehouse spaces, the MR Plan suggests

a comprehensive planning effort for the area that would lead to supporting further development.

ALBUQUERQUE BIKEWAYS AND TRAIL FACILITIES PLAN (2015)

The Albuquerque Bikeways and Trail Facilities Plan identifies a vision, goals and policies of the bikeways and trails system with an assessment of existing conditions and analysis of current issues facing the system. A recommended network includes closing gaps, linking connections, focusing on high-priority projects, enhancing existing facilities and installing more wayfinding and signage measures. A design manual section outlines design guidelines for bicycle facilities.

The Plan shows the I-40 Multi-Use Trail extending to the Big I Interchange. This extension would parallel the Rail Spur Trail alignment to the north, allowing for easy connections to the Paseo del Bosque Multi-Use Trail that follows the Rio Grande north to Alameda Blvd and south to Bridge Blvd.

RAIL CORRIDOR: CENTRAL AVENUE TO LOMAS BOULEVARD (2019)

Completed in September 2019, Rail Corridor: Central Avenue to Lomas Boulevard investigates the feasibility of a multi-use trail along the BNSF railway line parallel to the tracks as well as new

east-west railroad crossings at Copper Ave and Marquette Ave. Existing physical constraints include the narrow width of the right-of-way, as well as switches, cabinets and bridge piers that would need relocation.

About two-thirds of the study corridor currently has enough right-of-way width to accommodate a trail plus limited buffer/landscaping areas, with a combination roadway and trail at-grade crossing at Marquette Ave necessary to potentially connect the alignment from the east side of the tracks south of Marquette Ave to the west side of the tracks north of Marquette Ave. From Central Ave to Marquette Ave, an easement with Innovate ABQ is necessary to accommodate the trail on the east side of the tracks, with a pedestrian bridge for the trail over Tijeras Ave and the Convention Center access road because of the limited right-of-way width. Public trail access is accommodated at Central Ave, Tijeras Ave, Marquette Ave and Lomas Blvd. A trail along the east side of the tracks between Marquette Ave and Lomas Blvd has been designed by the adjacent property owner as part of a planned redevelopment which includes offices, restaurants and retail. This gives the option for the trail alignment to run along the east side of the tracks between Marquette Ave and Lomas Blvd. The study also recommends amenities such as lighting, wayfinding, landscaping and public art.

DEVELOPMENT PROCESS MANUAL, CITY OF ALBUQUERQUE

Paved trail standards are defined in Section 7-4(F)(6) in the Development Process Manual (DPM) for the City of Albuquerque. The DPM defines paved trails (also called multi-use trails or shared-use paths) as “facilities that are dedicated for pedestrians and cyclists and are designed for use by people of all abilities for transportation and recreational purposes.” They are physically separated from vehicular traffic and are either within the roadway right-of-way or within an easement. Trail dimensions are outlined along with curb ramp requirements.



Existing rail spur corridor looking west at Aspen Ave and Timber Rd



The Atlanta Beltline provides a network public parks, multi-use trails and transit in Atlanta, GA



The Midway Greenway provides an almost automobile-free route across Minneapolis, MN

PRECEDENT PROJECTS

Rail trail projects across the country have successfully integrated into their respective communities as they become important community assets that increase public health, safety, and economic vitality of the area. The following precedent examples provide an overview of existing multi-use rail trails along with impacts to the surrounding communities.

NATIONAL PROJECTS

Atlanta Beltline

The Atlanta BeltLine is the most comprehensive revitalization effort ever undertaken in the City of Atlanta and among the largest, most wide-ranging urban redevelopment and mobility projects currently underway in the United States and internationally. It provides a network of public parks, multi-use trails and transit by reusing 22-miles of historic railroad corridors circling downtown and connecting 45 diverse neighborhoods including many that are historically underserved. Upon completion, the Atlanta Beltline will fully encircle the central part of Atlanta with a continuous paved multi-use path for 33 miles, including spur trails connecting to neighborhoods. Currently, 10.5 miles of paved multi-use trails are completed with interim unpaved trails

connecting these pieces to form a continuous loop around the City.

Using existing rail track easements, the BeltLine is designed to improve mobility, add green space and promote redevelopment. Longer-term visions for streetcar or light-rail lines along all or part of the corridor will continue to capitalize on increased mobility. It is planned to include a neighborhood-serving transit system (likely streetcars); footpaths for non-motorized traffic including bicycling, roller skating, and walking; and the redevelopment of some 2,544 acres (1,030 ha). The project has so far created or preserved 1,300 acres of green space and included 1,100 acres of environmental cleanup.

Economic development is at the forefront of Atlanta BeltLine, Inc.'s strategy for equitable growth and opportunity in Atlanta. Development impacts along the trail corridor have been extraordinary with \$10 billion in economic development, 5,600 affordable work housing units and 30,000 permanent jobs. The BeltLine provides unprecedented opportunities for commercial and residential development, particularly along large sections of the Atlanta BeltLine that traverse industrial areas and parcels of underutilized land. It will connect to the center of Atlanta via connections with MARTA (Atlanta's bus and train public transit system) and the new Atlanta Streetcar system. The Atlanta BeltLine links comprehensive land use with transit-oriented design, turning the Atlanta BeltLine corridor into a framework for long-term sustainability. ABI estimates that approximately 3,000 acres of underutilized land along the corridor will become available for public and private development

opportunities, revitalizing neighborhoods that have experienced disinvestment in the past.

Midtown Greenway (Minneapolis)

The Midtown Greenway runs 5.7 miles east to west along a former rail corridor in south Minneapolis. It was constructed in a series of phases between 2000 and 2007, with future extensions planned. The Greenway is the first system in the United States to implement the "bicycle freeway" concept of segregated travel lanes; the Midtown Greenway includes two uni-directional paths for bicyclists and a multidirectional path for pedestrians. Due to the historic nature of the corridor that places it partially below-grade, it cannot easily be widened or modified and the segregated paths are combined in places where space constrictions exist.

The system is used both recreationally and for commuting as it provides cyclists, inline skaters, runners and pedestrians an almost automobile-free route across the city. The system is said to have transformed commuting options and improved the quality of life in many Minneapolis neighborhoods. Bike traffic on the Greenway has increased 261% between 2003 and 2011.

The Midtown Greenway has helped spark more than \$750 million worth of new housing developments along its edges and property values along the corridor have increased by over 90 percent in the past ten years.

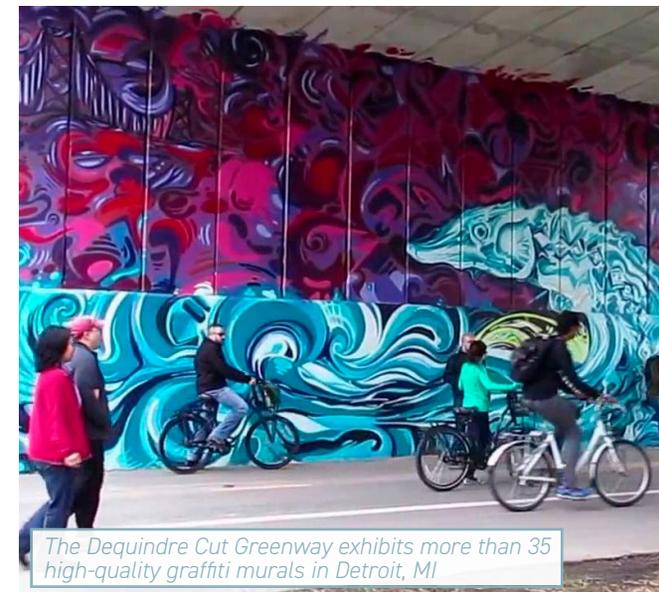
Dequindre Cut Greenway (Detroit)

Formerly a Grand Trunk Western Railroad line, the Dequindre Cut is a two mile path in Downtown Detroit. The greenway features a 20-foot-wide paved pathway, which includes separate lanes for pedestrian and bicycle traffic, and proposed light rail.

The Dequindre Cut, formerly the Grand Trunk Railroad line, hadn't functioned in years. The depressed rail corridor, a 25-foot deep fissure through the landscape, was overrun by invasive trees, contamination and dumping, but it also became a collection for impromptu art installations and graffiti. Exhibiting more than 35 high-quality graffiti murals painted by internationally known street artists, attracting visitors from around the world, the Greenway now serves as a public art amenity for the community. It links the popular Detroit Riverfront and Eastern Market, and has been a catalyst for over \$18 million of investments in properties along the Greenway.

Richmond Greenway (California)

The Richmond Greenway, located in the Bay Area, is a bicycle and pedestrian rail-trail that brings vibrant open space to a densely populated, underserved community with few recreational opportunities. When complete, Richmond Greenway will transform a large stretch of previously abandoned railroad property into both a local and regional transportation resource and an open space resource with 32 new acres of vibrant green space. The



The Dequindre Cut Greenway exhibits more than 35 high-quality graffiti murals in Detroit, MI



The Richmond Greenway features community gardens that encourages the community to take ownership



Charlotte Rail is envisioned to be an integrated public art experience in downtown Charlotte, NC



The Monon Trail connects northern Indianapolis neighborhoods with a 26-mile multi-use path



The Santa Fe Rail Trail begins at the Santa Fe Railyards and continues 16 miles to Lamy, NM



The Los Lunas Multi-Use Trail is 0.5 miles long and terminates at the Los Lunas Transportation Center

former rail corridor sat abandoned for 25 years after serving heavy industrial activity that caused numerous environmental hardships for future generations. Much of the project today involves obtaining federal funding for environmental cleanup for the neighborhood's toxic air, soil and water quality. Involving the neighborhoods in developing community gardens and rainwater gardens and bioswales to control future stormwater surges, as well as an "Adopt-A-Spot" program, has encouraged the community to take ownership of this trail and see it as a vital asset for improving the area and connecting to other regional destinations. The path also provides pedestrian and bicycle access to other regional trails, and makes key connections with community resources and public transportation.

Charlotte Rail Trail (North Carolina)

The Charlotte Rail Trail located in Charlotte, North Carolina, is an 3.5-mile-long pedestrian/bicycle facility that runs parallel to Charlotte's LYNX Blue Line light rail track. In some places, the Blue Line Rail Trail is an urban greenway lined with shops, restaurants, outdoor seating and games. In other places, it transitions to a more modest facility defined by bike lanes and sidewalks. The Rail Trail acts as a spine through the City that connects to 15 different bicycle routes and multiple major destinations across 10 neighborhoods. The Rail Trail is envisioned to be an integrated public art experience that creates a unique, ever-changing destination for trail users. Throughout the year, different events draw people to the Rail Trail with music, light displays and the opening of new public spaces and art displays. It has become one of the

signature pedestrian and bicycle routes in Charlotte with over 2,000 trail users per day in some locations.

Monon Trail (Indiana)

The Monon Trail is a rails-to-trails paved path through Central Indiana with incredible proximity to arts, culture and tourist attractions. The Monon Trail encompasses 26 miles of pedestrian/bicycle multi-use path connecting downtown Indianapolis to northern neighborhoods, and the towns of Carmel, Westfield and Sheridan. As one of the first rails-to-trails bike-and-pedestrian pathways in the country, the Monon Trail opened in 1999 with 10 miles of trail and quickly became a national model for rail-to-trail conversions. Numerous trail connections intersect with multiple trail heads and trail amenities making it an active transportation corridor and important connector for the region. The Trail passes along the Indiana State Fairgrounds and links eateries, shopping destinations, and cultural and tourist attractions through fast-growing north side neighborhoods.

Used by more than 1.3 million people annually, the path has caused positive economic impact to neighborhoods adjacent to the trail. The trail has been a positive community asset that has set the bar for other trails in the area in becoming a gathering place, preserving the region's history and serving anyone from commuters to outdoor lovers. A trail connection to the Indianapolis Cultural Trail through downtown spanning five cultural districts with museums, theaters, shops, and restaurants. Nearly a billion dollars in public and private investment have brought civic, commercial, residential and retail

developments to the trail corridor and increased residential property values by more than \$13,000 in the trail corridor.

LOCAL PROJECTS

Santa Fe Rail Trail

The Santa Fe Rail Trail, at 16 miles long, starts in Santa Fe's Railyards in the southwestern part of the City. It follows the Atchinson, Topeka and Santa Fe Railway line that continues to Highway 285 in Lamy, New Mexico. The pathway follows the Santa Fe Southern Railway, an active railway that serves regional commuters through the New Mexico RailRunner Express and excursion rail service on Santa Fe Southern Railway. It is considered a rail-with-trail, as the railway it parallels is still actively used.

The trail begins at the Santa Fe Railyards, which serves the community as a gathering place for a weekly Farmers' Market, music performances and contemporary art exhibits. The Rail Trail is paved and accessible between the Railyard and Rabbit Road for nearly four miles and continues as an unimproved to rough trail south of Rabbit Road to Lamy for twelve miles. This unimproved section is best suited for mountain bikes, as the terrain is hilly and the path is hard-packed dirt. The Rail Trail was built with funds from city, county, state and federal sources as well as private contributions raised by the Santa Fe Conservation Trust.

Los Lunas Multi-Use Trail

The Los Lunas Multi-Use Trail, located in Los Lunas, New Mexico, is a 0.5-mile long trail along the New Mexico RailRunner Express. It travels north from the Los Lunas Transportation Center, where the RailRunner stops, and runs parallel to the tracks. The Los Lunas Bicycle Master Plan indicates expansion of this multi-use trail to 3.5 miles north and south of its current location, creating an accessible recreational asset for the community.

ELEVATED PROJECTS

High Line, New York City

The High Line in New York City's Meatpacking District and Chelsea neighborhoods of Manhattan is an elevated linear park and trail that travels 1.45 miles along a former abandoned rail spur. An extremely ambitious project and the first to be completed in the country, the highly-successful High Line has set a precedent for other US cities as an extremely desirable gathering space and recreational amenity. It hosts nearly eight million visitors annually, mostly tourists who have made the High Line one of their top sightseeing destinations in the City. Revitalization along the rail corridor has turned this warehouse district into a neighborhood with high-end apartment residences, restaurants and shopping. It has increased property values adjacent to the track by ten percent and has led to a housing boom in the area.



The High Line is an elevated abandoned railway that is now the one of the most visited attractions in NYC



The Bloomingdale Trail functions as a backbone of a parks and trail network called the 606 in Chicago, IL

Bloomington Trail, Chicago

The Bloomington Trail in Chicago, Illinois, a 2.7-mile elevated greenway along a former rail line, is the longest project of a former elevated rail in the country and the second longest in the world. The abandoned freight line formerly acted as a barrier that divided neighborhoods west of the City. Now, it functions as a backbone of a parks and trail network called the 606, connecting three neighborhoods with bikeshare and transit stations. The trail, completed in 2015, consists of a 10 ft paved path with 2 ft soft shoulders on either side with a sleek, modern look. . The average daily trip count is over 3,500 on the 606, with 60 percent of these trips during the week used for purposes of transit. Surrounding property values rose from 2012 to 2016 by 22.3 percent as the trail project has successfully reconnected neighborhoods as it serves over 80,000 people living within 10 minutes of the trail.

