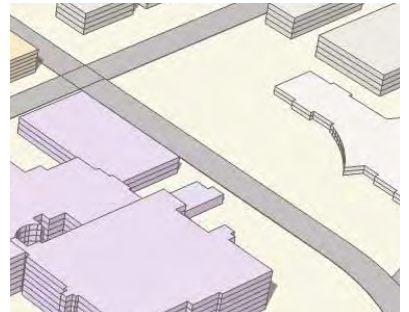
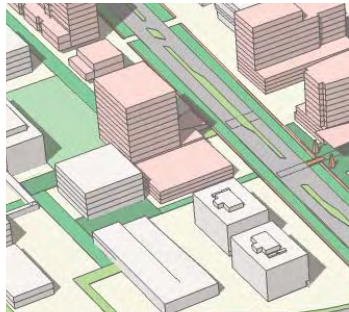
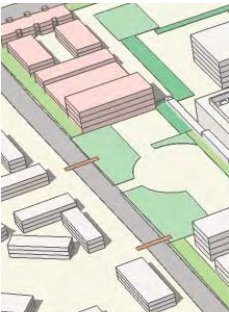
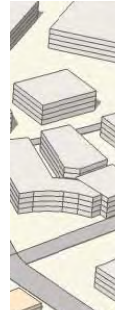
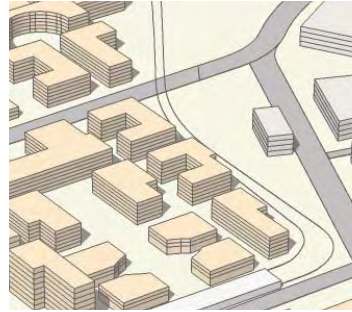


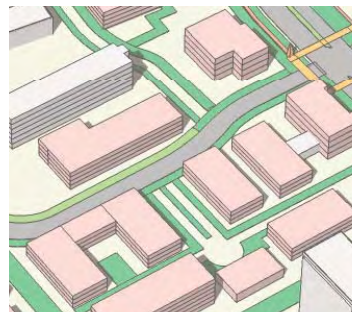
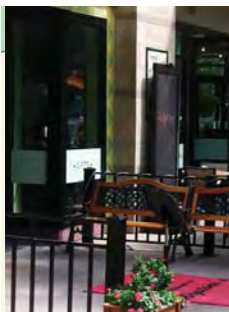


CITY OF LAKEWOOD



# UNION BOULEVARD CORRIDOR URBAN DESIGN PLAN

ADOPTED NOVEMBER 2011





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## EXECUTIVE SUMMARY

The Union Boulevard Corridor Urban Design Plan was developed to refine the vision for the area, help establish a sense of place, and create a consistent and identifiable character for the Union Boulevard Corridor. The plan also helps advance recommendations in several other adopted plans, including the Lakewood Comprehensive Plan, the Federal Center/Union Boulevard Corridor Connectivity Plan, and the Union Corridor Station Area Plan.

The study area is generally bounded by 6th Avenue, Alameda Avenue, VanGordon Street, and Rutt Street. The planning effort was funded by a grant from the U.S. Environmental Protection Agency as part of its initiative to help support livable communities.

### Key Recommendations

This plan provides recommendations related to the design and location of future public and private investments such as streetscape improvements, sidewalks and pedestrian connections, benches, lighting, and directional signage. The plan identifies opportunities to create a more walkable and attractive urban district with strong connections to the Federal Center light rail station. The plan also provides a visual summary of how the Corridor could begin to evolve as properties develop or redevelop under the current zoning to higher density, mixed-use development. This visualization includes recommendations related to additional street segments, or street extensions, to provide a smaller block grid to improve the urban design and walkability in the area. The key recommendations fall into the following three categories:

### URBAN DESIGN

Union Boulevard's future as an attractive, walkable district means the current environment of widely-spaced buildings surrounded by surface parking needs to evolve into a more intensely developed environment. The plan makes recommendations, consistent with the previously adopted plans and the zoning for the area, to break up the large superblocks of buildings isolated by extensive surface parking lots. In their place, the plan recommends creating a finer grain of pedestrian walkways, and activated edges along Union Boulevard with buildings located near the street and structured parking replacing existing surface parking lots.

### BRANDING THE CORRIDOR

Union Boulevard has grown over the years and has achieved recognition as a prime location for business on the west side of Lakewood. However, the area still lacks a unifying image and identity that could brand it as clearly as other regional business centers, such as the Denver Tech Center. Union Boulevard, together with the Federal Center, can have a powerful marketing advantage if the combined districts can project a strong, unified presence to the marketplace. The plan illustrates ways that the streetscape and landscape environment can help create a sense of unity for the district. The plan provides recommendations for a family of cohesive and attractive design elements related to street and intersection design; pedestrian crossings; pedestrian pathways; signage and wayfinding; and street furniture and lighting.

### MOBILITY

Today, Union Boulevard carries the majority of the traffic in the Corridor. As growth occurs, more traffic will be generated—to, from and within the area. To achieve the vision for the area, Union Boulevard needs to be a “complete street”, accommodating pedestrians, bicyclists, drivers and outdoor dining and retail activities. To create a truly attractive urban corridor, new east-west and north-south street connections need to be made and are recommended in this plan. These connections will help create an easy to navigate street grid and will distribute vehicle trips throughout the Corridor. In addition, the plan recommends increasing mobility options in the Corridor through proposed bike and car share programs and the possibility of a circulator shuttle service.

### Next Steps

Many of the street and pedestrian pathway connections recommended in this plan will be implemented through private development or redevelopment. The recommended streetscape and identification strategies will likely be implemented through a variety of sources, and most likely will require the formation of a Business Improvement District or other special district to help fund, design, and implement the recommendations.

To ensure the vision for the Corridor is being realized, this plan and the other adopted plans for the area should be referenced by City staff, elected officials, property owners and developers, and Lakewood citizens as properties develop or redevelop along the Union Boulevard Corridor.





# 1. INTRODUCTION

## The Corridor's Potential

Union Boulevard is poised to experience a "perfect storm" of development opportunity due to its location, existing land use mix and new transit access. The Federal Center Light Rail station will see thousands of passengers beginning in 2013. St. Anthony Hospital, Ortho Colorado Hospital and new medical office buildings will bring thousands of employees, vendors, patients and their families to the area. The Federal Center's master plan envisions 3.6 million square feet of new office and related development. The General Services Administration (GSA) is considering disposal of 40 to 60 acres of prime developable land adjacent to the station.

### Purpose of the Plan

This plan was created by the City of Lakewood with the following objectives in mind:

- To refine the vision for Union Boulevard.
- To recommend a framework of streets, walkways and streetscape elements that can support and enhance this vision.
- To describe the steps Lakewood and the private sector can take to begin and sustain implementation of the vision.
- To positively relate to the development potential and plans of the GSA and the Federal Center.

## Environmental Protection Agency's Brownfields Program

This planning effort was funded through a brownfields grant from the U.S. Environmental Protection Agency (EPA) as part of its initiative to help support livable communities. EPA's Brownfields Program empowers states, communities, and other stakeholders to work together to prevent, assess, safely clean up, and sustainably reuse brownfields.

A brownfield site is real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. The types of brownfield sites commonly found in urban and suburban areas include dry cleaners, gas stations, and other automobile-related commercial uses.

EPA has piloted the use of brownfields funds for area-wide planning because they recognize that creating a planning framework to advance economic development, job creation and community reinvestment in the area surrounding a brownfield site is critical to the successful reuse of a site. The brownfield findings for the Union Corridor area are described in Chapter 10.



Cold Spring park-n-Ride was relocated summer 2011



Future light rail station and current park-n-Ride site



Figure 1. Hospital Site Plan

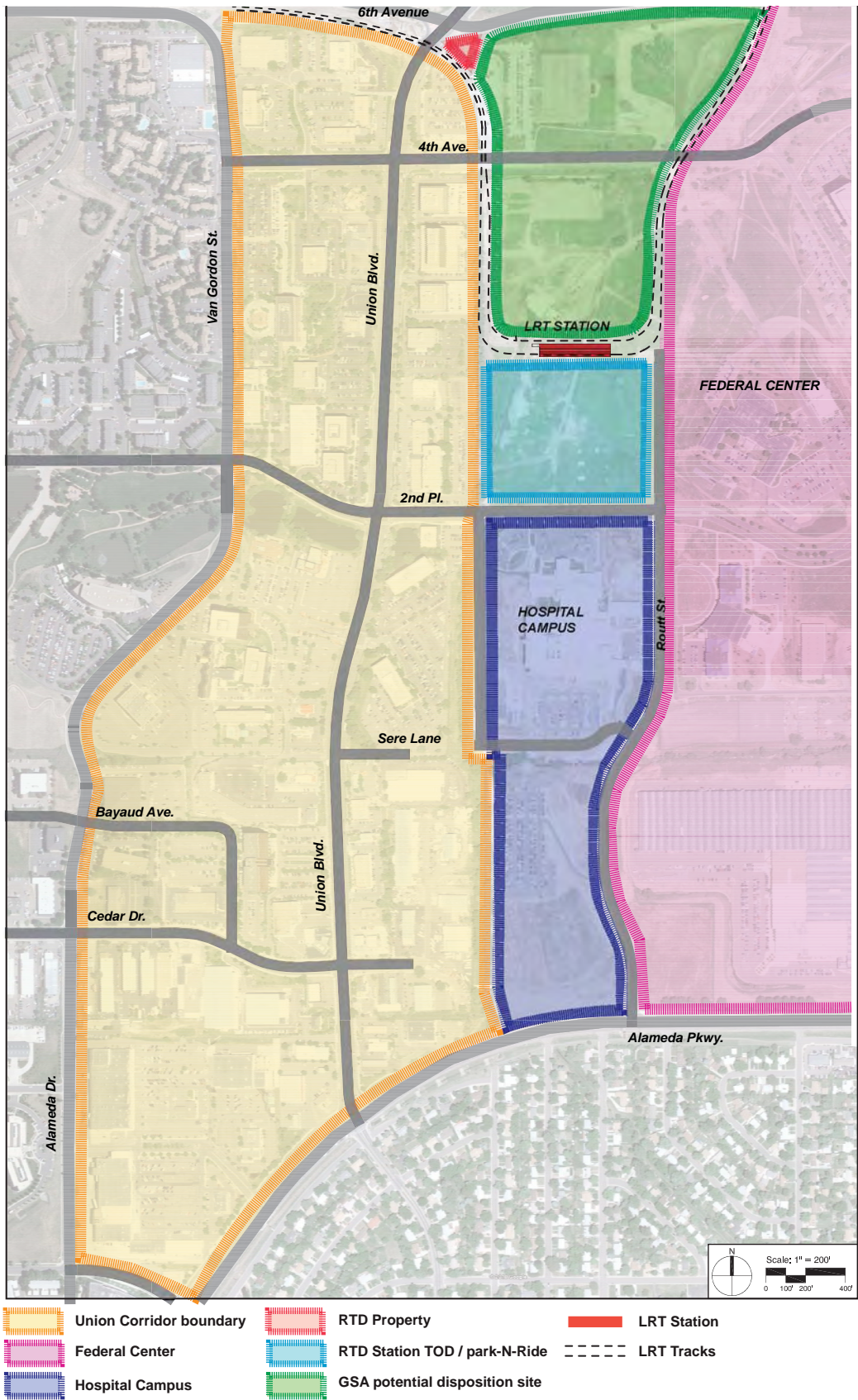


Figure 2. Site Boundaries



## Existing Plans

The City of Lakewood has adopted TMU (Transit Mixed Use) zoning for the Corridor. This zoning allows intensification of the properties in the Corridor to maximum heights of 12 stories. The zoning is intended to encourage mixed-use and higher density development near transit stations.

The most recent plan completed for the Corridor is the Federal Center/Union Boulevard Corridor Connectivity Plan, dated July 2011. This plan focuses on pedestrian and bicycle connections, including Union Boulevard pedestrian crossings; cycle tracks and sidewalks along Union Boulevard; a pedestrian connection to the LRT; and shuttle service to and from the station.

The GSA completed a Federal Center Master Plan in 2008, which will guide development of Federal facilities and disposition of land for development on current Federal Center property. (Figure 3)

The City of Lakewood also adopted the Union Corridor Station Area Plan in 2006. This plan highlights the City's overall vision to transform the area along and adjacent to Union Boulevard into a mixed-use urban corridor. The TMU zoning helps implement this vision.

## Community Involvement and Outreach

The City of Lakewood staff and the consultant conducted a series of three community meetings, roughly a month apart, during the plan development period. The meeting format was an open house, combined with a presentation of work to date in drawings and PowerPoint, followed by questions and comments from the attendees. The meeting materials were also posted on the project website for review by



Figure 3. Federal Center Master Plan, 2008

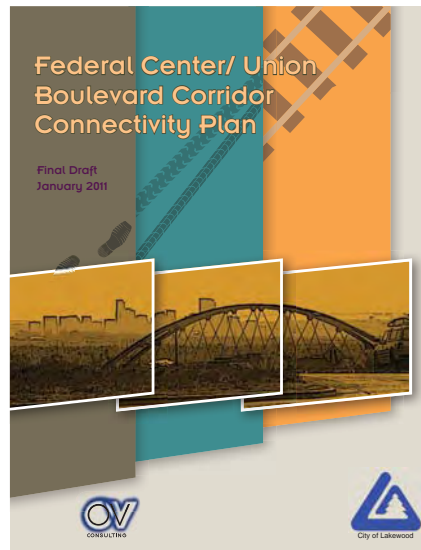


Figure 4. Federal Center/Union Boulevard Corridor Connectivity Plan, 2011

the community. More than 600 postcards were mailed to business and property owners along the Corridor to invite them to participate in the process.

The City and the consultant also held stakeholder interviews

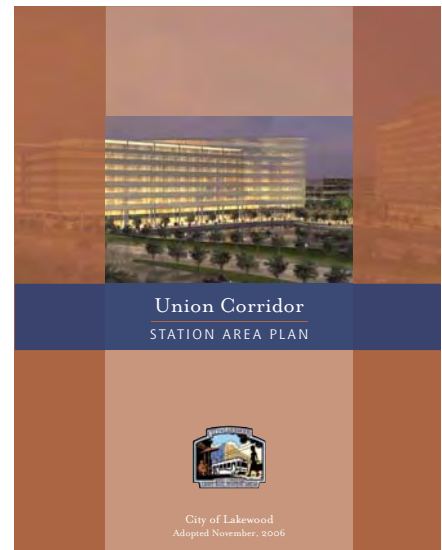


Figure 5. Union Corridor Station Area Plan, 2006

with key property owners and managers in the Corridor including representatives from GSA, the Regional Transportation District (RTD), Sheraton West Hotel, Crown West Realty and First Bank.

## 2.ASPIRATIONS FOR THE CORRIDOR

Basic goals for the Corridor were developed through public and stakeholder input. These goals, which helped guide the plan's recommendations are discussed below.

### Brand the Corridor

Union Boulevard has grown over the years and has achieved recognition as a focus for business on the west side of Lakewood. Although the Denver Regional Council of Governments (DRCOG) designated Union Boulevard as an urban center, it still lacks a unifying image and identity that could brand it as clearly as areas such as the Denver Tech Center.

In the metro Denver region's growth over the next several years, areas such as Union Boulevard will have to compete with other regional centers for office, retail and residential development. Union Boulevard, together with the Federal Center, can have a powerful marketing advantage if the combined districts can project a strong, unified presence to the marketplace. Many similar districts have seen the benefits of branding. While this plan is not a branding exercise, it does illustrate that the streetscape and landscape environment can help create a sense of unity for the district.

### World Class Image and Identity

Image and identity need to be clearly identified and should be of high design quality, projecting the kind of attractiveness that will help the Corridor attract investment of world class caliber.



