Great Streets Facility Plan

City of Albuquerque Planning Department

Mayor Martin J. Chávez

FINAL DRAFT

HDR

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(MAYOR'S LETTER)

City of Albuquerque

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***Our Gratitude to*:**
Many participants, who attended public meetings, provided input, comments and support. Names are listed in Appendix A
Over 100 people filled in the survey the Zoning and Development Review Counters.
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Table of Contents

Appendix

List of Tables

List of Figures

Executive Summary

Great cities have great streets. Great Streets[1] are the best streets. They are insignias of a community. They are memorable, they help to create a sense of community and history, and provide a space for urban public life.

Purpose of the Plan
The Albuquerque Planning Department initiated the Great Streets Facility Plan in 2006 to implement the goals and policies of the Albuquerque/Bernalillo Comprehensive Plan and the Planned Growth Strategy. The Comprehensive Plan responds to a commitment in the City Charter to "promote and maintain an aesthetic and human urban environment." The Great Street Plan addresses the Comprehensive Plan's Activity Centers and Corridors policies in detail, demonstrating how to make city streets safe and attractive social places and compatible to walkers and bikers. The Comprehensive Plan Transportation and Transit element, other plans, ordinances and regulations will be amended later to reflect the design concepts and standards in this Plan

Scope of the Plan
The Plan was developed by the Planning Department with the assistance of its consultants, HDR, Inc. and with considerable public input. It addresses the defining qualities of Great Streets and further includes their principles, physical realms, prototype designs, design standards and guidelines, and actions needed to construct them. The Plan recommendations have citywide applications for both new streets and existing streets to become Great Streets.

Benefits of Great Streets
Developing Great Streets will help strengthen the symbolic/ceremonial, social, commercial and outdoor space significance of city streets. Great Streets will contribute to making Albuquerque streets and neighborhoods more vibrant for their residents and visitors, contribute to the economic vitality of commercial centers, which generate revenues for the City. They will celebrate unique and notable characteristics of our City. An additional benefit is that Great Streets expand transportation choices other than automobiles. Goals and policies of the Comprehensive Plan concerning Corridors and Activity Centers will be further implemented with the new construction and retrofitting of streets into Great Streets

[1] The Original Concept of a Great Street is attributable to Alan Jacobs. Great Streets (MIT Press, August 1995).

1. Champs-Elysees, Paris, France

2. Via Veneto, Rome, Italy

CHAPTER I: Introduction

A. ROLE OF GREAT STREETS

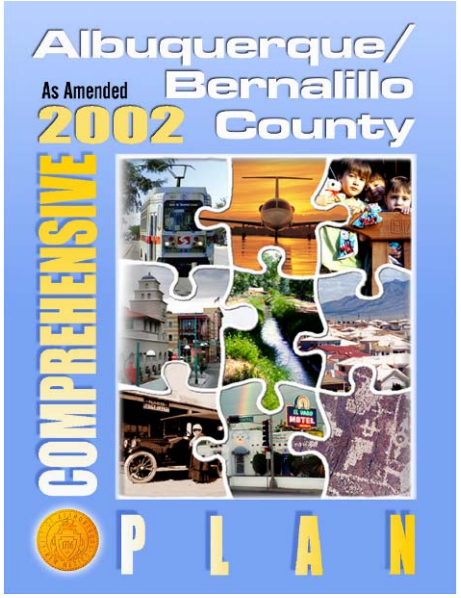
In his book, *Great Streets,* Alan Jacobs, the former San Francisco Planning Director, describes a Great Street as one that is "markedly superior in character or quality"[1] and recognized by people of a city as having symbolic, social, ceremonial and political significance[2]. Jacobs lists the defining qualities of Great Streets as:

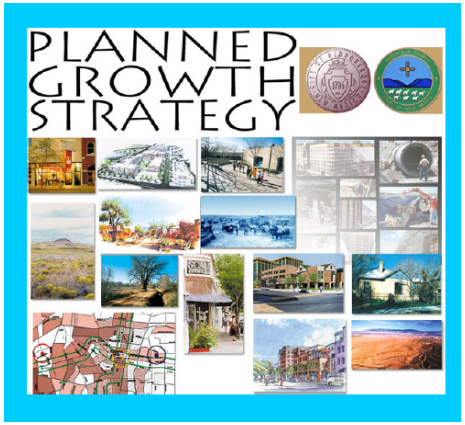
A street that contributes to community;
A street that is physically comfortable and safe;
A place that encourages participation;
A place that can be remembered; and
A place that is representative.

Great Streets are streets that people visit frequently and bring their families, friends and visitors to experience. A Great Street is often a ¼ mile to a half-mile segment of a street and not necessarily the length of an entire street in a city A great street is memorable as a ***symbolic or ceremonial*** place in the city and a venue for events, parades, fairs, and other civic events. Great Streets are ***social spaces****;* with plazas, parks, trees, benches and public art. They are places where people can gather, watch other people, or meet friends. A Great Street supports economic development because it is a ***place of commerce*** - where people go to shop, dine, or conduct business. A Great Street also creates a place that is an ***outdoor room*** - a place where buildings and vegetation define the limits of the public realm that is part of the community. A Great Street may function as one or a combination of some or all of these types of places but always provides a comfortable and safe environment for walking and socializing, and facilitates economic development. Central Avenue in Nob Hill and streets in Old Town are Albuquerque examples that have some of the qualities of a Great Street.

B. PURPOSE OF THE PLAN

The purpose of the Great Streets Facility Plan is to implement the goals and policies of the Albuquerque/Bernalillo Comprehensive Plan and more particularly its Transportation Corridors and Activity Centers (Figure 1) policies. The Comprehensive





[1] Jacobs, Alan. Great Streets. MIT Press. 1995.
[2] Ibid.

Plan embodies the goal to “promote and maintain an aesthetic and human urban environment” in the City Charter. The Comprehensive Plan’s Transportation and Transit **Goal** is:

> *“To develop corridors, both streets and adjacent land uses, that provide a balanced circulation system through efficient placement of employment and services, and encouragement of bicycling, walking, and use of transit/ paratransit as alternatives to automobile travel, while providing sufficient roadway capacity to meet mobility and access needs.”*

This Plan also responds to the top public concern raised in a 1996 public opinion survey of 250 Albuquerque residents. The concern was and continues to be “the visual clutter of city streets”. The community has also expressed concerns that city streets primarily serve automobiles and sidewalks are narrow or missing, uneven, or in poor condition and adjacent to fast moving traffic.

3. Central Avenue Looking East from 4th Street Albuquerque, NM

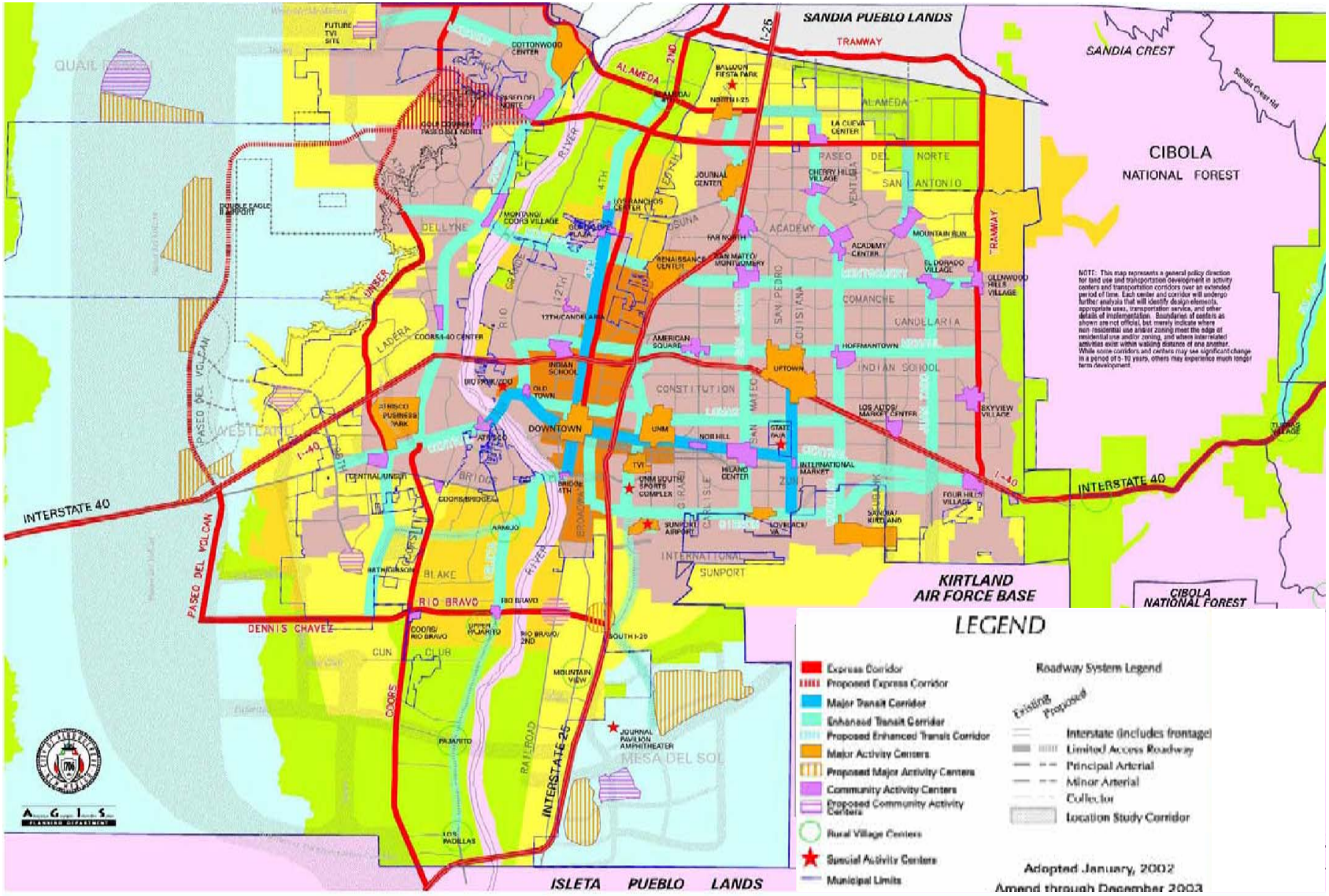


Figure 1: *Comprehensive Plan Activity Centers and Transportation Corridors*

C. SCOPE OF THE PLAN

The scope of the plan responds to the goals and policies of the Comprehensive Plan as well as the public concerns listed above. This Plan includes 1) a discussion of the defining qualities of Great Streets, 2) selection criteria to identify potential Great Streets, 3) principles of Great Streets, 4) design standards/guidelines, 5) prototype design concepts, and 6) steps to construct great streets. The Plan also describes the public participation process. The design concepts developed are for retrofitting existing streets and constructing new Great Streets. They are applicable to four types of streets: Arterial streets that are Major Transit Corridors, Arterial streets that are Enhanced Transit Corridors, other Arterial streets, and Collector streets. The Plan recommendations intend to improve the walkability, safety, vitality, and visual quality of city streets and support a greater choice of transportation modes.

1. Analysis of Existing Plans

For the last several decades, the City's streets have been designed to accommodate vehicular traffic and without sufficient consideration for pedestrian, bicycle and transit needs. Sidewalk clear walking area has been compromised both by the City and by the utility companies. A street light pole or a fire hydrant in the middle of a sidewalk is not uncommon.

The Planning Department has a long history of advocating building multi-modal streets to support walking, bicycling, and taking transit while serving the needs of automobile traffic. This is evident from several City plans referenced below.

Review of the Comprehensive Plan concluded that the Transportation and Transit policies, particularly Policy 'A' needed further revision through a subsequent Plan Amendment.

The Lomas Boulevard Transit and Pedestrianway Study (1977), recognized that the "pedestrians, in fact, seem out of place, unsheltered from traffic without quiet areas or human scale amenities along this very important street connecting historic Old Town and emerging Downtown". This street was rebuilt with tree-lined sidewalks, landscaped medians, and bus shelters; however, some of the trees were cut when the trees interfered with the power lines, and landscape medians gave way to a left turn lane to accommodate automobile traffic when downtown streets were reconverted to two-way streets.

4. Hollywood Boulevard – Los Angeles, CA

Several other plans, such as *San Mateo Boulevard Conceptual Design (1981), Rio Grande Boulevard Corridor Plan (1989*), *Central Avenue (2001), Uptown Sector Development Plan (1981, 1995*), *Southwest Albuquerque Strategic Action Plan (Draft)*, and others all recognize the lack of adequate pedestrian environment and recommend building pedestrian, bicycle and transit improvements.

Some of the City's ordinances are inconsistence with its plans to build streets that serve all modes of transportation.

- The Zoning Ordinance lacks urban design standards related to streets in existing zoning districts regulating new development.
- The Subdividion Ordinance enables lot patterns that do not support convenient and safe pedestrian activity or the efficient placement of schools, parks, institutional uses, and neighborhood scaled commercial/office uses in relation to pedestrian activity.
- The Development Process Manual street design standards are not compatible with the Planned Growth Strategy and the Comprehensive Plan's Centers and Corridors policies regarding walkability, aesthetics, creating mixed-use, and transit-friendly street environment.

The concept of Great Streets is an important city planning principle. City streets reflecting this principle serve all segments of population, regardless of age, gender, social, and economic status. The Great Streets concept has been gaining public and political support in recent years, and complements the City Government's commitment to guide Albuquerque's transformation towards a more sustainable city.

An amendment to the Highway Act and Transit Act in 1990 created the Inter-modal Surface Transportation Efficiency Act (ISETEA). This act and its subsequent reauthorizations have made federal funds eligible for pedestrian, bicycle, and transit amenities as well as street projects. If these amenities are incorporated at the time of street construction, the cost increase is an insignificant portion of the total project cost.

Not all streets can be Great Streets, but all streets should be safe, well-maintained, and accessible to pedestrians. The American Association of State Highway and

5. Embarcadero, San Francisco, CA

Transportation Officials (AASHTO)[1] publishes the *Guide for the Planning, Design, and Operation of Pedestrian Facilities*, which provides guidance on the planning, design, and operation of pedestrian facilities along streets and highways. The Guide states "…everyone is a pedestrian at one time or another, so the concept of the 'design for pedestrian' should include children, older persons, and people with disabilities for whom walking and mass transit are often the primary mode chosen for independent travel."

Walking is a fundamental form of transportation that is recognized by many professional organizations and is an integral part of the health and livability of our communities. It recognizes that people choose to walk based on the distance to their destination; that the majority of pedestrian trips are 1/4 mile or less; and that land use patterns, community design, and population density have a big impact on trip distance. It also recognizes that personal safety, security, comfort, and attractiveness are key factors in the decision to walk. To this end, this Plan supports and encourages well-maintained, safe, and accessible pedestrian circulation systems of sidewalks, street crossings, and pathways throughout the City.

The function of Great Streets is to enrich our community. While pedestrian facilities and a high level of transportation access are key components of a Great Street, not all types of transportation modes are required on a street for it to be a Great Street. (A Great Street is not necessarily always a Complete Street, which usually accommodates all modes of transportation.)

2. Principles of Great Streets

Great Streets in their physical form reflect certain principles. A principle is defined as a fundamental rule based on generally accepted best urban design practices, community values, and the goals and objectives of the Comprehensive Plan. In addition to these principles, there are some functional requirements that the design of Great Streets must reflect. Places for people to walk leisurely and comfortably and qualities that engage the eye are some examples. These principles and requirements are described in detail in Chapter II.

6. Market Street San Francisco, CA

[1] American Association of State Highway and Transportation Officials. Guide for the Planning, Design, and Operation of Pedestrian Facilities. July 2004

3. Physical Realms of Great Streets

There are three physical realms (Figure 2) of any street, and they are especially important to a Great Street. These are:

- Roadway Realm (space between curbs)—traffic lanes, parking, transit, medians
- Pedestrian Realm (between curb and ROW)—walking zone, edge zone, building frontage zone
- Private Realm (outside ROW)—land uses, building site locations, building frontage, height and façade articulation, parking location

4. Design Standards and Guidelines

Design standards and guidelines apply to those basic design elements that are needed to create a Great Street in the three realms described above. The design elements of each street type are similar to "tool kits" and can be used interchangeably for other street types, as appropriate. The tool kit in the Plan includes design standards and guidelines for elements such as sidewalks, curb ramps, street crosswalks, pavement materials and patterns, transit stop locations, trees, awnings, on-street parking, street lighting and pedestrian lighting, public art, banners, benches, gateway elements, and the number of travel lanes and their width. The design standards and guidelines focus on improving safety and comfort for all modes of transportation. They also contribute to visual attractiveness and create street life.

5. Prototype Designs

The prototype designs, design standards, and guidelines in the Plan are for four types of streets. The design for each street type reflects its character as symbolic/ ceremonial, social, outdoor room, place of commerce, or combination of these characteristics. These street types reflect the important role streets play in city life, in addition to providing access. The prototype designs for Great Streets are applicable to both retrofitting existing streets and building new streets; however, existing street segments may have certain constraints in providing ideal sidewalk width due to limited street right-of-way. The right-of-way of new streets can accommodate the prototype design concepts without compromise. Since these are prototypes and not designs of actual streets, the names of the streets are not identified in the Plan.

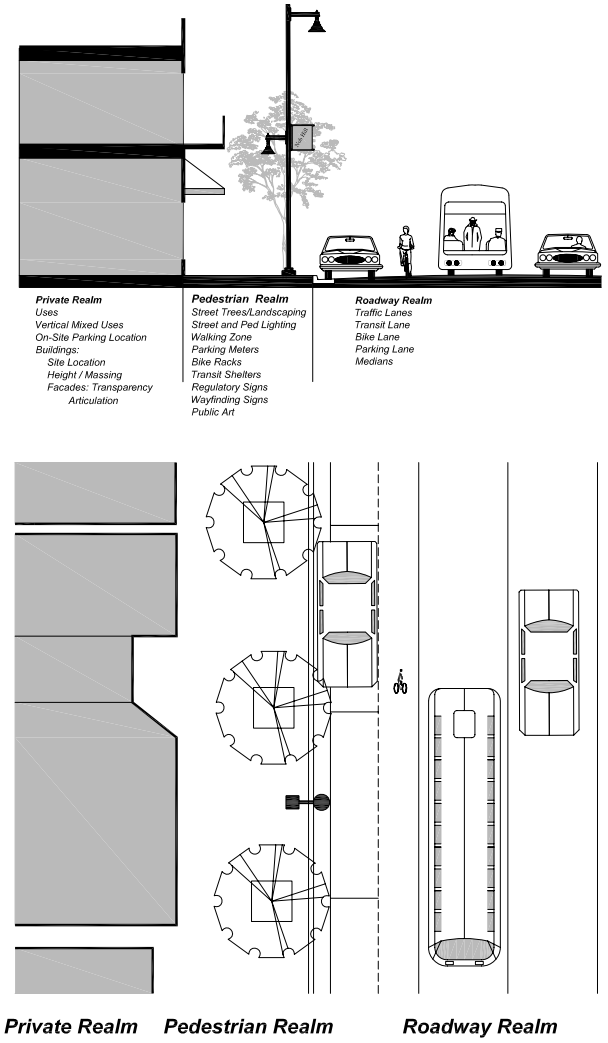


Figure 2: *Physical Realms of the Street*

There are two equally important aspects of Great Streets concepts, the transportation function and the community function.

Transportation Function	Major Transit Corridor Enhanced Transit Corridor Arterial Street Collector Street
Community Function	Symbolic or Ceremonial Social Spaces Place of Commerce Outdoor Room

6. Public Participation

The Great Streets Facility Plan has citywide implications and has been developed with considerable public input. Two sets of public meetings were held in different parts of the city. Each set consisted of three meetings. The public meetings and a public survey helped determine those characteristics identifying potential Great Streets. A Technical Advisory Committee consisting of representatives of public agencies, business and civic groups, and the public helped guide the Plan. Before developing the prototype design concepts, meetings were held with a group of Amy Biehl Charter High School students and with a group of senior citizens to gain their perspective on good street design. The individual characteristics that were used to identify potential great Albuquerque streets are listed in Table 1.

In addition to the above criteria, a Great Street must also be a place that is safe and comfortable for pedestrians.

Great Streets are defined vertically by buildings and street trees, and horizontally by roadways and sidewalks and provide views to places beyond.

Buildings and open space (park, plaza) that are of quality design and construction must line a Great Street.[1]

7. Public Workshop Winrock Mall

[1] Jacobs, Alan. *Great Streets*. MIT Press. 1995.

The prototype design concepts presented to the public, business owners, and non-profit groups at citywide and group meetings received very favorable comments. These comments are included in the Appendix. A ranked list of Great Street segments that meet the characteristics listed in Table 1 was initially prepared and presented to the Advisory Committee.

The prototype street segments were selected after evaluating all arterial and collector streets in Albuquerque with the help of geographical information system (GIS) data and maps. The evaluation determined whether a street segment had Great Street potential. The prototype segments were then selected from the highest ranked streets of each street type: Major Transit Corridors, Enhanced Transit Corriors, Arterial, and Collector Streets. Before selection as a prototype, each segment was field checked by Technical Advisory Committee members, City staff, and the consultant. The evaluation, based on the following questions, was designed to help identify streets with opportunities for improvements and design enhancements:

- Are there any unique destinations?
-
- Is there a bus stop or bicycle route along the street?
- How many lanes is the roadway?
- Is there a nearby traffic signal?
- Are there streetlights?
- Is there curbside parking?
- Is there private parking adjacent to the street?
- Are there landscape setback areas?
- What is the prominent land use?
- Other Observations

7. Next Steps

Each of the Plan's Great Street segment candidates was chosen based on four factors. These are:

1. Number of characteristics it meets
2. Street segments recommended for streetscape improvements adopted in City Plans

8. Nob Hill District, Albuquerque

3. Funding availability
4. Location and distribution throughout the City.

More Great Street segments may be added in the future. The Plan recommends coordinating implementation of this plan with the City's Capital Implementation Program and the Mid-Region Council of Governments Transportation Improvement Program. Chapter V, Next Steps also includes preliminary cost estimates, funding sources, process and mechanisms that trigger the construction of Great Streets.

D. BENEFITS OF THE GREAT STREETS

Great Streets will contribute to Albuquerque's vibrancy and economic vitality that provide revenue for public services and celebrate unique and notable characteristics of our city.

As new Great Streets are constructed and existing Great Streets mature, residents of the City will benefit from streets becoming increasingly walking friendly, socially significant, and visually attractive. Great Streets can celebrate and bring attention to the cultural and historic uniqueness of Albuquerque. Recognizing the catalytic value of streets, the Comprehensive Plan[1] proposes streets that promote positive change and that support multiple transportation modes.

[1] City of Albuquerque. Albuquerque/Bernalillo County Comprehensive Plan 2003 as Amended. Page 68

Table 1: Great Streets Characteristics

COMMUNITY FUNCTIONS	DESIRED CHARACTERISTICS
SOCIAL	Proximity to Grocery Stores
	Proximity to Bike Routes, Trails and Lanes
	Proximity to Schools and Universities
	Proximity to Medical Facilities
	Proximity to Community Facilities
	Proximity to Public Parks
	Projected 2025 Population Density
	Density of Persons Younger than 18 Years Old
	Proximity to Senior Centers
	Density of Persons 50 Years and Older
COMMERCE	Proximity to Centers and Corridors
	Employment Density
	Proximity to Rapid Ride
	Proximity to Proposed Street Car Stops
	Proximity to Commercial and Multifamily Developments
	Proximity to Bus Stops
	Limited Access Routes
SYMBOLIC / CEREMONIAL	Proximity to Historic Sites and Routes
	Density of Civic and Institutional Structures
	Stadia
OUTDOOR ROOM	Proximity to Activity Centers
	Enhanced Transit Corridors
	Major Transit Corridors
	Density of Street Trees

CHAPTER II: Principles of Great Streets

A. PRINCIPLES OF GREAT STREETS

Great Streets have several design principles that define their character. A principle is defined as a fundamental rule based on generally accepted best urban design practices, community values, and the goals and objectives of the Comprehensive Plan. These principles have been developed in consultation with Alan Jacob's book, *Great Streets*.

Accessibility to the Great Street is needed for pedestrians as well as vehicles. The pedestrian must feel safe in crossing the street. Any means to the American with Disabilities Act (ADA) accessibility requirements is essential.

1. Principle: Balanced Modes

Great Streets balance the needs of pedestrians, bicyclists, transit users, and drivers. In some cases, a Great Street may place more emphasis on the needs of pedestrians and transit while still accommodating automobiles.

2. Principle: Social Interaction

Great Streets support social interaction among people by providing spaces for various activities including walking, sitting, and other passive activities.

3. Principle: Pride of Place

Great Streets create a sense of place, a unique character and vitality that invoke pride in the community. They can become a focal point of the community and a visitor attraction. They create spaces and activities that become destinations within the city.

4. Principle: Sense of Safety

Great Streets provide a safe environment through designing physical elements, visual interest, activities that attract people, and safety from vehicles and crime.

5. Principle: Visually Attractive

Great Streets are visually attractive. The design of all elements, such as sidewalks, plazas, lighting, landscaping, paving materials, and street furniture (benches, trees, trash receptacles) is sustainable, attractive, and contribute to the vitality and safety of the environment. Building façades provide interest and a visual unity to the street environment.

9. A Great Street: 5th Avenue - New York, NY

6. Principle: Responsive to Climate

All streets, especially Great Streets, need to be designed to respond to the local climate. This may include providing protection from sun, wind, rain, and snow.

B. PHYSICAL ATTRIBUTES OF A GREAT STREET

In his book, *Great Streets,* Alan B. Jacobs describes some Great Street requirements. This Plan describes them as physical attributes.

1. Places for People to Walk with Some Leisure

The street must have places for people to walk and socialize in an environment that is safe, primarily from moving vehicles.

2. Physical Comfort

The street offers physical comfort and protection from the elements including sunlight, rain, or wind.

3. Spatial Definition

The street is defined by boundaries that include building façades, height and spacing, street trees, and street lighting. These elements define the street edges. Just as important is the entry point or "gateway" at the beginning and end of a Great Street. This is sometimes defined with signature buildings, public art or landscaping, pavement texture and color, or a combination of these elements.

4. Qualities that Engage the Eye

The street must provide visual interest to the user through street trees, seating areas, lighting, façade details that produce shade and shadows, placement of windows, articulation projections and recesses, products on display in windows, and building uses and activities (outdoor eating, retail stores).

5. Transparency

Where the public realm of the street meets the private realm of the building façade, it is important to create transparency. This joins the public and private realms using windows (storefront) and doors, which invite the viewer to see what is behind the façade wall.

10. A Great Street: Bourbon Street - New Orleans, LA

11. A Great Street: Central Avenue – Albuquerque, NM

6. Compatibility

The buildings along the street should provide a sense of design compatibility in terms of height and appearance. This does not mean that buildings should necessarily be designed with the same material, except perhaps in a historic district, but buildings should "get along" with one another.

7. Maintenance

Maintenance is critical to a Great Street. This includes maintaining landscape materials, paving, lighting, and signage, as well as day-to-day trash pick-up and overall cleanliness of the street. Building façades need to remain in excellent repair to add to the quality of the street.

C. CONTRIBUTING ELEMENTS OF A GREAT STREET

The following elements contribute to the creation of Great Streets.

1. Trees

A majority of Great Streets, but not all, have rows of street trees or clusters of street trees planted in a regular pattern, which help define the edge of the street and provide shade.

2. Diversity: Many Buildings Rather than Few

Great Streets have many buildings at the sidewalks. This adds diversity to the street edges and provides interest to the users. The building wall/ façade also contribute to the sense of enclosure.

3. Details: Special Design Features

Design details contribute to the Great Street: benches, gates, fountains, paving, lights, signs, awnings/canopies all play a critical role in creating the environment of the street.

4. Places

Places such as extra wide sidewalks, plazas, parks, transit stops/stations, can play key roles in a Great Street's environment.

12. A Great Street - Pasadena, CA

5. Density

Density in terms of people along or near the street is an important factor in street life. Whether housing is mixed with commercial fronting on the street or within walking distance of the street, it brings people and activity to the street.

6. Diversity: Land Use

Diversity in businesses and other uses located along the street and building design adds variety and vitality to street users. Restaurants, cinemas, theaters, schools, retail and office uses should be encouraged.

7. Length

The length of a Great Street is not critical if it properly addresses the principles, physical attributes, and contributing factors.

8. Slope

Some Great Streets have a change in the natural elevation along their route. While this does contribute to the character of the street, it is not critical to creating a Great Street. Where a natural slope exists, it can become a key element in the design of a Great Street.

9. Parking

On-street parking provides safety from the vehicular traffic for pedestrians and adds activity and vitality to street life. Off-street parking should be provided at the rear of fronting buildings. If no other option is available parking should be provided on the side of the building and should be screened by landscaping or a “street wall” compatible with adjacent building façades.

10. Contrast

A Great Street will demonstrate a contrast with other streets in the community. Contrast can be design elements, uses along the street, or the form of the street, such as its length, shape, and width.

11. Time

Great Streets take time to develop. They are always changing and reinventing themselves.

13. A Great Street: State Street - Chicago, IL

CHAPTER III: Great Streets Standards and Guidelines

A. INTRODUCTION

This chapter includes a toolbox of design standards and guidelines, available to Major Transit Corridors, Enhanced Transit Corridors, Arterial streets, and Collector streets for making segments of them into Great Streets. These standards and guidelines are intended for those street segments designated as Great Streets. Although they are not intended to apply to all city streets, some components, such as sidewalk widths, ADA accessibility, street trees, and landscaping that separate the pedestrians from the traffic lanes should be applied citywide. This Plan provides some guiding principles and recommends coordination with the infrastructure systems such as electrical service, water / sewer and communications, but no specific design standards or guidelines are included.

B. HOW TO USE STANDARDS AND GUIDELINES

This Plan's Design Standards and Guidelines although based on best practices in context sensitive design for urban streets, do not account for all the various situations that may arise as the Great Streets program moves toward implementation. The various right-of way widths and other conditions of streets, especially in the older part of the city, make it impossible to form hard and fast standards for retrofitting existing streets into Great Streets. While the intent is to follow the design guidelines and standards included in the Plan, their modification may be necessary due to limited right-of-way, location of existing buildings, and utility conflicts. Where possible, additional rights-of-way should be acquired or dedicated easements by the property owner obtained. New streets, either in new "Greenfield" sites or in "Greyfield" sites (redevelopment), should consider these as standards for

Great Street segments.

The toolbox of Great Street design standards and guidelines is organized around three general Great Street Design Areas (Figure 3): ***Roadway Realm***, ***Pedestrian Realm,*** and ***Private Realm.***

The following conventions are used in this plan to designate the extent to which a statement is mandatory or optional: 1) **"May"** refers to that which is permissible. 2) "**Should"** signifies a directive to be honored if at all possible. 3) **"Shall"** means that which is obligatory or necessary.

The following conventions are used in this plan to designate the extent to which a statement is mandatory or optional:

"May" refers to that which is permissible.

"**Should"** signifies a directive to be honored if at all possible.

"Shall" means that which is mandatory

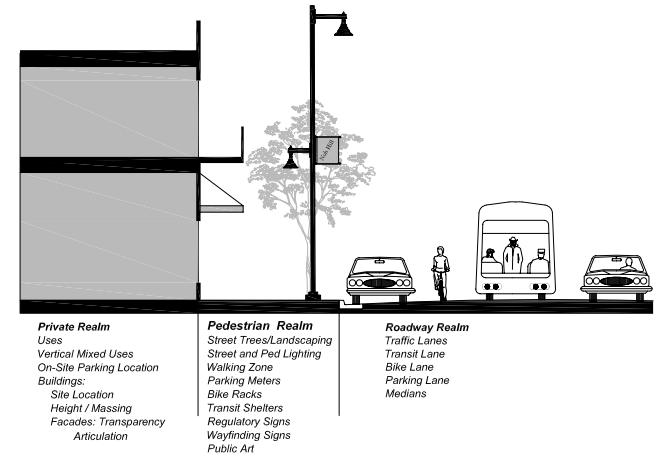
Major Transit Corridor
Roadways designed to optimize public transit and move large numbers of people in a very timely and efficient manner. These roadways could have dedicated lanes for transit, bike lanes, and pedestrians.

Enhanced Transit Corridor
Roadways designed or redesigned to improve transit and pedestrian opportunities for residents, businesses, and other users nearby.

Arterial
The arterial system should carry the major portion of. trips entering and leaving the urban area, as well as the majority of through movements desiring to bypass the central city.

Collector
The collector street system provides land access service and traffic circulation within residential neighborhoods, commercial, and industrial areas, and distribute trips from the arterial to their ultimate destination.

A more complete definition is in the Glossary in the Appendix.



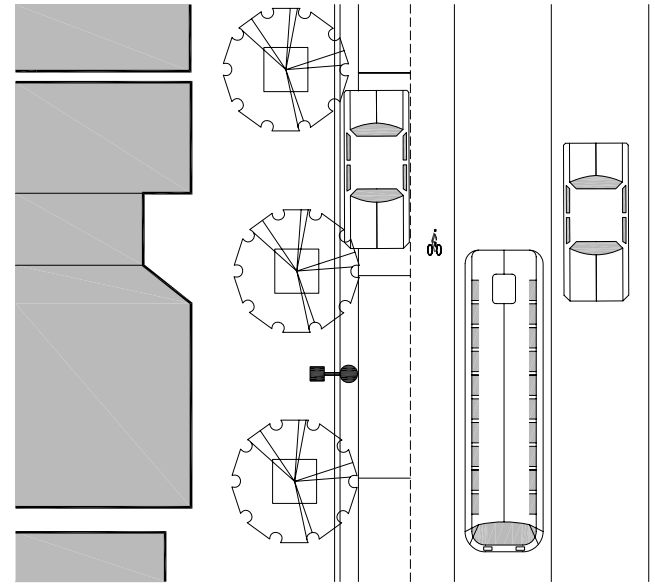


Figure 3: *Great Street Design Areas*

C. ROADWAY REALM

The Roadway Realm includes motorized vehicles including traffic lanes, turn lanes, transit lanes, parking lanes, bike lanes, turning radii, crosswalks, medians, traffic calming devices, traffic signals, drainage, and pavement materials/treatment.

1. Traffic Lanes

Vehicle traffic lanes provide for the safe passage of automobiles, commercial vehicles such as trucks, and transit, and sometimes a parade. While vehicle travel lanes are necessary, multiple lanes (more than two) in any one direction, and width of lanes (greater than 11 feet) add to the distance and difficulty for pedestrians crossing streets.

The number and width of lanes and building setbacks influence how different users perceive the street environment. Louisiana Boulevard at Uptown, Montgomery Boulevard at San Mateo, and Coors Boulevard at Montano Road are eight to ten lanes wide. With deeper building setbacks, these streets they appear to be even wider and encourage motorists' to speed. Street width, traffic volume and speed hamper the ability for pedestrians to cross these streets, yet these are major employment and community activity centers. For example, there are restaurants, health clubs, and many other retail shops east of Coors Boulevard at Montano and a medium density residential area at a walkable distance to the west. Even so, everyone must drive to shop, eat, or work at these areas. It will be necessary to make substantial changes reflecting better street standards for people to access these areas by walking, bicycling, using transit, or driving and for these streets to become Great Streets.

The American Association of State Highway and Transportation Officials (AASHTO) identifies reducing lane widths as one of several effective techniques for reducing pedestrian crossing distances, stating that "narrower lanes make shorter crossings for pedestrians, may provide space to accommodate bicycle lanes, and may reduce waiting times for motorists during pedestrian signal phases." AASHTO further states, "On multilane arterials, the use of wider curb lanes and narrower median lanes may constitute the most efficient use of available roadway width."[1]

14. Central Avenue, Albuquerque

15. Multi-Modal Street York Avenue, Toronto, Canada

[1] The adopted Albuquerque Bernalillo Comprehensive Plan (2003), recommends LOS D as the Peak Hour LOS for autos on Major and Enhanced Transit Corridors and Arterial Streets. Collector Street LOS is not addressed in the Plan.

The following are standards and guidelines related to traffic lanes for existing and new streets.

Provide additional areas for sidewalk width, medians, on-street parking, and other pedestrian facilities, and features as appropriate to the transportation and community functions of a street and increase right-of-way by one or more of the following:

- Reduce travel lane width to a range of 10 to 11 feet.
- Require adjoining property owner to grant additional rights-of-way to the City during development in accordance with *new* DPM requirements for pedestrian amenities for existing streets. New streets shall provide sufficient right-of-way to meet the standards of this Plan.
- Acquire additional rights-of-way.
- Reduce the number of travel lane(s) after conducting traffic analysis including provision of transit service and not to reduce Level of Service (LOS) by more than one level (B to C) within the designated Great Streets segment.

Levels of Service definitions are in the Appendix under Glossary.

16. Median with Left Turn Lane Central Ave, Albuquerque

2. Turn Lanes

Left and right turn lanes further increase the distance a pedestrian must travel to cross a street. They also widen the street at intersections, resulting in either less area for pedestrians on the sides of the street or a reduction in the area available for a pedestrian refuge in a median. While it must be acknowledged that left and right turn lanes enhance the vehicular carrying capacity of a street, it should also be acknowledged that they have a negative impact on pedestrian safety and the pedestrian environment.

With the provision of enhanced transit service, the following standards shall be used unless it is demonstrated that in order to do so, the LOS for automobile traffic is lowered to LOS F.

- No more than one left turn lane shall be provided on streets that are designated as Great Street segments and are in major activity / employment centers.

- Prohibit right turn lanes, if it can be demonstrated that level of service does not reduce one level lower than the existing LOS.
- Prohibit right turn lane channeling islands.

3. Transit Lanes

The standards below reflect the City of Albuquerque Transit Department operation requirements.

Bus Transit

- Bus lanes shall be provided consistent with the City's adopted Transit System Map and built to its specifications.
- The outside lane (or inside lane if called for in Project Specific Plan) of all Major Transit Corridor Great Streets shall be compatible with transit service concurrent with the transit level of service requirements.
- Great Streets segments that are Enhanced Transit Corridors shall include an outside lane for transit that may be shared with other vehicles.
-

Streetcar/Rail Transit

The City's is considering a Modern Streetcar project, to move people along the Central Avenue corridor between the BioPark and Nob Hill / Highlands area with a possible connection to, the Albuquerque International Sunport.

17. Rapid-Ride Bus, Albuquerque

18. Illustration of Central Avenue Light Rail Study, Albuquerque

Reserve rights-of-way (in the inside or outside lane) for streetcar, light rail, or bus along Major Transit Corridors designated in the Comprehensive Plan. Provide one or more of the following means to reconfigure of a street for transit, without reducing LOS by more than one level.

- Reducing the number traffic lanes
- Reducing lane width
- Acquiring additional right-of-way

ADA Accessibly

All transit stops shall be ADA accessible for wheelchair patrons to access bus or other public transit vehicles.

4. Bicycle Lanes and Bicycle Routes

Striped on-street bicycle lanes and shared use (e.g., bicycle/pedestrian) multi-use trails) are not essential to a Great Street; however, the more accessible a street becomes, the greater potential it has to become a social space and an economic center. Although the Great Streets Plan conforms with the Bicycle Map and Plan, bicycle lanes if necessary should be rerouted away from a Great Street to another location to provide needed right-of-way for pedestrian facilities.

- On-street bicycle lanes shall be 4 feet wide when next to curbs and gutters and 5 feet wide when next to parallel on-street parking. See Figure 4.

- Highlight the bicycle lanes by frequently placing bicycle stencils or other graphic symbols in the bike lane.

5. Crosswalks

Providing a safe environment for pedestrians includes well-marked and well designed pedestrian street crossings indicating where it is safe to cross the street. These crossings are generally at signalized intersections, but in some instances, can occur mid-block, with highly visible markings and appropriate warnings.

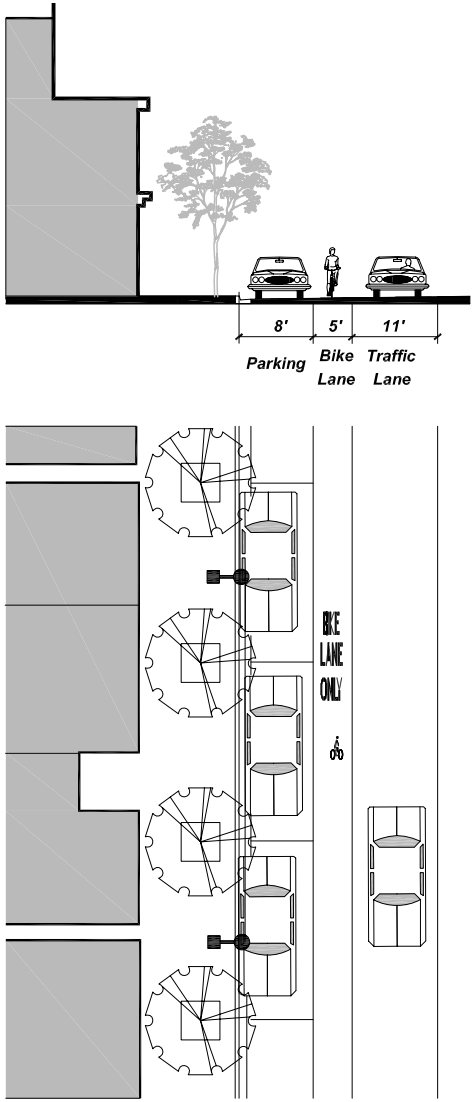


Figure 4: *Bike Lane*

Intersection Crosswalks

While there is significant debate professionals regarding the safety of non-signalized, or otherwise uncontrolled, marked crosswalks, it is generally agreed that, with the exception of a grade-separated crossing, a signalized intersection with a marked crosswalk could be one of the safest options for pedestrians crossing the street. However, this is not how the pedestrian behaves. Due to free right turn movement, drivers of vehicles often cut in front of pedestrians even when pedestrians have the signal to walk. This is a primary reason pedestrians say they feel safe crossing most streets mid-block instead of signalized intersections. However, mid-block crossings on streets with more than four lanes and fast moving traffic may be dangerous.

- Marked, signalized crosswalks shall be provided at the intersection of a Great Street and any Major Transit Corridor, Enhanced Transit Corridor, Arterial Street, or Collector Street.
- A raised platform crosswalk is acceptable where a Collector Street intersects a local street, the traffic volume is less than 10,000 vehicles per day, and speed is 25 miles per hour or less.
- Crosswalks and wheelchair (Figure 5) ramps shall be directional and perpendicular as shown in (Figure 6), unless it is physically infeasible.

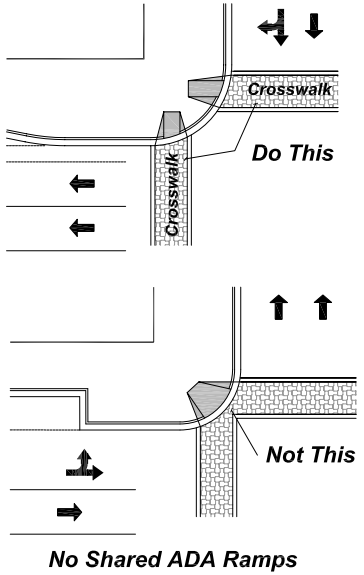


***Figure 5**: Crosswalks / ADA Ramps*

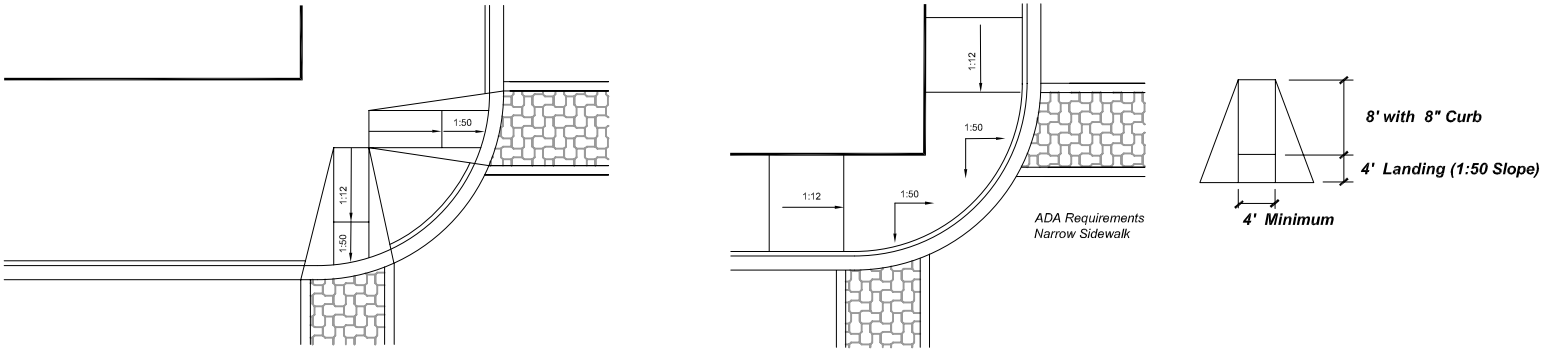


***Figure 6**: ADA Ramps*

Mid- Block Crosswalks

Mid-block crossings (Figure 7) reduce the distance between destinations. In Albuquerque, many signalized intersections are in excess of 1/4 mile apart. As a result, a pedestrian disembarking from a bus or other vehicle often crosses the street at mid-block instead of walking 1/8 mile to a signalized intersection. A mid-block crossing (Figure 8) can substantially reduce these distances.

- Non-signalized mid-block pedestrian crossings shall be provided at intervals of 1/8 mile where signalized intersections are 1/4 mile apart, posted speeds are 35 miles per hour or less, and there are four traffic lanes or less.
- Marked crosswalks at mid-block shall be provided only along Major Transit Corridors, Arterial, and Collector streets with four travel lanes or less and where the design speed and posted speed is 35 miles per hour or less.
- Where speeds exceed 35 miles per hour, or where the roadway includes five or more lanes, and traffic volumes exceed 12,000 vehicles per day without a pedestrian refuge or 15,000 vehicles per day with a pedestrian refuge, the mid-block crossing shall be signalized or otherwise controlled or separated from the roadway.
- The location of mid-block crossings (controlled and/or uncontrolled) shall ensure that adequate site distance is available for both pedestrians and motorists for pedestrian and traffic safety.

NOTE: For the purposes of this Plan, any recommendations for mid-block crossings (controlled and/or uncontrolled) shall ensure that the placement of such mid-block crossing shall not reduce the LOS of a street by more than one level.

If intersection and mid-block crossings are appropriate but not feasible due to reduction of street capacity or sight distance, designation of the street as a Great Street should be carefully reviewed.

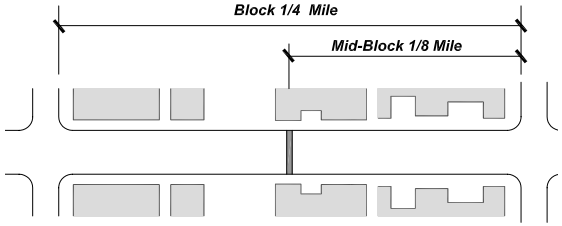


Figure 7: *Block Length*

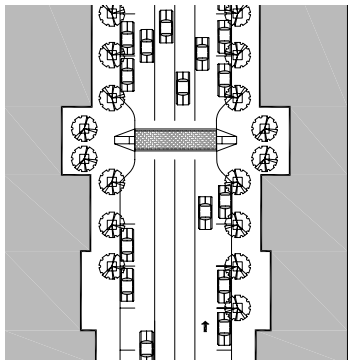


Figure 8: *Mid-Block Crossing*

19. Mid-Block Crosswalk

Pedestrian Refuge Areas

There are several types of pedestrian refuge designs. A study conducted by the United States Department of Transportation found that the presence of a pedestrian refuge in a median or marked crossing was associated with a significantly lower pedestrian crash rate at multilane sites with both marked and unmarked crosswalks.[1]

A pedestrian refuge physically separates the pedestrian from traffic. Generally, signal timing assumes a walking speed of 4 feet per second. Using this standard, a pedestrian crossing signal for a 6-lane street with 3-foot curbs, for example, would allow a total of 19.5 seconds to cross. However, average walking speeds vary from 2.5 to 6 feet per second.[2] Over 4.2% of Albuquerque residents stated that they walk or take public transit to work. In addition, 70% of the Albuquerque Metropolitan Planning Area populations over 65 and under 18 years of age live within the City [3] These individuals are least likely to drive and, as a result, are more likely to use public transit or walk to reach their destinations.

Facilities that accommodate those who are likely to fall in the lower range of pedestrian walking speeds, e.g., between 2.5 to 4 feet per second are important to Great Streets designated as Transit Corridors. Using a walking speed of, for example, 3 feet per second, would result in an individual requiring 26 seconds (fully 1/3 more time than the current City standard of 4 feet per second) to cross four of the six lanes of traffic before the opposing traffic signal turned to green. To avoid longer signal times, which could result in a decreased LOS, pedestrian refuges in the median are recommended (Figure 9), to enable pedestrians to cross a Great Street over two signal cycles.

- Pedestrian refuge areas shall be provided in medians at an intersection and at a mid-block crossing (if provided) when a new street four lanes or wider is constructed or an existing street of four lanes or more, is retrofitted to become

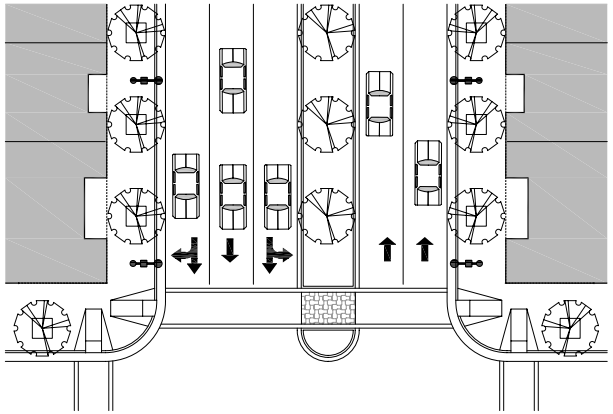


Figure 9: *Pedestrian Refuge*

20. Park Avenue - Winter Park, FL

[1] Turner-Fairbank Highway Research Center U.S. Department of Transportation. *Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations Final Report and Recommended Guidelines* Research and Development. August 2005. FHWA-RD-04-100

[2] American Association of State Highway and Transportation Officials. *Guide for the Planning, Design, and Operation of Pedestrian Facilities*. Publication Code GPF-1. July 2004. Page 10. 3 Mid-Region Council of Governments. Environmental Justice Atlas and Data Book for the Albuquerque Metropolitan Area, publication #T-0401. Page 12.

[3] Mid-Region Council of Governments. *Environmental Justice Atlas and Data Book for the Albuquerque Metropolitan Area*, publication #T-0401. Page 12.

a Great Street.

- Pedestrian refuge areas shall be provided in a median at an intersection and mid-block crossing when an existing four lanes or wider street is retrofitted, unless doing so will reduce the LOS more than two levels or impair proper vehicle turning movements.
- Pedestrian refuges shall have a minimum dimension of 6 feet wide and the depth of the median. For streets six lanes wide, the median width shall be a minimum of 8 feet. The width shall increase by 1 foot for every additional travel lane.
- Pedestrian traffic signal timing for street crossing is extremely critical for a safe and secure Great Street. This is especially true if no pedestrian refuge zone can be accommodated at the pedestrian crossings. The traffic signal timing for pedestrian crossing lights shall be no less than 3 Feet / Second.

6. On-Street Parking

On-street parking, while not a necessary feature of all categories of Great Streets. It provides a buffer from moving traffic and is an important feature of a "*commerce*" street. On-street parking is a common and important attribute of mixed use, pedestrian oriented urban districts and is recommended under certain conditions. It offers several other benefits that support Great Streets. On-street parking promotes businesses in cities, particularly within central business districts, activity centers, and along transportation corridors.

On-street parking is an important and integral component for the following reasons:

- It buffers pedestrians from moving traffic and provides safety
- It is a necessary feature for adjacent retail and service establishments and contributes to the vitality and economic health of mixed-use pedestrian oriented retail/service corridors.
- It signals motorists to slow as they pass through an area, enhancing pedestrian safety.
- It uses less land per space than off-street parking and provides easy access to businesses located on city streets.

- As a type of shared parking, on-street parking is an efficient means for allowing multiple users to reach multiple destinations.

On-street parking has two basic forms: parallel and diagonal. Diagonal is more suited to low volume collector and local streets. The safety issue is cars backing into the traffic lane.

Parallel Parking

- Parallel on-street parking spaces shall be 8 feet in width measured from the face of the curb, and range from 20 to 23 feet in length. See Figure 10.
- On-street parking shall be provided on segments of Major Transit Corridors, Enhanced Transit Corridors, Arterials, and Collector streets where right-of-way width is available in the existing street. On-street parking shall be required on new streets in the Activity Centers.
- On Major Transit Corridors, Arterials, and Collectors that provide on-street parking, at least 35% of the curb length shall have parking.

Diagonal Parking

- When provided, diagonal on-street parking shall be at 45 degrees to the street. See Figure 11.
- Diagonal parking is not appropriate when two or more traffic lanes are present.

21. Diagonal Parking

22. Parallel Parking, Albuquerque

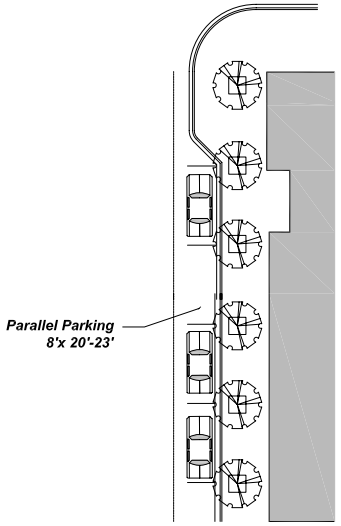


Figure 10: *Parallel Parking*

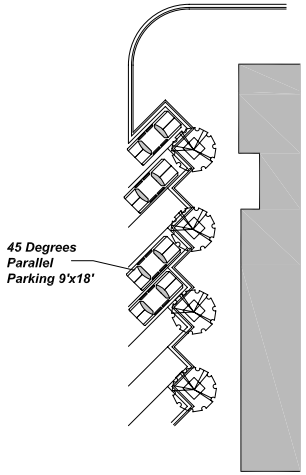


Figure 11: *Diagonal Parking*

7. Turning Radius

A reduction in the turning radius will decrease the crossing distance for pedestrians and provide a traffic calming effect by having the motorist slow down to negotiate the turn. See Figure 12.

- The recommended curb radius is between a minimum of 15 feet to a maximum of 25 feet for most applications.
- Increase the intersection radius on streets with bus turning movements or a large number of truck turning movements.

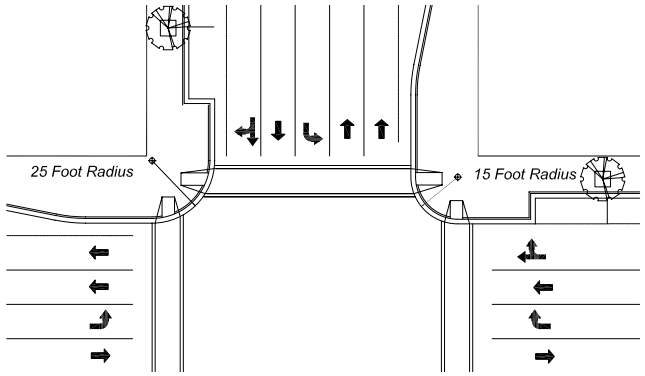


Figure 12: *Turning Radius*

8. Medians

Medians have several benefits. They help reduce the scale of a street. Trees and other vegetation in medians help to create that scale by reducing the width of a street by half.

Medians also provide pedestrian refuge areas near the intersections and mid-block crossings. Intersection refuge areas also enhance pedestrian safety and provide an opportunity for slower pedestrians to safely cross the street in two stages. See Figure 13.

- Two median types are recommended, one with and one without a raised concrete traffic separator.
- Medians shall be required for all Great Streets with four or more lanes.
- All medians shall be a minimum of 8 feet wide for 6 lanes and 6 feet wide for four to five lanes. See Figure 14.
- Medians shall provide pedestrian refuges, especially for streets with four or more travel lanes, unless left turning movements from intersecting streets place the crosswalk outside the normal pedestrian follow.
- If block lengths are 1/4 mile or greater, medians will provide refuge areas for controlled or uncontrolled mid-block crossings.
- All medians shall be landscaped consistent with the following standards:

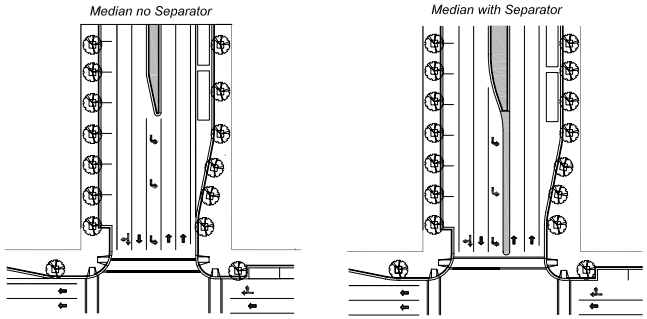


Figure 13: *Medians*

Medians: East-West Streets

Small ornamental trees and shrubs are preferred where vistas and view corridors are to be maintained. The size of the trees shall take into account the topography of the street and view corridors of mountains and volcano/mesa.

Medians North-South Streets

Medium to large trees are favored to provide shade to sidewalks, pavements, parking areas, and buildings.

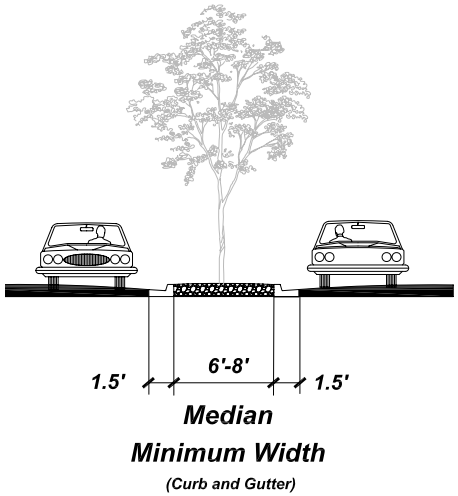
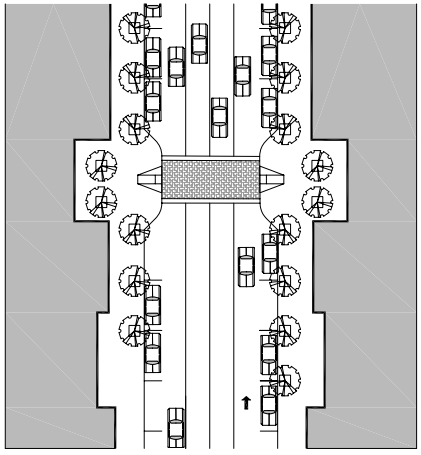


Figure 14: *Median Minimum Width*

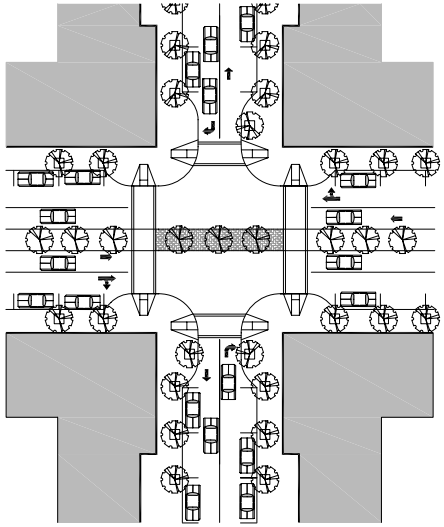
9. Traffic Calming

Traffic calming is a means to reduce vehicular speed while maintaining an acceptable LOS on collector or local streets. It results in a safer environment for pedestrians. The following traffic calming techniques can be applicable to the Great Streets segments.

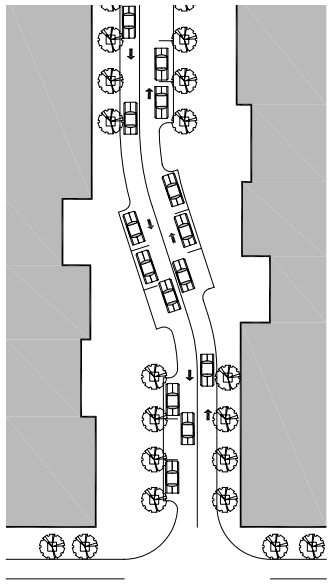
- Install narrowed lanes, street trees, restrictive roadway geometrics (such as tighter turn radii), and specific features including but not limited to chokers, bulb outs, speed tables, and flashers at the unsignalized intersection of a Great Street with a conventional Arterial Street.
- Install narrowed lanes, restrictive roadway geometrics (such as tighter turn radii), and specific facilities including but not limited to chicanes, bulb outs, diverters, speed tables, and flashers on Great Streets and where the posted speeds are 30 miles per hour or less.
- Within Great Streets segments of Major Transit Corridor and conventional Arterial Streets, the speed limit shall be 30 miles per hour, and for the Enhanced Transit Corridors the speed limit shall be 35 miles per hour or less.



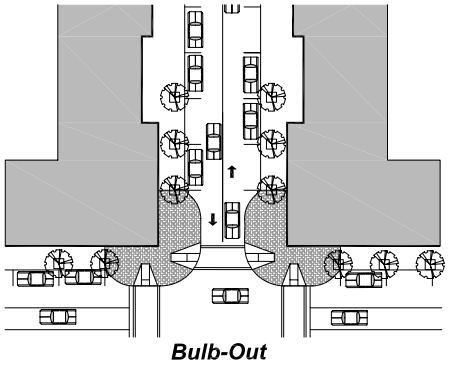
Speed Table



Channelization



Chicane



Bulb-Out

Figure 15: *Traffic Calming Devices*

10. Infrastructure and Utilities

The various elements of roadway, pedestrian and private realms will need to be coordinated with the infrastructure and necessary adjustments made as Great Streets are built in the City. The elements of infrastructure include:

- Electrical
- Water and Sewer
- Natural Gas
- Communications (telephone, cable, fiber optics, wire service, and others)
- Storm Drainage

The scope of this report does not attempt to deal with these issues in detail, but does recommend some following specific principles that should be followed.

- All Great Streets shall accommodate drainage appropriate to the street design and function. Sustainable techniques (such as permeable pavements, permeable median fill) may be used in the design of Great Streets.
- All Great Streets projects should have underground electrical and communications services, if physically and economically feasible, or all overhead lines should be placed on a common mutli-use pole, and any overhead wires that cross the Great Street should be placed underground.

23. Central Avenue, Nob Hill District Albuquerque

11. Street Pavement Materials and Treatments

Decorative pavement can include stamped and/or colored concrete, pavers, a combination of pavers and concrete, and/or other materials that add visual interest to the Roadway Realm. Decorative street pavement should be used to identify places of interest including crosswalks, traffic calming elements, transit/bike lanes, and/or other features, such as “logos” at “gateway” intersections.

- The use of colored, patterned and/or textured pavement shall be used to identify locations of interest, such as the beginning and ending of a Great Street, and to mark special (e.g., transit or bicycle) lanes, crosswalks, and other at grade facilities.
- ADA ramps shall have tactile dome surfaces using brick or concrete paver “domes.”

- Non-skid materials and paint for sidewalks and or crosswalks shall be used.

12. Driveways

Driveways on Great Streets increase potential conflict between vehicles and vehicles and pedestrians. They also negatively affect traffic flow. Limiting curb cuts increases safety and traffic flow. Pedestrians using wheelchairs or walkers and pedestrians with strollers need a relatively flat walking surface.

- Consolidate driveway curb cuts, limiting them to a maximum of one every 150 feet. See Figure 16.
- On planned new Arterial, Collector, Major, or Enhanced Transit Corridor Great Streets, require shared driveway access related to new development. See Figure 17.
- Provide a minimum of 6 feet of level surface (Sidewalk Zone) with tactile approaches on the building side of all driveway crossings (side-flares and cross slopes) in Pedestrian Realm. See Figure 18.

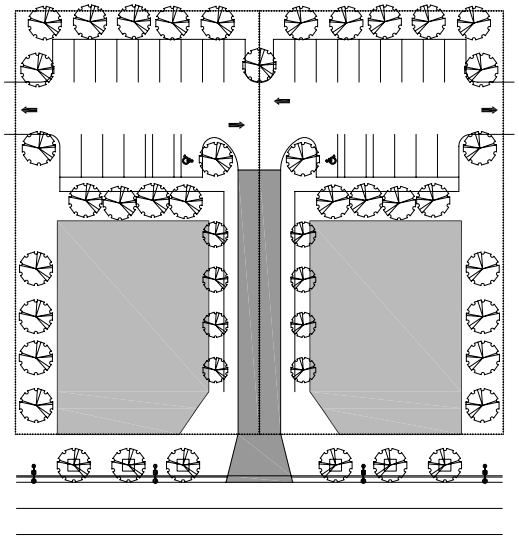


Figure 17: *Shared Driveway Access*

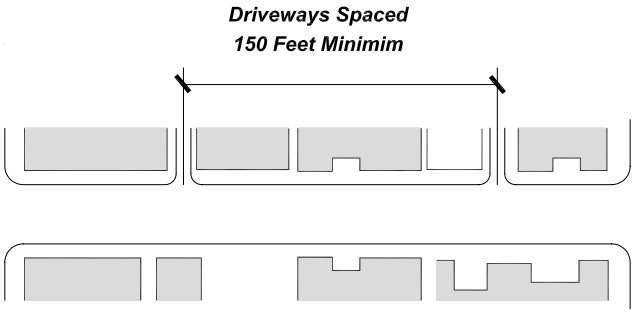


Figure 16: *Driveway Spacing*

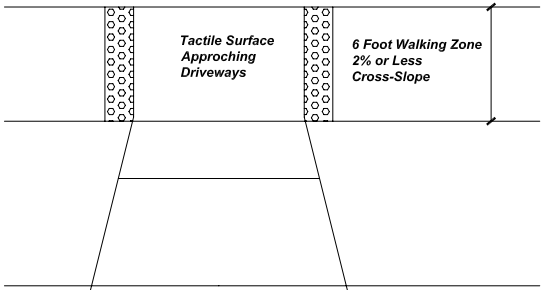


Figure 18: *Sidewalk Crossing Driveway*

D. PEDESTRIAN REALM

The Pedestrian Realm is the area of street right-of-way (Figure 19) that consists of four spatial zones of the Great Street: edge, landscape, walking, and frontage.

Major Transit Corridors

On Great Streets that are Major Transit Corridors, the Pedestrian Realm shall be a minimum of 12 feet wide[1] for an existing street and 15 feet wide for a new street inclusive of a minimum 6-foot effective Walking Zone width with no obstructions.

Enhanced Transit Corridors or Arterial/Collector Streets

On Great Streets that are Enhanced Transit Corridors or Arterial or Collector Streets, the Pedestrian Realm shall be a minimum of 11 feet wide and Walking Zone 6 feet minimum[2] for an existing street and 15 feet wide for a new street inclusive of a minimum 6-foot effective Walking Zone width with no obstructions.

When a Major Transit Corridor, Enhanced Transit Corridor, Arterial or Collector streets pass through a Major Activity Center or Community Activity Center the Walking Zone (sidewalk) standard shall be as stated in the Development Process Manual or the Great Street Standards which ever provides the greater pedestrian area.

Drainage

Drainage appropriate to the Pedestrian Realm shall be used, and where possible, sustainable techniques (such as permeable pavements, permeable pavers) shall be used in Landscape and Sidewalk Zones unless it can be demonstrated that such use is not possible. Sustainable drainage in the Pedestrian Realm portion of the street includes the use of materials that permit water to percolate into the ground. When possible, use permeable landscape materials in planted areas. If the Walking Zone space is less than minimum, tree grates or other permeable or porous materials can provide a stable surface for pedestrians and wheelchairs. This will allow natural drainage and migration of water into the earth. These types of pavers provide the same advantages as traditional concrete pavers including resistance to heavy loads,

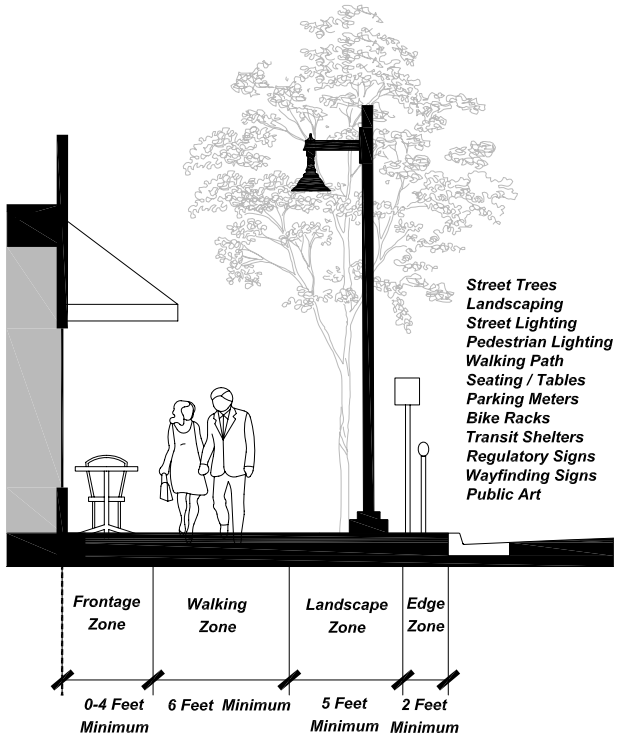


Figure 19: *Pedestrian Realm*

[1] Albuquerque/Bernalillo County Comprehensive Plan 2003. As amended. Policy a. Corridor Policies. Streets.

[2] The Albuquerque/Bernalillo County Comprehensive Plan 2003 recommends a 6 to 8 foot sidewalk width for Enhanced Transit Corridors and a 6 foot sidewalk width for Arterials.

flexibility of repair, low maintenance, and durability. Drainage grates should be flush mounted and placed outside the Walking Zone.

1. Walking Zone (Figure 20)

Walking Zone is fundamental to Great Streets. This zone is the unobstructed walk path along the street; it is the horizontal space for the pedestrian to travel, to access destinations along the street, and through its design, adds visual interest to the street. The Walking Zone should be a minimum of 6 feet wide, which is room for two people to walk abreast, or for two wheelchairs to pass.

- Provide a minimum clear walkway width of 6 feet[1]. In retrofitting an existing street where the right-of-way is extremely constrained, up to two feet of the tree grate may be used to make a 6 foot Walking Zone. A vertical or horizontal buffer, such as, but not limited to, a landscape area, bollard, street lighting, on street parking, planter, or a screen wall shall be provided. See Figure 20.
- Sidewalk surfaces shall be even, without bumps, cracks, or indents greater than 1/4 inch.
- The sidewalk surface shall be stable and not have a cross slope more than 2% and running slope more than 5%.[2] See Figure 21.
- Wheelchair ramps shall have detectable warning surfaces.[3] See Figure 21.
- Sidewalk materials can be concrete, concrete or brick pavers, or other decorative paving materials in combination.
- ADA ramps can use brick or pavers that have truncated raised dome. They should be a contrasting color from the surrounding sidewalk zone materials.

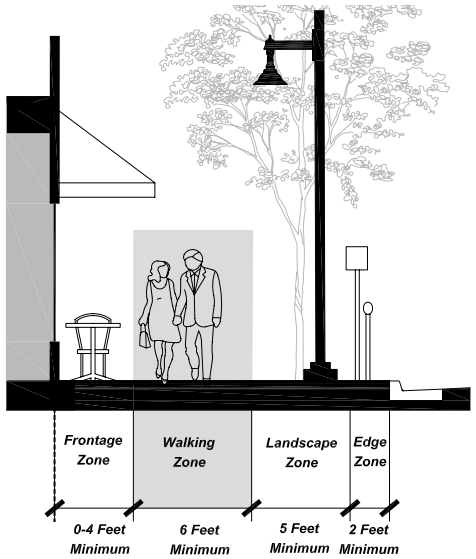


Figure 20: *Walking Zone*

24. Walking Zone

[1] AASHTO recommends a minimum of 6 to 8 feet of minimum clear width along sidewalks within Central Business Districts. If no horizontal buffer is provided (such as a planting strip). Where no planting strip is provided, sidewalk widths of 8 to 10 feet are recommended. Guide for the Planning, Design and Operation of Pedestrian Facilities.

[2] 1991 by the Americans with Disabilities Act Accessibility Guidelines (ADAAG)

[3] 1991 by the Americans with Disabilities Act Accessibility Guidelines (ADAAG) (regulatory standards) for hazardous vehicular ways, transit platform edges, and ADA curb ramps. ADA ramps shall meet the standards for the City of Albuquerque.

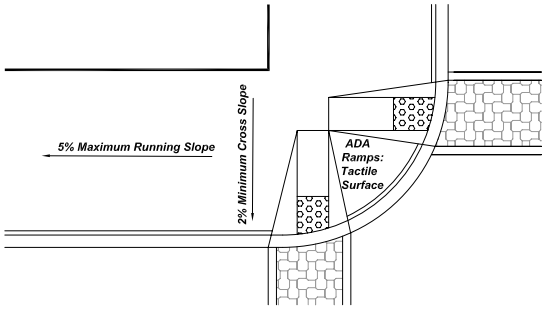


Figure 21: *Walking Zone Slopes/ ADA Ramp Surfaces*

*2. **Edge Zone** (Figure 22)*

The zone between the curb back of and the Landscape Zone provides space for parking meters if required, fire hydrants, wayfinding, and traffic regulatory signs. This zone should be a minimum 2 feet wide. This minimum width will not only accommodate the items listed below but also provide passenger car doors with room to open.

Parking Meters

Place on-street parking meters (if required) in this zone.

Wayfinding

Wayfinding is a word that has gained popularity with the adoption of the Americans with Disabilities Act (ADA)[1], In its most literal sense, it gives a person the ability to find his or her way to a given destination. Wayfinding shall not be limited to signs. Unique paving, wide locations in the Pedestrian Zone, monuments, public art, or landscaping can be used, among other techniques, to celebrate destinations, historic or cultural sites, or indicate connections and gateways.

Regulatory Signs

Place no parking, parking limit, and loading zone signs in the Edge Zone, 2.5 feet off the face of the curb.

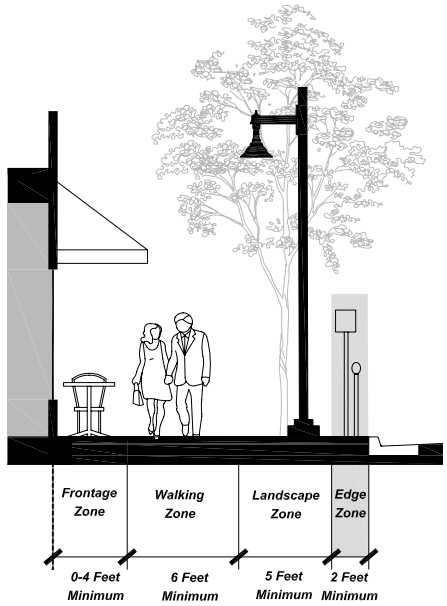


Figure 22: *Edge Zone*

25. Edge Zone

[1] 1991 Americans with Disabilities Act (ADA)

3. Landscape Zone (Figure 23)

The landscape zone accommodates and pedestrian street lighting, street trees and landscaping, bike racks, public art, transit stops/shelters, and other street furniture. The design of this zone shall be coordinated with utilities, especially underground cables and duct banks.

Street and/or Pedestrian Lighting

Adequate lighting conditions increase the perception of safety by pedestrians while also providing visibility. The City is selecting three types of pedestrian lighting fixtures that will be the standard for both street and pedestrian lighting in the public right-of-way.

- Provide a minimum of 1 lambert of light from grade to 5 feet above the walking surface between sunset and sunrise at vehicular intersections, changes in grade, crosswalks, curb cuts, and transit stops. See Figure 24.
- A minimum of 95% of the Pedestrian Realm shall have required lighting level of 0.5 foot-candles.
- Pedestrian lights shall be separate fixtures from streetlight fixtures. These fixtures can be located on the street light pole at a lower height, approximately 10 to 15 feet and/or on separate poles at approximately 10 to 15 feet in height. Bollard lights can also provide pedestrian lighting. See Figure 25.
- Location of pedestrian area lighting shall be coordinated with location and height of trees to ensure that the trees do not reduce the required lighting levels.
- Lights shall be cut-off fixtures (see Figure 26) that direct lighting downward, in accordance with State of New Mexico Dark Sky Act, and shielding residential neighbors.
- Great Streets shall provide a horizontal separation of at least 2 to 4 feet (based on available right-of-way) from the back of the curb to the center streetlight poles, trees, and other vertical elements (see Figure 27). Exceptions are no parking, loading, and wayfinding signs, which can be placed in the Edge Zone.

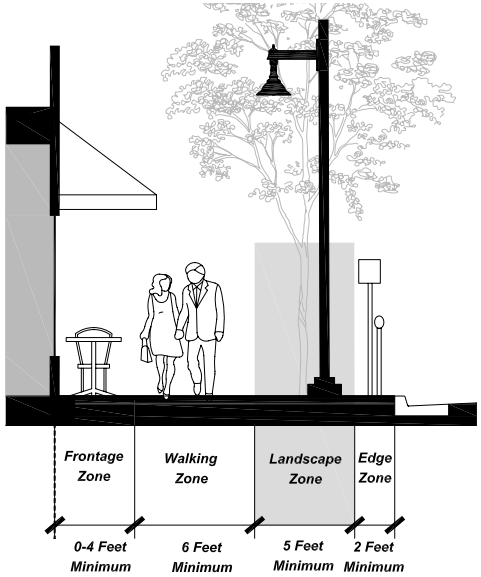
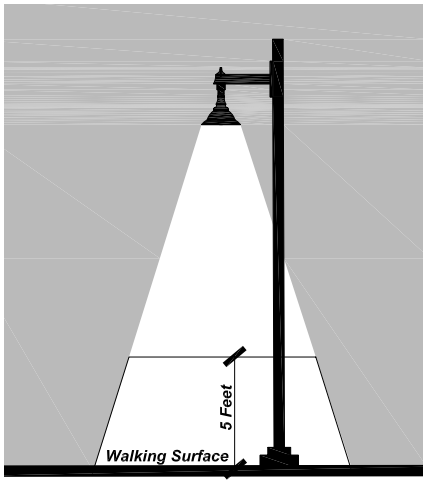


Figure 23: *Landscape Zone*

26. Landscape Zone

The horizontal setback at transit stops shall be incorporated into the edge and landscape zones, but shall not result in an overall reduction in the width of the sidewalk zone. In order to accomplish this additional right-of-way, an easement may be required.



Minimum 1 FT Lambert @ 5 Feet

Figure 24: *Lighting Lamberts*

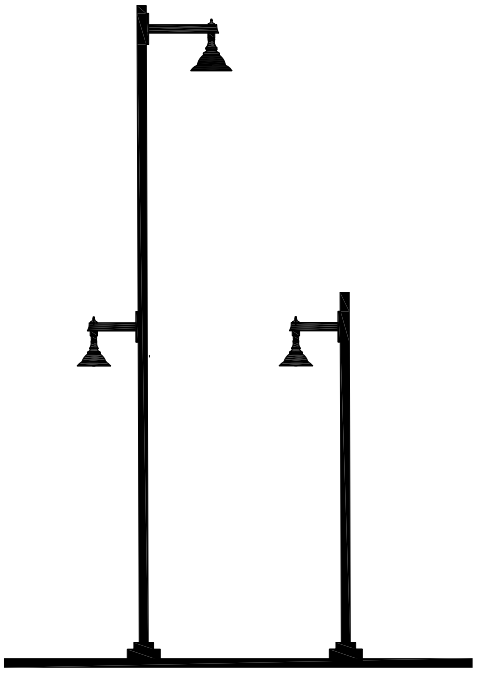


Figure 25: *Street and Pedestrian Lighting*

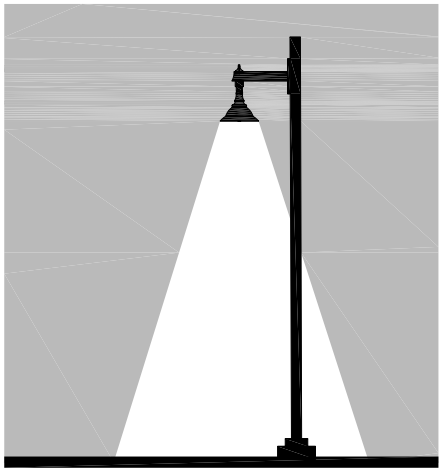


Figure 26: *Cut-Off Fixture*

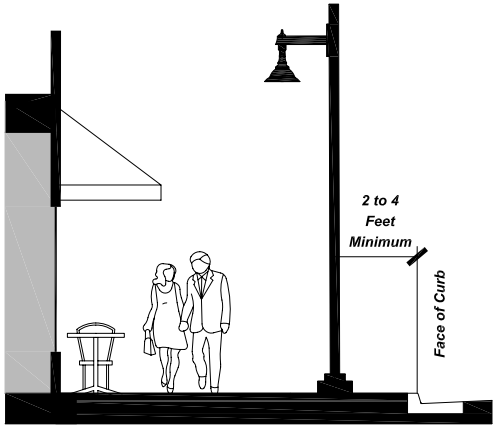


Figure 27: *Light Pole Location*

Street Signs

Street signs contribute to the overall design and visual appeal of the street by providing information about a district.

- Street signs, appropriate to the design and character of the street and neighborhood, shall be provided at all intersections of a Great Street with another street.
- Street signs along Major Transit Corridors, Enhanced Transit Corridor, Arterial Streets, and Collector streets shall be internally lit.

Street Trees and Landscaping

Landscaping includes trees and other plant material, such as shrubs and groundcover that enhance the Great Street environment. Landscaping makes a space more enjoyable by defining edges, providing buffers and barriers from traffic, reducing the urban heat island effect, and providing clean air. Landscaping, particularly street trees:

- Shade sidewalks, plazas, and outdoor seating
- Shade roadway and parking surfaces
- Shade buildings to reduce energy load
- Provide filtered storm water
- Provide screening and visual relief
- Create a sense of enclosure and buffer sidewalk from vehicular traffic
- Calm traffic

Trees and landscaping are a hallmark of a city and consequently are important to a Great Street. Recognizing this attribute, in 2005, Mayor Chavez stated that the City was “ready to design trees into the future of Albuquerque.” This statement, and the 5,000-tree distribution started March 2007), is part of the City’s goal to become carbon neutral in 2030.

- Landscaping shall be used to provide shade for the Pedestrian Realm public gathering areas as accents to cultural and historical markers or destinations, for visual appeal, and as vertical and horizontal separations between the walkway and the roadway.

27. Pedestrian Realm – Alexandria, VA

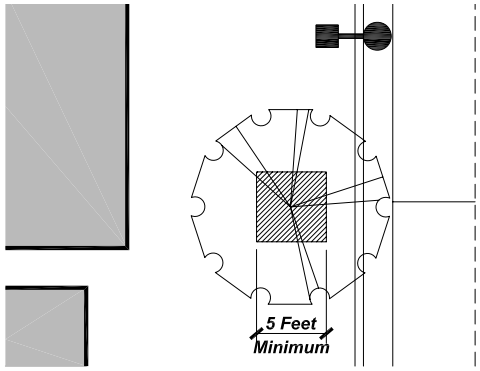


Figure 28: *Planting Width*

- Landscaped Zone plantings shall be a minimum width of 5 feet (see Figure 28). In areas with limited right-of-way, tree grates approved by the City Forester will be used to increase the effective Walking Zone width if needed.
- An area equivalent to at least 25 percent of the Pedestrian Realm surface area shall be landscaped. The Pedestrian Realm is the area between the back of curbs and right-of-way. If an approved tree grate is used, the surface area covered by the tree grate shall be counted as landscape area.
- All landscaping shall be in accordance with the City's Master Tree Planting List. Groundcover in conformance with City requirements and ordinances is also permitted.
- Aboveground, planters are permitted in the Landscape Zone. Aboveground, planters shall include a watering system necessary to the establishment and ongoing health of the vegetation. The surface area within the inside of the top rim of the planter will be considered a landscaped area.
- Only drip irrigation systems shall be used on a Great Street's project.
- All trees shall be a minimum of 3-inch caliper, with a single straight trunk, and with no permanent branches lower than 6 feet from the ground.
- A minimum of 5 feet Landscaping Zone for landscaping and street furniture shall be provided between the Edge Zone the Walking Zone. For new streets, the width shall be a minimum of 6 feet.
- Species of trees shall be consistent with the City of Albuquerque Master Tree Planting List.
- Sufficient rooting volume must be consistent with the City's Best Practices Manual. Rooting volume may be obtained through several design and construction techniques, such as alternative materials (structural soil, engineered soil, etc.) connection between planting islands and elimination of compacted soil and other tree growth restrictive measures.
- Placing any item in the Landscape Zone that reduces or restricts the rooting volume of the street tree needs to be analyzed related to its location.

The following standards protect and maintain view and vistas and provide light and shade along Great Streets, the following standards are provided. See Figure 29.

Sidewalks: East-West Streets – South Side

- Where buildings are two or more stories and built at the property line, trees may not be necessary for shade but shall be provided to maintain symmetry and shade from the summer afternoon sun. Clear sight triangles shall be maintained through tree species and nursery selection and by properly pruning the trees per City of Albuquerque Best Practices Manual, especially near the intersections.
- Where there is a single story building, and a gap greater than 20 feet between buildings or parking lots, trees and scrubs shall be provided for shading the sidewalk and screening the parking.

Sidewalks East West Streets – North Side

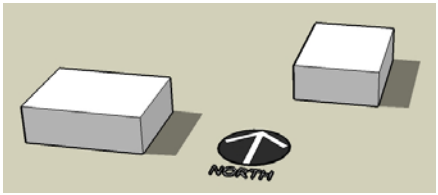
- Shade devices, such as medium to large trees or awnings consistent with zoning regulations shall be provided.

Sidewalks: North South Streets

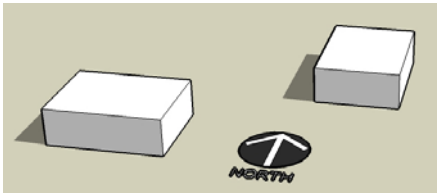
- Medium to large shade trees consistent with the City of Albuquerque Master Tree and Plant List shall be placed on both sides of the street even when there is a limited right-of-way. However, if the constraints of the existing right-of-way and underground utilities interfere, other shade devices, such as awnings, canopies, or arcades shall be provided in an activity center or corridor for pedestrians and for seating areas. The space required by rooting volume and canopy size of trees shall be well coordinated with the placement, size, and height of utilities including cables, conduits, boxes, and light poles. Provide a minimum 3-foot separation between the root zones of trees and all utilities or provide root barriers pursuant to City of Albuquerque's Best Practices Manual. Provide medium to small trees where there is conflict with overhead utilities.

Bike Racks

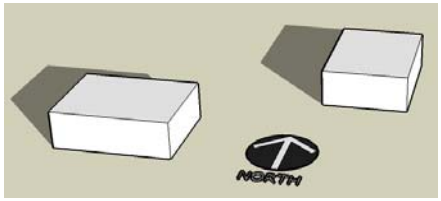
- Bicycle racks *shall be provided at all major transit transfer centers, multi-modal centers (streetcar, Rapid-Ride, buses)and park-and-ride facilities.*
- If right-of-way permits and an effective Walkway Zone width of 6 feet can be maintained, at least one bicycle rack, accommodating at least three bicycles, shall be provided along a Pedestrian Realm in the Landscape Zone.



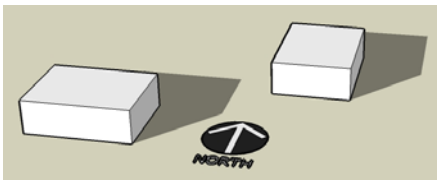
Summer Morning: June 9 AM



Summer Afternoon: June 3 PM



Winter Morning: December 9 AM



Winter Afternoon: December 3 PM

Figure 29: *Sun / Shade Shading*

Public Art

- Public art is the form of pylon or ant other form is recommended to mark the beginning and end of a Great Street.
- Art is a key element of a Great Street. In the area between the curb and right-of-way, artwork shall be incorporated into the design of light fixtures, paving, and landscape.
- Include an artist on all design teams for public improvements along or within a Great Street.
- Artwork placed in the median shall be consistent with the City traffic ordinance.

Historic Markers

The cultural significance of a place is a key component of a Great Street. Albuquerque has almost every type of building found elsewhere in New Mexico and some buildings and groups of buildings found nowhere else.[1] Celebrating these unique structures, historic neighborhoods, and places contributes to the unique character of the City and to the significance of a Great Street. Often a marker is used as a gateway feature to identify a neighborhood or district.

- Place commemorative markers at the locations of significant historic and cultural sites, with approval of the City.
- Historic commemorative markers may be placed in the Landscape Zone.
- Neighborhood identity markers shall be placed in the street median, consistent with current City ordinances and maintained by the Neighborhood and / or Business Associations. If no medians exist then they can be placed in the Landscape Zone.
- Decorative paving, colored or scored concrete, banners and/or landscaping should be used to identify historic events, sites and buildings.
- Art pylons or other features can be used to maker an historic, and cultural sites or a neighborhood.

[1] Friends of Albuquerque Environmental Story.

28. Gateway Icon – Portland, OR

29. Gateway Icon – Carmel, CA

30. Historic Maker – Camino-Real

Transit Service / Stations

Public transit is also an important element of a Great Street. Seventy percent of (70%) of the Albuquerque Metropolitan Planning Area population over 65 and under 18 years of age live within the City. These individuals are least likely to drive and, as a result, are more likely to use public transit, bicycle, and walk to reach their destinations.

- Locate transit stops consistent with the City's Transit Department operational requirements.
- Where streetcar / rail service and bus Rapid-Ride service are provided their stops shall be located within a block from each other. (See Figure 46)
- Where both bus Rapid-Ride service and local bus service are provided, the local bus stop shall be located at or next to the bus Rapid Ride stop.
- At the intersection of a Great Street and a Major or Enhanced Transit Corridor or Arterial Street, or at a signalized intersection on a Great Street, transit stops (Figure 30) adjacent to the intersection shall be provided on the far side of the intersection. Mid-block stops will be allowed.
- Brake pads shall be provided at transit stops where buses and / or Rapid-Ride buses stop every 10-15 minutes.
- It is recommended that a graphic artist be on the design team for transit shelters.
- Transit stops and/or a station shall be incorporated into public and private plazas if in the proper location in conjunction with City of Albuquerque Transit Department.

Other Street Furniture

As people congregate to enjoy Great Streets, the demand for basic comforts, such as water, rest rooms, and trash receptacles will increase. Installing these features will enhance the Great Street environment and encourage more people to enjoy them.

- *Trash Receptacles* shall be provided at a transit stop and one per block near an intersection along the Pedestrian Realm length.
- *Public Restrooms* can be provided it room exists.
- *Water Fountains* shall be provided at frequent (1/4 mile minimum) intervals

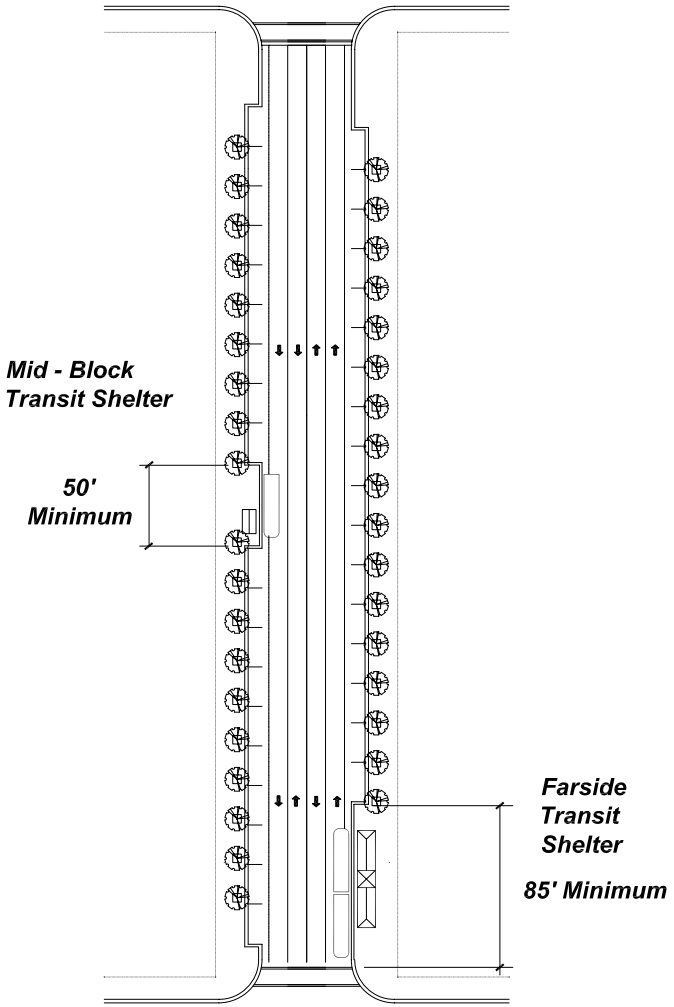


Figure 30: *Far Side and Mid-Block Transit Shelters*

along a Great Street. Locate fountains near public gathering areas and pocket parks.

- *Benches* shall be provided on average every 75 feet along the Pedestrian Realm length.

*4. **Frontage Zone** (see Figure 31)*

Outdoor Seating/Sales Areas

Outdoor cafes and occasional outdoor sales racks encourage people to linger on a street. The presence of street venders, newsstand attendants, and regular customers add surveillance to a street, increasing its safety. Outdoor cafes, sales, and other activities contribute to the social aspects of a great street by encouraging social interaction. They contribute to Great Streets that are outdoor rooms by providing furnishings - places to sit, or in the case of a newsstand, a bookshelf where one can browse. They contribute to a commercial Great Street by providing or adding to the economic activity of the street. Frontage Zone shall always be the private property unless the public right-of-way is of sufficient width to accommodate activities.

- Permit outdoor cafés and other appropriate outdoor retail sales activities associated with an abutting, adjacent retail business in the Frontage Zone and/or the Landscape Zone, as long as clear Walking Zone is a minimum width of 6 feet.
- If the project is located at the intersection of a Great Street and another street, a 6-foot effective sidewalk width shall be maintained in the Walkway Zone and along the sidewalk of the intersecting street. If the sidewalk of the intersecting street is less than 6 feet wide, then no outdoor café or other outdoor retail activity shall be permitted on the sidewalk of the intersecting street.
- Limit the total area of appropriate outdoor retail activities and outdoor cafés that occur within the Frontage Zone to 80% of the block length.
- Allow appropriate outdoor retail activities in accordance with City Ordinance. However, amend the City ordinance to allow outdoor café sales as described.

Projections into Right-of-Way

Various building elements such as awnings, marquees, balconies, arcades shall be allowed to project into the public right-of-way. The building projections into the public

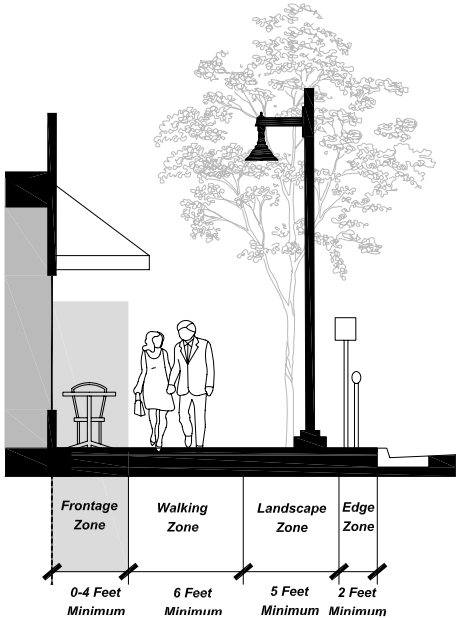


***Figure 31:** Frontage Zone*

31. Frontage Zone

right-of-way are not currently allowed under the Zoning Code. This Plan recommends that the Zoning Code be amended to allow for this type of design.

Awnings/Canopies (Figure 32)
The use of awnings and canopies is encouraged to provide shade and protection from other extreme elements of nature. They are allowed to project into the right-of-way. The standards are:

Projection:	6 feet Maximum
Clear Height:	8 feet Minimum

Marquees (Figure 33)
Marquees are allowed for theaters and movie houses.

Projection:	10 feet Maximum[1]
Clear Height:	8 feet Minimum

Balconies
Balconies can also project past the right-of-way line.

Projection:	6 feet Maximum (no more than the distance from the right-of-way to the edge of the Landscape Zone)
Clear Height:	10 feet Minimum

32. Awnings

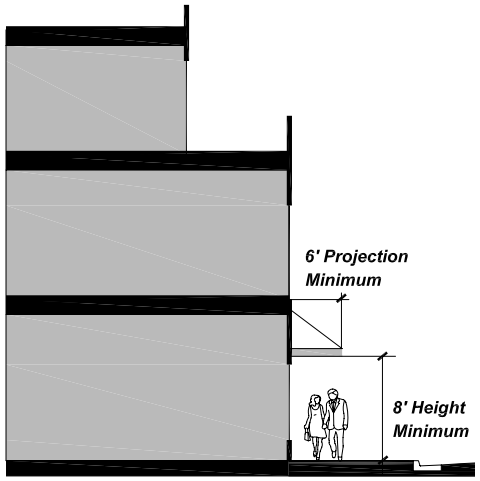


Figure 32: *Projections Awnings/Balconies*

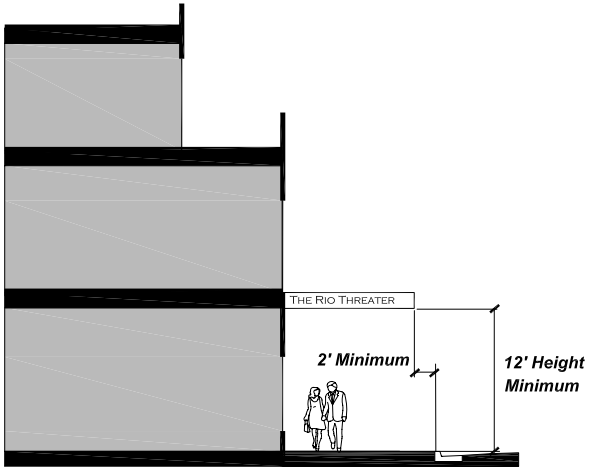


Figure 33: *Marquee*

[1] No projection shall be more than the distance from the ROW to the edge of the Landscape Zone.

Arcades and Galleries (Figures 34 and 35)
Arcades and galleries are architectural elements that add to the visual interest of the Great Street and add the benefit of protection from the sun and climactic incidents of weather. The standards are:

Projection:	12 feet maximum to outside of structure.
Inside Clearance:	10 feet minimum
Clear Height:	10 feet minimum
Column Clearance:	10 feet minimum

Projecting Signs
Signs for businesses are allowed to project beyond the right-of-way.

Projection:	5 feet maximum
Clear Height:	8 feet minimum

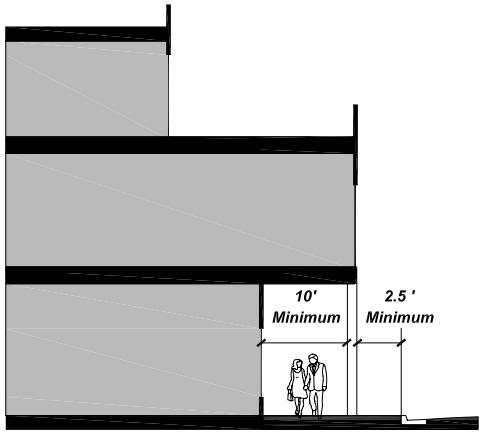


Figure 34: *Arcade*

33. Projecting Sign

34. Gallery / Arcade

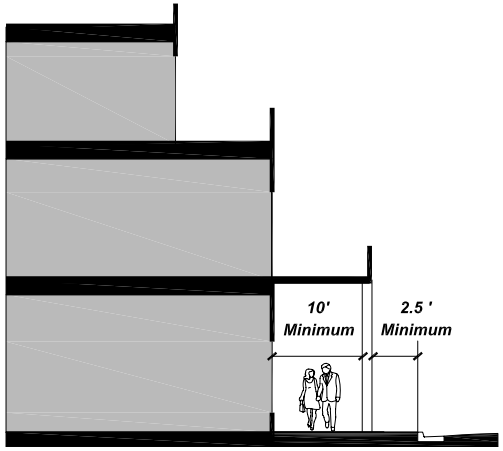


Figure 35*: Gallery*

E. PRIVATE REALM

This Plan does not regulate private property outside the public right-of-way. These areas, however, are the context for a Great Street environment. The Plan's guidelines can easily be used by the private sector for its benefit and to contribute to the vitality of the streets. Land uses, building design and scale, the visibility of pedestrians and motorists, and the amount of sun and shade that falls on the street during various times of day influence how an individual perceives the street. This section provides recommendations and guidance for the context of a Great Street.

1. Types of Land Uses

The type of use along a Great Street must be compatible with the pedestrian environment. Uses/activities that encourage social interaction, such as retail, restaurants, theaters, and other forms of entertainment are encouraged. Mixed use that includes professional offices, shops, residences that allow shared use of parking are recommended on Great Streets.

- Encourage ground floor retail, with direct access to the public sidewalk.
- Discourage land intensive and auto oriented uses, such as gas stations, fast food restaurants with car service, car washes, or office/industrial parks, big box discount stores and other campus-like development that propose sitting buildings back from the street.
- Prohibit drive-through facilities (i.e., banks, fast food, liquor, pharmacy) along a Great Street, unless they can be designed to orient there building to the street and place the drive-through lanes and food pick up behind the building. See Figure 36.

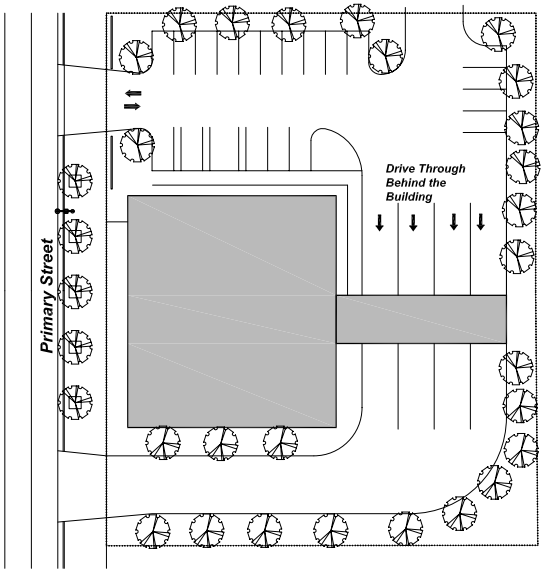


Figure 36: *Drive Through Facilities*

2. Vertical Mixed Use

Encourage a vertical and horizontal mixture of commercial, residential, and employment land uses along the street. The vertical mixture of land uses will encourage street life along the Great Street. The City's Comprehensive Plan encourages mixed-use development with retail at the street level and office residential on the upper levels. The residential uses will encourage retail to locate along the street and provide eyes on the street for safety and security.

3. Location of Off-Street Parking (Figure 37)

Properly locating off-street parking will contribute to the visual appeal of the Great Streets. Parking lots located between the sidewalk and the building will not create a pedestrian environment, or a sense of place. Parking should be located in back or side of buildings. Standards are as follows:

- Off-street parking should be located at the rear of the buildings that front on a Great Street.
- One bay of off-street parking with a maximum width of 75 feet shall be allowed on the side of a building facing the Great Street, but it will require a "streetwall" that is 42 inches in height and designed to be architecturally complementary with the materials and colors of the building it serves. See Figure 38.

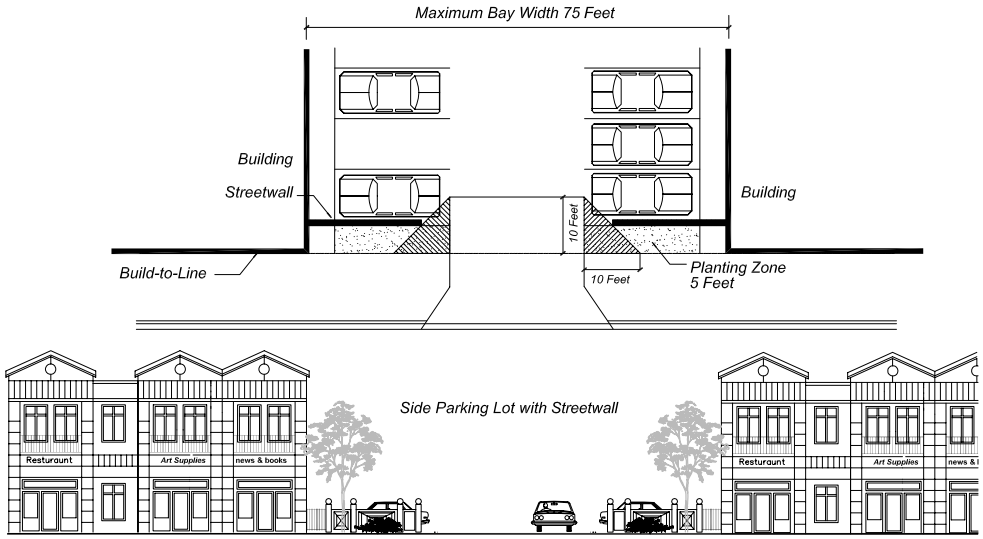


Figure 38: *Streetwall with Side Parking*

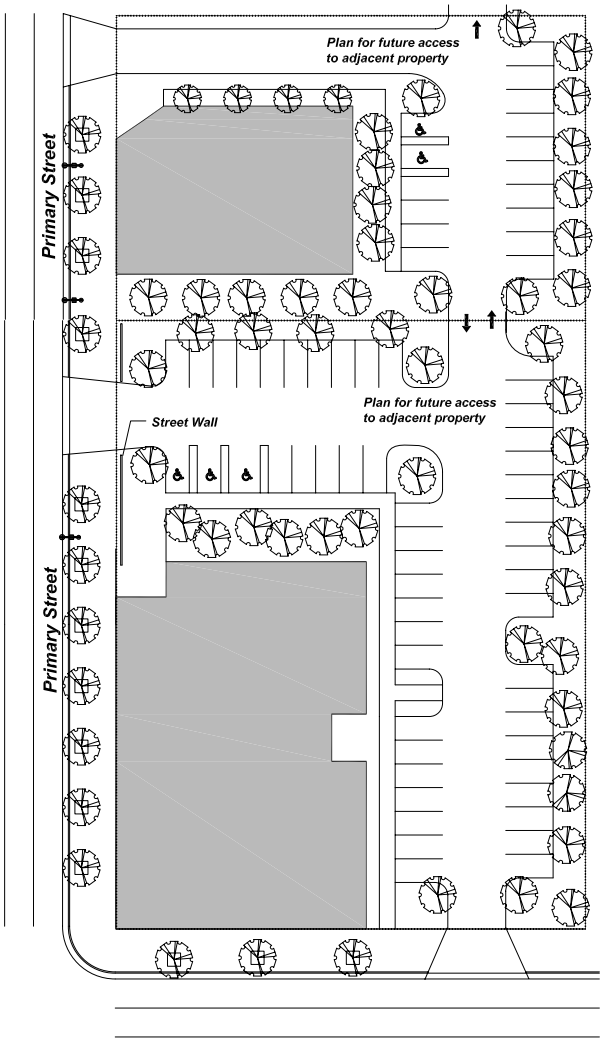


Figure 37: *Parking in Rear and on Side*

4. Plazas

Pocket parks, seating areas, and plazas create areas for social interaction, contributing to a Great Street and to a sense of community. Areas where social interaction can occur should be provided and should include historical and educational amenities, such as trees, benches, tables, public art, and drinking fountains to encourage interaction.

- Provide pocket parks, plazas, and other places for people to gather.
- Provide at least one gathering place with a minimum of one seating area that accommodates a minimum of three adult people.
- Provide a trash receptacle, and shade every 1/4 mile along the Pedestrian Realm length.
- Provide seating for at least three adult people at all transit stops in the Pedestrian Realm, exclusive of the 6-foot Walking Zone. This may take additional right-of-way.
- Provide appropriate outdoor retail activities in accordance with City Ordinance

35. Plaza – Misner Park Boca Raton, FL

5. Lighting

Architectural lighting on the Private Realm is encouraged, such as lighting of building façades and trees. It should must also be consistent with the State of New Mexico Dark Sky Act.

6. Shade

Temperatures in Albuquerque generally range from 80 to 90 degrees Fahrenheit between June and September, with occasionally a few days exceeding 100 F degrees. Less of the sun's dangerous ultraviolet rays are filter out in higher altitude cities. These conditions support the need for providing shade on Great Streets for health as well as comfort. Standards are as follows:

- A minimum of 25% of the Walking and Frontage Zones areas shall be shaded between May and September between noon and sunset. This shall be demonstrated on required landscape drawings.
- Provide shade with trees, and / or any combination of architectural features on buildings including awnings, arcades, and galleries.

7. Buildings

The height, massing, and location of the building on the site provide the street with a sense of enclosure, and create an "outdoor room". In the activity centers, corridors, and commercial areas, the proximity of buildings to the street provides better accessibility to people traveling by all modes, especially pedestrians. Buildings surrounded by expansive parking lots and minimal landscaping do not create an inviting pedestrian environment. Separating buildings from sidewalk with parking also reduces their connection to the street, and as a result, diminishes the ability of a street to evolve as a Great Street.

Site Location

New non-residential (except apartment and townhouse) buildings along Great Streets shall have the front façade located on a Build-to-Line that is between 0 to 5 feet of the right-of-way line (this includes corner lots). This will ensure that the buildings create a sense of enclosure along the street and provide a minimum of 6 feet clear walking for pedestrians in older parts of the City where street right-of-way is constrained. If the developer or business wants to provide outdoor dinning, a maximum 10 feet Build-to-Line, from the front property line (right-of-way), shall be allowed as follows:

- A maximum 50% of the building façade that is less than 60 feet in length
- A maximum 30% of the building façade that is greater than 60 feet in length.

Accessibility

Good accessibility is an important consideration for buildings along Great Streets.

- All buildings will be accessible at ground level from the Pedestrian Realm and any adjoining open space.
- Building entrances should be provided at a maximum of every 75 feet.
- Pedestrian access to buildings from parking areas and structures will be at least 6 feet wide, clear of any encumbrances to the walkway, clearly identified with signs, and have shade trees, and lighting.
- Parking lots with four parking bays or more shall provide a pedestrian walkway through parking lots with shade trees a minimum of every four parking bays. See Figure 39.
- The access to loading zones should be provided from an alley. If there is no service alley access from Great Street to loading zone shall be minimized.

36. Redevelopment Downtown Albuquerque

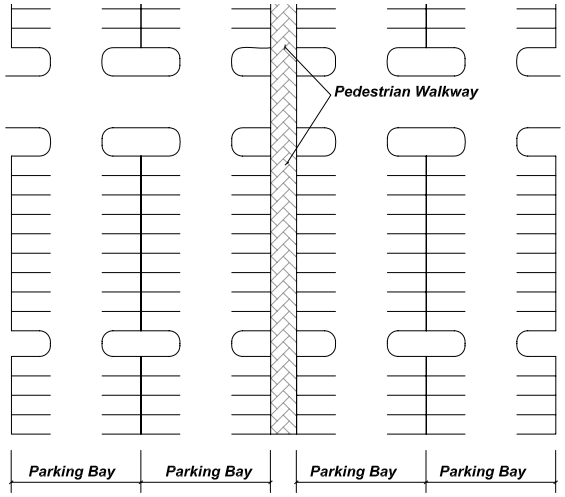


Figure 39: *Parking Walkway*

Land Dedication / Easements

In some cases, it may be necessary for the property owner to provide space for basic elements in the Pedestrian Realm, such as the Frontage Zone for outdoor dinning or walking zone in older parts of the City where right-of-way may be constrained.

Height and Massing

The height to massing ratio is to create a sense of enclosure along a Great Street. Great Streets are scaled at a street to a minimum building façade height ratio of 3:1 (see Figure 40). At a 1:3 height to width ratio, a 100-foot street right-of-way results in a +33 foot façade height. Street trees can also be used to create a sense of enclosure using the same ratios (Figure 41).

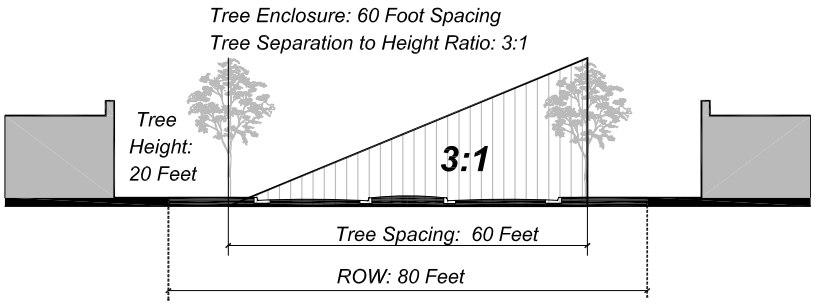


Figure 41: *Tree Separation to Height Ratio*

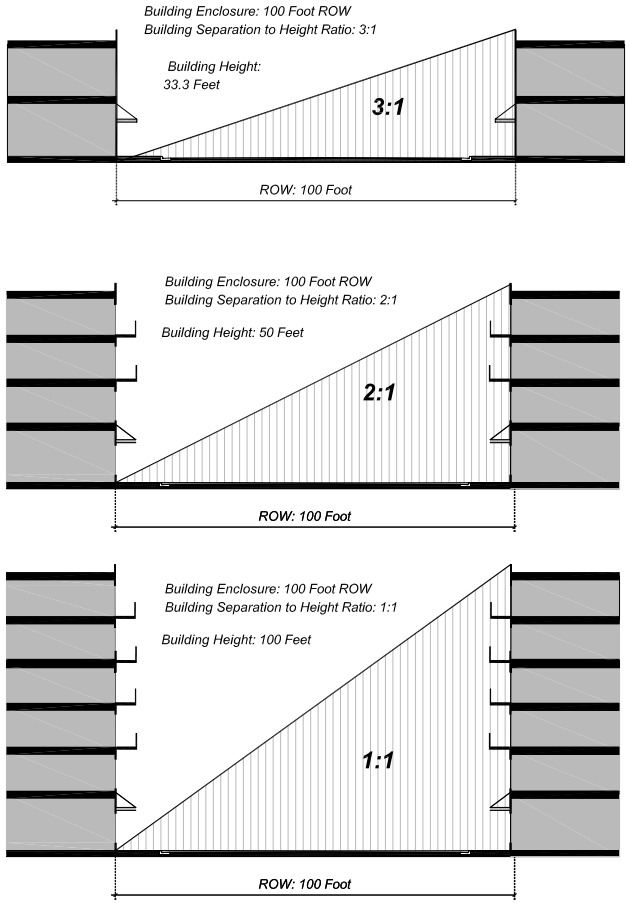


Figure 40: *Building Separation to Height Ratio*

Façades

The building façade is an important element in the Great Street typology. Three basic guidelines need to be considered.

Length: The length of the block façade (Figure 42) should be at least 70 to 80% of the block face on a Great Street.

Transparency: Front building façades (Figure 43) along a Great Street shall have a range of 60 to 90% transparency at the sidewalk level including doors and windows (storefronts). The upper levels shall provide a range of 40 to 50% transparency with windows and doors from balconies.

Passageway: A maximum of two passageways shall be allowed to access interior courtyards.

Articulation: The façades of buildings along the Great Street should provide articulation in the range of 12 inches to 36 inches. This can be a recess or projection from the Build-to-Line. Buildings will be directly connected to the Pedestrian Realm with a 0 to 5 foot Build-to-Line; however, to provide entry features and articulation, and outdoor activities such as dinning, art fairs, a maximum of 10 feet build-to-line recessed from the property line shall be allowed as follows:

- A maximum 50% of the building façade that is less than 60 feet in length
- A maximum 30% of the building façade that is greater than 60 feet in length.

37. Facade Articulation

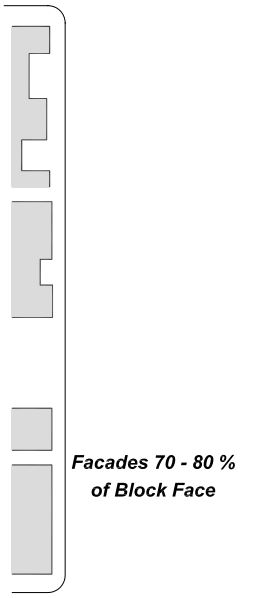


Figure 42: *Façade Length*

Figure 43: *Transparency*

Table 2: **Design Standards and Guidelines Matrix for Great Street Segments**

GREAT STREETS CLASSIFICATIONS	Major Transit Corridor (Arterial Street)	Enhanced Transit Corridor (Arterial Street)	Arterial Street (All Other Arterials)	Collector Street (Residential	Collector (Mixed Use / Commercial)
ROADWAY REALM					
Vehicular Travel Lanes					
Number of Lanes	4 to 6	6	4	2 to 4	2
Lane Width	11 FT	11 FT	11 FT	11 FT	11 FT
Left Turn Single Lane	Yes	Yes	No	Yes	Yes
Left Turn Dual (2)Lanes	No	No	Yes	No	No
Right Turn Lane Only	Maybe	Maybe	Maybe	No	No
On-Street Parking	Yes	No	Yes	Maybe	Maybe
Bicycle Lanes	Maybe	No	Maybe	Yes	Yes
Bicycle Routes	No	No	No	No	No
Bus Lanes	Yes	Yes	Yes	Yes	No
Streetcar or Light Rail	Yes	Yes	Maybe	No	No
Marked Crosswalks	Yes	Yes	Yes	Yes	Yes
Mid-block Crossing	Yes	Maybe	Maybe	Maybe	No
Medians / Landscaping	Yes	Yes	Maybe	Yes	No
Pedestrian Refuge Area	Yes	Yes	Yes	Maybe	No
Pavement Treatment / Detectable Warning	Yes	Yes	Yes	Yes	Yes
Drainage	Yes	Yes	Yes	Yes	Yes
Speed Management	Maybe	No	No	Yes	Yes
Slope for Drainage	Yes	Yes	Yes	Yes	Yes

Table 2: *Design Standards and Guidelines Matrix for Great Street Segments (Continued)*

GREAT STREETS CLASSIFICATIONS	Major Transit Corridor (Aterial Street)	Enhanced Tranist Corridor (Arterai Street)	Arterial Street (All Other Arterials)	Collector Street (Residntial)	Collector (Mixed Use / Commercial)
PEDESTRIAN REALM					
Walking Zone					
ADA ramps	Yes	Yes	Yes	Yes	Yes
Edge Zone					
Parking Meters	Yes	Yes	Yes	Yes	Yes
Wayfinding	Yes	Yes	Yes	Yes	Yes
Regulatory Signs	Yes	Yes	Yes	Yes	Yes
Landscape Zone					
Street and Pedestrian Lighting	Yes	Yes	Yes	Yes	Yes
Street Signs	Yes	Yes	Yes	Yes	Yes
Street Trees / Landscaping	Yes	Yes	Yes	Yes	Yes
Bike Racks	Yes	Yes	Yes	Yes	Yes
Public Art	Yes	Yes	Yes	Yes	Yes
Historic Markers	Yes	Yes	Yes	Yes	Yes
Transit Stops / Shelters	Yes				
Other Street Furniture	Yes	Yes	Yes	Yes	Yes
Frontage Zone					
Outdoor Seating / Sales	Yes	Yes	Yes	Yes	Yes
Projections into ROW	Yes	Yes	Yes	Yes	Yes
Awnings, Canopies, Signs, etc.	Yes	Yes	Yes	Yes	Yes

Table 2: *Design Standards and Guidelines Matrix for Great Streets Segments (Continued)*

GREAT STREETS CLASSIFICATIONS	Major Transit Corridor (Aterial Street)	Enhanced Tranist Corridor (Arterai Street)	Arterial Street (All Other Arterials)	Collector Street (Residntial)	Collector (Mixed Use / Commercial)
PRIVATE REALM					
Types of Land Use	**Mixed**	**Mixed**	**Mixed**	**Commercial**	**Reidential**
Vertical Mixed Use	**Yes**	**Yes**	**Maybe**		**Yes**
Off-street Parking Location					
Rear of Site	**Yes**	**Yes**	**Yes**	**Maybe**	**Maybe**
Side of Site	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Plazas	**Yes**	**Yes**	**Yes**	**Maybe**	**Maybe**
Lighting	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Shade *(awnings, trees, trellises, etc.)*	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Buildings					
Site Location (Build-to-Line)	**Yes**	**Yes**	**Yes**	**Maybe**	**Maybe**
Easement Requirements (if necessary)	**Maybe**	**Maybe**	**Maybe**	**Maybe**	**Maybe**
Height and Massing	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Facades	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Length	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Transparency	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Articulation	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

CHAPTER IV: Prototype Designs

A. INTRODUCTION

The selection of potential Great Streets involved an extensive analysis of Great Streets' characteristics using the City GIS database and a weighted ranking of that information by residents. Prototype Designs were then prepared that are applicable to both new streets and retrofitting existing streets within the City. The Prototype Designs differ as they relate to the types of streets, the various rights-of-way on existing and new streets, and design standards and guidelines included in the previous section.

B. IDENTIFICATION OF POTENTIAL GREAT STREETS

Various streets with the potential to be Great Streets were identified based on the GIS database presented at the public meetings, a survey, a field trip, and input from the Technical Advisory Committee. A summary of the process used in identifying potential Great Streets segments follows.

The Plan identifies those City streets that are unique with regard to their value as a street type that is a symbolic or ceremonial place, a place for social activities, as a place of commerce, or as an outdoor room. Individual characteristics were identified that resulted in each type of Great Street. The characteristics are based on review of literature, public comment, and staff input. Using spatial databases, maps showing the proximity of each of the individual characteristics (such as employment centers, shopping, transit, schools, parks, and population density of various age groups) to street segments across the City were prepared and presented at the November 2006 public meetings. Each participant was given six dots to mark the importance of individual characteristics on the maps. Forty-five people participated in the public meetings. To gain additional input, a survey was placed at the Zoning and Development Review counters at the Planning Department. Over 100 people filled in the survey during December 2006. This feedback was used to weight the importance of individual characteristics used to identify potential Great Street segments.

The list of individual Great Street Characteristics is located in Table 3. The top five characteristics that were identified by the public as most important to a Great

Street were proximity to grocery stores; proximity to bike routes, trails and lanes; proximity to schools and universities; proximity to centers and corridors; and proximity to medical facilities.

Beyond the characteristics most favored in the community, it is also important to look at those characteristics that were not as critical to survey participants but are important to identifying a Great Street. The three lowest ranking characteristics were in the social category and include density of persons over 50 and persons under age 18 as well as proximity to senior centers.

Table 3: **Great Streets Individual Characteristics**

COMMUNITY FUNCTIONS	DESIRED CHARACTERISTICS
SOCIAL	Proximity to Grocery Stores
	Proximity to Bike Routes, Trails and Lanes
	Proximity to Schools and Universities
	Proximity to Medical Facilities
	Proximity to Community Facilities
	Proximity to Public Parks
	Projected 2025 Population Density
	Density of Persons Younger than 18 Years Old
	Proximity to Senior Centers
	Density of Persons 50 Years and Older
COMMERCE	Proximity to Centers and Corridors
	Employment Density
	Proximity to Rapid Ride
	Proximity to Proposed Street Car Stops
	Proximity to Commercial and Multifamily Developments
	Proximity to Bus Stops
	Limited Access Routes
SYMBOLIC / CEREMONIAL	Proximity to Historic Sites and Routes
	Density of Civic and Institutional Structures
	Stadia
OUTDOOR ROOM	Proximity to Activity Centers
	Enhanced Transit Corridors
	Major Transit Corridors
	Density of Street Trees

Overall, citizens rated *Social* characteristics of a Great Street as most important to the community. The characteristics of a *Social* category street include proximity to grocery stores, to schools and universities, to medical facilities, and. to senior centers. The *Commerce* category represented characteristics such as proximity to activity centers and corridors, to employment density and to Rapid-Ride transit service, to bike routes, and to trails/lanes. *Outdoor Room* characteristics included proximity to Centers and Corridors and density of street trees.

Potential Great Street segments were identified based on the frequency of occurrence of characteristics, the proximity of that characteristic to a street segment and its relative importance (or weight) in relationship to other characteristics of a Great Street.

The Social streets had the most characteristics and was give a weight of 2 points while Commerce, Ceremonial/Symbolic, and Outdoor each were weighted at 1 point. The initial selection was based strictly on these points and resulted in more streets on the east side of the river. This was due to the fact that there is more development, (thus more streets), on the east side than west of the river. In addition, walled and gated communities and the presence of western escarpment limited interconnected streets and the number of streets on the west side. The list was revised to reflect a citywide balance that includes both retrofitting existing streets as well as new streets. The final selection of potential Great Streets in Albuquerque (Table 4) is based on the data, and staff recommendations.

Table 4: Potential Great Street Segments

Segment Name	Segment Location	Segment Length	Street Type	Overhead Utilities		Segment Name	Segment Location	Segment Length	Street Type	Overhead Utilities
4TH STREET NW	Menaul Blvd. - Candelaria Rd.	0.6	Arterial	Y/ E Signif.		**GIBSON BLVD. SE**	San Mateo Blvd. - San Pedro Dr.	0.5	Enhanced Transit Corridor	Y / N Signif.
4TH STREET NW	Candelaria Rd. - Montano Rd.	1.3	Major Transit Corridor	Y/ E Signif.		**GIBSON BLVD. SE**	San Pedro Dr. - Louisiana Blvd.	0.5	Enhanced Transit Corridor	Y/ NS N Signif.
ATRISCO NW	Central Ave. - la Bajada	0.9	Arterial	Y/ W N Signif.		**GIBSON BLVD. @ 98th ST. NW**	Intersection - Gibson Blvd. and 98th St.	0.25 Each Direction	Arterial	Y / MS Signf.
CENTRAL AVE. NE/ SE	Washington St. - San Mateo Blvd.	0.5	Major Transit Corridor	Y / N Signif.		**GIBSON BLVD. @ 118th ST. NW**	Intersection - Gibson Blvd. and 118th St.	0.25 Each Direction	Arterial	Y / W Signif.
CENTRAL AVE. NW/ SW	Coors Blvd. - Yucca Dr.	0.7	Enhanced Transit Corridor	Y N Signif.		**GOLF COURSE RD. NW**	Paradise Blvd. - Paseo del Norte	0.25	Arterial	N
CENTRAL AVE. NW/ SW	Rio Grande - 13th St.	0.7	Major Transit Corridor	Y/ S Cross'g.		**INDIAN SCHOOL RD. NE**	Girad Blvd. - Washington St.	1.0	Arterial	Y / NS Signif.
CENTRAL AVE. NE/ SE	Pennsylvania St. - Louisiana Blvd.	0.5	Enhanced Transit Corridor	Y/S M		**MONTGOMERY BLVD.@ JUAN TABO BLVD. NE**	Intersection - Montgomery Blvd. and	0.25 Each Direction	Enhanced Transit Corridor	Y Signif.
CENTRAL AVE. NW/ SW	Coors Rd. - Atrisco	0.8	Enhanced Transit Corridor	Y/ NSM Signif.		**MONTGOMERY BLVD. NE**	Carlisle Blvd. - Louisianna Blvd.	4.1	Enhanced Transit Corridor	Y
CENTRAL AVE. NE/ SE	Carlisle Blvd. - Washington St.	0.5	Major Transit Corridor	Y N Signif.		**MOUNTAIN RD NW**	Rio Grande Blvd. - 12th St.	0.7	Arterial	Y / S partway
CENTRAL AVE. @ UNSER BLVD. NW/ SW	Intersection - Unser Blvd. and Central Ave.	0.25 Each Direction	Arterial	Y/ S Signif.		**MOUNTAIN RD. NW**	12th St. - 6th St.	0.4	Arterial	Y/S Cross'g.
COORS BLVD. NW	Bluewater - Fortuna Rd.	0.6	Enhanced Transit Corridor	Y N Signif.		**TAYLOR RANCH RD. NW**	Montano Rd. - Homestead	0.8	Arterial	Y / NS Signif.
EUBANK BLVD. NE/ SE	I-40 - Research Rd.	1.5	Arterial	Y / EW Signf.		**YUCCA DR. NW**	Bluewater - Glenrio	0.6	Enhanced Transit Corridor	N Inignif.

