EAST CENTRAL

PARK-N-RIDE

2023 FEASIBILITY STUDY

ONE ALBUQUERQUE transit

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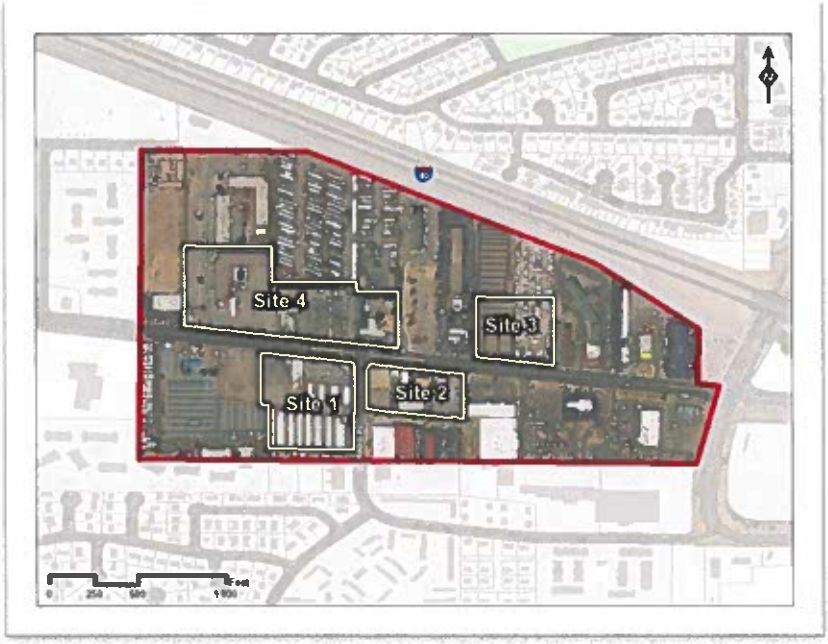
To: Directors Keener, Davis, Sisneros and Payton
From: Lawrence Kline FAICP
In Re: Far East Central Park and Ride Site Selection
Date: July 27, 2023

The driving force underlying this feasibility study was observations made by the public during the approval process for the new Singing Arrow Community Center. While many of the assertions made concerning transit service at Tramway and Wenonah were unfounded, one observation struck us a substantive – that elsewhere in the City at the ends of routes we provided off-street turn-arounds for buses and that we should do the same here.

Our first assay was to find another area on the surface street system where buses could lay-over. In that effort (aided by Parametrix) we looked at a dozen possibilities. Many solutions involved topographic issues or issues of high cost. But most all led to divorcement of the Motor Coach Operators from reasonable access to driver essentials at the end of the routes, or to significant lengthening of service distances and times requiring additional buses and drivers. (*Tramway-Wenonah FINAL Report Rev 01-07-19,* Parametrix)

Figure 1: Study Area



In November 2019, a work-order was issued to Bohannon-Huston, Inc. to perform a Feasibility Study related to four sites at and near the Dorado Place/Central Avenue intersection. (*East Central Park-and-Ride 2023 Feasibility Study*, Bohannon-Huston, Inc.) The study area was defined by ABQ RIDE as vacant land to the west; the right-of-way of Skyline Drive to the north; the west right-of-way line of Tramway to the east, and the edge of the existing commercial uses to exclude residential areas to the south of Central.

The Dorado Place/Central focal point was chosen as a point through which all Tramway-Wenonah services already passed (Routes 777, 66, and 1) and was associated with the traffic signal closest to the Tramway/Central Avenue intersection.

As part of the Feasibility Study, FHP of Denver performed a demand assessment. FHP used two scenarios which contrasted how the facility would be used. The first scenario assumed only a mode-shift figure. The second scenario assumed that the student mode share would be higher due to limited parking accessibility at UNM.

Table 16: Demand Assessment Summary

Trip Purpose	Scenario 1		Scenario 2	
	Total Trips	*Needed Parking Spaces*	*Total Trips*	*Needed Parking Spaces*
Work	205	51	116	36
School	60	16	117	51
Other	103	33	91	29
TOTAL	368	100	324	116

This set a baseline for land needs. To this was added the footprint of the CUTC as a guide to the size of the bus facility itself and the required areas for landscaping, drainage, circulation, layover and so on were notionally added based on standard practice and City codes. This resulted in an estimate of land requirements of approximately 3.67 acres on average.

Table 34: Requirements in Acres by Feature for Proposed Park-and-Ride Sites

Site Feature (Acres)	Notes	Site 1	Site 2	Site 3	Site 4^
Transit Operations	Fixed	1.06	1.06	1.06	1.06
Parking Area	Fixed	0.75	0.75	0.75	0.75
Landscaping	15%	0.75	0.41	0.46	1.33
Drainage	Varies	0.09	0.05	0.14	0.31
Contingency (e.g. Additional Site Features/Circulation)	20%	1.01	0.54	0.61	1.77
Total Acres Needed		3.66	2.81	3.02	5.2
Actual Site Size		5.03	2.71	3.07	8.87
Share of Site from Required Elements (plus Contingency)		72.8%	103.8%	98.5%	58.9%

^Site 4 requirements are based on the assumption that the entire 9-acre parcel is utilized for the park-and-ride facility. In practice, a smaller site would be sufficient to meet facility needs, which would reduce the amount of land required for landscaping and drainage features.

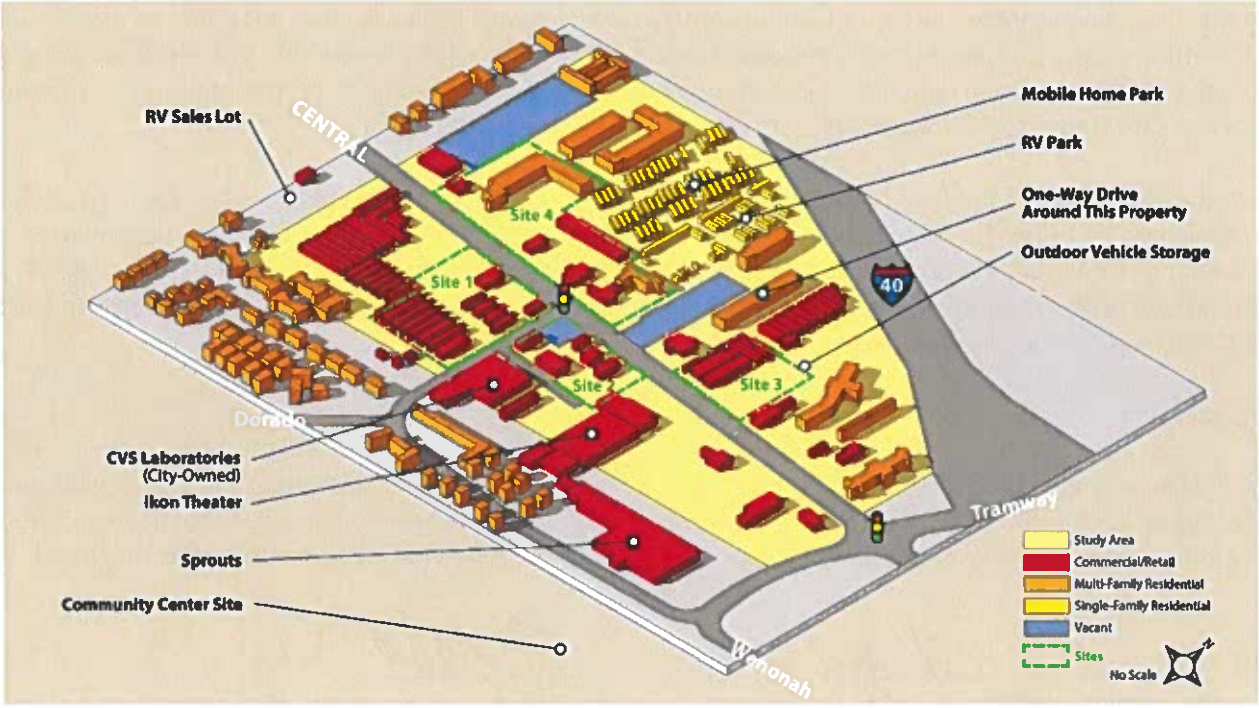
Bohannon Study at page 61

Existing utilities, drainage conditions, requirements for access across the site, and (in particular) the current ***use*** of the properties regardless of zoning, were taken into account. The land use factor is important because, in every case, the requirements of 49 CFR 24 (The Uniform Rule for acquisition of right-of-way) would need to be observed. (The four sites are mapped against land use in Figure 2, below.)

Sites 2 and 3 were fairly immediately discarded: Site 2, while almost big enough, is probably too small to efficiently construct the project. Site 2 could be expanded by the vacation and incorporation of the right-of-way of Cochiti Road SE, which forms its southern boundary. However: CVS Laser Optics (a City-owned laser technologies facility) has three entrance gates on Cochiti Street, including their shipping/receiving dock.

Site 3 was also eliminated. It is just barely big enough for the purpose and, while it has access to Central Avenue that access is not signalized and would be unlikely to meet warrants for a signal. Expanding its size would also require taking yet more of the Albuquerque Self Storage site, possibly yielding a requirement for a "full take" and leaving the City with a relatively useless multi-acre remnant. If not, then access across the park-and-ride to the remnant would be required. This is a problem with any site on the north side of Central. There is a second tier of land use north of the first tier which abuts Central, and access to the second tier is often obtained by "easements" (some legal, some not) that would have to be maintained for the purpose.

Figure 2: Site Locations with Respect to Land Use



This left Site 1 and Site 4 as the more desirable candidates. On the distinctions between them the Feasibility Study can speak for itself:

> *"Site 1 and Site 4 each provide clear benefits and modest drawbacks. Both Site 1 and Site 4 allow transit vehicles and motorists to utilize the signal at Dorado Place to access the site, and both sites can accommodate all anticipated operation needs. Site 1 provides the greatest level of access for pedestrians and would allow users to access residential areas and the Four Hills Shopping Center without crossing Central Avenue. However, the site is less proximate to potential TOD sites in the Study Area. Due to its size, Site 4 offers the greatest flexibility as well as a high level of proximity to developable land, which could positively influence the urban form in the area. Drawbacks to Site 4 include the presence*

of utilities that would affect site layout and the need to mitigate off-site drainage. An additional challenge for Site 4 is the potential presence of access easements for parcels to the north of the site. Based on the likely paths for pedestrians to access and egress the site, a designated pedestrian crossing of Central Avenue is recommended from 1/8 to 1/4-mile west of Dorado Place as part of larger improvements associated with Site 4."

To this analysis, one can add the consideration of ***land use*** (See Figure 2). On Site 4, part of the property needing to be acquired is used for residential purposes in the form of "extended stay motels". As you know, the acquisition and relocation requirements for residential uses are stringent. Displacing residents of low-cost housing developments should occur only as a last resort and if substantial public benefit is to be gained. Developing the Central Avenue frontage as a park-and-ride site will also complicate the matter of access to the second tier of properties north of Central which require access across the land that would be acquired for the park and ride. In a time of serious housing shortfalls, buying and converting residential property in this location to non-residential purposes is contraindicated, both due to the loss of housing stock but also because of the "disruption of community cohesion."

Part of Site 1 is vacant, while the remainder contains a self-storage business. Thus it is entirely commercial in nature, except perhaps for the caretaker quarters at the Tijeras Self Storage site. While still requiring a Real Estate Acquisition and Management Plan (RAMP) and still subject to the Uniform Rule, the requirements for acquisition and relocation of a business are less stringent.

At the conclusion of the Feasibility Study Phase, a public input session was also held on March 1, 2023 *(Appendix "B" to the Feasibility Study).* None of the comments acted as a singular deterrent to placing a park-and-ride in the area, and the favorability of Sites 1 and 4 was approximately equal. It was suggested that there might be some over-reach in the number of parking spaces to be built and suggestions we start off with something more reserved.

Conclusion

On balance, and in particular view of the [1] need to retain existing housing to meet other City goals and [2] the lesser burden of buying commercial property as opposed to residential property, the acquisition of Site 1 in the southwest quadrant of the Dorado Place/Central Avenue intersection is recommended.

Concur: _____ 7/27/23
Leslie Keener, Director — Date

Concur: _____ 7-27-23
Michael Davis, Deputy Director — Date

Concur: _____ 7.28.23
Bobby Sisneros, Deputy Director — Date

Concur: _____ 7.31.2023
Chris Payton, Associate Director — Date

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Introduction

Purpose and Overview

The purpose of the East Central Park-and-Ride Feasibility Study is to identify and prioritize a preferred site(s) for a park-and-ride facility along Central Avenue near Dorado Place about 1/3-mile west of Tramway Boulevard. A park-and-ride facility in the general area is a priority for ABQ RIDE as a means of improving access to transit and as an anchor and turn-around point for the Albuquerque Rapid Transit Green Line and other local bus services. The study consisted of two phases: 1) Market demand analysis to identify potential users and parking requirements for the park-and-ride and 2) Site selection analysis to evaluate four general sites identified by ABQ RIDE staff for their ability to meet site requirements and transit service objectives. All analysis and conclusions in the report are subject to review by City staff who will then select one location to bring forward in a second contractual phase for preliminary design and refinement of development requirements. Following the completion of these two phases, a third phase will involve full NEPA documentation, Federal Transit Administration approval, property acquisition, final site design, and construction.

Market Demand Analysis: Components of the market study included defining potential commuters within a catchment area, including students at the University of New Mexico and Central New Mexico Community College, and an estimation of the likely number of trips to the park-and-ride facility by mode of transportation. A key product of this analysis is an estimated number of parking spaces required to meet the demand for the site.

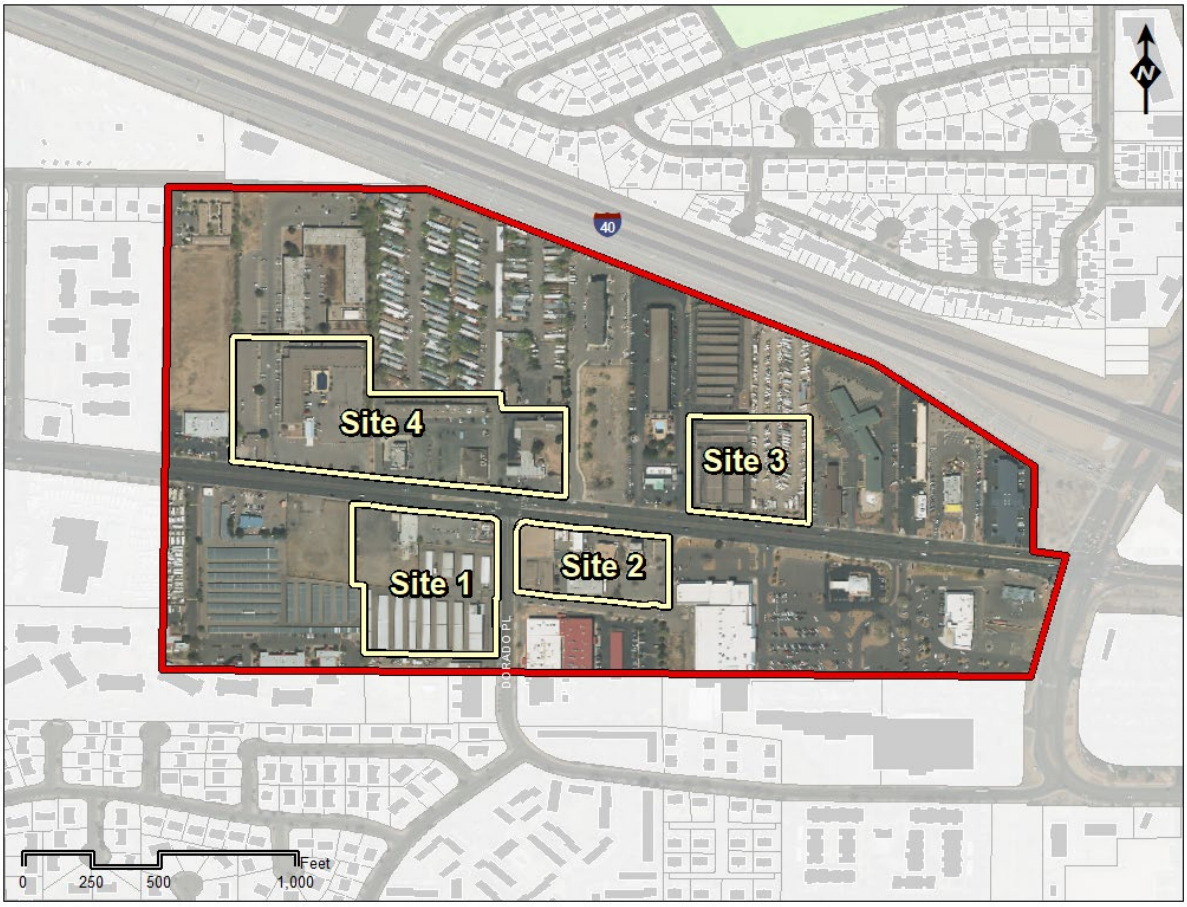
Site Selection Analysis: As part of the site selection phase, the Project Team conducted an independent review of the four sites based on a series of screening criteria. The analysis considered a range of desired characteristics, such as ease of access for pedestrians and motorists; proximity to nearby businesses, job sites, and nearby development opportunities; functionality of transit operations; and impacts related to utilities, drainage, and environmental issues. Other general considerations include the demographic characteristics of residents in the Study Area and the surrounding land use context.

This study also documents the transit operation's requirements for the proposed park-and-ride facility and considers the space required to meet those operational needs. Beyond the basic function of creating a bus platform and parking lots for park-and-ride customers, other desired characteristics of the site include bus bays to support bus layovers and boarding and alighting of multiple routes at the same time, a drop-off zone for "kiss-and-ride" trips, accommodation of micro-mobility modes, a passenger waiting area, and driver amenities such as a bathroom.

Study Area Location and Regional Context

The Study Area is located near the eastern extremity of Central Avenue, a major transit thoroughfare across the City of Albuquerque. The Study Area includes the terminus for multiple routes, including Route 66 (Central Avenue) and the Albuquerque Rapid Transit (ART) Route 777 "Green Line," which both provide frequent all-day service. The Study Area boundaries include I-40 to the north, Tramway Boulevard to the east, approximately 600 ft south of Central Avenue, and approximately 950 ft west of Dorado Place.

Figure 1: Study Area



Improving transit service and user amenities has the potential to address regional transportation objectives, including bringing more housing and residents within close proximity of premium transit services. Existing transit service in the area of Central Avenue and Tramway Boulevard is already highly utilized and provides critical transportation access for nearby residents. A formal park-and-ride facility could further enhance ridership and facilitate additional transit trips to locations along Central Avenue, such as the University of New Mexico and Downtown where free parking is less readily

available. A park-and-ride facility in the Study Area could also bring additional investment to the area and may serve to catalyze transit-oriented development activities.

Study Area Potential Benefits

Address Transit Operations Challenges

A major impetus for the study is addressing conflicts in the area associated with existing transit operations, including the current turn-around system at the intersection of Tramway Boulevard and Wenonah Avenue where buses are parked during layovers. Among the considerations for ABQ RIDE is the concern voiced by neighborhood groups at the level of circulation of transit vehicles south of Central Avenue. At present, the stops for Route 1 and Route 66 are located west of Tramway Boulevard on the north side of Wenonah Avenue. The stop for the ART Green Line is located along the west side of Tramway Boulevard to the north of Wenonah Avenue. Existing transit routes, including ART, use right turns to Tramway Boulevard, Wenonah Avenue, and Dorado Place to turn around when the lines reach their eastern limit. Some neighbors have complained that when multiple buses need to layover at the same time, they believe buses can obstruct the intersection and create challenges for drivers making the right turn onto Wenonah Avenue. The buses also turn into and layover in a bike lane on westbound Wenonah Avenue.[1] Following the layover, buses make the left onto Central Avenue from Dorado Place to begin their westbound journey. The light cycle at this intersection favors Central Avenue traffic, so buses sometimes wait for long periods of time before turning.

Previous planning efforts to identify better locations for bus layovers using surface streets considered up to a dozen locations for layover points and other on-street improvements. However, ABQ RIDE identified two recurring issues that could not be resolved by relocating route layover points to the proposed locations: 1) places for motor coach operators to access restrooms and services, and 2) a desire to avoid adding mileage and time to routes that would result in the need for more buses to maintain the same level of service. These issues could be addressed with a dedicated transit center in the area that allows buses to be pulled completely off the road to a park-and-ride lot.

Regional Mobility and Access to Jobs and Services

There are a high number of existing transit trips in the Study Area and residents in the immediate vicinity use transit for commuting purposes at a rate several times the City average (see the Demographics section). Improved transit service can increase access for residents of nearby neighborhoods to services and regional employment opportunities, while high-quality user amenities and waiting areas at a park-and-ride facility may make transit an attractive alternative for commuters looking to avoid westbound traffic congestion at peak hours, especially since ART service along

[1] Though an official bike lane on the City's bike map and signed as a bike lane, no bike lane stencils are present.

Central Avenue west of Louisiana Boulevard features dedicated infrastructure. The facility can also serve the surrounding businesses by making it easier for workers to reach job sites near the park-and-ride facility.

Transit Oriented Development

The facility also presents an opportunity to catalyze transit-oriented development (TOD) along the ART corridor and to bring more housing and residents within close proximity of transit as recommended by the Albuquerque/Bernalillo County Comprehensive Plan. The guiding principles of TOD are to create compact and walkable centers of activity that encourage transit use and provide pedestrian-scale street design. In addition, TOD reduces reliance on personal vehicles by making transit a viable transportation option.

Several factors make the Study Area a viable candidate for TOD activities. Existing land uses – such as the Four Hills Shopping Center, extended stay motels, and residential areas to the south of the Study Area – already generate transit trips and create some of the pre-conditions for mixed-use development. Zoning supports medium to high-density mixed-use development and there are several vacant parcels where developers have demonstrated interest in multi-family housing near Central Avenue and Dorado Place. In addition, in the City of Albuquerque Integrated Development Ordinance, proximity to premium transit station areas reduces certain site development needs, such as parking minimums and landscaping requirements. See the section on Policy Guidance for additional discussion, including designations from the Comprehensive Plan.

View along Central Avenue near Dorado Place; vacant parcel north of Central Avenue with potential for transit-oriented redevelopment.

Study Area Characteristics

This section describes the existing transportation conditions, transit services, land uses, and zoning in the general Study Area. Specific conditions and implications for the proposed sites are discussed in the Site Selection Analysis section.

General Transportation Conditions

Roadways

Existing Conditions

Central Avenue, once Route 66, is currently a four-lane principal arterial roadway with a center turn lane. The corridor features a relatively high-speed limit (40 MPH) and moderate levels of traffic. As of 2021, Central Avenue experienced about 16,000 cars per day east of Dorado Place and 21,000 cars per day west of Dorado Place. At a regional level, Central Avenue features a river crossing and provides an east-west connection across Albuquerque, though I-40 is more commonly used as a long-distance commuting route. Central Avenue becomes a state highway (NM 333) to the east of Tramway Boulevard.

Bounding the Study Area on the east, Tramway Boulevard is a north-south principal arterial that provides access from Central Avenue and I-40 to the Far Northeast Heights. Dorado Place is a major collector that runs south from Central Avenue to Wenonah Avenue and nearby residential neighborhoods. Wenonah Avenue is an east-west major collector that travels between Dorado Place and Tramway Boulevard and runs parallel to Central Avenue.

Table 1: Summary of Major Roads Near the Study Area

Route	Functional Classification	Travel Lanes	Speed Limit	Traffic Volume (2021)	Sidewalks
Central Avenue	Principal Arterial	5*	40 MPH	16,000-21,000	6’ / No buffer
Dorado Place (N. of Wenonah Avenue)	Major Collector	2	25 MPH	2,400	4’ / Buffer
Dorado Place (S. of Wenonah Avenue)	Local	2	25 MPH	N/A	4’ / Buffer on northwest side
Tramway Boulevard (N. of Central Avenue)	Principal Arterial	6*	45 MPH	26,200	6’ / No buffer
Tramway Boulevard (S. of Central Avenue)	Principal Arterial	6*	35 MPH	12,700	6’ / No buffer
Wenonah Avenue	Major Collector	2	25 MPH	3,100	5’ / Buffer
Western Skies Drive	Local	2	25 MPH	N/A	5’ / No buffer

** Includes center turn lane*

Central Ave Reconfiguration

In 2021, the City of Albuquerque restriped Central Ave and reconfigured the outside travel lanes between Western Skies Dr and Tramway Blvd. Prior to the reconfiguration, the roadway had six though-lanes with a center turn lane. The reconfiguration removed the outside travel lane in both directions and replaced it with hatched buffer stripping. At intersections and major driveways, the buffer area transitions into right-turn lanes. The striped buffer area helps separate the sidewalk from high-speed traffic while maintaining level of service for vehicles, as the roadway design capacity exceeded traffic levels. Buses are able to access curbside bus stops by pulling over into the buffer area to the sidewalk.

The striped buffer area presents opportunities for transit operations, as buses could use the space for right-turn lanes into a Park and Ride facility and/or merge lanes to exit the facility.

Bicycle and Pedestrian Facilities

Sidewalks along Central Avenue are in generally good condition. Though there are no landscaped buffers to separate pedestrians from auto traffic, there was a lane reduction/restriping on East Central Ave in 2021 that replaced the outside through-lane with a striped buffer area, which serves to move fast-moving vehicles further from the sidewalk and increase comfort for pedestrians. Obstructions are present along some portions of the sidewalk and sidewalk surfaces are uneven in some places where driveways are present. Traffic signals with pedestrian crossings are located about 1/3-mile apart at the intersections of Central Avenue/Tramway Boulevard and Central Avenue/Dorado Place. The nearest traffic signal and pedestrian to the west of Dorado Place is at Western Skies Dr, a distance of slightly more than 1/3-mile.

Existing bikeways through the Study Area are limited to unmarked bike lanes along Wenonah Avenue and an 8-10’ multi-use trail on Tramway Boulevard, which runs to the north from Central Avenue. See the discussion on Bicycle and Pedestrian Connections in the Site Selection Analysis section for additional information, including opportunities for additional pedestrian crossings.

Transit agency experience has found that shops and transit stops near Central Avenue and Tramway Boulevard are often reached via foot, even though non-motorized access can be challenging. I-40 is a significant physical and psychological barrier on the northern side of the proposed park-and-ride facility sites; Juan Tabo and Tramway Boulevards are the only ways to cross I-40 in the area and offer poor and/or indirect bicycle and pedestrian connections.

Safety

Crashes at the major intersections along Central Avenue through the Study Area occur at rates slightly above the regional average. During the period from 2013-2017, half of the total crashes at the Dorado Place intersection were classified as severe (23 of 46), while 30% of the crashes at Tramway Boulevard were classified as severe; the average for the City of Albuquerque is also about 30%. Crashes involving pedestrians also occur at a rate above the regional average around the

intersection of Central Avenue and Dorado Place. Analysis by MRCOG indicates that crashes do not occur at rates above the regional average along the corridor between Dorado Place and Tramway Boulevard.

Table 2: Crashes within Study Area

Location	Total Crashes (2013-2017)	Total Pedestrian Crashes (2013-2017)	High Fatality and Injury Network - Intersection Crashes	High Fatality and Injury Network - Pedestrian Crashes
Central Avenue & Tramway Boulevard	162	5	>1x Above Mean	>1x Above Mean
Central Avenue & Dorado Place	46	5	>1x Above Mean	Below Mean

Source: MRCOG; Crash rate data is taken from High Fatal and Injury Network (2011-2015)

Transit

Existing Services

ABQ RIDE Routes

ABQ RIDE operates three all-day routes in the Study Area, and it is expected that the proposed park-and-ride facility would serve all existing services. Existing services include the **ART Green Line** (Route 777), which replaced the Rapid Ride Green Line with Bus Rapid Transit (BRT) service. While East Central Ave is served by BRT service, the roadway does not include BRT-style dedicated bus lanes and median boarding platforms, which are located to the west of Louisiana Boulevard. Other ABQ RIDE routes that serve the area include **Route 1**, which provides local service north and south along Juan Tabo Boulevard, and **Route 66**, which provides local service on Central Avenue alongside the ART lines. Route 66 is the most heavily utilized local route in the ABQ RIDE system. Each route currently terminates with a scheduled layover at the intersection of Tramway Boulevard and Wenonah Avenue.

A high level of transit ridership is already present in the Study Area. The ART stop at Tramway Boulevard carries about 3-4% of activity along the route (an average of 208 trips per day). Based on recent boarding and alighting data conducted by ABQ RIDE prior to the COVID-19 pandemic, about 320 users per day boarded the Route 66 from stops in the Study Area and an average of 58 users a day boarded Route 1. From transit agency observations, current informal park-and-ride activity is minimal and local stores were previously unwilling to provide spaces for park-and-ride use.