Branding a research district through signage; Biopolis, Singapore



Entry Landmark off a large arterial; Centerra, Loveland CO



Large-scale entry gateway; Omaha, NE



Using landscape to unify district character; Arista, Broomfield, CO



Using landscape to unify district character; Arista, Broomfield, CO



Landscaped gateway; San Antonio, TX



Water entry gateway feature; Denver Tech Center, CO



Well integrated entry and parking design; Tenet Health, TX



## Walkability is a Primary Value

A world class mixed-use district needs to be organized around pedestrian movement and activity—this is a factor proven time and again across the US. While pedestrian infrastructure is in place in many areas along the Corridor, Union Boulevard is generally vehicle-oriented, not pedestrian and bicycle-oriented. The large superblocs of buildings isolated by extensive surface parking lots need to evolve into a finer grain of pedestrian walkways, and activated edges along Union Boulevard. As the district intensifies, surface parking lots can be replaced with buildings and parking structures. This will provide opportunities for new development that can incorporate pedestrian walkways to improve walkability and connectivity throughout the district as illustrated later in this plan.

One of the provisions of TMU zoning is to allow a reduction in parking for new development and to encourage shared parking. This will also help create an attractive transit and pedestrian-oriented mixed-use district.



Using landscape to focus on walkability; Cambridge, MA



Pedestrian underpass under arterial; CU Campus, Boulder, CO



Integrated site furnishings to promote outdoor use; GooglePlex, Mountain View, CA



Pedestrian-oriented activity; Belmar, Lakewood, CO



Distinctive pedestrian improvements; Chula Vista, CA



Pedestrian friendly streetscape; Stapleton, Denver, CO



Well-landscaped separation between walkers and road; Las Vegas, NV



Distinctive pedestrian overpass; Highlands Bridge, Denver, CO



## Context-Sensitive Transportation Solutions

Today, Union Boulevard carries the majority of the traffic in the Corridor. As growth occurs, more traffic will be generated—to, from and within the area. To achieve the aspirations of this plan, Union Boulevard needs to be a “complete street”, accommodating pedestrians, bicyclists, drivers and outdoor dining and retail activities. Street design that considers its land use context, activities, pedestrian and bicycle movement will make it safer to cross Union Boulevard and to activate the building frontages along the street.

### Maximize Access to & From LRT Station

Good, direct light rail transit (LRT) access is the most important factor in maximizing the benefits of transit in the Corridor. Transit-oriented development experience across the US has shown that the primary driver in property value near transit stops is the walking distance from the rail station. A quarter to half-mile zone of enhanced property value typically surrounds light rail stations, but only where pedestrian access to the station is direct and easy. Given this factor, Union Boulevard needs to have visible, usable, and accessible pedestrian connections to the light rail station.

In addition, to create a truly attractive urban corridor, new east-west and north-south street connections need to be made. This will help create an easy to navigate street grid and will distribute vehicle trips throughout the Corridor, not just along Union Boulevard. These recommended connections are described later in this plan. Some of the connections will be easy to create, and others will take more time, effort and cooperation between the public and private sectors.

## Optimize Economic Benefits

Everyone in the Union Boulevard Corridor should benefit from development over the next several years if they work together toward the vision:

- **Property owners**—The ability to densify their properties and gain real estate value from more intense development on their properties and neighboring parcels, as allowed under existing TMU zoning.
- **Business owners**—Better access for customers, and a more attractive business environment and market.
- **Employees**—More to do on lunch hours, more services, easier access to jobs and after work dining opportunities. The ability to be closer to business partners as density increases.
- **Residents**—Access to more attractions and the LRT.

Nearly all the potential development envisioned for the Corridor can be done without removing or relocating existing businesses.



Pedestrian crossings across an arterial roadway; 1st Avenue at Cherry Creek, Denver, CO



Pedestrian crossing; 1st Avenue, Cherry Creek, Denver, CO



Denver B-cycles; Denver, CO



Context-sensitive street design; Los Angeles, CA



Multi-modal Light Rail stop; Broadway Station, Denver, CO



Boulevard design with pullouts for buses; Cathedral City, CA



### 3. TODAY'S CONSTRAINTS AND OPPORTUNITIES

#### Constraints

##### **BUILDINGS SURROUNDED BY PARKING LOTS**

Most land parcels in the area have developed with buildings surrounded by surface parking lots. This creates an environment unfriendly to pedestrians, where walking is discouraged. This pattern also creates distance between Union Boulevard and the buildings, which currently limits the potential of Union Boulevard. As Union Boulevard frontages are developed with new buildings, existing surface parking should be replaced with buildings served by parking structures. (Figure 6)

##### **UNION BOULEVARD BARRIER**

Union Boulevard is a four to six lane arterial with additional left turn lanes and right turn lanes at many intersections. The roadway carries approximately 45,000 vehicle trips per day. The multiple lanes of traffic and infrequent pedestrian crossings make Union Boulevard a barrier to pedestrians. (Figure 7) The Connectivity Plan identifies that the unsignalized segments of Union Boulevard are roughly at one third of a mile in length, so pedestrians tend to cross mid-block at uncontrolled locations. The Connectivity Plan therefore recommends additional crossing opportunities, which are included in this plan.

##### **DISCONTINUOUS SIDEWALKS**

Some existing sidewalks along Union Boulevard are discontinuous, exposed to traffic in many cases, and are not used by many pedestrians. Within and between parking lots, very few pedestrian walks are provided across the parking lots, even to building entries. (Figure 7)



Discontinuous sidewalks



Underutilized retail parcel



Corridor buildings and surface parking lots



Lack of pedestrian crossings



Corridor buildings and surface parking lots



Large, high volume intersection

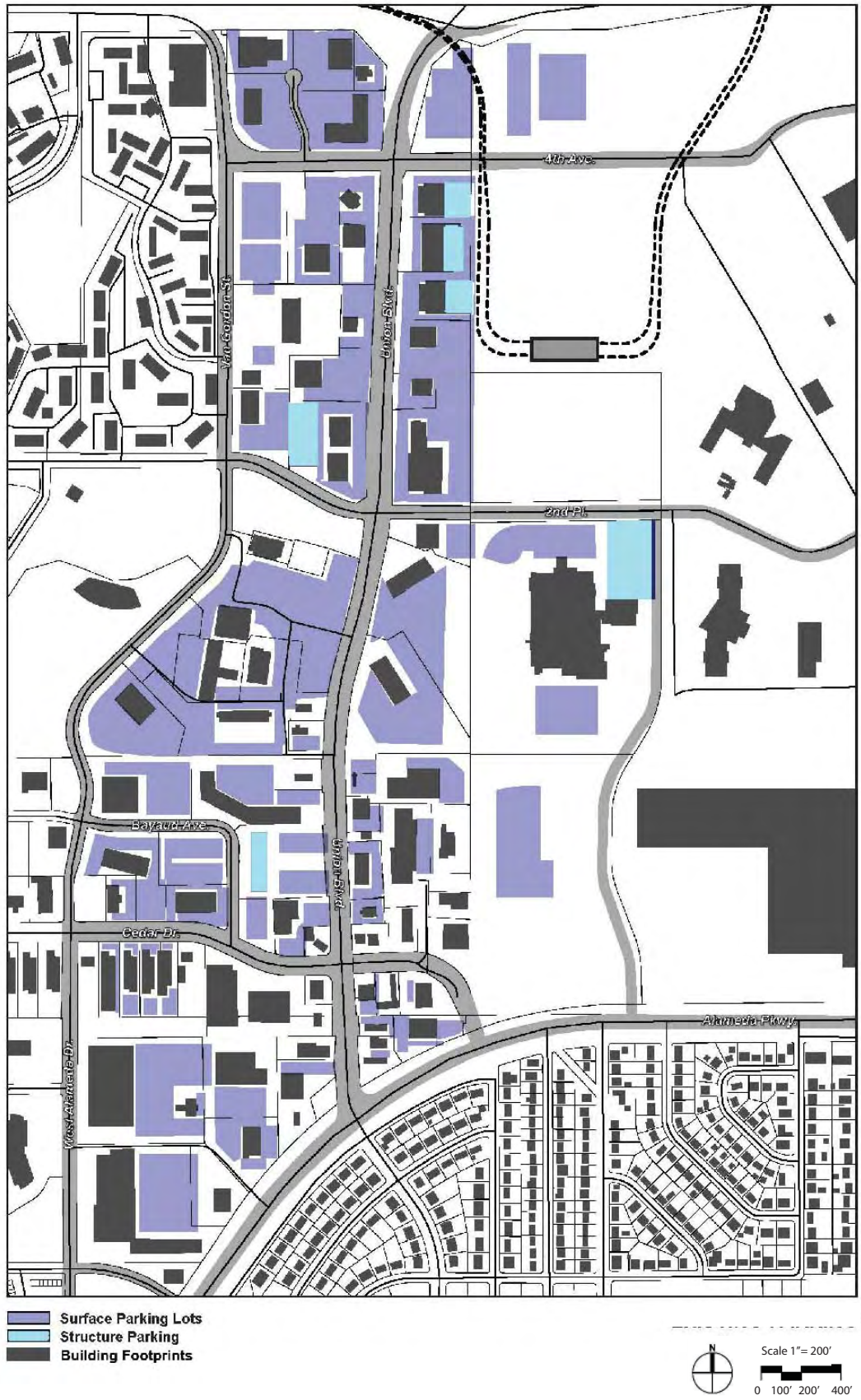


Figure 6 . Existing Parking

3. Today's Constraints and Opportunities



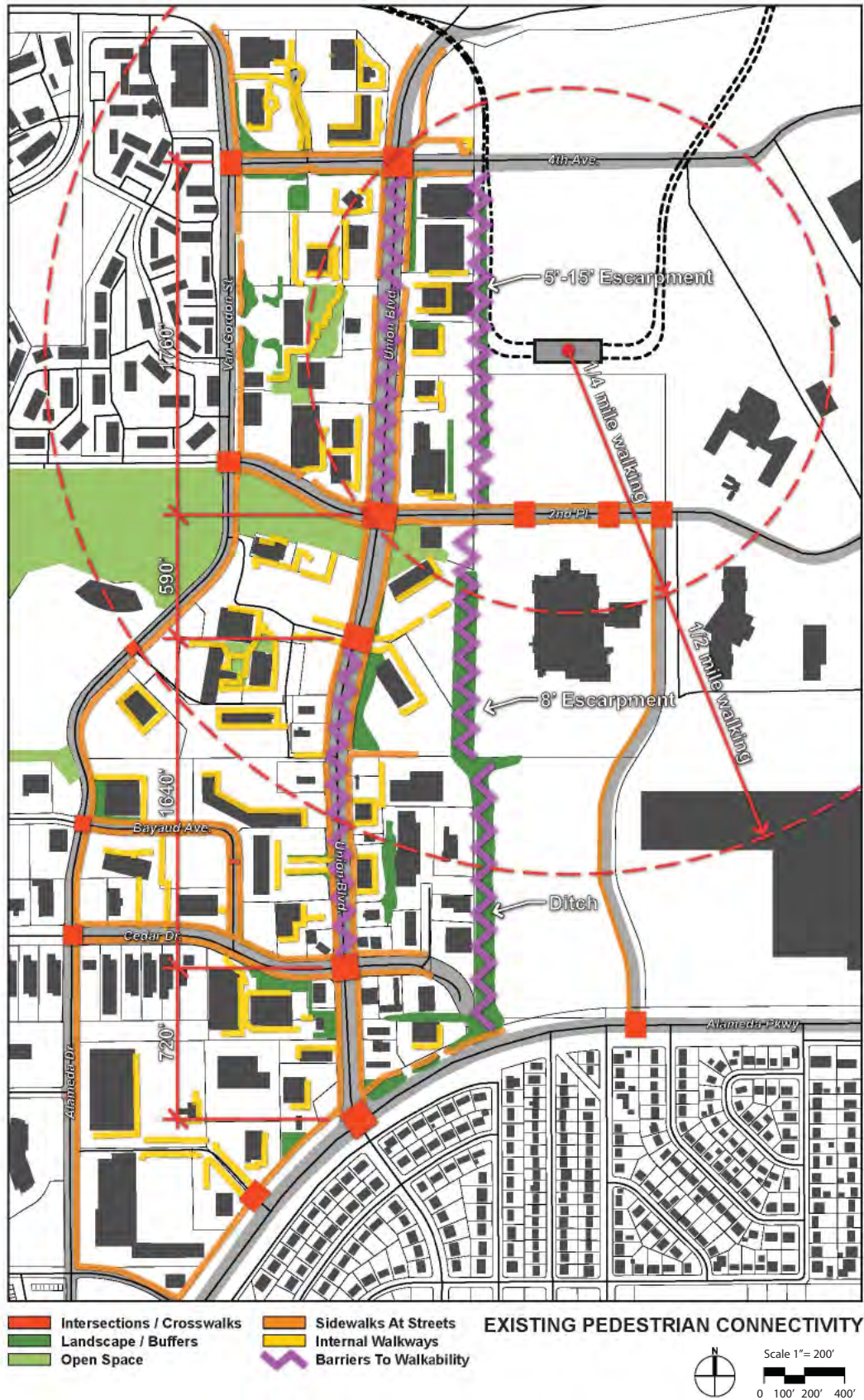


Figure 7. Existing Pedestrian Connectivity

3. Today's Constraints and Opportunities

## Opportunities

### REGIONAL LOCATION

Union Boulevard is well positioned to serve a number of markets including hospitality, medical, retail and commercial. The hotels in the Corridor get overflow bookings from downtown Denver events because they are closer to downtown than the Denver Tech Center. The advent of light rail will emphasize this close relationship. As one of the major urban centers in Lakewood, the Corridor is already mixed-use, providing fertile ground for new sustainable development. On the west side of Denver, the Corridor has more infill development potential than some other regional centers.

### LARGE PROPERTY OWNERSHIP

The Union Boulevard Corridor has relatively large parcels on large super blocks. Consolidated ownership could make it easier to organize block intensification through shared parking and access, organized pedestrian walkways and creation of memorable spaces through grouping of buildings (Figure 8). Fewer owners means that organizing improvement, metropolitan or parking districts could be simplified if that direction is taken.

### SUPERBLOCKS CAN BE INTENSIFIED

The large existing block sizes can accommodate parking structures in some cases, which are a necessary part of future developments in the Corridor. Many of the parcels have existing buildings which represent substantial investment and likely will be retained by their owners. Many of these land parcels also have room for additional building pads and/or structured parking (Figure 9). If owners of the large parcels collaborate, they can create significant focal open spaces,

which can further enhance the value of their properties.

TMU zoning requires less parking than other zone districts and encourages shared parking in order to create a transit and pedestrian-oriented environment.

### LIGHT RAIL SERVICE

The Federal Center Light Rail station is scheduled to open in 2013, providing new levels of regional access to businesses, households, visitors and others. Along with the LRT, RTD bus routes will be re-configured to better serve the station and surrounding trip generators, such as St. Anthony Hospital, the hotels and other properties. The light rail focus could work well with a shuttle service to connect the Corridor and the Federal Center to rail transit, as discussed on page 40.

### HOSPITAL CAMPUS

The hospitals and associated medical office buildings will bring several thousand employees, patients, visitors, vendors and others to the area. The hotels in the Corridor will benefit from family stays, especially if the hospitals and hotels can be more directly connected via pedestrian ways.

### POTENTIAL GSA DISPOSITION OF FEDERAL CENTER PROPERTY

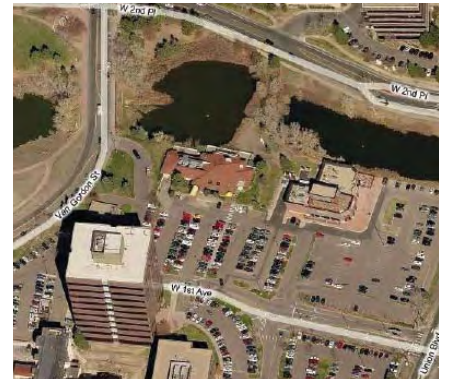
In addition to the 3.6 million square feet of new development that is anticipated on the Federal Center, the GSA is considering disposal of 40 to 60 acres immediately north of the transit station. This parcel, when built out, would bring several hundred residential units, office space and retail services to the immediate area.



Sheraton West Hotel



Potential area for intensification of commercial development

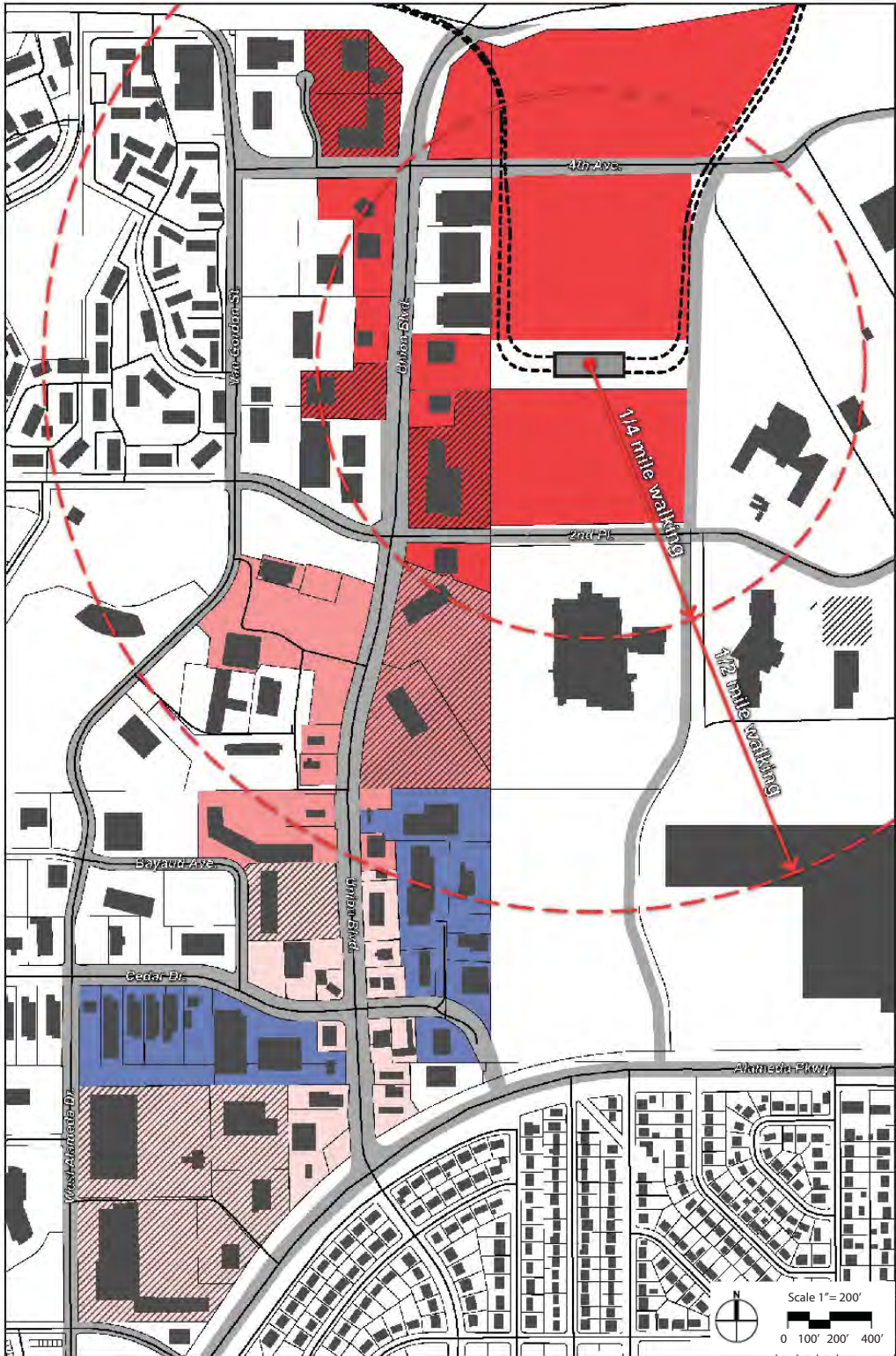


Restaurant parcel next to open space (Old Chicago and Tokyo Joes)



Potential infill site





-  Primary Commercial Development Opportunities (1/4 mi. Walking, Parking Lots Fronting Union Blvd. or Gateway)
-  Primary Commercial Development Opportunities (Site Intensification, Keeping Existing Buildings)
-  Secondary Commercial Development Opportunities (1/2 mi. Walking, Parking Lots Fronting Union Blvd.)
-  Secondary Commercial Development Opportunities (Site Intensification)
-  Tertiary Commercial Development and Intensification Opportunities (Small-scale Sites, Parking Lots Fronting Union Blvd., and Not Fully Utilized)
-  Tertiary Commercial Development Opportunities (Site Intensification)
-  Primary Industrial Development Opportunities (Underutilized, Improve Inter face Between This Area and St. Anthony Hospital)

Figure 8. Reinvestment Opportunities

**3. Today's Constraints and Opportunities**

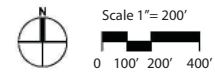


Figure 9. Existing Building Footprints

3. Today's Constraints and Opportunities



## 4. BRAND THE CORRIDOR: STREETScape ELEMENTS

### Establishing an identity for the Corridor

The Corridor’s identity will be established in large part by streetscape elements in the public realm. This includes lighting, signage, wayfinding and directional elements, informational signage, monumentation and other elements. The following pages convey a concept showing how these elements can be related to each other in color, design theme, appropriate scaling and materiality to set the visual stage for anticipated development, and to give the Corridor a memorable image and identity. Figures 10-14 illustrate some identity concepts and where they could be located in the district.

This concept is not a recommended design—that will be part of a branding program that includes specific designs and specifications for individual elements. Instead, this demonstrates how various elements can be used together to construct a tangible visual focus for the Corridor.

### The Family of Elements

A complete identity strategy involves implementing a coordinated design strategy for all the elements of the public realm. The approach illustrated on the following pages addresses these elements with a concept that can be taken further into detailed design, fabrication and construction. The concept can be implemented with a family of streetscape elements, open spaces and public realm improvements to include:

- Signage and Wayfinding Elements
- Street Design (typical sections)
- Intersection Design
- Pedestrian Crossings
- Pedestrian Walkways

- Street Furniture
- Lighting

It should be noted that the types of lighting and the tree and planting palettes can also be major factors in establishing the look and feel of the Corridor. These are only suggested here, not specified.

In addition, funding for these elements is not identified, but would likely come from one of the financing mechanisms described in the Implementation chapter.



Figure 10. Pedestrian Walkway Concept

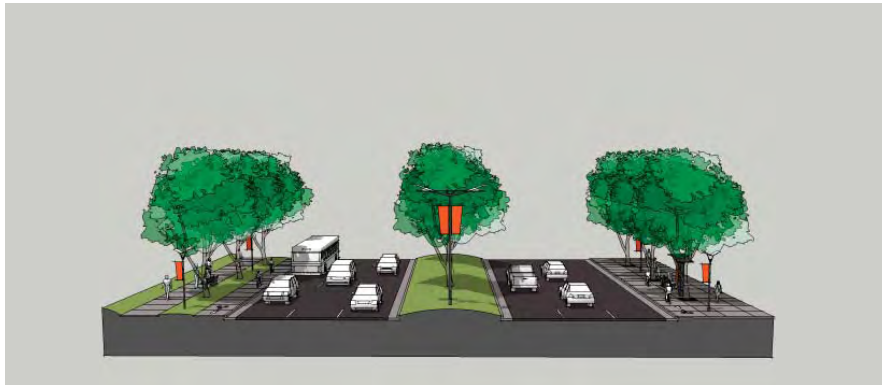


Figure 11. Street Design Concept



Figure 12. Intersection Design Concept



Figure 13. Signage and Wayfinding Elements Concept

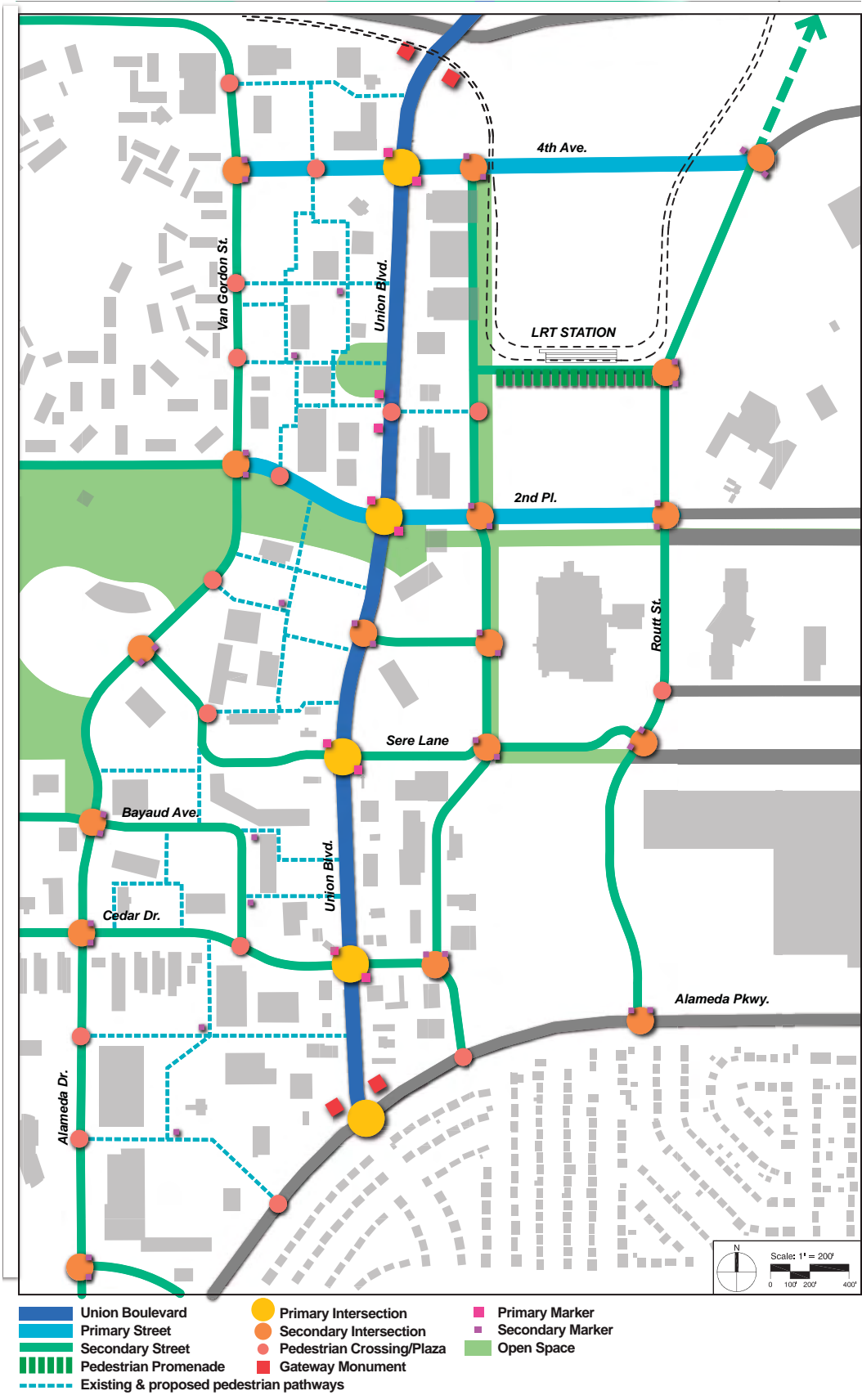
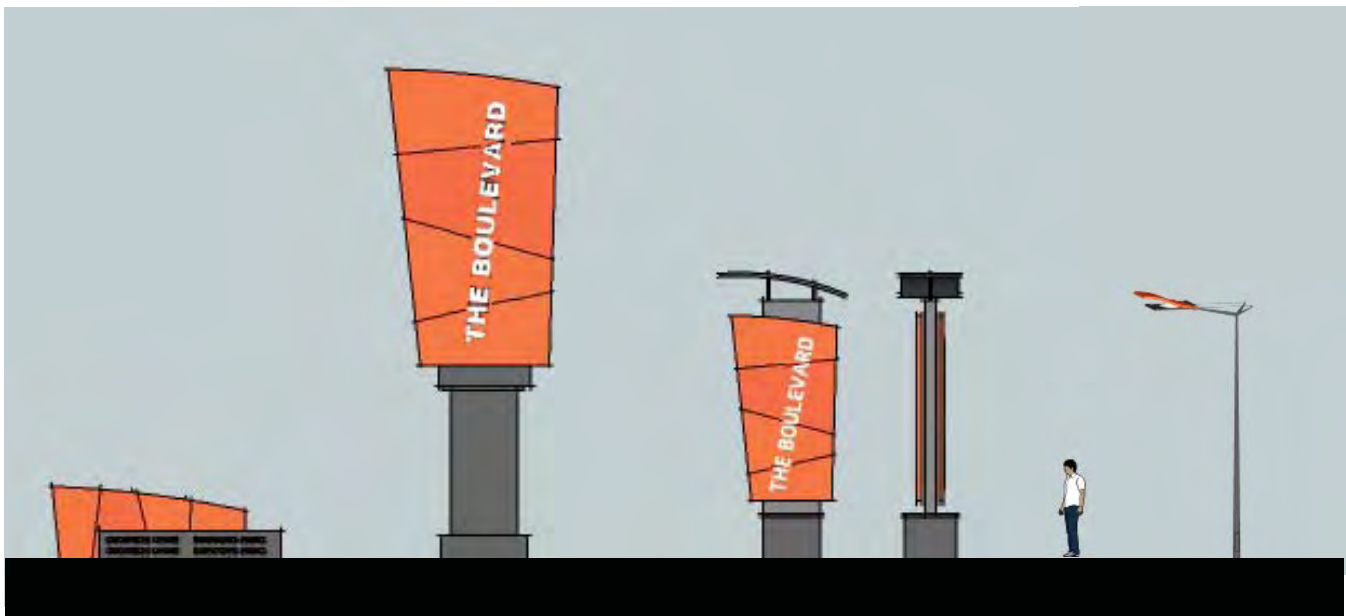


Figure 14. Open Space / Streetscape Concept

4. Brand the Corridor

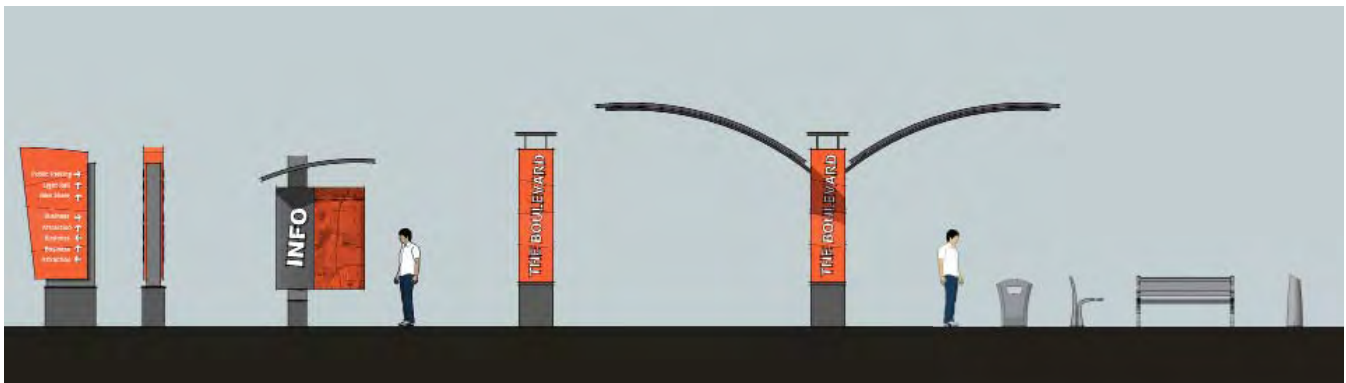


Business Addresses

Gateway Monuments

Primary Markers

Street Lighting



Directional Signage

Information Kiosks

Secondary Markers

Pedestrian Shelters

Street Furniture

Figure 15. Signage and Wayfinding Elements Concept

## Signage and Wayfinding Elements

The range of recommended elements includes signage on public and private property. Possible design concepts for these elements are illustrated in figures 15-20. Whatever final design is chosen, the elements should share a unified design approach in terms of materials, finishes, colors and architectural forms. The design recommendations for this concept are:

- **Typography:** Vehicular signage should be sans serif that meets ADA legibility guidelines. An example font that meets these criteria is Myriad Pro. Pedestrian signage should be a serif font such as Adobe Garamond Pro. Pedestrian signage can also be a font such as Zaphino.
- **Color:** High visibility colors consistent with good signage practice.
- **Materials:** Signage should be constructed of high quality and durable materials that require low maintenance; for example,

polished or weathered true bronze, brass or copper metal finishes are acceptable and encouraged.

- **Iconography:** Incorporate icons and topics that express the identity and branding of the Corridor.

**GATEWAY MONUMENTS**

These are major image builders for the gateways to the Corridor at 6th Avenue and Alameda Parkway. Gateway monuments should be of a size to be seen from some distance and provide a significant enough profile that people recognize this is a unique district. This signage should carry the brand name of the Corridor. The name that has been used to illustrate these designs is The Boulevard—others should be considered and may be chosen during the actual design phase. The monuments should be placed, if possible, in the public right-of-way. These monuments should be internally or externally lit for night-time visibility.

**PRIMARY MARKERS**

It is recommended that primary markers be placed in the public right-of-way at major east-west cross street intersections with Union Boulevard, such as at 4th Avenue, 2nd Place, Sere Lane and Cedar Drive. The size of marker indicates the relative importance of the cross streets. These markers also should be internally lit for visibility and should be combined with directional signage to direct people to attractions in the Corridor.

**SECONDARY MARKERS**

These markers should be located at secondary intersections along Union Boulevard and elsewhere in the Corridor, as shown in Figure 14 on page 14.

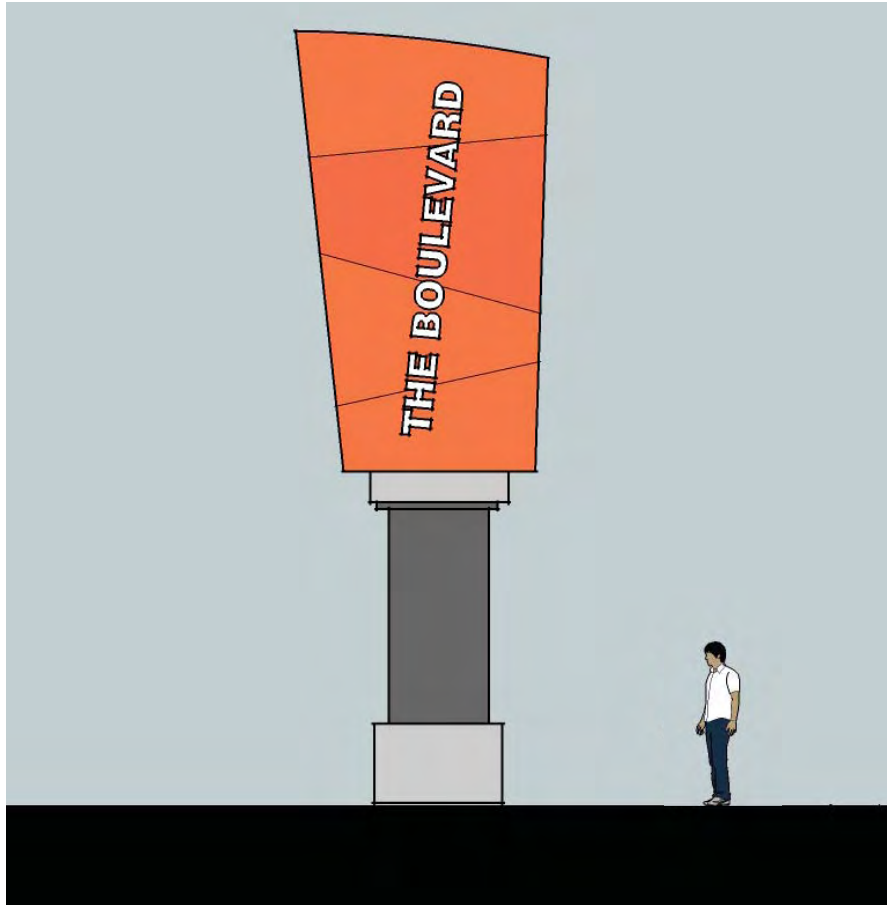


Figure 16. Gateway Monument Concept

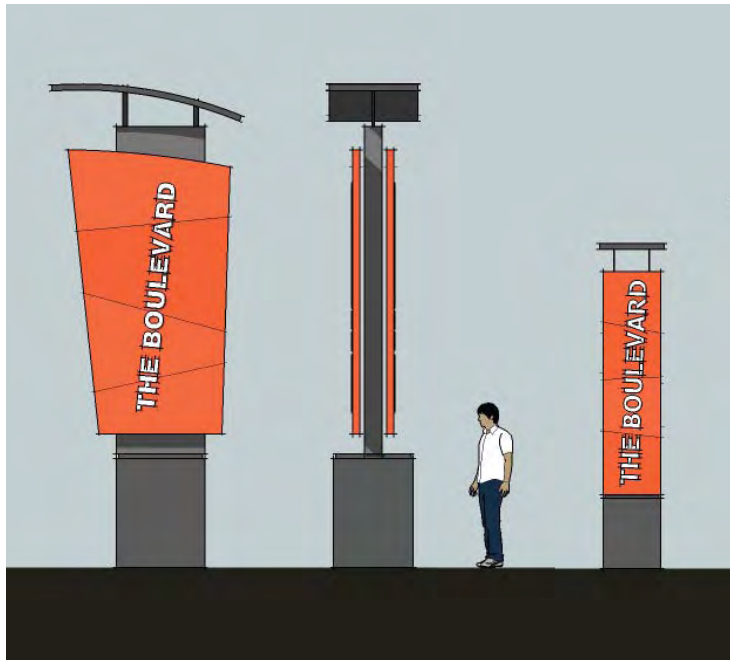


Figure 17. Primary Marker Concept

Secondary Marker Concept



## DIRECTIONAL SIGNAGE

This signage is oriented to pedestrians and drivers looking for directions to attractions such as the LRT station, the hospitals, the Federal Center, major business or commercial centers, public parking and other destinations. The signage should follow the typographical guidelines outlined on page 15. The signage at designated intersections should be designed to allow for changes to its content if new or different attractions are located nearby. Directional signage can be placed at Union Boulevard intersections such as at 4th Avenue and 2nd Place, major pedestrian walkways as appropriate and other street intersections in the Union Boulevard Corridor.

Directional signs should also work with parking areas as part of a parking/walking strategy. These signs should be placed at each major parking area to encourage people to park first, then walk and explore as a pedestrian. The signs should also typically be located along pedestrian routes. They should include international icons and symbols, such as for information, post office, restaurant and other destinations.

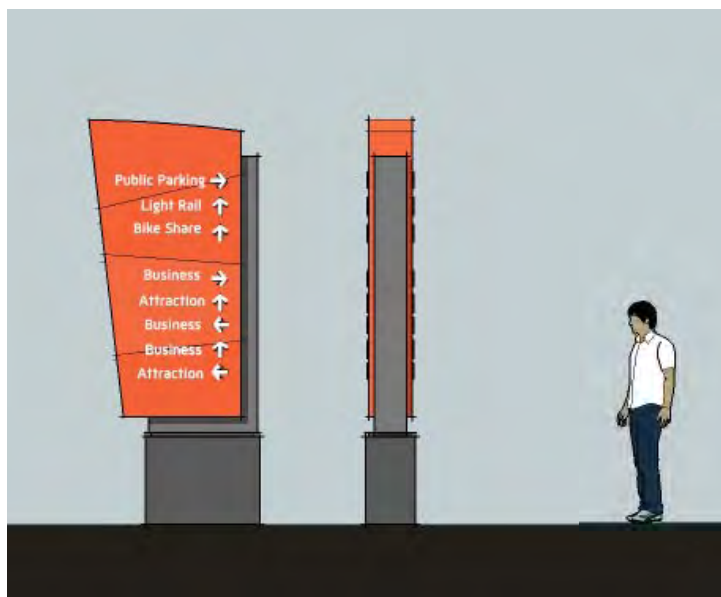


Figure 18. Directional Signage Concept



Figure 19. Directional Signage at Pedestrian Walkways Concept

## KIOSKS

Kiosks are meant to provide information and maps for the person on foot and to provide appropriate local detail on a given installation. They can be located at transition points between vehicular traffic and pedestrian zones. Here the visitor plans the next portion of a trip using a detailed map of the Corridor on one side with destinations, stores, restaurants, businesses and other attractions on a block by block level. A regional map on the other side of the kiosk provides information on regional transportation routes, the LRT, bicycle routes, bike share stations and other information.

## BANNERS AND CELEBRATION

Using traffic signal, pedestrian and street light poles, seasonal, event and celebration messages can be displayed to communicate activities within the Corridor. The colors of these elements should be coordinated with the more permanent signage and should avoid visual conflict or confusion with traffic.



Figure 20. Kiosk Concept

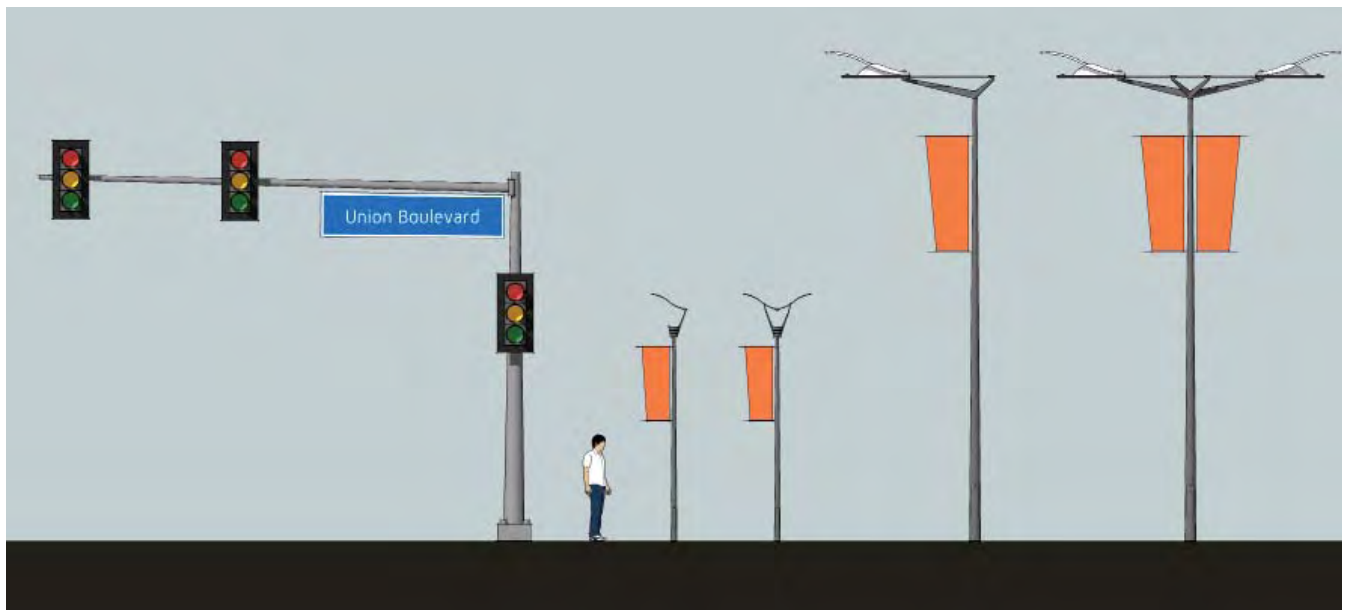


Figure 21. Banners and Celebration

## STREET FURNITURE

Street furniture includes pedestrian shelters, benches, trash receptacles, bicycle stands, drinking fountains, bollards and related pedestrian amenities. These elements should be provided at primary gathering spaces, including plazas, courtyards, gardens, transit stations, building entrances and at other appropriate locations along the Corridor. Streetscape furniture should be constructed of high-quality materials that complement overall project identity and material selections.

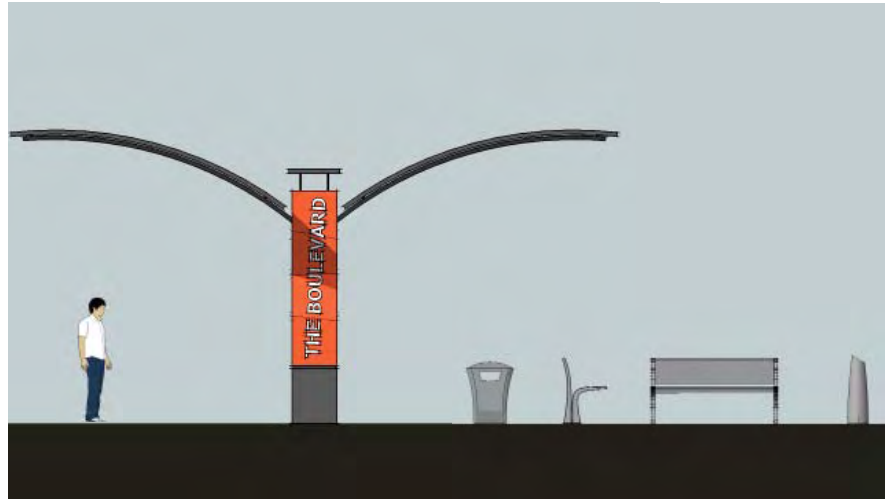


Figure 22. Street Furniture Concepts

## LIGHTING

Pedestrian-scale lighting should be compatible with the overall character of Union Boulevard. Fixtures should be coordinated with street tree layout and other overhead elements. Sidewalks, pedestrian walkways, and bicycle lanes should be lit with full cutoff lighting fixtures with a height of approximately 16 feet.

Parking areas should also be lit with full cutoff type lighting fixtures. Parking lot lighting should be no more than 25 feet tall and should reflect the overall character or design of the associated project. Additional information on lighting can be found in the Transit Mixed Use Zone District Development Manual, adopted by the City of Lakewood in October, 2007.



Figure 23. Pedestrian Lighting Concept



Figure 24. Parking Lot Lighting Concept



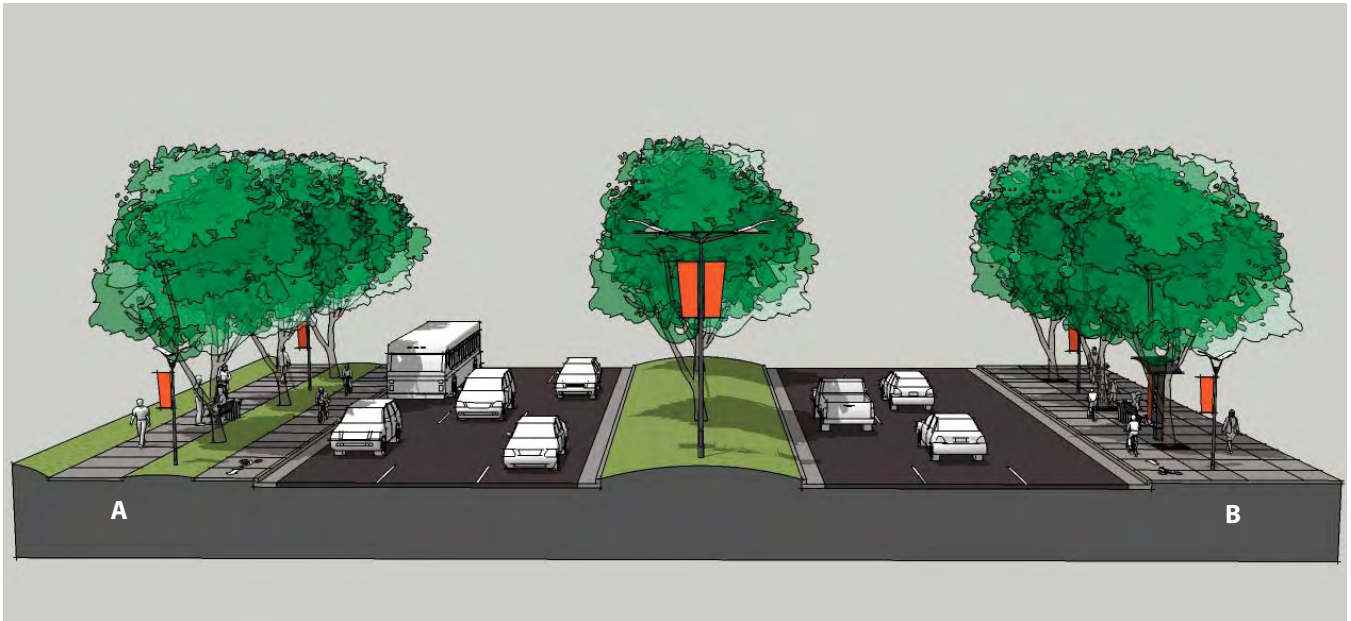


Figure 25. Union Boulevard Concept

## Street Design

### UNION BOULEVARD

Union Boulevard is the backbone of the Corridor. It sets the image and identity of the area, and so it is appropriate that the Connectivity Plan identifies the street as the focus for pedestrian sidewalks, cycle tracks, streetscape amenities and overall visual enhancement. It is critical that Union Boulevard projects a consistent image and identity along its length from 6th Avenue to Alameda Parkway. In the 115' right-of-way, there is ample room to retain today's six lane traffic configuration and turn lanes. Driveway access along Union Boulevard should be coordinated with the left turn lanes so that traffic flow is eased. The addition of a recommended north-south street between Union Boulevard and Rountt Street, coupled with east-west streets, should reduce the impact of additional traffic in the Corridor.

Along Union Boulevard, pedestrian sidewalks and cycle tracks should be continuous, connected and protected from vehicular traffic with landscape or other buffers. A continuous street tree planting program should transform the visually inconsistent environment into a leafy, shaded boulevard.

Figure 25 illustrates two acceptable alternatives for public right-of-way (A & B), which differ in street edge treatments. Type A contains a landscape buffer separating the cycle track from the sidewalk and the sidewalk from buildings and parking. The use of a landscape buffer should mitigate the visual impacts of the large buildings and parking lots.

Type B is applicable to active building frontages along the Corridor that contain uses such as retail, restaurant and/or commercial. This type of edge treatment encourages development to be placed

adjacent to the Union Boulevard sidewalk and cycle track, which contributes to creating an interactive urban street environment. Setbacks can also be created behind the sidewalk to provide active pedestrian spaces.

To help create a sense of place and bring coherence and unity to Union Boulevard, it is important to establish a consistent streetscape surface in all sidewalks along Union Boulevard. The Connectivity Plan recommends that the sidewalks be constructed of concrete. Use of light-colored, high-albedo (radiation reflectivity) paving materials should be encouraged, except for accent colors, in order to mitigate heat build-up.

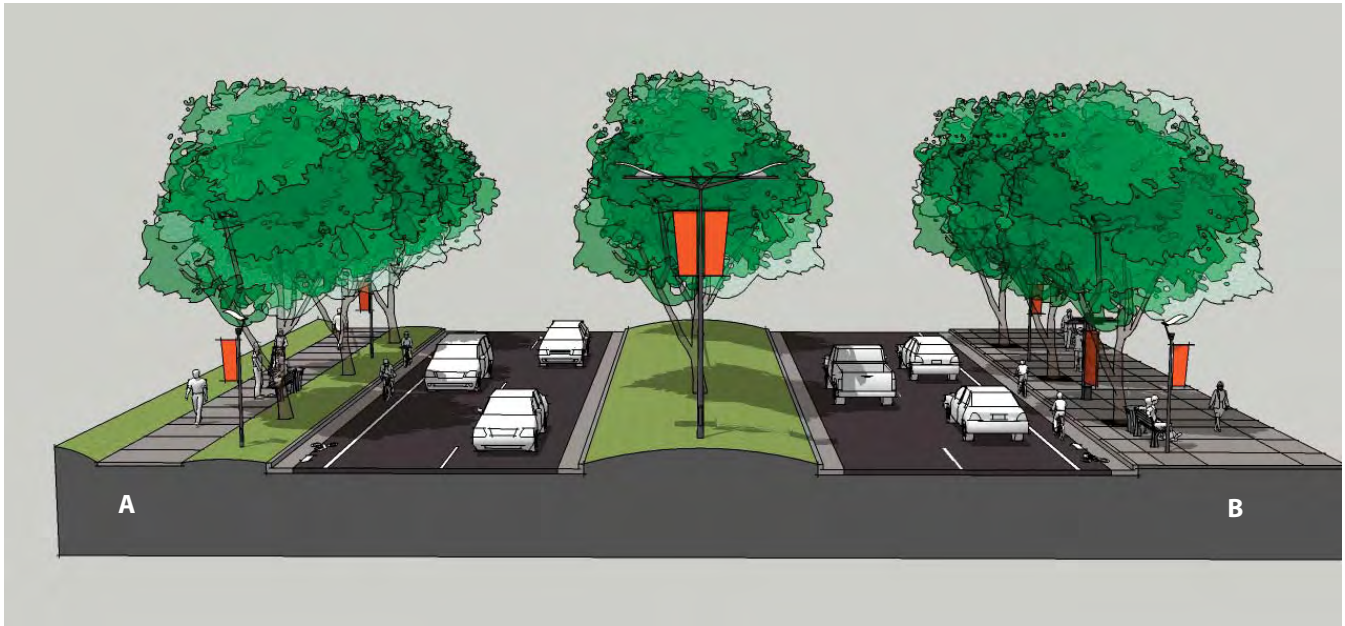


Figure 26. Primary Street Concept

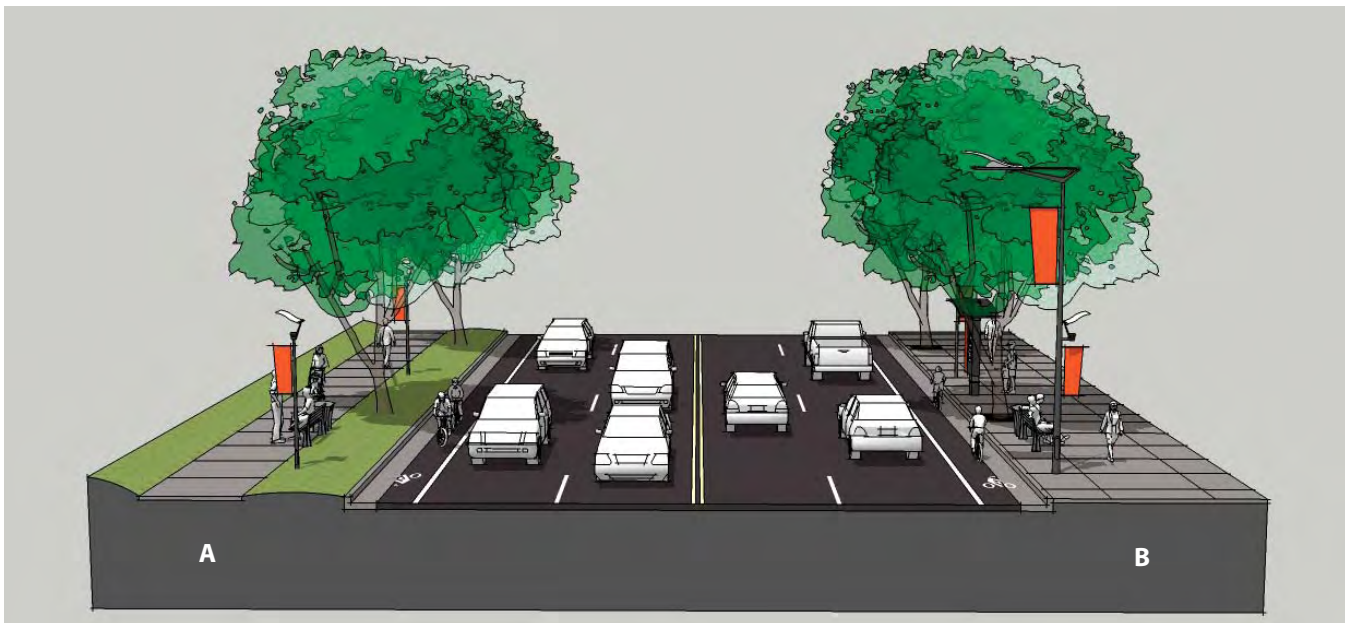


Figure 27. Secondary Street Concept

### PRIMARY STREETS

Primary streets are east-west streets, including 4th Avenue and 2nd Place, with four travel lanes, bicycle lanes, protected sidewalks and consistent landscape treatments. These streets have the critical role of providing access into the Corridor from Rountt and Van Gordon Streets and the proposed north-south street between Rountt Street and Union

Boulevard. Separated sidewalks protected by a landscaped buffer are recommended. These streets generally will have medians, either landscaped or painted.

### SECONDARY STREETS

These streets may be either two or four lanes. Two alternative designs, A & B are illustrated, with separated sidewalks and bicycle lanes.

The two alternative right-of-way treatments (A & B) for the primary and secondary streets carry the same principles as Union Boulevard, as described on page 20.





Figure 28. Primary Intersection Concept



Figure 29. Secondary Intersection Concept

## Intersection Design

### PRIMARY INTERSECTION

The primary intersections with Union Boulevard are at 4th Avenue, 2nd Place, Sere Lane, Cedar Drive and Alameda Parkway. At these locations, major streetscape elements should be provided, such as directional signage, directories, primary markers, special pedestrian crosswalk paving, traffic signals

and pedestrian street lights with banners. It should be noted that luminaires would be provided on the traffic signal mast arms and that new traffic signals would only be installed in locations where warrants are met.

### SECONDARY INTERSECTIONS

These are located at all other streets within the Corridor where there are currently (or may be in

the future if warrants are met) traffic signals, and generally four lane configurations. All streetscape elements shown would likely be located in the public right-of-way and/or in easements on private property.





Figure 30. Union Boulevard with HAWK Signal Crossing



Figure 31. Potential Future Major Pedestrian Crossing

## Pedestrian Crossings

### PEDESTRIAN CROSSINGS AT UNION BOULEVARD

The Connectivity Plan recommends a pedestrian crossing near 264 Union Boulevard. This crossing, shown in Figure 30, is a recommended High Intensity Activated Crosswalk (HAWK) signal, which is a pedestrian-actuated signal that activates a traffic signal in synchronization with

the progression of traffic signals on Union Boulevard. This signal would allow for a pedestrian to cross as needed, but would not be as detrimental to the flow of traffic on Union Boulevard as a signalized intersection.

Figure 31 shows a potential future Union Boulevard crossing that would be envisioned as part of the pedestrian promenade illustrated on page 24. The

design would upgrade the HAWK location and could include a wide pedestrian crosswalk, with special paving treatment to alert drivers that this is a pedestrian place of some importance; a visual cue to drivers to slow down. This would only be built in conjunction with major redevelopment of the properties located directly west of the LRT station. The crossing would connect directly with the Pedestrian Promenade at the LRT station.



Figure 32. Pedestrian Promenade

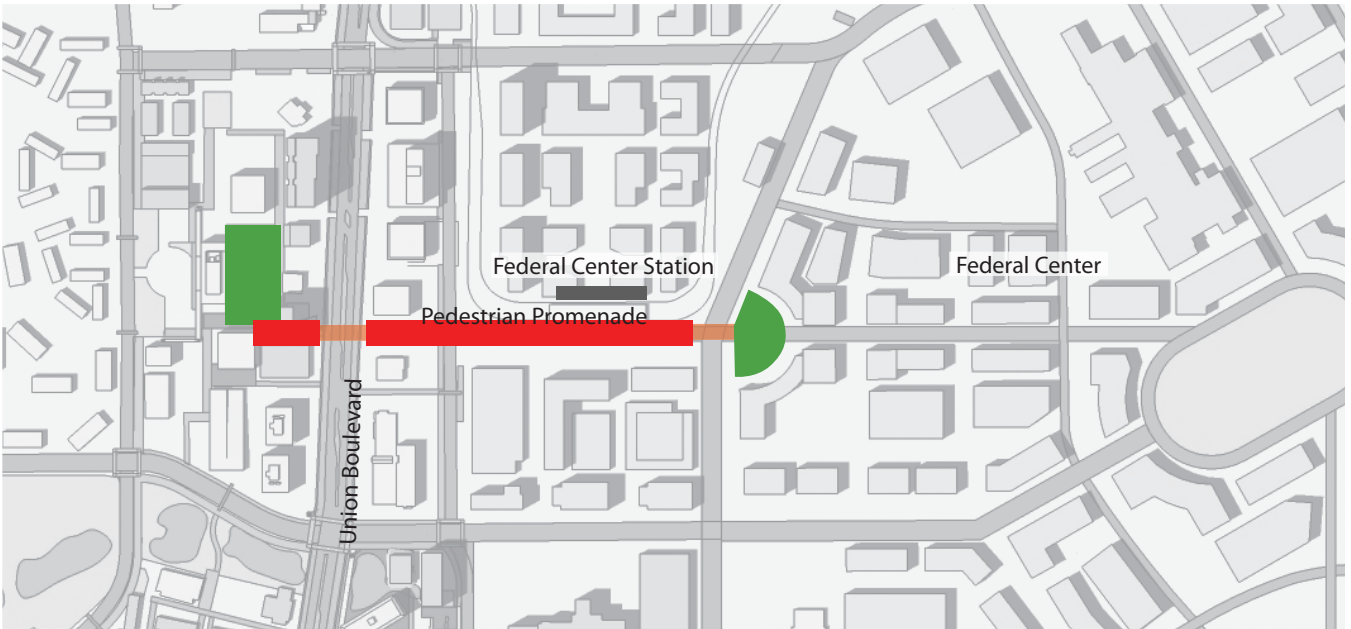


Figure 33. Possible Location of Pedestrian Promenade

**Pedestrian Walkways**

**PEDESTRIAN PROMENADE**

The Federal Center Station is the focal point of the Corridor for access, and it should be distinguished by a significant pedestrian promenade connecting Union Boulevard to the station. This direct pedestrian access should encourage RTD ridership and should visually signal that

this is the pedestrian center of the Corridor.

In the long term, a major urban design feature of the Corridor could be an active public space created by the Pedestrian Promenade. In its ultimate form, it would be a wide, shaded pedestrian plaza with streetscape amenities beginning in front of the transit station as a circulation

space for transit riders and others. From there it would connect west to Union Boulevard through a redeveloped private parcel, then cross Union Boulevard and connect to a park on the west side of Union Boulevard.

The Promenade would connect to the east into the Quad and Campus illustrated in the Federal Center Master Plan. (Figure 33)

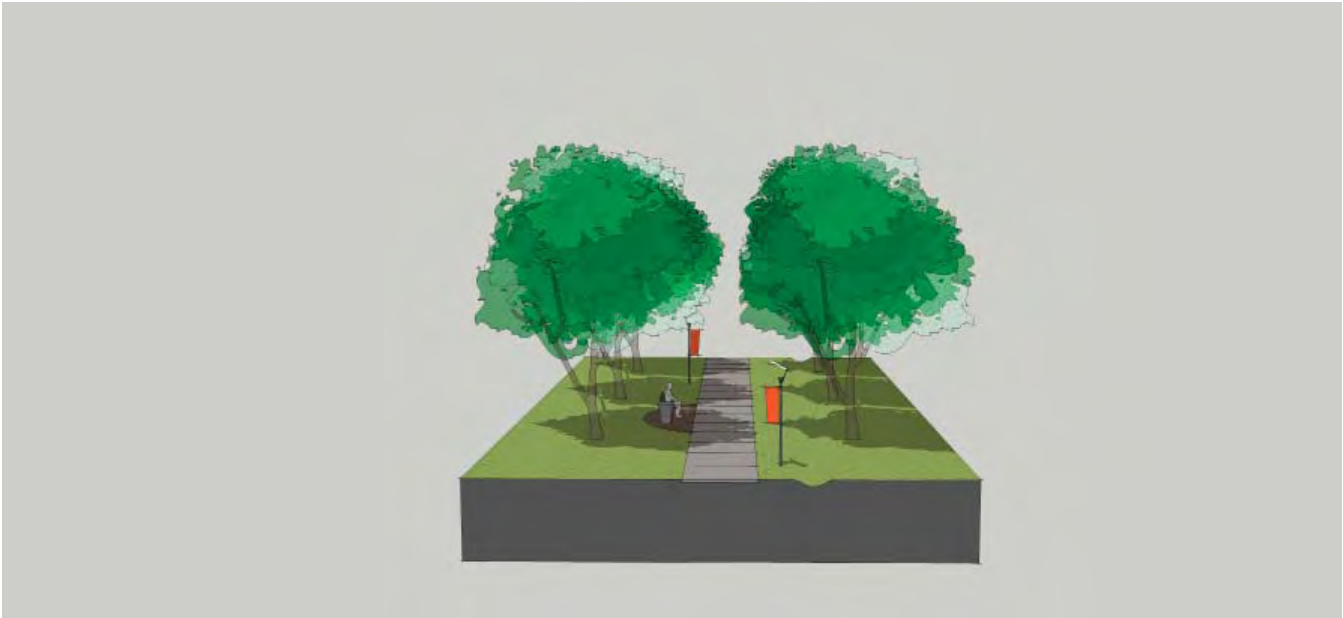


Figure 34. Pedestrian Way (A)



Figure 35. Pedestrian Way (B)

**PEDESTRIAN WAY (A)**

The pedestrian ways (A) are pedestrian-only paths through or between surface parking areas within the Corridor. These would help connect parcels and provide convenient walking routes for exercising, walking to the transit station or Union Boulevard. These would also provide safe, lighted walks through large parking areas to office and hotel buildings. The

greenway prototype shown has landscape buffers on each side, along with tree shading that would help create restful locations throughout the Corridor.

**PEDESTRIAN WAY (B)**

This version of the pedestrian way (B) differs only in that it would be narrower and could be located closer to parking areas. For people who park close to these

pedestrian ways, this provides an easy way to access a shaded walkway leading to a restaurant or workplace.



## 5. GUIDING DEVELOPMENT TO SHAPE THE CORRIDOR

### Purpose and Benefits of the Guidelines

These basic Design Guidelines are intended to help guide developers and architects through the process of creating a pedestrian-friendly, visually cohesive and economically viable corridor. These Guidelines are meant to assist owners and developers in making basic site planning and building planning decisions. Therefore, they are a short form of guideline that can be expanded upon in the future, to more completely address the many building and site design decisions that must be made in a new development project. The purpose of the guidelines is to guide the physical development of the Union Boulevard Corridor by:

- Establishing a Union Boulevard identity and vocabulary of design elements.
- Creating and maintaining a standard of development quality that will sustain real estate values.
- Promoting consistently high levels of design quality while allowing for diversity and variety in the design of individual projects.
- Assisting City staff, planners, designers, developers and owners in making consistent choices that reinforce the vision of the Union Boulevard Corridor.

### Site Intensification

Union Boulevard's future as an attractive, walkable district means the current environment of widely-spaced buildings surrounded by surface parking needs to evolve into a more intensely developed environment. Buildings should be closer together, and most of the parking should be in structures. The introduction by TMU zoning of lower parking requirements and shared parking should help intensify development along the Union Boulevard Corridor.

### Site Planning

#### VEHICULAR ACCESS

Vehicular access should safely and conveniently meet the needs of the users and businesses along Union Boulevard, while contributing to the pedestrian environment. New street connections are needed to create a complete network of access in the Corridor and to reduce the increase in traffic along Union Boulevard.

- Vehicular entrances and exits into businesses along Union Boulevard should be coordinated to minimize traffic obstruction and improve pedestrian and bicycle safety.
- Where possible, vehicular access to parking areas should be via side and rear streets, rather than Union Boulevard.
- To maximize pedestrian safety and calm the speed of entering traffic, access drives should be designed at the minimum width to accommodate intended vehicles.
- Consideration should be given to the separation of resident/employee/customer parking and commercial vehicle operations including trucking and delivery.

#### PARKING

As the district intensifies, parking structures should replace surface parking to create sites for new buildings.

- Sloping floors and facades of parking structure ramps should not be exposed to public view from outside the structure.
- Where possible, keep parking structures to the interior of the blocks, hidden from Union Boulevard, or subservient to new and existing buildings.
- Provide active pedestrian-oriented public uses integrated with retail, restaurants and office on ground floors of parking structures fronting Union Boulevard.
- Minimize negative visual impacts of parking structures by using finish materials and details that are architecturally compatible with surrounding buildings and uses.
- Where possible, wrap parking structures with commercial or residential uses.



Uninterrupted active street frontage.



Attractive and walkable environment



Parking access via side and rear streets



Wrapped parking concept



## PEDESTRIAN ACCESS AND WALKWAYS

New buildings should respect and be oriented to the pedestrian ways delineated on the plan, and to surrounding streets. The pedestrian ways break the superblocks into more walkable, pedestrian-friendly blocks. Generally, pedestrian ways are indicated along property lines, although they traverse large parking areas in some cases.

- Pedestrian ways should create a fine network allowing multiple connections to neighboring blocks.
- Pedestrian ways should be visually interesting, attractively landscaped and easy to navigate, even through parking areas.
- Pedestrian ways should provide amenities such as benches, lighting, decorative paving and landscaping.

## Building Guidelines

### BUILDING HEIGHT AND MASSING

Building height and massing should create an exciting, urban-scale, comfortable and pedestrian-oriented corridor by scaling buildings accordingly. Building design should also be supportive of a multi-modal transportation environment.

- Buildings in the Union Boulevard Corridor should not exceed 12 stories per TMU zoning.
- Building walls facing Union Boulevard should provide interesting and comfortable human scale relationships through modulation of building massing of surfaces and forms.
- Building corners at street intersections should be enhanced through special corner treatments such as towers, unique roof shapes and taller building sections.
- Architectural details should be provided at eye level to help ground the building and engage pedestrian interest.



Figure 36. An example of well-designed raised crosswalks



Attractive pedestrian ways



Interesting and human scale relationships of buildings



Well-landscaped pedestrian way



Modulation of building massing



Well-articulated architectural details



Building corner treatment



### SETBACKS AND BUILD-TO LINES

To activate Union Boulevard, more buildings should face onto the Boulevard with fewer parking lots located in front of buildings. To the extent possible, buildings with a close relationship to the street should have main entries facing Union, with parking located behind or within the buildings.

Buildings should be built as close to Union Boulevard as possible, recognizing that Union Boulevard pedestrian and bicycle amenities are envisioned.

- Any setback area created along the building frontage facing Union Boulevard should be used for outdoor dining, building entries, small patios or other active uses.
- Minor setbacks may also be considered to allow façade variations such as columns and other architectural elements.

### Site Development

#### STREETSCAPE AND LANDSCAPE

Streetscape design should achieve a high degree of pedestrian comfort and intimate scale using plant and hardscape materials, color, form, texture and other means to communicate a unique identity for the Union Boulevard Corridor, as described in Section 4. Streetscape elements including street trees, street furniture, signage, wayfinding elements, and public art will help establish the distinctive image of Union Boulevard and emphasize the pedestrian environment.

- Streetscape elements should be of high quality, durable materials and should be constructed of recycled materials when possible.
- Street furniture should contribute to the pedestrian-friendly environment by encouraging activity and interaction among pedestrians and promoting a positive corridor identity.

- Wayfinding signs should be clear and concise and provide appropriate directional information.
- Wayfinding elements including gateway monuments and entry markers should be installed at major intersections and pedestrian crossings to unify district character.
- Street trees, shrubs, accents and ground covers should be compatible with the local climate, drought tolerant and should provide significant shade value for pedestrians.
- A well-landscaped separation between pedestrians and roads should be promoted.



Integrated site furnishing to promote outdoor use



Using landscape to unify district character



Building setback areas used for outdoor dining



Unify the district through public art



Building entries oriented to the street



Well-landscaped streetscape



## LIGHTING

Lighting should create a safe, welcoming environment during the evening and create a nighttime ambiance of color, texture and mood that will draw people to the area and encourage them to spend time there. Lighting elements should also promote a unique identity for the area and unify the district character.

- Lighting should be used to enhance and emphasize activity at the street, such as sidewalk cafes, window shopping and display of goods.
- The impact of lighting on the night sky should be minimized by a variety of techniques including cutoff and downward facing fixtures.
- Pedestrian walkways and other outdoor pedestrian areas should be lit to meet security needs.
- Exteriors of parking structures should not be lit except entrances, exits, signage. The parking structure lighting should not be used to enhance the architecture.

## Sustainability

The environmental characteristics of the Corridor that the Design Guidelines promote are:

- Shade and comfort for the pedestrian, especially during the summer months.
- Street appeal and drive-by attractiveness, appealing to a wide range of visitors through architectural treatment, lighting, landscape and signage.
- Urban space of the Union Boulevard Corridor defined by the buildings and streetscape on either side of the street.
- Low water/xeric landscaping.
- Design for alternative modes of transportation.

## SUSTAINABLE DESIGN

The object of sustainable building and site design is to promote design solutions for minimal

environmental impacts, resource conservation, energy conservation, waste reduction and use of recycled material. Sustainable design techniques should be considered when designing each site and building, promoting integrated design practices that sustain the project economically, environmentally and culturally. The following should be considered for development along the Corridor:

- Optimal solar orientation/access
- Building articulation/fenestration for minimizing solar heat gain and shading
- Shading: shade trees & shading structures in the form of awnings and canopies
- Use of regional materials
- Use of renewable materials such as recycled aluminium
- Water efficient landscaping and irrigation practices
- High-albedo paving (solar radiation reflectivity) coordinated with public streetscape
- Amenity decks/green roofs
- Photovoltaic panels on roofs and parking decks
- Light pollution control
- Light-colored roofs
- Bicycle parking and amenities



Distinctive lighting element



Active and well-lit streetscape



Incorporation of xeric vegetation with streetscape



Shading structures for pedestrians



Bicycle parking facilities

## 6. WALKABILITY IS A PRIMARY VALUE

### Breaking Down the Superblocks - Creating a Block-Scale Environment

Breaking down the scale of the blocks is one of the most important actions in making the Corridor more walkable. Block size does matter, as shown in some of the most successful US downtowns. Small scale translates into walkability. Portland, Oregon is considered one of the most pedestrian friendly cities in the country. Portland's blocks are among the smallest of US downtown blocks at 200' x 200' (Figure 38) with strong connectivity and street-level pedestrian interest. The diagrams illustrate the Corridor's superblocks (one of them 1700' between pedestrian crosswalks) compared to Belmar (Figure 39) and downtown Denver blocks (Figure 40).

30

The recommendation is to create smaller blocks by connecting some streets that are not now connected to each other, and creating a finer grain network of pedestrian walkways through the middle of these blocks, as shown in the diagram on page 33.

The concept of breaking down the superblocks by creating new streets and/or pedestrian connections is anticipated to be implemented primarily through private development and redevelopment.



Figure 37. Union Boulevard

Note: All diagrams on pages 30 and 31 are at the same scale.

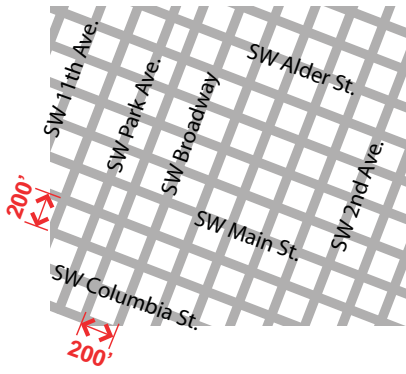


Figure 38. Downtown Portland



Downtown Portland

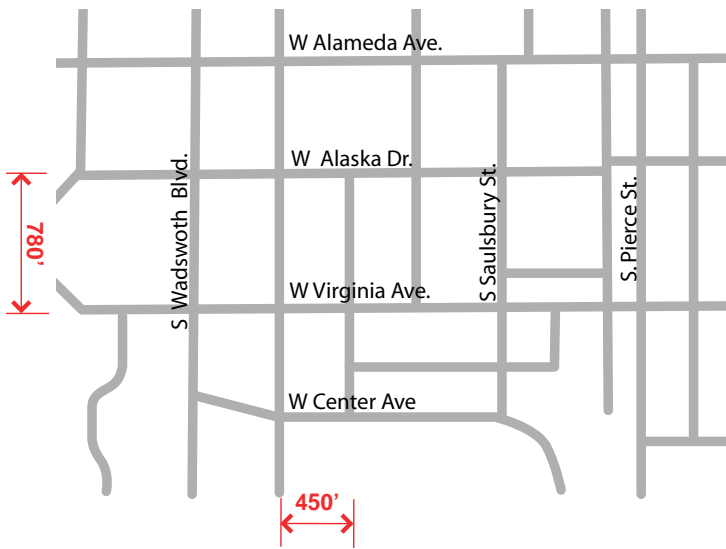
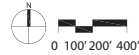


Figure 39. Belmar



Downtown Portland



Belmar

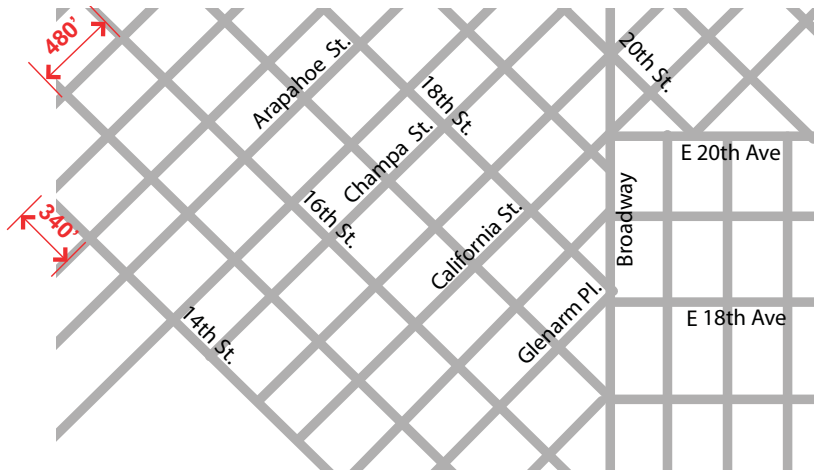
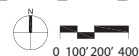


Figure 40. Downtown Denver



Downtown Denver



## Pedestrian Crossings of Union Boulevard

There are five pedestrian crossings of Union Boulevard in the study area, equipped with countdown timers. Two additional types of crossings are planned for Union Boulevard, as shown on pages 22 and 23:

- A sixth pedestrian crosswalk is planned south of 264 Union Boulevard, activated by a pedestrian-actuated HAWK signal. The City of Lakewood has engineered this crosswalk to connect directly to the LRT station and funding is available to build the connection with property owner agreement.
- Enhanced intersections at traffic signals at 4th Avenue, 2nd Place, midway between Sere Lane and 2nd Place, Sere Lane, and Cedar Drive.

A long range vision includes the potential of a pedestrian promenade extending directly west of the transit station if the commercial properties on the east side of Union Boulevard are redeveloped. This would create the opportunity for an enhanced pedestrian walkway aligned with the transit pedestrian plaza, connecting with the park on the west side of Union Boulevard.

## Maximizing Pedestrian and Bicycle Access

Being near the Federal Center Light Rail station is the Corridor's main advantage as it develops in the future. However, these benefits will not be fully realized unless access to the station is direct and easy for pedestrians, bicyclists and drivers. The station is located directly east of the Union Boulevard Corridor. The street grid recommendations discussed on page 34 will help provide more direct access to the station from 2nd Place and Routt Street.

Pedestrian and bicycle access to the station from Union Boulevard is being addressed through design and construction of a sidewalk and ramp to be located south and east of 264 Union Boulevard. This connection will be combined with a new pedestrian crossing at Union Boulevard to provide access from the west side of the Corridor.

If development intensification occurs on the 264 Union Boulevard parcel and/or adjacent parcels, this would provide the opportunity to develop an enhanced pedestrian promenade directly to the LRT station.



Successful Pedestrian Crossings

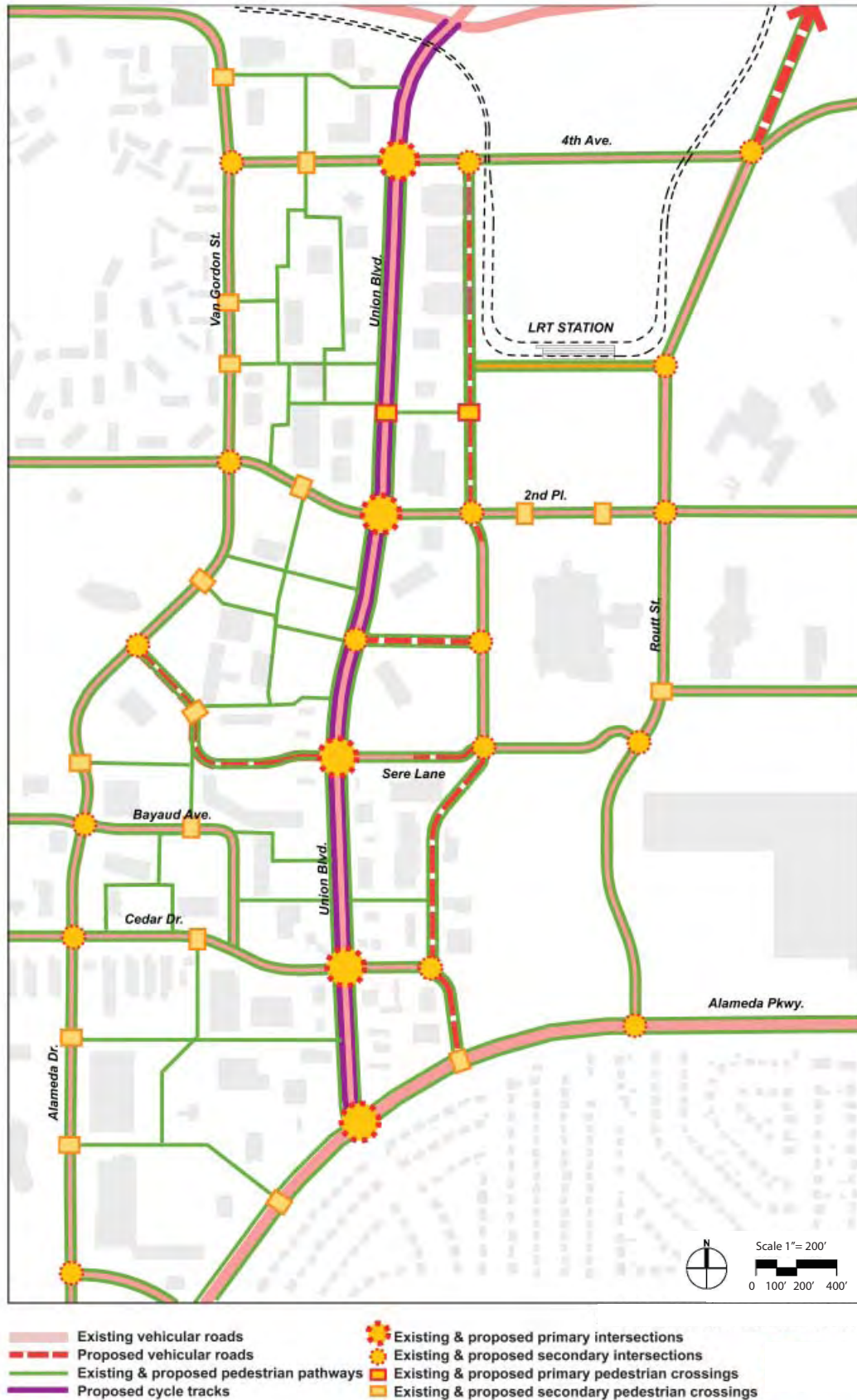


Figure 41. Pedestrian and Bicycle Framework

6. Walkability is a Primary Value

## 7. CONTEXT-SENSITIVE TRANSPORTATION SOLUTIONS

### Improving the Corridor's Carrying Capacity

New streets, alignments and connections are needed to create a framework for the Corridor that can accommodate anticipated development without overloading traffic on Union Boulevard. These connections should provide a grid network of options for drivers, keeping much of the internal traffic off Union Boulevard, and providing better access to development parcels off Union Boulevard. Figure 42 illustrates the existing street network, which forces most traffic onto Union Boulevard. The map also illustrates the new street and connection recommendations, which the city should encourage as properties develop or redevelop. Recommended connections include:

**A.** Upgrade Union Boulevard pedestrian and bicycle amenities to include new intersection designs as shown in Figure 42, and a new pedestrian crossing north of 2nd Place, which the City has designed. In coordination with the new sidewalks and cycle tracks proposed in the Connectivity Plan, drives into businesses along Union Boulevard would be coordinated to minimize traffic obstruction and to enhance pedestrian and bicycle safety. As mentioned elsewhere in this report and in the Connectivity Plan, the recommended streetscape elements and landscape improvements would establish a more consistent look and feel for Union Boulevard.



A. Street Improvement : Union Boulevard

**B.** New north-south street between the Cedar Drive extension and 4th Avenue, approximately along the St. Anthony Hospital and RTD property lines. This street is critical to improving north-south Corridor circulation, as it is close to Union Boulevard, so would provide a good alternative especially for short vehicle trips within the Corridor. Recommendation B consists of B1, B2 and B3.



B1. New Private Street: North-south street from 2nd Place and 4th Avenue

**B1.** Private north-south street from 2nd Place to 4th Avenue: This segment would run north-south on private property near the eastern property line of the parcels facing Union Boulevard. On the southern half, the street would be unobstructed. On the northern half it would run behind the Sheraton West and other buildings, with the potential of re-structuring the parking shelves that now run over the informal service access that would be the right-of-way for the street.

**B2.** North-south Street from Sere Lane to 2nd Place: This segment would consist of an upgrade to city standards of the existing north-south road along the west edge of the St. Anthony Hospital, Healing Way. The street should connect directly to the segment to the north at 2nd Place.



B2. Street Improvement: North-south street from Sere Lane to 2nd Place



**B3.** Cedar Drive to Sere Lane: A new intersection at Cedar Drive, with the new north-south street incorporating the city-owned strip of property in the block. At the north end of the segment, the street would curve east and north to connect directly with the next segment north of Sere Lane (Healing Way).



**B3. New Street:** North-south street from Cedar Drive to Sere Lane

**C.** Extension of Cedar Drive east of Union Boulevard curving down to Alameda Parkway. This should take substantial traffic off the Union/Alameda intersection for traffic entering the Corridor from the east along Alameda Parkway.



**C. Street Extension:** Cedar Drive to West Alameda Parkway

**D.** Connection of Sere Lane from Union Boulevard east into the St. Anthony parcel to connect to Routt Street across the southern side of St. Anthony Hospital. This will provide alternative access to Union Boulevard from Routt Street.



**D. Street Extension:** Sere Lane from Union Boulevard to St. Anthony Hospital

**E.** Extension of Sere Lane from Union Boulevard to Van Gordon Street across the existing parking lots south and west of the hotel complex. This should make the hotels more accessible from Union Boulevard and Van Gordon Street.



**E. Street Extension:** Sere Lane from Union Boulevard to Van Gordon Street

**F.** New east-west street through the Lake Plaza parcel between Union Boulevard and the proposed north-south street west of St. Anthony Hospital. This access should give Lake Plaza new visibility and access and provide St. Anthony with a direct connection from its front door to Union Boulevard. This street also connects to the new north-south street that is proposed to be continuous from Alameda to 4th Avenue.



**F. New Street: East-West Street from Union Boulevard through Lake Plaza Parcel**

**G.** Routh Street extension would provide an alternative route to the area from the north, which would help relieve traffic along Union Boulevard. Better pedestrian and bicycle access should also be facilitated across 6th Ave.



**G. Street Extension: Routh Street Extension from 4th Avenue to the north**

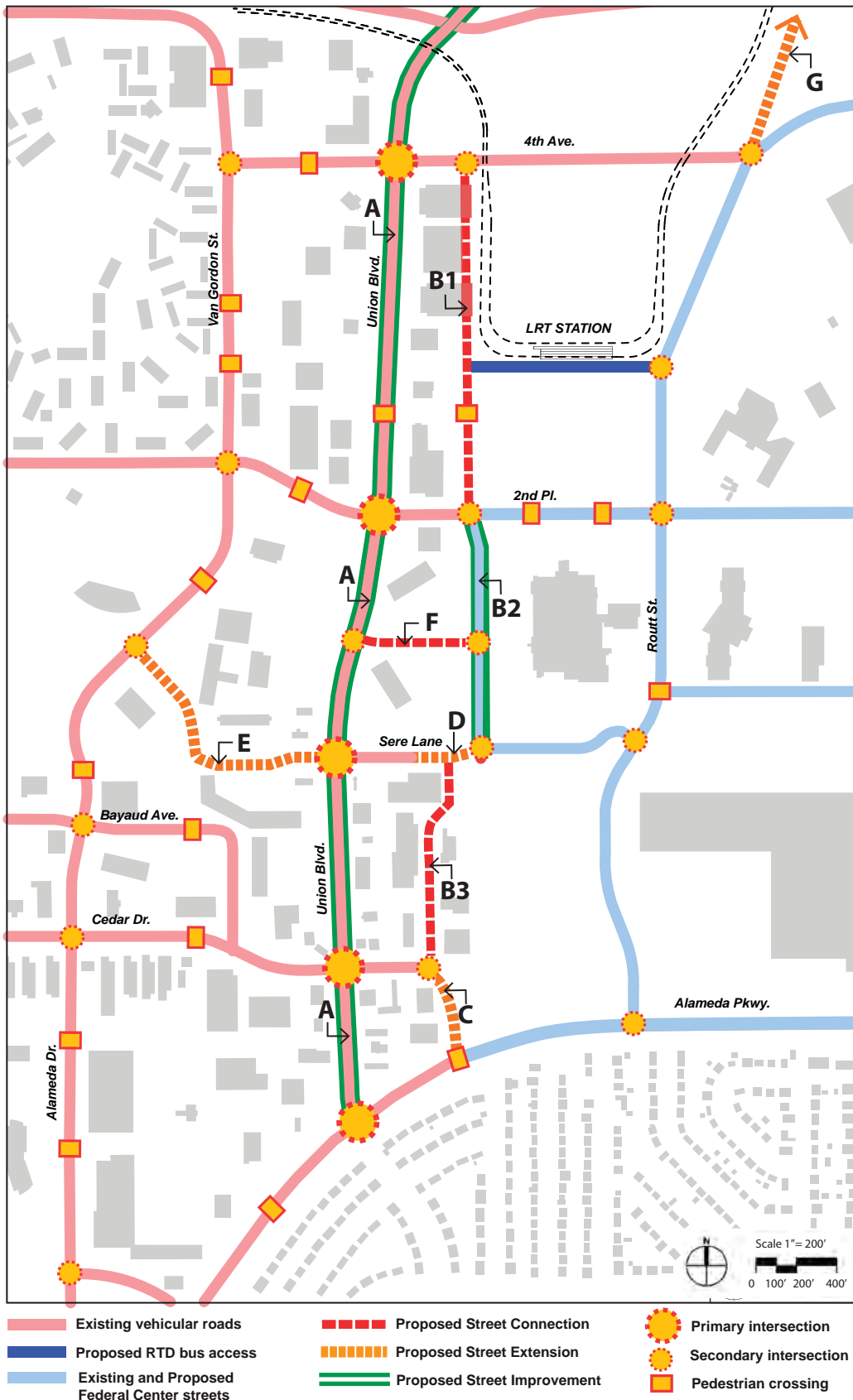


Figure 42. Vehicular Framework



## 8. MOBILITY

In 2013, residents and employees in the area will have a new choice for their mobility needs. The Federal Center station will open with the West Corridor Light Rail. The Federal Center station is a park-n-Ride station that will have approximately 1,000 parking spaces.

Lakewood has an exciting opportunity to increase the success of the Union Boulevard Corridor by enhancing station area mobility. The City is exploring ways to capitalize on the West Corridor transit investment and ensure that people can travel between the stations and their desired destinations. However, many of the destinations near the Federal Center station are further from the transit platform than a comfortable walking distance. This section explores alternatives for increasing mobility in the Union Corridor area through connectivity, safe crossings, bike sharing, car sharing, and shuttle/circulator service.

Providing increased connectivity, improved pedestrian crossings, bike sharing, car sharing, and/or shuttle/circulator service would enhance the mobility to and from the Federal Center Station platform and make it easier to access the station platform and destinations in the station area.

### Enhancing Mobility

#### INCREASING CONNECTIVITY

As previously described, increasing connectivity in the Federal Center station area will create more direct routes for accessing the station. Adding connections to the station area will shorten the distance people need to walk or bicycle to and from the station, making it easier and more convenient to access the Light Rail. Additionally, increasing roadway

connectivity will provide alternate automobile travel routes to Union Boulevard. Figure 42 shows the recommended connections for the Federal Center station area.

### Safe Pedestrian Crossings

Union Boulevard is a wide street that creates a barrier for pedestrians who will travel from the station platform to areas west of Union Boulevard. The location of the station platform will increase the demand for crossing Union Boulevard safely, especially at Union Boulevard directly west of the station such as at the Sheraton West Hotel.

There are a variety of design features that can make crossing Union and other large or busy streets in the station area, such as Alameda Parkway, more safe and comfortable.

#### COUNTDOWN PEDESTRIAN SIGNAL

Pedestrian countdown signals at signalized intersections provide information to people crossing the street about how much time they have to cross. The picture on the right shows a countdown signal at 2nd Place and Union Boulevard in Lakewood.

#### MEDIAN REFUGE ISLAND

Median refuge islands enhance pedestrian safety and comfort, and improve pedestrian mobility. Medians generally reduce crossing exposure and allow pedestrians to negotiate vehicle traffic one direction at a time, providing slower pedestrians a place to stand while waiting for the next crossing opportunity. Medians can provide pedestrian refuge at wide intersection crossings and mid-block crossings.

Raised medians with curbs provide less exposure compared to painted designs. The nose of the median should extend beyond

the crosswalk, as illustrated in the picture at the bottom of this page.

#### VISIBILITY

Strategies for increasing pedestrian visibility can include lighting, pavement markings, pedestrian placement, or pedestrian signage.

Additional analysis to determine the most appropriate crossing treatment at large intersections near the station area is recommended.



Existing conditions of Union Boulevard near the Sheraton West Hotel



Pedestrian countdown signals at signalized intersections along Union Boulevard



Refuge area with an extended & landscaped median nose

## Bike Sharing

Bike sharing programs provide a number of bicycles for shared use and can provide a convenient alternative to walking or vehicle use. Publicly shared bicycles are a mobility service useful in urban environments for increasing the distance people may be willing to travel.

In general, bike sharing stations located in active, visible locations with mixed land use and high population and employment density function well. The proximity to transit can also increase bicycle use at a station. Other factors that need to be considered when locating stations include property ownership, right-of-way restrictions/requirements, and solar orientation and/or electrical access. Based on this information, the following locations are potential bike share station locations (Figure 43):

- Federal Center Station – Placing a bike station near the transit station provides the opportunity for people to take transit and then transfer to a bicycle to reach their final destination.
- Red Rocks Community College– The campus has approximately 6,000 annual students. The campus is over a mile from Union Boulevard, which is longer than a comfortable walk but within range of bike share. Providing bike stations in the Union Corridor and at Red Rocks Community College makes biking to Union destinations viable for staff and students.



Bike station at Union Station in downtown Denver

- Federal Center – The Federal Center campus is home to approximately 6,200 employees, and projected to increase to 13,000. Some parts of the campus are farther from the station platform than a comfortable walking distance. Providing bike stations at destinations on the east end of the Federal Center campus makes using the Light Rail for commuting more feasible.

- Colorado Mills Mall – Providing a bike station here would allow shoppers using transit to make the connection from the Light Rail station to their shopping destination using the bike sharing system. It could also connect to a system in Golden.

- Hospital Campus– The new hospital campus will be a large employment hub in the station area. A bike sharing station near the hospitals would allow employees and visitors to use a bicycle to make connections within the Federal Center Station area.

- Destinations along Union Boulevard – Providing bike share stations at destinations throughout the Union Boulevard Corridor would allow people to make use of the bike sharing program to run local errands, connect to their destination from the Light Rail, or ride to lunch or dinner. High density residential neighborhoods, such as the area near the intersection of 2nd Place and Van Gordon Street, should also be considered as possible locations for a bike share station.

## Car Sharing

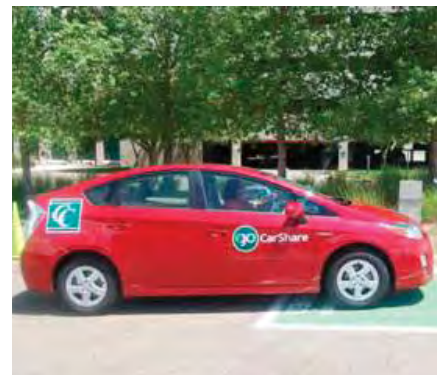
Car sharing programs provide cars for shared use. Often people are hesitant to take transit to work because they may need to go somewhere during the day that is not accessible by transit or is too far to access by walking or bicycling. Car sharing programs can help increase mobility in a station area by providing a car for errands or other trips for people that are too far for walking or bicycling.

Car sharing programs are typically set up with a membership and user fees. People can sign up for a membership, pay a monthly fee, and then check out a vehicle when needed. User fees are typically applied to the mileage/time the vehicle is checked out.

There are currently two car sharing programs operating in the Denver Metro area – eGo Car Share and Occasional Car. Most of their cars are currently located in the Downtown Denver area. However, both car sharing companies have indicated interest in following light rail development west into Lakewood. To have successful car sharing it is important to have a highly visible vehicle parking location located in a higher density, mixed-use area.

Several locations are recommended as potential car share locations. Specific details should be coordinated at the time of vehicle placement. Potential car share locations in the Federal Center station area include (Figure 43):

- Federal Center Station – Placing a car share station near the transit station provides the opportunity for people using the train or living near the station to use the car. The location would be visible to everyone using transit.
- Federal Center – A car share station located at the GSA Federal Center Campus provides the opportunity for Federal employees to use a vehicle for work travel or



Car sharing program

personal errands when they have used transit to travel to work.

- West Side of Union Boulevard near Office Locations – An additional car share station could be placed on the west side of Union near one of the employment centers to provide additional mobility for people west of Union.

### Shuttle / Circulator

Evaluating the feasibility of a shuttle/circulator system is proposed in the Connectivity Plan to supplement the existing transit within the area. RTD has extensive experience with shuttle implementation.

The Union Boulevard Corridor has a nearly ideal configuration for shuttle service. The main purpose of a shuttle would be to connect to and from the transit station and to enable internal trips within the Corridor. The linear configuration of the Corridor suggests consideration of shuttle service along Union Boulevard as the core service area. The alternatives suggested for exploration in the Connectivity Plan included three loops, one to the east of Union Boulevard (Routt Street), one to the west of Union Boulevard (Van Gordon Street) and one with an extension to Belmar.

The feasibility of a shuttle system should continue to be explored and should consider the factors outlined in the Connectivity Plan. A first consideration might be to study the initiation of a first phase of the shuttle along Union Boulevard, connecting to the Federal Center Station, with potential stops along the Boulevard. As the Corridor develops in later phases, the shuttle could still serve uses east and west of Union Boulevard because of the short walking distances (Figure 43). Expanded shuttle service could be added in

the future, if deemed feasible, to connect into the Corridor and the Federal Center, and potentially to Red Rocks Community College, as development within the area continues.

The information in this section was taken from the RTD Shuttle & Circulator Services Review & Evaluation that was completed in October 2008. Shuttle and circulator routes are not currently defined by RTD as a separate class of service (most are considered Urban Local routes), but RTD is considering separating these services as a category.

#### SERVICE CHARACTERISTICS

Successful shuttles and circulators in the RTD system run at least 15 minute headways, and the high-performing Boulder routes run headways under 10 minutes. In order to generate spontaneous, short “walk-up” trips, minimum headways of 12 minutes are required with headways of 10 minutes or less highly desirable.



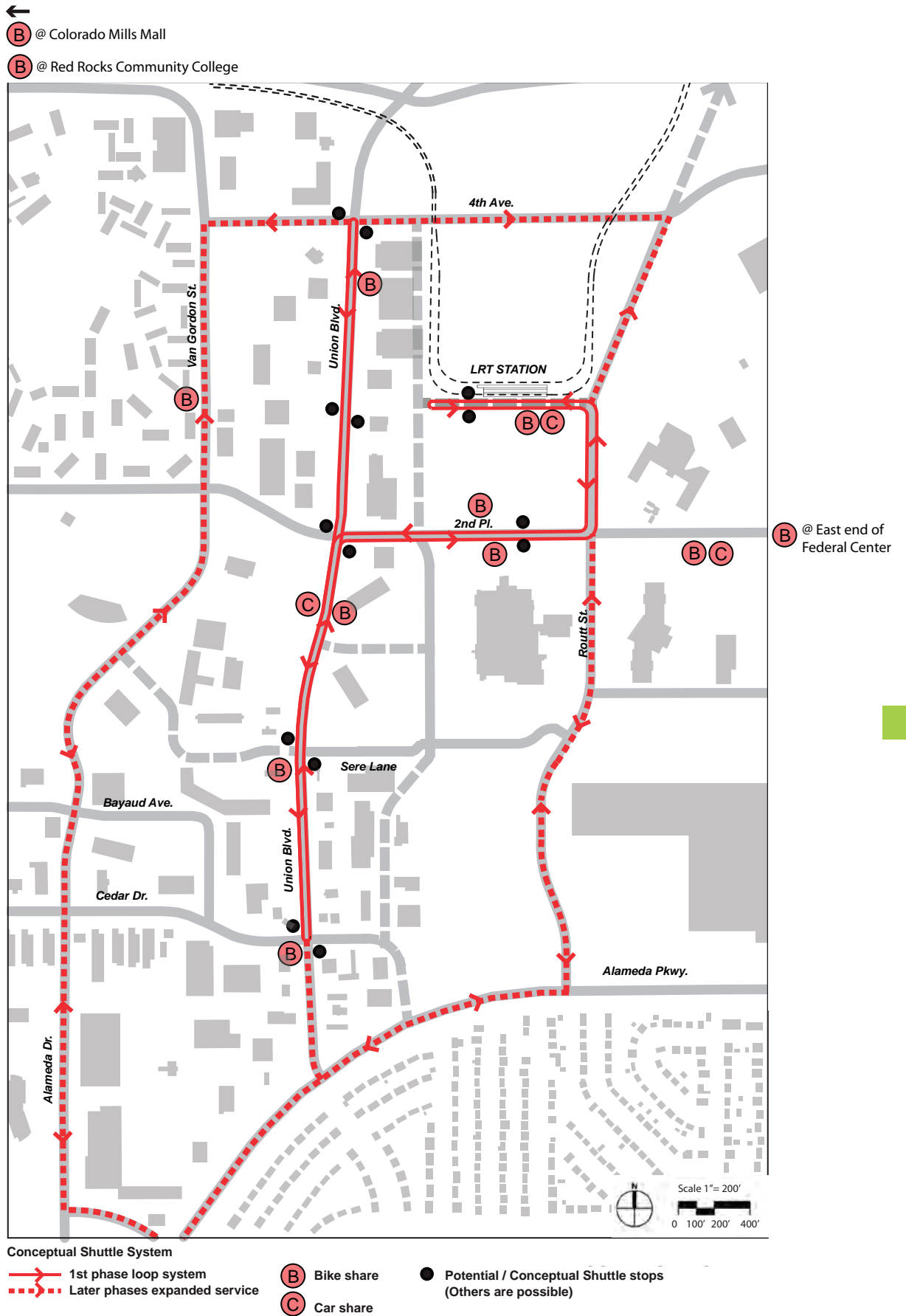


Figure 43. Car Share / Bike Share / Shuttle System Concept

## 9. OPTIMIZING ECONOMIC BENEFITS

### Summary of Anticipated Commercial and Residential Growth

Parcel	Existing Employment	Future Employment	Existing Residential Units	Future Residential Units
A	457	500	0	120
B	1,229	1,400	0	120
C	939	1,300	0	120
D	1,007	1,300	0	0
E	783	1,018	0	0
F	0	0	0	0
G	1,054	1,800	0	144
H	676	1,068	0	200
I	253	337	0	0
J	0	700	0	0
K	0	1,072	0	848
L	0	400	0	120
<b>Total</b>	<b>6,398</b>	<b>10,895</b>	<b>0</b>	<b>1,672</b>

Source : Federal Center / Union Boulevard Corridor Connectivity Plan (July 2011)

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The City predicts substantial growth in residential and commercial uses in the Corridor. Their estimate—which is found in the Connectivity Plan—is summarized in the table above. The Connectivity Plan attributed future development to individual superblocks. Figure 44 shows where development could be assigned to the individual blocks, based on the Connectivity Plan. It should be noted that the Connectivity Plan combines Parcels J and K for development purposes, which is why no future residential units are listed in the table for Parcel J, but residential units are indicated for this parcel in Figure 44. Also, the Connectivity Plan stated that Parcel F would largely be consumed by infrastructure. However, it is anticipated that there will be some developable area left on Parcel F, as illustrated later in this document.

The program numbers in Figure 44 have been transformed into typical building heights and footprints to communicate the magnitude of building gross floor area (GFA) that could be expected on each block. This is not a site plan, but an allocation of building heights and masses to the blocks, based on the program requirement as defined by the City. Later in this report these quantities are visualized as they might appear in a scenario of public and private development.

It is important to emphasize that in addition to the increase in employment opportunities anticipated for the Corridor, the City also anticipates a significant increase in residential units. This mix of residential, commercial and office uses is critical to the future success of the Corridor.

### The Corridor's Relationship to the Federal Center

It is economically beneficial to positively relate the Union Boulevard development to the development of the Federal Center. The more coordinated these two areas are, the more easily the Corridor and the Federal Center can be branded as a highly dynamic and urban regional center. The street connections, pedestrian connections and other development opportunities identified in this report are planned to work with those elements identified in the Federal Center Master Plan. The Connectivity Plan also identifies potential build out for the GSA and RTD/TOD parcels, as shown in Figure 44.

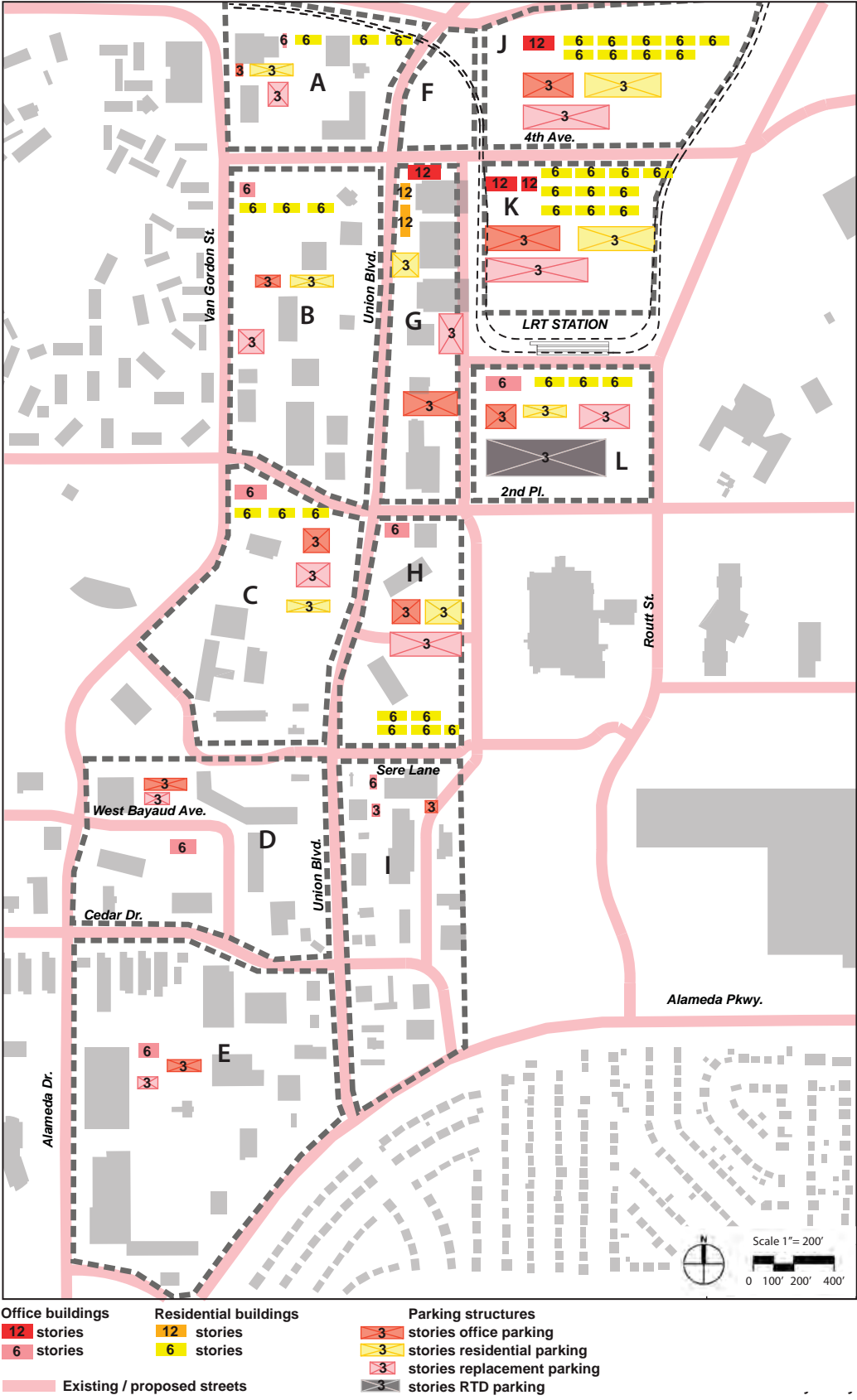


Figure 44. