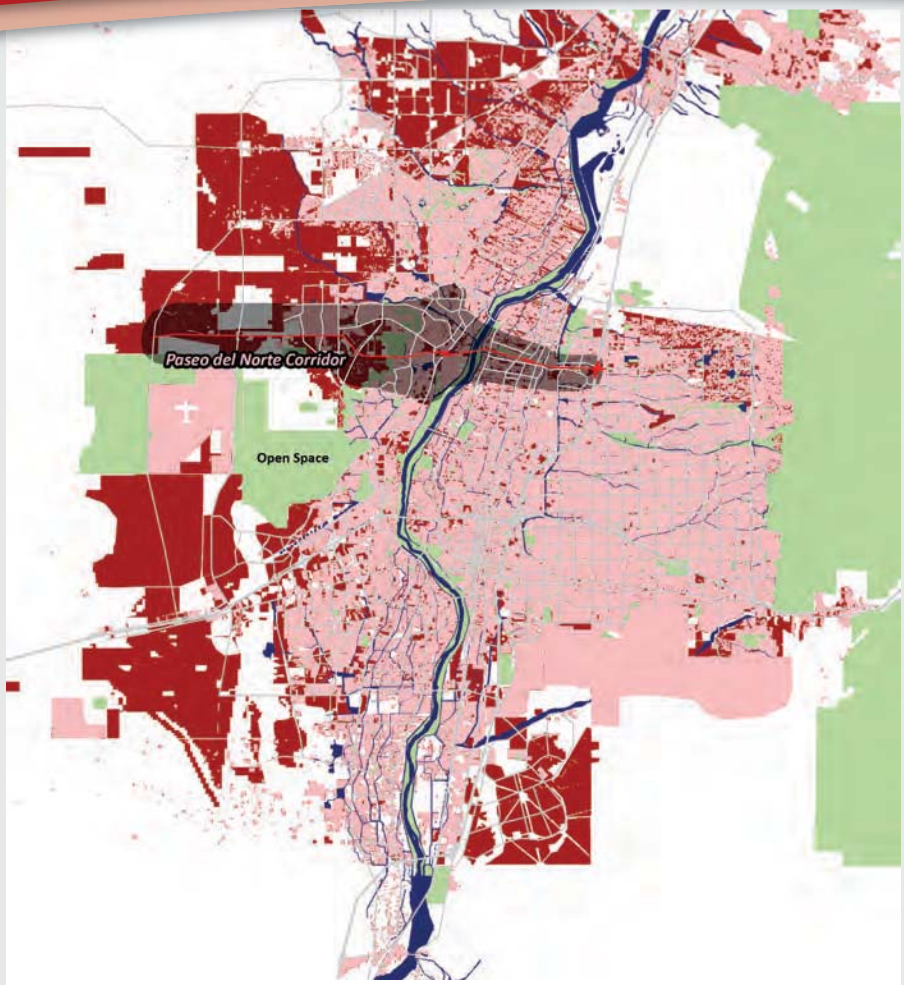
# Paseo del Norte High Capacity Transit Study

## WHY IS THIS STUDY IMPORTANT?

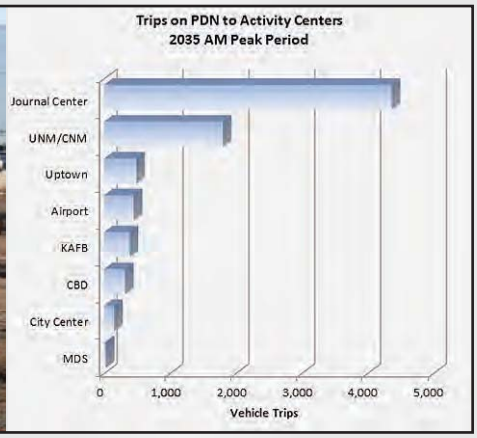
The PDN HCTS is an important step in determining how to best meet our current and future travel needs, especially those that involve travel across the Rio Grande. Congestion and traffic volume – the number of cars on the road – are products of where and how the region grows and the amount of growth that is expected.

The Albuquerque metropolitan area is projected to grow significantly over the next 20 years. By 2035 the population of Bernalillo, Sandoval, Torrance, and Valencia Counties is expected to increase from under 900,000 to more than **1.5 million**. This population increase will add another 310,000 households to the metropolitan area and consume more than **100,000 acres** of previously undeveloped land.

Employment will also increase with over 200,000 more jobs added to the area; almost half of the new jobs will be on the Westside. However, job density will still remain low west of the Rio Grande and the region's major activity centers will be located in employment districts on the Albuquerque Eastside and the Downtown/Central Business District. The distribution of housing and jobs creates recurring congestion along the region's river crossings each peak period as Westside commuters access jobs and services east of the river.