Figure 2: ABQ RIDE Routes in Study Area

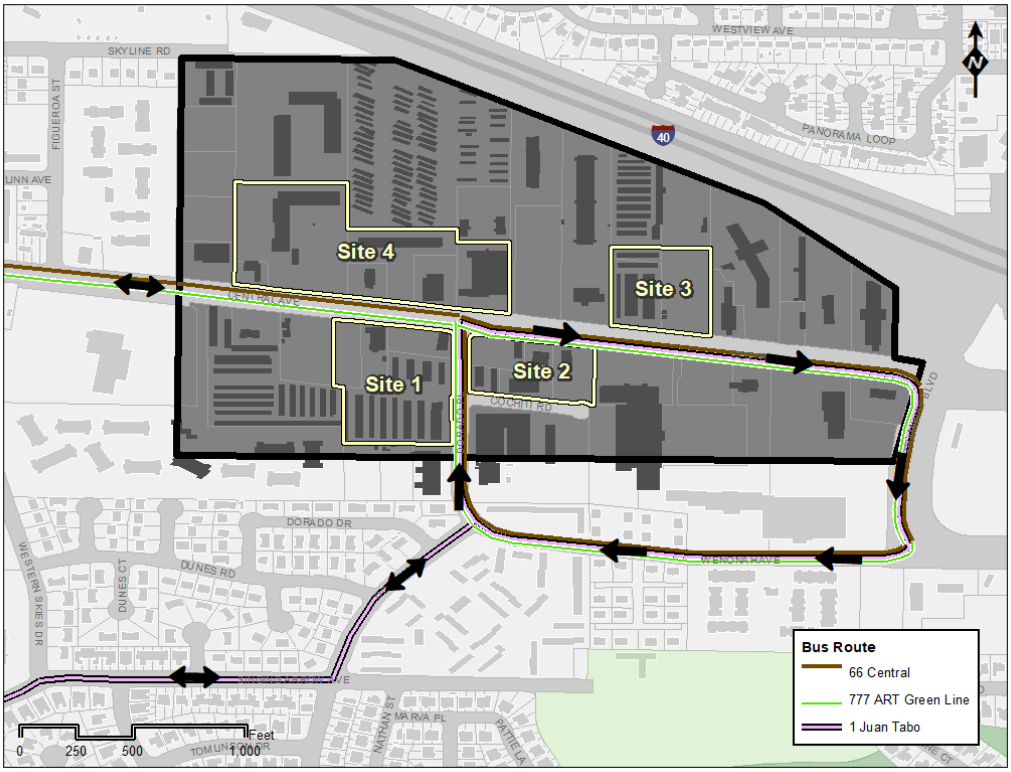


Table 3: Summary of Existing Transit Services

Route	Name	Service Type	Ridership (2018)	Service Hours	Frequency	Current Stop Locations
1	Juan Tabo Boulevard	Local	141,735	**Weekday:** 6 AM - 6PM **Weekend:** 10 AM - 5 PM	**Weekday:** Every 30-45 minutes **Weekend:** Every 70 minutes	- Central / Dorado (EB) - Central / Tramway - Wenonah (WB) - Dorado (WB)
66	Central Avenue	Local	2,062,213	**Weekday:** 6 AM - 12 AM **Saturday:** 6 AM - 12 AM	**Weekday**: Every 15 minutes **Weekends:** Every 15-17 minutes	- Central / Dorado (EB) - Central / Tramway - Wenonah (WB) - Dorado (WB)
777	ART Green Line	Bus Rapid Transit	655,222*	**Weekday:** 5 AM - 10 PM **Saturday:** 6 AM - 11 PM **Sunday**: 6 AM - 7 PM	**Weekday:** Every 15 minutes **Weekends:** Every 20 minutes	- Tramway / Wenonah

*Ridership on the 777 Rapid Ride Green Line, which has been replaced by the ART Green Line

Turquoise Route

The Turquoise Route is a commuter service that connects communities in the East Mountains area – including Moriarty, Edgewood, and Sedillo – with destinations in Albuquerque. The route was discontinued at the beginning of the COVID-19 pandemic and there are no known plans to resume service. While it was in operation, Turquoise Routes stops within the city included Eubank Boulevard and Central Avenue, the Uptown Transit Center, and Downtown Albuquerque. The route, which was operated by All Aboard America under contract from NMDOT as part of its set of statewide park-and-ride services, offered one inbound trip per day in the morning and one outbound trip in the late afternoon. NMDOT reports there were ten passengers per day or less using the route. Though the route did not stop in the Study Area, there could be an opportunity to coordinate services and accommodate the Turquoise Route at the East Central Park-and-Ride if service resumes. One item to note is that the vehicles used by All Aboard America for the Turquoise Route are longer than the typical 40' local bus and are not articulated, and therefore have a longer turning radius than other vehicles that might operate at the East Central Park-and-Ride.

Proposed Services

While no additions or changes to transit services have been formally adopted for the Study Area at this time, the ABQ RIDE Forward Network Plan is considering changes to the city-wide bus network. Some proposals, which have not been finalized at the time of this writing, could increase service frequency in the Study Area. There are also opportunities to expand coverage in the area through additional routes or extensions of existing routes. For this reason, the study considers transit service expansion opportunities as part of the size and layout requirements for the proposed site. Among the potential services identified by ABQ RIDE staff include a north-south route along Tramway Boulevard and a potential turnaround point for Route 11 (Lomas Boulevard). The site should also account for the possibility of increased service frequency and potential use of the site by the NMDOT Park-and-Ride Turquoise Route.

Land Use

Existing Activities

Development fronting Central Avenue in the Study Area consists of primarily low-density retail and commercial uses. There is also a concentration of motels north of Central Avenue and self-storage services on the south side of the Central Avenue corridor. Motels in the area are often used as short or medium-term residential units and their residents contribute to transit ridership. Overall, about half of the land in the Study Area is utilized for commercial retail and services with another quarter of the area dedicated to warehouse/storage uses. A major attraction in the Study Area is Four Hills Village, a shopping center at the southwest corner of Central Avenue and Tramway Boulevard. The shopping center serves as a local destination for retail services and features a concentration of employment opportunities. Current tenants include a movie theatre, a large grocery store, a variety

of retail stores, a brewery, restaurants, and a bank. A second major grocery store is located immediately east of Tramway Boulevard outside the Study Area.

Table 4: Summary of Land Use Activities by Type

Land Use Type	Parcels	Acres	Share
Single Family	63 Units	8.4	10.2%
Multi-Family	183 Units	6.1	7.4%
Commercial Retail	15	23.5	28.6%
Commercial Services	9	18.5	22.5%
Industrial	1	4.2	5.1%
Vacant	5	4.3	5.2%
Wholesale/Warehouse	9	17.1	20.8%

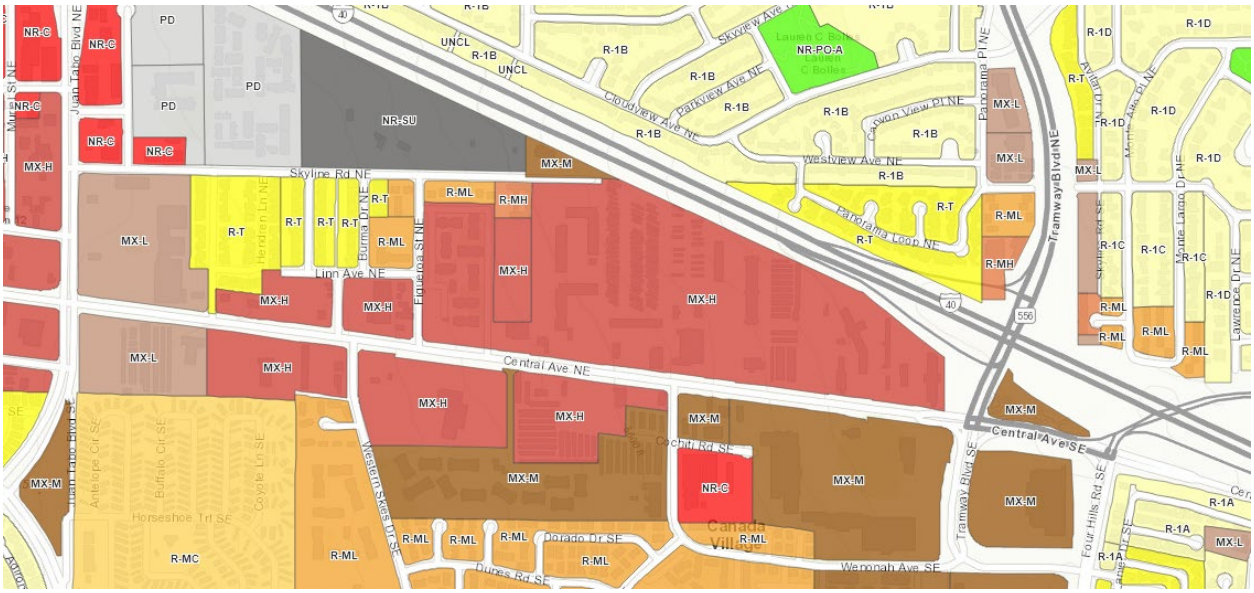
Notes: The seven motels are included in the commercial services land use type and comprise a total of 14.4 acres. The parcels summarized in Table 4 are mostly contained within the Study Area; the table does not include small portions of parcels or access easements to sites outside of the Study Area. As a result, the total acres for parcels in the table is smaller than the total Study Area acreage.

The residential areas surrounding the Study Area tend to be denser with lower income as compared to the median household in the Albuquerque region, and area residents tend to own fewer personal vehicles and utilize transit at higher rates. (See the Demographics section for additional information.) There are several single-family and multi-family residential developments located immediately to the south and southwest of the Study Area, with some multi-family housing and a mobile home park located within Study Area boundaries north of Central Avenue and west of Dorado Place. West of Tramway Boulevard and north of I-40, residential developments are less dense and consist of single-family homes on medium to large lots.

Zoning

The zoning districts in the Study Area are primarily mixed-use, with high density mixed-use zones (MX-H) located to the north of Central Avenue and medium density mixed-use zones (MX-M) comprising much of the area south of Central Avenue. Zones designated as mixed-use are intended for a wide array of retail, commercial, and residential uses. The primary difference between medium and high-density mixed-use zoning is the level of development intensity – high density zones have a higher maximum height – and the set of allowable uses. All proposed sites are located in mixed-use zones. A park-and-ride lot is allowable “by right” in mixed-use medium density zoning but only allowed as a conditional use in mixed-use high-density zones and would require Conditional Use Approval or potentially a zone change.

Figure 3: Zoning Districts in Study Area



Source: IDO Interactive Map

MX-H: Mixed-Use High Intensity	R-MC: Manufactured Home Community
MX-M: Mixed-Use Medium Intensity	R-T: Townhouse
MX-L: Mixed-Use Low Intensity	R-1B: Single Family Medium Lot
R-ML: Multi-Family Low Density	NR-C: Commercial

The land use designations and policy guidance from the Comprehensive Plan also have implications for nearby development. (See the Policy Guidance section for additional discussion.) In particular, the plan calls for the application of transit-oriented development principles and higher residential density within the immediate proximity of Premium Transit Stations, defined as a 660' radius around a station. Owners of vacant parcels in the Study Area have expressed interest in multi-family developments, and the presence of a park-and-ride facility would provide development incentives. In particular, the IDO allows for reduced parking minimums for multi-family and lower landscaping requirements within Premium Transit Station Areas, which increases the land area for a parcel that may be utilized for development purposes. In addition to reductions in multi-family requirements, the general parking requirements for commercial and retail activity are reduced by 50% if the proposed development is located within a Premium Transit Station Area and 30% if the proposed development is located within 1,320 feet of any transit stop or transit station with a peak service frequency of 15 minutes or better, for which both the Route 66 and Route 777 would qualify (see section **5-5(C)(5)(c)** of the IDO).

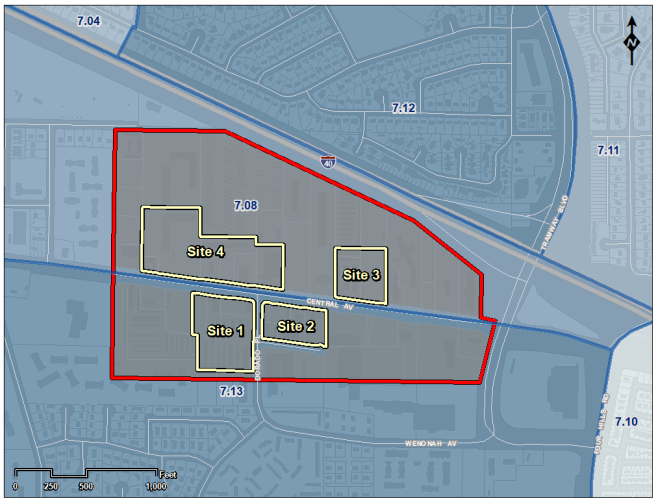
Table 5: Development Considerations in Premium Transit Station Areas

Consideration	General Requirements	Premium Transit Station Areas
Multi-Family Parking	1.5 spaces per unit	1 space per unit
Landscaping	15% of net land area	10% of net land area

Demographics

Population characteristics provide an indication of the potential benefits of park-and-ride in the Study Area, shed light on how nearby residents are likely to arrive at the site, and the types of amenities that should be considered as the site is programmed. The demographic analyses in this report include means of transportation to work, race/ethnicity, income, and poverty levels by Census Tract using American Community Survey (ACS) 2014-2018 5-year estimates from the U.S. Census Bureau.[2] Figure 4 depicts the census tracts in and near the Study Area; Census T7.08 and 7.13 fall in the immediate vicinity of Central Avenue and Dorado Place while other tracts are considered for comparative purposes. Overall, the demographics reveal that residents within and immediately surrounding the Study Area are more likely to use public transit, have higher poverty rates and lower incomes, and are home to greater shares of historically marginalized ethnic groups than surrounding census tracts, the City, and the County.

Figure 4: Census Tracts in the Study Area Vicinity



Poverty and Income

An analysis of income and race reveals differences in socioeconomic status across areas in and near the Study Area. Among residents in census tracts 7.08 and 7.13, 24.9% and 36.3% of residents respectively live below the poverty level, compared to 17.6% at the City level and 17.4% at the County level. By contrast, less than 10% of residents of census tracts 7.10 and 7.14 to the southeast and southwest of the Study Area respectively live below the poverty line.

[2] Census Tract-level data was utilized based on the higher levels of accuracy compared to block group data (block level data does not contain information on income or vehicle ownership). Census Tracts are relatively large and transcend Study Area boundaries; however, the margins of error for Census Tract-level data are significantly lower than Census block groups.

Table 6: Poverty and Median Income Level by Census Tract

Census Tract / Location	Residents Below Poverty Level	Median Household Income
7.08*	24.9%	$38,486
7.10	6.9%	$100,588
7.11	17.0%	$66,603
7.12	15.9%	$40,043
7.13*	36.3%	$28,113
7.14	8.4%	$58,510
All Census Tracts	18.1%	$51,477
City of Albuquerque	17.6%	$51,128
Bernalillo County	17.4%	$51,643

* Census tracts are at least partially within Study Area

Race and Ethnicity

Compared to the surrounding area, census tracts 7.08 and 7.13 have a higher concentration of race/ethnic groups that have been historically marginalized and subject to economic and social disparities. In particular, compared to the City and County levels, census tracts 7.08 and 7.13 have lower percentages of white non-Hispanic residents and higher percentages of Black and Native American residents. The Hispanic population in the Study Area is somewhat lower than the overall City and County levels, though census tracts 7.08 and 7.13 have the highest share of Hispanic residents among the census tracts in the vicinity of the Study Area. In addition to higher income levels, census tracts to the north of I-40 are disproportionately comprised of white non-Hispanic residents.

Table 7: Race/Ethnicity by Census Tract in the Study Area

Race	7.08*	7.10	7.11	7.12	7.13*	7.14
White (Non-Hispanic)	38.4%	52.2%	59.8%	48.2%	37.0%	33.8%
White (Hispanic)	28.4%	25.8%	26.5%	28.0%	28.9%	18.8%
Black / African American	6.5%	3.3%	2.1%	3.1%	4.6%	2.6%
Native American	4.6%	4.9%	5.0%	8.5%	12.4%	15.0%
Asian	1.8%	6.6%	1.8%	1.3%	1.5%	17.7%
Other	21.0%	7.0%	4.0%	11.0%	15.0%	12.0%
Total	100%	100%	100%	100%	100%	100%
Total Hispanic	46.5%	35.0%	28.9%	37.0%	37.4%	30.2%
Total Non-Hispanic	53.5%	65.0%	71.1%	63.0%	62.7%	69.9%

* Census tracts are at least partially within Study Area

Table 8: Race/Ethnicity at City and County Level

Race	City of Albuquerque	Bernalillo County	All Census Tracts in Study Area
White (Non-Hispanic)	39.4%	39.0%	44.8%
White (Hispanic)	34.1%	35.0%	26.2%
Black / African American	3.2%	2.8%	3.8%
Native American	4.6%	4.8%	8.1%
Asian	2.8%	2.6%	5.1%
Other	15.9%	15.7%	12.0%
TOTAL	100%	100%	100%
Total Hispanic	49.0%	49.8%	36.2%
Total Non-Hispanic	51.0%	50.2%	63.8%

Access to Vehicles and Means of Transportation to Work

An analysis of commuting data reveals differences in travel behavior among residents near the Study Area. In particular, residents of the poorest census tracts around the Study Area have the highest share of households with no vehicle available; 14.1% and 18.1% of household in census tracts 7.08 and 7.13 have zero vehicles, compared to 7.3% at the City level. By contrast, residents of census tracts north of I-40 own two or more vehicles at rates well above the City average.

The census tracts located in the immediate Study Area, 7.08 and 7.13, are also significantly more transit-dependent than surrounding areas. According to commuting data from the 2014-2018 ACS, residents of these areas use public transit as a means of transportation to work at rates of 4.3% and 7.6%, respectively, while residents of surrounding census tracts use public transit as a means of transportation to work at a rate of not more than 1%. At both the City and County level, about 2% of working residents use public transit as a means of transportation to work.

Lower levels of vehicle access and a reliance on public transit in the Study Area demonstrate a need for a centralized, formal park-and-ride facility that is as accessible as possible to nearby residents. At the same time, the facility would create greater options among populations that are currently more auto dependent and encourage additional transit trips to access services along Central Avenue.

Table 9: Vehicles Available per Household in Study Area by Census Tract

Vehicles Available per Household	7.08*	7.10	7.11	7.12	7.13*	7.14
0 Vehicles	14.1%	2.4%	6.6%	9.0%	18.1%	1.8%
1 Vehicle	39.8%	23.8%	26.5%	41.4%	46.2%	44.9%
2 or More Vehicles	46.2%	73.9%	67.0%	49.6%	35.7%	53.4%
TOTAL	100%	100%	100%	100%	100%	100%

* Census tracts are at least partially within Study Area

Table 10: Vehicles Available per Household – City, County, and All Census Tracts in Study Area

Vehicles Available per Household	Bernalillo County	City of Albuquerque	All Census Tracts
0 Vehicles	6.6%	7.3%	8.8%
1 Vehicle	35.6%	37.3%	36.7%
2 or More Vehicles	57.7%	55.4%	54.5%
TOTAL	100%	100%	100%

Table 11: Means of Transportation to Work – Census Tracts

Means of Transportation to Work	7.08*	7.10	7.11	7.12	7.13*	7.14
Drove Alone	66.0%	83.0%	83.1%	84.7%	74.6%	73.6%
Carpooled	17.6%	9.0%	3.1%	4.6%	7.5%	14.4%
Public Transit	4.3%	0.6%	0.5%	0.0%	7.6%	1.0%
Bicycle	1.2%	1.2%	0.4%	0.0%	0.0%	5.7%
Walked	1.9%	0.0%	1.3%	2.1%	1.2%	1.3%
Other Means	0.0%	1.5%	1.1%	3.2%	2.0%	0.0%
Worked at home	9.1%	4.8%	10.6%	5.5%	7.0%	4.1%
Total	100%	100%	100%	100%	100%	100%

* Census tracts are at least partially within Study Area

Table 12: Means of Transportation to Work – County, City, All Census Tracts in Study Area

Means of Transportation to Work	Bernalillo County	City of Albuquerque	All Census Tracts
Drove Alone	80.7%	80.5%	77.4%
Carpooled	9.1%	9.2%	9.7%
Public Transit	1.9%	1.9%	2.2%
Bicycle	1.1%	1.2%	1.5%
Walked	1.8%	1.9%	1.2%
Other Means	0.7%	0.7%	1.2%
Worked at home	4.6%	4.4%	6.8%
Total	100.0%	100%	100%

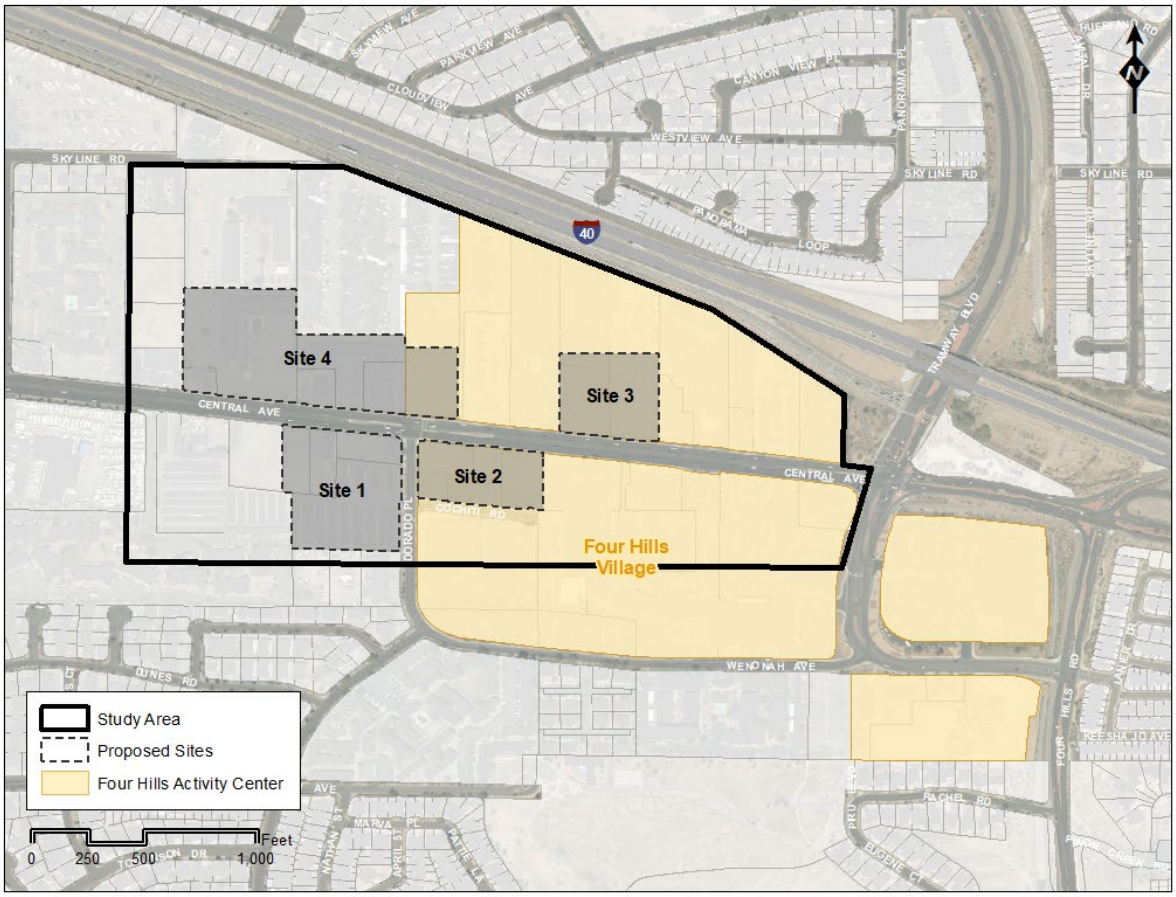
Policy Guidance

A park-and-ride facility around Central Avenue and Dorado Place is consistent with various regional and city policies regarding infill development and general transportation strategies to reduce VMT and create additional transportation options. These includes Center and Corridor designations from the City of Albuquerque-Bernalillo County Comprehensive Plan and recommendations from the East Gateway Metropolitan Redevelopment Area and the Metropolitan Transportation Plan.

City of Albuquerque-Bernalillo County Comprehensive Plan

The Study Area is located partially within the designated Four Hills Activity Center (see Figure 5), which extends from Four Hills Road to Dorado Place and from I-40 to Wenonah Avenue. As defined by the Comprehensive Plan, Activity Centers are appropriate locations for mixed-use and multi-family housing at a higher density than the surrounding single-family homes. In an Activity Center, services should be located within a 20-minute walk or a short bike ride for residents of surrounding areas, and development patterns should facilitate pedestrian-friendly design and multi-modal transportation access.

Figure 5: Boundaries for Four Hills Village Activity Center



Central Avenue is designated in the Comprehensive Plan as both a **Major Transit Corridor** and a **Premium Transit Corridor**, with the latter designation in anticipation of dedicated transit infrastructure and Premium Transit Station Areas. As such, Central Ave is intended to provide high frequency local transit and premium service such as bus rapid transit. Development along these corridors should be transit and pedestrian-oriented, especially near transit stops. Walkability is essential to facilitate access to transit for pedestrians, bicyclists, and transit users. The designations also affect recommended roadway design, including sidewalk width, use of buffers, frequency of pedestrian crossings, and design speed. The policy guidance from the Comprehensive Plan regarding street design characteristics and the spacing of pedestrian crossings is included in the **Development Process Manual** (DPM), the technical standards document for the City of Albuquerque.

In addition to recommended street design characteristics, the Comprehensive Plan and IDO contain guidance related to the areas immediate around a major transit. **Premium Transit Station Area** designations apply to the areas within 1/8-mile (660') of a major transit facility, such as a park-and-ride or ART station and are intended to support nearby mixed-use and transit-oriented development. Development of high-capacity transit service is often accompanied by significant public investment and streetscape improvements along these corridors that help catalyze private investment, particularly near transit stops. From a land use perspective, areas around premium transit are envisioned as compact and walkable to make public transit a viable transportation option.

A park-and-ride facility in the Study Area would serve to enhance regional mobility and could catalyze transit-oriented development. The Comprehensive Plan contains various policies related to multi-modal connections to transit service and encouraging transit-oriented development as part of transit investments. Table 13 identifies policies that are relevant to this project.

Table 13: Transit-Oriented Development Policies in the Comprehensive Plan

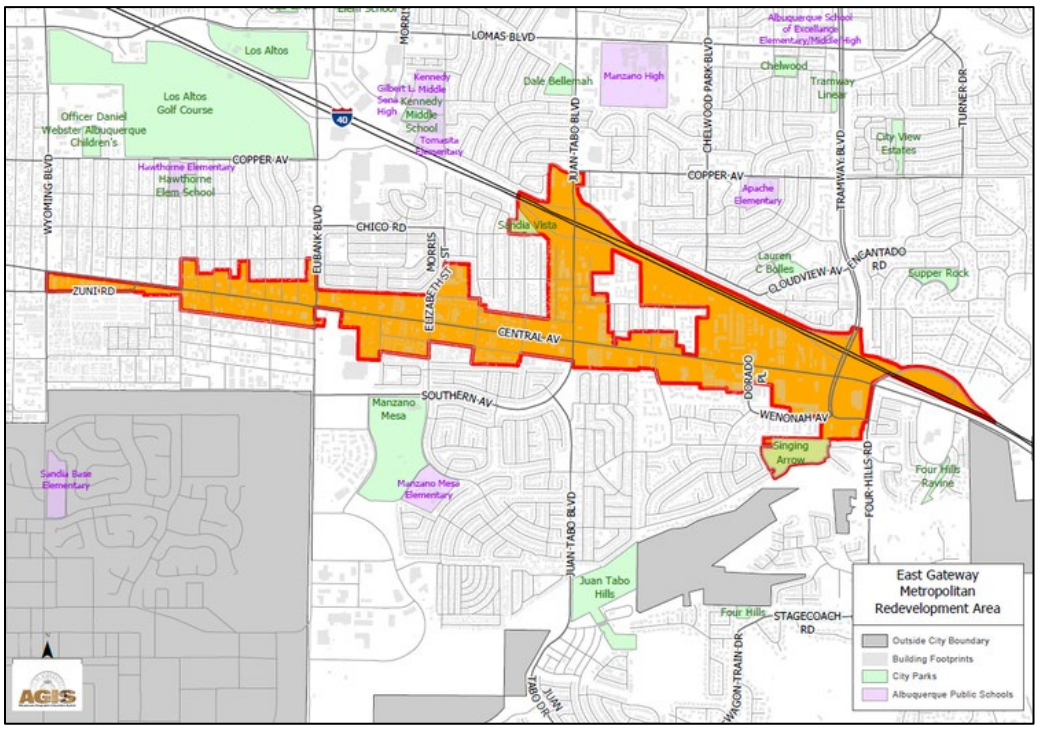
Policy	Purpose	Description/Language
5.1.8	Premium Transit Corridors Design	• Foster corridors that prioritize high capacity, high-frequency transit service, with mixed-use, transit-oriented development within walking distance of transit stations. • Encourage mixed-use and higher density residential developments within ¼ mile of transit stations. • Encourage active public spaces and plazas within 660 feet of transit station locations.
6.1.2	Transit Oriented Development	• Identify transit-oriented development opportunities when planning transit service on Major Transit and Premium Transit Corridors • Prioritize pedestrian amenities and a higher level of connectivity within 660 feet of transit stations. • Design streets to best accommodate transit vehicles and pedestrians, with bicycle accommodation focused on direct connections to the stations/stops, rather than along the travel way.

Policy	Purpose	Description/Language
6.1.4	Premium Transit Corridors	• Prioritize transit vehicles within the travel way and transit users in street design and improvements, incorporating pedestrian amenities, such as bulb-outs, pedestrian-activated signals, and refuge medians at intersections and near transit stations.

Metropolitan Redevelopment Area

In addition to the designations contained in the Comprehensive Plan, the Study Area is also part of the East Gateway Metropolitan Redevelopment Area (MRA), which was designated by City Council in 2016 to encourage redevelopment efforts in the area. The East Gateway MRA spans Central Avenue and its immediate surroundings from Wyoming Boulevard to Tramway Boulevard and includes the Study Area for the East Central Park-and-Ride Feasibility Study. The designation of an MRA is based on findings of blighted conditions as defined in the Metropolitan Redevelopment Code.

Figure 6: East Gateway Metropolitan Redevelopment Area



The *East Gateway Metropolitan Redevelopment Area Plan* specifically identifies redevelopment opportunities and investments that would create a more welcoming experience for residents and visitors to the area. The plan contains several recommendations that are relevant to this study, including an explicit recommendation to develop a park-and-ride facility near the intersection of Central Avenue and Tramway Boulevard. The plan suggests that a park-and-ride coupled with redevelopment efforts would encourage private investments in the area. The plan also encourages services such as child-care to be located near the park-and-ride facility to generate additional transit ridership. In addition, the plan calls for public investments in sidewalks and landscaping.