Legend: *Y = Yes; N = No; E, W, N, S area East, West, North and South; M = Median; N. Insignif. = Not significant; Signif. = Significant; Cross'g. Overhead cables crossing street.*

Notes: 1. Potential Great Streets segment selected with input from public meetings, Technical Advisory Committee and the City staff.

2. List of Potential Great Streets will continue to expand as more streets are added.

3. Distributed throughout the City.

4. Overhead and underground utilites must be coordinated during the planning, design and implementation stages.

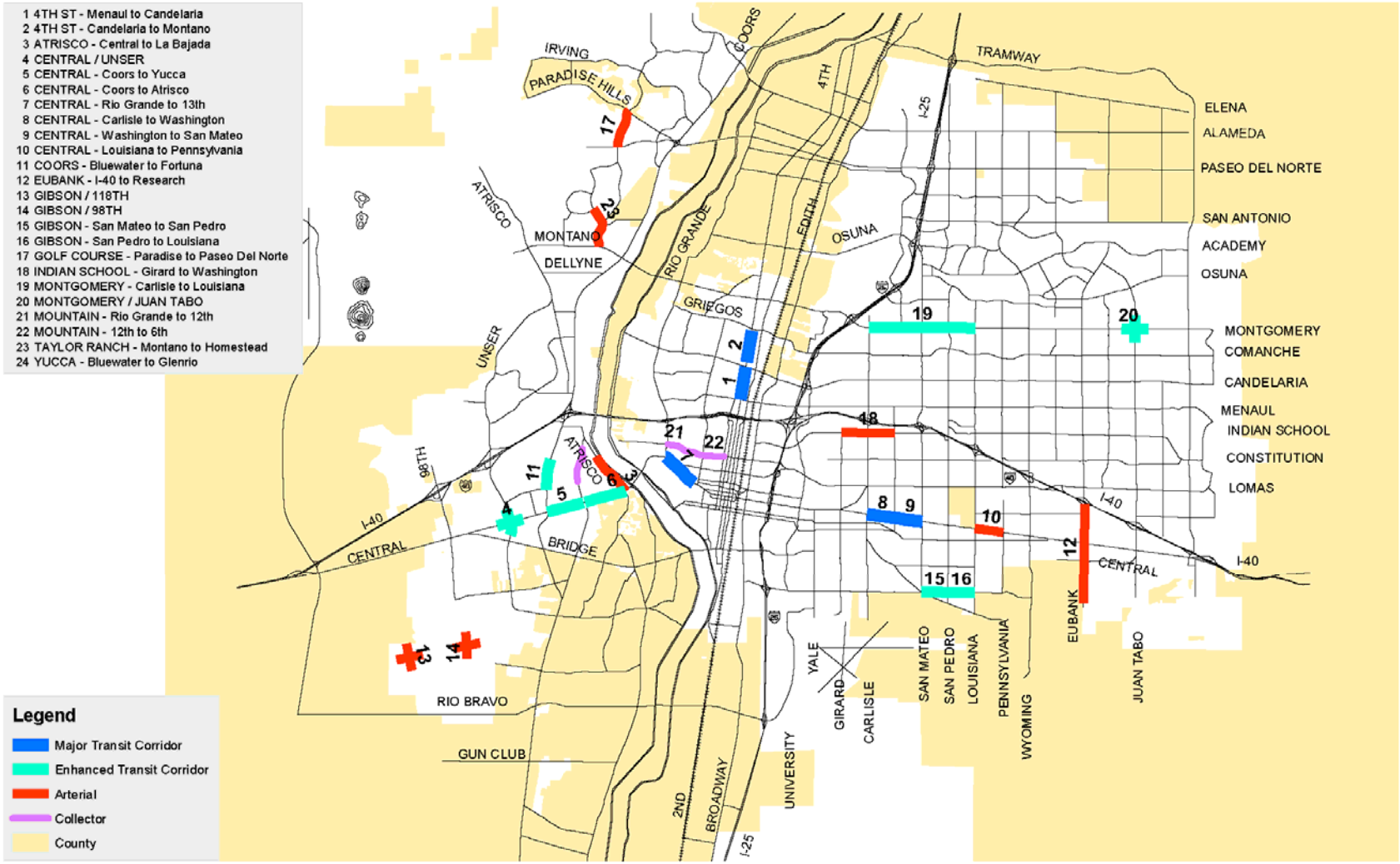


Figure 44: *Potential Great Streets (Prepared by Barbra Romero COA / Planning Department)*

C. PROTOTYPE DESIGNS OF GREAT STREETS

This section of the Plan discusses how Great Street Standards and Guidelines can be applied to the City's existing and new streets.

Albuquerque streets have grown in their numbers and right-of-way widths over time. The City grew after the railroad was built in 1880 and the town center shifted 2 miles east from Old Town to Downtown. Due to changes over time, there is a wide variety of right-of-way widths. For the last several decades, the streets have been built primarily to accommodate the constantly increasing automobile traffic without sufficient consideration given to pedestrians, bicycles, and transit. This creates a wide range of challenges to implementing a Great Streets program.

To address these challenges and demonstrate that or streets can become retrofitted as Great Streets, four street segments were selected to develop prototype designs for the implementation of Great Streets standards. Each prototype design segment is approximately 1/4 mile, the approximate distance most pedestrians are willing to walk if conditions are appropriate.

The County Comprehensive Plan identifies three Major Transit Corridors and ten north-south, six east-west Enhanced Transit Corridors. Major and Enhanced Transit Corridors that are identified in the Comprehensive Plan are also Major or Minor Arterial Streets on the current Roadway Functional Classification System Map. The Current Roadway Functional Classification System Map generally identifies 1-mile grid streets as Major or Minor Arterial Streets and streets on the ½-mile grid as Collector Streets.

Local streets are not identified on the Current Roadway Functional Classification System Map. The street types for which prototype designs are developed include the following:

Major Transit Corridor: Arterial streets designed to optimize public transit and move large numbers of people in a very timely and efficient manner. These streets could have dedicated bus lanes, wide sidewalks, bike lanes, and longer-term possibility of light rail service. These corridors would focus on the movement of many people in a pedestrian friendly environment, would emphasize short trips and convenience, and would be prime candidates for significant mixed-use infill and redevelopment.

Enhanced Transit Corridor: Arterial Streets designed or redesigned to improve transit and pedestrian opportunities for residents, businesses, and other users nearby could have similar features to the Major Transit Corridor. In addition to moving vehicles, their goal is to provide transit service competitive with the car, and develop adjacent land uses and intensities that promote the use of transit.

Other Arterial Streets: Arterials are the vehicular traffic streets usually with six lanes of traffic, single or dual left turn lanes, and in some cases right turn only lanes. Option for prototypes designs are for:

- Restricted Access - limited access
- Un-Constrained - adequate right-of-way
- Constrained - limited right-of-way

Collector Streets: Collector Srteets feed traffic to arterial streets, have from two to four lanes of traffic, and sometimes have left turn lanes. There are two prototype design options as follows:

- Un-Constrained - adequate right-of-way
- Constrained - limited right-of-way

The following illustrations and discussions relate to the various types of Great Streets that are possible to build in Albuquerque. The Great Street illustrations are for both new Great Streets and for retrofitting existing streets into Great Streets. The existing streets in the City have various right-of-way configurations, but with input from the Planning Department traffic engineer, the box on the right shows the following range of rights-of-way that exist for the majority of the streets in the City.

38. Walking Zone Albuquerque

Major Transit Corridor
(ROW 100-124 Feet)

Enhanced Transit Corridor
(ROW 100-124 Feet)

Arterial Streets
- Restrictive Access *(ROW 100-124 Feet)*
- Un-Constrained *(ROW 100-124 Feet)*
- Constrained *(ROW 86 Feet)*

Collector Streets
- Unconstrained *(ROW 50 Feet)*
- Constrained *(ROW 80 Feet)*
- Constrained *(ROW 80 Feet)*

1. Major Transit Corridor (Right-of-Way 100 to 124 Feet)

The Comprehensive Plan's Major Transit Corridors streets are:

- Central Avenue - Louisiana Boulevard to Atrisco Road
- Louisiana Boulevard - Gibson Boulevard to Menaul
- 4th Street Bridge to Osuna Rd.

The prototype design of a Major Transit Corridor represents one or more of the Great Street community characteristics: symbolic/ceremonial, social, outdoor room and commerce. Symbolic/ceremonial are historic routes and include historic sites and dense areas of civic and institutional structures. Central Avenue, 4th Street, and Louisiana Boulevard all include important civic institutions in near proximity or along them, are historic routes (4th Street is also the El Camino Real, and Central Avenue is Route 66), and are the locations of important civic events (the state fairgrounds is along Louisiana at Lomas, and Central Avenue is the venue of fairs and parades).

The prototype Major Transit Corridor / Arterial Street selected to illustrate the application of Great Street standards is street of 100 feet of right-of-way. The current street includes six lanes with landscaped medians. On-street parking is not provided. Building setbacks vary from abutting the right-of-way to extensive setbacks with parking between the building and right-of-way. Six-foot-wide (+/-) sidewalks are provided. Several blocks have two or more curb cuts.

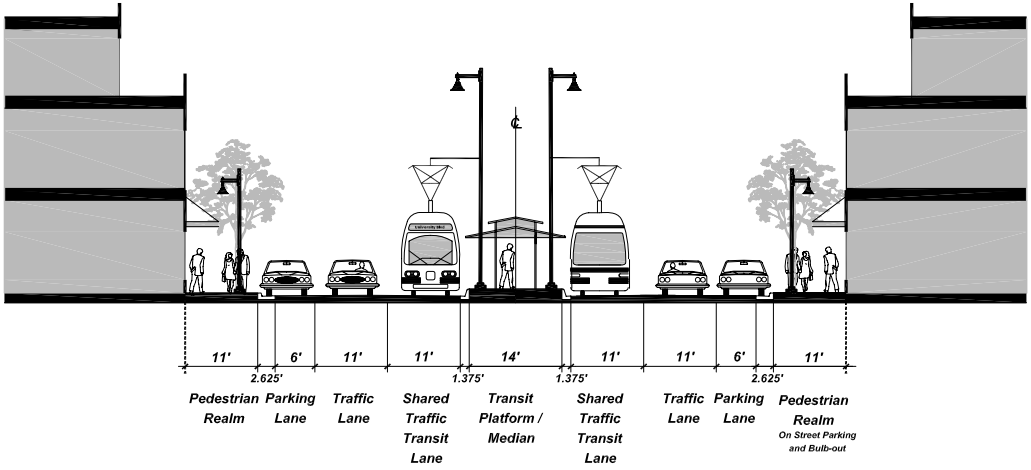
This four-block segment is approximately 1/4 mile. An historic building exists at one end of the street. Some buildings have private parking areas directly abutting the public right-of-way.

The design concept for a Major Transit Corridor/Arterial Great Street is shown in Figures 45 and 46 and described on the following pages.

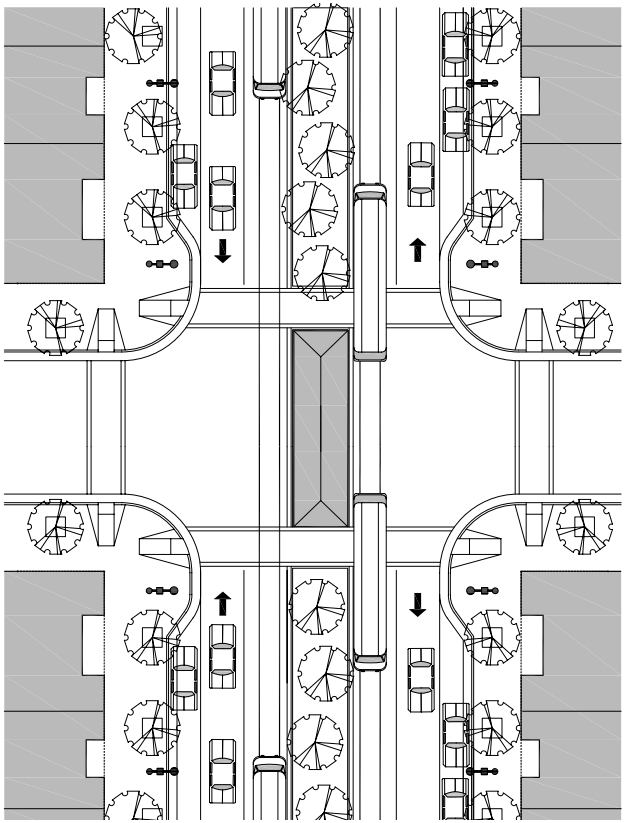
39. 16th Street Transit Mall – Denver, CO

MAJOR TRANSIT CORRIDOR OPTION A

Figure 45: *Major Transit Corridor Option A (100 Foot ROW (Constrained)*



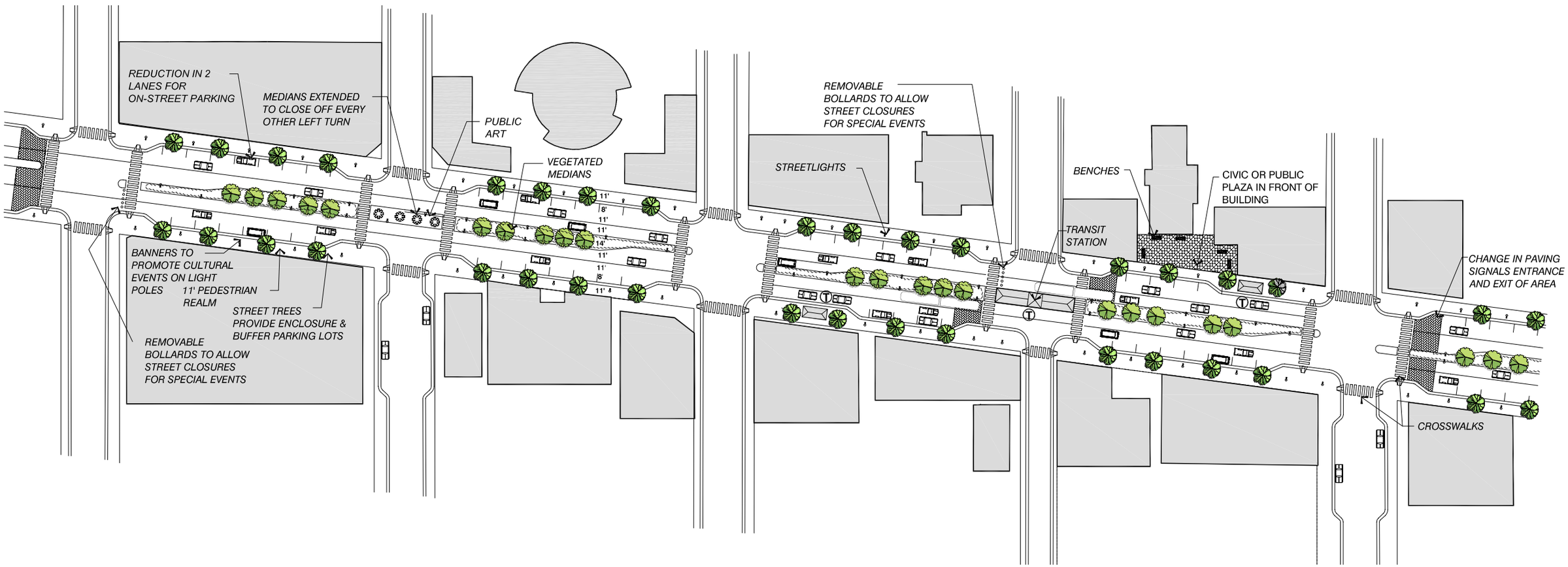
100 Feet ROW (Constrained)



Major Transit Corridor OPTION A	
ROW:	100 Feet
Traffic Lanes	2 @ 11 Feet
Transit Lanes @ Median (Shared)	2 @ 11 Feet
On Street Parking Lanes	2 @ 8 Feet
Bike Lanes	None
Median	14 Feet
Pedestrian Realm	2 @ 11 Feet

PROTOTYPE DESIGN PLAN MAJOR TRANSIT CORRIDOR OPTION A

Figure 46: *Prototype Design Major Transit Corridor Plan Option A*



MAJOR TRANSIT CORRIDOR OPTION A

For the purpose of the prototype plan Option A is illustrated.

ROADWAY REALM

Vehicle Travel Lanes (lane width and number)

- Travel lanes have been reduced from six lanes to four lanes, to provide for on-street parking and widen the Pedestrian Realm.
- Traffic lanes are 11 feet wide, on-street parking is 8 feet, and median is 18 feet for transit platform.
- Pedestrian refuges are provided within the median at the local streets where left turn lanes are prohibited.

Turn Lanes

- A left turn lane is taken out at every other side street, allowing a smooth flow of traffic. It also offsets the lane reduction in either direction.

Bicycle Lanes and Bicycle Routes

- This prototype street segment is not designated as the location of a bicycle route or bicycle lane on the Albuquerque Urban Area Long Range Bikeway System Map. However, Option C has wider right-of-way and allows for bike lanes. This condition is the same as Option B.

Transit Service

- Bus Rapid Ride services will be provided
- Transit stops for streetcars / rail and bus Rapid Ride is within one block of each other.
- Local bus service is proposed where streetcar / rail service and bus Rapid Ride service are not available.

Streetcar / Rail

- This prototype segment is a potential location for streetcar / railway track. The lanes next to the median of this prototype provide lanes necessary to accommodate a streetcar.

Marked Crosswalks at Intersections

- Marked crosswalks are provided at the intersections of local streets. where no left turn is permitted and median is extended through the intersection.

Mid-block Crossings

- This prototype segment has block lengths of less than 300 feet. No mid-block crossings are provided.

Medians

- To ensure minimal reductions in level of service that could result from the lane reduction, the left turn lane is eliminated every other block and the median is extended through the intersection. This will contribute to the efficient operation of the street and help to offset potential reductions in operational efficiency from reduction in total number of traffic lanes. Pedestrian refuge is provided in the median for safe pedestrian and bicycle crossing.

Pedestrian Refuge Areas

- Pedestrian refuge is provided at marked crossing for safety.
- The medians provide pedestrian refuges at unmarked pedestrian crossings where this Great Street intersects with local streets.
- Bulb-outs and on-street parking occur at intersections to reduce the crossing width of the street and buffering the pedestrian from automobile traffic.

Pavement Treatments/Detectable Warnings

- Concrete Pavers extend the visual impact of proposed plazas and are used to mark unique sites and transit stops.
- Textured or colored pavers are also provided to mark the beginning and end of a Great Street segment **.**
- Texture pavement at the beginning and end of the segment also alerts the vehicle drivers to be cautious of special zones.
- Wheelchair ramps include detectable warning surfaces.

Traffic Calming

- The reduction in number of lanes and reduced lane width prevents driver from speeding and calms traffic.

- Bulb-outs, buildings close to streets and street trees also make the driver more cautious of the environment and slow the speed.

Parking

- An 8-foot wide on-street parking lane is provided.

Landscaping

- The median is landscaped, and provides areas for banners and public art that celebrates the symbolic and cultural significance of the street. Median landscaping have low height shrubs and plants along east west streets to keep the vistas of mountains clear.

PEDESTRIAN REALM

Walking Zone

- Walking zone is 6 feet wide and the Pedestrian Realm is 11 feet wide.

- Where necessary, additional right-of-way will be acquired from or dedicated by adjacent property owners to make the Walking Zone 6 feet wide. Tree gates are used in the Landscape Zone to provide the minimum Walking Zone width.

- At high pedestrian activity areas, at least one side street with wider sidewalks is recommended on either side of the Great Street. This will provide better pedestrian connection.

Wayfinding

- Custom paving identifies historic sites, buildings, and transit stops and special signage.

- Concrete Pavers are used to create gateways at plazas and crosswalks.

Street Signs

- Backlit street signs should be used. However, this prototype is located along several historic districts. Unique signing could provide information about

adjacent historic neighborhoods.

Shade

- Street trees are recommended where sufficient right-of way is available.
- Awnings shall be placed on buildings adjacent to the Pedestrian Realm where sufficient right-of-way is not available for street trees.

Plazas, Pocket Parks, Places to Gather, Seating

- Plazas are identified as publicly owned building for public gatherings, art fairs, transit stops, and sidewalk cafes. Plazas are also recommended and encouraged on private property along the Major Transit Corridor to highlight the entry or for sidewalk cafes or even transit stops.
- The plazas provide seating within this segment because of limited right-of-way.

Driveways

- Driveways into parking areas from this segment are relocated to side streets.
- Sidewalk are on a level surface. Where the right-of-way is limited, a level sidewalk is provided towards the building side.

Transit Service/ Stops

- Transit stations for streetcar / rail may be located at the median or at the Pedestrian Realm.
- Bus Rapid Ride transit stops are located in the Pedestrian Realm.
- The transit stops for both the streetcar / rail and the Rapid Ride are within one block of each other.
- Where both bus Rapid-Ride service and local bus service are provided, the local bus stop should be located at or next to the bus Rapid Ride stop.

Lighting

- Pedestrian and street lighting is provided along the Great Street segment. Street lighting is located in the median and pedestrian lighting along the Pedestrian Realm.

Street Edge Definition

- The street edge is defined by on-street parking, Edge and Landscape Zones.

- Landscaped areas are focused along block faces where on-street parking is located. Trees are placed along the Landscape Zone to provide shade for the pedestrians. The trees are recommended on both sides of the street, especially on north south corridors and the north side of east west corridors; buildings provide shade on the south side.

PRIVATE REALM

- Off-street parking shall be in the rear of the property or on the side. If on the side, only one bay width is allowed (65–70 Feet maximum). See Figure 37

- The majority of development along Major Transit Corridors is one or two story with the exception of Downtown and Uptown. But as redevelopment takes place higher development would emerge in the future. Nob Hill and Highlands Sector Plan recommends 3 to 4 stories in certain areas along Central Avenue.

- Vacant service stations are encouraged to convert to cafes with outdoor seating.

- New buildings shall be placed at the Build-to-Line in a range between 0 to 5 Feet from the ROW.

INFRASTRUCTURE and UTILITIES

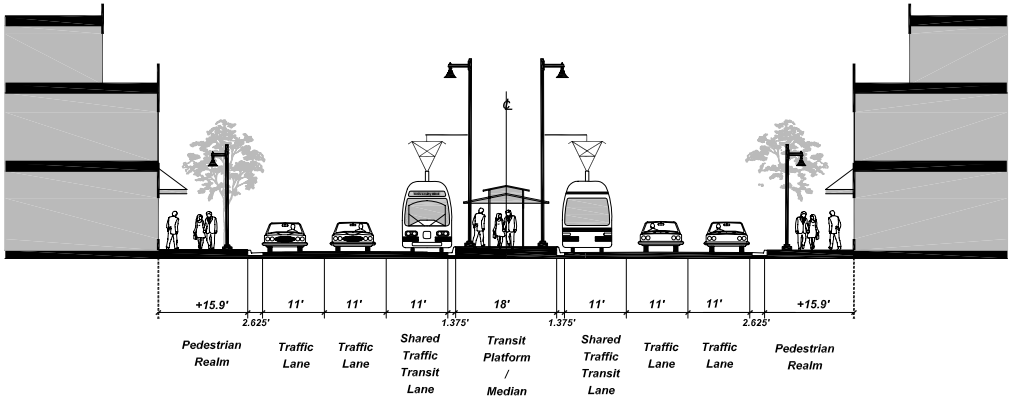
- Coordination with infrastructure will have be done in the Roadway and Pedestrian Realms

OTHER OPTIONS

Other Options for Major Transit Corridors are shown on the following pages.

MAJOR TRANSIT CORRIDOR OPTION B

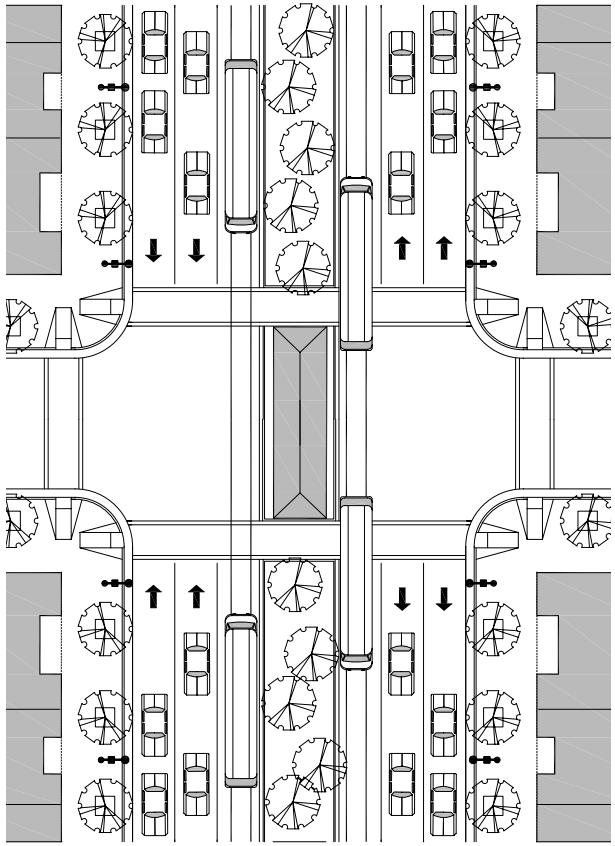
Figure 47: *Major Transit Corridor Option B 124 Foot ROW (Unconstrained)*



124 Feet ROW (unconstrained)

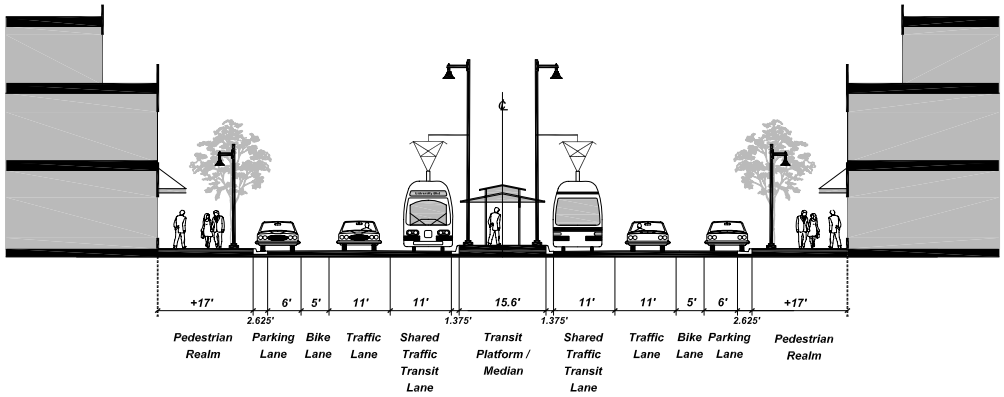
Major Transit Corridor OPTION B

ROW:	124 Feet
Traffic Lanes	4 @ 11 Feet
Transit Lanes @ Median (Shared)	2 @ 11 Feet
On Street Parking Lanes	None
Bike Lanes	None
Median	18 Feet
Pedestrian Realm	2 @ 15.9 Feet

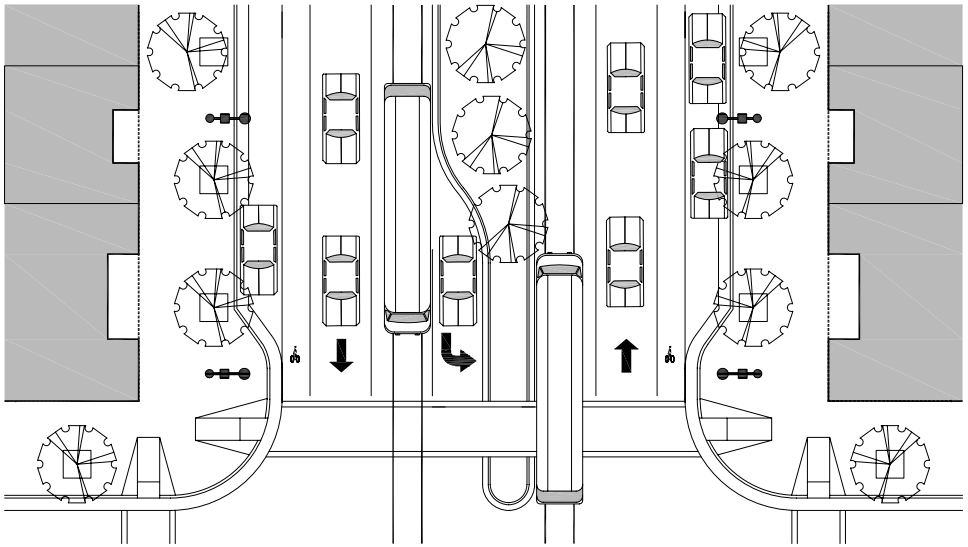


MAJOR TRANSIT CORRIDOR OPTION C

Figure 48: *Major Transit Corridor Option C (124 Foot ROW Unconstrained)*



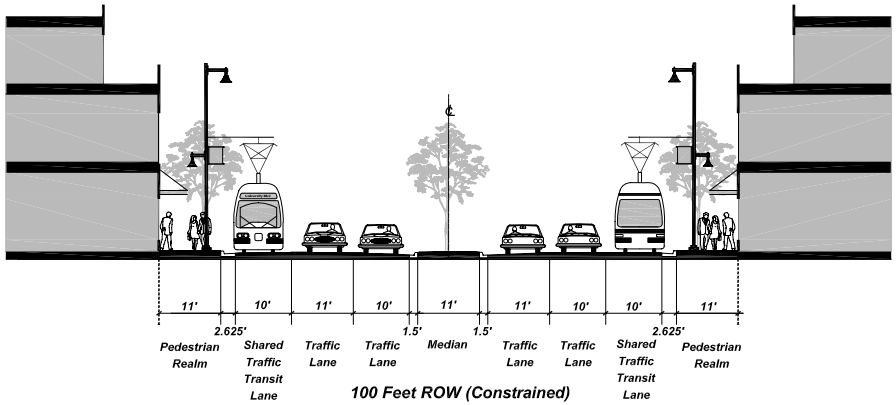
124 Feet ROW (Unconstrained)

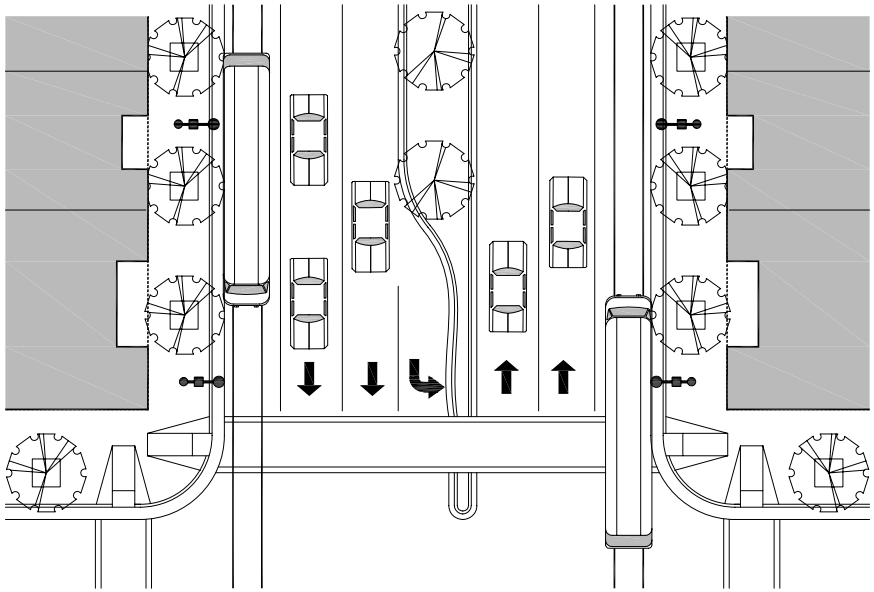


Major Transit Corridor OPTION C	
ROW:	1124 Feet
Traffic Lanes	2 @ 11 Feet
Transit Lanes @ Medians(Shared)	2 @ 11 Feet
On Street Parking Lanes	2 @ 8 Feet
Bike Lanes	2 @ 5 Feet
Median	15.8 Feet
Pedestrian Realm	2 @ 17 Feet

MAJOR TRANSIT CORRIDOR OPTION D

Figure 49: *Prototype Design Major Transit Corridor Option C (100 Foot ROW/Constrained)*





Major Transit Corridor OPTION D

ROW:	100 Feet
Traffic Lanes	2 @ 11 Feet
Traffic Lanes	2 @ 10 Feet
Transit Lanes @ Pedestrian Realm (Shared)	2 @ 10 Feet
On Street Parking Lanes	None
Bike Lanes	None
Median	11 Feet
Pedestrian Realm	2 @ 11 Feet

2. *Enhanced Transit Corridor* *(Right-of-Way 100 to 124 to 140 Feet)*

The Comprehensive Plan identifies 11 Enhanced Transit Corridors (see sidebar). The automobile traffic volumes vary on each of these corridors. Of the north-south Enhanced Transit Corridors, San Mateo and Wyoming Boulevards are among the high traffic volumes arterials followed by Juan Tabo Boulevard. The lightest to lowest among the east-west Enhanced Transit Corridors are 1) Paseo Del Norte Boulevard, 2) Montgomery Boulevard, 3) Menaul Boulevard east of I-25, 4) Gibson Boulevard, and 5) Lomas Boulevard (lowest).[1] Traffic volumes on the corridors range from 28,000 to 50,000 vehicle per day.

The Prototype Enhanced Transit Corridor Option A (Figures 50 and 51) is intended to include transit, increasing the accessibility of Great Streets by providing facilities for pedestrian and bicycle traffic that is associated with transit use.

The Comprehensive Plan describes Enhanced Transit Corridors as Arterial Streets along which pedestrians have improved connections to transit stops, and adjacent developments are maximized. The Great Street prototype design for the Enhanced Transit Corridor segment is characterized as a social space. Social Great Streets have a high density of the following:

- Grocery Stores
- Schools and Universities
- Medical Facilities
- Housing
- Community Facilities
- Parks
- Population Size and Age Distribution (especially younger than 18 years old, 50 years and older)
- Senior Centers

40. Transit Shelter – Downtown Orlando, FL

ENHANCED TRANSIT CORRIDORS

Central Avenue: Tramway/Louisiana
Gibson Boulevard: Broadway To Louisiana
San Mateo Boulevard: Gibson Blvd./Academy Rd.
Wyoming Boulevard: Gibson Blvd./Alameda Blvd.
Juan Tabo Boulevard: Central Ave./Paseo Del Norte
Montgomery Boulvard Tramway Blvd./Unser Blvd.
Menaul Boulevard: Tramway Blvd./.Rio Grande
Alameda Boulevard: Wyoming Blvd./I-125
Rio Grande Boulevard: Central Avenue/Menaul Blvd.
Lomas Boulevard: Central Avenue/Wyoming Blvd.
Isleta Boulevard: Bridge Blvd./Rio Bravo Blvd.

[1] Map of 2005 Traffic Flows for the Greater Albuquerque Area prepared by the Mid-Region Council of Government.

Gibson Boulevard, Lomas Boulevard, Montgomery Boulevard, and Sam Mateo Boulevard are examples of Enhanced Transit Corridors that have many of the amenities listed.

Montgomery Boulevard and San Mateo Boulevard, two intersecting Enhanced Transit Corridors, penetrate a cluster of larger buildings including a hospital, medical office complex, high school, and major shopping area. A pedestrian survey of this intersection conducted by Mid-Region Council of Government in October 2007 shows the following pedestrian and bicycle numbers crossing the streets:

Table 5: Pedestrian Survey

	Time	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bike	Peds
Morning Peak	6:45 – 9:45 am	3	20	9	35	1	19	4	44
Mid-day Peak	11:00 – 2:00 pm	9	38	3	19	0	43	2	34
Afternoon Peak	3:00 – 6:00 pm	8	43	10	19	3	50	5	23
	TOTAL	**20**	**101**	**22**	**73**	**4**	**112**	**11**	**101**

These volumes may be attributed to high school students, medical office and hospital employees and patients, and nearby residents going to the shopping center, which has several restaurants. Considering that this intersection has nine traffic lanes for pedestrians to cross, it has a sizable amount of pedestrian traffic. The pedestrian volume would be significantly higher if the intersection were better designed to accommodate pedestrians. This is not an atypical situation since major employment centers and medical offices are located along similar high volume arterials and generate considerable activity.

The proposed Great Street prototype design for the Enhance Transit Corridor shows how to provide a better pedestrian environment without significantly affecting automobile traffic. The Comprehensive Plan recommends that in general, the LOS should be a D but the City may “permit lower level of service at intersections by substituting transit improvements and mixed use developments along these corridors.” The design includes wider sidewalks, increased signal time for pedestrians to cross, medians and pedestrian refuges, trees placed between sidewalk, and traffic lanes and

enhanced transit amenities including benches, transit plazas and a dedicated bus lane.

The right-of-way constraints for retrofitting existing segments to become Great Streets may be accommodated by reducing width of traffic lanes, eliminating right turn lanes if traffic analysis warrants, or property owners dedicating right-of-way for pedestrian and transit enhancement amenities. The Community Function of Great Streets along Enhanced Transit Corridors may be commerce, outdoor room, social, or a combination of these depending upon the type of land uses and scale of activity center along the corridor.

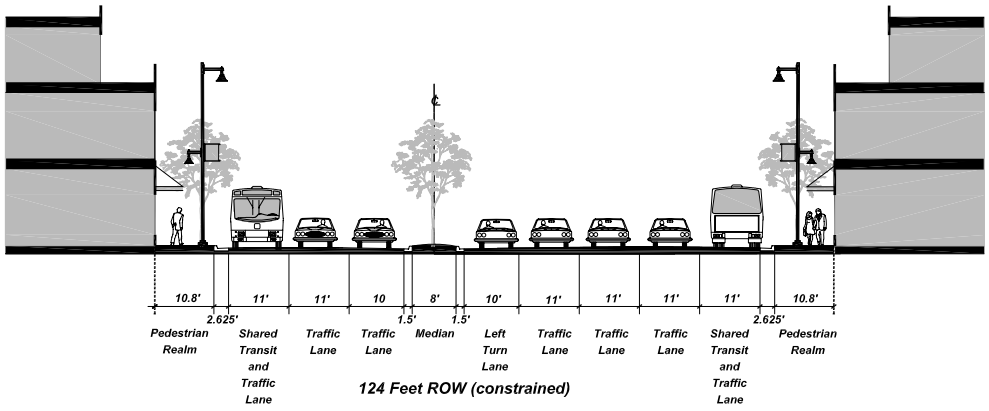
Many Enhanced Transit Corridors have major activity centers that include commercial, instructional, and residential uses along them or in close proximity. Consequently, they have a high potential for pedestrian activity. This prototype has a 124 foot right-of-way, however new streets have wider right-of-ways.

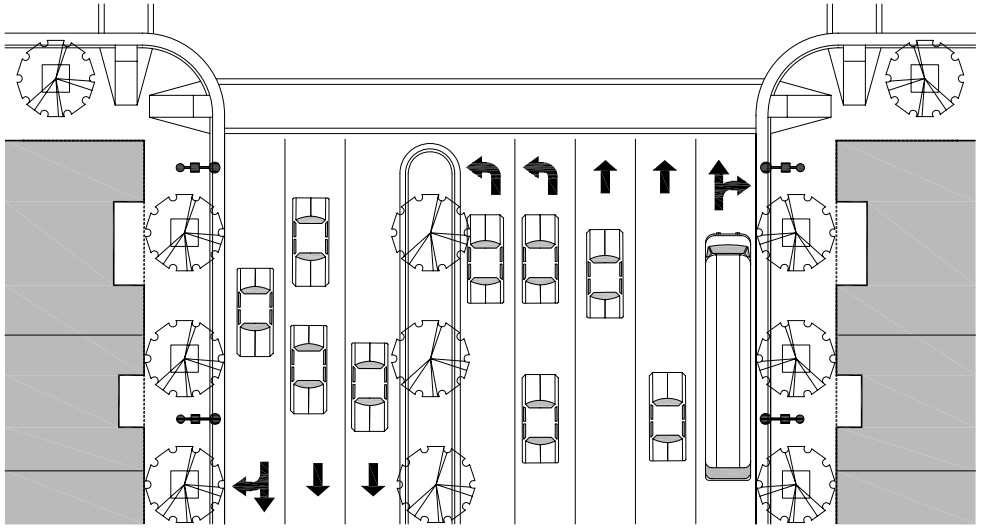
The intersection of two streets with high traffic volumes suggests prototype design preserve traffic capacity and turning movements. Given the average daily traffic volumes, it is proposed that each quadrant of the intersection serve the pedestrians and bicyclists from that quadrant. Consequently, pedestrian connections across the street other than at intersection with traffic lights are not emphasized. The streets having significant uses that contribute to potentially high pedestrian activity, actual designation of such segments primarily designed to move high volumes of vehicular traffic should be carefully considered as a Great Street.

The application of Great Street Standards and Guidelines for this prototype is illustrated in Figures 50, and 51 on the following pages.

ENHANCED TRANSIT CORRIDOR OPTION A

Figure 50: *Enhanced Transit Corridor Option A (124 Foot ROW/unconstrained)*



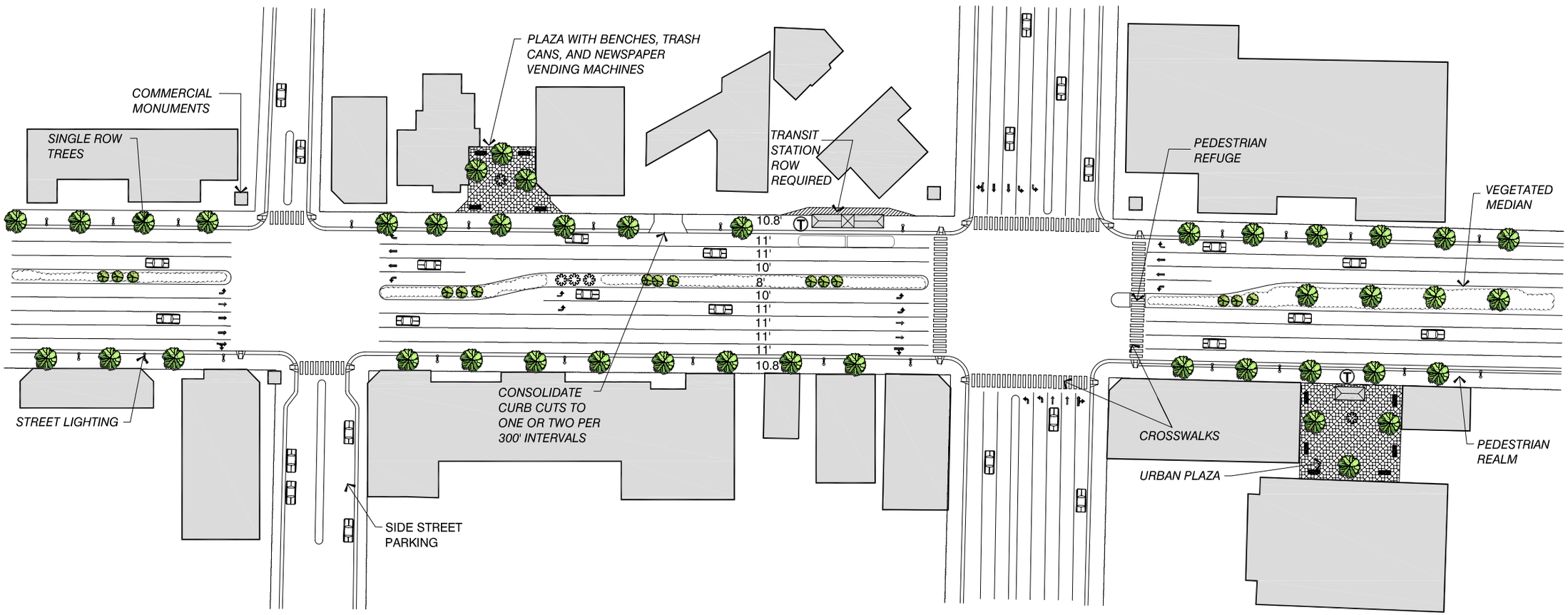


Enhanced Transit Corridor OPTION A

ROW:	124 Feet
Traffic Lanes	6 @ 11 Feet
Transit Lanes @ Pedestrian Realm	2 @ 11 Feet
Median	8 Feet
On Street Parking Lanes	None
Bike Lanes	None
Pedestrian Realm	2 @ 10.8 Feet

ENHANCED TRANSIT CORRIDOR PLAN OPTION A

Figure 51: *Prototype Design Enhanced Transit Corridor Plan Option A (Unconstrained)*



ENHANCED TRANSIT CORRIDOR OPTION
Option A was chosen to illustrate the prototype.

ROADWAY REALM
Vehicle Travel Lanes

- Due to the high volumes of vehicular traffic on this roadway, the number of lanes remains the same.
- To provide additional space for the Pedestrian Realm, the traffic lanes are reduced to 11 feet in width and 10 feet left turn lanes.
- Left turn lanes could not be eliminated or reduced from current conditions at this location due to high traffic volumes. The Plan however recommends a premium transit service along high volume Enhanced Transit Corridors to provide increased mobility and choice of modes.

Bicycle Lanes

- This prototype segment is not a location for a bicycle lane or route on the Albuquerque Bicycle Map or Long Range Bikeway System Map.

Transit Service

- Outside 11-foot lanes are provided to accommodate buses along with automobiles.
- Bus Rapid Ride service may be provided.
- Where bus Rapid Ride service is not available local bus service will be provided.

Streetcar/Rail

- This prototype segment is not identified as the location of a streetcar or rail route.

Marked Crosswalks at Intersections

- This prototype will include a pedestrian crosswalks at intersections. The Enhanced Transit Corridors with high intensity mixed use development are designed to maximize pedestrian access to transit stops and between destinations.

Pedestrian Refuge Area

- Turn radius and traffic volumes prevent the use of pedestrian refuges on high volume street segments, when dual left turn lanes are required. However, pedestrian refuge in a median at an intersection of streets with six lanes or more is highly recommended, especially when it is located within an activity center.

Mid Block Crossings
- Traffic Volumes and speeds prevent the use of mid-block crossings on this street segment.

Medians
- A landscaped median (8 feet wide) is provided to allow for dual left turn lanes at intersections.

Pavement Treatments/Detectable Warnings
- The pedestrian crossings include detectable warnings at the wheelchair ramps.

- Texture or colored pavers are provided to mark the beginning and end of a Great Street segment. Texture pavement also alerts the vehicle driver to be cautious of special zones.

Traffic Calming
- Since this street is designed to be a high traffic volume street, no special traffic calming techniques were applied, except the texture pavement, which can act as form of traffic calming.

Parking
- On-street parking is not rovided. Provision of on-street parking would have resulted in a substantial reduction of Pedestrian Realm area as well as reductions in roadway capacity.

PEDESTRIAN REALM
Walking Zone
- Walking Zone has a clear area of 6 feet; the Pedestrian Realm is 12 feet. Due to constrained right-of-way widths, in Option A the Predestine Realm is 11 feet.

Wayfinding
- In this prototype, significant destinations such as the school and hospital are identified using decorative pavers and monuments at transit stops.

- Banners and identifying features are also suggested in the center lane median areas.

Street Signs

- This street segment is predominantly commercial. The City standard street signs will be used. However, street signs should be well lit.

Shade

- In the 11 foot wide Pedestrian Realm, this prototype option includes street trees along the length of the street on both sides.

- Shade is provided by trees located on the 5 foot wide Landscape Zone. To ensure a 6-foot wide Walkway Zone decorative tree grates will be used.

Outdoor Cafes/Outdoor Sales

- The surface parking area between one building that is built near the right-of-way and is close to the intersection of a street with another Enhanced Transit Corridor is retrofitted as a location for a sidewalk cafe.

Plazas, Pocket Parks, Places to Gather, Seating

- The Pedestrian Realm provides numerous locations for benches such as the Landscape Zone and private property.

Driveways

- Curb cuts are consolidated along one block to enhance pedestrian safety. The curb cut that was located close to an intersection, and combined with another that provided access to the site and to the adjacent property.

Transit Stops

- Transit stops reflect the City Transit operation practices. Stops are placed on the far side of intersections and include plaza areas, wayfinding and artist enhanced bus shelters.

Lighting

- Street lighting and pedestrian lighting will both be used on this prototype.

Street Edge Definition

- The outside edge of the Landscape and Edge Zones are used to provide a

vertical buffer between the roadway and Walking Zone.

Landscaping
- Trees, in conformance with the City of Albuquerque Tree's List.

Historic Markers
- Historic or cultural markers are proposed where such sites exist within a Great Street corridor.

Decorative Pavement
Decorative pavers at transit stops to identify plazas and places of interest (such as an outdoor cafe) are proposed.

PRIVATE REALM
Often single use buildings or strip commercial is placed along Enhanced Transit Corridors. These buildings are mostly set far back from the street and are separated from the Pedestrian Realm by parking and/or landscaping. The width of the street results in a building height to width ratio that is substantial less than 3:1. While spaces that are more intimate are created along the Pedestrian Realm, landscaping, wide setbacks, large parking areas, and existing institutional, commerial uses, result in a context that is not conducive to a Great Street. In order to convert the street to a Great Street the following actions are necessary.

- New buildings are to be place on the Build-to-Line in a range between 0-5 Feet from the ROW.

- As redevelopment takes place, off-street parking shall be in the rear of the property or on the side. If on the side, only one bay width is allowed (65–70 feet maximum). See Figure 37.

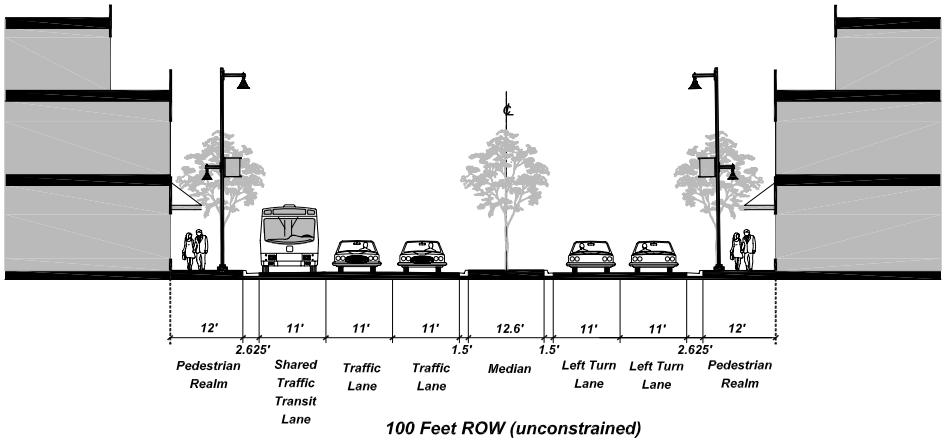
- Vacant service stations are encouraged to convert to cafes with outdoor seating.

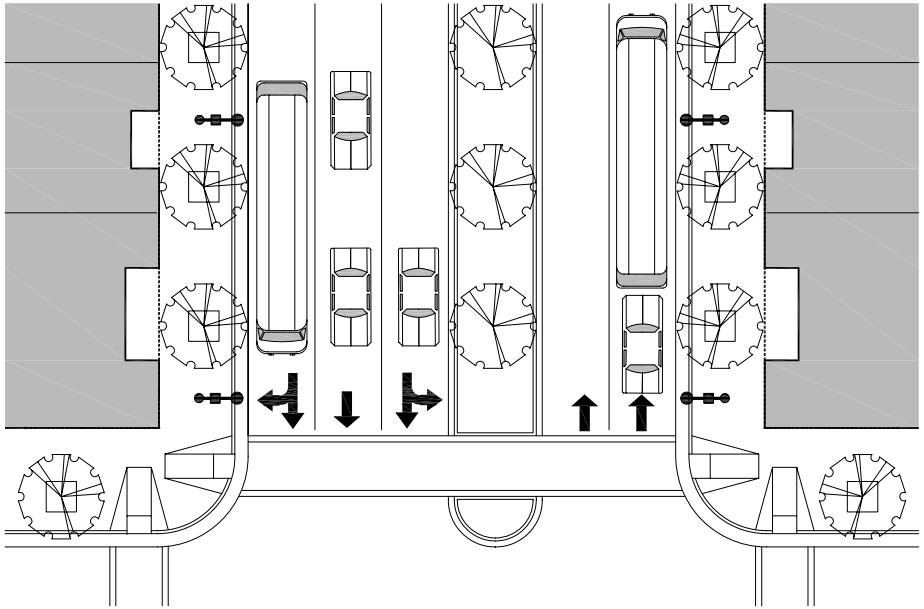
INFRASTRUCTURE
- Coordination with infrastructure will be reqiured in the Roadway and Pedestrian Realms.

OTHER OPTIONS
Other Options for Enhanced Transit Corridor are illustrated on the following pages.

ENHANCED TRANSIT CORRIDOR OPTION B

Figure 52: *Enhanced Transit Corridor Option B (100 Foot ROW/Constrained)*

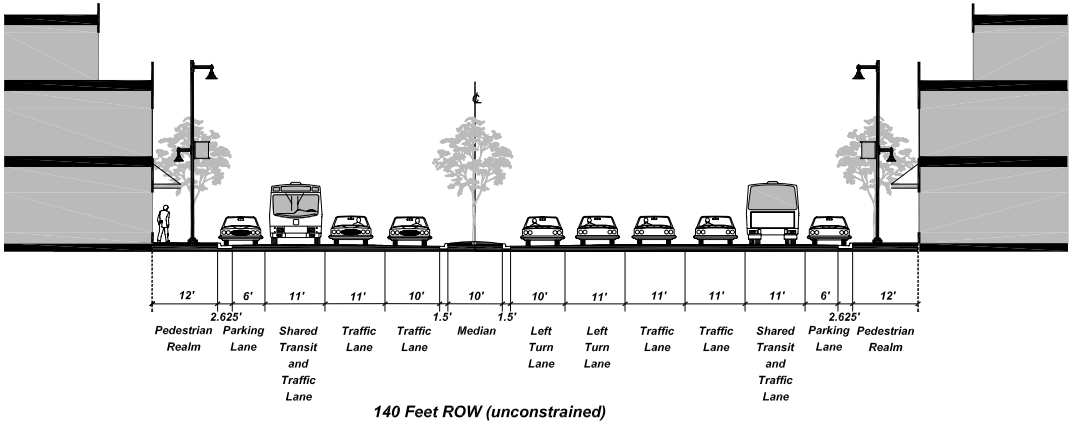


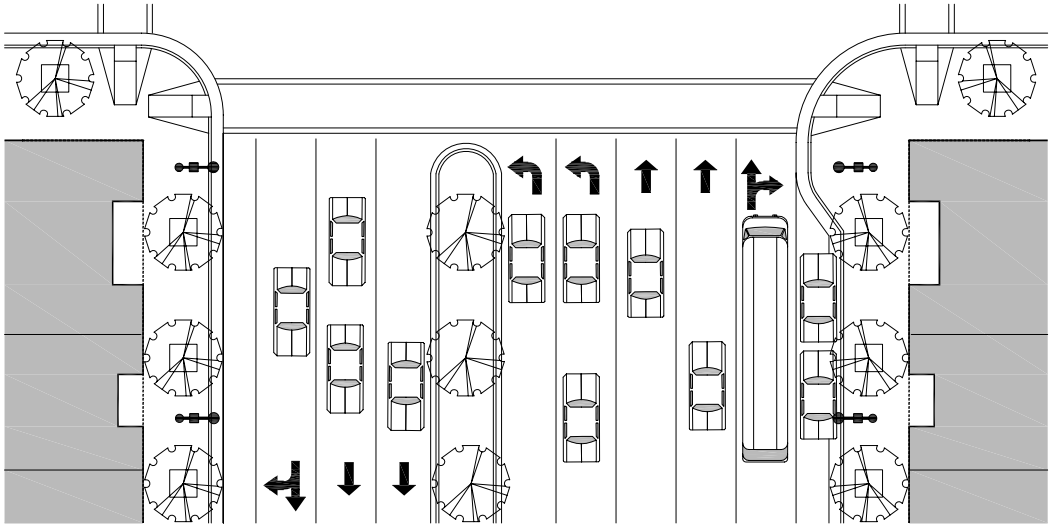


Enhanced Transit Corridor OPTION B	
ROW:	100 Feet
Traffic Lanes	3 @ 11 Feet
Transit Lane @ Pedestrian Realm (Shared)	2 @ 11 Feet
Median / with Left Turn Lane (11 Feet)	12.6 Feet
On Street Parking Lanes	None
Bike Lanes	None
Pedestrian Realm	2 @ 12 Feet

ENHANCED TRANSIT CORRIDOR OPTION C

Figure 53: *Enhanced Transit Corridor Option C (140 Foot ROW/unconstrained)*





Enhanced Transit Corridor OPTION C	
ROW:	140 Feet
Traffic Lanes	6 @ 11 Feet
Transit Lane (Shared)	2 @ 11 Feet
Traffic Lanes	1 @ 10 Feet
Left Turn Lane	1 @10 Feet
Shared Transit Lanes	2 @ 11 Feet
On Street Parking Lanes	2 @ 6 Feet
Bike Lanes	None
Median	10 Feet
Pedestrian Realm	2 @ 12 Feet

3. Arterial Street

Prototype Design Plan Option A (Figures 54 and 55) illustrates a Great Street Arterial along walled subdivisions with primarily single-family homes located next to commercial and intuitional uses. The prototype street segment used in this example is 124 feet wide and intersects with an Enhanced Transit Corridor. This segment includes a community park in addition to a community center a fire station and a neighborhood commercial center. Parking lots abut the street and are separated by walls. There are no mid-block crossings or pedestrian refuges connecting the community uses with each other or residential uses across the street. Marked pedestrian crossings exist at intersections. The Roadway Realm ranges from four to six lanes and includes wide, landscaped medians with dual left turn lanes at the intersection of the Enhanced Transit Corridor. This street is lined with many walled, residential subdivisions, and carries volumes of approximately 20,000 vehicles per day[1].

This prototype design separates the through traffic from local traffic. It will not be necessary for residential lots to back on the arterial street, requiring walls along the entire street. Single-family homes, townhomes and apartment can front on the local access street. In addition, homes can access other near by community facilities by walking or bicycling.

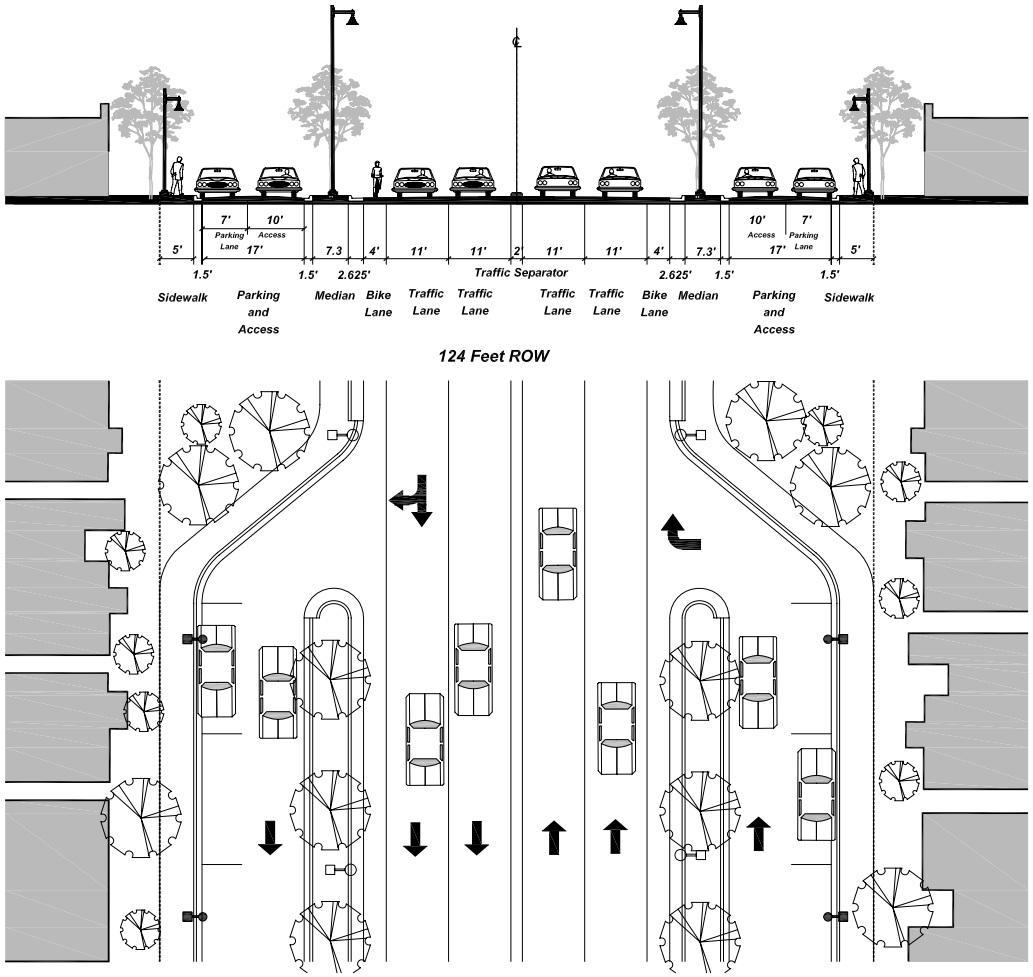
While the Prototype Design Plan (Figure 54) uses the 124-foot right-of-way, cross sections 100 foot and 86 foot rights-of-way are also illustrated.

41. Shattuck Avenue Berkley California

[1] Mid-Region Council of Governments. 2004 Traffic Flows for the Greater Albuquerque Area.

Prototype Design Arterial Street Restrictive (Limited) Access Option A

Figure 54: *Prototype Design Arterial Street Option A (124 Foot ROW/Restrictive Access)*

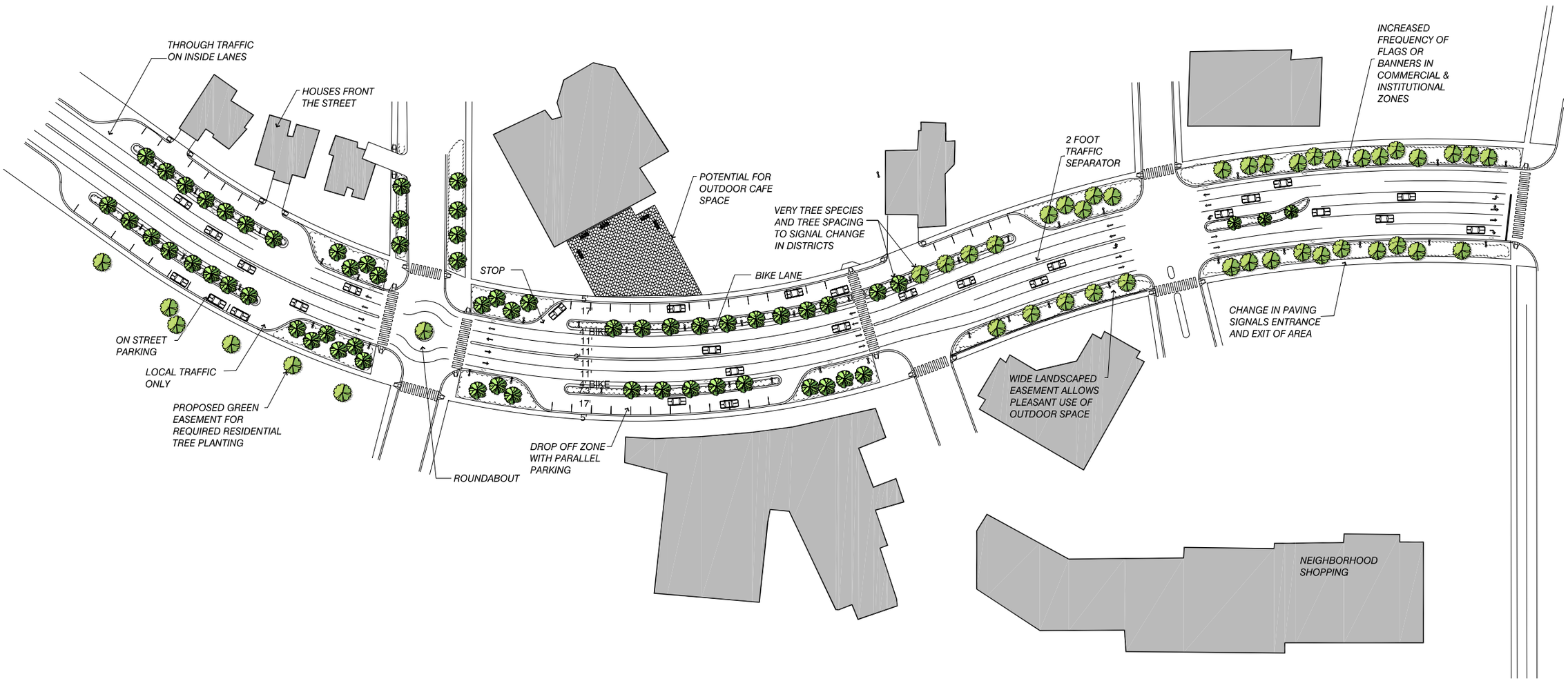


Arterial OPTION A

ROW:	124 Feet
Traffic Lanes	4 @ 11 Feet
Bike Lanes	2 @ 4 Feet
Parkway	2 @ 6.3 Feet
Access Lanes	2 @ 10 Feet
On Street Parking Lanes	2 @ 7 Feet
Traffic Separator	2 Feet
Pedestrian Realm	2 @ 5 Feet

PROTOTYPE DESIGN PLAN ARTERIAL STREET OPTION A

Figure 55: *Prototype Design Arterial Street Plan Option A (124 Foot ROW/Restrictive Access)*



ARTERIAL OPTION A (Restrictive Access)
Option A was is used to illustrate this prototype design.

ROADWAY REALM
Vehicle Lanes and Turn Lanes

- To accommodate traffic flows without a substantial reduction in level of service, four 11 foot wide (*Restrictive Access)* through traffic lanes are provided.

- Local traffic access lanes with on-street parking are provided.

- Roundabout and or left turn lane is provided to facilitate traffic circulation.

Bicycle Lanes and Bicycle Routes

- Consistent with the Long Range Bikeway System Map designation, a 4-foot bike lane is planned along either side of this street.

Transit Service

- This prototype segment is not identified as the location of a bus or streetcar routes.

Marked Crosswalks at Intersections

- Un-signalized marked crosswalks are provided at the intersection of this street with local streets. To reduce the crossing distance for the pedestrian, bulb outs are provided at marked crosswalks.

- A signalized, marked crosswalk is provided at the intersection of this street and the arterial street.

Mid-Block Crossings

- This is a collector street with relatively short block lengths. Mid block crossing were not proposed.

Medians

- An 8 foot medians separates the local traffic and parking from the through street.
- A 2 foot raised traffic separator is provided to prevent left turn lane to the access lanes.

Pedestrian Refuge

- While not shown on this prototype, elimination of the dual left turn lane at the intersection of this arterial street and the arterial could provide adequate right-of-way for the installation of a pedestrian refuge at this intersection.

Pavement Treatments/Detectable Warnings

- No special pavement treatment. Detectable warning surfaces are provided at all wheelchair ramps.
- Texture or colored pavers are provided to mark the beginning and end of a Great Street segment. Texture pavement also alerts the vehicle driver to be cautious of special zones.

Traffic Calming

- None provided. Instead, narrow access lanes separated from the main roadway are conducive to slower speeds.

Parking

- On-street parking is provided along traffic access lanes, separated from the through street by medians. The on-street parking provides separation from the sidewalk, and access lanes.
- Drop off areas, in front of community destinations such as the community center, are integrated with on-street parking.

PEDESTRIAN REALM

Walking Zone

- Walking Zone (sidewalk) at 5 feet, are provided along the outside edges of the ROW
- A minimum 5-foot clear space is maintained along all Walkway Zones (sidewalk).

Wayfinding
- Banners are located in front of community destinations, such as the community center and park.

- Within a Great Street segment, integrated signage is proposed to identify the community center, park and commercial center.

Street Signs
- Standard street signs are proposed.

Shade
- The majority of the Pedestrian Realm is shaded using street trees.

Outdoor Cafes/Outdoor Sales
- This area is a residential area. While cafes and outdoor sales could be integrated into the community center, activity center or park site.

Plazas, Pocket Parks, Places to Gather, Seating
- Plazas are identified in front of and adjacent to community destinations, such as the park and community center.

Driveways
- Driveways providing access to residential units are provided along the access lanes.

Transit Stops
- The Albuquerque Ride System Map does not identify transit stops on this prototype segment.

Lighting
- Pedestrian scale lighting is proposed along the Walking Zone (sidewalks) adjacent to residential and community uses.

Street Edge Definition
- Horizontal and vertical separation between the low speed and low volume access lanes and the through street is provided by two 7.3 foot landscaped medians.

- The landscaped medians with street trees provide horizontal and vertical separation between the Roadway Realm and the Pedestrian Realm.

Landscaping

- Different varieties of trees are used to identify residential and other districts along the Pedestrian Realm and in the medians.

- Trees are proposed in accordance with the City's Restricted Trees List and the Albuquerque Bernalillo County Water Utility Authority Rainwater Harvest Plant List.

Historic Markers

- No known historic or cultural sites are located within this prototype segment. Where such sites exist in a Great Street segment markers are proposed.

Decorative Pavement

- To encourage people to walk and "promenade" along this residential social space, decorative pavers are used throughout to identify community destinations.

PRIVATE REALM

Buildings/Massing

- Existing commercial development is set far back from the street. However, within the residential areas, this concept proposes facing houses to local streets, separated from the main roadway by landscaped medians. By facing houses onto the street, the effect of the "walled drive" is eliminated, and replaced with the concept of a wide boulevard. This concept also eliminates the need for cul de sacs (which result in walled back yards abutting this street), instead creates direct and efficient pedestrian access to community facilities.

Landscaping

- The wide, landscaped frontages and vast parking areas along this prototype segment could be retrofitted to be more integrated into the street.

Land Use

- By their nature, most single-family master planned residential subdivision excludes mixed uses.

INFRASTRUCTURE

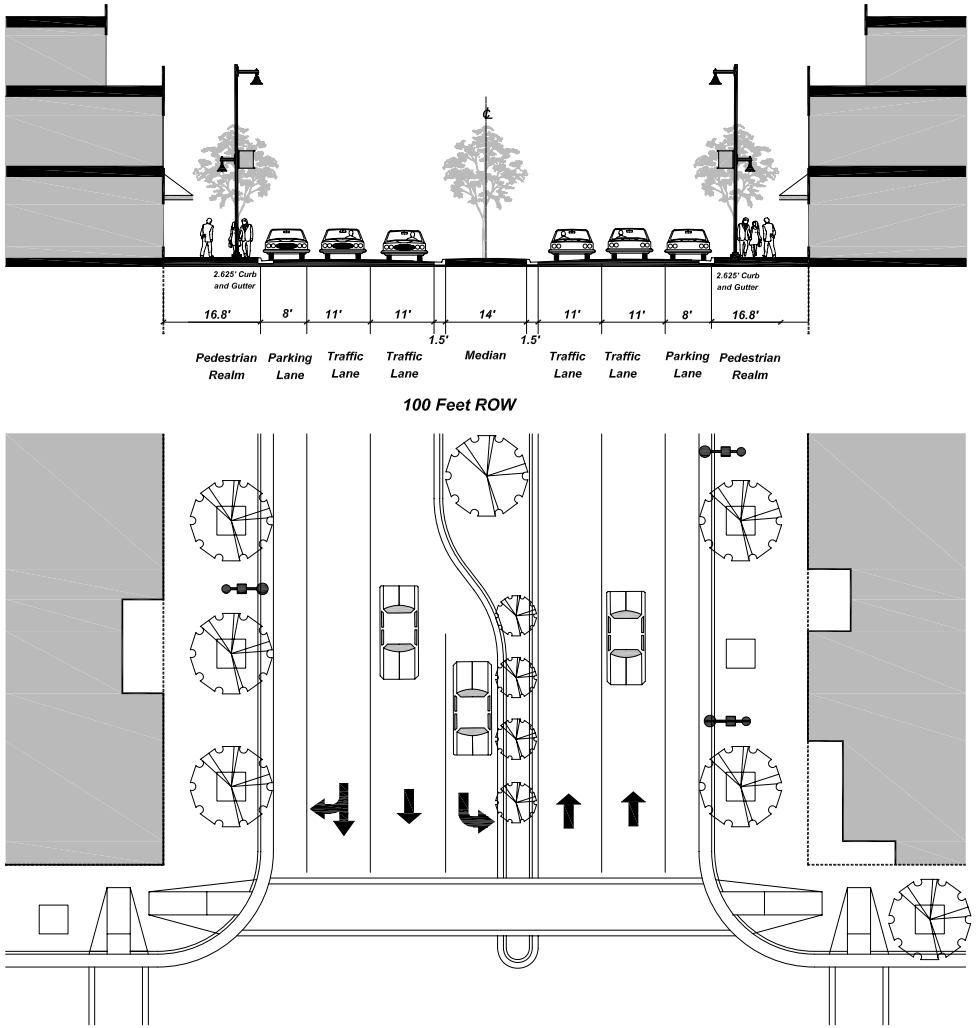
- Coordination with infrastructure will be required in the Roadway and Pedestrian Realms.

OTHER OPTIONS

Other Options for Arterials are illustrated on the following pages.

Prototype Design Arterial Street Unconstrained 100 Foot ROW Option B

Figure 56: *Prototype Design Arterial Option B (100 Foot ROW/Unconstrained)*

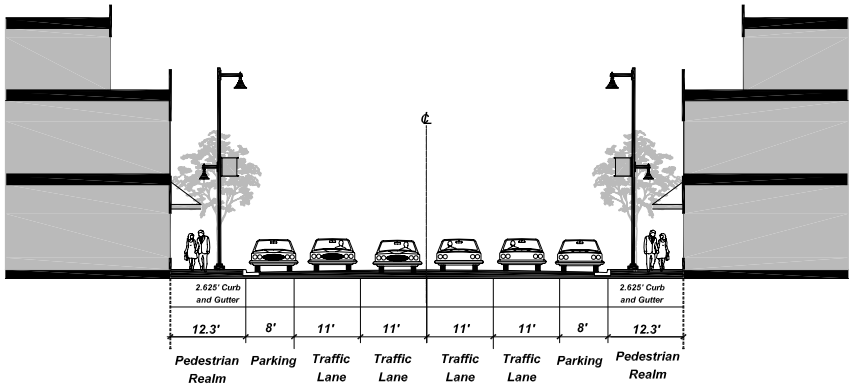


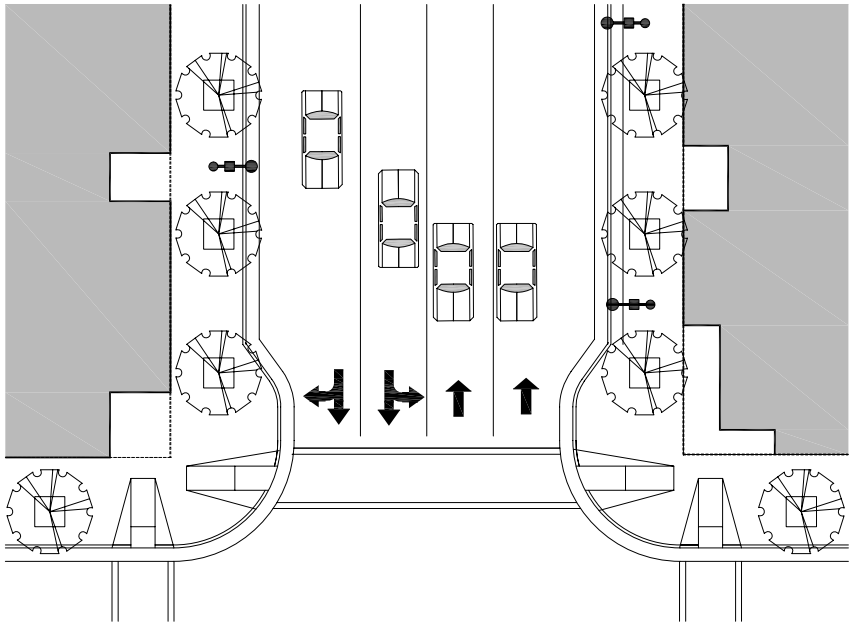
Arterial OPTION B

ROW:	100 Feet
Traffic Lanes	4 @ 11 Feet
Transit Lanes	None
Bike Lanes	2 @ 5 Feet
On Street Parking Lanes	2 @ 8 Feet
Median	14 Feet
Pedestrian Realm	2 @ 16.8 Feet

Prototype Design Arterial Street Constrained 86 Foot ROW Option C

Figure 57: *Prototype Design Arterial Option C (86 Foot ROW/Constrained)*





Arterial OPTION C

ROW:	86 Feet
Traffic Lanes	4 @ 11 Feet
Transit Lanes	None
On Street Parking Lanes	2 @ 8 Fee
Bike Lanes	None
Pedestrian Realm	2 @ 12.3 Feet

4. Collector Streets

Collector Prototype Designs fall into two categories:

Unconstrained: Large right-of-way, and therefore more space for Great Street elements.

Constrained: Narrower right-of-way and less space for Great Street elements.

Collector streets in Albuquerque are often three lanes, one in each direction, and a center turn lane; however, there are collectors, streets as Indian School Road and Candelaria Boulevard, with four lanes.

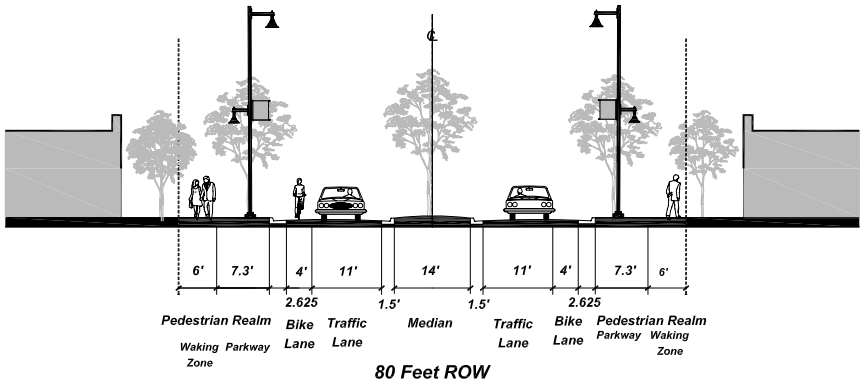
Collector Street Unconstrained
(Right-of-Way 80 Feet) (Figures 58, 59, and 60)

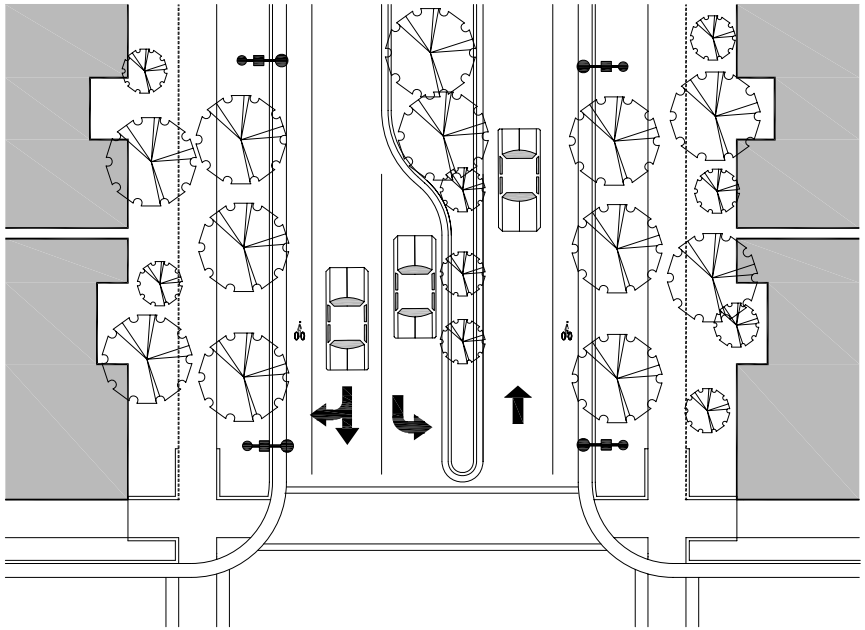
This street has an 80-foot right-of-way. It is used as a “cut through” between two high volume arterial streets. Consequently, the existing street includes two lanes in each direction separated by medians and other traffic control devices. Blocks on this street are longer than 660 feet, and the current median configuration restricts mid-block pedestrian crossing. Most of the adjacent development is single family residential, and there are multiple curb cuts. A shopping center at one end of the street includes a large parking area adjacent to the Pedestrian Realm. This street is an historic street, and is close to the Bosque.

The application of Great Street design standards to this street include providing shade, mid-block pedestrian crossings, gateways celebrating connections to the Bosque monument, and a reduction in traffic lanes.

PROTOTYPE DESIGN COLLECTOR STREET OPTION A

Figure 58: *Prototype Design Collector Option A (80 Foot ROW/Constrained)*





COLLECTOR OPTION A

ROW:	80 Feet
Traffic Lanes	2 @ 11 Feet
Transit Lanes	None
On Street Parking Lanes	None
Bike Lanes	2 @ 4 Feet
Median	14 Feet
Pedestrian Realm	2 @ 13.3 Feet

PROTOTYPE DESIGN COLLECTOR STREET OPTION A

Figure 59: *Prototype Design Collector Plan Option A (80 Foot ROW/Un-constrained)*

COLLECTOR STREET OPTION A

ROADWAY REALM

Vehicle Lanes and Turn Lanes

- One lane traffic lane in each direction is removing providing for a bike lane and widening the Pedestrian Realm.
- Two 11 foot wide traffic lanes (one in each direction).
- A roundabout is proposed where the side street joins the collector street to facilitate traffic circulation.

Bicycle Lanes and Bicycle Routes

- The Albuquerque Urban Area Long Range Bikeway System Map designates a bicycle lane on this prototype segment. A 4-foot wide bicycle lane is proposed in each direction.

Bus Lanes

- This prototype segment is not identified as the location of a bus route.

Streetcar/Rail

- This prototype segment is not identified as the location of a streetcar route.

Marked Crosswalks at Intersections

- Crosswalk is provide at the roundabout where the side street connects to the collector.

Medians

- Medians were pre-existing. These have been retained and extended to prevent left turns. This enabled lane reductions without significant impediment to traffic flow.

Pedestrian Refuge

- Pedestrian refuge is provided in the median at the marked crossings.

Mid-Block Crossings

- This is a street with long block lengths and single-family homes. To facilitate pedestrian activity, mid-block crossings are proposed with refuge area in the median.

Pavement Treatments/Detectable Warnings

- Decorative pavement, to create a floor pattern on the street is proposed at mid-block crossings and at the beginning and end of the segment.

Traffic Calming

- A reduction in travel lanes will help calm traffic.

Parking

- No on street parking is provided due to narrow right of way width.

PEDESTRIAN REALM

Walking Zone

- A 6-foot wide Walking Zone is provided.

Wayfinding

- Proposed through in-ground plaques and monument at the Bosque connection.

Street Signs

- Standard street signs are included in the prototype. However, this location is appropriate for street signs that reflects the historic importance of this residential area.

Shade

- Trees are in the Parkway Zone, to enhance shade provided by existing trees. Large tree species are proposed, to represent the valley floor location of this street and provide a visual connection to the Bosque.

Outdoor Cafes/Outdoor Sales

- This area is a rural residential area and no outdoor cafes are proposed for this prototype segment.

Plazas, Pocket Parks, Places to Gather, Seating

- Pocket parks are proposed on vacant lots and in areas where there is additional right of way. Decorative paving extends the plaza area onto the Pedestrian Zone.

Driveways

- The limited right-of-way and small lots made it difficult to reduce curb cuts.

Transit Stops

- The Albuquerque Ride System Map does not identify transit stops on this prototype segment.

Lighting

- Due to the rural residential nature of this street, no new lighting is proposed.

Street Edge Definition

- The street edge is defined by a landscaped parkway.

Landscaping

- Included in the parkway (Pedestrian Realm).

Historic Markers

- Provided in ground monument (in median), or wall mounted.

Decorative Pavement

- Permeable pavers used to identify gateway areas, at the beginning and end of Great Street segment and pocket parks.

PRIVATE REALM

Buildings/Massing

- This historic street includes many residential buildings set back from the right of way, creating a comfortable outdoor room in keeping with the 3:1 building to street width ratio.

Landscaping

- Residential yards provide shade and a rich landscape palette.

Land Use

- This historic street includes primarily residential uses.

INFRASTRUCTURE

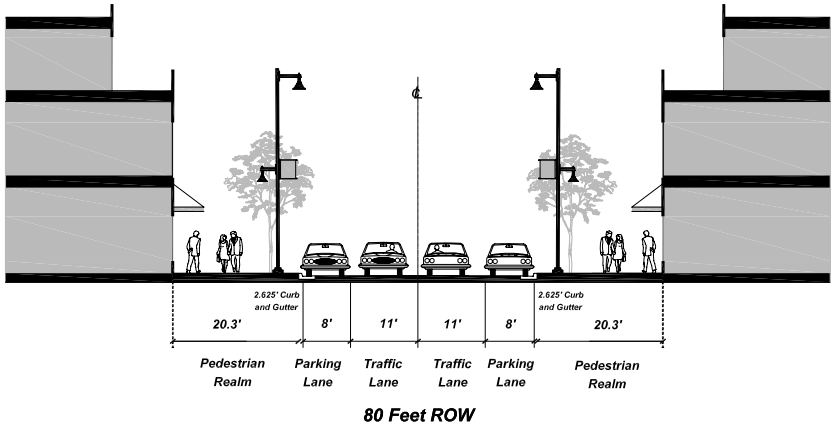
- Infrastructure will have be coordinated in the Roadway and Pedestrian Realms.

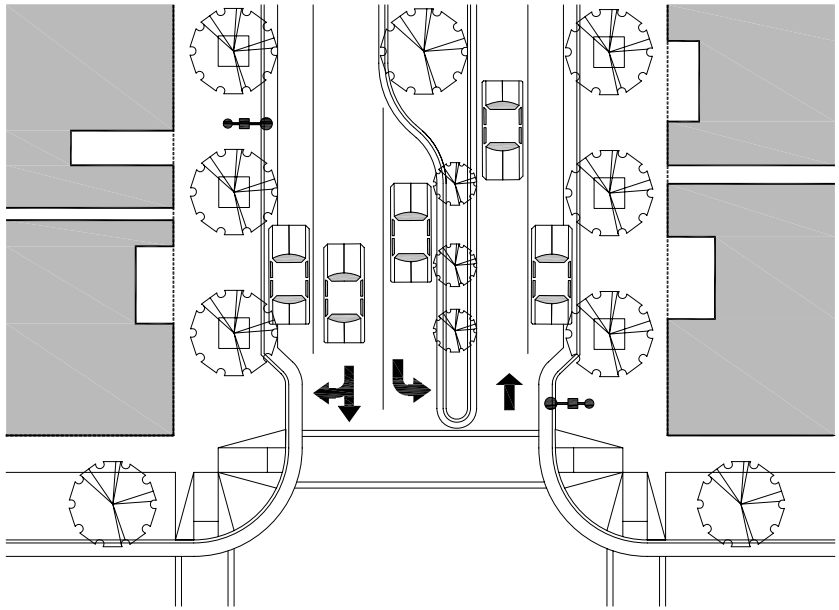
OTHER OPTIONS

Other Options are shown on the following pages.

PROTOTYPE DESIGN COLLECTOR STREET OPTION B

Figure 60: *Prototype Design Collector Street Option B (80 Foot ROW/Unconstrained)*



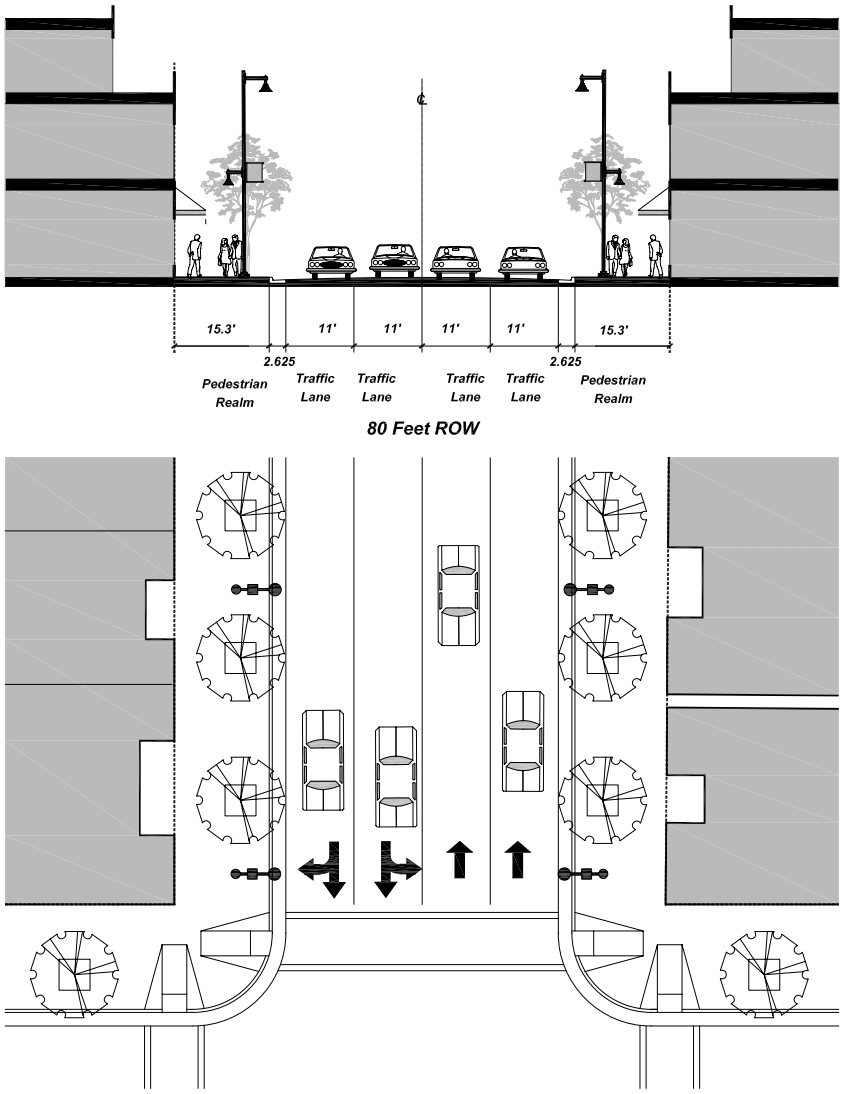


COLLECTOR OPTION B

ROW:	80 Feet
Traffic Lanes	2 @ 11 Feet
Transit Lanes	None
On Street Parking Lanes	2 @ 8 Feet
Pedestrian Realm	2 @ 20.3 Feet

PROTOTYPE DESIGN COLLECTOR STREET OPTION C

Figure 61: *Prototype Design Collector Street Option C (80 Foot ROW/Unconstrained)*



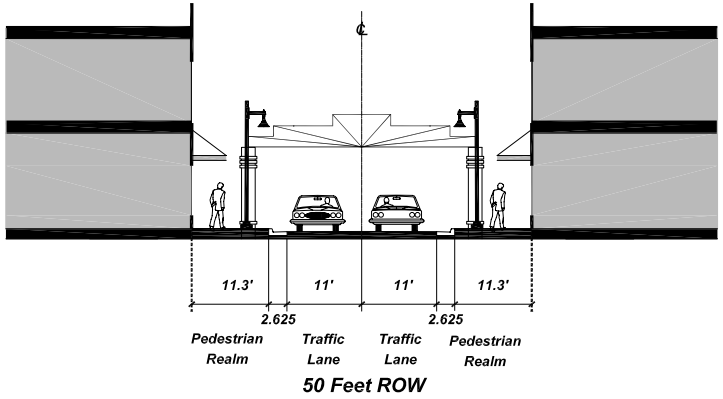
COLLECTOR OPTION C	
ROW:	80 Feet
Traffic Lanes	2 @ 11 Feet
Traffic Lanes / Left Turn (Shared)	2 @11 Feet
Transit Lanes	None
Bike Lanes	None
On Street Parking Lanes	2 @ 8 Feet
Pedestrian Realm	2 @ 15.3 Feet

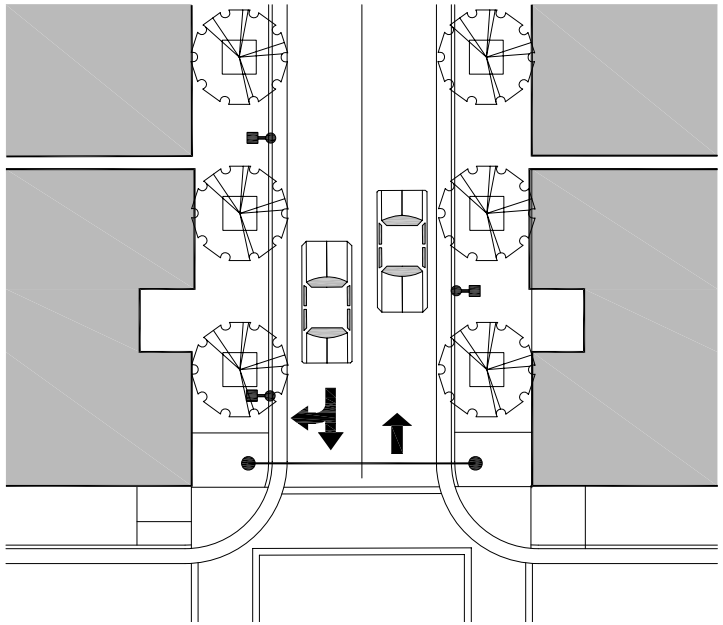
Collector Street Constrained
(Right-of-Way 50 Feet) (Figures 62 and 63)

The prototype segment was retrofitted as an outdoor room. Street segments that qualified as outdoor rooms were selected based on their proximity to activity centers identified in the Comprehensive Plan. The existing condition of the prototype segment includes several buildings constructed to the lot line or very close to it, creating a sense of enclosure, a narrow right-of-way that is less than 50 feet, severely constrained and obstructed sidewalks, and moderate traffic volumes. Existing land uses include a mix of residential, commercial, cafés, and art galleries. This street is a historic street.

PROTOTYPE DESIGN COLLECTOR STREET OPTION D

Figure 62: *Prototype Design Collector Street Plan Option D (50 Foot ROW/Constrained)*

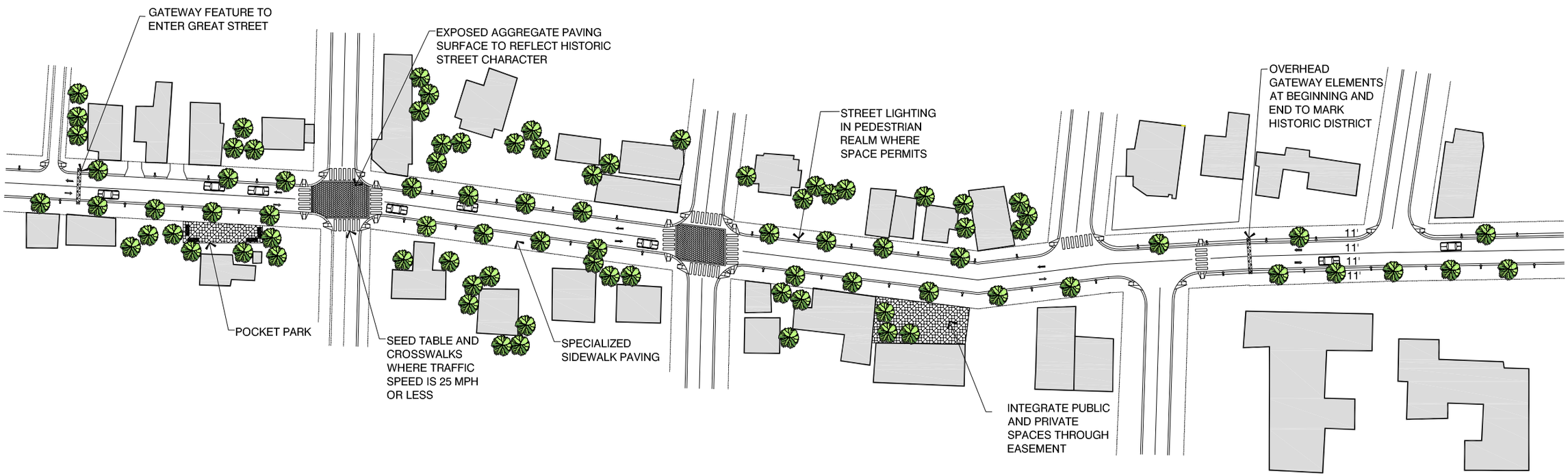




COLLECTOR OPTION D	
ROW:	50 Feet
Traffic Lanes	2 @ 11 Feet
Bike Lanes	None
On Street Parking Lanes	None
Pedestrian Realm	2 @ 11.3 Feet

PROTOTYPE DESIGN PLAN COLLECTOR STREET OPTION D

Figure 63: *Prototype Design Collector Street Plan Option D (50 Foot ROW/Constrained)*



COLLECTOR STREET OPTION D

ROADWAY REALM

Vehicle Lanes and Turn Lanes

- There are two 11 foot wide traffic lanes one in each direction.

Bicycle Lanes and Bicycle Routes

- The Albuquerque Urban Area Long Range Bikeway System Map does not designate a bicycle lane on this prototype segment.

Transit Service

- This prototype segment is not identified as the location of a bus route.

- This prototype segment is not identified as the location of a streetcar route.

Marked Crosswalks at Intersections

- Marked, unsignalized crosswalks are provided at the intersection of this street with local streets.

Medians

- None needed.

Pedestrian Refuge

- None needed.

Mid-Block Crossings

- None proposed.

Pavement Treatments/Detectable Warnings

- Decorative pavement to create a floor pattern on the street is proposed. The paving celebrates the historic use of the street as a goat trail.

- Decorative pavers also mark the beginning and end of the Great Street segment.

Traffic Calming

- Speed tables are provided at key crossing areas to slow traffic as it moves through unsignalized intersections, enhancing vehicular and pedestrian safety.

- Speed limits are painted onto the street.

Parking
- On-street parking is not provided due to narrow the right-of-way width.

PEDESTRIAN REALM
The Pedestrian Zone is 11.3 feet wide that can accommodate all the Edge, Landscape and Walking Zones. Tree grates will have to be used to insure a 6 foot Walking Zone.

Wayfinding
- Overhead gateway elements, provided at intersections, provide information about the location and significance of this street segment.

Street Signs
- To save right of way, wall mounted standard street signs are proposed.

Shade
- The majority of the Pedestrian Realm is shaded using street trees and trees on private property.

Outdoor Cafes / Outdoor Sales
- This area is a mixed-use area. Cafes and outdoor sales could be integrated into this street on private property abutting the Pedestrian Realm.

Plazas, Pocket Parks, Places to Gather, Seating
- Pocket parks are proposed on vacant lots. Decorative paving extends the plaza area onto the sidewalk.

Driveways
- The limited right of way and small lots made it difficult to reduce curb cuts. Whenever possible, access was shifted to side streets.

Transit Stops
- The Albuquerque Ride System Map does not identify transit stops on this prototype segment.

Lighting

- Streetlights can be accommodated within the right-of-way, however to conserve Walkway Zone width, downward focused lights are strung above the Roadway and Pedestrian Realms.

Street Edge Definition

- A vertical curb defines the Roadway Realm. The narrow right of way generally prohibits vertical separation. In locations with adequate right-of-way, bollards are used for vertical separation between pedestrians and the street.

Landscaping

- Limited due to narrow right of way.

- When possible, additional right-of-way is landscaped.

Historic Markers

- Provided in ground or wall mounted.

Decorative Pavement

- To encourage people to walk and "promenade" along this residential social space, decorative pavers are used to identify community destinations, as well as beginning and ending of the Great Street segment.

PRIVATE REALM

Buildings/Massing

- This historic street includes many buildings constructed to the right of way, creating a comfortable outdoor room in keeping with the 3:1 building to street width ratio.

Landscaping

- This prototype suggests landscape and shade be provided by trees on private property and awnings.

Land Use

- This historic street includes a mix of uses.

INFRASTRUCTURE

- Infrastructure will be coordinated with in the Roadway and Pedestrian Realms designs

42. Strung Lighting, Uptown Albuquerque

CHAPTER V: Next Steps

The Next Steps explain how the Great Streets designs and standards will be applied to build Great Streets in Albuquerque. The modification of the City's existing plans, ordinances and other documents will be required to implement the Great Streets concepts developed in this Plan. The list of these documents is included in this chapter.

Although a very rough cost estimate is included, the Plan proposes construction of a demonstration project to have a better understanding of construction cost and coordination required to implement the concepts. For example, location of overhead and underground infrastructure and its coordination with the design of Great Street would affect the cost of construction.

A. HOW TO USE THE STANDARDS AND GUIDELINES

The prototype designs presented in this Plan, although based on an existing street segment, does not account for all the various situations that may arise as the Great streets Program move toward implementation. The various right-of way widths and other conditions of streets, especially in the older part of the city, make it impossible to form hard and fast standards for retrofitting existing streets into Great Streets. While the intent of this Plan is to follow the design standards included in the plan, their modification may be necessary at spot locations due to limited right of way or locations of an existing buildings. In some instances, additional right-of-way may require purchasing. New streets either in new "Greenfield" sites or in "Greyfield" sites (redevelopment) are required to follow these as standards within the Great Street segments.

B. POTENTIAL GREAT STREETS

1. Demonstration Project(s)

The Plan recommends that the City select one or two street segments as a demonstration project(s). This would help to be a catalyst to show the benefits of Great Streets and provide a more accurate estimate of the cost to implement the program in other sections of the City. The Nob Hill Sector Plan and citizens in a public meeting recommend a ¼ to ½ mile segment of Central Avenue from Girard to San Mateo Boulevard. A similar segment of 4th Street was another suggestion made by the participant in a public meeting as the demonstration project. There are several City efforts going on in both these corridors. Over two million dollars in funds from the

City and the New Mexico State Legislature have been allocated to each of these corridors.

2. Potential Great Streets

Table 6 is a list of potential Great Street Projects for the City of Albuquerque and Figure 64 shows their location. As stated in the body of this Plan analysis, the community input, City Planning staff, the consultant and the Technical advisory Committee arrived at these streets. (PLEASE UPDATE THIS TABLE BY COPYING TABLE 4)

Table 6: **Potential Great Streets**

Segment Name	Segment Location	Segment Length	Street Type	Overhead Utilities		Segment Name	Segment Location	Segment Length	Street Type	Overhead Utilities
4TH STREET NW	Menaul Blvd. - Candelaria Rd.	0.6	Arterial	Y/ E Signif.		**GIBSON BLVD. SE**	San Mateo Blvd. - San Pedro Dr.	0.5	Enhanced Transit Corridor	Y / N Signif.
4TH STREET NW	Candelaria Rd. - Montano Rd.	1.3	Major Transit Corridor	Y/ E Signif.		**GIBSON BLVD. SE**	San Pedro Dr. - Louisiana Blvd.	0.5	Enhanced Transit Corridor	Y/ NS N Signif.
ATRISCO NW	Central Ave. - la Bajada	0.9	Arterial	Y/ W N Signif.		**GIBSON BLVD. @ 98th ST. NW**	Intersection - Gibson Blvd. and 98th St.	0.25 Each Direction	Arterial	Y / MS Signf.
CENTRAL AVE. NE/ SE	Washington St. - San Mateo Blvd.	0.5	Major Transit Corridor	Y / N Signif.		**GIBSON BLVD. @ 118th ST. NW**	Intersection - Gibson Blvd. and 118th St.	0.25 Each Direction	Arterial	Y / W Signif.
CENTRAL AVE. NW/ SW	Coors Blvd. - Yucca Dr.	0.7	Enhanced Transit Corridor	Y N Signif.		**GOLF COURSE RD. NW**	Paradise Blvd. - Paseo del Norte	0.25	Arterial	N
CENTRAL AVE. NW/ SW	Rio Grande - 13th St.	0.7	Major Transit Corridor	Y/ S Cross'g.		**INDIAN SCHOOL RD. NE**	Girad Blvd. - Washington St.	1.0	Arterial	Y / NS Signif.
CENTRAL AVE. NE/ SE	Pennsylvania St. - Louisiana Blvd.	0.5	Enhanced Transit Corridor	Y/S M		**MONTGOMERY BLVD.@ JUAN TABO BLVD. NE**	Intersection - Montgomery Blvd. and	0.25 Each Direction	Enhanced Transit Corridor	Y Signif.
CENTRAL AVE. NW/ SW	Coors Rd. - Atrisco	0.8	Enhanced Transit Corridor	Y/ NSM Signif.		**MONTGOMERY BLVD. NE**	Carlisle Blvd. - Louisianna Blvd.	4.1	Enhanced Transit Corridor	Y
CENTRAL AVE. NE/ SE	Carlisle Blvd. - Washington St.	0.5	Major Transit Corridor	Y N Signif.		**MOUNTAIN RD NW**	Rio Grande Blvd. - 12th St.	0.7	Arterial	Y / S partway
CENTRAL AVE. @ UNSER BLVD. NW/ SW	Intersection - Unser Blvd. and Central Ave.	0.25 Each Direction	Arterial	Y/ S Signif.		**MOUNTAIN RD. NW**	12th St. - 6th St.	0.4	Arterial	Y/S Cross'g.
COORS BLVD. NW	Bluewater - Fortuna Rd.	0.6	Enhanced Transit Corridor	Y N Signif.		**TAYLOR RANCH RD. NW**	Montano Rd. - Homestead	0.8	Arterial	Y / NS Signif.
EUBANK BLVD. NE/ SE	I-40 - Research Rd.	1.5	Arterial	Y / EW Signf.		**YUCCA DR. NW**	Bluewater - Glenrio	0.6	Enhanced Transit Corridor	N Inignif.

Legend: *Y = Yes; N = No; E, W, N, S area East, West, North and South; M = Median; N. Insignif. = Not significant; Signif. = Significant; Cross'g. Overhead cables crossing street.*

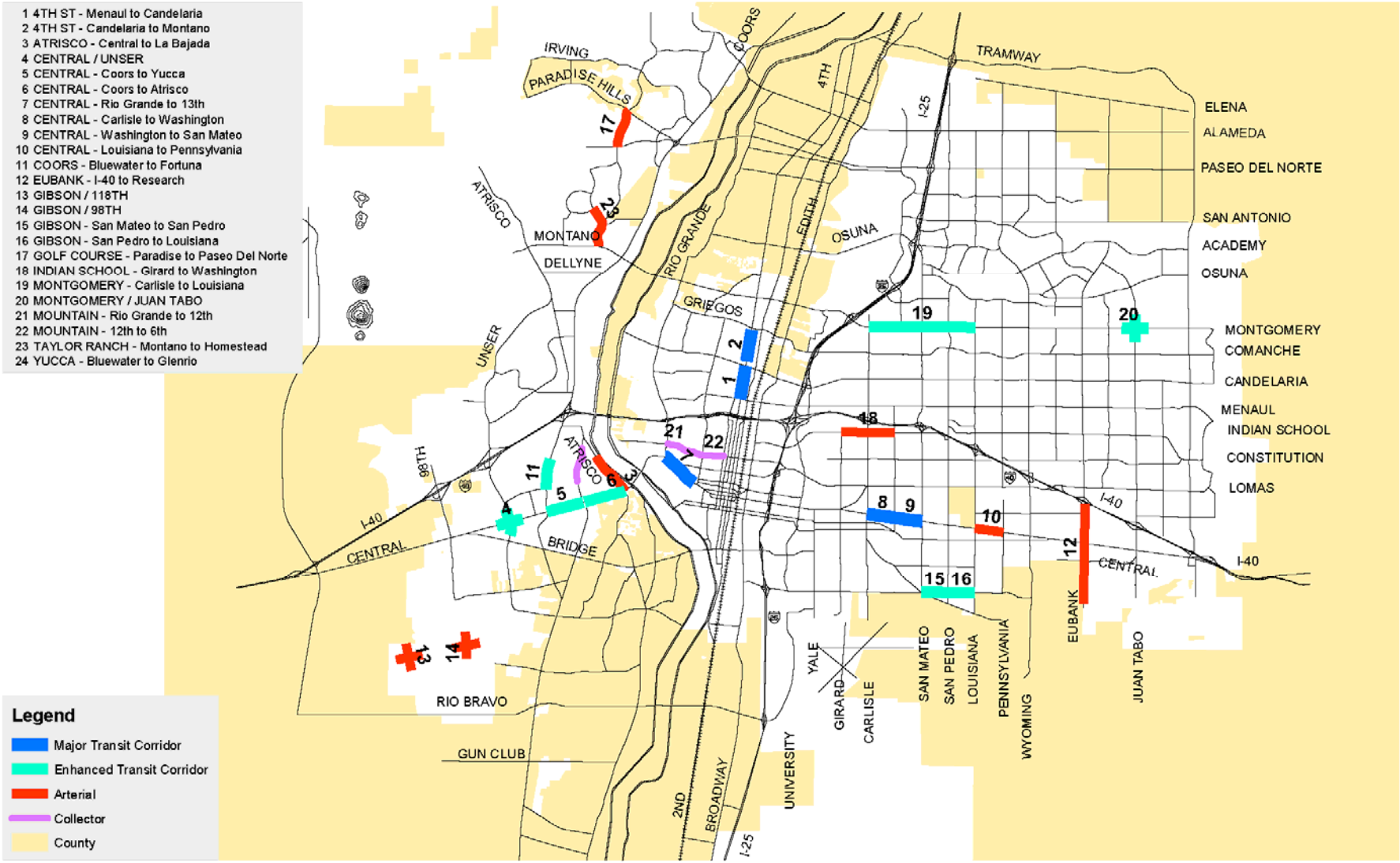
Notes: 1. Potential Great Streets segment selected with input from public meetings, Technical Advisory Committee and the City staff.

2. List of Potential Great Streets will continue to expand as more streets are added.

3. Distributed throughout the City.

4. Overhead and underground utilites must be coordinated during the planning, design and implementation stages.

Figure 64: *Potential Great Streets*



3. Unit Cost Estimates

Cost Estimates

Cost estimates are for one-haft mile segments of a Great Street and only for those elements that make a Great Street. Theses items include, landscaping, medians, roadway and pedestrian lighting, special paving materials, and other street furniture elements. No utility or right-of-way costs are included since each condition changes drastically depending where it is locate and what utilities are present. (Cost estimates below don't include design, survey, testing, construction mgmt. And gross receipts taxes) John Hartmann said it will add another 25%-30%.

Table 7: Cost Estimates

MEDIANS: 440 Feet Length 10 Feet Wide	Units	Cost Per Unit	Quanities	Total
SAWCUT & REMOVE ASPHALT & BASE	SY	$ 5.00	602	$ 4,816.00
CURB & GUTTER - SD 2408	LF	$ 15.00	969	$ 14,535.00
TRAFFIC SEPARATOR (2 FT.)	LF	$ 15.00	260	$ 3,900.00
FILL	CY	$ 10.00	173	$ 1,730.00
TOP SOIL	SY	$ 2.65	346	$ 916.90
LARGE TREE	EA	$ 800.00	6	$ 4,800.00
SMALL TREE	EA	$ 600.00	6	$ 3,600.00
SHRUBS	EA	$ 30.00	108	$ 3,240.00
GROUNDCOVER	EA	$ 6.00	445	$ 2,670.00
IRRIGATION	LF	$ 16.00	390	$ 6,240.00
REFLECTORIZED PAVEMENT STRIPE - 6" SOLID (yellow)	LF	$ 3.00	1,425	$ 4,275.00
REFLECTORIZED PAVEMENT STRIPE - 6" SOLID (white)	LF	$ 3.00	200	$ 600.00
REFLECTORIZED PLASTIC ARROW - LEFT OR RIGHT	EA	$ 120.00	4	$ 480.00
REFLECTORIZED PLASTIC WORD "ONLY"	EA	$ 200.00	1	$ 200.00
SUBTOTAL				**$ 52,002.90**
			30 % Contingency	$ 67,603.77
			Cost Per Foot	**$ 153.64**

SIDEWALK: 300 feet Lentgh 12 Feet Wide	Units	Cost Per Unit	Quanities	Total
Demolistion of Existing Sidewalk	SY	$ 6.00	400	$ 2,400.00
Removal of Existing Curb and Gutter	LF	$ 5.00	600	$ 3,000.00
Concrete Sidewalk 4" - SD 2430	SY	$ 40.00	800	$ 32,000.00
Concrete Pavers	SF	$ 12.00	1344	$ 16,128.00
Curb and Gutter - SD 2415	LF	$ 15.00	600	$ 9,000.00
Historic Street Lights (inlcuding foundation, pole, luminaire & wir	Each	$ 12,000.00	5	$ 60,000.00
Landscaping	Each	$ 700.00	20	$ 14,000.00
Irrigation	LF	$ 10.00	600	$ 6,000.00
SUBTOTAL				**$ 142,528.00**
			30 % Contingency	$ 185,286.40
			Cost Per Foot	**$ 617.62**

The costs in Table 7 were prepared based on actual bid unit prices of recent bid costs in Albuquerque in 2007. As we can see the prices for a 12 foot sidewalk with all the streetscape elements is close to $600.00 per liner foot. The cost of landscaped medians is approximately $153.00 per linear foot.

These costs do not include the rebuilding of the road base or other road surface elements.

C. Amendments

The Albuquerque/Bernalillo County Comprehensive Plan and other appropriate plans, ordinances and regulations will be amended subsequent to the adoption of this plan. This plan recommends that higher priority should be given to amendments to the Comprehensive Plan, Albuquerque Comprehensive Zoning Code, Subdivision Ordinance and Development Process Manual.

The Great Streets Facility Plan identifies potential Great Streets segments. Some of these segments are located on streets that are in existing Rank III Plans such as sector development plans, corridor plans, metropolitan redevelopment plans. Not all these plans include design standards and guidelines for streets and buildings. This plan recommends the following means to bring consistency between the Great Street Facility Plan and other plans.

- After the adoption of this plan, any existing and/or new streets identified as 'Great Streets' in amended existing or new plans, shall follow this plan.
- If the design standards and/or guidelines in an existing sector plan exceed the Great Streets Facility Plan, the existing standards shall prevail.

This list of plans, ordinances and other documents that require amendments to implement this plan follows:

- Albuquerque/ Bernalillo County Comprehensive Plan
- Sector Development Plans as appropriate
- Albuquerque Comprehensive Zoning Code
- Subdivision Ordinance
- Development Process Manual
- City Standards and Specifications (Street Construction Specifications)
- Transportation Improvement Program FY 2008-20013 and Future
- Metropolitan transportation Plan 2030 and future Plans.

- Albuquerque/ Bernalillo County Comprehensive Plan
- Sector Development Plans as appropriate
- Albuquerque Comprehensive Zoning Code
- Subdivision Ordinance
- Development Process Manual
- City Standards and Specifications (Street Construction Specifications)
- Transportation Improvement Program FY 2008-20013 and Future
- Metropolitan transportation Plan 2030.

D. What triggers construction of Great Streets?

The implementation of Great Streets Program or project, may be activated by other City or private sector plans, actions or programs, as follows:

- Street Construction and Reconstruction (Part of the Decade Plan, revised every two years)
- Great Streets Facility Plan Implementation Program
- Metropolitan Redevelopment Projects
- As part of the private development

E. Funding and Sources

Both the City and private developers (often in the subdivisions and new developments) build streets. When a street that includes a 'great street' segment is built or rebuilt, it would be required to follow this plan, irrespective of if the City or the private sector is constructing it. If the funds are available it is more cost effective to construct the entire great street segment at one time. However, it may be necessary to phase construction depending upon where the development takes place, the length of the segment and the available funding.

The Plan recommends integrating the construction of great streets program into the Transportation Improvement program and the City's Capital Improvement program. The funding and construction priority should be given to projects that have been partially built, are in a redevelopment district and/ or in the City's Decade Plan.

The following funding sources are identified to implement the Great Streets Project(s). It may be necessary to combine these funding sources.

- City G.O. Bonds
- Great Streets G.O. Bonds
- City Council Set Aside
- Metropolitan Redevelopment Funds
- Federal Highway Trust Funds
- Tax Increment Funds (TIF)
- State Grants authorized by the Legislature
- Public Improvement District
- Public / Private Partnership (new developments or major redevelopment / renovations)
- Other

E. Process for Great Streets

For a smooth and effective implementation of the Great Streets Facility Plan, it is necessary for the City to form a formal Technical Advisory Committee (TAC) made up of representatives of City Departments such as planning, public work, traffic engineer, transit, city forester, NMDOT, MRCOG, utility companies and other interest groups including property owners along the Great Street Project**.** This coordination is especially important in retrofitting an existing street segment into a great street. The role and responsibilities of the project manager and the TAC includes but is not limited to the following:

- Coordinate the design among various interest groups including the public utilities;
- Assure plan compliance during the planning, design and construction stages of the project:
- Recommend and oversee modifications to design standards, but only in extreme circumstances and without compromising the basic intent of the prototype design;

Once street segment is selected to move forward as a Great Street and a consultant is hired, the following process is recommended to implement the Great Streets Facility Plan. The consultant teams whether it is design build or design bid must include an urban designer, landscape architect and artist.

The City's project manager and TAC should hold a minimum of three workshops with property owners, business owners, and other appropriate governmental and private utilities that have facilities in the area during the process. These workshops will also be a forum for the affected community to provide input.

APPENDIX

List of Participants

We appreciate participation of the following citizens in the planning process as well as of over 100 who filled in survey forms at the Zoning and Development Services Counters.

Tony Abbo
Vanessa Alarid
Michael Albers
Mimi Aledo
Bill Allen
Becky Alter
Fred Ambrogi
Bonnie Anderson
Lynn Anderson
Jim Arrosmith
Richard Asenap
Anne Assink
Pat Baca Jr.
Theresa M. Baca
J Bailey
Laurie Baker
Joanne Barnett
Javier Benavidez
Charles Bennett
Laura Bernd
Ron Bohannon
Stephen Bohannon
John Boynton
Hart Briggs
Grant Brodehl
Tim Brown
Kurt Browning
Isabel F. Cabrera
John Campbell
Enrique Cardiel
Natasha Carty
Mark Childs
Steve Cogan
Marcy Cook
Roger Cox
Darlene Couchman
Don Couchman
Vinnie Criddle
Aonma Crocker
Rebecca Jo Dakota
Dale Danielson
Betty Danielson
Chris Davis
Frank Demolli
Joan Demolli
Silvio Dell'Angela
Anni deSteiguer
Eileen DeVereux
Richard Dineen
Terry Doyle
Brian Eagan
Scott Eddings
Erica Enyart
Jay Lee Evans
Wanda Faulkner
Jeanette C. Finegold
Jackie Fishman
Julia Fitzsimmons
Greg Foltz
Cristopher Frechett
Herman Gabaldon
Benjamin Garcia
D Garcia
Richard Garcia
Jennie Garcia
Dan Gear
Linda F. Gordon
Jake Grandy
Corina Gutierrez
Besim Hakim
Vern Harshberger
Jay Hart
David Hassard
David Heuston
John Hill
Donna Hill
Rene Horvath
Vikki Hughes
Ann Jarrell
Lloyd Jojola
Julie Jones
Bo K
Steve Kells
Doug Kerr
Joanne G. Kimmey
Winifred Kimbrough
Judy Kowalski
Nick Kuhn
Anne LaLopa
Jim Leija
Jack LeRoy
Bing LeRoy
Claude L. Lewis
Damian Libutti
Steve Logan
Lucy M. Lopez
Rob Loughridge
Celeste Loughridge
D & E Lujan

Julie Luna
Robert MacLaice
C Malagodi
Frank H. Martinez
Silda Mason
Bazz McClain
Kathleen McCorkell
Jennifer McCormick
Janice McCrary
Jim McCullough
Joanne McEntire
Richard Meadows
Keith Meyer
Kim Mickelson
Roger Mickelson
Sharon Miles
Ralph Mims
Alice Monnin
Jean Montano
Mayone Morelli
Joe Mudd
Norma Murchison
Yasmeen Najmi
Gabriel Nims
Jon Niski
DuWayne Ordonez
Jack Overnier
Betty Ann Overnier

David Pennella
Roland Penttila
James Phillips
Arlean Phillips
Rae Phillips
Wanda Pitts
Michael Polikoff
Richard Precek
Bob Prewitt
Mikaela Renz
Sandra Richardson
Cliff Richardson
Patsy Rippo
Linda Ristvet
Richard Rivas
Gabriel Rivera
Tony Romero
Sue Rosenberg
Richard Runyon
Riti Sachdera
Nasser Safaei
Ralph Salas
Kelly Sanchez-Pare
Peter Schillke
Lisa Seepaul
Kei Seidler
Kara Shair-Rosenfield
Mary Lou Spells

Mark Sprick
Ed Stang
Debbie Stover
Jim Strozier
Judy Suiter
Lois Thompson
Karla Thornton
James Topmiller
Bob Tilley
Nancy Traylor
Tim Trujillo
Marit Tully
Marge Valliant
Ed VanHolem
Larry Velasquez
John Weber
Hursa Webster
Robert Westfall
Steve Wheeler
Alice Whitsom
Steve Whitman
Steve Williams
Eric Wrage
Paul Wymer
Daniel Ziegler

Glossary of Terms

Goal	An ideal future end, condition, or state related to the public health, safety, or general welfare toward which planning and its implementation measures are directed. It is a general expression of our values. It is abstract, therefore not quantifiable, time-dependent, or suggestive of specific actions or achievement.
Objective	A specific end, condition, or state that is an intermediate step toward attaining a general goal. It may pertain to one particular aspect of a goal, or it may be one of several successive steps toward goal achievement. There may be more than one objective for a goal. It is a general expression of our preferences as to the character and location of the City's physical elements. It is achievable, measurable, and time-specific.
Principle	A fundamental rule or doctrine which guides the Comprehensive Plan policies, proposals, standards and implementation measures. Principles are based on generally accepted City planning knowledge and community values, current technology, and the General Plan's goals and objectives. It is a rule for action, usually based on experience as a consistent guide to meet objectives.
Policy	A specific statement that guides decision making, and commitment of government to policy. A settled course or position on a matter adopted and followed by government.
Plan Proposal	A description of how development policies affect an area or facility.

Guideline/Standard	A rule or measure establishing a level or quantity that must be complied with or satisfied. They are specifications that define the abstractions of goals, objectives, and policy statements. They are established by custom or experience as measures of the quality or adequacy of the City's various physical components.
Implementation	An action, procedure, program, or technique that carried out Comprehensive Plan Policy. Each policy must have at least one corresponding implementation measure.
Right-of-Way	The area owned by public for traffic lanes, curb and gutter, and sidewalks.
Façade	Exterior face of a building (elevation).
Streetwall	A semi-opaque freestanding wall aligned with the front façade of an adjacent building for the purpose of masking parking from the street.
Build-to-Line	The location on which the building footprint must be located.
Major Transit Corridor	Roadways designed to optimize public transit and move large numbers of people in a very timely and efficient manner. These roadways could have dedicated bus lanes, wide sidewalks, bike lanes, and longer term possibility of light rail service. These corridors would focus on the movement of many people in a pedestrian friendly environment, would emphasize short trips and convenience and would be prime candidates for significant mixed use infill and redevelopment.

Enhanced Transit Corridor	Roadways designed or redesigned to improve transit and pedestrian opportunities for residents, businesses and other users nearby. These roadways could have similar features to the major transit corridor. Their goal is to provide transit service competitive with the car, and develop adjacent land uses and intensities that promote the use of transit.
Arterial	The arterial system should carry the major portion of trips entering and leaving the urban area, as well as the majority of through movements desiring to bypass the central city. In addition, significant intra-area travel, such as between central business districts and outlying residential areas between major inner city communities, or between major suburban centers should be served by this system.
Collector	The collector street system provides both land access service and traffic circulation within residential neighborhoods, commercial and industrial areas. It differs from the arterial system in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from the arterials through the area to the ultimate destination. Conversely, the collector street also collects traffic from local streets in residential neighborhoods and channels it into the arterial system. In the central business district, and in other areas of like development and traffic density, the collector system may include the street grid which forms a logical entity for traffic circulation.
Pedestrian Realm	The Pedestrian Realm is the public area between the back of curb and the right-of-way.
Roadway Realm	The area between the back of curb to the back of curb across the roadway travel lanes.

Private Realm — The private or public property which abuts the right-of-way of a street.

Block Face — The face of a Block side facing a Great Street from one intersecting street to another intersecting street.

Level of Service (LOS) — This is a measure of roadway congestion ranging from LOS A--least congested--to LOS F--most congested. LOS is one of the most common terms used to describe how "good" or how "bad" traffic is projected to be. LOS serves as a benchmark to determine whether new development will comply with an existing LOS or if it will exceed the preferred or adopted LOS. As part of planning for new projects or developments, transportation professionals conduct a Traffic Impact Study (TIS). The TIS determines how specific streets and intersections will function with increased traffic volumes either with or without improvements.

It should be noted that LOS is a measure of a roadway segment's (zone's) efficiency at moving automobiles through the zone. By definition, it places a high emphasis on the free-flowing speeds of autos and does not give consideration to the comfort or safety other roadway users such bicyclists or pedestrians.

Level of Service A — Level of Service A describes a condition of free flow, with low volumes and high speeds.

Level of Service B — Level of Service B is the zone of stable flow, with operating speeds beginning to be restricted somewhat by traffic conditions. Drivers still have reasonable freedom to select their speed and lane of operation.

Level of Service C Level of Service C is the zone of mostly stable flow, but speeds and maneuverability are more closely constricted by the higher volumes.

Level of Service D Level of Service D is a zone that approaches unstable flow, with tolerable operating speeds, however driving speed is considerably affected by changes in operating conditions.

Level of Service E Level of Service E is a zone that cannot be described by speed alone. Operating speeds are lower than in Level D, with volume at or near the capacity of the highway.

Level of Service F Level of Service F is a zone in which the operating speeds are controlled by stop-and-go mechanisms, such as traffic lights. This is called forced flow operation. The stoppages disrupt the traffic flow so that the volume carried by the roadway falls below its capacity; without the stoppages, the volume of traffic on the roadway would be higher, or in other words, it would reach capacity.

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