*Projected Growth Areas 2012-2035 — Projected new development shown in dark red.*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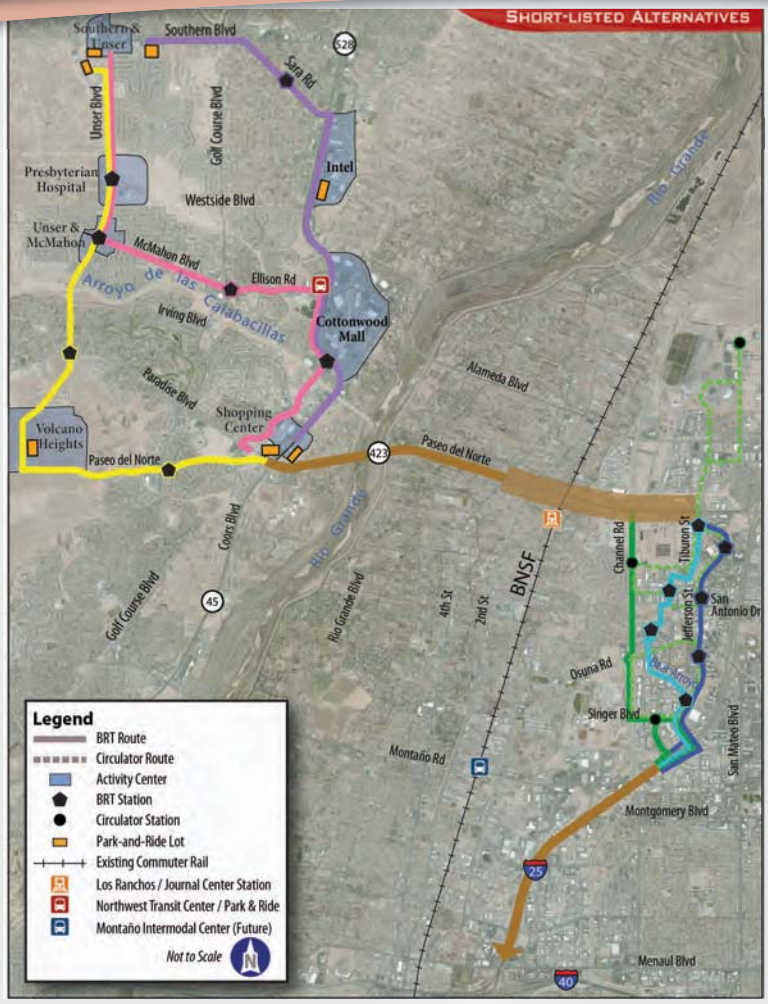
# Paseo del Norte High Capacity Transit Study




## WHAT WE ARE DOING — HOW YOU CAN HELP

Paseo del Norte is a critical river crossing facility, yet it is currently under-served by transit. Implementing successful service requires detailed analysis and the project team has identified a number of challenges associated with the project study area. In particular, the Westside residential areas being targeted for service are auto-oriented with few transportation options and poor street connectivity (especially a deterrent to pedestrians and bicyclists). For transit to succeed in this part of the metropolitan area it must be reliable and guarantee travel times that are competitive with private vehicles.

Since peak-period congestion is a real problem and is only expected to worsen, identifying an optimal route, a detailed operations plan, and appropriate locations for dedicated infrastructure are crucial.

Finally, the route must connect key destinations on both sides of the river to create successful all-day service that improves mobility across the region. Ultimately the study will produce a "locally preferred alternative" that will be considered by local transit providers for implementation. The project team has narrowed its focus and is now seeking public input on preferred alignments and operating plans.

## CURRENT EFFORTS

- Following an initial screening, the project team identified three potential alignments on each side of the Rio Grande. These alternatives have been developed in more detail to assess their potential to provide effective service between the Westside and the Journal Center/Jefferson Corridor and UNM.
- The operational challenges of each alternative are being considered, along with costs and potential impacts to the surrounding communities and the environment. Bus Rapid Transit (BRT) can travel in an exclusive space in the roadway or in mixed flow with other traffic. Both options are being evaluated.
- The project team is considering the potential impacts to existing users of changes to the transit system and determining which connections are the most important (e.g., the Rail Runner, access to Downtown Albuquerque). New BRT service should add, not eliminate, transit options in the northwest portion of the metropolitan area.
- Current analysis includes estimates of opening day and future ridership, as well as travel times associated with each route.
- Potential station locations are identified in the accompanying map. Additional steps include determining how users would access the facilities and the potential for transit-supportive development to ensure vibrant and successful station areas.

Rio Metro seeks public input on which of the choices is most likely to be successful and what issues each alternative is likely to encounter. If you would like more information, or if you would like to schedule a presentation on the project for a neighborhood association or community group, you may contact Tony Sylvester, Special Projects Manager for Rio Metro RTD, at tsylvester@mrcog-nm.gov or 505-247-1750.

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# Paseo del Norte High Capacity Transit Study

## Station 2: What will this Study Accomplish?


The PDN HCTS is sponsored and managed by the Mid-Region Council of Governments (MRCOG). Several other agencies are involved including: Rio Metro Regional Transit District, New Mexico Department of Transportation, City of Albuquerque, City of Rio Rancho, and Bernalillo County.