Metropolitan Transportation Plan

The *Connections 2040 Metropolitan Transportation Plan* (Connections 2040 MTP) was approved in Spring 2020 as the long-range regional transportation plan for the Albuquerque metropolitan area. General priorities include increasing transportation options, reducing VMT and dependence on single-occupancy vehicles, and improving connections to public transit.

The Connections 2040 MTP contains several specific policies and strategies that are relevant to the Study Area and the potential for a park-and-ride around Central Avenue and Dorado Place. Central Avenue is a part of the long-range transit network, which calls for 20% of all trips along Central Avenue (and other priority corridors) to be completed by transit by 2040. Such a level of transit ridership is only possible if additional opportunities are provided for residents to access transit and if infill development takes place along routes with frequent service. Park-and-ride facilities are also a recommended strategy along Central Avenue as part of the Congestion Management Process.

Market/Demand Analysis

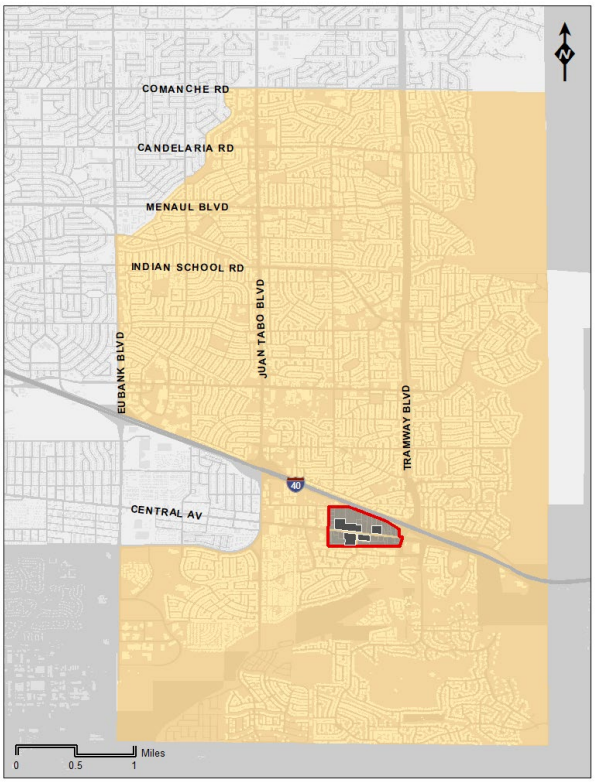
Park-and-Ride Catchment Area

The market area for a transit hub or park-and-ride, typically referred to as the catchment area, is the geographic region from which most users of a facility are expected to arrive via private vehicle and is used to determine potential trips. Walking and biking trips may be expected to occur within a smaller radius around the park-and-ride facility. Boundary decisions for the East Central Park-and-Ride catchment area were made based on best practices in park-and-ride analysis and observed usage behavior from existing park-and-ride facilities in the Albuquerque area.

An analysis of origin data for users of three existing park-and-ride facilities in Albuquerque – the Uptown Transit Center, the Northwest Transit Center, and the Central & Unser Transit Center – was conducted to understand the distances and general directions that users of all modes come from to access a park-and-ride facility.[3] As expected, the results showed origins largely within parabolic areas with their axes oriented towards downtown Albuquerque. Parabolas, with their vertices oriented towards an activity center, are a common shape used to demarcate catchment areas, the theory being that users are unlikely to travel away from their destination to access a park-and-ride. Studies show that approximately 85% of park-and-ride users live within the parabolic area and approximately 50% live within a smaller, consistent radius (i.e. circular shed) around the park-and-ride facility (the parabolic focal point).[4]

For the proposed East Central Park-and-Ride, a simple parabola oriented east-west along Central Avenue is not practical for the catchment area because of the minimal development east of Tramway Boulevard and the fact that few motorists from west of the study will travel long distances out of

Figure 7: Park-and-Ride Catchment Area



Additional communities to the east are included in the catchment area but not shown in the map, including Carnuel, Tijeras, and Edgewood.

[3] Origins data taken from surveys collected in 2012 as part of the Paseo del Norte High Capacity Transit Study.
[4] Spillar, R. J., "Park-and-Ride Planning and Design Guidelines." Monograph 11. Parsons Brinckerhoff Quade and Douglas Inc., New York (1997).

direction to access a park-and-ride facility. The approach of using parabolas to define catchment area still applies to the north of the Study Area as the primary routes to access Downtown, the University of New Mexico, and other regional destinations – I-40, Lomas Boulevard, and Central Avenue – all require that residents first travel south toward the proposed park-and-ride facility. As such, the East Central Park-and-Ride is likely to have a unique catchment area that captures users from the north and south, as well as some travelers from communities east of Albuquerque. Figure 7 shows the extent of this area, totaling approximately 15 square miles.

In establishing these extents, an assumption was made that people would not travel more than one mile out of direction to access the East Central Park-and-Ride. Since ABQ RIDE's Route 1 along Juan Tabo Boulevard is expected to serve this facility, Eubank Boulevard (one mile west of Juan Tabo Boulevard) was identified as an appropriate western boundary for the catchment area; the area west of Juan Tabo Boulevard and between I-40 and Southern Boulevard was excluded since residents there could more easily access transit by walking or bicycling directly to a stop on Central Avenue.

The northern edge of the catchment area is based on general assumptions about the distance people would be willing to travel to access the high-quality transit service. Service along Central Avenue, while the most direct and most frequent means of accessing Downtown and UNM, is not the only transit option for these destinations. All of the major east-west streets north of I-40 feature transit service, though some are commuter routes with service in the peak periods only. Using a four-mile maximum travel distance, the Bear Canyon Arroyo to the north of Montgomery Boulevard was set as the northern boundary of the catchment area.

Many people in the communities east of Albuquerque along I-40, such as Carnuel, Tijeras, and Edgewood, regularly travel to Albuquerque for work, school, recreation, and/or shopping, making them additional potential users of the East Central Park-and-Ride. Although not depicted in Figure 7, additional catchment areas around the developed portions of each of these communities were created to further inform the demand assessment.

Access and Mode Assumptions

With a catchment area established, it is possible to estimate the number of likely trips to the proposed park-and-ride facility based on observed behavior in Albuquerque and research from other communities. The results of a park-and-ride survey conducted by ABQ RIDE in 2012 were analyzed to understand typical usage patterns for existing park-and-ride facilities in Albuquerque and inform the assumptions made for this study. Observed travel data from the Central and Unser Transit Center (CUTC) were utilized since usage patterns at the CUTC are expected to be similar to the East Central Park-and-Ride as both are located on Central Avenue on the suburban edges of Albuquerque and serve relatively low-income populations.

Based on a sample of 211 individuals who came to CUTC from their homes over the course of one day, the park-and-ride survey observed the following conditions:

- 58 (27%) people traveling from home used transit to access CUTC
- 38 (18%) walked
- 67 (32%) drove alone
- 38 (18%) were dropped off

These percentages for mode split were used as a starting point for calculating the estimated demand for parking at the proposed East Central Park-and-Ride. The mode split is likely to vary depending on how far people must travel to the facility (i.e. longer trips are less likely to be walking trips). Thus, the likely catchment area for the proposed facility described later in this report was broken up into a "close" zone and a "far" zone and assumed mode splits from each were adjusted. For those trips coming from the "close" zone, the overall mode splits recorded at CUTC were either increased (walking, transit) or decreased (driving along, drop off) by 50%. For those from the "far" zone, walking and transit shares were decreased by 50% and drive alone and drop off shares were increased by 50%.

Another consideration for potential trip generation is changes in land use. Development and density in east Albuquerque will likely change in the coming years because of the ART line and other local trends, including the potential development of vacant parcels within the Study Area for multi-family housing that could generate additional walk-to-transit trips. However, significant changes in the catchment area will likely occur slowly and somewhat piecemeal; overall growth within a two-mile buffer of the Study Area is projected to be 14.8% between 2016 and 2040.[5] For the typical 5-10 year planning timeframe for transit service, which tends to be reactive to development, it is assumed that land use around the proposed site for the East Central Park-and-Ride will stay relatively consistent.

Table 14: Park-and-Ride Access Mode Shares at the Central and Unser Transit Center

Mode of Access	Total Share of Trip	Close Catchment Area (<1 mile)	Far Catchment Area (1-4 miles)
Transit	27%	40%	14%
Walking	18%	27%	9%
Driving Alone	32%	16%	48%
Drop-off	18%	9%	27%
Other	5%	8%	2%
Total	100%	100%	100%

[5] Based on the Trend Scenario in the Connections 2040 MTP (MRCOG 2020).

Demand Assessment

With a catchment area defined, the next step in park-and-ride demand forecasting was assessing the number of people within that catchment area that could be reasonably expected to utilize the park-and-ride facility. There are several distinct potential user groups for the East Central Park-and-Ride, each with their own travel patterns and characteristics to consider – commuters, students, and people making non-regular trips (e.g. shopping, recreation) were all analyzed separately. Several sources of information were used to perform this assessment, including:

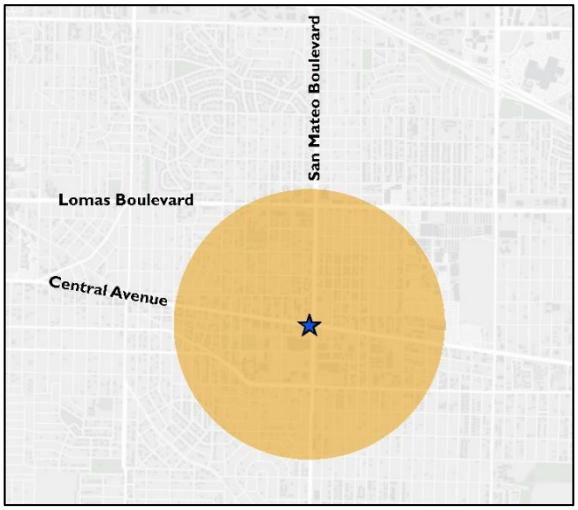
- Longitudinal Employer-Household Dynamics (LODES) employee commute data
- University of New Mexico and Central New Mexico Community College student commute data
- ABQ RIDE ridership data
- Existing park-and-ride/transit center utilization data
- Albuquerque mode share data

Two scenarios were developed to account for the higher likelihood that people who live close to Central Avenue would use transit for part of their commute. In addition to proximity, these scenarios apply different rates of transit usage for commute trips and for student trips. The analysis used the overall transit mode share along the Central Avenue corridor (about 4%) and the region (about 1-2%) as reference points.[6]

Commute Trips

The LODES data from the United States Census Bureau can be used to show the number of people commuting to jobs between distinct geographic areas. To utilize this data for the study, a boundary of ¾-mile – the industry standard for the travel shed of a high-quality transit service – was applied around each ART station to ascertain potential destinations. Figure 8 shows the buffer around the ART station at San Mateo Boulevard as an example. These ¾-mile buffers also capture trips taken on the Route 66. Existing ART stops at Juan Tabo Boulevard and Eubank Boulevard were not included in creating these destination buffers because they were assumed to be too close to the proposed park-and-ride.

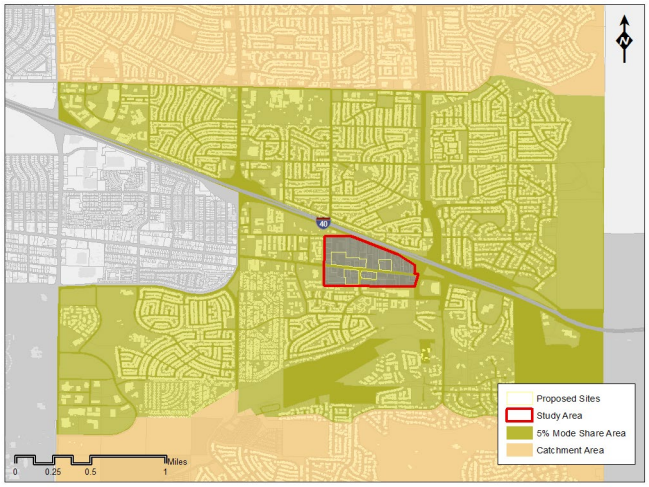
Figure 8: Example Buffer – San Mateo Blvd



[6] "Transit Ridership & VMT Estimation Methodology," ABQ RIDE, 2023. https://www.cabq.gov/transit/documents/vmt_estimation_methodology-final.pdf

Based on 2017 LODES data, there are approximately 9,100 people living somewhere in the catchment area and working somewhere within the chosen ART station buffers. This number was filtered down based on a variety of factors including commute length and the average transit mode share for travel in Albuquerque. Any commute less than three miles based on the identified origins and destinations from the LODES data was removed since short trips are unlikely to make use of the parking in a park-and-ride facility. Of the 9,100 commute trips between the identified catchment area and the ART station buffers, 8,600 had a commute longer than three miles.

Figure 9: Catchment Area - 5% Mode Share



Under **Scenario 1**, commuters with origins within approximately one mile of Central Avenue were assigned a 5% transit mode share (roughly the average level of mode share along Central Avenue and the region as a whole) and commutes with origins farther away were assigned a 1% transit mode share. Figure 9 shows the portion of the catchment area assigned a higher mode share. With these filters applied, the Project Team calculated that **205 commute trips** may be likely to use the East Central Park-and-Ride to access transit service. Using the previously identified mode share assumptions for accessing the facility (i.e. 16% driving alone from the close area and 48% from farther away), **50 parking spaces** would be needed for commuters.

Scenario 2 assumed a lower mode share for commuters (2% within approximately one mile of the facility site and 1% from farther away) and a higher share for student trips (see discussion below). Applying the mode share assumptions under this scenario results in **116 commute trips** that might use the East Central Park-and-Ride and a need for **36 parking spaces** for commuters.

Student Trips

The University of New Mexico/Central New Mexico Community College Travel Demand Management Study (2010) gathered extensive information about the commuting habits of students and faculty at Albuquerque's two primary institutions of higher learning. Though the information is outdated, the study provided important information on the origin points of UNM and CNM students and helped inform this feasibility study by providing an estimate of how many students live within the East Central Park-and-Ride catchment area and how likely they would be to use transit. While the exact locations of students have changed, there is no reason to believe the general distribution is fundamentally different from ten years ago. The student commute data, updated to reflect current enrollment numbers, for UNM and CNM indicates about 23,000 students living in the Northeast Heights, Southeast Heights, and East Mountain sub-areas defined in the survey – the three areas

defined in the survey where East Central Park-and-Ride users would be most likely to come from. Using the proportions of each sub-area within the identified East Central Park-and-Ride catchment area, approximately 4,400 of these 23,000 students live somewhere in the catchment area.

In addition to the LODES commute data, the analysis considered student parking permit ownership by sub-area, which was used to estimate the rates at which students drive to campus. Based on the reported permit ownership percentages from a 2010 study, 55% of the 4,400 students in the catchment area (about 2,400) do not have permits; therefore, about 2,000 students are potential transit users.

Under **Scenario 1**, the same transit mode share values applied to commuting LODES data were also applied to student trip data (i.e. 5% within one mile of Central Avenue and 1% from one to four miles from the Study Area). In total, there are **60 student trips** that may be likely use the East Central Park-and-Ride to access transit service. Applying the mode split assumptions for accessing the facility, **15 parking spaces** would be needed for students.

Under **Scenario 2**, the assumed mode share for students was increased because parking around UNM and CNM is a known challenge and students are generally less likely to have access to their own vehicle than work commuters. (Scenario 2 also assumed a lower transit mode share for commuters.) The adjusted mode shares for students were 10% within one mile of Central Avenue and 5% from farther away, resulting in a value of **170 student trips** that may be likely use the East Central Park-and-Ride to access transit service and a need for **51 parking spaces**.

Non-Regular Trips

In addition to work and student commutes, there is also a need to consider other trip purposes that could make use of the proposed park-and-ride facility, such as shopping and recreation. Though people are generally less likely to use transit for these "non-regular" trips, they will if it is convenient to do so.

According to results of the 2012 park-and-ride survey, 72% of the people who came to CUTC from their homes on the observation day were traveling to access either work or school; the other 28% were traveling for some other purpose (e.g. shopping). This same proportion of work and school to other trips was applied to the East Central demand assessment to calculate non-regular trips.

Under **Scenario 1**, the total number of expected users going to work or school is 265; therefore, based on the assumed ratio an additional **103 users** would be expected to use it for other travel purposes. Of these, it is estimated that **33 parking spaces** would be required to meet the needs of users who drive alone. Under **Scenario 2**, the total number of work or school trips is 233; therefore, an additional **91 users** would use the facility for other travel purposes and would require **29 parking spaces**.

Table 15: Assumed Share of Trips to the Park-and-ride Facility by Scenario for Non-Regular Trips

	Commuting		Students	
	Close Area (<1 mile)	*Far Area (1-4 miles)*	*Close Area (<1 mile)*	*Far Area (1-4 miles)*
Scenario 1	5%	1%	5%	1%
Scenario 2	2%	1%	10%	5%

Note: The total number of non-regular trips is based on a calculation in which 28% of the total trips are non-commuting or student trips.

Market/Demand Analysis Summary

Table 16 summarizes the estimated demand for the East Central Park-and-Ride by trip purpose. Between work commute trips, school commute trips, and non-regular other trips, there will be an estimated **324-368** total trips to the East Central Park-and-Ride on a daily basis. As discussed above, many of these will not require parking spaces because they are accessing the facility via walking, transit routes, being dropped off, or other means besides driving. Overall, an estimated **100-116 parking spaces** are needed at the East Central Park-and-Ride.[7]

It is important to note that not all drive alone trips require a parking space concurrently. In practice, some spaces would not be required for all day purposes as many student and non-commuting trips do not follow a regular work-day schedule. It is therefore likely that the total number of parking spaces required to support demand at any given time of day is below the total estimates provided in this study.

Table 16: Demand Assessment Summary

Trip Purpose	Scenario 1		Scenario 2	
	Total Trips	*Needed Parking Spaces*	*Total Trips*	*Needed Parking Spaces*
Work	205	51	116	36
School	60	16	117	51
Other	103	33	91	29
TOTAL	**368**	**100**	**324**	**116**

[7] It is important to note that that these estimates represent a middle range of likely trips. Additional scenarios based on the lowest and highest value for work trips and school trips respectively produces a range of 257-425 daily trips and 81-135 parking spaces.

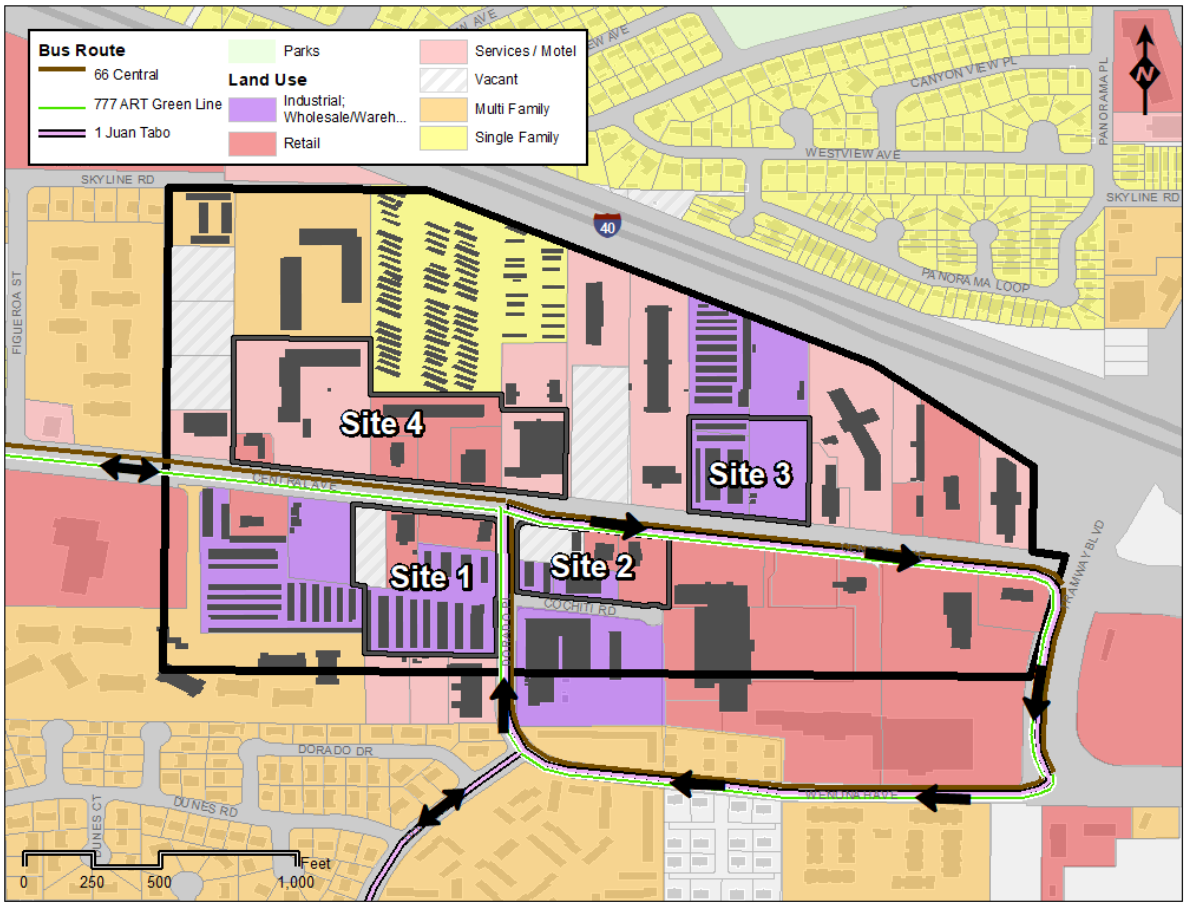
Site Selection Analysis

Proposed Sites and Existing Land Uses

Four potential sites were identified by ABQ RIDE staff at the outset of the feasibility study. These four sites are concentrated around the intersection of Central Avenue and Dorado Place where the existing traffic signal and signalized pedestrian crossing promotes site access. Some sites also include or are in proximity to vacant parcels that could play a role in catalyzing development surrounding the park-and-ride.

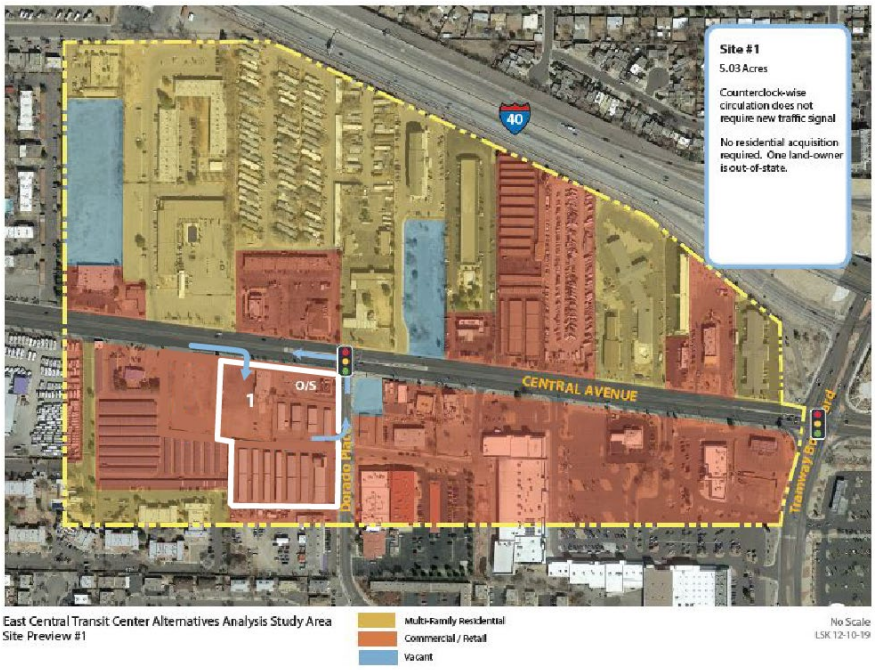
Considerations in the site selection analysis include existing land uses, housing and jobs access, traffic access, pedestrian and bicycle connections, environmental conditions, utilities, and drainage conditions. This section describes general conditions in the Study Area and specific benefits or shortcomings associated with each site.

Figure 10: Existing Land Uses



Site 1

Site 1 is located at the southwest corner of Central Avenue and Dorado Place and spans about 5 acres. The site contains four parcels with one commercial retail use, two commercial services uses, and one vacant parcel.



Traffic/Site Access: Access is via Central Avenue and Dorado Place. A park-and-ride at this site would not require a new traffic signal. The traffic signal at Dorado Place and Central Avenue would aid traffic circulation and allow transit vehicles and other motorists to make a protected left turn onto westbound Central Avenue. Depending on the layout of the site, right-in turn movements to the site may be possible for buses and private vehicles traveling east on Central Ave.

Pedestrian Access: Pedestrians can access Site 1 from the north side of Central Ave via the signalized intersection at Dorado Place, and from the south via Dorado Place and Wenonah Ave.

Land Ownership: All parcels except for the parcel at 12930 Central Ave are held by New Mexico entities; one landowner is believed to be an out-of-state resident.

Zoning/Allowable Density: Site 1 is comprised of zones that are mixed-use high density (MX-H) and mixed-use medium density (MX-M). A park-and-ride is a conditional primary use for MX-H zones, meaning the site would likely require Conditional Use Approval or potentially a zone change.

Existing Land Uses and Activity: Currently, the area contains a motorcycle service shop and an outdoor storage facility. The site would not require any residential acquisition or relocation. The northeast parcel is occupied by a Taco Bell, which may provide a benefit to transit users and could be retained, depending on the site layout.

Site 2

Site 2 is located at the southeast corner of Central Avenue and Dorado Place and spans about 2.7 acres. The site is the smallest of the proposed sites and contains five parcels with two retail uses, two wholesale/warehouse uses, and one vacant parcel.

Traffic/Site Access: Access is via Central Avenue and Dorado Place. A park-and-ride facility at this site would not require a new traffic signal nor would it require any residential acquisition or relocation. Transit vehicles could utilize the traffic signal to access Central Ave in the westbound direction. Depending on the layout of the site, right-in turn movements on the eastern portion of the site may be possible for buses and private vehicles traveling east on Central Ave.

Pedestrian Access: Pedestrians can access Site 2 from the north side of Central Ave via the signalized intersection at Dorado Place, and from the south via Dorado Place and Wenonah Ave.

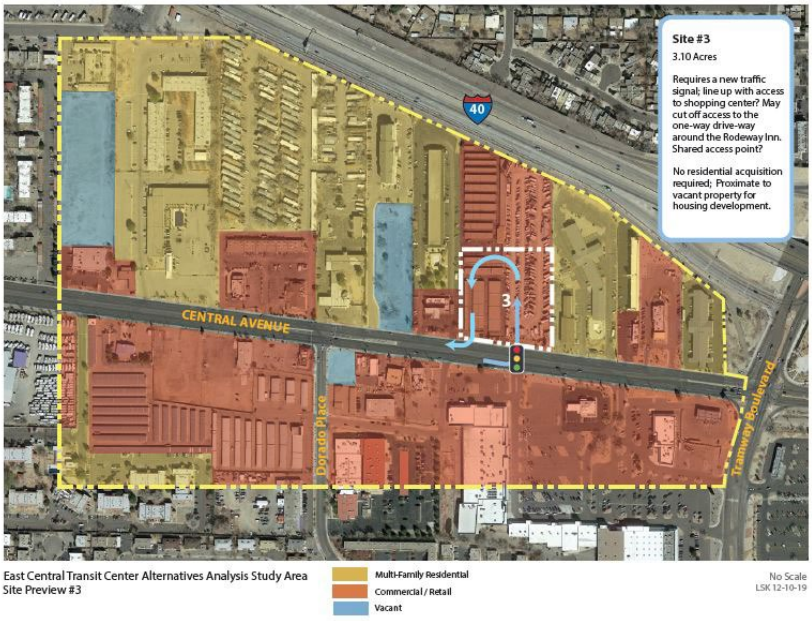
Land Ownership: All properties are believed to be held by New Mexico entities.

Zoning/Allowable Density: Site 2 is comprised of mixed-use medium density (MX-M) zones. A park-and-ride is allowable by right in this district and would not require special approvals.

Existing Land Uses and Activity: A portion of the site is vacant while the rest is occupied with commercial uses, mostly consisting of vehicle storage. The on-site Veteran's Assistance Center could be integrated into the park-and-ride.

Site 3

Site 3 is located at the northern frontage of Central Avenue, about 500-900 ft east of Dorado Place. The site spans about 3 acres and currently contains a large self-storage facility.



Traffic/Site Access: Access via Central Avenue; no traffic signal currently serves the site. A park-and-ride facility at this site would benefit from a traffic signal to improve transit vehicle access and egress. Without a traffic signal, Route 1 and Route 66 services would either require left-in and left-out movements to continue the clockwise circuit around Tramway Boulevard and Wenonah Avenue, or the operations would need to be re-routed with buses traversing the Study Area in a counter-clockwise manner.

Pedestrian Access: Site access is via Central Avenue only. Pedestrians traveling from south of Central Ave can access the site via the signal at Dorado Place, though crossing at that location may be out of direction for many users.

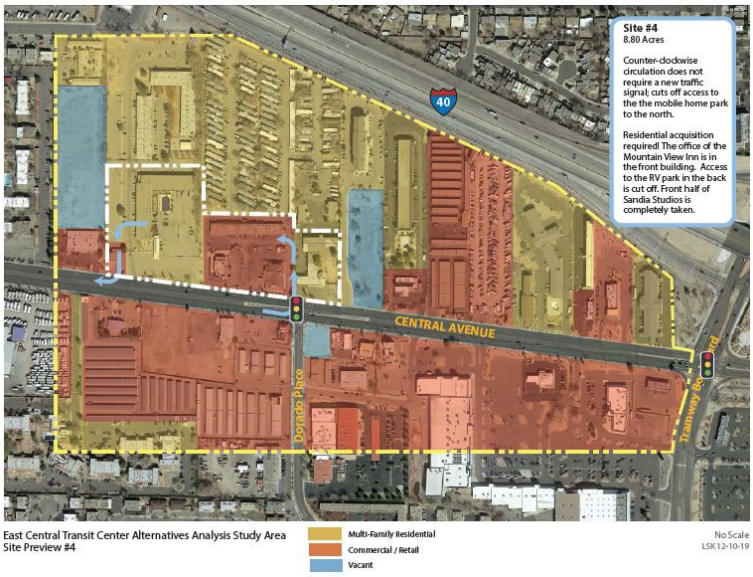
Land Ownership: No known issues. The site would not require any residential acquisition or relocation.

Zoning/Allowable Density: The site is in a mixed-use high-density (MX-H) zone. A park-and-ride is allowable as a conditional primary use in this district and would require a Conditional Use Approval or potential a zone change.

Existing Land Uses and Activity: The site is proximate to vacant property that provides an opportunity for housing development. A park-and-ride facility could raise issues by cutting off access to the one-way driveway around Rodeway Inn. Preserving access to the rest of storage yard might create site design challenges, though would be necessary to avoid acquisition of the whole storage yard.

Site 4

Site 4 is located at the northern frontage of the Central Avenue and Dorado Place intersection and is the largest of the proposed sites. The site spans about nine acres and contains six parcels with various retail uses and a motel.



Traffic/Site Access: Access is via Central Avenue and intersection at Dorado Place. This site would not require a new traffic signal. If Route 1 and Route 66 continue east after laying over at the facility in order to serve the current Tramway Boulevard/Wenonah Avenue loop, this site would add more running time than sites on the south side of Central Avenue due to the left-in and left-out required to enter and depart the site.

Depending on the layout of the site, right-in turn movements on the western portion of the site may be possible for buses and private vehicles traveling westbound on Central Ave.

Pedestrian Access: Pedestrian access is via Central Avenue and the traffic signal and pedestrian crossing at Dorado Place. Crossing at Dorado Place would be out of direction for pedestrians traveling from west of the site and south of Central Ave.

Land Ownership: No known issues. The site would require residential acquisition or relocation.

Zoning/Allowable Density: The site is in a mixed-use high-density (MX-H) zone. A park-and-ride is allowable as a conditional primary use this district and would require a Conditional Use Approval or potential zone change.

Existing Land Uses and Activity: The Mountain View Inn office and the front half of Sandia Studios long-term stay motel are both are located on the site and likely contribute to transit usage. Residential acquisition or relocation at the site is likely. Easements to parcels to the north of the site may create challenges for site layout.

Summary of Land Use Characteristics

Table 17 summarizes the main distinctions between each proposed site. It is important to note that site configurations – including the collection of parcels associated with the selected site – may be subject to change during the real estate acquisition process. However, as the steps are clustered around Central Avenue, the differences in zoning and current land uses are modest (all sites are located in medium or high-density mixed-use zones). The main differences among the sites are their size and current ownership, with Site 4 being the only location that is likely to require residential acquisition or relocation.

Table 17: Summary of Land Use Characteristics

	Site 1	Site 2	Site 3	Site 4
Current Land Uses	*Commercial/Retail* A portion of the site is vacant; the rest is occupied with various commercial uses including a restaurant, motorcycle service shop, and a self-storage facility	*Commercial/Retail* A portion of the site is vacant; the rest is occupied with commercial uses including vehicle storage	*Commercial/Retail* A major portion of the site is occupied with a self-storage facility, of which half is a vehicle storage yard	*Commercial/Retail; Long-term Stay Motels* Site includes motel and the front half of an apartment complex.
Zoning	Mixed-Use High Density, Mixed-Use Medium Density	Mixed-Use Medium Density	Mixed-Use High Density	Mixed-Use High Density
Ownership	No residential acquisition; one known out-of-state landowner.	No residential acquisition; five land-owners – all in-state	No residential acquisition; no known out of state landowners	Residential acquisition required; no known out of state landowners
Size	5.03 acres	2.71 acres	3.07 acres	8.87 acres
Maximum Allowable Height	MX-H: 75 ft. MX-M: 65 ft.	MX-M: 65 ft.	MX-H: 75 ft.	MX-H: 75 ft.
Vacant Parcels	1 (0.7 acres)	1 (0.65 acres)	None	None within the site; vacant parcels to immediate east and west of site
Bicycle / Pedestrian Access	High level of accessibility to nearby residents; no crossings of Central Avenue required	High level of accessibility to nearby residents; no crossings of Central Avenue required	Least accessible for pedestrians and bicyclists; additional crossing of Central Avenue near site may be needed	Moderate level of access; additional crossing of Central Avenue near site may be needed

Housing and Jobs Access

Since the proposed sites are relatively close to one another, the differences in access to housing and jobs among sites are modest.

Table 18 indicates the number of jobs, housing units, and residents within a 10-minute and 20-minute walk from each site, using 2014-2018 ACS data and contours based on a 3 MPH walking speed. In order to ensure accuracy, the analysis followed the road network rather than simply using a 0.5 mile or 1-mile radius. This approach reflects the fact that some residents may be within a short radius of a proposed site but not able to walk there due to barriers such as I-40. Overall, each site has high levels of access to jobs and housing within 10 and 20-minute walking contours. Site 4 has a higher level of access to jobs and housing within a 10-minute walk than Sites 1-3; however, the differences are minimal when a 20-minute contour is assessed. Site 3 has the lowest number of housing units and jobs within 10 and 20-minute walking contours among the proposed sites.

Figure 11: Site 4 Walking Contours

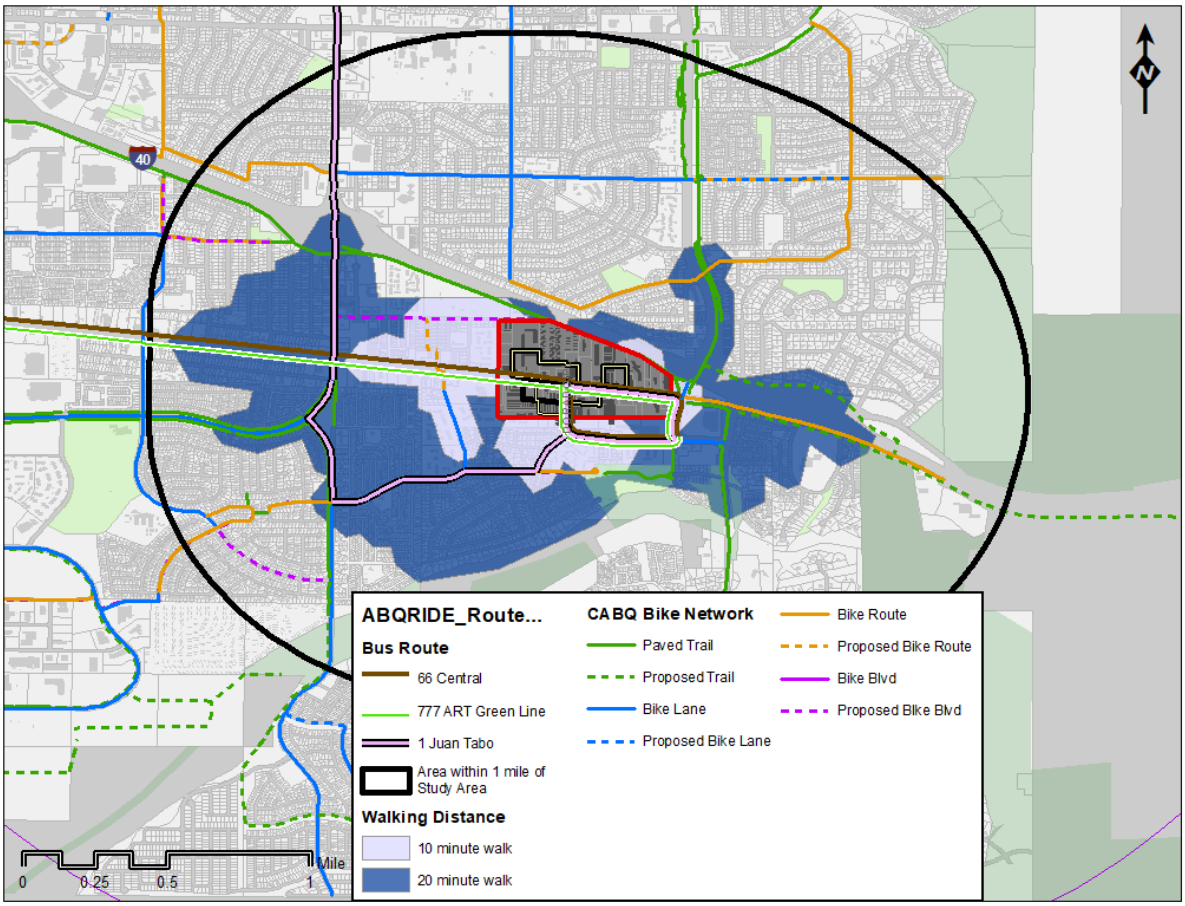


Table 18: Housing and Jobs Access

	10 Minutes			20 Minutes		
	Jobs	Housing Units	Population	Jobs	Housing Units	Population
Site 1	891	2,149	4,599	1,598	3,748	8,026
Site 2	899	2,113	4,604	1,579	3,780	8,194
Site 3	873	1,995	4,233	1,457	3,286	6,878
Site 4	1,285	2,656	6,139	1,639	3,805	8,477

Traffic Analysis

The following section discusses considerations related to vehicular access to the four proposed sites, including private motorists and transit vehicle access. A key assumption is that ART buses would layover at the proposed park-and-ride site and would proceed no farther east on Central Avenue. Local routes would layover at the site as part of their trip and would continue to circulate through the Study Area in a clockwise direction following current service patterns.

General Conditions and Traffic Demand

Based on the demand analysis, there will be approximately 175 vehicle trips per day to the proposed facility. It is expected that a large share of trips will be students and will be more evenly spread out over the course of the day than a typical commuter-driven park-and-ride. Assuming the park-and-ride station will generate approximately 25 vehicles each hour – based on the average number of vehicle trips per hour (i.e. 15) plus 10 transit trips per hour – the nearby intersections are not expected to experience degraded performance.

Most vehicular trips to the four proposed sites will likely travel on Central Avenue, with some utilizing Dorado Place to/from the south. The location of the park-and-ride station is not expected to modify vehicular trip distribution patterns.

Traffic Considerations by Site

Site 1

This site can be served by the signal at Central Avenue and Dorado Place, with buses entering the site by making an eastbound right turn using a driveway on Central Avenue and exiting the site using an eastbound left turn onto Dorado Place. Per DPM guidance, the entrance on Central Ave would have to be at least 150’ west of Dorado Place.

Buses would exit the site onto Dorado Place and return to Central Avenue via the traffic signal. Traffic volumes are low on Dorado Place (i.e. about 3,000 vehicles per day) and no major issues are anticipated with making a left turn to exit the site onto Dorado Place. Per DPM guidance, as a collector roadway the driveway on Dorado Place must be at least 150’ south of Central Avenue. This

distance would also allow multiple bus lengths to queue on Dorado Place south of Central Avenue if necessary.

Site 2

This site can be served by the signal at Central Avenue and Dorado Place, with buses performing an eastbound right turn onto Dorado Place and entering the site using a driveway south of Central Avenue. Per DPM guidance, as a collector roadway the driveway on Dorado Place to access the facility must be at least 150' south of Central Avenue. This distance will also allow multiple bus lengths to queue on Dorado Place south of Central Avenue if necessary. Buses may need to queue on Dorado Place prior to performing a southbound left turn into the site. The cross section of Dorado Place is approximately 35 feet wide, which could allow space in the center of the roadway for buses to perform this movement. The site could also be accessed by private vehicles via a right-in right-out driveway off of Central Avenue on the eastern portion of the site.

Site 3

As the only site under consideration that is not immediately adjacent to an existing traffic signal, Site 3 presents access challenges for both vehicles and pedestrians. The nearest signalized intersections to Site 3 are the intersections of Central Avenue with Dorado Place and Tramway Boulevard. Under the current routing system, buses would have to utilize the center turn lane while making an eastbound left turn to access the site. However, without the presence of a signalized intersection and dedicated turn bay of sufficient length, such turning movements may be challenging for buses.

Despite the value for transit access to the site, traffic engineers would generally not recommend a full signal at this location for the following reasons:

- Installing a full signal would result in three signals within 1,800 feet on a principal arterial, though such spacing may be acceptable within a designated Activity Center
- The DPM, the City of Albuquerque technical standards document, requires minimum spacing of 1,320-2,640' (1/4 to ½ mile) for a Major Transit Corridor; the western edge of Site 3 is approximately 600 feet from the Dorado Place intersection (additional policy guidance for pedestrian access is noted below)
- Peak hour traffic volumes and delay may not warrant a signal

An alternative option that would avoid the need for a traffic signal is to re-route the buses and require them to perform a loop using Dorado Place, Wenonah Avenue, Tramway Boulevard, and back onto Central Avenue, entering the site by performing a westbound right turn. With its current routing, the bus can utilize the center turn lane to perform an eastbound left turn but may experience delay while attempting to cross westbound traffic. However, this path is not preferable due to the likely delays and safety concerns from making left turns out of the site and from Wenonah Avenue onto Tramway Boulevard northbound, as well as the desire to maintain existing stop sequences along Wenonah Avenue and Dorado Place.

Whether or not a traffic signal is installed, improved pedestrian access to the site may be needed due to the current spacing between signalized pedestrian crossings. Under existing conditions, pedestrians trying to cross Central Avenue and access the site would require lengthy out-of-direction travel. Policy guidance from the DPM does justify some form of traffic control at this location to support pedestrian activity, especially if a major transit facility were located across Central Avenue from a major retail destination such as the Four Hills Shopping Center. Specifically, the DPM calls for signal spacing of ¼-mile (1,320') in Activity Centers, signalized pedestrian crossings for this location (i.e. an Activity Center and a Major Transit Corridor) should be 1,320' or less and designated (i.e. signalized or unsignalized pedestrian crossings should be 600' or less if certain criteria are met). Perhaps most critically, the DPM indicates a designated pedestrian crossing should be provided within 100' of a transit station, such as a park-and-ride facility.

Based on the speed limit, existing volumes, and number of lanes, the DPM guidance indicates an unsignalized pedestrian crossing is not appropriate. Rather, from a pedestrian standpoint, some kind of signalized pedestrian crossing would be considered appropriate. An alternative to a signalized intersection is a HAWK beacon, though such infrastructure would not provide benefits for bus travel. A HAWK beacon provides a protected pedestrian crossing and may be warranted to allow users to cross Central Avenue and directly access the Four Hills Village shopping center. See the Pedestrian Crossings section for additional discussion.

Site 4

This site can be served by the signal at Central Avenue and Dorado Place. The eastbound left turn bay at Dorado Place is approximately 80 feet long, which equals the length of three vehicles. This turn bay will likely need to be extended to allow sufficient length for multiple buses to stack in the turn bay at the same time, including articulated buses, which are approximately 60 feet long. A driveway could also be located along Central Avenue west of Dorado Place to provide an additional means of access and egress for motorists. ART buses heading west could exit using the driveway along Central Ave. Local buses (i.e. Route 1 and Route 66) would need an internal circulation path to get back to the entrance/exit at Dorado Place so they can make a left turn onto Central Avenue eastbound to complete their circuit.

Pedestrian and Bicycle Connections

This section describes general conditions for pedestrians and bicyclists, including the presence and condition of sidewalks, the type and level of connectivity for bicyclists, and opportunities to cross Central Avenue. The Study Area features a high share of low-income households for whom transit is a primary means of accessing jobs and services across the region. As a result, many users will access the park-and-ride facility on foot or by bicycle. Providing quality pedestrian and bicycle access to and from the site is a major consideration, particularly for residential neighborhoods surrounding the Study Area and job sites along Central Avenue. These connections are also critical for increasing transportation options and enabling residents to travel around the region without relying on a private vehicle.

Table 19: Existing and Desired Street Elements on Central Ave

Street Element	Existing Conditions	Desired Conditions
Sidewalk Width	5-6'	10-12'
Buffer Zone	N/A	6-8'
Travel Lane Width	10' stiped buffer area 11-12' inside lanes	10-12'
Speed (MPH)	40	30-35
Frequency of Pedestrian Crossings*	1,760 feet	Signalized Crossing: 1,320' Designated Crossing: 600'
Bike Lane Width	N/A	6-6.5'
Bike Buffer Width	N/A	0-3'

**For Activity Centers*

Pedestrian Facilities

Regardless of the selected site, principal pedestrian connections to the park-and-ride facility from surrounding residential areas would be via Dorado Place and Central Avenue. ADA compliant sidewalks with buffers are present along Dorado Place south of Central Ave; however, the quality of sidewalks along Central Avenue is generally poor. Although the recent reconfiguration of Central Ave created a striped buffer between sidewalks and vehicle lanes, sidewalks are narrower than recommended and are marked by obstructions and uneven surfaces at driveway entrances. Vehicle traffic is also a significant obstacle to pedestrian travel in the area. The posted speed along Central Avenue is 40 MPH, while the distances between signalized intersections and the lack of enclosure along the street creates conditions that encourage motorists to travel at high speeds.

Pedestrian Crossings

Crossing Central Avenue is a major challenge in the Study Area. As a five-lane roadway, including the center-turn lane, the crossing distance for Central Avenue is particularly long. Signalized pedestrian crossings are located at two intersections in the Study Area – Central Avenue and Dorado Place and Central Avenue and Tramway Boulevard – which are approximately 1,760 feet or about 1/3-mile apart. Though this level of spacing is not uncommon along east Central Avenue, more frequent pedestrian crossings are desirable in locations with high levels of pedestrian activity and areas with frequent transit service. Per the DPM, signalized pedestrian crossings are recommended every 1,320' or less along Major Transit Corridors that pass through a designated Activity Center, while designated crossings (which could be signalized or unsignalized) should be provided every 600' or less. The DPM also indicates a designated pedestrian crossing should be provided within 100' of a transit station, such as a park-and-ride facility. However, due to number of lanes, speed, and traffic volumes along Central Ave, the DPM guidance would not recommend a pedestrian crossing that is unsignalized in the Study Area.

Bicycle Facilities

Though direct connections to the proposed sites are limited, there are various bikeway facilities in the general Study Area (see Figure 12). On the east end of the Study Area, a multi-use trail is located along Tramway Boulevard north of Central Avenue. Narrow on-street bike lanes are also present along Tramway Boulevard from Wenonah Avenue to Central Avenue. East-west connections south of Central Avenue include functional though unsigned bike lanes along Dorado Place and Wenonah Avenue between Singing Arrow Drive and Tramway Boulevard, as well a designated bike route (and proposed bike lanes) along Singing Arrow Drive south of Wenonah Avenue.

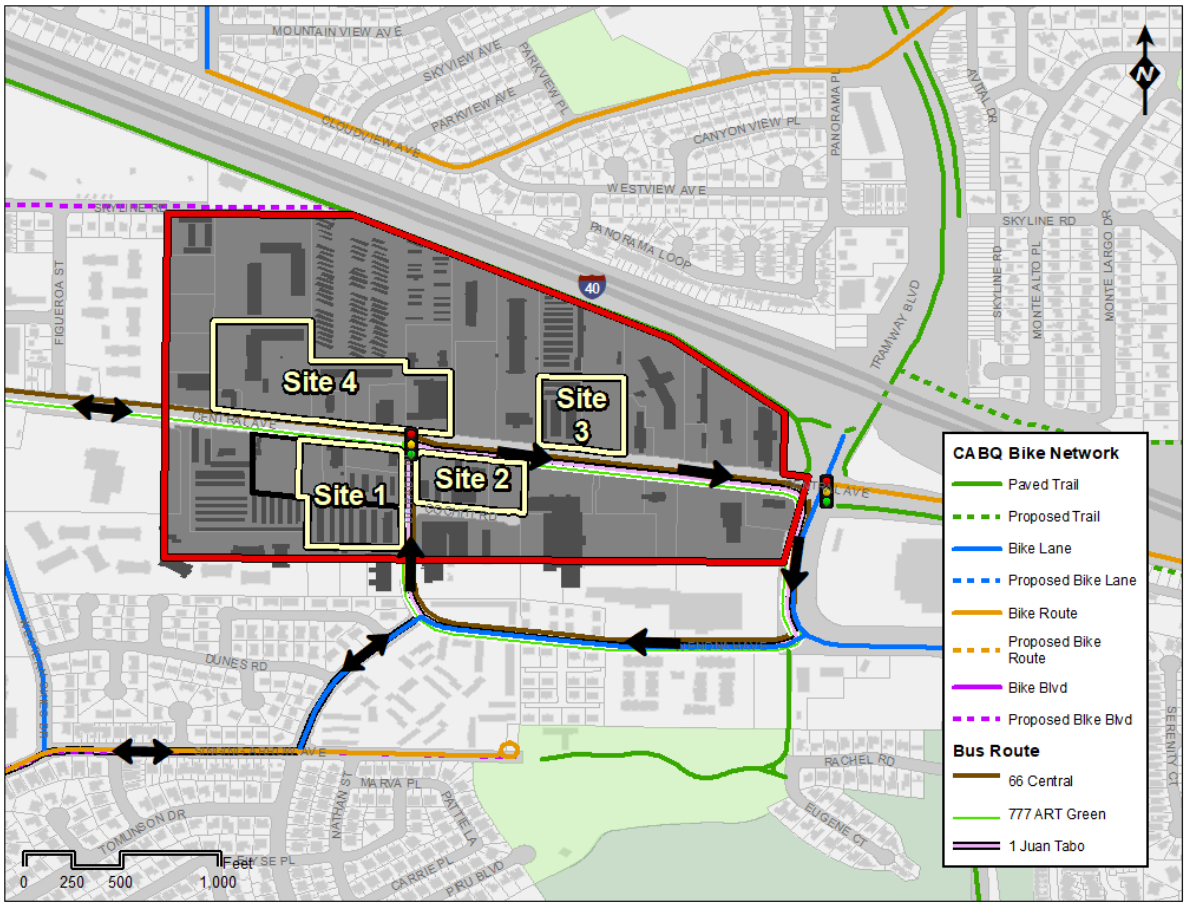
Bikeway facilities north of Central Avenue include a multi-use trail along the south side of I-40 from Tramway Boulevard west to Eubank Boulevard; however, the only access point in the general Study Area is at Tramway Boulevard. Proposed facilities include bike routes along Western Skies Drive from Singing Arrow Drive to Skyline Drive and along Skyline Road from Juan Tabo Boulevard to the I-40 trail.

The existing bikeway network leaves various gaps, including the connection along Dorado Place from Wenonah Avenue north to Central Avenue. The bikeway network north of Central Avenue is entirely proposed and there are no existing connections from the Central Ave/Tramway Boulevard area to the proposed site. Additional access points to the I-40 east trail are desirable to improve connections to the proposed park-and-ride site. Since the bicycle network is limited, connections to the proposed park-and-ride site via easements should be pursued. On-street bike lanes along Central Avenue are included in the Long-Range Bikeway System, maintained by MRCOG, and have been recently identified as a priority gap in the regional bikeway network by the Greater Albuquerque Bicycling Advisory Committee.

Reconfiguration of Central Ave

East Central Ave was reconfigured in 2021 by removing the outside travel lane in each direction and replacing it with a ten-foot striped buffer area. The reconfiguration reduced the total travel lanes from six to four, which was possible due to modest traffic volumes. The striped buffer area serves to separate the sidewalk from fast-moving traffic. In some locations the striped buffer area is converted to a right-turn lane, which could provide future access to a park-and-ride site and help separate turning buses from through-traffic.

Figure 12: Multi-Modal Access to Proposed Sites



Summary Pedestrian and Bicycle Analysis

Based on the distribution of residential units and the logical routes to access the Study Area, Sites 1 and 2 would provide the easiest access and shortest path for pedestrians and bicyclists to a park-and-ride facility. Other benefits for these sites include the fact that no crossings of Central Avenue would be required to meet the needs of most transit users. Transit users arriving at the facility to access services, entertainment, or job sites around the Four Hills Village could similarly access their destinations without crossing Central Avenue.

If Sites 3 or Site 4 were selected, an additional signalized pedestrian crossing such as a HAWK signal should be pursued to the east or west of Dorado Place respectively. (Given the width of the roadway and speed and volume of the traffic along Central Avenue, an unsignalized crossing is not advisable.) Many users would likely travel to Central Avenue via Western Skies Drive to the west of the Study Area and would be unlikely to rely on the signal at Dorado Place to cross Central Avenue. Benefits of Site 4 include the proximity to existing housing within and to the west of the Study Area, though site access could be improved. By contrast, Site 3 offers the least convenient access for pedestrians and bicyclists in the Study Area.

Environmental Analysis

A preliminary screening of potential environmental impacts within the Study Area was performed to support site selection efforts. This screening includes a fatal flaw analysis of the social, economic, and environmental resource areas required under the National Environmental Policy Act (NEPA). If federal funding is applied to this project, further analysis and documentation will be required prior to property acquisition, final design, and construction. This analysis was based on the Study Area as a whole; if the results identify a potential impact specific to a proposed site, it is noted. Based on the preliminary screening effort, no significant impacts have been identified for any of the proposed sites. Further analysis would be required for the preferred site to ensure compliance with NEPA, based on funding parameters.

Environmental factors considered as part of this study include:

- Land use
- Demographics
- Biological resources
- Hazardous materials
- Floodplain
- Historic buildings and cultural sites
- Air and noise
- Economic development
- Multi-modal infrastructure
- Community cohesion

Land Use

The Study Area consists of a mixture of commercial and residential development, with several vacant parcels including an approximately three-acre lot in the northwest portion of the Study Area. It is important to note that for the environmental analysis extended stay motels are considered residential because they provide temporary and long-term housing.

The Study Area is zoned primarily as mixed-use high density with some areas zoned as mixed-use medium density. A park-and-ride facility is allowed by right in mixed-use medium density zoning and as a conditional primary use in mixed-use high-density zones. Refer to the Land Use section for more information on current land uses.

Land Use Summary: *A park-and-ride facility is an allowable use for all proposed sites. Residents in a long-term motel could be displaced if Site 4 is selected.*

Demographics

The demographics in the Study Area are based on American Community Survey (2014-2018) 5-year estimates for census tracts in the immediate Study Area and surrounding vicinity. The census tracts located in the immediate Study Area are significantly more transit-dependent than surrounding areas and the overall City and County. The immediate Study Area also has notably higher poverty rates than surrounding areas, the City, and the County. Refer to the Demographics section for more socioeconomic and demographic analysis.

Demographics Summary: *The presence of the transit facility will likely result in positive overall impacts by increasing transportation options for populations that are low-income and transit-dependent compared to the city at-large. The demographics are similar among the individual sites.*

Visual Resources

Buildings in the Study Area are one-to-three stories in height. The Sandia Mountains are within the viewshed of the Study Area but are not expected to be impacted given that the park-and-ride maintains a height similar to that of other buildings in the area. Figure 13 depicts the viewshed as seen from Central Avenue and Dorado Place, the main intersection of the Study Area.

Figure 13: Central Avenue Eastbound at Dorado Place

***Visual Resources Summary**: All four proposed sites have limited or no potential impact to visual resources.*

Biological Resources

Biological resources that are managed under NEPA include both plants and animals as well as associated habitats that are listed as threatened and/or endangered on the state and federal level. The BISON database was consulted to determine potential threatened and endangered species within the Study Area.[8] Given the urban setting, it is not expected that there are any threatened and endangered species, or their associated habitat, within the Study Area. However, if any trees are to be removed as a result of design, field surveys will need to be done prior to construction to ensure protection of migratory birds.

***Biological Resources Summary**: All four proposed sites have limited or no potential impact to biological resources.*

Hazardous Materials

Hazardous materials impacts are based on documented previous spills or leaks of contaminated materials as well as land uses that have a higher potential for contamination. In an effort to evaluate the potential impact of hazardous materials, state and federal data bases were consulted and a desktop survey of land uses was completed. Hazardous materials data base search results indicated the following:

- There are currently no **Superfund** sites in or immediately surrounding the Study Area[9]
- There are no **Hazardous Treatment, Storage, and Disposal Facilities** in or immediately surrounding the Study Area[10]

[8] https://www.bison-m.org/BisonReportView.aspx
[9] https://ejscreen.epa.gov/mapper/
[10] https://ejscreen.epa.gov/mapper/

- There are no **Hazardous Waste Permitted Facilities** in the Study Area[11]

There are no **Active Leaking Petroleum Sites** in the Study Area[12]

Table 20 contains the land uses within the Study Area which present potential for hazardous materials, based on the desktop survey. At this time none of these sites have been identified as an immediate concern with regard to hazardous materials or any associated impacts.

Table 20: Hazardous Land Uses in the Study Area

Hazardous Land Use	Location	Site/Study Area
Alon Gas Station	SW Corner of Central/Tramway	Study Area
DeFazio's Auto Service	~750 ft West of Central/Dorado: Eastbound	Study Area
East Central Tire	~750 ft West of Central/Dorado: Westbound	Site 4
Ducati Motorcycles	~300 ft West of Central/Dorado: Westbound	Site 1

***Hazardous Materials Summary**: All four proposed sites have limited or no potential impact from hazardous materials, although Sites 1 and 4 each have one land use with a higher propensity for impacts.*

Floodplain

The Federal Emergency Management Agency (FEMA) identifies floodplain conditions to help prepare for, protect against, and mitigate floodplain hazards. According to FEMA, the Study Area is located in an area of minimal flood hazard (Zone X). However, large-scale drainage infrastructure is present and flood risks are low. Applicable requirements to address floodplain conditions will be adhered to throughout project development.