PLANNING PROCESS

STAKEHOLDER MEETINGS

Three stakeholder meetings were held to share project details and gather input. Because of the ongoing social distancing restrictions due to the COVID-19 pandemic, meetings were held virtually. They included a presentation of the study, including precedent examples, opportunities and constraints, trail alignment options, trail cross sections, and phasing strategies. Following the presentation, the project team held a discussion with participants for questions and comments. During and following the three stakeholder meetings, enthusiastic support for the project was expressed by multiple parties. Notes recorded on a web-based whiteboard map are in Appendix A.

The first meeting was held with City personnel from various applicable departments. Staff representing the Municipal Development Department, the Planning Department, City Council, Economic Development Department, Affordable Housing, Cultural Services Department and Parks and Recreation Department. Staff were supportive of the Rail Spur Trail and especially liked the proposed phasing strategy. City staff also mentioned the possibility of making the multiple road crossings into public art installations with vertical elements

that improve safety and become a feature of the Rail Spur Trail.

The second meeting was held with business and property owners in the study area. Fourteen individuals from the breweries and distilleries, retail stores, the Indian Pueblo Cultural Center, Explora, Albuquerque Tourism and Sightseeing Factory, land developers, and the NM Steam Locomotive restoration project. Two alignments were presented and participants commented that their preferred alignment followed the tracks with an elevated portion. Participants were all generally supportive of the project and recognized the potential positive impact of the Rail Spur Trail on their respective businesses and landholdings. Many along the rail spur mentioned the potential to have an additional access point for trail users as an opportunity, as well as adding outdoor patio seating that faces the rail spur and trail. Those business owners whose properties were not along the rail spur indicated the importance of a cohesive signage system to guide trail users to their businesses.

The third meeting was held with property owners and Neighborhood Association representatives in the study area. Parking was addressed as a concern from neighbors near the Sawmill District who are currently reckoning with the influx of visitors to the newly-opened Sawmill Market. Since this trail will be well-served by other trail connections in the area, a significant addition of vehicles is not expected. Also, by connecting Sawmill Market directly to a multi-use trail, visitors can better access the area by foot and bicycle, eliminating the need to travel by vehicle. Participants were generally supportive and indicated an interest in seeing this project come to fruition.

EXISTING CONDITIONS ANALYSIS

The following section is an analysis of existing conditions including area history, opportunities and constraints, land use and zoning analysis, and right-of-way analysis pertaining to this area. These items are analyzed to better understand the 2.25-mile long rail corridor in order to best inform recommended trail alignments and preliminary design concepts.

AREA HISTORY

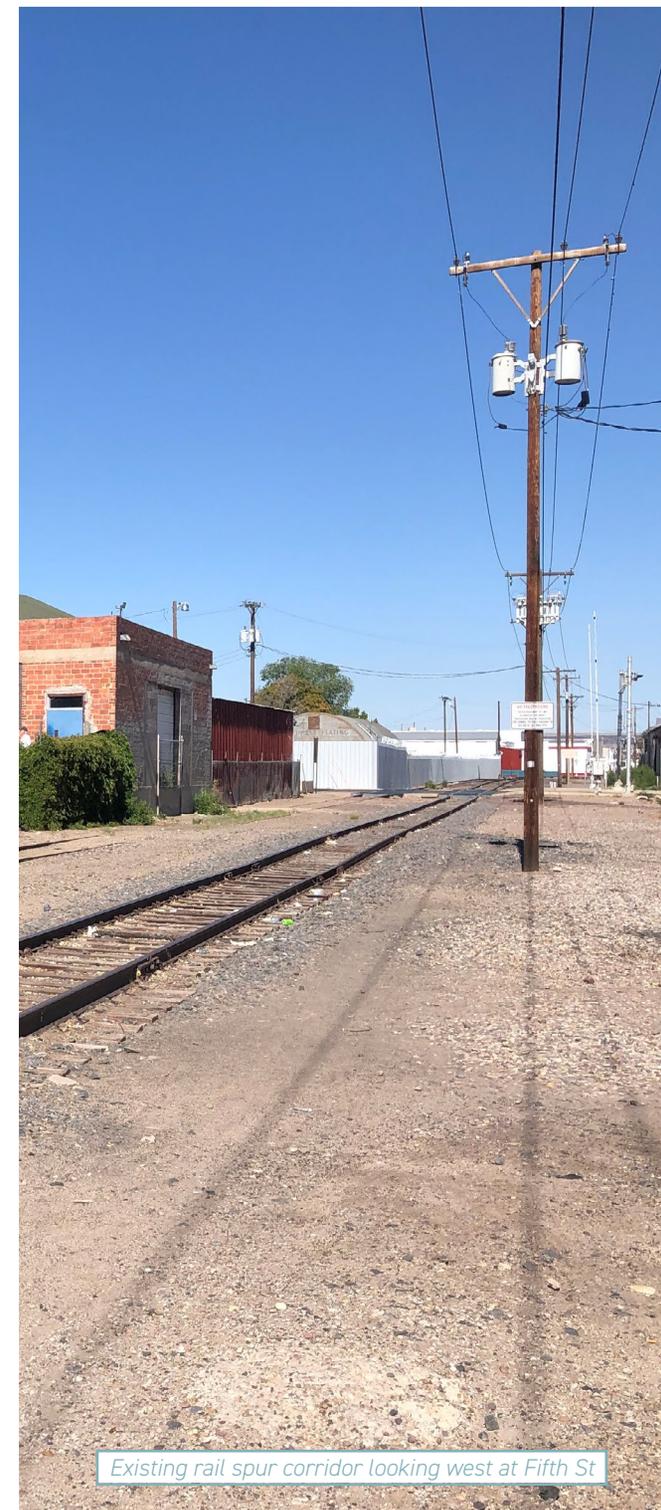
The rail spur corridor is located north of downtown Albuquerque in neighborhoods known for their longstanding warehouse and manufacturing uses. The rail spur encompasses two neighborhoods: Wells Park and the Sawmill District. Toward the end of the nineteenth century, the agricultural landscape of the city began changing when a sawmill was built northwest of Twelfth St and Bellamah Ave shortly after the railroad arrived in Albuquerque. For a time, this sawmill was the largest in the southwest, encompassing 110 acres and spurring the development of both retail services and residences. Even after the sawmill closed in 1945, the residential area continued to grow along with industrial businesses that included lumber supply, auto services, window and glass manufacturing and refrigerated warehousing.

Many of the industrial uses that occurred have caused significant environmental degradation, including air and groundwater pollution that affected nearby residents. Dry cleaning solvents from a decades-old spill have caused residents and lawmakers concern about potential risks to public health. The Sawmill Community Land Trust, a 501(c)3 nonprofit organization, has worked with the City of Albuquerque to clean up and reclaim 27 acres of the former particleboard factory site near the defunct sawmill. Now the area is home to low-to moderate-income residents among affordable single-family homes and apartment complexes as Sawmill Community Land Trust provides quality affordable housing through a land trust model.

OPPORTUNITIES AND CONSTRAINTS

Conditions within the rail corridor present both opportunities and constraints for the installation of a multi-use trail in the area.

There is an overall lack of trails and bikeways in this part of the City. Because of its location, the proposed trail can serve to connect the area's destinations and fill a gap to connect to existing multi-use trails such as the I-40 Trail and the Paseo del Bosque Trail. These multi-use trails serve as east-west and north-south routes, respectively, and are used by recreational and commuting pedestrians and cyclists. As indicated in ["Figure 4. Opportunities and Constraints" on page 25](#), the I-40 Trail passes to the northwest of the proposed Rail Spur Trail, with the potential to connect the two trails along Mill



Existing rail spur corridor looking west at Fifth St

Pond Rd. The Alameda Drain Trail, currently under construction along Second St north of I-40, could be connected to the proposed Rail Spur Trail and link downtown to the North Valley.

Rail traffic along the rail spur is infrequent, averaging four to five times a week, normally during nighttime, according to NMDOT. The industries using the rail spur are located east of Twelfth St; trains do not operate west of Twelfth St and therefore the Sawmill District does not see any train traffic. Since the bulk of trail use is during the daytime, users would not have to contend with trains actively running alongside the trail. This would provide a more pleasant experience when traveling along the rail corridor.

The Wells Park neighborhood and the Sawmill District are home to eight breweries and distilleries that draw residents throughout the Albuquerque area and tourists from beyond. The trail is proposed to generally follow the existing rail spur with connections to businesses located along the proposed trail alignments so that recreational access is enabled. This could increase the customer base and spur economic development.

The rail corridor also presents an opportunity to address encampments created by people experiencing homelessness who illegally trespass along the rail corridor. The installation of trails along with an increase in recreational users has contributed to a reduction in vandalism and littering in other trail projects across the country.

The rail corridor also presents some constraints, as the rail is still active and industries along the spur line are served east of Twelfth St. NMDOT, the owner of the rail spur whose tenant is BNSF, require a 25-ft minimum buffer between the tracks and a potential trail. When the deed for ownership of the rail property was transferred to NMDOT from BNSF when the Rail Runner was established, a prohibition against non-railroad and non-industrial uses of railroad property was carried over. This prohibition includes rail trails. BNSF has, in the past, agreed to review on a case-by-case basis any designs for proposed trail projects to determine any safety concerns to BNSF operations. The 25-foot distance follows federal safety rules and railroad industry safety practices that establish this distance as a safe separation for trail users. Parts of the Santa Fe Rail Trail are closer to the track than 25 feet because this track was not purchased by BNSF and is not subject to the same prohibition against non-rail use of the property.

The multi-use trail should be 15-ft minimum width according to the City of Albuquerque's Development Process Manual (DPM), including a soft shoulder on both sides of a paved pathway. Thus a total width of 40 feet minimum is required along either side of the tracks. This presents major issues in some sections of the rail spur. Encroachment agreements along the tracks narrow the right-of-way and do not allow the minimum width required for a multi-use trail. There are two parcels within the rail corridor that are not owned by NMDOT. These parcels are located west of Twelfth St and therefore do not serve any industries. However, negotiations with these owners must take place in order to coordinate trail installation.

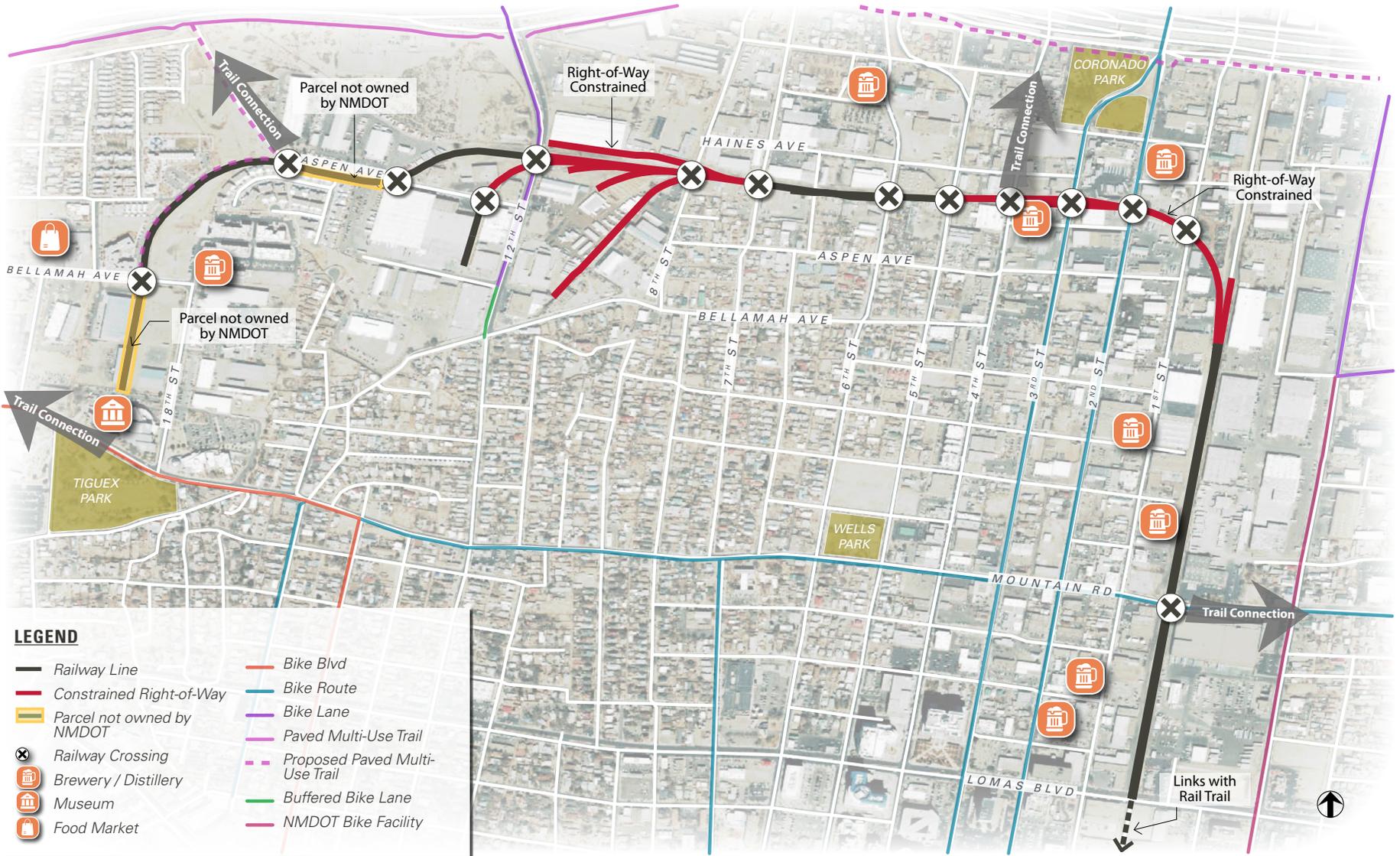
It is recommended to complete a right-of-way acquisition plan or needs assessment in coordination with NMDOT in order to help the City negotiate with property owners as development continues along the rail spur.

Multiple road crossings occur along the rail corridor at regular intervals, usually between 350 - 400 feet. There are 13 road crossings along the rail corridor, including Mountain Rd on the north-south portion of the rail. The presence of significant north-south traffic along with the frequency of crossings in this area poses safety issues to potential trail crossings. The table below indicates AWDT values for roads with rail crossings in the study area.

TABLE 1. AVERAGE WEEKDAY TRAFFIC

<i>ROAD</i>	<i>AWDT (AVERAGE WEEKDAY TRAFFIC)</i>
Mountain Rd	6,003
1st St	N/A
2nd St	6,355
3rd St	6,587
4th St	9,297
5th St	7,126
6th St	9,178
7th St	N/A
8th St	N/A
12th St	14,335

FIGURE 4. OPPORTUNITIES AND CONSTRAINTS



LAND USE AND ZONING ANALYSIS

This area of Albuquerque, north of downtown, was originally developed around manufacturing and warehousing as the industries were established around the rail spur. These historical land use patterns and zoning designations remain today with interspersed residential areas.

Land use in the study area stretching roughly 1.4 square miles north of downtown varies from low-density residential to industrial, as illustrated in ["Figure 5. Land Use" on page 28](#). This area has a diversity of land uses that create a patchwork of colors. The most dominant land use, mostly relegated to the center and south of the study area, is low-density residential. These homes were built starting in the mid-twentieth century and represent growth due to the success of the adjacent industries. Moving outward from the center of the study area, commercial retail and services are more prevalent, along with educational and community uses. Along the rail corridor, the uses are mostly industrial and office, mixed with some commercial services and retail. In the northwest corner of the study area, in the Sawmill District, land uses are a mixture of multi-family, industrial, and commercial. This mixture is unique to the Sawmill District, as the Sawmill Community Land Trust (SCLT) works to build affordable housing on former industrial land. Three City parks lie within the study area: Coronado Park, Wells Park, and Tiguex Park, along with Sawmill Park within the SCLT boundaries.