These entities are working together to identify reasonable, affordable, and sustainable transportation strategies for the metropolitan area — strategies that can be phased in now and that will serve our needs into the future.

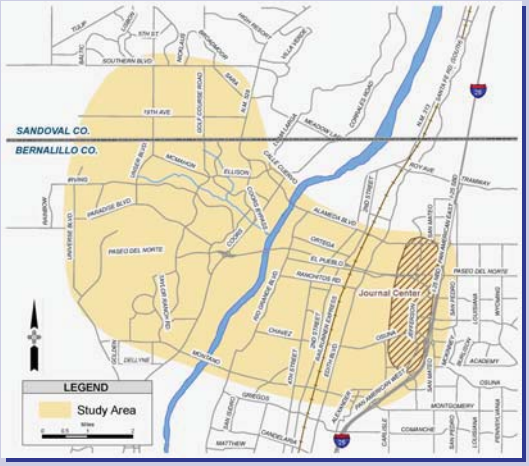
The overall objective of the study is to identify how Bus Rapid Transit (BRT) can be used to make commuter travel faster and more efficient between the Northwest side of the metro area and the Journal Center and other major destinations east of the Rio Grande.

### Study Approach

The approach is considering:

- Short-term strategies that can be implemented now with currently available funds and resources. These strategies will be consistent with the long range vision for BRT service in the Paseo del Norte corridor and serve as "starter" projects.
- Long-term strategies that involve high-end transit investments within the Paseo del Norte corridor and that connect to other premium transit systems within the metro area.

### Study Area




### Coordination Efforts

MRCOG/Rio Metro are coordinating closely with ABQ Ride in the development of the PDN HCTS. The proposed BRT service in the Paseo del Norte corridor will work to enhance transit access in the northwest and across the river by providing faster and more direct options where possible.

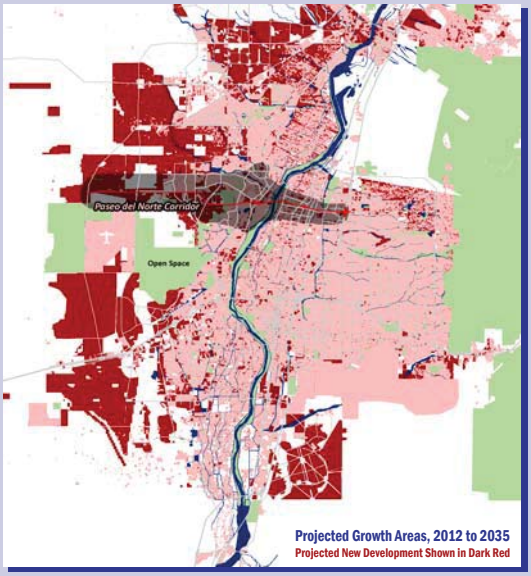
Routes will not be duplicated but may be replaced by a more robust program of improvements and service that are key components of high capacity BRT. Any BRT system changes will be coordinated with existing ABQ Ride routes to ensure access is maintained and the transit needs of the traveling public are well served.

### Capacity Needs

The need for higher capacity transportation strategies is important because:

- The Albuquerque metropolitan area is projected to grow from 900,000 to more than 1.5 million by 2035. This will add another 310,000 households and use more than 100,000 acres of undeveloped land.
- Congestion that affects river crossing routes will become worse throughout the metro area. The congestion delays encountered today on Paseo del Norte will be much longer within the next few years.
- The likelihood of additional river crossings or widening the existing bridges is low. This means that strategies to gain capacity must rely, in part, on travel modes that increase the person-carrying capacity of our existing roadways.

### Projected Growth



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# Paseo del Norte High Capacity Transit Study

## Station 3: Bus Rapid Transit - What is BRT?

Bus Rapid Transit, or BRT, is a concept being used in numerous locations across the United States. Bus Rapid Transit improves upon the types of transit currently being used by ABQ Ride and Rio Metro.

This station describes some of the upgrades associated with BRT service.

### Modern, Safe, Comfortable

BRT buses are modern, safe and comfortable. They are quick and easy to board. Buses could have their own identity specific to the Paseo del Norte corridor.


### Stations & Park and Ride Lots

Stations and park and ride lots would be strategically located, comfortable, and safe for use at night.

Real-time information for bus wait times and schedules can be displayed.

Users can purchase their fare at the station in advance of a bus arrival.


### Dedicated Bus Lanes

Where feasible, buses could operate in dedicated bus only lanes to make travel fast and efficient.

If fully dedicated lanes are not possible, queue jumps could be used at congested intersections to help maintain schedules.





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# Paseo del Norte High Capacity Transit Study

## Station 3: Bus Rapid Transit (BRT) Features

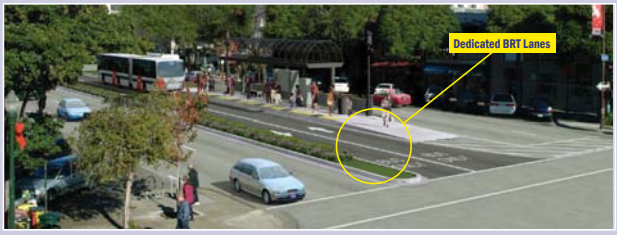
Examples of key features that may be included in the PDN HCTS BRT service are illustrated below.