***Floodplain Summary**: Due to the type of drainage infrastructure, there is limited or no potential impact due to floodplain conditions to the four proposed sites.*

Historic Buildings and Cultural Resources

According to the National Register of Historic Buildings, there are no registered historic buildings within, or adjacent to, the Study Area.[13] Given the urban nature of the Study Area, limited or no archaeological sites are anticipated.

[11] https://www.env.nm.gov/hazardous-waste/permitted-facilities/
[12] https://www.env.nm.gov/petroleum_storage_tank/reports-and-lists/
[13] National Park Service, National Register of Historic Buildings Database https://www.nps.gov/subjects/nationalregister/database-research.htm

However, if federal funding is applied, then a cultural resources field survey may be required, prior to final design and construction, to identify and mitigate any archaeological sites within the preferred site location. Level-of-effort required for further analysis of cultural resources will be determined by the type of federal funding and the funding agency.

Historic Buildings and Cultural Resources Summary: *All four proposed sites have limited or no potential impact to cultural resources.*

Air and Noise

Under NEPA, the potential for air quality and traffic noise impacts are considered for all transportation projects. The park-and-ride facility has the potential to improve air quality based on the increase in transit use and associated reduction in reliance on personal vehicles. Higher transit use reduces vehicle miles traveled and traffic congestion which, in turn, improves air quality. In addition, transit-oriented development in the area is intended to encourage biking and walking as an alternative to using personal vehicles, which could also further reduce emissions benefitting air quality conditions. Refer to Section 6.1.2.3 of the City of Albuquerque-Bernalillo County Comprehensive Plan for information on Environmental and Health Impacts of Transportation.

The Study Area is primarily urban with a higher level of ambient noise and the traffic volume increase associated with the proposed project is expected to be minimal. See the Traffic Analysis section for additional information. Therefore, the addition of this proposed project is not anticipated to result in a noise impact. However, if federal funding is applied then a noise study may be required prior to final design and construction of the preferred site location. The level of effort required for the potential noise study will be determined by the type of federal funding and the funding agency.

Air and Noise Summary: *All four proposed sites have limited potential impact to air quality or noise levels.*

Economic Development

The proposed park-and-ride is anticipated to improve economic development opportunities along this section of Central Avenue. Transit investments are known to encourage private reinvestment as they bring more people and more foot traffic to an area. The presence of a formal transit facility can also enhance access to jobs and services across the City.

Depending on which of the proposed sites is chosen for construction, there may be some loss or relocation of existing businesses. However, the end result is not expected to cause a long-term negative impact to the local economy. In some cases, adjacent business may be integrated into the park-and-ride resulting in an improved business scenario. Any and all relocations will be required to be completed under applicable local, state, and federal regulations.

Economic Development Summary: *All four proposed sites have limited or no potential negative impact to economic development, with varying levels of potential benefits.*

Multi-modal infrastructure

Current pedestrian and bicycle infrastructure is limited within the Study Area. While sidewalks are present along Central Ave, there are limited crossing opportunities and high vehicle speeds create an unwelcoming pedestrian environment. There are also no bike lanes connecting to, or along, Central Avenue in the Study Area. Any of the proposed sites would result in an improvement to non-vehicular access at the preferred site location. Refer to the Pedestrian and Bicycle Connections section for detailed information on existing and proposed multi-modal access and infrastructure.

***Multi-modal Infrastructure Summary**: The presence of the transit facility will likely result in positive overall impacts by increasing multi-modal options for area residents. The four proposed sites have limited or no potential negative impact to multi-modal access.*

Community Cohesion

Community cohesion under NEPA includes evaluating access to local services, housing options, and overall quality of life for area residents. The proposed park-and-ride facility could serve as a community hub by facilitating access to local services and encouraging pedestrian access. Improving pedestrian access to the park-and-ride facility would create an opportunity for residents to forgo personal vehicle use and engage in additional walking trips, yielding potential public health benefits.

Housing options along the Central Avenue corridor in the Study Area include seven motels, a mobile home park, and an RV park. Considering that the local motels appear to function as semi-permanent housing, the potential modification to the Mountain View Inn required for Site 4 would result in an impact to community cohesion. If Site 4 is chosen as the preferred site location, the level of impact will be further defined during final design as the quantity of lost housing units are clarified. This detail will be included in subsequent environmental documentation that may be required if federal funding is applied. Any and all relocations will be required to be completed under applicable local, state, and federal regulations.

***Community Cohesion Summary**: Proposed sites 1, 2, and 3 have limited or no potential negative impact to community cohesion. Site 4 could result in some level of impact based on the potential displacement of long-term residents of the Mountain View Inn. All four sites provide some level of opportunity for benefits to community cohesion.*

Summary

There are few expected overall environmental impacts to any of the preferred site locations in the Study Area, with only limited impacts to individual sites. Potential positive impacts of note regardless of the selected site include benefits to economic development and community cohesion through improved access to jobs and services. Potential negative impacts of note include the loss of housing in Site 4 from the modification to a long-term stay motel, as well as the higher propensity for impacts related to hazardous materials at individual locations in Sites 1 and 4.

Table 21: Environmental Assessment Summary Table

Consideration	Impacts
Land Use	Little or no impact anticipated
Demographics	Little or no impact anticipated
Visual Resources	Little or no impact anticipated
Biological Resources	Little or no impact anticipated
Hazardous Materials	Site 1 and Site 4 each have one land use with a higher propensity for hazardous materials
Floodplain	Little or no impact anticipated
Historic Buildings and Cultural Resources	Little or no impact anticipated
Air and Noise	Little or no impact anticipated
Economic Development	Little or no impact anticipated
Multi-modal Infrastructure	Little or no impact anticipated
Community Cohesion	Residents in a long-term motel could be displaced if Site 4 is selected

Utilities

This review is meant to provide ABQ RIDE staff and City officials with general conditions of utilities in the Study Area, including existing water and wastewater lines and potential impacts to site design. The analysis below is intended for site screening purposes only and is based on published maps of the City of Albuquerque utilities systems. No as-builts were obtained for this analysis. The analysis examined horizontal locations of utilities infrastructure only and does not consider the vertical depths. Detailed utilities requirements would need to be considered as part of the site design phase.

Wastewater

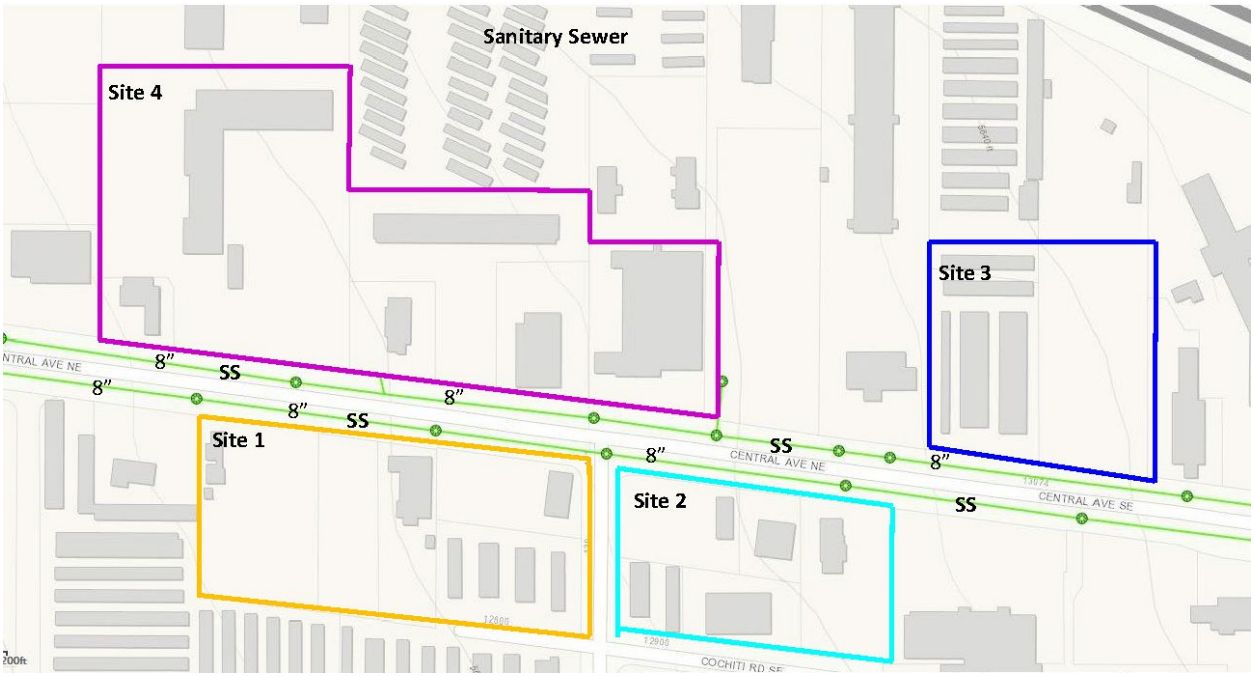
Description

Horizontal sewer lines are located on both sides of Central Avenue, meaning that none of the proposed sites would require service to be pulled to the opposite side of the roadway. Further analysis and understanding of the vertical depth of the sewer lines will be required during site design.

Summary/Takeaways

There are no advantages or disadvantages to any of the sites in terms of the locations of the sewer main lines.

Figure 14: Wastewater Infrastructure in the Study Area



Water

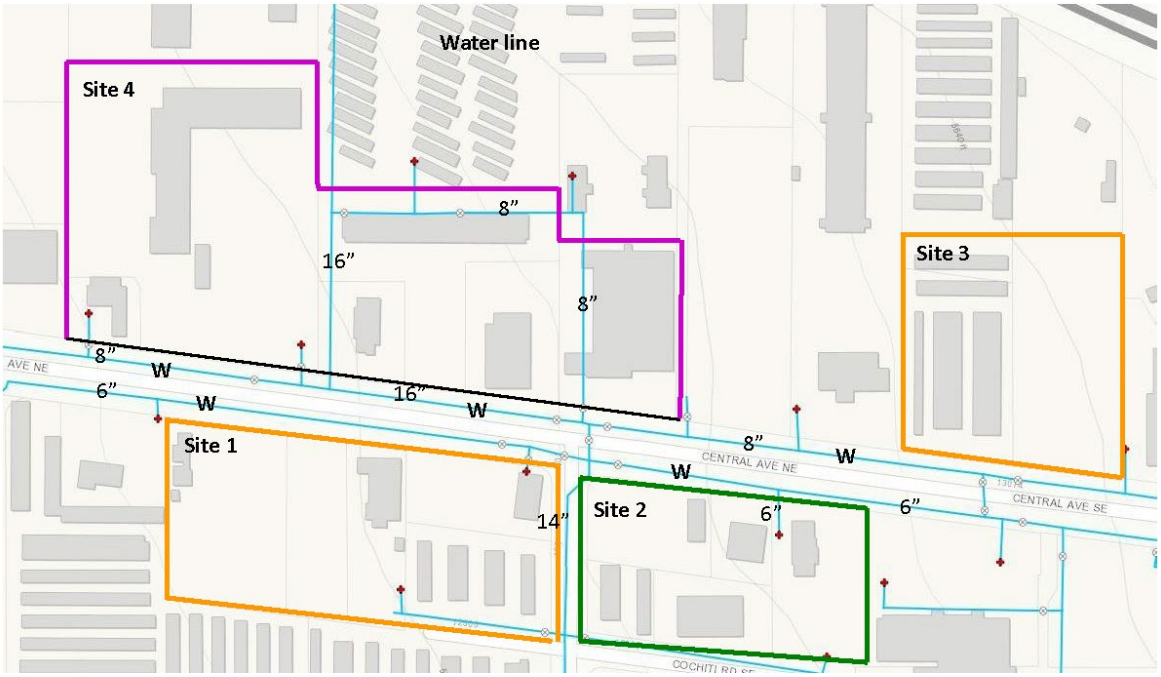
Description

Water distribution lines are located on both sides of Central Avenue, meaning that sites on opposite sides of the roadway should have relatively easy access water utilities. However, the Water Utility Authority (WUA) must approve connections to the main distribution lines and coordination with the WUA will be required. Other water lines connect to parcels to the north of Site 4.

Summary/Takeaways

In terms of access to the main water distribution lines, there do not appear to be any advantages or disadvantages to serving Sites 1-3. Site 4 is constrained by the presence of two water lines that pass from south-to-north through the proposed site to a mobile home park. These water lines (16" and 8") create constraints to site development as easements would be required and buildings cannot be located over the water lines to preserve maintenance access. While the presence of these water lines does not preclude site development, it does affect the location of buildings and limit site development opportunities. Parking lots may be located over the water lines.

Figure 15: Water Infrastructure in the Study Area



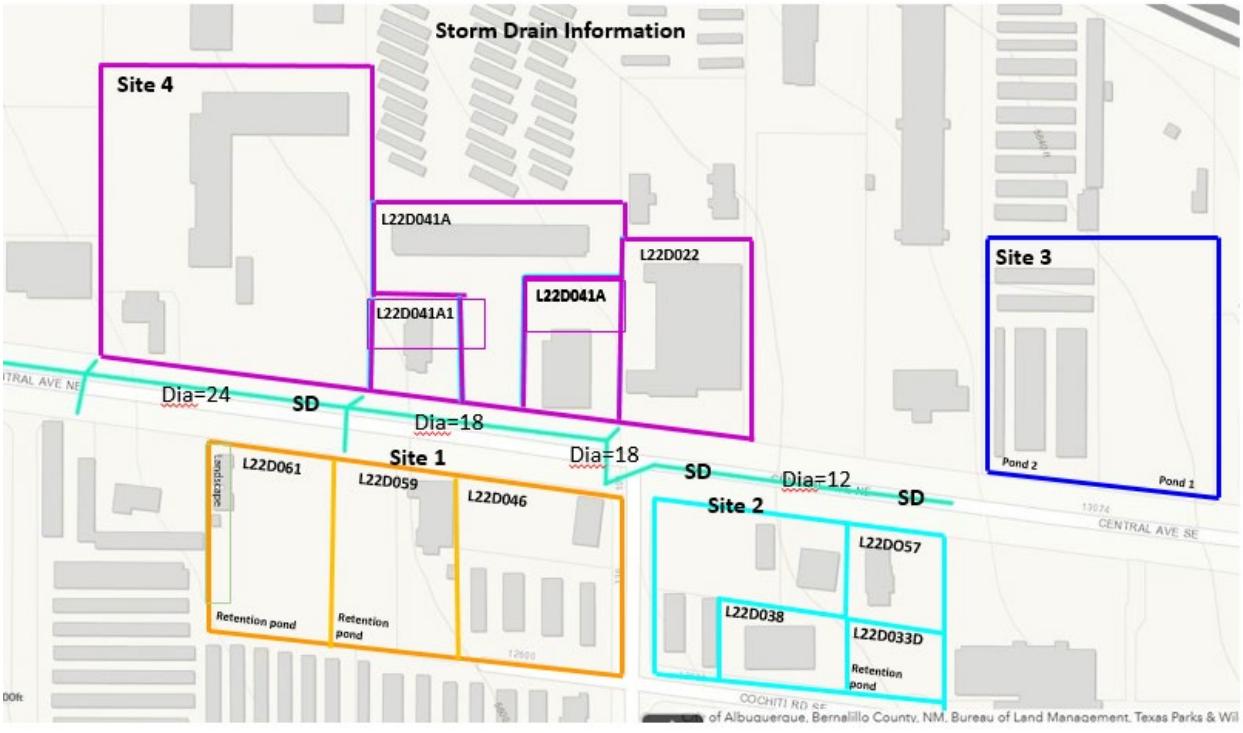
Drainage

General Observations

This review of drainage conditions is based on topographic information, as well as approved site drainage master plans which were referenced to understand likely drainage requirements and potential issues for proposed sites (see Figure 16).

In general, rainwater flows across the Study Area from northeast to southwest. Sites north of Central Avenue drain into the roadway, while sites to the south of Central Avenue must retain water on-site.

Figure 16: Drainage Master Plans in the Study Area



Site Specific Concerns

Site 1

Three drainage master plans were referenced for Site 1. The slope of the site means the water flow would be toward the south part of the property. As a result, retention and detention ponds would be required for stormwater runoff flow. The combined required size of these ponds according to the three referenced plans is 11,799 cu. ft., though the existing retention ponds are somewhat larger. Site 1C (parcel L22D046) also has an approved discharge to Central Avenue. There are no off-site flows associated with the site.

Note that further analysis of the drainage plan for the southern parcel on Site 1 will need to be conducted prior to final site design.

Table 22: Site 1 Drainage Conditions

	Actual Retention Pond Size (Cu. Ft.)	Required Pond Size (Cu. Ft.)	Discharge to Central Ave	Surface Drainage or Storm Drainage	Existing Pond(s)
Site 1A	11,543.0	9,461.0	No discharge	Surface drainage	Yes
Site 1B	1,480.0	1,124.0	No discharge	Surface drainage	Yes
Site 1C	5,343*	1,214.0	Approved discharge	Surface drainage	Yes
Total	13,023.0	11,799.0			

**Likely detention pond*

Site 2

Drainage master plans exist for portions of Site 2, though public information is not available for the entire site. Due to the slope of the site, retention and detention ponds would be required for stormwater runoff flow. Grading and drainage reports indicate that this site has three 4" pipes that are used to discharge flow to Cochiti Road.

Table 23: Site 2 Drainage Conditions

	Actual Retention Pond Size (Cu. Ft.)	Required Pond Size (Cu. Ft.)	Discharge to Central Ave	Surface Drainage or Storm Drainage	Existing Pond(s)
Site 2A	3,041.0	2,160.0	No access or discharge to Central Ave	Surface drainage that connects to local street via a 4" pipe	Yes
Site 2B	No public information available				
Site 2C	2,475*	2,459.0	Approved discharge: three 4" pipe - each 0.33 cfs	Surface drainage	Yes
Total	3,041.0	6,928.5^			

**Likely detention pond; ^This value is based on the required pond sizes for Sites 2A and 2C plus 50% to account for the likely pond requirements for Site 2B*

Site 3

Due to topography, this site drains into Central Avenue and detention ponds are required to slow the flow of stormwater. In addition, off-site drainage from parcels to the north and northeast would likely need to be managed in-site, resulting in a larger pond(s). A grading and drainage plan is available for the western half of Site 3; in addition to discharge pipes onto Central Avenue, two detention ponds are present with total volume of 9,000 cu. ft. The eastern portion of Site 3 has similar drainage characteristics and would likely require an equivalent volume of ponds. Since drainage information is available for part of the site only, the required pond size is doubled to account for uncertainty.

Table 24: Site 3 Drainage Conditions

	Actual Detention Pond Size (Cu. Ft.)	Required Pond Size (Cu. Ft.)	Discharge to Central Ave	Surface Drainage or Storm Drainage	Existing Pond(s)
Site 3*	9000*	18,000	6" steel drain; 4" PVC drain	Surface drainage	Yes

**Size of pond for the known portion of the site only.*

Site 4

Due to topography, this site drains into Central Avenue and detention ponds are required to slow the flow of stormwater. In addition, off-site drainage from the parcel to the north would likely need to be managed in-site, resulting in a larger pond(s). Though Site 4 would require drainage infrastructure than other sites, the size of the site would create greater flexibility in site design and allow for opportunities such as recreational features as part of the drainage infrastructure. Alternatively, the required pond size would be smaller if only a portion of the parcels identified for Site 4 are required for the park-and-ride facility.

Table 25: Site 4 Drainage Conditions

	Actual Detention Pond Size (Cu. Ft.)	Required Pond Size (Cu. Ft.)	Discharge to Central Ave	Surface Drainage or Storm Drainage	Existing Pond(s)
Site 4A *L22D041	48,414.0	16,310.0	All discharges to Central Ave	Surface drainage	No
Site 4B L22D041A	2,617.4	858.8	No discharges indicated	Surface drainage	Yes
Site 4C L22D022	32,960.0	23,725.0	All discharges to Central Ave	Surface drainage	Yes
Site 4 Total	83,991.4	40,893.8			

*Note: *L22D041 is the mobile home located north of Site 4. The parcel is included as the stormwater flow discharges into Site 4.*

Summary/Takeaways

Table 26 translates the pond size, which are assumed to be 3' in depth and are provided in cubic feet, into acres to by dividing the pond size by three. Sites to the south of Central Avenue have the advantage of requiring on-site drainage only. However, based on the topography, retention ponds would likely be required (retention ponds require greater footprints as they must be designed to accommodate a 100-year 10-day event). The ponds for Sites 1 and 2 would each require less than 0.1acres.

Sites 3 and 4 must both manage off-site drainage flows, which would also necessitate a larger facility. Detention ponds would be sufficient, and pond requirements for managing on-site drainage *only* are

0.14 and 0.31 acres respectively. Among the proposed locations, Site 4 offers greater flexibility in terms placement of ponds due to the size of the site.

Table 26: Estimated Drainage Pond Size by Location

Location	Estimated Size (acres)	Pond Size with 15% Contingency (acres)
Site 1	0.09	0.10
Site 2	0.05	0.09
Site 3	0.14	0.48
Site 4	0.31	1.08

Note: The required pond sizes provided in this table are estimates for planning/site selection purposes only. Further analysis is required at the site design phase.

Definitions

- Detention pond: drainage facility intended to slow stormwater flows to a standard rate.
- Retention pond: drainage facility intended to retain all water on site; retention ponds are sized based on a larger storm event than detention ponds (i.e. 100-year 10-day event) and require a larger footprint.

Transit Operations

Overview

Regardless of the site selected, a number of features are needed to support transit operations at the proposed park-and-ride site. This section describes the methodology for quantifying the spatial requirements for transit operations features at the East Central Park-and-Ride. Required features for the site include transit bays, travel lanes and general circulation needs, platforms/passenger amenities, and additional bus stands (i.e. layover areas).

In addition to the travel lanes adjacent to the bus bays and platform, additional space is needed for general circulation by motorists and transit vehicles when accessing and exiting the site. Site access/circulation requirements are based on the average amount of land dedicated for general transportation needs at other park-and-ride sites operated by ABQ RIDE (about ½-acre).

Park-and-Ride Transit Design Assumptions

Number of Bays

For the East Central Park-and-Ride facility, the team assumed (based on discussions with ABQ RIDE planners about their standard practices) that each route would have its own bay at the facility. A minimum of three bays are required since the ART Green Line, Route 1, and Route 66 will serve the facility. An additional bay is included to accommodate growth. Two of the bays should fit a standard 40’ low-floor transit bus while the other two bays should fit a longer articulated transit bus of 60’. Bays can typically accommodate more than one route throughout the day, so additional growth is possible even if no additional bays are built in the long-term. In addition to accommodating future ART services, a second bay for articulated buses could accommodate buses for NMDOT’s Turquoise Route park-and-ride service from Moriarty to Albuquerque, which currently stops at Central Avenue and Eubank Boulevard.

Accommodations for NMODT Turquoise Route

The New Mexico Department of Transportation offers express intercity bus service between Albuquerque and the surrounding areas. Though not currently a stop, the East Central facility could attract service that travels east-west along I-40 to Sedillo, Edgewood, and Moriarty. Over-the-road coaches are typically 40’-50’ feet long so the bays should fit these buses in length. These coaches are often taller (usually around 12-13’ versus about 10’ for low-floor buses), however, so consideration should be given to the height of any shade structures at the facility (at least 14’ high).

Platform and Basic Transit Amenities

At a minimum, the platform area should provide space for passengers to wait, circulate, and queue at the facility, as well as user amenities such as benches, trash receptacles, shade, fare machines or counters, and information areas. A bathroom for bus drivers is needed, and a small break area might also be included.

Transportation Circulation

This study assumes a minimum 0.5 acres of space is required for transportation circulation.[14] The transportation circulation value includes pedestrian connections to the surrounding roadway network and travel ways within the site. In practice, additional space may be necessary for a large park-and-ride facility or if the site layout requires atypical circulation patterns. As a result, additional space is included as a contingency for the overall site requirements. See the Site Requirements Summary section for discussion of the space set aside for contingencies.

Other Features and Contingency

Additional space is also desired for a **staging area** in case additional buses arrive on site before a bay is available. The staging area should accommodate one 40' bus and one 60' bus. ABQ RIDE may also consider **other on-site amenities** to meet transit user needs, though specific uses have not yet been identified. To help assess the overall spatial requirements for the site, this study assumes an additional 4,000 ft² of single-floor building for as-yet-unidentified on-site amenities; the estimate does not include additional parking space. Additional amenities could include a small indoor waiting area, larger and/or public bathrooms, an information booth, and a small driver break room. If the City and/or ABQ RIDE are interested in accommodating other uses, such as offices, conference rooms, childcare center, and storage, the acreage needed grows significantly for the building footprint and separate parking. For reference, the Patrick J. Baca Library near the Central and Unser Transit Center completed in 2015 has a building footprint of about 25,300 sq. ft., which does not include parking for the library.

Platform Design and Area Requirements

The space required for the park-and-ride platform depends on the design type: sawtooth versus parallel. For each design type, the spatial requirements are the sum of the area associated with bus bays, adjacent travel lane(s), and the platform area. The platform area estimates include space for passengers to queue, board and alight the bus, and basic transit amenities (e.g. benches, trash, etc.), and are based on current designs at the Central and Unser and Uptown facilities. The space requirements represent planning-level estimates based on best practices of transit infrastructure design. These calculations can be refined based on actual site dimensions, active ABQ RIDE fleet dimensions, operational considerations, and building requirements. See the Site Evaluation Summary section for estimated total spaced required for various park-and-ride elements by site.

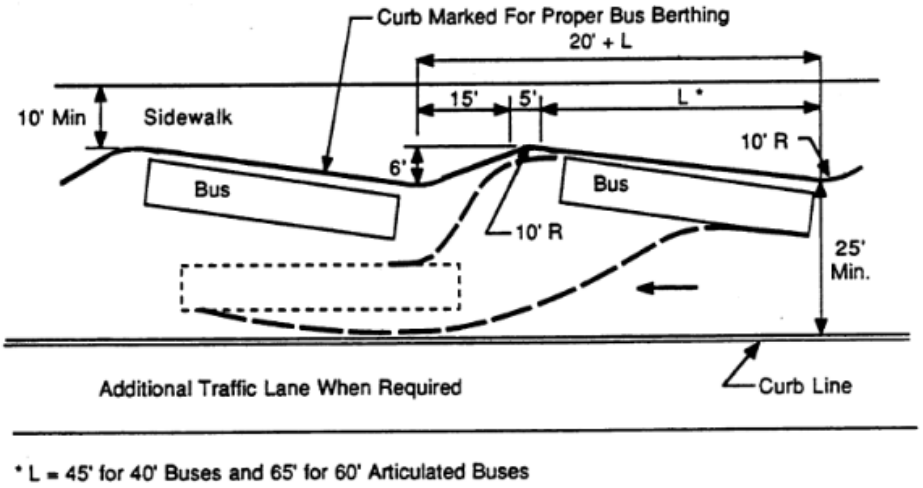
Sawtooth Design

Sawtooth design features bus bays along a linear platform at a slight angle to improve transit vehicle access and reduce the length along the platform (see Figure 17 for an example configuration). Other

[14] The spatial requirement is based on the Central and Unser Transit Center, where 0.5 acres of the site is utilized for transportation circulation.

benefits of sawtooth design include allowing for all-door boarding and alighting and discouraging other vehicular parking.

Figure 17 Example Sawtooth Bus Bays Configuration



The typical bay length for a 40’ bus is around 65’ while the length for an articulated 60’ bus is around 85’. These lengths vary slightly depending on operational needs, but 65’ and 85’ represent typical assumptions. (By contrast, bay lengths for the parallel design are 80’ and 120’ respectively.) The travel lane for buses should be a minimum of 11’ wide and the bay area between the sawteeth and travel lane should be a minimum of 14’ for a total width of 25’. ABQ RIDE’s experience and observations from other facilities has shown that a width of 30’ is more comfortable and easier to navigate, so calculations here use a 30’ total width by increasing the travel lane width to 16’. An additional 3’ of average width is assumed for the waiting area along the sawteeth. Using these dimensions, Table 27 shows that the approximate area for the buses to park and circulate is 9,900 sq. ft.

The platform area estimates for the sawtooth design are based on observed designs from other transit providers and feature an estimated platform width of 25’; the sawteeth are usually around 6’ deep and are added to the space associated with the platform. The resulting area needed for the platform and basic amenities using the sawtooth design is 7,800 sq. ft. (see Table 28).

Table 27 Sawtooth Bus Bay and Travel Lane Estimates

Bus Bay Type	# of Bus Bays	Length (ft)	Width (ft)	Total Length (ft)	Total Area (sq ft)
Standard Buses	2	65	17	130	2,210
Articulated Buses	2	85	17	170	2,890
Travel Lane			16	300	4,800
Total					9,900

*Note: Bay Area = (14’ * Length) + (6’ * [Length/2]) = 17’ * Length*

Table 28 Sawtooth Platform and Basic Transit Amenity Estimates

Bus Bay Type	# of Bus Bays	Length (ft)	Width (ft)	Total Length (ft)	Sawtooth Area (sq ft)	Total Area (sq ft)
Standard Buses	2	65	23	130	390	3,380
Articulated Buses	2	85	23	170	510	4,420
Total						7,800

*Notes: Area includes platform area of each sawtooth (6' * [Length/2])*

The total approximate area for the sawtooth bus bays, platform, and basic transit amenities is 17,700 sq. ft. or 0.41 acres. When the additional space for the bus stand/layover, other amenities, and transportation circulation are added, the total space required for transit operations and circulation at the proposed East Central Park-and-Ride using the sawtooth design is 46,030 sq. ft or about 1.06 acres (see Table 29).