The table below illustrates the percentage of land use categories as a total parcel count percentage and total acreage percentage.

TABLE 2. LAND USE		
	TOTAL PARCEL PERCENTAGE	TOTAL ACREAGE PERCENTAGE
Low-density Residential	42.8	31.6
Industrial	13.9	24.9
Commercial Services	12.9	9.6
Commercial Retail	7.9	6.5
Office	6.5	8.7
Vacant	5.8	4.4
Transportation	5.0	2.7*
Community	1.6	3.5
Parks and Open Space	1.2	2.3
Multi-Family	1.2	2.4
Drainage	0.5	0.5
Utilities	0.4	0.9
Educational	0.2	1.9
Institutional/ Medical	0.1	<0.1

Zoning in this area also reveals the original industrial and residential character of this area. Parcels in the center of the study area are zoned

R-1A with transitional zoning districts such as R-T and MX-L along Mountain Rd and Lomas Blvd, as illustrated in ["Figure 6. Zoning Districts" on page 29](#). Along Fourth St and Third St, MX-M allows for a more intense mixture of commercial and residential uses. Along the rail, NR-LM and NR-GM allow for industrial uses such as warehousing and manufacturing. There is a large area surrounding Twelfth St north of Bellamah Ave that is NR-BP. West of this area, the Sawmill District has a patchwork of zoning that includes R-1A, R-T, R-ML, NR-LM, NR-BP, MX-T, and PD.

The industrial zoning along the rail spur has led to a concentration of local breweries and distilleries in the area, as this type of manufacturing is not allowed in many other zoning districts within the City.

TABLE 3. ZONING		
	TOTAL PARCEL PERCENTAGE	TOTAL ACREAGE PERCENTAGE
NR-LM	12.1	27.3
NR-GM	3.3	4.3
NR-BP	1.1	12.4
MX-H	0.9	0.2
MX-M	11.5	10.0
MX-L	10.8	4.9
MX-T	4.2	4.3
MX-FB-UD	2.0	1.6
R-MH	1.1	1.0

TABLE 3. ZONING

	<i>TOTAL PARCEL PERCENTAGE</i>	<i>TOTAL ACREAGE PERCENTAGE</i>
R-ML	2.4	1.1
R-T	15.9	3.5
R-1A	30.2	24.5
PD	0.7	1.4
NR-PO-A	0.9	2.2
NR-PO-C	0.4	<0.1
UNCL	2.5	1.2

RIGHT-OF-WAY ANALYSIS

Within the rail corridor, there are multiple sections that are constrained to less than the 60-foot minimum standard right-of-way width due to encroachment agreements with adjacent landowners. Some areas narrow to 30-foot right-of-way widths where encroachment agreements exist. The minimum buffer distance mandated by NMDOT between the centerline of a track and any trail development is 25 feet with a separation fence. With the addition of a 15-foot trail right-of-way width, the total minimum width required for the multi-use trail is 40 feet along one side of the track. Right-of-way exhibits are detailed in Appendix B.

Sections where a constrained right-of-way exists along the rail spur begin where the tracks turn away from the main north-south corridor east of First St and continue to Fifth St. A metal scrapyards north of the rail spur east of First St has an agreement with

NMDOT for encroachment onto the right-of-way in which they lease the area and pay yearly. This has narrowed the right-of-way width to 30 feet, with 15 feet on either side of the track. The right-of-way stays at this width as it continues west to Second St; the landowners on the north and south sides have purchased almost half of the right-of-way. As the rail spur continues west to Third St, a separate track switches north to parallel the rail spur track, terminating within the next block. This separate track is inactive at this time; the customer are not currently served by the rail spur. Communications between the customer and BNSF must take place in order to formally abandon this track. It is rare to have a track removed, even if it is formally abandoned by the customer. Creamland Dairies, the landowner to the north of this section, has a previous lease with BNSF for part of the right-of-way width, which is currently being negotiated for reinstatement. The section between Fourth St and Fifth St is also constrained by an encroachment from a landowner to the north. This encroachment has been identified by NMDOT and is anticipated to be addressed with the property owner soon.

There is sufficient right-of-way width between Fifth St and Seventh St to accommodate a multi-use trail on the north side, with 45 feet available from the centerline of the track to the property line.

Another section of a constrained right-of-way begins at the section between Seventh St and Eighth St and continues west to Twelfth St. A separate track switches to the north of the rail spur and enters into property to the north. This separate track is considered an active spur, though it is rarely used

by the New Mexico Steam Locomotive & Railroad Historical Society restoration project located immediately to the north of the section between Eighth St and Twelfth St. Currently, the New Mexico Steam Locomotive & Railroad Historical Society uses the right-of-way north of the tracks in this section for parking. Since the property line to the north of the tracks in this section is only 15 feet from the centerline, agreements with the City to use a portion of the property to the north for a multi-use trail would need to be coordinated. Discussions between the Cultural Services Department and the current landowner are taking place for potential purchase of the property. NMDOT does not have ownership of the separate tracks that switch to the south in this section to serve the industries in this area. These are active tracks used approximately four to five times a week at nighttime to convey deliveries to the building materials warehouses in this section.

West of Twelfth St, the track is currently not active. There is sufficient right-of-way width to the south of the tracks in the rail corridor between Twelfth St and Aspen Ave. Starting at the intersection with Aspen Ave, the track runs through private land not owned by NMDOT. NMDOT inquiries into the identity of the parcel owner have been unsuccessful. As the track proceeds west and begins to curve before the intersection with Timber Rd, land ownership reverts to NMDOT ownership until Bellamah Ave as it passes through the Sawmill Community Land Trust. South of Bellamah Ave, Explora owns the track until its termination directly north of the New Mexico Museum of Natural History and Science. Explora intends to redevelop these parcels of land, according to their Master Plan.

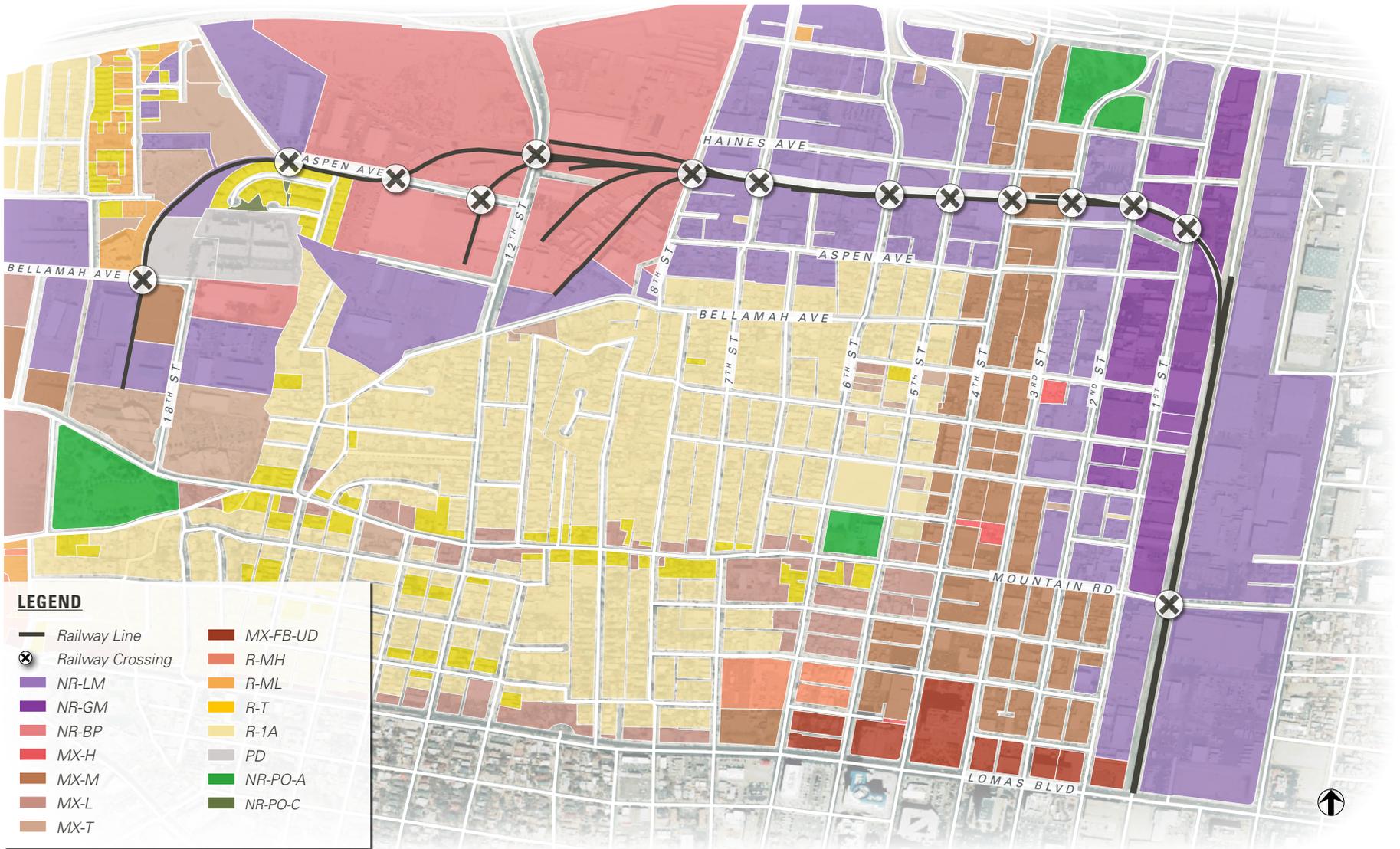
FIGURE 5. LAND USE



LEGEND

-  Railway Line
-  Railway Crossing
-  Industrial
-  Commercial Services
-  Commercial Retail
-  Office
-  Educational
-  Community
-  Drainage
-  Transportation
-  Multi-Family
-  Low-Density Residential
-  Parks and Open Space
-  Utilities
-  Vacant

FIGURE 6. ZONING DISTRICTS



ALIGNMENT OPTIONS

Outlined below are three alignment options that consider the identified opportunities and constraints. After meeting with key stakeholders, Alignment Option 2 'Get Elevated' was the preferred alignment as the opportunity to be able to connect businesses to the rail corridor was seen as an asset, along with the novelty that an elevated trail would bring to the neighborhood.

ALIGNMENT OPTION 1

Alignment Option 1 was created after considering the significant right-of-way constraints along the rail corridor. Completely avoiding these sections while also considering the ease of trail navigation led to an alignment that follows the established street network as close as possible to the rail corridor and turns onto the rail corridor where the right-of-way width allows, as illustrated in ["Figure 8. Alignment Option 1" on page 32](#). This option allows for a shorter timeframe for implementation and is less expensive, as it does not require any acquisition of right-of-way or construction of an elevated trail. This option also allows for engagement of a greater section of the neighborhood since it winds through residential streets away from the rail corridor. This option, however, does not directly follow the rail spur tracks and requires multiple turns for users which leads to a decreased ease of use and convenience. Coordination with other

City departments is also needed because of the use of the road right-of-way.

ALIGNMENT OPTION 2 'GET ELEVATED'

Alignment Option 2, titled 'Get Elevated,' proposes following the rail corridor with no deviations despite right-of-way width challenges. This requires the construction of an elevated portion of the trail approximately 2,000 ft in length, as illustrated in ["Figure 9. Alignment Option 2 'Get Elevated'" on page 33](#), creating a landmark destination for trail users. With trail alignment that follows the current rail corridor, there is an opportunity for additional activity and development along the Rail Spur Trail frontage. However, a longer timeframe for implementation is required because of the additional right-of-way acquisition and cost of construction.

ALIGNMENT OPTION 3

Alignment Option 3 proposes diverting off the rail corridor after the switch at the main line to the east and reconnecting with the rail corridor west of Twelfth St. In this way, the active part of the rail spur is completely avoided. The parcels north of the rail spur between Eighth St and Twelfth St are owned by the Indian Pueblo Cultural Center (IPCC). An option to establish a public easement at the south property line or through the property is illustrated in ["Figure 10. Alignment Option 3" on page 34](#). Coordination with IPCC would take place to establish this easement. This alignment offers the

potential to extend the I-40 Trail south along the west side of Twelfth St to connect to the Rail Spur Trail. Currently, the I-40 Trail does not continue east of Seventh St.

The possibility exists that industries along the rail spur that currently use freight service will no longer find it economically viable to continue this servicing. If this point is reached, a trail along the tracks with no minimum buffer distance would be ideal. Since this rail corridor creates the best off-street right-of-way through this neighborhood, a multi-use trail along this route is strongly recommended as the most ideal alignment.

OPPORTUNITY SITES

The anticipated increase in pedestrian and bike traffic using the trail could be capitalized upon by focusing private and public investment on a few key parcels that will lead the way for further revitalization of the area. A land utilization analysis was performed for the study area that shows where investments have been made to the built environment along with areas that are ready for reinvestment, as illustrated in ["Figure 7. Land Utilization and Opportunity Sites" on page 31](#). The land utilization is a ratio that represents a parcel's improvement value divided by its land value. For example, if a parcel has a land value of \$100,000 and the improvement value on the land (includes any work completed, like structures and landscaping) is \$300,000, the ratio is 3, meaning that the improvements on the land are three times the value of the land itself. Lower ratios mean that the