### Exclusive BRT Guideway

An exclusive BRT guideway could be easily accommodated along some areas of the proposed routes, such as Paseo del Norte. An example of a BRT guideway is shown below.


### Dedicated BRT Lanes

Dedicated BRT lanes could be located either within the median or along the outsides of a roadway.




### BRT Stations

Stations at major activity centers permit walk access and would need to be spaced far enough apart to shorten BRT travel times.

### Park and Ride Facilities

Park and Ride facilities could be located in the Northwest area near the beginning of a route and at strategic locations/activity centers. Users could park and use BRT to avoid congestion.

### Queue Jump Lanes

Queue jump lanes and traffic signals at congested intersections can give priority to BRT buses even during peak times.


### Special Facilities

Special facilities could include new bridges to negotiate congested locations, such as the Coors/Paseo del Norte Interchange.



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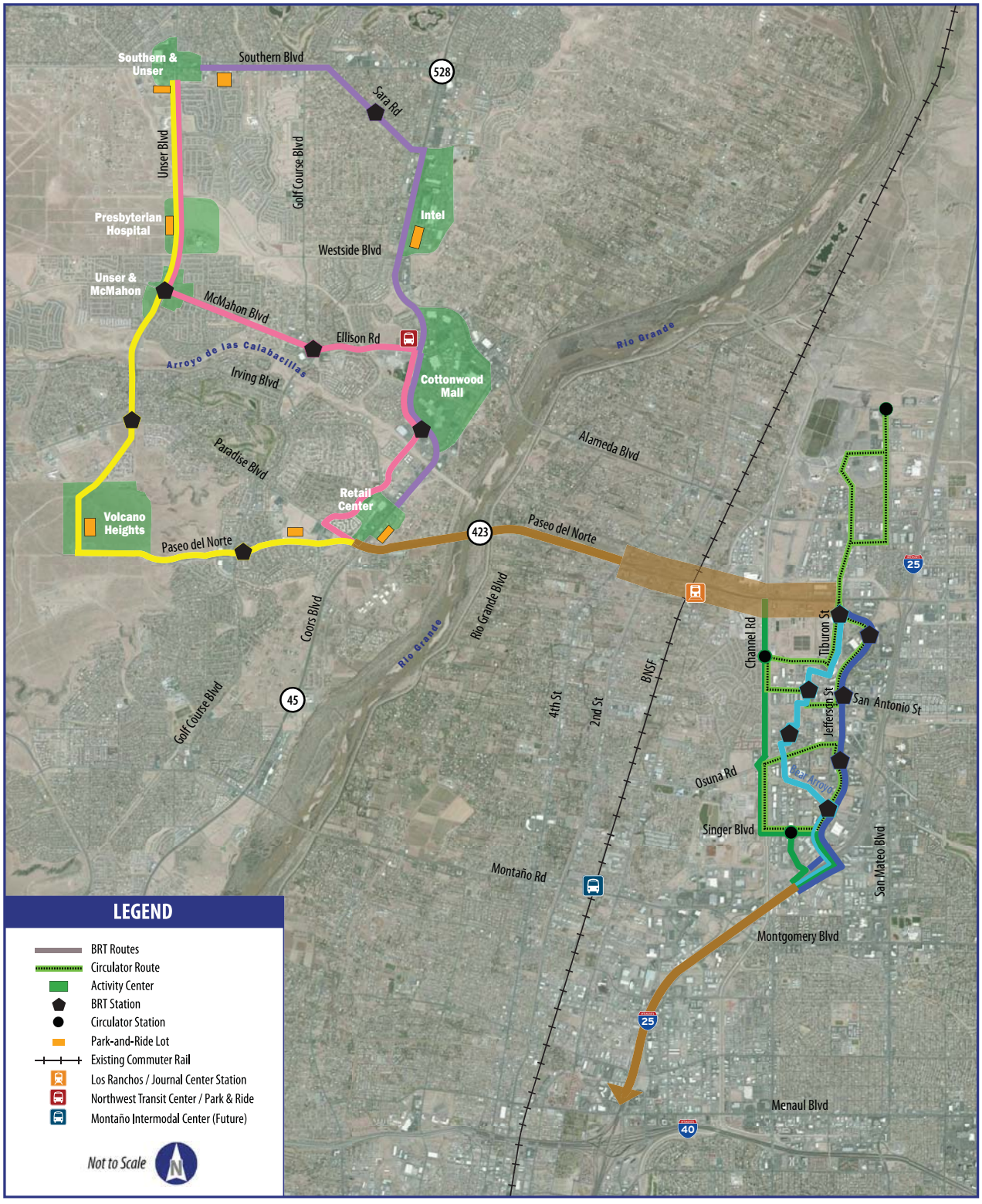
# Paseo del Norte High Capacity Transit Study