Table 29 Sawtooth Design – Total Area Estimate

Site Feature	Area (Sq Ft)
Bus Bays & Travel Lane	9,900
Platform & Basic Transit Amenities	7,800
Bus Stand/Layover	2,550
Other Amenities	4,000
Transportation Circulation	21,780
TOTAL	46,030

Notes:

- *The bus stand/layover area using the assumed lengths and widths mentioned above is an additional 2,550 sq. ft.*
- *Depending on facility design, additional circulation area may need to be added for the layover buses to reach the platform.*

Other Parking Designs

Straight Line Design

Some park-and-rides also utilize a straight-line design and feature a long single platform, though ABQ RIDE choice not to pursue the idea due to larger space requirements and the greater operational challenges than sawtooth or parallel designs.

Angle Parking Design

Park-and-rides may also utilize an angled car parking design with a steeply angled parking berth/bay for each bus. These facilities allow for a very high number of buses in a small amount of space but require special operational and design considerations. Drivers must reverse to pull-out and obscured sight lines become an issue when buses are parked closely side-by-side. All-door boarding also requires long "teeth" on the sawtooth that are narrow enough to be space efficient but wide enough to provide space for queuing and alighting passengers. Furthermore, ABQ RIDE does not allow their drivers to back up buses under normal circumstances. For these reasons, this type of design was not considered for the East Central facility.

Parallel Design

Parallel designs, where buses are parked front-to-back in parallel to the curb, are commonly used in park-and-ride facilities due to their simple design and flexibility. Parallel designs offer many of the same benefits as sawtooth designs but can be more or less space efficient depending on operational requirements, especially regarding pull-in and pull-out. The pedestrian conflict points for parallel and sawtooth designs are also the same. Figure 18 diagrams a sample parallel facility. Parallel designs are particularly beneficial when a transit system has a pulse, or many buses arriving and departing within a few minutes of each other at specific times every hour. In particular, the parallel-series design allows for buses to be parked closely together and for passengers to make quick connections.

Figure 18 Example Parallel Bus Bays Configuration

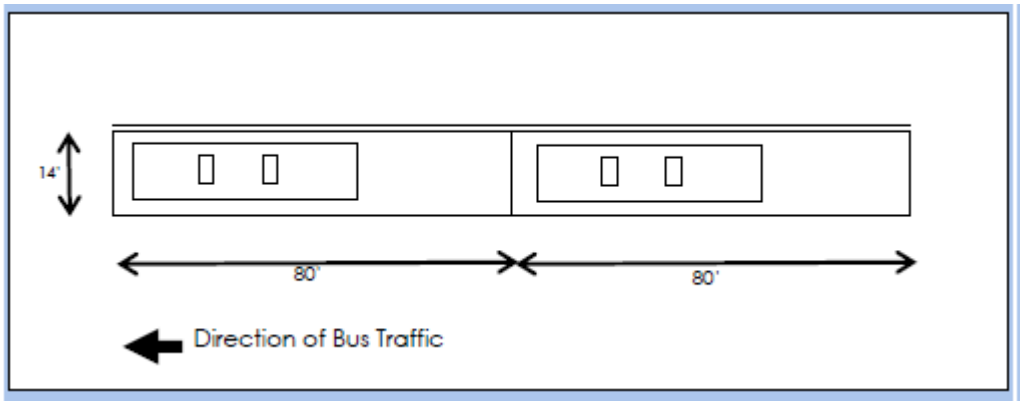


Table 30 shows approximate dimensions for a parallel configuration. The length of the bus bays can vary significantly depending on operational factors. For off-street facilities such as the proposed East Central Park-and-Ride, where speeds will be low and bus circulation well-coordinated, lengths of 60'-80' for a 40' bus are typical. However, lengths at the high end of that range are preferred to make it easier for buses to maneuver when pulling in and out. For purposes of these estimates, and because a pulse is not expected, this analysis assumes 80' bay lengths for 40' buses and 120' bay lengths for 60' buses. While bus bay lengths are longer than in the sawtooth design, widths are narrow (i.e. 14') while the travel lane adjacent to the bays is the same width (i.e. 16'). Using these dimensions, Table 30 shows that the approximate area for the buses to park and circulate is 12,000 sq. ft.

Table 30 Parallel Bus Bay and Travel Lane Estimates

Bus Bay Type	# of Bus Bays	Length (ft)	Width (ft)	Total Length (ft)	Total Area (sq ft)
Standard Buses	2	80	14	160	2,240
Articulated Buses	2	120	14	240	3,360
Travel Lane			16	400	6,400
Total					12,000

*Note: Bay Area = (14' * Length) + (6' * [Length/2]) = 17' * Length*

The platform and basic transit amenity area includes a 25' width on either side of the platform and is a total of 9,200 sq. ft. This equates to about 2,300 sq. ft. per bay, which is larger than the space allocated per bay at the Central and Unser Transit Center. The platform and amenity area for the parallel design is about 18% larger in area than the sawtooth design.

Table 31 Parallel Platform and Basic Transit Amenity Estimates

Bus Bay Type	# of Bus Bays	Length (ft)	Width (ft)	Total Length (ft)	Total Area (sq ft)
Standard Buses	2	80	23	160	3,680
Articulated Buses	2	120	23	240	5,520
Total					9,200

The total approximate area for the bus bays, platform, and basic transit amenities is 21,200 sq. ft. or 0.49 acres. When the additional space for the bus stand/layover, other amenities, and transportation circulation are added, the total space required for transit operations and circulation at the proposed East Central Park-and-Ride using the parallel design is 49,080 ft sq, or about 1.13 acres.

Table 32 Parallel Design – Total Area Estimates (Minimums)

Site Feature	Area (Sq Ft)
Bus Bays & Travel Lane	12,000
Platform & Basic Transit Amenities	9,200
Bus Stand/Layover	2,100
Other Amenities & Contingency	4,000
Transportation Circulation	21,780
Total	**49,080**

Space per Passenger

A final assessment was performed to ensure that the platforms under both design options would provide sufficient space for waiting passengers and could accommodate future growth. By assigning 40% of daily ridership to one of the peak times (≈230 passengers) and using a conservative estimate of just 2,000 sq. ft. for an indoor or outdoor passenger waiting area (the assumed platform area is much larger), the facility would still provide an ample 8.7 sq. ft. per passenger. Building requirements vary by state and jurisdiction, but a minimum of around 4.5 sq. ft. per person is assumed as a comfortable personal standing area. Ridership can therefore grow significantly at the East Central Park-and-Ride facility without creating overcrowding.

Transit Operations Summary

Though either the parallel or sawtooth design would work for the East Central Park-and-Ride facility, the sawtooth design is the preferred option as it offers the easiest circulation for bus drivers and provides some slight space savings. In both designs, slightly over one acre of space is required at a minimum for transit operations and general transportation circulation needs, including motorists and pedestrians (1.06 acres under the sawtooth design and 1.13 acres under the parallel design). Additional space would be required if ABQ RIDE would like to offer amenities beyond the 4,000 sq ft single floor building included in this estimate, or if additional parking is required for those on-site amenities.

Site Evaluation Summary

Site Requirements Summary

The total space required for the East Central Park-and-Ride facility can be understood as the sum of the various site features. The land area associated with the required site features may be contrasted against the available space for each proposed site. This section summarizes the space required for major site features, including:

- Transit operations needs
- Parking area
- Landscaping
- Drainage
- Contingency (e.g. additional site features or circulation needs)

It is important to note that the space required for some of these elements is fixed – such as parking and transit operations needs – while the space required for other features varies by site, such as drainage requirements, which is a function of site conditions, topography, and landscaping, which is determined based on the size of the overall site.

Transit Operations and Transportation Circulation

A total of 1.06 of acres is associated with **transit operations** and general transportation circulation at the site. This amount of space can be considered "fixed" and would apply regardless of the selected site. See the Transit Operations section for additional information. Transit operations includes bus bays, platform areas and basic transit amenities.

The space required for **transportation circulation** and site access is included in the transit operations value and is based on the amount of land dedicated for general transportation needs at other park-and-ride sites by ABQ RIDE.[15] This category includes pedestrian access and a drop-off area with four spaces for waiting vehicles; the actual space required for drop-off areas is about 0.02 acres (9' x 20' x 4 spaces). The possibility that additional space may be required for general transportation circulation needs is accounted for in the continency value for the site.

Parking Assumptions

The total number of parking spaces for the site is based on the demand analysis, which projected 100-116 vehicle trips per day to the park-and-ride facility. Since not all trips would take place concurrently, it is appropriate to use 100 spaces as a target. The total parking area is derived from the total parking area per space (325 sq ft) multiplied by the number of parking spaces. For the purposes of this study, the total parking area is based on an assumed stall size of 9' x 20', or 180 sq ft,

[15] About 0.5 aces is dedicated for circulation at the Central and Unser Transit Center.

plus additional 145 sq ft of space per stall for parking lot circulation (≈ 9' x 16'). Based on the assumed number of spaces, space per stall, and parking lot circulation requirements, a total of about 0.75 acres must be allocated to meet parking needs.

Table 33: Space Required for On-Site Parking

Spaces	Space per Stall (sq ft)	Space for Lot Circulation (sq ft)	Total Area (sq ft)	Acres
100	180	145	32,500	0.75
116	180	145	37,700	0.87

Landscaping

Landscaping requirements are set by the IDO as a percentage of the net lot area and vary based on the location of the site. Specifically, 15% of the net lot area must be dedicated to landscape for sites outside of an activity center or premium transit station area, while 10% of net lot area is required for within an activity center or premium transit station area. This study assumes that 15% of the overall area is dedicated to landscaping.

Drainage

Drainage requirements vary by site, though the amount of space that must be allocated for drainage is relatively small compared to the overall site sizes. The size of the drainage facilities is based on existing drainage master plans and assumes a 3’ depth for retention/detention ponds. These estimates should be used for planning/site selection purposes only; further engineering analysis is required during the site design phase. To account for uncertainty, a 15% contingency is added to the size of drainage infrastructure for each site and further analysis will be required during design.

Contingency

Since site design will take place in a later phase, the feasibility study accounts for uncertainties in site conditions and layout requirements through a contingency that sets aside 20% of the land area of the proposed sites. This contingency is added in addition to contingencies applied for drainage, landscaping, and traffic operations/circulation.

Spatial Requirements Summary

Table 34 summarizes the requirements by site and indicates the projected share of the site that is necessary to support required site features. The estimates include various contingencies to account for uncertainties and issues that could arise during site design. Including the additional space set aside as a contingency, Site 2 is not of sufficient size the meet the requirements for the park-and-ride facility, while Site 3 barely meets the spatial requirements. This fact alone does not disqualify the sites as adjustments could be made to minimize user amenities, ensure no more than 10% of the site is dedicated to landscaping, and to reduce the number of parking spaces below the desired levels. By

contrast, Site 1 and Site 4 are of sufficient size to support the anticipated needs of the park-and-ride facility, this providing greater flexibility in site design.

Table 34: Requirements in Acres by Feature for Proposed Park-and-Ride Sites

Site Feature (Acres)	Notes	Site 1	Site 2	Site 3	Site 4^
Transit Operations	Fixed	1.06	1.06	1.06	1.06
Parking Area	Fixed	0.75	0.75	0.75	0.75
Landscaping	15%	0.75	0.41	0.46	1.33
Drainage	Varies	0.09	0.05	0.14	0.31
Contingency (e.g. Additional Site Features/Circulation)	20%	1.01	0.54	0.61	1.77
Total Acres Needed		3.66	2.81	3.02	5.2
Actual Site Size		5.03	2.71	3.07	8.87
Share of Site from Required Elements (plus Contingency)		72.8%	103.8%	98.5%	58.9%

^Site 4 requirements are based on the assumption that the entire 9-acre parcel is utilized for the park-and-ride facility. In practice, a smaller site would be sufficient to meet facility needs, which would reduce the amount of land required for landscaping and drainage features.

Site Comparison Summary

Preferred Sites

Table 35 contains a brief narrative summary of findings by site for each of the evaluation criteria considered in the East Central Park-and-Ride Feasibility Study, while Table 36 provides ratings based on whether the conditions for each criterion are favorable, neutral, or unfavorable. The table also includes a composite final site suitability assessment. Based on the findings of this feasibility study, **Site 1 and Site 4 are recommended for further consideration**, while Site 2 and Site 3 are not recommended for additional consideration as a park and ride site. The ultimate decision on which site to pursue may be based in part on the ability of the City of Albuquerque to acquire the necessary properties and the costs associated with property acquisition.

Despite being generally accessible, Site 2 is likely too small to meet predicted need and is thus not recommended for further consideration. The principal reasons Site 3 is not recommended for further consideration are the modest site size and that it is the least accessible site for pedestrians. In addition, Site 3 would require a full traffic signal to allow for buses and motorists to access the site.

Site 1 and Site 4 each provide clear benefits and modest drawbacks. Both Site 1 and Site 4 allow transit vehicles and motorists to utilize the signal at Dorado Place to access the site, and both sites can accommodate all anticipated operation needs. Site 1 provides the greatest level of access for

pedestrians and would allow users to access residential areas and the Four Hills Shopping Center without crossing Central Avenue. However, the site is less proximate to potential TOD sites in the Study Area. Due to its size, Site 4 offers the greatest flexibility as well as a high level of proximity to developable land, which could positively influence the urban form in the area. Drawbacks to Site 4 include the presence of utilities that would affect site layout and the need to mitigate off-site drainage. An additional challenge for Site 4 is the potential presence of access easements for parcels to the north of the site. Based on the likely paths for pedestrians to access and egress the site, a designated pedestrian crossing of Central Avenue is recommended from 1/8 to 1/4-mile west of Dorado Place as part of larger improvements associated with Site 4.

Conceptual Site Layouts

To verify that Site 1 and Site 4 are of sufficient size to meet facility needs, and to further diagnose challenges that may arise during site design phase, the Project Team developed conceptual site layouts for each of the preferred sites. The layouts consider site access, parking lot layouts including potential number of spaces, and follow the transit operations specification identified in this study, including the sawtooth layout for platform design. The site layouts demonstrate that each site could support the park-and-ride facility, though challenges related to site access would need to be resolved. For Site 4, reconfiguration of the intersection of Central Avenue and Dorado Place would be required to allow vehicles to access the site without acquiring the Mountain Inn property. A key takeaway from Site 4 is that the desired features of the park-and-ride fit within a smaller area than initially identified. See Appendix A for additional discussion and potential site layout concepts.

Table 35: Comparison of Proposed Sites

	Site 1	Site 2	Site 3	Site 4
Beneficial Land Uses / Zoning	Within 1/8-mile (660') proximity of vacant parcels north of Central Ave; vacant parcel within site (0.68 acres)	Within proximity of vacant parcel north of Central Avenue and east of Dorado Pl; vacant parcel within site (0.65 acres)	Within proximity of vacant parcel north of Central Avenue and east of Dorado Place with high TOD potential; no vacant parcels within site	Adjacent to vacant parcels on east and west sides of site with high TOD potential
Nearby Jobs / Housing within 20-minute Contour	1,598 / 3,748	1,579 / 3,780	1,457 / 3,286 Lowest level of access to housing and jobs among proposed sites	1,639 / 3,805 Highest level of access to housing and jobs among proposed sites
Bicycle / Pedestrian Access	High level of accessibility to nearby residents; no crossings of Central Avenue required	High level of accessibility to nearby residents; no crossings of Central Avenue required	Least accessible for pedestrians and bicyclists; additional crossing of Central Avenue near site may be needed	Moderate level of access; additional crossing of Central Avenue near site may be needed
Traffic Access	Access via signal at Central Avenue / Dorado Place; potential right-in for both ART and local business and right-out for local routes	Access via signal at Central Avenue / Dorado Place; potential right-in for private vehicles	New signalized intersection needed for vehicles to access from Central Avenue	Access via signal at Central Avenue / Dorado Place; potential right-out for ART buses onto Central Ave
Utilities	No known utilities challenges or constraints	No known utilities challenges or constraints	No known utilities challenges or constraints	Water lines across site create some development constraints
Drainage	Retention ponds required; on-site drainage only must be managed. Likely pond size = 0.09 acres (of 5.03 acres).	Retention ponds required; on-site drainage only must be managed. Likely pond size = 0.05 acres (of 2.71 acres).	Off-site drainage must be managed. Likely pond size = 0.14 acres (of 3.07 acres).	Off-site drainage must be managed; size of parcel creates flexibility in siting of detention ponds. Likely pond size = 0.31 acres (of 8.87 acres).
Environmental Impacts	**There are few expected overall environmental impacts to sites in the Study Area, and limited impacts to individual sites. Potential positive impacts of note regardless of the selected site include benefits to air quality, economic development, and community cohesion.**			
	Presence of land use with higher propensity for hazardous materials	No adverse impacts likely	No adverse impacts likely	Presence of land use with propensity for hazardous materials. Displacement of motel residents may affect community cohesion.

Table 36: Site Comparison Summary Table

	Site 1	Site 2	Site 3	Site 4
Beneficial Land Uses / Nearby Vacant Land	◑	◑	○	●
Nearby Jobs / Housing	●	●	◑	●
Bicycle / Pedestrian Access	●	●	○	◑
Traffic Access	●	●	◑	●
Environmental Considerations	●	●	●	◑
Utilities	●	●	●	◑
Drainage	◑	◑	◑	◑
Site Layout Requirements	●	○	◑	●
Overall Site Suitability	●	◑	◑	●

● = Most Favorable
◑ = Somewhat Favorable / Neutral
○ = Not Favorable

Public Involvement

Public Meeting

A virtual public meeting was held for the ABQ RIDE East Central Park and Ride Study on March 1, 2023, via Zoom. The purpose of the meeting was to provide a project overview, share the site selection analysis and results, answer questions, and collect feedback. Simultaneous Spanish translation was available. For a complete public meeting summary please reference Appendix B: Public Involvement Summary.

During the virtual meeting, a Zoom poll was initiated for the attendees. Table 37 below depicts the polling results when asked for opinions on the alternative options and site preferences.

Table 37: Site Selection Polling Results

Polling Questions	Site 1	Site 4
Which site would you prefer for a new Park & Ride Facility?	9 votes	3 votes
	Layout A	Layout B
If Site 1 is selected, which layout would you prefer?	4 votes	7 votes
If Site 4 is selected, which layout would you prefer?	9 votes	0 votes

Public Comment

A summary of public comments received during the virtual public meeting and submitted within the public comment period for one month following the public meeting, is provided below, with comprehensive documentation included in Appendix B: Public Involvement Summary.

Questions and comments from the public were focused on the following topics:

- Parking demand methodology
- How security issues will be addressed
- Potential traffic impacts of a Park and Ride
- Property acquisition process
- Funding sources

Comments expressed the following viewpoints:

- Support for the installation of benches and places to rest, bike lockers, permeable pavement, and bioswales.
- Recommendation that bus drivers should be consulted on their preferred layout.
- Suggestion to consider abandoned commercial space on Juan Tabo and Central as a potential site.
- Concern that a park and ride would increase crime in the area.

- Suggestion that the transit station should be built as a bus turn-around site without the park and ride facility. The commenter stated that a small parking lot could be built initially with more spaces added as needed.

Appendix A: Conceptual Site Layouts

This Appendix contains analysis and conceptual layouts for two options for Sites 1 and 4. The "test fit" scenarios are intended to verify that the desired features can be supported within the identified sites and to identify challenges that could affect the functionality and final design of the site. The conceptual site layouts revealed that each site could meet the needs of the park-and-ride facility, though there are challenges associated with each option. In particular, Site 4 requires access agreements and/or site access modifications that could affect the viability of the site. Acquisition and demolition of various buildings would be required for both sites.

In the case of Site 4, the test fit scenarios also allowed the Project Team to determine if the entire site is necessary to support the park-and-ride facility, or if only a portion of the site (and fewer parcels) would need to be acquired. The primary difference in the Site 4 fits is the alignment of the drive access and intersection of Central Ave and Dorado Place. Consultation with City of Albuquerque Traffic Department is needed to determine if the alignment proposed in Test Fit B is viable. The selected alignment could affect the site design and the need to acquire the Mountain Inn motel.

The Project Team utilized the site requirements established in the main body of this study, including platform size, number of bus bays and design, and transportation circulation requirements. Assumptions and initial concepts were reviewed by ABQ RIDE staff. The Site 4 test fit scenarios generally began with the identification of a set of contiguous parcels and provided parking with remaining space once other needs were met. As a result, the parking supply for both scenarios is slightly below the desired total of 100 spaces, though additional parking could be provided by acquiring an additional parcel(s).

It is important to clarify that the test fit scenarios and conceptual layouts are for planning purposes and that more detailed site layouts will be required as part of a final design phase. Future considerations for final site design include the use of solar panels on platform area, green stormwater infrastructure elements that capture and utilize rooftop runoff and incorporating landscaping into drainage features.

Site 1 – Test Fit A

Design Components and Assumptions

- The Site 1 Test Fit A scenario utilizes about 4.4 acres. The initial site comprises 5.03 acres.
- Buses enter the site from via a right turn from Central Avenue and exit onto Dorado Place. Buses would circulate around the platform in a clockwise direction.
- Private vehicles would enter and exit from Dorado Place.
- Proposes a bus platform with saw tooth layover capacity for 6 buses, pedestrian waiting areas, and a driver restroom.
- Construction of this bus platform would require the demolition of a building on the east portion of the site and the demolition self-storage facilities on the southern end of the site.
- Site layout utilizes an existing vacant parcel.
- A pad site of 0.46 acres for future public amenities is located between the bus entrance and the Taco Bell parcel.

Site Access

- This site utilizes the existing signalized intersection at Dorado Place and Central Ave. This would provide signalized access both for buses and private vehicles traveling to the parking area.
- Bus exit onto Dorado Place would be located about 250 feet south of the intersection with Central Ave with private vehicle access located about 350 feet south of the intersection.
- Maintains the existing Taco Bell property and access.

Parking

- Features parking for a maximum of about 200 vehicles.
- This parking area is accessed from a driveway entrance off of Dorado Place, utilizing the signalized intersection at Dorado Place and Central.

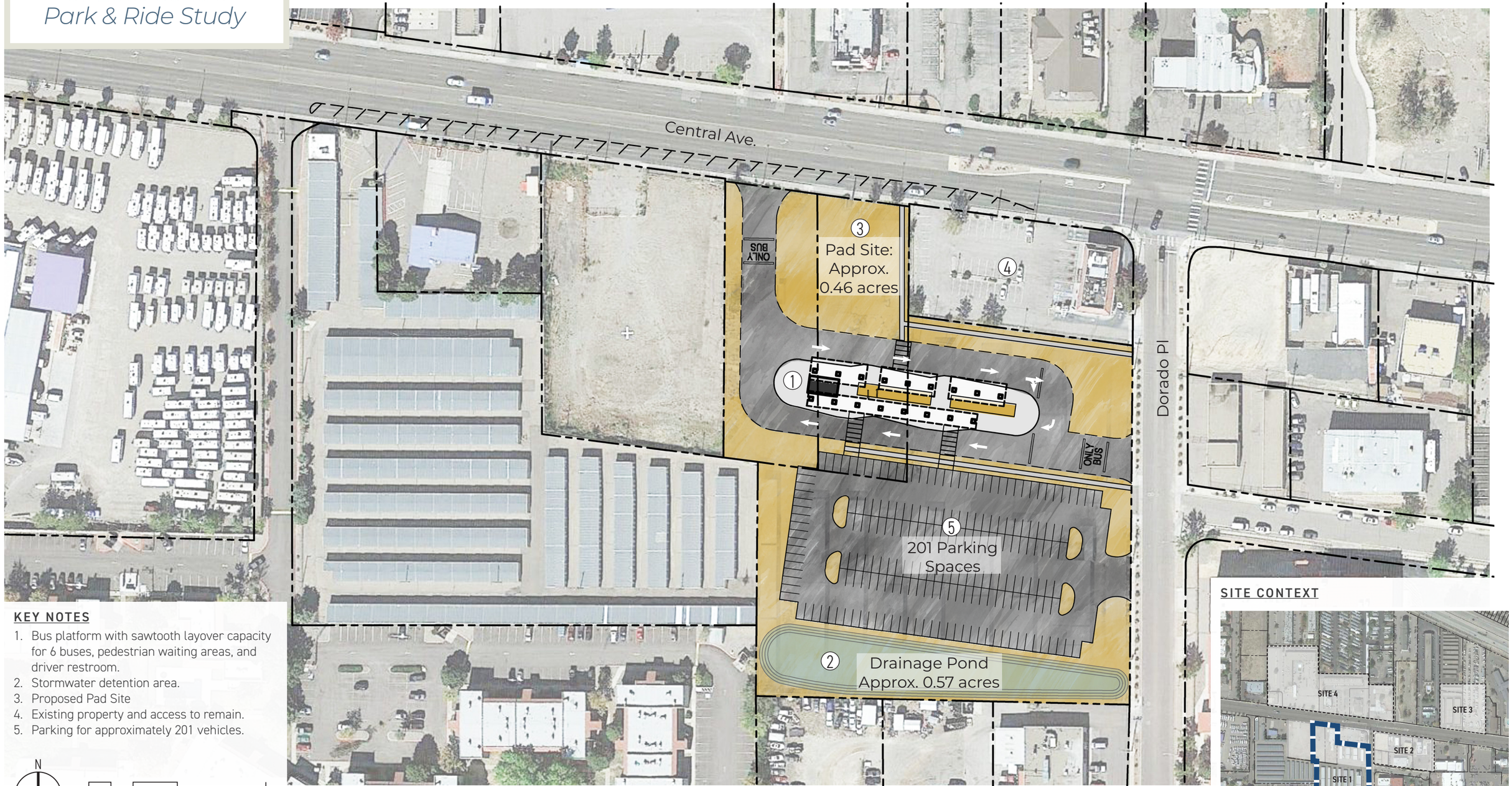
Stormwater/Drainage

- A stormwater drainage pond of approximately 0.57 acres is located towards the south of the site. Drainage can be managed largely through surface methods.
- Other stormwater management takes place in landscape areas throughout the site via green infrastructure systems.

Takeaways and Conclusions

- All required elements fit within the site, including parking levels well above the desired amount.
- The bus exit onto Dorado Place is located within a short distance of the intersection with Central, creating less room for buses to maneuver.
- The 0.46-acre pad site provides opportunities for future public amenities.

SITE 1 - Test Fit Alternative A



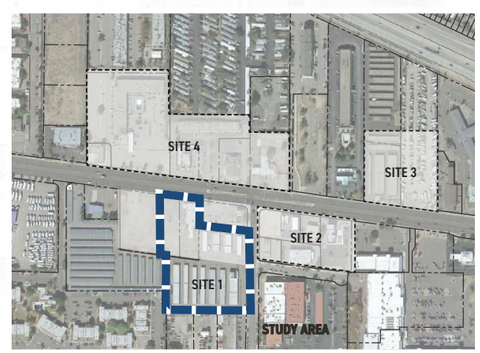
KEY NOTES

1. Bus platform with sawtooth layover capacity for 6 buses, pedestrian waiting areas, and driver restroom.
2. Stormwater detention area.
3. Proposed Pad Site
4. Existing property and access to remain.
5. Parking for approximately 201 vehicles.

N

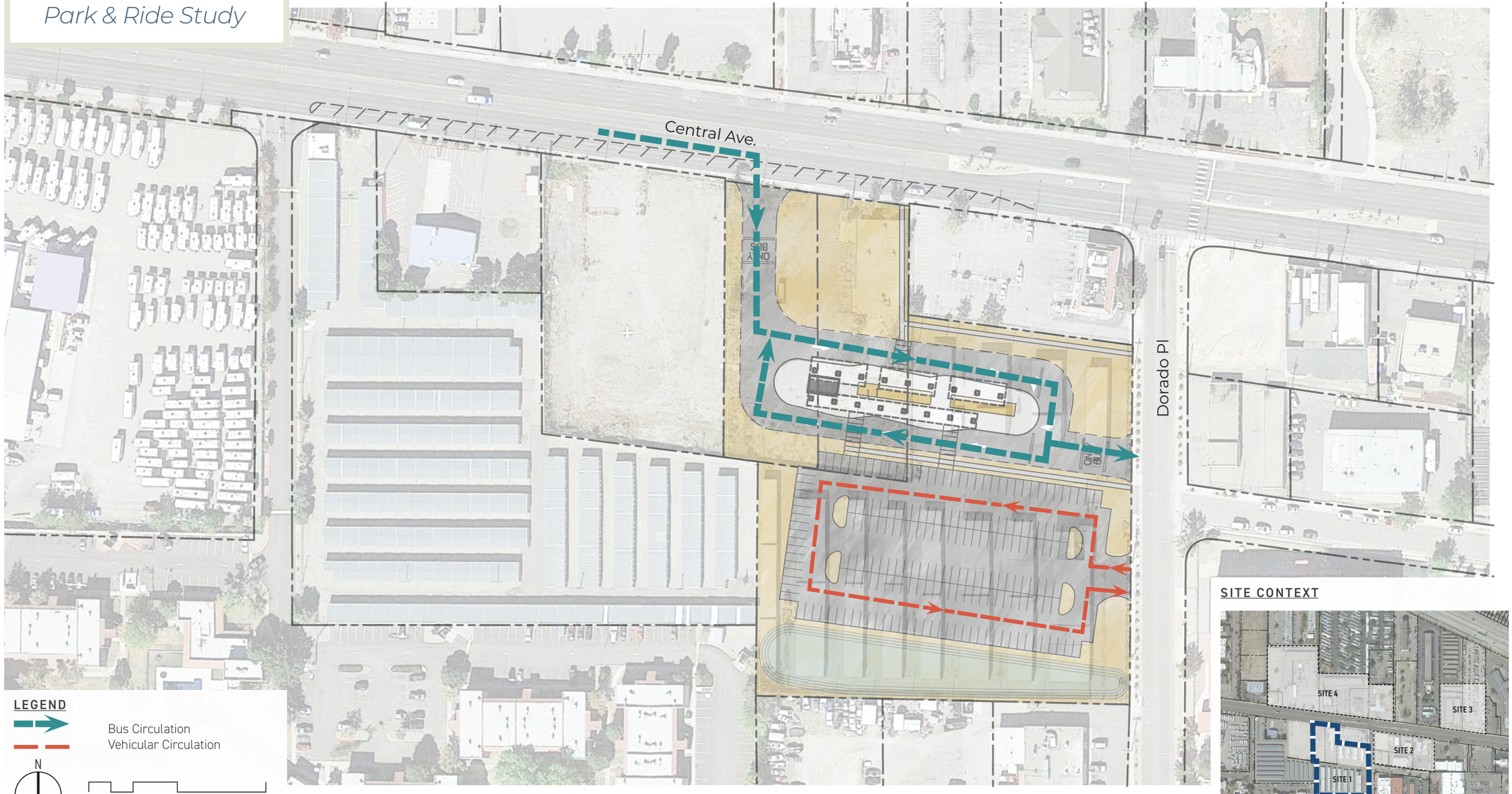
0 100' 200'

SITE CONTEXT



City of Albuquerque
Far East Central
Park & Ride Study

SITE 1 - Site Circulation Alternative A



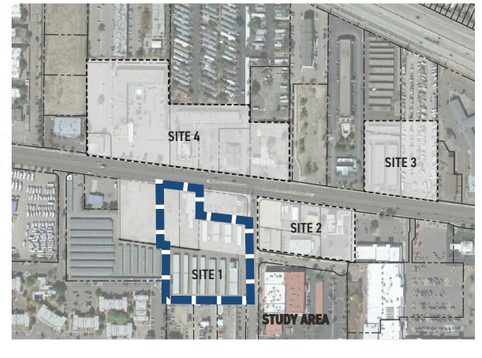
LEGEND

Bus Circulation
Vehicular Circulation

N

0 100' 200'

SITE CONTEXT



Site 1 – Test Fit B

Design Components and Assumptions

- The Site 1 Test Fit B scenario utilizes about 4.4 acres. The initial site comprises 5.03 acres.
- Buses enter the site from via a right turn from Central Avenue and exit onto Dorado Place. Buses would circulate around the platform in a clockwise direction.
- Private vehicles would enter and exit from Dorado Place.
- Proposes a bus platform with saw tooth layover capacity for 6 buses, pedestrian waiting areas, and a driver restroom.
- Construction of this bus platform would require the demolition of a building on the east portion of the site and the demolition self-storage facilities on the southern end of the site.
- Site layout utilizes an existing vacant parcel.
- A pad site of 0.36 acres for future public amenities is located between the bus entrance and the Taco Bell parcel.

Site Access

- This site utilizes the existing signalized intersection at Dorado Place and Central Ave. This would provide signalized access both for buses and private vehicles traveling to the parking area.
- Bus exit onto Dorado Place would be located about 425 feet south of the intersection with Central Ave and private vehicle access would be located about 300 feet south of the intersection (aligned with Cochiti Rd).
- Maintains the existing Taco Bell property and access.

Parking

- Features parking for approximately 162 vehicles.
- This parking area is accessed from a driveway entrance off of Dorado Place, utilizing the signalized intersection at Dorado Place and Central.

Stormwater/Drainage

- A stormwater drainage pond of approximately 0.54 acres is located towards the south of the site. Drainage can be managed largely through surface methods.
- Other stormwater management takes place in landscape areas throughout the site via green infrastructure systems.

Takeaways and Conclusions

- All required elements fit within the site, including parking levels well above the desired amount.
- The bus exit onto Dorado Place is located further from the intersection with Central, creating more room for buses to maneuver.
- The 0.36-acre pad site provides opportunities for future public amenities, although provides slightly less space than Test Fit A.

City of Albuquerque
Far East Central Park & Ride Study

SITE 1 - Test Fit Alternative B

Central Ave.

Dorado Pl

Pad Site
Approx.
0.36 acres
③

④

⑤
162 Parking
Spaces

① BUS ONLY

BUS ONLY

② Drainage Pond
Approx. 0.54 acres

KEY NOTES

1. Bus platform with sawtooth layover capacity for 6 buses, pedestrian waiting areas, and driver restroom.
2. Stormwater detention area.
3. Proposed Pad Site
4. Existing property and access to remain.
5. Parking for approximately 162 vehicles.

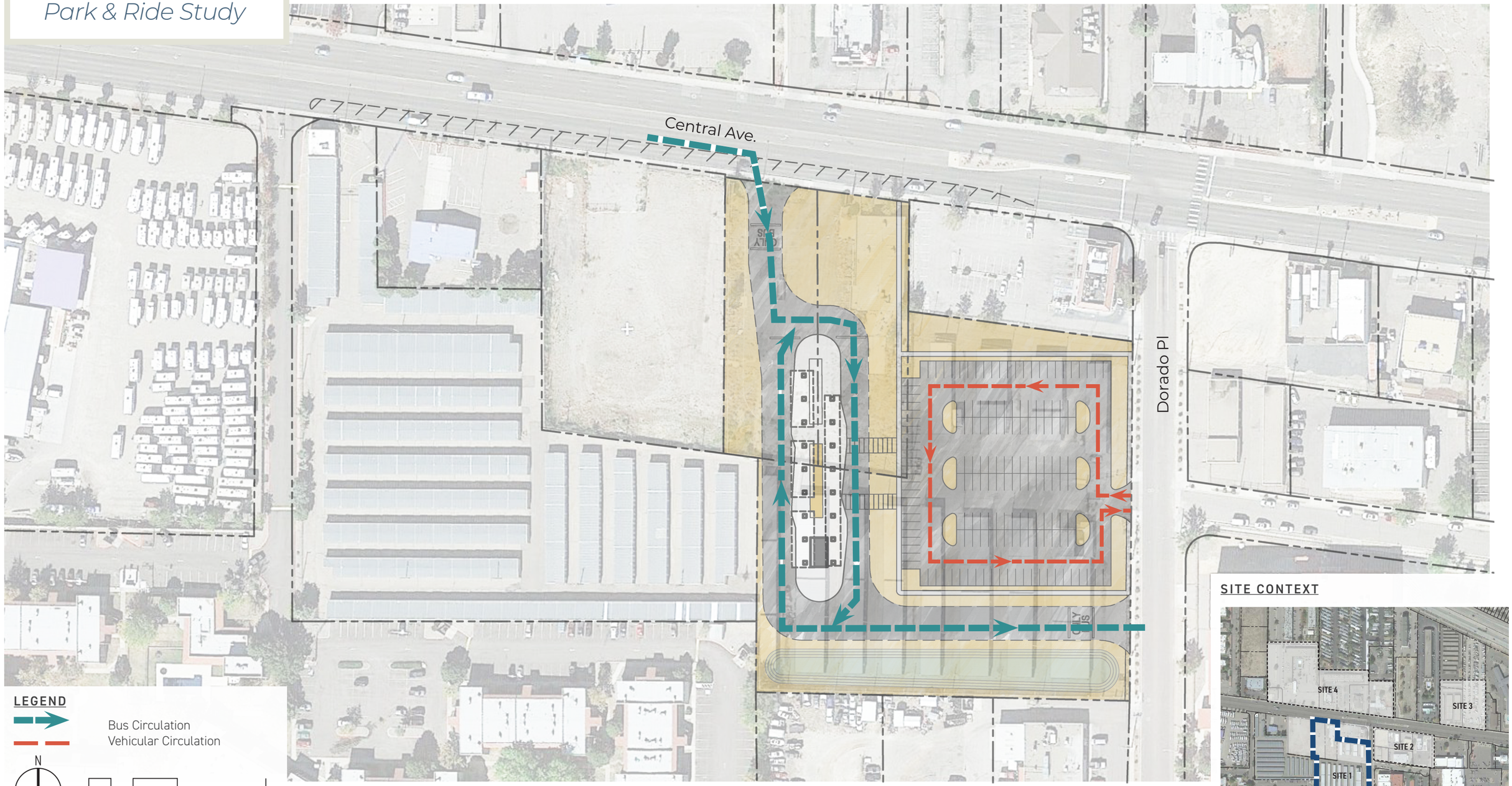
N

0 100' 200'

SITE CONTEXT

City of Albuquerque
Far East Central Park & Ride Study

SITE 1 - Site Circulation Alternative B



SITE CONTEXT

Site 4 – Test Fit A

Design Components and Assumptions

- Site 4 Test Fit A utilizes about 2.71 acres. The initial site comprises about 8.8 acres.
- Buses access the site from the signalized intersection at Central and Dorado and drive around the platform in a one-way, counterclockwise motion before exiting from the intersection at Central Avenue and Dorado Place.
- Proposes a bus platform with saw tooth layover capacity for 6 buses, pedestrian waiting areas, and a driver restroom. Construction of the bus platform would require the demolition of the existing strip mall towards the back of the site.
- Preserves the existing KFC restaurant location.

Site Access

- Features a signalized entrance in line with Dorado Place to the south of Central Avenue. The signal and driveway provide access for buses to the platform in the rear, private vehicles to the parking lot, and other traffic accessing properties to the east and north of the site area.
- The alignment brings vehicles into the location of the porte cochere of the on-site motel and would require at least partial acquisition of the Mountain Inn property.
- Maintains existing access for mobile home properties to the north, although providing separated access for the mobile home park could be considered.

Parking

- Features parking for approximately 93 vehicles with additional room for overflow parking and approximately 80 vehicles to the east.
- This parking area is accessed off of the entry drive connecting to the signalized intersection at Central and Dorado and a right-in-right-out drive off of Central Avenue.
- Construction of this parking area would require the demolition of the existing restaurant building and an approximately 10-foot-wide partial claim of the KFC property parking.

Stormwater/Drainage

- Features approximately 0.4 acres of drainage area in a stormwater basin on the west edge of the site. Locating the stormwater basin in this location would require a partial claim of the property on the western edge of the site.
- Other stormwater management takes place in landscape areas throughout the site via green infrastructure systems.
- The provided stormwater management area is based on the ratio of site area to stormwater area identified in BHI study to the significantly smaller developed site area in this test fit.

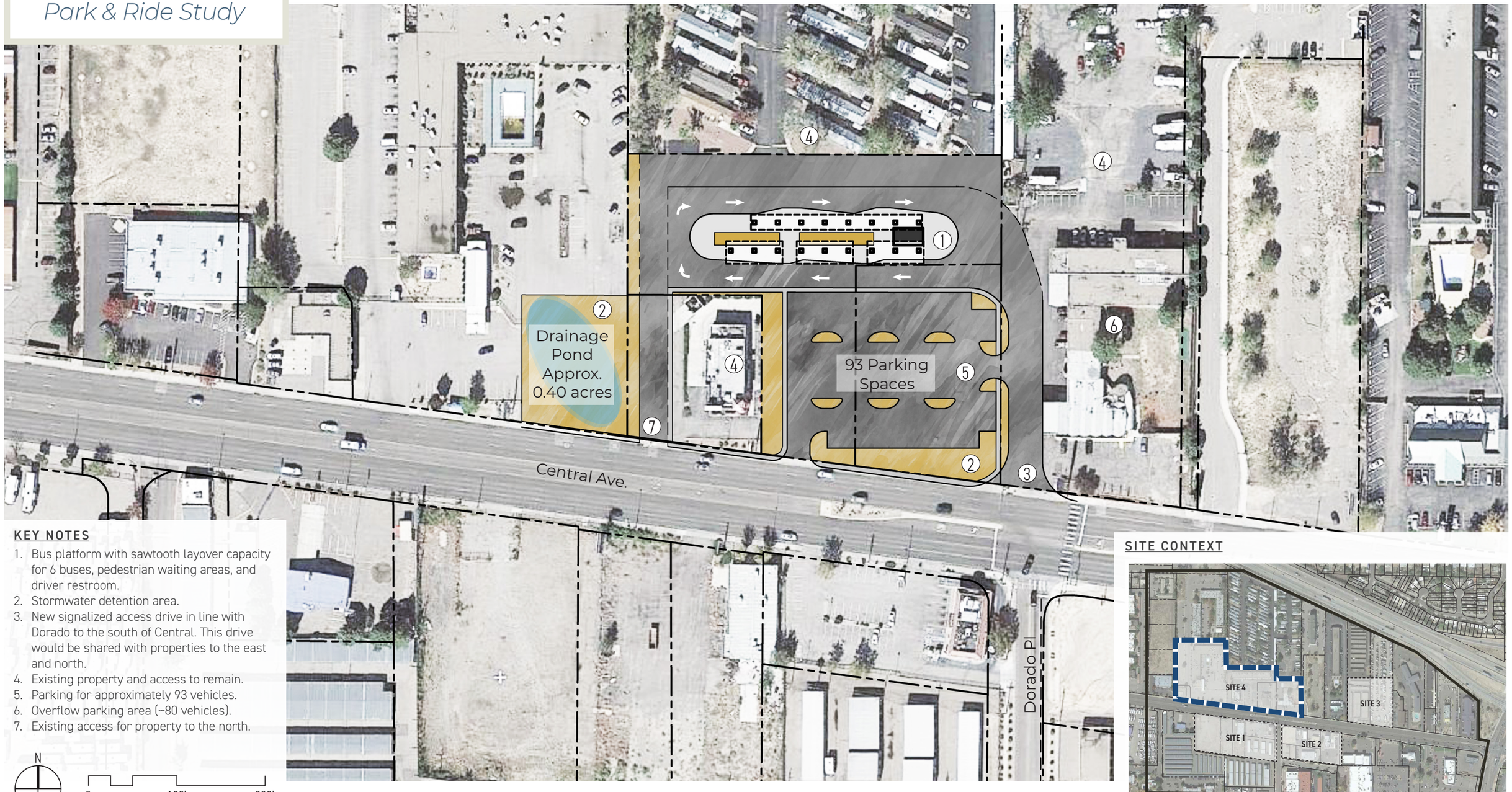
Takeaways and Observations

- A park-and-ride facility can fit in a smaller area than the site initially identified.

- Acquisition of the Mountain Inn may be required, depending on the intersection alignment. The Mountain Inn parcel could also be acquired to support overflow parking and/or support on-site amenities.

City of Albuquerque
Far East Central Park & Ride Study

SITE 4 - Test Fit Alternative A



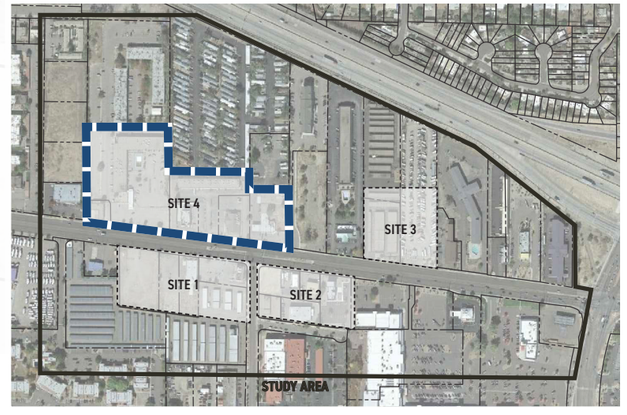
KEY NOTES

1. Bus platform with sawtooth layover capacity for 6 buses, pedestrian waiting areas, and driver restroom.
2. Stormwater detention area.
3. New signalized access drive in line with Dorado to the south of Central. This drive would be shared with properties to the east and north.
4. Existing property and access to remain.
5. Parking for approximately 93 vehicles.
6. Overflow parking area (~80 vehicles).
7. Existing access for property to the north.

N

0 100' 200'

SITE CONTEXT



City of Albuquerque
Far East Central
Park & Ride Study

SITE 4 - Site Circulation Alternative A

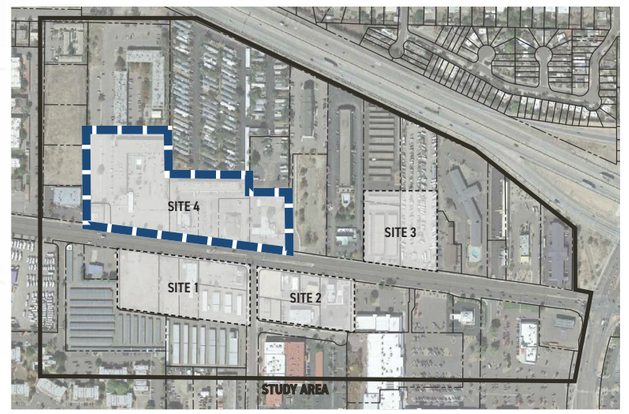
LEGEND

Bus Circulation
Vehicular Circulation

N

0 100' 200'

SITE CONTEXT



Site 4 – Test Fit B

Design Components and Assumptions

- Site 4 Test Fit A utilizes about 2.71 acres. The initial site comprises about 8.8 acres.
- Proposes platform with saw tooth layover capacity for 6 buses, pedestrian waiting areas, and driver restroom.
- Buses drive around the platform in a one-way, counterclockwise motion and exit back onto Central at its intersection with Dorado.
- Construction of this bus platform would require the demolition of the existing strip mall towards the back of the site.

Site Access

- Features a skewed signalized drive from Dorado Place in order to preserve the Mountain Inn property to the east of the site and maintain access to the properties to the north. This skewed intersection would need to be approved by City Traffic Department.
- Preserves the existing KFC restaurant location.
- The existing trailer home to the north of site may present traffic conflicts as people accessing that property cross the bus and private vehicle traffic.

Parking

- Features parking for approximately 80 private vehicles with room for overflow parking and approximately 80 private vehicles to the east at the Mountain Inn property (if necessary).
- This parking area is accessed off of the entry drive connecting to the signalized intersection at Central and Dorado and a right-in-right-out drive off of Central Avenue.
- Construction of this parking area would require the demolition of the existing restaurant building.

Stormwater/Drainage

- Features approximately 0.4 acres of drainage area in a stormwater basin on the west edge of the site.
- Other stormwater management takes place in landscape areas throughout the site via green infrastructure systems.
- The provided stormwater management area was determined by applying the ratio of site area to stormwater area identified in the BHI study to the significantly smaller developed site area in this test fit.

Takeaways and Observations

- Acquisition of the Mountain Inn could be pursued to support overflow parking and/or support on-site amenities.
- Site access requires a skewed intersection and support from the City Traffic Department. If a skewed intersection is not approved, then acquisition of the Mountain Inn would become necessary.

City of Albuquerque
Far East Central Park & Ride Study

SITE 4 - Test Fit Alternative B

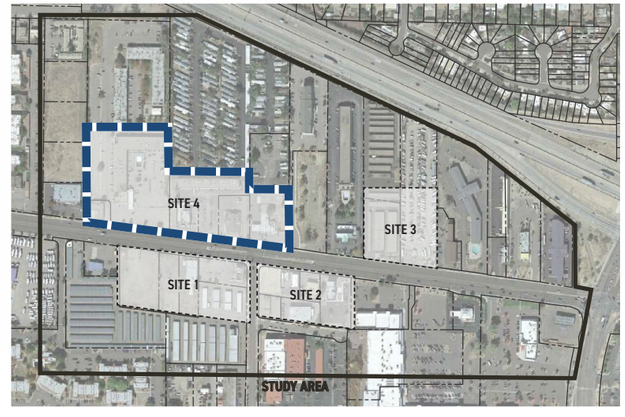
KEY NOTES

1. Bus platform with sawtooth layover capacity for 6 buses, pedestrian waiting areas, and driver restroom.
2. Stormwater detention area.
3. New signalized access drive skewed from Dorado to the south of Central. This drive alignment would be shared with properties to the north but potentially preserve the property to the east.
4. Existing property and access to remain.
5. Parking for approximately 80 vehicles.
6. Potential overflow parking area (~80 vehicles).
7. Existing access for property to the north.

N

0 100' 200'

SITE CONTEXT



City of Albuquerque
Far East Central
Park & Ride Study

SITE 4 - Site Circulation Alternative B

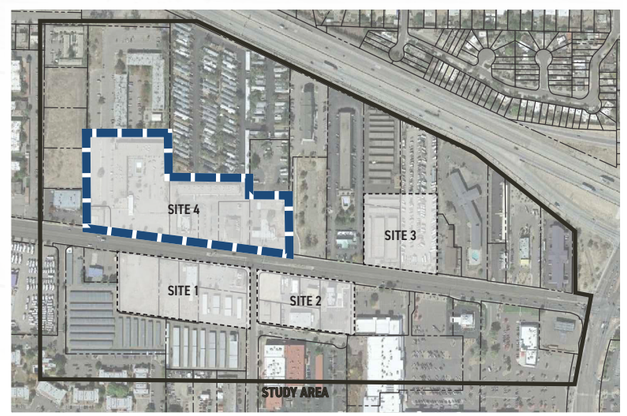
LEGEND

Bus Circulation
Vehicular Circulation

N

0 100' 200'

SITE CONTEXT



Appendix B: Public Involvement Summary

Bohannan Huston

Engineering
Spatial Data
Advanced Technologies

7500 Jefferson St. NE
Albuquerque, NM 87109

bhinc.com

voice: 505.823.1000
fax: 505.798.7988
toll free: 800.877.5332

MEMORANDUM

DATE: April 6, 2023

TO: Lawrence Kline, ABQ RIDE

FROM: Denise Aten, Bohannan Huston Inc.

SUBJECT: ABQ RIDE East Central Park and Ride Study Public Meeting

Summary

Public engagement for the ABQ RIDE East Central Park and Ride Study project asked participants for their feedback and preferences regarding the installation of a new park and ride transit facility along East Central Ave. Public feedback was collected via a virtual meeting held on March 1, 2023, and through follow-up emails and phone calls with the project team.

In summary, there was stronger support for Site 1 during the public meeting; however, there was some additional support for Site 4 via written comments.

All meeting materials and comments received are included in the appendices.

Public Meeting

A virtual public meeting was held for the ABQ RIDE East Central Park and Ride Study on March 1, 2023 via Zoom. The purpose of the meeting was to discuss the recommendations, answer questions about the project, and collect feedback.

The meeting was advertised by emailing notices to neighborhood associations and to City Council email lists. The flyer was posted by ABQ RIDE and the meeting was included on ABQ RIDE's social media and website.

Live Spanish translation was provided during the meeting, and a Spanish version of the presentation was available for download on the ABQ RIDE website. The meeting flyer was also translated into Spanish.

Sixteen members of the public attended the meeting. The meeting kicked off with a brief presentation from the project team, including a study overview, existing conditions, proposed alternatives, and next steps for the study. During the discussion period meeting attendees could ask questions and provide comments.

Several participants asked for a copy of the East Central Park & Ride Feasibility Study. Once the study is finalized, the document will be emailed to interested members of the public.

During the meeting, a Zoom poll was initiated for the attendees. The table below depicts the poll results taken during the meeting that asked for opinions on the alternative options and site preferences.

Table 1: Public Support for Project Elements

Polling Question	Site 1	Site 4
Which site would you prefer for a new Park & Ride Facility?	9 votes	3 votes
	Layout A	**Layout B**
If Site 1 is selected for the Park & Ride Facility, which layout would you prefer?	4 votes	7 votes
If Site 4 is selected for the Park & Ride Facility, which layout would you prefer?*	9 votes	0 votes

*One participant commented that they did not prefer either layout for Site 4

Topics discussed and opinions expressed during the meeting can be referenced in the Public Comments Summary below.

Public Comments Summary

Public feedback collected via the public meeting and submitted comments discussed the following topics and viewpoints:

Participants asked questions about the following topics:

- Parking demand methodology
- How security issues will be addressed
- Potential traffic impacts of a Park and Ride
- Property acquisition process
- Funding sources

Comments expressed the following viewpoints:

- Several commenters supported the installation of benches and places to rest, bike lockers, permeable pavement, and bioswales.
- One commenter stated that bus drivers should be consulted on their preferred layout.
- One person noted that the abandoned commercial space on Juan Tabo and Central could be considered as a potential site.
- Multiple commenters expressed concerns that a park and ride would increase crime in the area.
- One commenter stated that the transit station should be built as a bus turn-around site without the park and ride facility. The commenter stated that a small parking lot could be built initially with more spaces added as needed.
- Some written comments were submitted with a preference for Site 4

For a complete list of comments submitted to the project team and discussed during the neighborhood meeting, reference Appendix B.

Appendix A: Public Meeting Flyer

EAST CENTRAL
PARK-N-RIDE | PARQUEA-Y-ANDA

Join us for a virtual meeting to review potential sites for a new park-n-ride along East Central Avenue.

Únete a la reunión virtual para revisar los sitios potenciales de un nuevo lugar donde se podrá parquear y tomar el bus cerca de la Avenida East Central.

For more information | Para mas información:
https://www.cabq.gov/transit/events

VIRTUAL MEETING
Wed, March 1 at 6pm

REUNIÓN VIRTUAL
Mié 1 de marzo a 6pm
Interpretación estará disponible

To join the meeting, go to this link:
Para unirse a la reunión visita:

https://project.bhinc.com/ABQRIDE_EastCentral

QUESTIONS | PREGUNTAS
505-264-0111
outreach@bhinc.com

ABQ RIDE | DEKKER PERICH SABATINI | Bohannan Huston

Webinar Logistics

- Webinar format
  - Participants are muted without video

Communication this evening
- Q&A box for questions/comments
- Raise your hand
- Text 505-264-0111

- Spanish Translation available

- Formato de seminario web
  - Los participantes están silenciados sin video
- Comunicación esta tarde
  - Cuadro de Q & A para preguntas/comentarios
  - Levanta la mano
  - Envíe un mensaje de texto a 505-264-0111
- Traducción al español disponible

1

EAST CENTRAL
PARK-AND-RIDE
March 1, 2023

2

Introductions

3

Meeting Agenda

- Project overview
- Project timeline
- Requirements for Park-and-Ride site
- Preliminary design concepts
- Comparison of potential sites
- Comments/question period

4

Project Overview

5

Why Build a Park-and-Ride?

- Reduce bus circulation on Wenonah Ave
- Improve amenities for transit riders
- Facilitate additional transit trips, especially to UNM and downtown
- Bring additional investment to the area, catalyze transit-oriented development

6

Project Timeline

Market Demand Analysis	• Completed
Site Analysis	• Completed
Public Meeting and Comment Period	• March 2023
Site Selection	• April 2023
Property Acquisition	• 2023 - 2024
Design and Construction	• 2024 - 2025

7

Public Involvement

- Meeting advertised via:
  - Neighborhood Associations
  - Posting flyers
  - ABQRIDE website
  - City Council email list
  - Social media

8

Public Involvement

- Ways to provide comments:
  - Comment period at end of meeting –
    - Verbal or Q&A box comments
  - Written comments submitted to outreach@bhinc.com
  - Call 505-264-0111
- Comments must be submitted before April 1, 2023

9

Park and Ride Facility Requirements

- Provide driver amenities (bathroom and break area)
- Provide user amenities (benches, trash cans, shade, etc)
- Potential for additional community amenities

Image source: Huitt-Zollars

10

Park and Ride Facility Requirements

- Serve ART Green Line (777), Route 1 (Juan Tabo), and Route 66 (Central) and accommodate NMDOT buses
- Sawtooth platform design (same as Central & Unser Transit Center)

Image source: Huitt-Zollars

11

Elements of the Site

- Bus platform and transit operations ≈ 1 acre
- Parking: 100+ spaces
- Landscaping
- Drainage retention pond

12

Site Overview

- 1 and 4 recommended for further consideration
- Site 2: too small to meet site needs
- Site 3: Small size and least accessible for pedestrians; would require new traffic signal

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Site 1 Layout Alternatives

Layout Alternative A

- 201 parking spaces
- Development opportunity: 0.46 acres
- Buses to exit closer to Central
  - Less room for bus drivers to maneuver

Layout Alternative B

- 162 parking spaces
- Development opportunity: 0.36 acres
- Parking entrance aligned with Cochiti Rd
- Parking lot closer to active uses/more convenient pedestrian access

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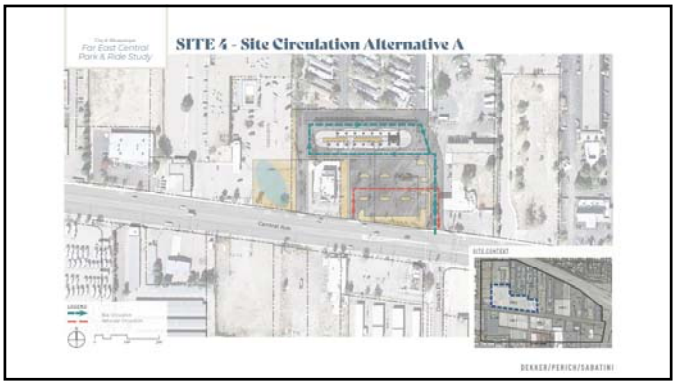

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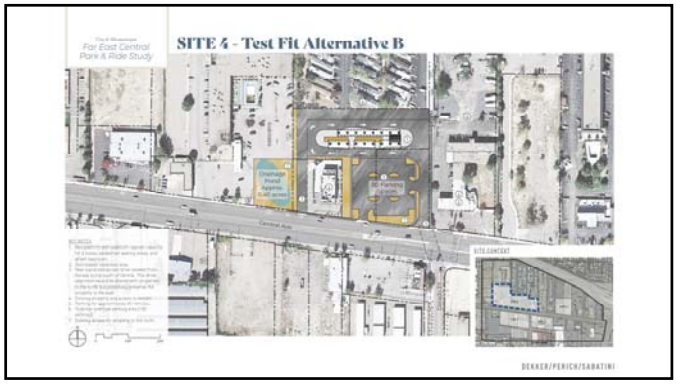

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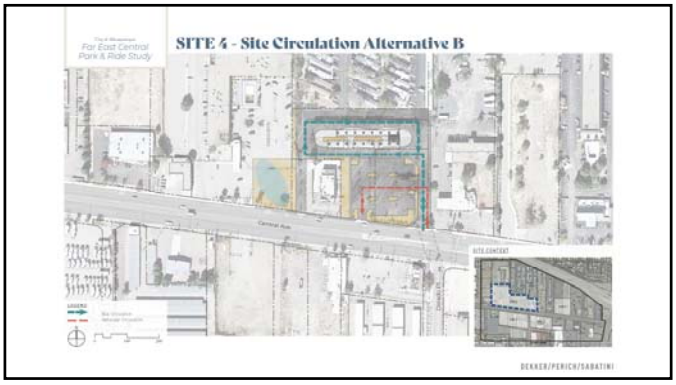

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Site 4 Layout Alternatives

Layout Alternative A	Layout Alternative B

• 93 parking spaces
  • Potential overflow lot – would displace extended stay motel
• Bus and vehicle entrance aligned with Dorado Place
• Potential impacts to extended stay motel
	• 80 parking spaces
	  • Potential overflow lot – would displace extended stay motel
	• Site access offset from traffic signal at Dorado Place

25

Land Uses

	Site 1	Site 4
Benefits	Vacant parcel within site	Adjacent to vacant parcels on east and west sides of site
Drawbacks	Further from larger vacant parcels north of Central	Existing commercial & residential uses would be displaced

26

Bicycle & Pedestrian Access

Site 1	Site 4
Good access: Pedestrians from apartments, neighborhoods, and Four Hills Village shopping center will not need to cross Central Ave. There are more bicycle facilities south of Central.	**Moderate access:** Most residences are south of Central Ave and pedestrians/bicyclists would need to cross Central at Dorado.

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Other Site Considerations

- Residential displacement
  - Site 1: no residential displacement
  - Site 4: Displacement of motel long-term tenants possible
- Utilities
  - No known utility constraints for Sites 1
  - Site 4 includes water lines across site; some development constraints
- Proximity to Jobs/Housing
  - Site 4 has higher level of access to jobs/housing
- Site 4 requires cross-lot access to reach RV park

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Site Evaluation Summary

	Site 1	Site 4
Beneficial Land Uses / Nearby Vacant Land	◑	◑
Nearby Jobs / Housing	★	★
Bicycle / Pedestrian Access	★	◑
Traffic Access	★	★
Utilities	★	◑
Overall Site Suitability	★★★★	★★

★ Favorable
◑ Somewhat Favorable / Neutral

29

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Site 1

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Site 4

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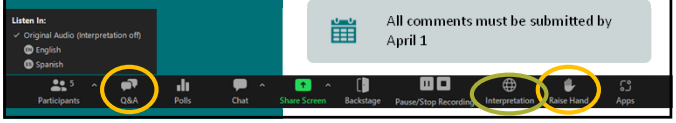
Questions & Comments

- Meeting comments will be documented (Q&A box and verbal)
- Submit written comments to outreach@bhinc.com
- Call/Text 505-264-0111
- All comments must be submitted by April 1



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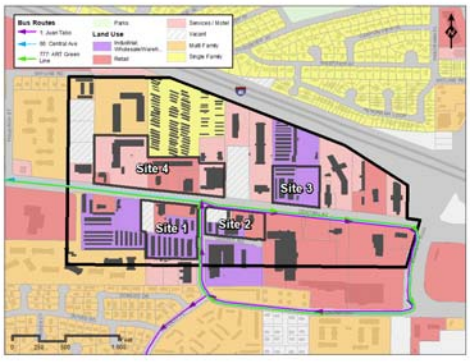
Elements of the Site

- Bus platform and transit operations
  - 1.06 acres
- Parking (100 - 116 spaces determined by a parking demand study)
  - 0.75 – 0.87 acres needed
- Landscaping
  - 10% of site is required to be dedicated to landscaping
- Drainage
  - Varies by site
- Contingency
  - 20% land area added as contingency for final design considerations

34

Land Uses



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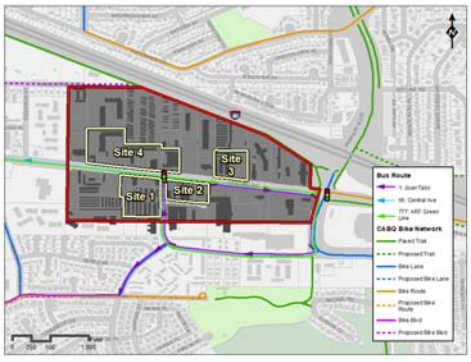
Bike Access



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Webinar Logistics

- Webinar format
  - Participants are muted without video

Communication this evening
- Q&A box for questions/comments
- Raise your hand
- Text 505-264-0111

- Spanish Translation available

- Formato de seminario web
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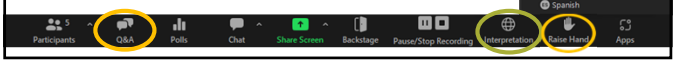
- Traducción al español disponible



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EAST CENTRAL
PARQUEA-Y-ANDA
1 de marzo de 2023

2

Presentaciones

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Agenda de la reunión

- Resumen del proyecto
- Calendario del proyecto
- Requisitos para el sitio Park-and-Ride
- Conceptos preliminares de diseño
- Comparación de sitios potenciales
- Período de comentarios/preguntas

4

Resumen del proyecto

5

¿Por qué construir un Parquea-y-anda?

- Reducir la circulación de autobuses en Wenonah Ave
- Mejorar las comodidades para los pasajeros de tránsito
- Facilitar viajes de tránsito adicionales, especialmente a UNM y al centro de la ciudad
- Traer inversión adicional al área, catalizar el desarrollo orientado al tránsito

6

Cronograma del proyecto

Análisis de la demanda del mercado	• Completado
Análisis del sitio	• Completado
Reunión pública y período de comentarios	• marzo de 2023
Selección del sitio	• abril de 2023
Diseño	• 2023 - 2024
Construcción	• 2024 - 2025

7

Participación Pública

- Reunión anunciada a través de:
  - Asociaciones de vecinos
  - Folletos en autobuses
  - Sitio web de ABQRIDE
  - Lista de correo electrónico del Consejo Municipal
  - Redes sociales

8

Participación pública

- Formas de proporcionar comentarios:
  - Período de comentarios al final de la reunión: comentarios verbales o caja de Q&A
  - Observaciones escritas presentadas a outreach@bhinc.com
  - Llame al 505-264-0111
  - Los comentarios deben enviarse antes del 1 de abril de 2023

9

Requisitos de la instalación de Parquea-y-anda

- Proporcionar servicios para el conductor (baño y área de descanso)
- Proporcionar servicios al usuario (bancos, botes de basura, sombra, etc.)
- Potencial para servicios adicionales para la comunidad

Image source: Huitt-Zollars

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Requisitos de la instalación de Parquea-y-anda

- Servir a la Línea Verde ART (777), la Ruta 1 (Juan Tabo) y la Ruta 66 (Central) y acomodar la Ruta Turquesa de NMDOT
- Diseño de plataforma de diente de sierra (igual que el Centro del Transito a Central y Unser)

Image source: Huitt-Zollars

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Elementos del Sitio

- Plataforma de autobuses y operaciones de tránsito ≈ 1 acre
- Estacionamiento: 100+ espacios
- Paisajismo
- Estanque de retención de drenaje

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Descripción general del sitio

- 1 y 4 recomendados para su ulterior examen
- Sitio 2: demasiado pequeño para satisfacer las necesidades del sitio
- Sitio 3: tamaño pequeño y menos accesible para los peatones; requeriría una nueva señal de tráfico
-

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Site 1 Layout Alternatives

Alternativa de diseño A

- 201 plazas de aparcamiento
- Oportunidad de desarrollo: 0.46 acres
- Autobuses para salir más cerca de Central
  - Menos espacio para que los conductores de autobuses puedan maniobrar

Alternativa de diseño B

- 162 plazas de aparcamiento
- Oportunidad de desarrollo: 0.36 acres
- Entrada de estacionamiento alineada con Cochiti Rd
- Estacionamiento más cerca de usos activos / acceso peatonal más conveniente

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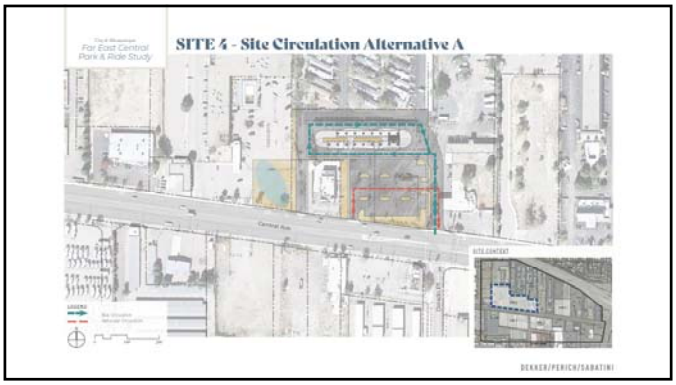

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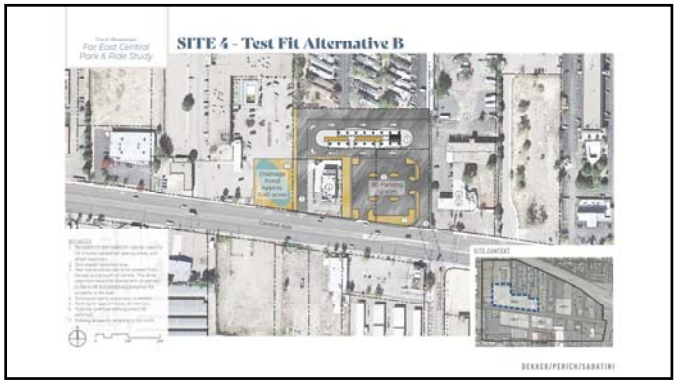

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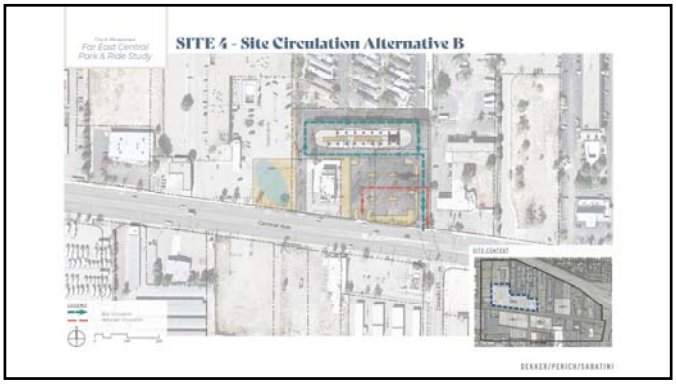

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Site 4 Alternativas de diseño

Alternativa de diseño A	Alternativa de diseño B

• 93 plazas de aparcamiento
  • Lote de desbordamiento potencial – desplazaría al hotel
• Entrada de autobuses y vehículos alineada con Dorado Place
• Posibles impactos en el motel de estadías prolongadas
	• 80 plazas de aparcamiento
	  • Lote de desbordamiento potencial – desplazaría al hotel
	• Compensación de acceso al sitio desde el semáforo a Dorado Place

25

Usos del suelo

	Sitio 1	Sitio 4
Beneficios	Parcela vacante dentro del sitio	Adyacente a parcelas vacantes en los lados este y oeste del sitio
Desventajas	Más lejos de parcelas vacantes más grandes al norte de Central	Los usos comerciales y residenciales existentes serían desplazados

26

Acceso para bicicletas y peatones

Sitio 1	Sitio 4
Buen acceso: Los peatones que vienen de los apartamentos, los vecindarios y el centro comercial Four Hills Village no necesitarán cruzar Central Ave. Hay más instalaciones para bicicletas al sur de Central.	**Acceso moderado:** La mayoría de las residencias están al sur de Central Ave y los peatones / ciclistas tendrían que cruzar Central en Dorado.

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Otras consideraciones del sitio

- Desplazamiento residencial
  - Sitio 1: no desplazamiento residencial
  - Sitio 4: Posible desplazamiento de inquilinos a largo plazo del motel
- Utilidades
  - No hay restricciones de utilidad conocidas para el sitio 1
  - El sitio 4 incluye líneas de agua a través del sitio; Algunas limitaciones al desarrollo
- Proximidad a empleos/vivienda
  - El sitio 4 tiene el nivel más alto de acceso a empleos / vivienda
- El sitio 4 requiere acceso a lotes cruzados para llegar al parque de casas rodantes

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Resumen de la evaluación del sitio

	Sitio 1	Sitio 4
Usos beneficiosos de la tierra / terrenos baldíos cercanos	◑	◑
Trabajos cercanos / Vivienda	★	★
Acceso para bicicletas / peatones	★	◑
Acceso al tráfico	★	★
Utilidades	★	◑
Idoneidad general del sitio	★★★★	★★

★ Favorable
◑ Somewhat Favorable / Neutral

29

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Sitio 1

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Sitio 4

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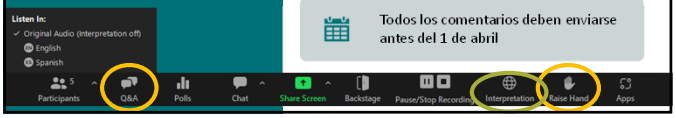
Preguntas y Comentarios

- Los comentarios de la reunión serán documentados (caja de Q & A y verbal)
- Envíe comentarios por escrito a outreach@bhinc.com
- Llame al 505-264-0111
- Todos los comentarios deben enviarse antes del 1 de abril



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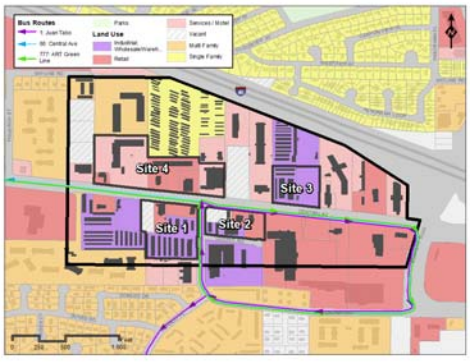
Elementos del Sitio

- Plataforma de autobuses y operaciones de tránsito
  - 1.06 acres
- Estacionamiento (100 - 116 espacios determinados por un estudio de demanda de estacionamiento)
  - 0.75 – 0.87 acres necesarios
- Paisajismo
  - Se requiere que el 10% del sitio se dedique al paisajismo
- Drenaje
  - Varía según el sitio
- Contingencia
  - 20% de área de tierra agregada como contingencia para consideraciones de diseño final

34

Usos de suelo



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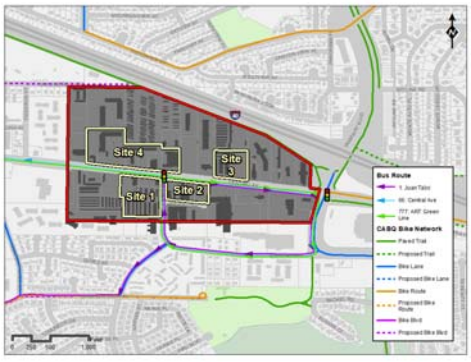
Acceso para bicicletas



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Appendix B: Public Comments

Public comments were submitted to the project team via email, phone, and verbally at the public meeting. Public comments were received in March, and the comment period ended on April 1, 2023.

Public Comments March 2023					
First & Last Name	**Email & Phone#**	**Date**	**Comments** ***(note many were taken directly from Zoom chat or email, so may have typos or other errors).***	**Response**	**Received**
Kristi Adams		3.1.2023	Will your slides be available to view later? Thank you!	Slides were emailed after the meeting	meeting
Kristi Adams		3.1.2023	Thank you		meeting
Kristi Adams		3.1.2023	Will safety and security issues be discussed as this area has a high crime component.	**Bobby Sisneros - ABQ RIDE:** Safety and security remains area of focus. We've been meeting on a regular basis with APD to discuss safety and security concerns. We've noticed a decrease in incidents since May of last year. We feel that some of the safety concerns that do occur at Tramway and Wenonah will be addressed when we introduce a new Park and Ride because the facility will have lighting and video systems that will be integrated into the APD real-time crime center.	meeting
Nic Wondra		3.1.2023	Question from Nic Wondra in Singing Arrow neighborhood: "How did you arrive at 100+ parking spaces requirement? It would seem that anyone driving into Albuqurque would drive their car all the way to their desitnation. It would seem that this requirement is arbitrary and put bluntly, anyone with a car will drive alll the way to their destination. What demand signal have you received for parking?"	**Clare Haley - Bohannan Huston:** We looked at parking demand at the Central and Unser Transit Center and compared it to potential demand at the East Central Park and Ride based on demographic factors. We also worked with UNM to estimate how many UNM students live in the catchment area and might use a Park and Ride. People are more likely to use a Park and Ride when parking is scarce at their destinations, which is why we are hoping to attract riders to UNM and downtown, where it can be difficult to find a parking space. **Andrew de Garmo - ABQ RIDE:** In both UNM and downtown, parking isn't free which is another incentive to use a Park and Ride. UNM students often park in the south lot where they need to ride a shuttle to get to campus, so they would be transferring to a bus either way.	meeting
Nic Wondra		3.1.2023	2nd question for Nic Wondra in Singing Arrow neighborhood: "speakers cite that there are businesses at 2 of the 4 corners being considered for this development. What plans to retain or compensate these businesses are planned? This area suffers from a lack of business and to uproot businesses that are place seems inappropriate. "	**Andrew de Garmo - ABQ RIDE:** There is a prescriptive process for making sure that people are treated fairly and compensated fairly for their property, whether it involves business owners or residential relocation. **Denise Aten - Bohannan Huston:** In the site planning there was consideration of maintaining the existing businesses in place where possible.	meeting
Nic Wondra		3.1.2023	3rd question fro Nic Wondra in Singing Arrow neighborhood: "are there any plans to establish a dedicated post for law enforcement and non-law-enforcement personnel at this location? The site, if built, will clearly attract a large demographic with various needs and many would define this demographic as undesirable."	**Bobby Sisneros - ABQ RIDE:** We currently have a Park and Ride at the Northwest Transit Center that shares property with both AFR and APD. We believe that that has created a great synergy, so we can definitely look at the same kind of possibility at all of our future sites when it comes to safety and security.	meeting

Public Comments March 2023					
First & Last Name	**Email & Phone#**	**Date**	**Comments** ***(note many were taken directly from Zoom chat or email, so may have typos or other errors).***	**Response**	**Received**
Nic Wondra		3.1.2023	4th question from Nic Wondra in Singing Arrow neighborhood: "A cursory look at the topography does not support the inclusion of a drainage pond with each planned development. Why is land being set asdie for drainage ponds when USGS topgraphic data do not support these locations as obvious places for drainage? Put glibly, water flows downhill rather than where you want it to go on a map. "	**Denise Aten - Bohannan Huston:** We are not in the design phase, but the city does have drainage requirements and having those elements in place helps us at the conceptual level. They would be further refined as we move into design. **Clare Haley - Bohannan Huston:** We did have our drainage experts look at the sites. I believe the slope is from the northeast down to the southwest, and both of the drainage ponds are located in the southwest corner of both of those sites. **Andrew de Garmo - ABQ RIDE:** Requirements have changed over the years, and with new site development you're not allowed to dump new drainage water off into the public right of way. You're supposed to try to accommodate the drainage as much as possible on site. There is a drainage pond on the site because the new paving will create new runoff.	meeting
Nic Wondra		3.1.2023	5th question fro Nic Wondra in Singing Arrow neighborhood: " there is a giant --GIANT--parking lot in the abandoned commercial space at Juan Tabo and Central. Why is this location not being considered? This location more than supports the parking requirement that is currently not defended or established."	**Andrew de Garmo - ABQ RIDE:** We get very good ridership at the end of the line near Tramway and Wenonah. Part of the idea of this Park and Ride is to be the turnaround point for various routes so that they don't layover on the street. We received a lot of complaints about the buses laying over, so the Park and Ride will serve the dual purpose of a Park and Ride and a place for the buses to turn around. We wanted to go further east than Juan Tabo to serve the ridership that we have currently at this eastern end of all of those lines.	meeting
Nic Wondra		3.1.2023	6th Question for Nic Wondra in Singing Arrow neighborhood: "Besides ABQtransit, what other funding streams are identified for this proposed project? Is county or state funding identified? Any state capital outlay request made? And federal funds lined up? "	**Andrew de Garmo - ABQ RIDE:** We do have Federal funding that we're anticipating using for this project.	meeting
Nic Wondra		3.1.2023	Where is your option for neither site?		meeting
Nic Wondra		3.1.2023	Your binary poll is silly, guys.		meeting
Nic Wondra		3.1.2023	Again, this binary poll is silly, guys. This does not meet the requirement for public engagement.	**Denise Aten - Bohannan Huston:** The binary poll is just to take the temperature, not a vote. It's just an opportunity for people to share their input.	meeting
Nic Wondra		3.1.2023	I appreciate you too!		meeting
Wanda Umber		3.1.2023	It does not appear that you addressed the impact of additional traffic from park & ride participants on the Singing Arrow Neighborhood. Will that be addressed.	**Andrew de Garmo - ABQ RIDE:** We haven't done a formal traffic analysis here or at our other Park and Ride sites. Park and Rides don't tend to generate a lot of traffic, because most of the people who use them come in the morning and leave their car all day. It's not like retail or a restaurant where people are coming and going all day. Most of the people who drive to the site will be coming off of Central and not coming through the neighborhood.	meeting
Kristi Adams		3.1.2023	Site 1 offers more commuting parking		meeting
Zoom poll		3.1.2023	9 votes for Site 1; 3 votes for Site 4	Polling question at meeting "Which site would you prefer for a new Park & Ride Facility?"	meeting
Zoom poll		3.1.2023	4 votes for Layout A; 7 votes for Layout B	Polling question at meeting "If Site 1 is selected for a Park and Ride facility, which layout do you prefer - A or B?"	meeting

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Zoom poll			9 votes for Layout A; 0 votes for Layout B	Polling question at meeting "If Site 4 is selected for a Park and Ride facility, which layout do you prefer - A or B?"	
Nic Wondra		3.1.2023	Q on site 4: neither option is appropriate at this time		meeting
Ben Garland		3.1.2023	Do we have any sense of which layouts would be preferred by the bus drivers? Other than the noted problems with access in/out of Central	**Andrew de Garmo - ABQ RIDE:** We have involved our operations management level staff, but we haven't run this by our drivers so that's a great suggestion.	meeting
Anonymous Attendee		3.1.2023	please treat this area with the same respect the international district library has in terms of places to rest		meeting
Nic Wondra		3.1.2023	thank you for taking the 1st question. I would be interested in your underlying data & analysis.	**Denise Aten - Bohannan Huston:** There is information on the parking demand study in the feasibility study, which can be emailed out once completed.	meeting
Nic Wondra		3.1.2023	follow on to 2nd Q: "you say purchase land--do you mean using eminent domain powers?"	**Denise Aten - Bohannan Huston:** I would just reiterate that there are Federal guidelines around using Federal money for a project, and that this would be completed under those guidelines. **Andrew de Garmo - ABQ RIDE:** I would add that eminent domain is always a last resort. We make every effort we can to come to an agreement that everybody feels good about.	meeting
Ben Garland		3.1.2023	Is there anything included to accommodate bike-and-ride? Such as secure bike lockers like they have at some Rail Runner stations (e.g. Journal Center).	**Andrew de Garmo - ABQ RIDE:** Unfortunately we have not had good experience with bike lockers in the past. The best way to keep undesirable activity or uses out is to dedicate lockers to individuals, but that takes a fair amount of staff resources relative to the benefits. We can certainly keep it in mind, but it has proven to be a little bit more difficult than it seems like it should be.	meeting
Ben Garland		3.1.2023	Could the parking areas use permeable pavement and bioswales to mitigate the need for drainage ponds?	**Andrew de Garmo - ABQ RIDE:** We've talked about it in the past at Central and Unser Transit Center, and we ultimately decided against it. It was partly a cost issue and partly a maintenance issue, as permeable pavement requires extra maintenance so that it doesn't clog up. It's certainly something we can look at in the design phase.	meeting
Nic Wondra		3.1.2023	Thank you Ms. Aten, et al: I unfortunately need to run but I appreciate you taking the questions. I would ask for a follow up call or correspondence with you. I can be reached at 720-301-5270 or Nic.Wondra@gmail.com Thanks and have a good evening.		meeting
Wanda Umber		3.1.2023	Can we get copies of the slides to share with others in our Neighborhood Association?	**Denise Aten - Bohannan Huston: F**eel free to put your email in the question and answer box. I can send that out to you after the meeting and you can share it with your neighbors. You can share the outreach email and they're welcome to provide comments as well.	meeting
Anonymous Attendee		3.1.2023	let people have their storage space. it shouldn't matter what's in there		meeting
Wanda Umber		3.1.2023	Please send slides to abqsana@gmail.com	Slides were emailed	meeting

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Kristi Adams		3.1.2023	1kadamz@gmail.com	Slides were emailed	meeting
Eric Olivas		3.1.2023	eolivas@bernco.gov	Slides were emailed	meeting
Hally Bert		3.1.2023	hbert@cabq.gov	Slides were emailed	meeting
Anonymous Attendee		3.1.2023	please send ppt to rglaser@comcast,net	Slides were emailed	meeting
Kristi Adams		3.1.2023	Thank you all for this information and allowing us questions and input.	Slides were emailed	meeting
Wanda Umber		3.1.2023	can you tell us how many were on the call?	Slides were emailed	meeting
Rachel Miller		3.1.2023	rrmiller@cabq.gov	Slides were emailed	meeting
jandemay		3.1.2023	maps please Jan@askjanrealestate,co	Slides were emailed	meeting
Kim Round	round_kim@hotmail.com	3.26.2023	Hello. I would like to submit my choice for the location on Central Ave for the proposed bus terminal. I prefer Site 4, on the north side of Central. Site 4 offers more space for future expansion with the additional road frontage on Central, and particularly more parking spaces for park-and-ride commuters. This is much needed as many of those commuters are now parking in the Smith's and Sprouts parking lots, which is private property. Thank you for the opportunity to comment.	Good morning Kim, Thank you for your interest in the project! We have taken note of your comments/suggestions and will be sharing them with the project team. Best, Alexis	email
Wanda Umber	wlumber@gmail.com	3.27.2023	I attended the East Central Park and Ride meeting on March 1, and the attached comments are provided in response. While I appreciate the efforts to develop a bus turnaround, the massive scope creep to add a 100 space Park and Ride is expensive and unjustified. If you have any questions, please feel free to contact me at 505-991-5383.	Good morning Wanda, Thank you for your interest in the project! We have taken note of your comments/suggestions and will be sharing them with the project team. Best, Alexis	email

Wanda Umber
12520 Piru SE, Albuquerque, NM
wlumber@gmail.com

March 27, 2023

Re: East Central Park and Ride

I am pleased the City decided to invest in a bus turnaround for East Central. Facilities for drivers and passengers will be welcomed by all concerned. However, I question the need for a 100-space Park and Ride as a part of this project. There was little data presented in the meeting on March 1, 2023, that would support the need for such an expansive facility.

There was previously a designated Park and Ride on the site of the current Singing Arrow Community Center. The site was rarely used for transit riders and instead become a homeless camp and a site for criminal activity. After many complaints to the City, the site was finally cleaned and fenced. Given this history and lack of current data to support the need, it would be financially prudent to begin with a small Park and Ride facility, say 10-15 parking spaces. If the Park and Ride demand increases, then the facility could be expanded as the need grows. I would hate to see this project fail due to the massive scope creep from the original vision of a bus turnaround.

Secondly, as a homeowner in the Singing Arrow Community, I would much prefer that the Bus Turnaround be located on Site 4 on the North side of Central Avenue. If the City truly desires to reinvest in our area, the Motel, RV Park, and the struggling businesses on the North side of Central would benefit from the Bus Turnaround facility. The lights and constant activity might serve as a deterrent to the negative activity that is frequently reported in that area. Also, this would avoid the tight turnaround for buses onto Dorado, a narrow, residential street.

Site 1, located on the South Side of Central in the Singing Arrow Neighborhood has stable businesses which would be displaced and is abutting a residential area. The intersection of Dorado and Wenonah is already a narrow, confusing intersection and additional traffic in this area would be unsafe. If the planned Park and Ride is as successful as the City claims, it will result in additional traffic through the neighborhood down Singing Arrow and Wenonah as people drive to the Park and Ride entrance which will likely be located off Dorado. Having additional pedestrian and vehicle traffic in this already crime-ridden area is not conducive to the safety and security of our neighborhood.

A traffic study, data to support the Park and Ride, and a plan from APD and the City to ensure that the parking area does not become a homeless camp are required before this project is funded. The bus turnaround is justified and needed. The Park and Ride is not.

Sincerely,

Wanda Umber
cc: Councilor Grout, District 9 Coalition

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First & Last Name	**Email & Phone#**	**Date**	**Comments** ***(note many were taken directly from Zoom chat or email, so may have typos or other errors).***	**Response**	**Received**
Linda Slutz	l_slutz@yahoo.com	3.30.2023	Site 4 is a more favorable location for the proposed Park and Ride than Site 1. It is a larger area and the surrounding area is less populated. Site 1 is adjacent to numerous apartment buildings and residential homes. A bus turnaround with facilities for drivers and passengers as well as a 100-space Park and Ride with an entrance and exit on Dorado Pl. would create traffic congestion in the Singing Arrow Neighborhood. There was previously a designated Park and Ride in the parking lot area of the current Singing Arrow Community Center that was unused and became a location for homeless and drug deals. After frequent complaints from the community, the site was fenced and unused until it was renovated as part of the Singing Arrow Community Center. Linda Slutz Singing Arrow Neighborhood homeowner	Good morning Linda, Thank you for your interest in the project! We have taken note of your comments/suggestions and will be sharing them with the project team. Best, Alexis	email
Laurie Williams	lawilliams751@gmail.com	3.31.2023	Hello. I live on Dorado down the road from the Taco Bell. I would rather you build the Park and Ride across the street. On my side of Central there are two thriving businesses that would be disrupted (The Taco Bell and the Storage facility) for really no good reason and you would cause disruption to my neighborhood. The RV park is not a "neighborhood". It is a parking lot, in essence, for RVs. Another parking lot would not be a disturbance. Thank you for considering my viewpoint. Laurie Williams 512 Dorado Pl SE	Good morning Laurie, Thank you for your interest in the project! We have taken note of your comments/suggestions and will be sharing them with the project team. Best, Alexis	email

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connecting & enhancing communities

DEKKER PERICH SABATINI

Bohannan Huston