FIGURE 7. LAND UTILIZATION AND OPPORTUNITY SITES

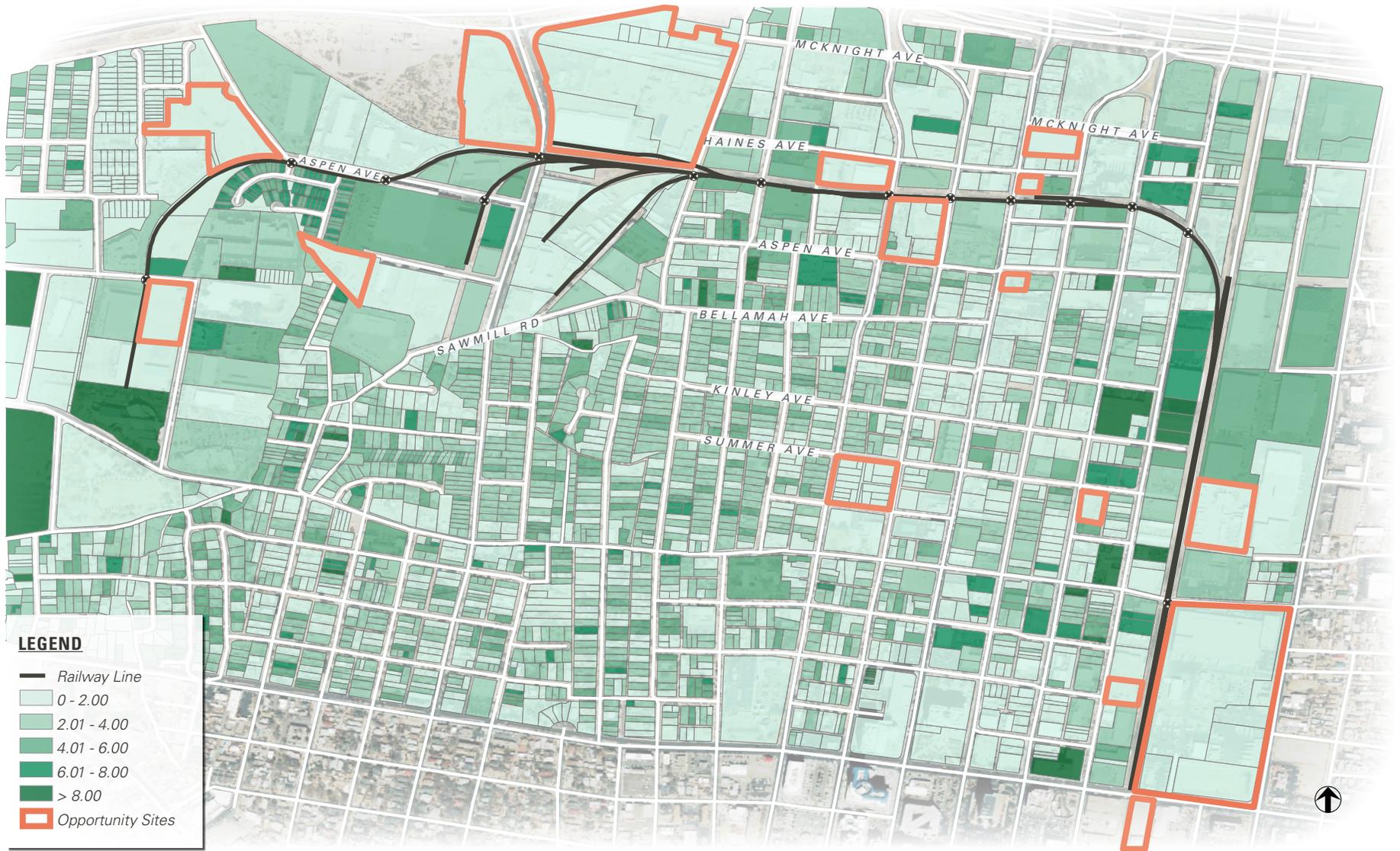


FIGURE 8. ALIGNMENT OPTION 1



FIGURE 9. ALIGNMENT OPTION 2 'GET ELEVATED'

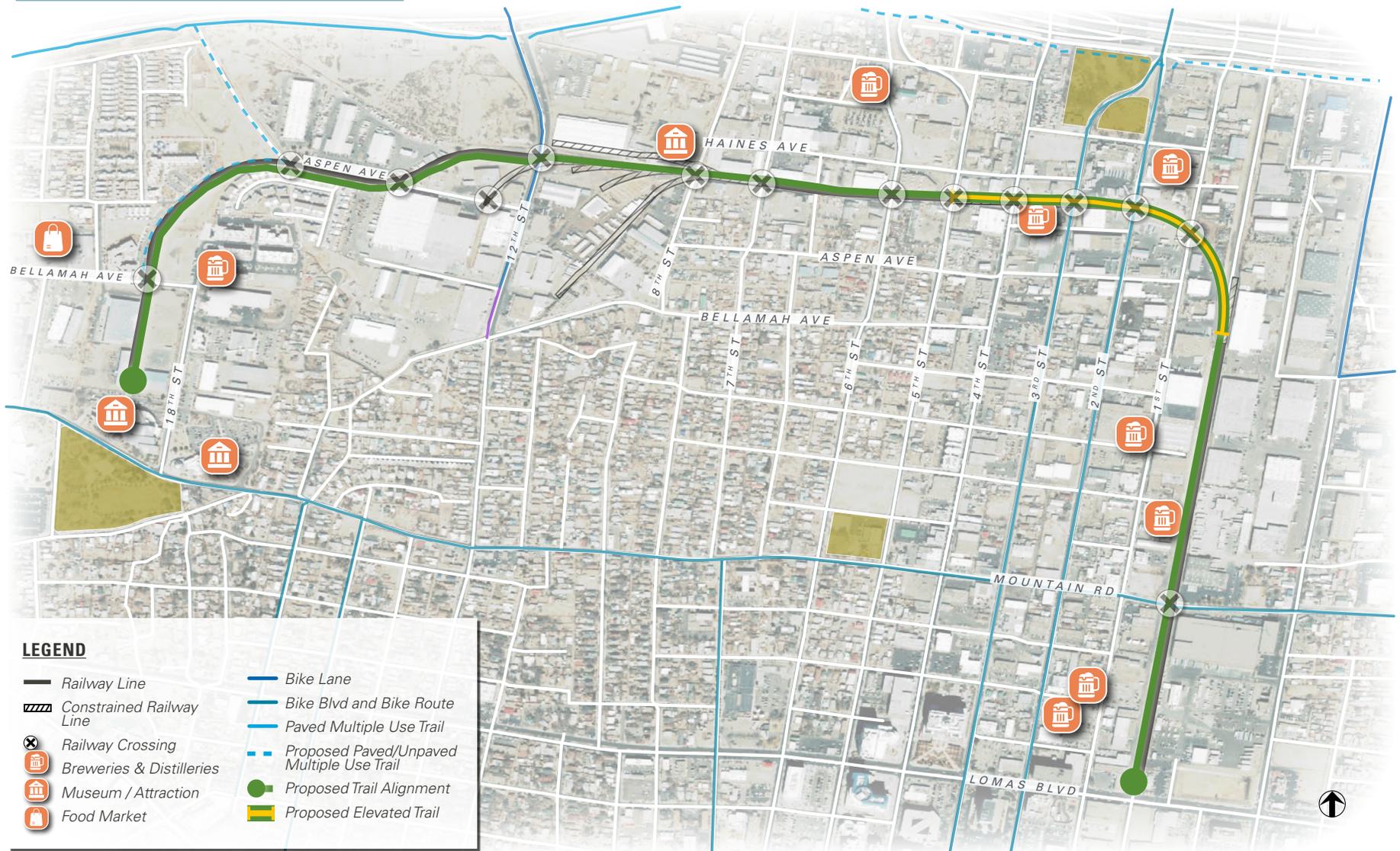
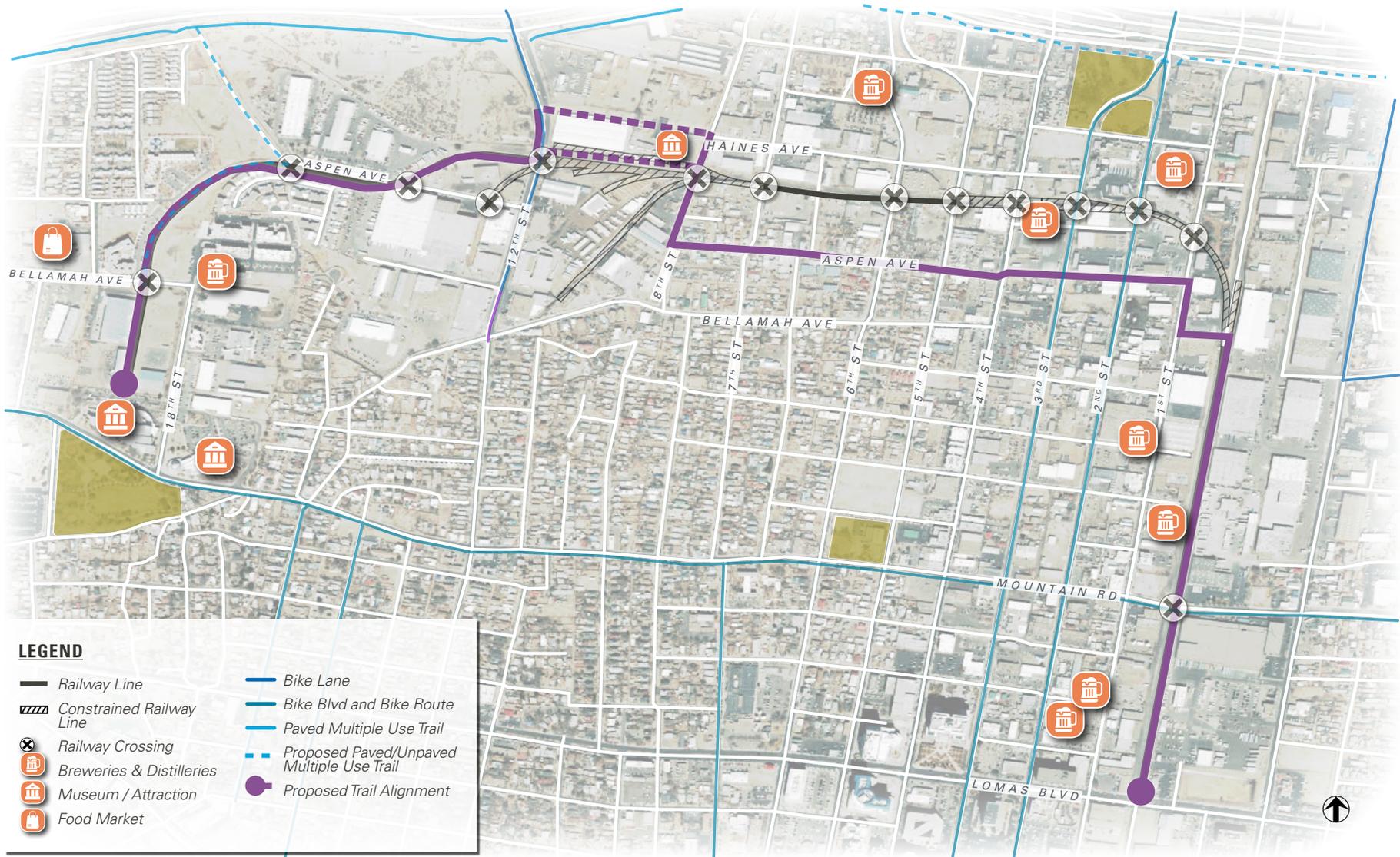


FIGURE 10. ALIGNMENT OPTION 3



property owners have not taken advantage of the full value of the land.

Parcels along First St have seen higher investment, as well as parcels surrounding the rail spur, especially around Eighth St and Aspen Ave. For the purposes of identifying parcels ready for reinvestment, 16 parcels or blocks of parcels were selected that are vacant (or have vacant structures) and/or the owners have expressed a desire to redevelop.

One such block of properties is located south of the rail spur between Fifth St and Sixth St, north of Aspen Ave. The owner of this location has plans to renovate the current buildings and add amenities to the site, creating a community attraction and bringing new investment to the area. Another block of properties that was identified as a reinvestment opportunity is adjacent to the rail spur, located between Eighth St and Twelfth St. This land is owned by the Bureau of Indian Affairs and is administered by the Indian Pueblo Cultural Center, located north of I-40. Currently, the New Mexico Steam Locomotive leases the building located on the south side for the purposes of restoring a steam locomotive to full operation.

CONCEPT DESIGN

Multi-use trails in Albuquerque are typically 8 to 12 feet wide, paved and painted with a dashed centerline to separate traffic in opposite directions with landscape buffers on either side. Because of the varying physical constraints of the right-of-way width of the rail spur, concept design changes throughout the length of the Rail Spur Trail with some areas allowing enough width for a landscape buffer while others only allow for the width of the trail.

Since the right-of-way is constrained to a degree that a trail is not possible on either side of the tracks in the section where the rail spur turns west until Fifth St, the study recommends building an elevated section that is above the rail spur. Elevated trails are most often found in dense urban areas and have become a popular attraction for both locals and tourists. The elevated portion of this Rail Spur Trail, at about 2,000 feet of length, could serve as an iconic installation that exudes a sense of place and becomes a landmark for this area.

Amenities along the trail are recommended. Some suggested amenities include seating, trash receptacles, lighting, public art and interpretive sign installations, and landscaping. Landscaping includes shade trees to protect from the elements as well as providing visual interest to trail users. Pedestrian-scale lighting improves safety and enables trail use year-round, in addition to enhancing trail aesthetics.

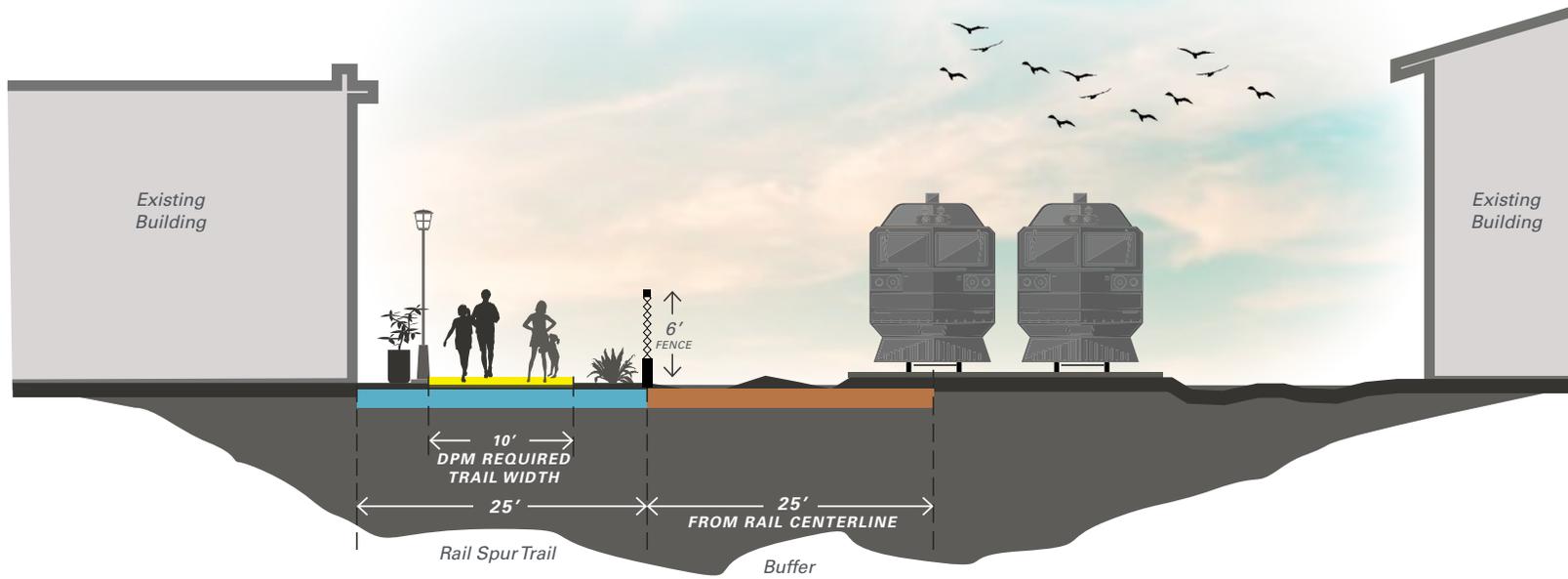
Lighting also decreases the likelihood of criminal activity, as an individual is less likely to commit a crime if they think someone is observing. Interpretive signage can enhance the trail experience by providing educational opportunity about the history of the rail spur and the surrounding neighborhood. Art installations are also an important amenity, improving trail aesthetics and creating a unique trail experience. Art installations can be incorporated into road crossings to also enhance trail user safety and attract passers-by.

Another important element of a multi-use trail through neighborhoods is appropriate wayfinding signage and branding. Because of the desire for the Rail Spur Trail to act as a catalyst for redevelopment for the area, signage and branding are important elements that facilitate navigation and provide guidance to explore businesses located along the trail. Branding also allows for a cohesive look and design throughout the trail, creating a sense of place. A recent trail installation north of the study area, the Alameda Drain Trail, was a cross-departmental effort to create a multi-use trail along an earthen diversion channel with interpretive and wayfinding signage as well as a distinct branding strategy. Public art installations were also incorporated and create a sense of place.

TRAIL SECTIONS

Trail concept designs were informed by the study conducted on the rail corridor directly to the south of the study area (Rail Corridor: Central Avenue to Lomas Boulevard), specific right-of-way constraints

FIGURE 11. TRAIL SECTION LOOKING NORTH FROM LOMAS BLVD



KEY MAP



TRAIL SECTION

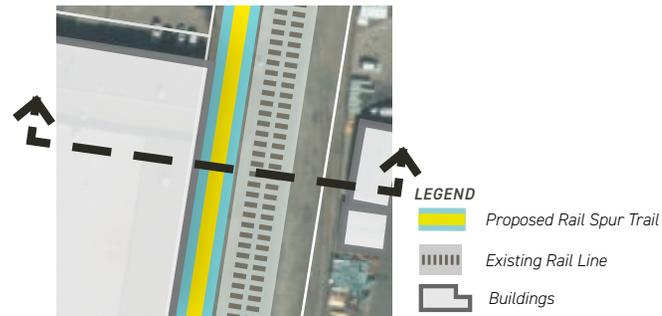
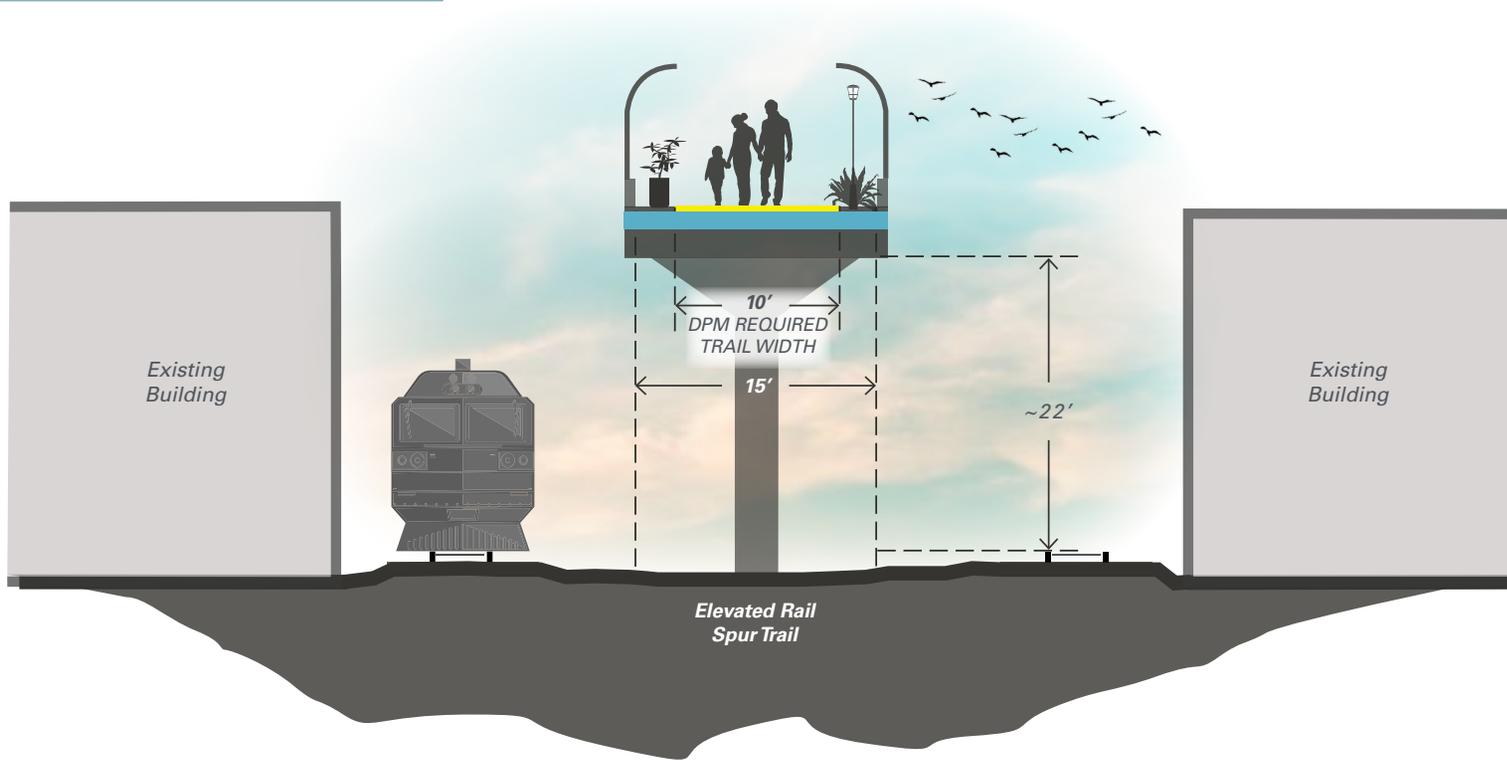


FIGURE 12. TRAIL SECTION LOOKING WEST FROM THIRD ST



KEY MAP



TRAIL SECTION

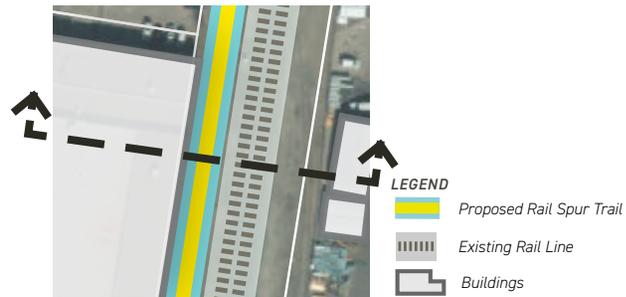
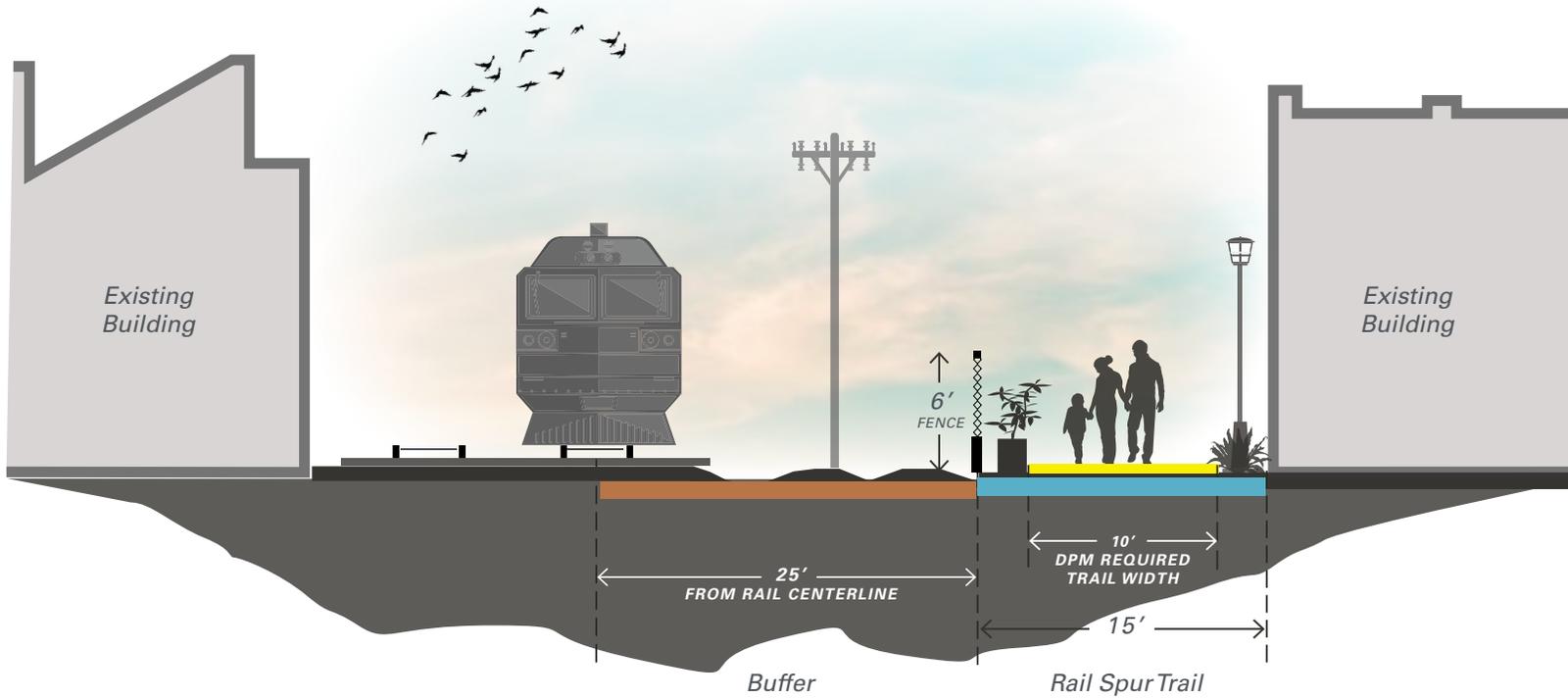


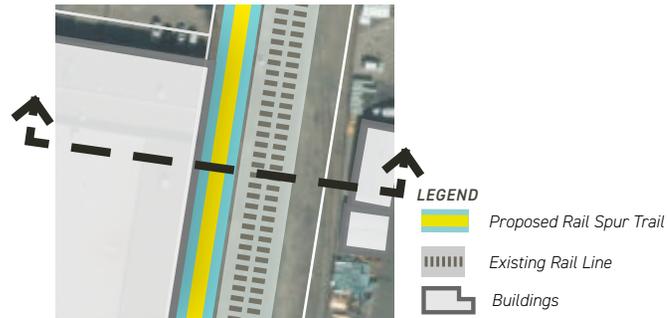
FIGURE 13. TRAIL SECTION LOOKING WEST FROM FIFTH ST



KEY MAP



TRAIL SECTION



of the rail spur, the DPM, and various precedent projects both locally and nationally. The trail sections are conceptual in nature and reflect what could be built for the Rail Spur Trail. Final designs would be part of later phases of trail development after funding is secured.

The section of the rail corridor from Lomas Blvd north to the point at which the rail spur separates from the main tracks has sufficient right-of-way width on the west side to accommodate a 25-foot buffer space and a 25-foot multi-use trail space. Since the minimum trail width according to the DPM is 10 feet, 15 feet is left for landscaping and other trail amenities, illustrated in ["Figure 11. Trail Section Looking North From Lomas Blvd" on page 36.](#) Range of costs for this section of trail are estimated to be \$250,000 to \$300,000 per mile.

The section of the rail spur that is elevated above the tracks is around 15 feet wide and 22 feet high, allowing for some horizontal space around the trail to incorporate landscaping, lighting and other trail amenities, as illustrated in ["Figure 12. Trail Section Looking West From Third St" on page 37.](#) Final dimensions that follow NMDOT and BNSF standards would be determined in later phases during design and construction. Range of costs for this section of trail are estimated to be \$250,000 to \$300,000 per mile with further design needed to determine costs of elevation.

West of Fifth St, the rail corridor maintains a right-of-way width of 40 feet or greater along the north side of the tracks. This allows for a 25-foot buffer

with a six-foot fence adjacent to a 15-foot wide space for the multi-use path and amenities, as illustrated in ["Figure 13. Trail Section Looking West From Fifth St" on page 38.](#)

CPTED DESIGN INTERVENTIONS

During many of the stakeholder meetings, business and property owners along the rail spur commented that security and cleanliness along the track is challenging, as homelessness in the area is high and homeless individuals often trespass and camp in the rail corridor. A future trail would improve the overall security of this area by introducing safe ways to navigate the rail corridor as well as beautification for areas that were overlooked prior to trail improvements. A well-designed pathway increases the number of recreational users in this area, increasing 'eyes on the street', a concept first developed by urban planner Jane Jacobs. When more activity occurs on the street, they become safer places for the community.

Using CPTED (Crime Prevention Through Environmental Design) principles, the Rail Spur Trail could be designed to greatly reduce or eliminate loitering and vandalism. CPTED principles are strategies that use site and building design methods to reduce the incidence and fear of crime. Implementing CPTED strategies throughout the trail corridor will help with crime prevention while also enhancing the visual qualities of the trail. Implementation strategies of the principles outlined below include landscape designs that provide



Bow & Arrow Brewing is located within the study area



The Popcorn Cannery is located adjacent to the rail spur corridor



Tractor Brewing Co is located adjacent to the rail spur corridor

surveillance, installing ample lighting, using view fencing at the shortest height possible, and quickly addressing any vandalism

TABLE 4. CPTED DESIGN PRINCIPLES

Natural Access Control	Natural access control refers to design strategy that is directed at decreasing crime opportunity. The primary goal of an access control strategy is to deny access to a crime target and to create a perception of risk to the offender. Design features attempt to deny offenders access to targets, reduce escape opportunities and guide legitimate users through the environment.
Natural Surveillance	Natural surveillance refers to a design strategy that is directed at keeping intruders under observation. Designing for natural surveillance involves providing ample opportunity for legitimate users, engaged in their normal activities to observe the space around them. Designs strategies revolve around the placement of physical features, activities, and/or people that maximizes natural visibility or observation.
Territorial Reinforcement	Territorial reinforcement refers to design strategy that realizes that physical design can create or extend a sphere of influence over a property. Design features are used to clearly delineate a space as public, semi-public, or private space and to create appropriate ownership of that space.
Maintenance	Maintenance refers to the continued use of a space for its intended purpose. It also serves as an additional expression of ownership. A good maintained creates a sense of ownership, which helps to deter criminals.

KEY IMPLEMENTATION STRATEGIES

In order for the Rail Spur Trail to be implemented along the rail spur corridor, certain strategies are recommended including potential right-of-way acquisition, a phasing strategy, as well as necessary city approvals.

POTENTIAL RIGHT-OF-WAY ACQUISITION

In the section spanning the block between Eighth St and Twelfth St, there is 15 feet between the north property line and the centerline of the tracks to the south; however, the fencing of the property to the north is set back between 25 feet and 53 feet, allowing potential for an access agreement with the City that would provide enough right-of-way for the Rail Spur Trail to pass to the north with the required 25-foot buffer.

Since the track is not currently used west of Twelfth St, it is recommended to negotiate an agreement with NMDOT to disregard the buffer restriction of 25 feet in order to accommodate a trail closer to the track that will better fit within the narrow right-of-way in this area. This may pose a problem where the track ownership is in possession of an absent, unidentified landowner at Aspen Ave. Because of this

separate ownership, potential coordination with the Department of Municipal Development to locate the Rail Spur Trail within the Aspen Ave right-of-way as a cycle track or bike lane is recommended.

It is also recommended that discussions between NMDOT and the City take place in order to allow for a transfer of ownership to the City of the tracks west of Twelfth St and north of Bellamah Ave. In this way, the City could initiate the process of abandonment with the individual property owners that would lead to allowing NMDOT to remove the tracks. Abandonment and discontinuance of railroad service is allowed by federal law which permits a carrier to end its obligation to provide common carrier service on a rail line.

PHASING STRATEGY

As some sections of the proposed alignment for the Rail Spur Trail will take more coordination and more funding than others, it is recommended to take a phasing approach for successful completion of the trail. The alignment is broken into three sections to be completed separately for all three alignments, shown in ["Figure 14. Alignment Option 1 Phasing Strategy" on page 42](#), ["Figure 15. Alignment Option 2 Phasing Strategy" on page 43](#) and ["Figure 16. Alignment Option 3 Phasing Strategy" on page 44](#).

Phase 1 for all alignment options runs from Lomas Blvd to the beginning of the rail spur that turns west. Because this section will connect to the Central Ave to Lomas Blvd Rail Trail that is slated

for construction in 2021, it will take little time to implement an extension north to the rail spur. The length of Phase 1 is approximately two-thirds of a mile and will require an agreement with NMDOT/BNSF for a short-term implementation.

Phase 2 runs from Twelfth St west to the New Mexico Museum of Natural History and Science. Negotiations surrounding parcels outside of NMDOT ownership are anticipated to take some time, indicating a mid-term implementation timeframe. This section of the trail, at three-quarters of a mile, is envisioned to serve as a community amenity for the Sawmill Community Land Trust and will include a connection to the I-40 Trail. Phase 2 for Alignment Option 2 extends south along Twelfth St to Bellamah Ave.

Phase 3 for Alignment Option 1 runs from the beginning of the rail spur west of First St, cuts through a City-owned property, then proceeds along Aspen Ave to Fifth St, where it runs north to the rail spur corridor. At this point, the rail spur corridor has sufficient right-of-way to accommodate the trail until the intersection with Seventh St. The trail then turns south along Seventh St to Bellamah Ave where it runs west to Twelfth St. The length of this section is approximately a mile and requires coordination with the Municipal Development Department because of its use of street rights-of-way. Because this phase also incorporates a segment along the rail spur corridor, coordination NMDOT/BNSF is necessary for successful completion.

Phase 3 for Alignment Option 2 runs from the beginning of the rail spur west of First St to Twelfth

St for 0.85 of a mile and will connect Phase 1 and Phase 2. This section includes the proposed elevated portion on the east end with a length of 2,000 feet as well as the portion on the west end that requires an access agreement between the City and the adjacent property owner. Since these elements are more time-consuming and costly, this section is considered within a long-term implementation timeframe, requiring extensive coordination with NMDOT/BNSF.

Phase 3 for Alignment Option 3 runs from the beginning of the rail spur west of First St, cuts through a City-owned property, then proceeds along Aspen Ave to Eighth St. At Eighth St, the alignment turns north and cuts west through the parcels north of the rail spur corridor. These parcels are owned by the Indian Pueblo Cultural Center. A public easement for the multi-use trail could potentially be established that runs either along the south property line, adjacent to the rail spur corridor, or through the property further to the north. At Twelfth St, the trail would connect to Phase 2 as it continues west into the Sawmill District.

CONCLUSION

While there are inherent constraints in developing a rail trail adjacent to the rail spur, this report concludes that it is feasible to create this type of facility. Of the three potential options for developing a rail trail, the preferred alternative is a combination of surface and elevated trail adjacent to the rail spur

line. The phasing strategy outlined in this report would enable the construction of the relatively easier segments of the trail, from Lomas Blvd to Aspen Ave and from Twelfth St to the terminus in the Sawmill District. This phasing strategy would allow more time to tackle the most constrained portion of the study area located between the main north/south rail corridor and Twelfth St.

The inconsistent width of the right-of-way along the active rail corridor presents the greatest constraint while the opportunity exists to capitalize on current investment in the area for further revitalization of this area. Three alignments are proposed that take into account these opportunities and constraints of the rail corridor, with the second alignment utilizing an elevated portion of the trail where the rail corridor width is extremely constrained. The project team held several public engagement opportunities with local stakeholders and received extensive support for the installation of a multi-use trail from property and business owners.

Urban trails, with their many benefits both socially and economically, are regarded more and more as essential elements of an urban landscape. With the existing rail spur already ideally creating a corridor that connects downtown to Old Town and the Sawmill District, a Rail Spur Trail along this rail spur would serve both residents of the neighborhood and act as a catalyst for revitalization of the area, bringing more visitors to the successful businesses located there.

FIGURE 14. ALIGNMENT OPTION 1 PHASING STRATEGY

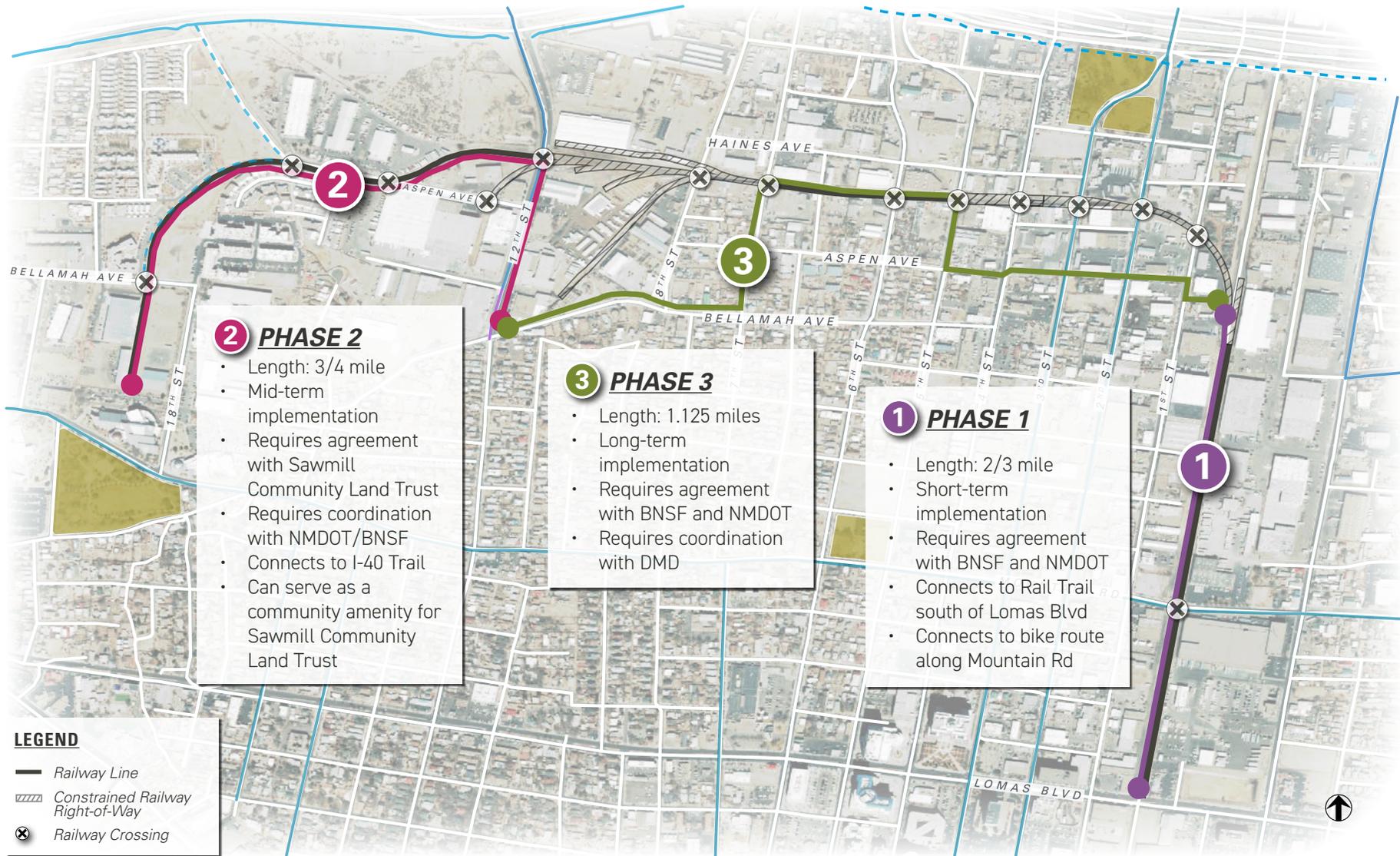


FIGURE 15. ALIGNMENT OPTION 2 PHASING STRATEGY

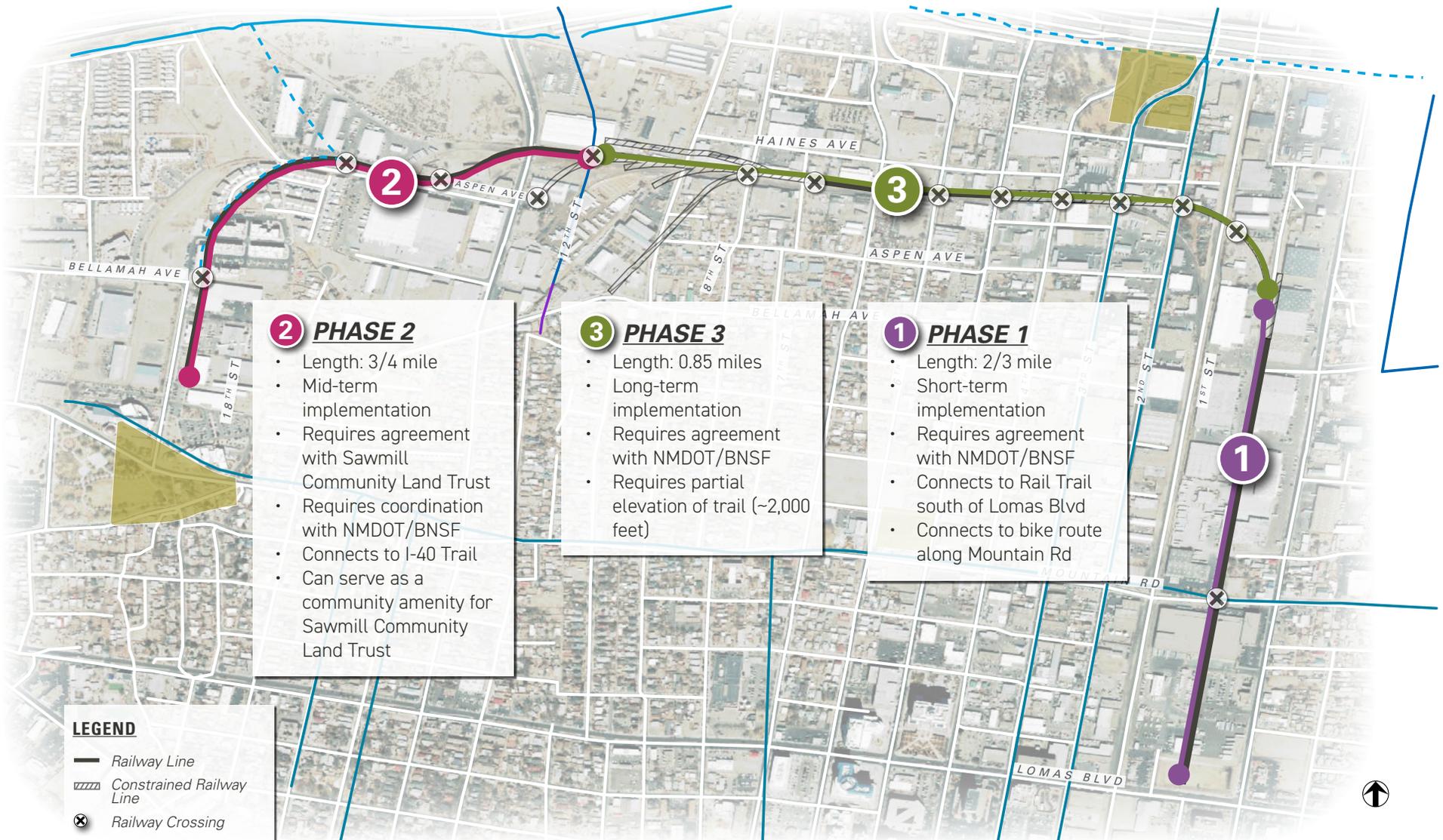
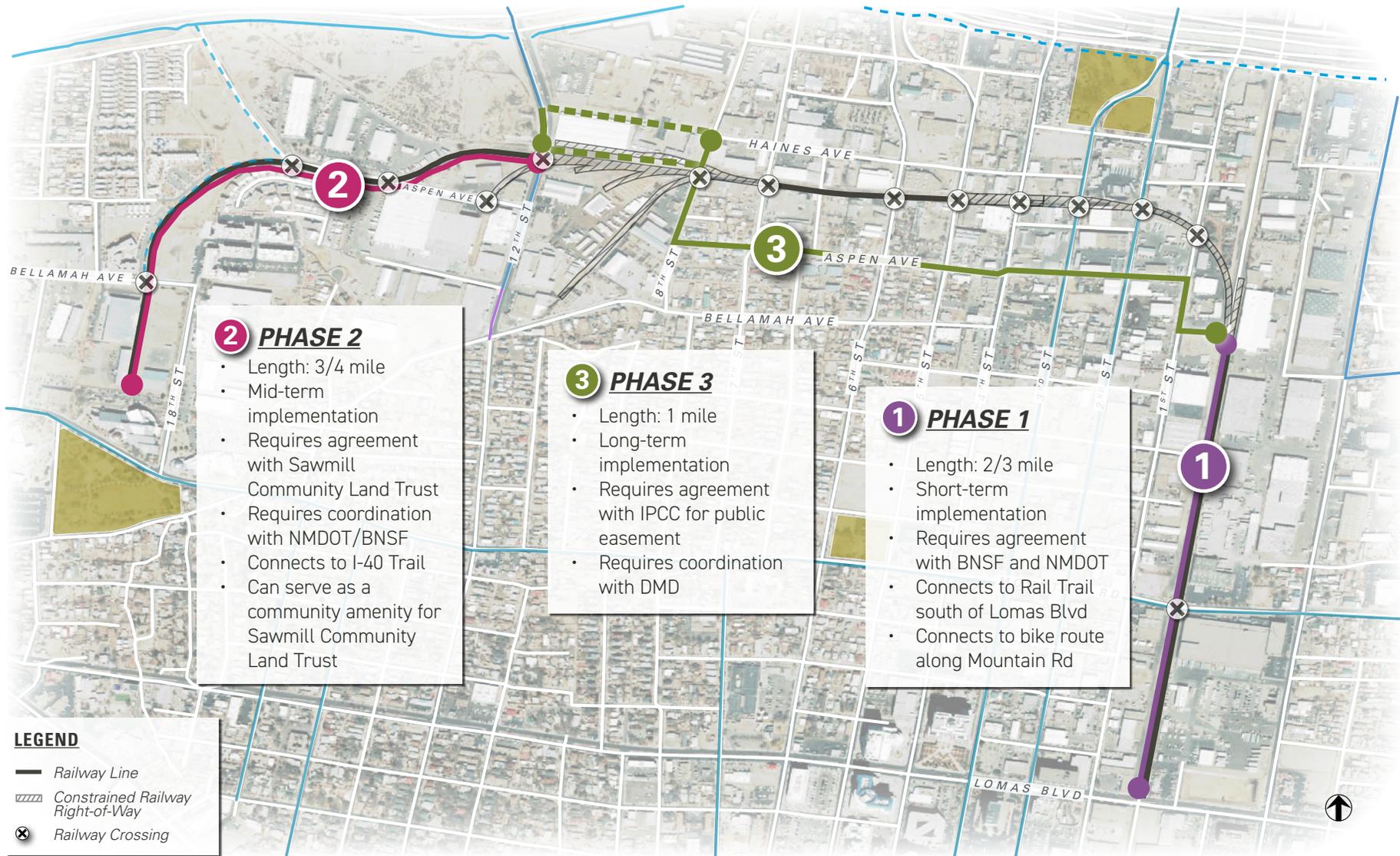


FIGURE 16. ALIGNMENT OPTION 3 PHASING STRATEGY



APPENDIX A

Concept designs for the elevated portion of Alignment Option 2 'Get Elevated' are provided below. Since the right-of-way is constrained to a degree that a trail is not possible on either side of the tracks in the section where the rail spur turns west off of the main line until Fifth St, the study recommends building an elevated section that is above the rail spur. Elevated trails are most often found in dense urban areas and have become a popular attraction for both locals and tourists. The elevated portion of this Rail Spur Trail, at about 2,000 feet of length, could serve as an iconic installation that exudes a sense of place and becomes a landmark for this area. The following concept designs illustrate potential themes for the elevated Rail Spur Trail.

FIGURE 17. ELEVATED TRAIL CONCEPT DESIGN: RAILROAD-INSPIRED DETAILS

A railroad-inspired concept design follows the style of the railroad with black ductile columns and interlacing arcs with delicate supports. A periodic steel shelter runs along the elevated trail surface to provide shade. The surface of the trail is all steel grating.

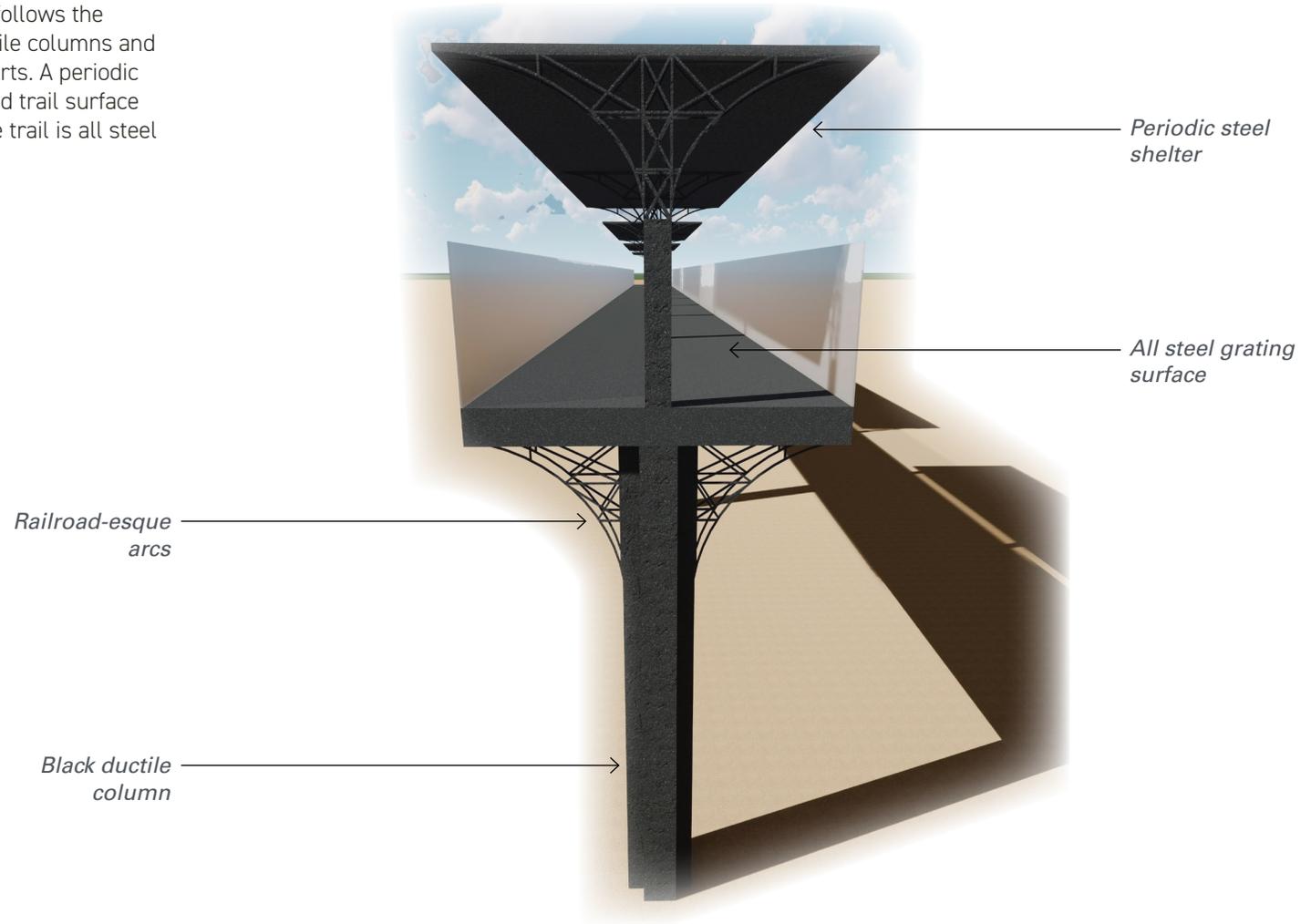


FIGURE 18. ELEVATED TRAIL CONCEPT DESIGN: RAILROAD-INSPIRED RENDERING



FIGURE 19. ELEVATED TRAIL CONCEPT DESIGN: ALBUQUERQUE RAIL YARDS-INSPIRED DETAILS

An Albuquerque Rail Yards-inspired concept design follows the Rail Yards buildings that feature glass panes of various colors. An internal light source causes the columns to light up at night. The column extends through the surface of the trail creating a light well that illuminates the trail surface at night. Ductile iron structural supports add to a railroad-esque design.



A photo showing Albuquerque Rail Yards with early morning sunlight illuminating the interior structure.

Rail Yards glass emulation

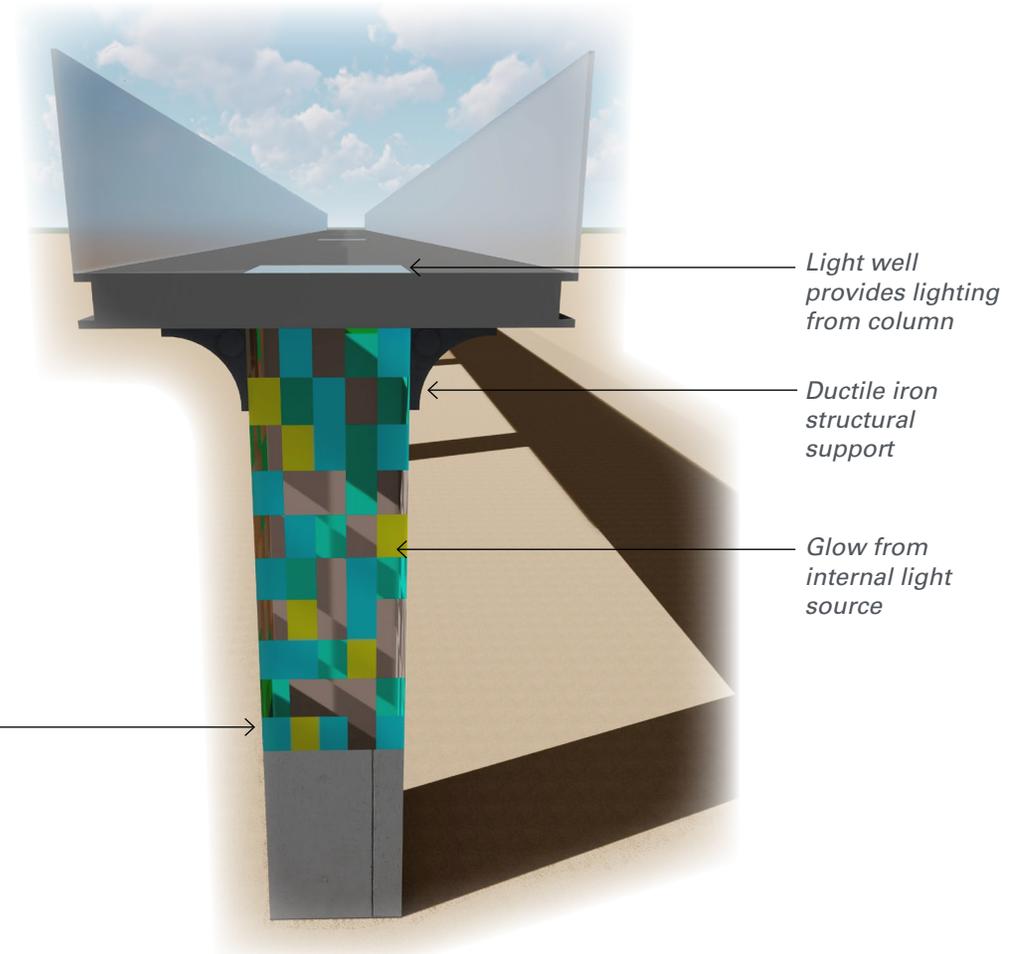


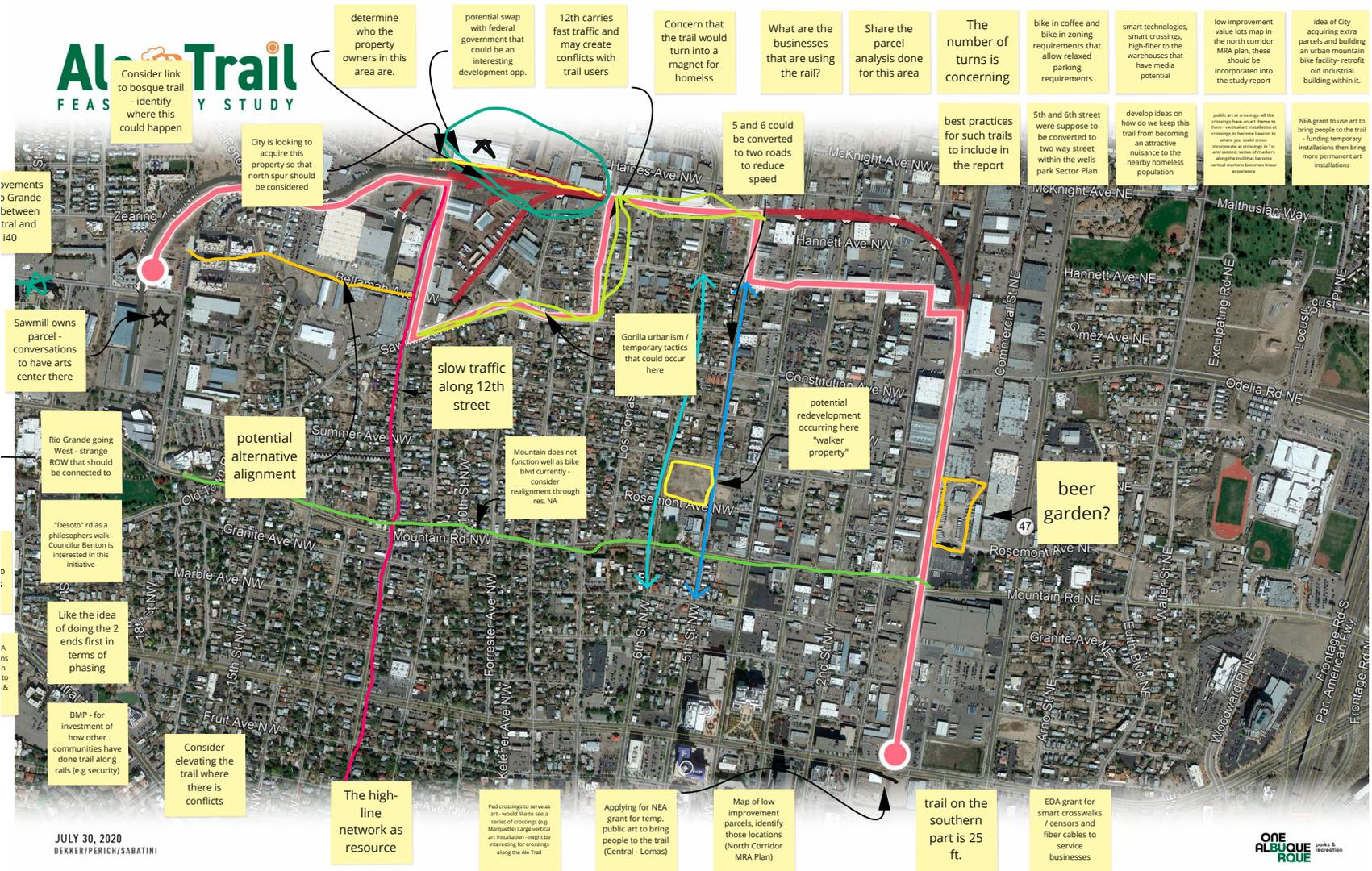
FIGURE 20. ELEVATED TRAIL CONCEPT DESIGN: ALBUQUERQUE RAIL YARDS-INSPIRED RENDERING



APPENDIX B

The following are notes taken during stakeholder meetings. Because of the restrictions surrounding the COVID-19 pandemic, meetings were held virtually using Zoom (web-based meeting platform). The notes were taken via Miro (web-based collaborative whiteboard) by the project team during the discussion portions of the meetings.

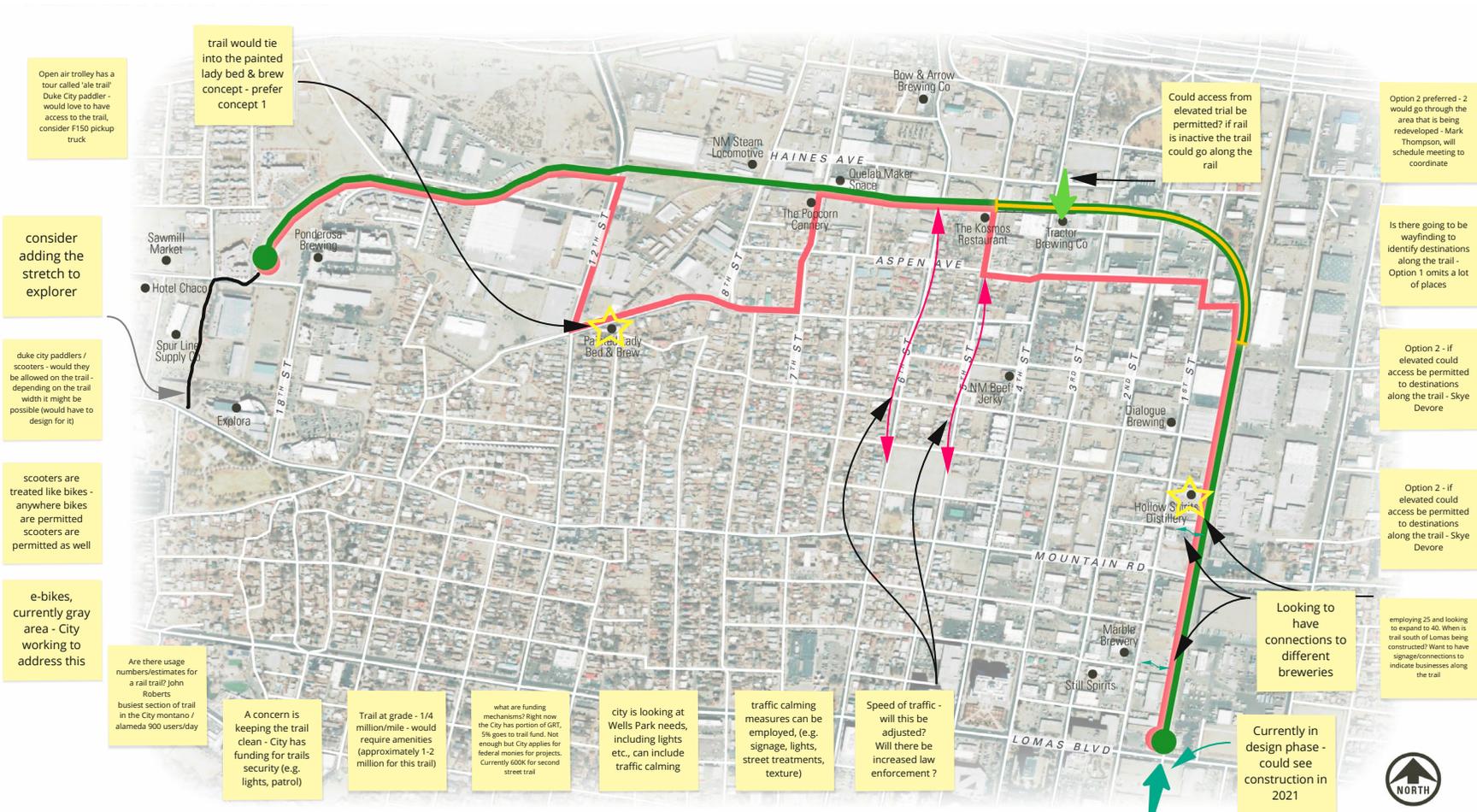
FIGURE 21. CITY STAFF STAKEHOLDER MEETING NOTES



JULY 30, 2020
DEKKER/PERICH/SABATINI

ONE ALBUQUQUE
arts & recreation

FIGURE 22. BUSINESS AND PROPERTY OWNER STAKEHOLDER MEETING NOTES



SEPT 2020

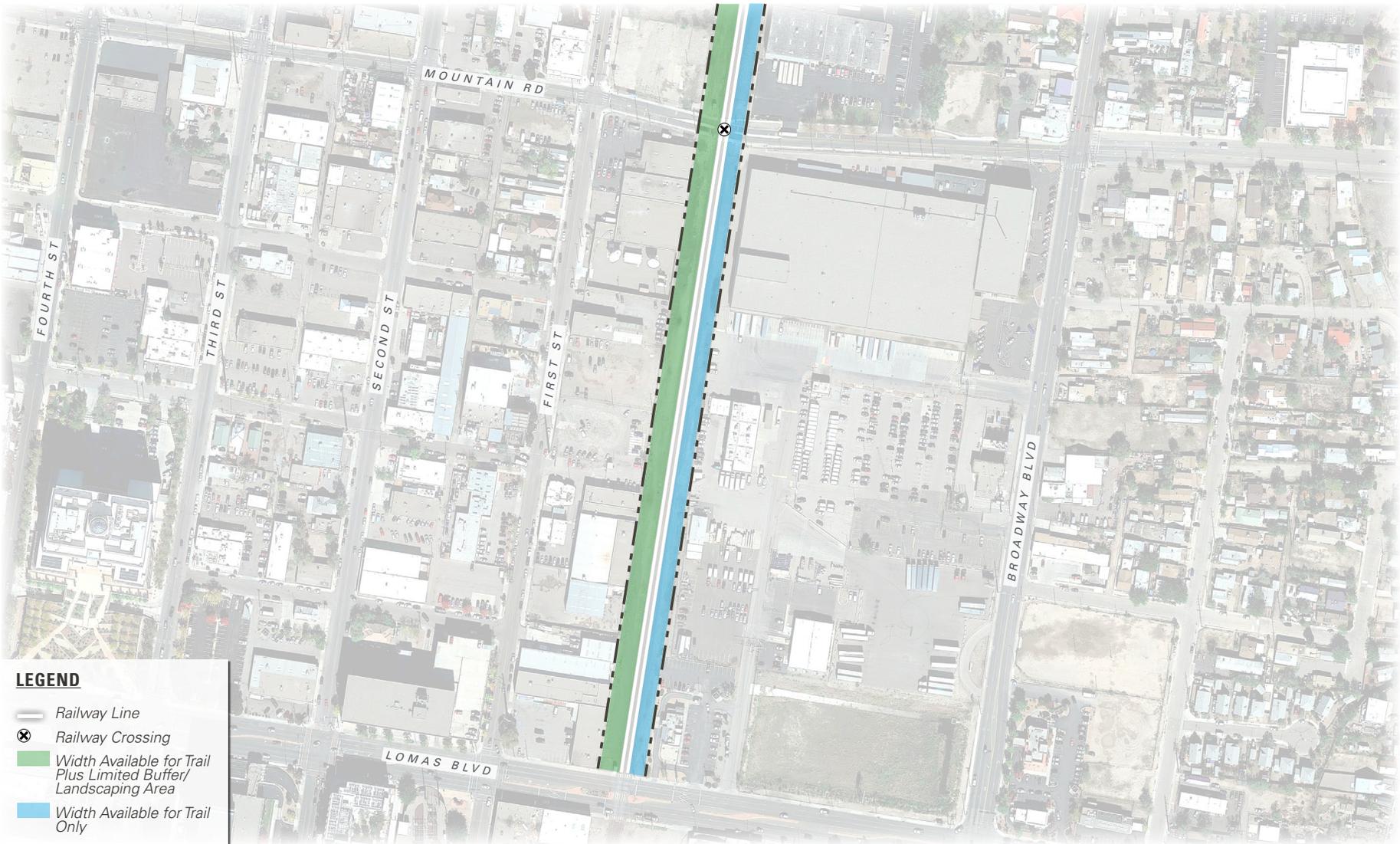
DEKKER/PERICH/SABATINI

ONE ALBUQUERQUE
parks & recreation

APPENDIX C

Within the rail corridor, there are multiple sections that are constrained to less than the 60-foot minimum standard right-of-way width due to encroachment agreements with adjacent landowners. Some areas narrow to 30-foot right-of-way widths where encroachment agreements exist. The minimum buffer distance mandated by NMDOT between the centerline of a track and any trail development is 25 feet with a separation fence. With the addition of a 15-foot trail right-of-way, the total minimum width required for the multi-use trail is 40 feet along one side of the track. Right-of-way exhibits for the Rail Spur Trail corridor are detailed below.

FIGURE 23. RIGHT-OF-WAY ANALYSIS - LOMAS BLVD TO MOUNTAIN RD



LEGEND

-  Railway Line
-  Railway Crossing
-  Width Available for Trail Plus Limited Buffer/Landscaping Area
-  Width Available for Trail Only

FIGURE 24. RIGHT-OF-WAY ANALYSIS - MOUNTAIN RD TO RAIL SPUR



FIGURE 25. RIGHT-OF-WAY ANALYSIS - FIRST ST TO FIFTH ST



FIGURE 26. RIGHT-OF-WAY ANALYSIS - FIFTH ST TO EIGHTH ST

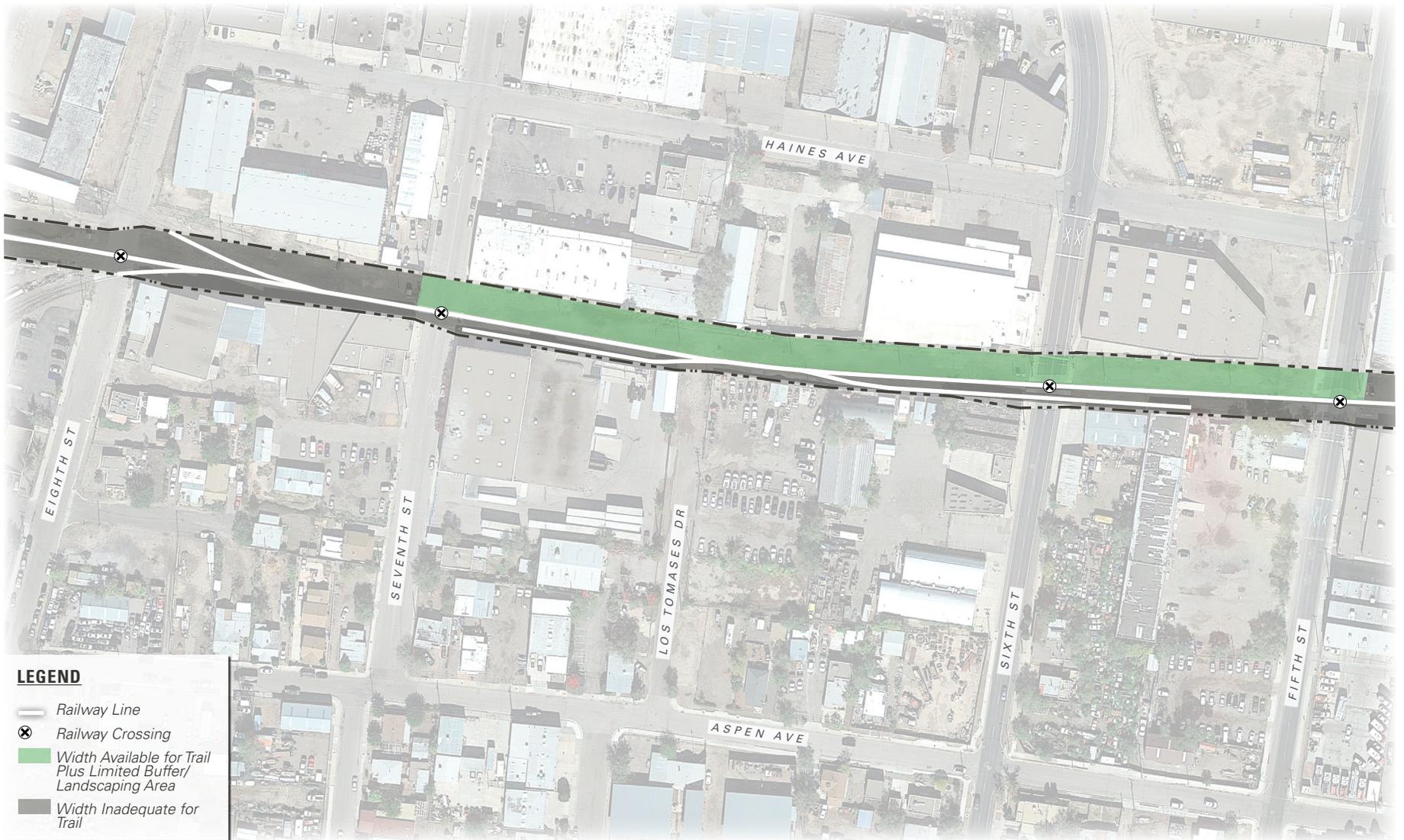


FIGURE 27. RIGHT-OF-WAY ANALYSIS - EIGHTH ST TO ASPEN AVE

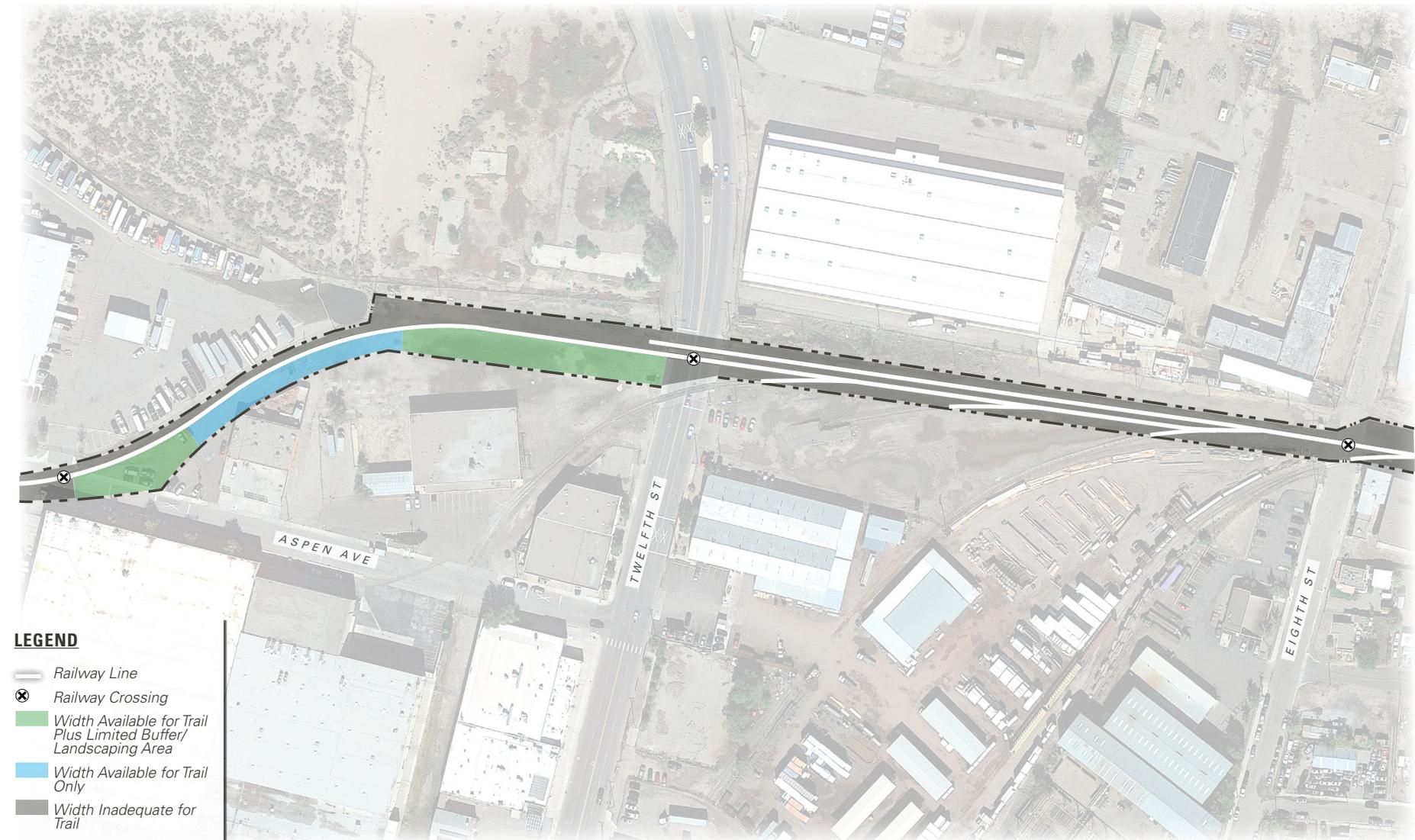


FIGURE 28. RIGHT-OF-WAY ANALYSIS - ASPEN AVE TO BELLAMAH AVE



FIGURE 29. RIGHT-OF-WAY ANALYSIS - BELLAMAH AVE TO NM MUSEUM OF NATURAL HISTORY AND SCIENCE