## Station 4: Short-Listed Route Alternatives



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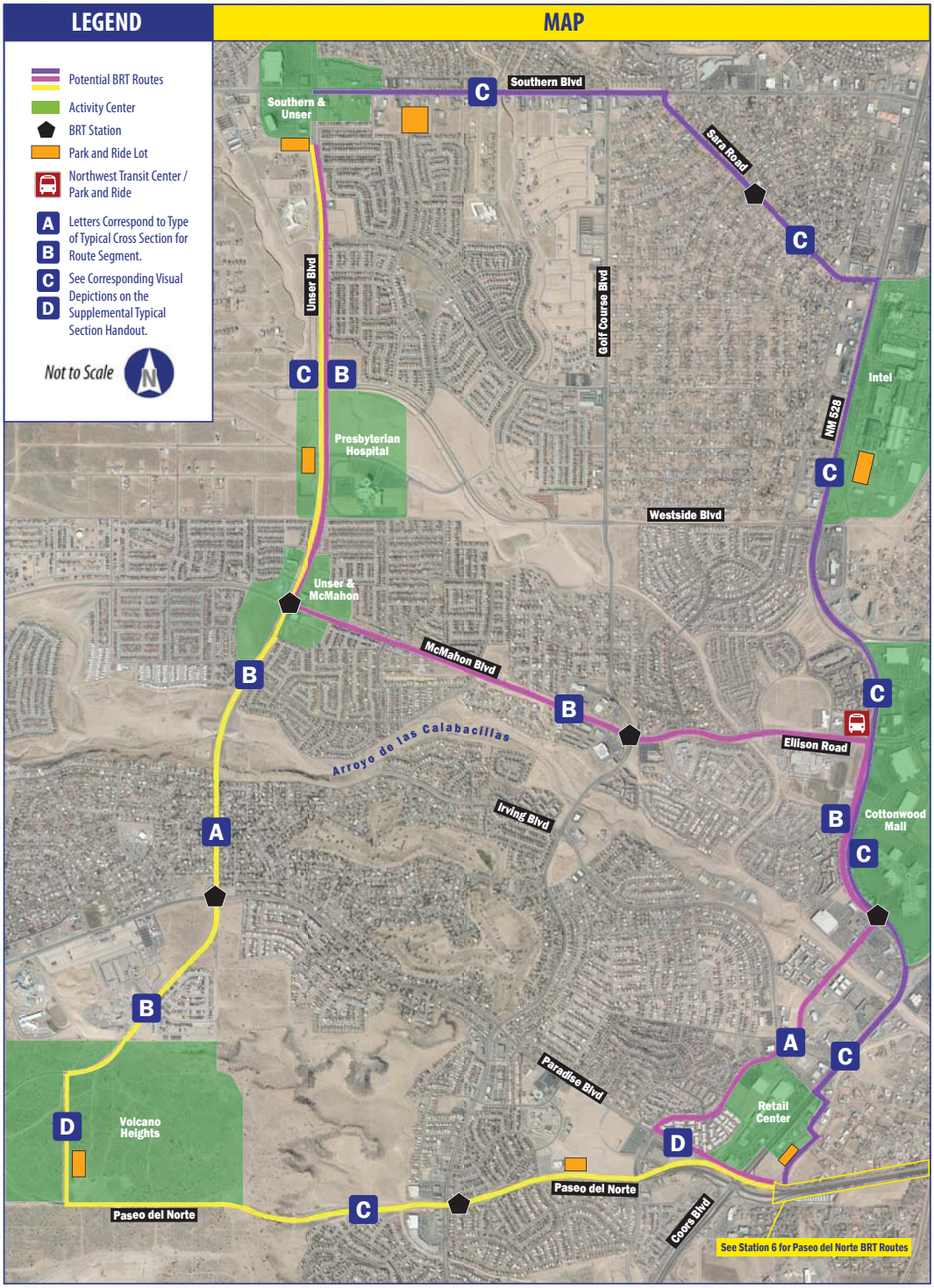
# Paseo del Norte High Capacity Transit Study

## Station 5: Northwest BRT Routes

This station shows potential BRT routes in the northwest, along with park and ride lots, stations, and activity centers. Typical cross-sections of each segment of each route are shown on the supplemental typical section handout.



# Paseo del Norte High Capacity Transit Study

## Station 6: Paseo del Norte Routes

This station shows potential BRT routes in and along Paseo del Norte.
Typical cross-sections of each segment of each route are shown on the supplemental typical section handout.

### LEGEND

- BRT Route
- BRT Circulator
- BRT Station
- Los Ranchos / Journal Center Station
- Existing Commuter Rail

E Letters Correspond to Type of Typical Cross Section for Route Segment.

F See Corresponding Visual Depictions on the Supplemental Typical Section Handout.

Not to Scale

### MAP


The Plan Views shown below assume a separated busway facility along the north side of Paseo del Norte for illustrative purposes.
Further evaluation will be needed to determine the location and type of BRT lanes that will be proposed as part of the preferred alternative.

**PLAN VIEW OF BRIDGE WIDENING OPTION**


**PLAN VIEW OF NEW BRIDGE OPTION**

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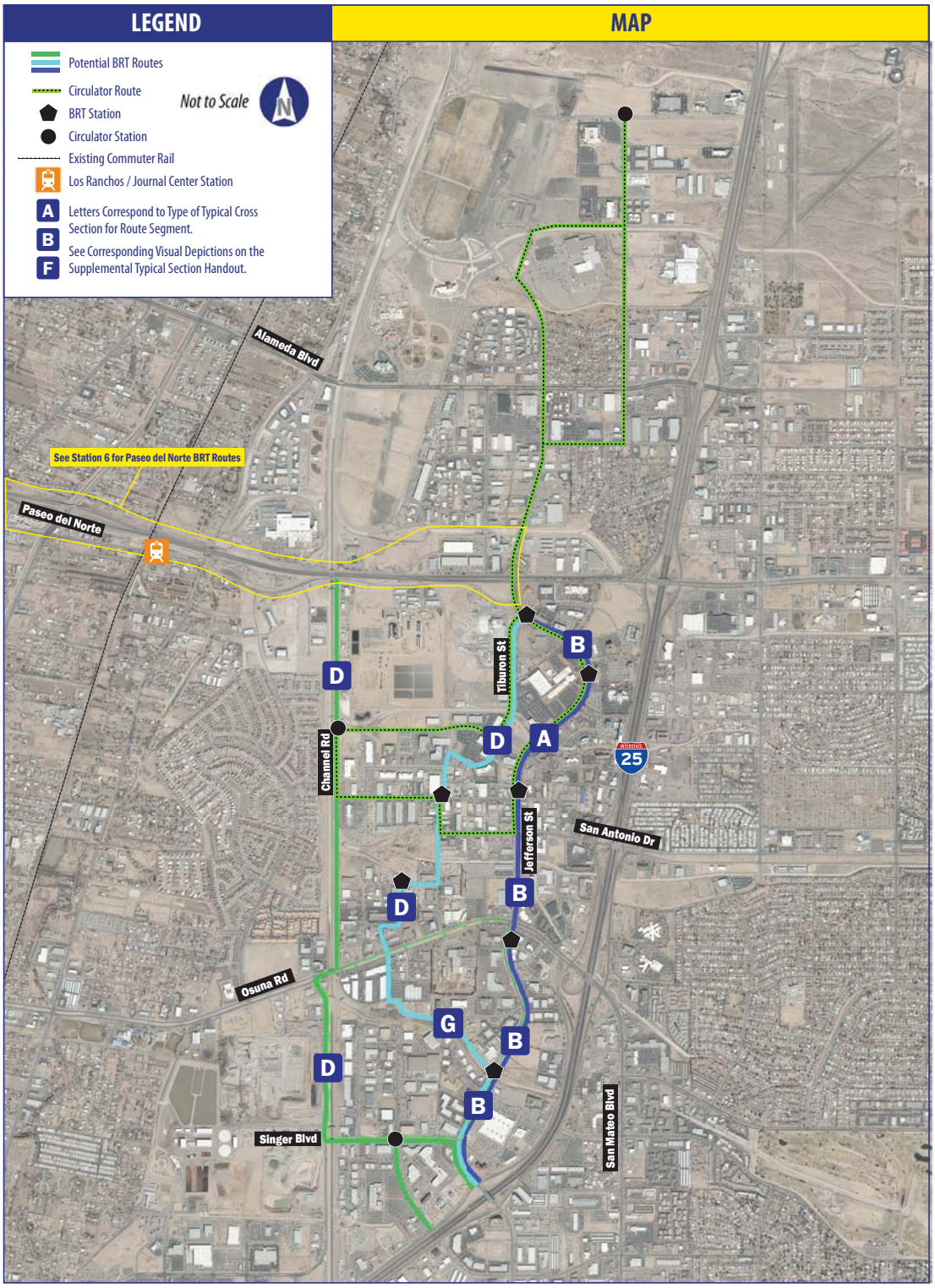
# Paseo del Norte High Capacity Transit Study

## Station 7: Journal Center BRT Routes

This station shows potential BRT routes and stations in the Journal Center area.
Typical cross-sections of each segment of each route are shown on the supplemental typical section handout.



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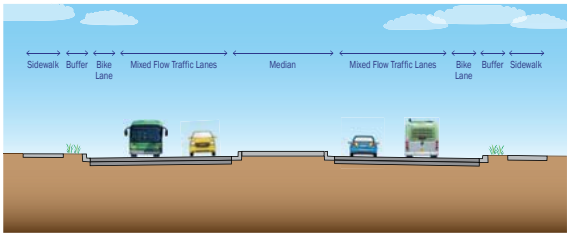
# Paseo del Norte High Capacity Transit Study

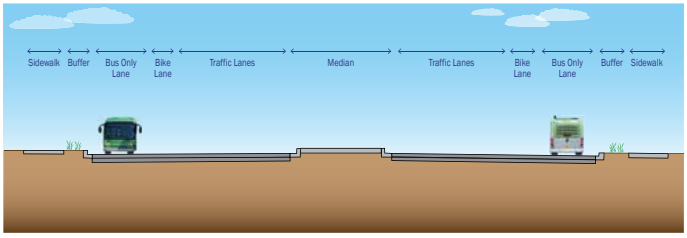
## Handout: Typical Section Depictions

### TYPICAL SECTION DEPICTIONS

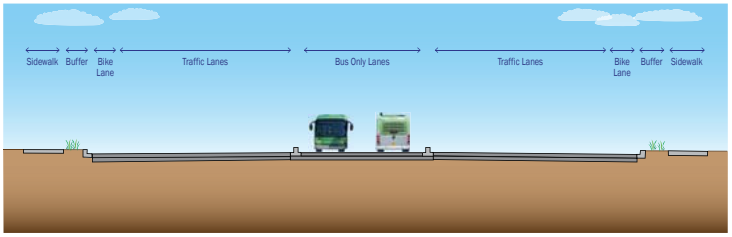
#### A MIXED FLOW ROADWAY



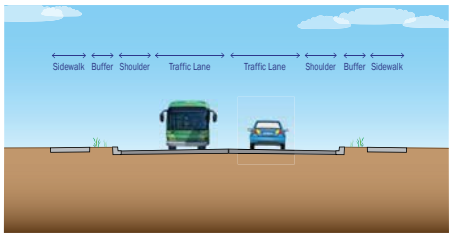

#### B CURBSIDE RUNNING FACILITY



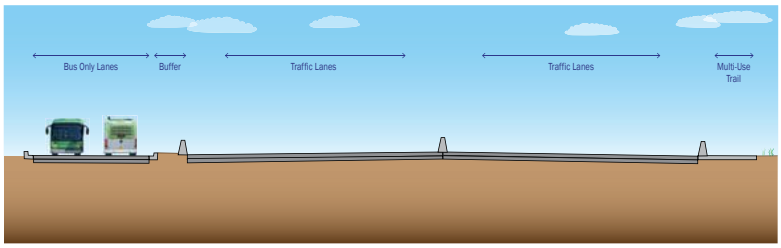

#### C MEDIAN RUNNING FACILITY



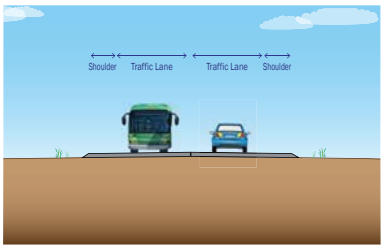

#### D MIXED FLOW ROADWAY



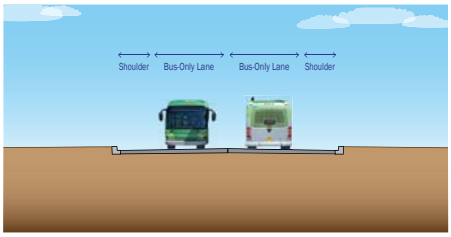

#### E SEPARATED BUSWAY FACILITY




#### F MIXED FLOW ROADWAY




#### G TRANSIT-ONLY ROADWAY



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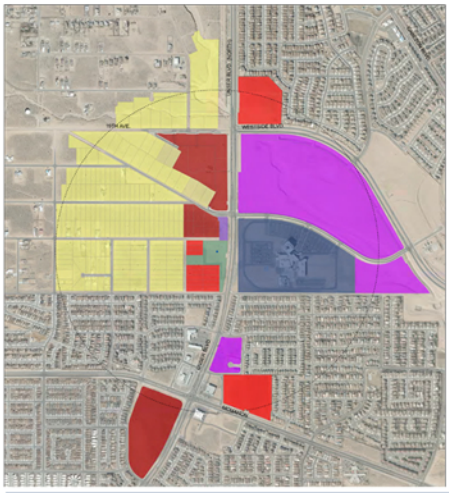
# PASEO DEL NORTE HIGH CAPACITY TRANSIT STUDY

## STATION X: LAND USE



Example of station study area: Rust Medical Center

### STUDY AREAS

The team analyzed existing land uses in an effort to understand where future land use can be tailored to maximize transit infrastructure. The objective is to encourage sustainable land use practices, encourage transit-supportive land uses, and promote economic development. Areas studied included property parcels located within a 1/2 mile radius of a potential transit station.

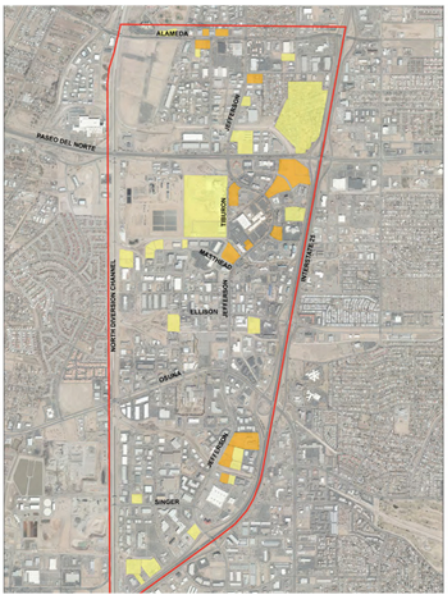
Areas studied include:

- Southern & Unser
- Volcano Heights
- Journal Center / North I-25
- Rust Medical Center
- Eagle Ranch & Paseo

### CHALLENGES

The study reviewed each station area, looking particularly at such things as existing zoning and the existing built environment. Barriers to transit-supportive land uses observed in the various potential station areas included:

- Existing auto-centric development that is unfriendly to pedestrians
- Lack of pedestrian/bike connectivity
- Low development densities
- High parking ratios that further encourage automobile use and consume land
- Proximate single family uses
- Segregated land uses
- Unfavorable zoning (Journal Center, for example, does not currently allow multi-family uses)
- Poor pedestrian infrastructure





### OPPORTUNITIES

This project has an unprecedented opportunity to tie transit with land use together and create a viable and high quality transportation infrustructure. The infrastructure can potentially:

- Maximize ridership through supportive land use
- Encourage economic development
- Preserve open space by encouraging compact living in specified areas

Dekker/Perich/Sabatini
architecture interiors landscape planning engineering

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# Paseo del Norte High Capacity Transit Study

## Station 8: Evaluation Results

The Project Team has evaluated the short-listed alternatives as shown below. We need your input to help identify the preferred alternative to advance for detailed evaluation.

### Evaluation Results

- Route alternatives were defined for each side of river; Northwest area and the Journal Center area.
- Paseo del Norte provides the crossing of the Rio Grande.
- Evaluations of Northwest and Journal Center route alignments were independent of each other.
- All Northwest options connect to all Journal Center options via Paseo del Norte and are interchangeable.

### Evaluation Results: Northwest

Route Ratings: ● Best ○ Worst

| Measurement Category | Criterion | Yellow | Pink | Purple |
|---|---|---|---|---|
| Mobility & Access | Improve connectivity between housing & employment in north Albuquerque | ● | ● | ◑ |
| | Integration with long term transit plan | ● | ◑ | ◑ |
| | Infrastructure expandability (NW subarea only) | ◑ | ◑ | ● |
| | Travel Time | ● | ◑ | ○ |
| | Ridership potential (opening day) | ◑ | ● | ● |
| | Ridership potential (future) | ● | ● | ◑ |
| Land Use & Community Development | Serve major activity centers | ◑ | ◑ | ◑ |
| | Encourage transit supportive land uses along transit corridors | ● | ◑ | ○ |
| | Serve future UNM/CNM students | ● | ◑ | ◑ |
| Operational Characteristics | Consistency with roadway policies | ◑ | ○ | ● |
| | Potential to improve travel time | ◑ | ◑ | ◑ |
| Financial Feasibility | Comparative cost assessment plan for capital improvements and operations | ◑ | ◑ | ◑ |
| Environment | Minimize negative effects on surrounding human and physical environments | ◑ | ◑ | ◑ |

### Evaluation Results: Journal Center

Route Ratings: ● Best ○ Worst

| Measurement Category | Criterion | Green | Blue | Light Blue |
|---|---|---|---|---|
| Mobility & Access | Improve accessibility to Journal Center jobs | ◑ | ● | ● |
| | Integration with long term transit plan | ◑ | ● | ◑ |
| | Infrastructure expandability (Journal subarea only) | ◑ | ● | ○ |
| | Travel Time | ● | ◑ | ○ |
| | Ridership potential | ○ | ● | ◑ |
| Land Use & Community Development | Serve major activity centers | ● | ● | ◑ |
| | Encourage transit supportive land uses along transit corridors | ● | ◑ | ○ |
| | Serve future UNM/CNM students | ● | ◑ | ◑ |
| Operational Characteristics | Consistency with roadway policies | ◑ | ○ | ○ |
| | Potential to improve travel time | ● | ○ | ● |
| Financial Feasibility | Comparative cost assessment plan for capital improvements and operations | ◑ | ◑ | ◑ |
| Environment | Minimize negative effects on surrounding human and physical environments | ◑ | ◑ | ◑ |

### Important Findings

- Most effective BRT depends on availability of dedicated, exclusive guideway within the Paseo del Norte corridor between Coors Boulevard and Jefferson Street.
- **Northwest Alternatives:** Yellow offers best service to future land uses and best ability to fit special roadway treatments within existing rights-of-way. Purple serves existing land uses better.
- **Journal Center Alternatives:** Blue offers most direct access to jobs while Green provides shortest route.
- Efficient circulation through Journal Center is key determinant of how competitive BRT will be from Northwest neighborhoods to UNM/CNM and other activity centers east of the Rio Grande.



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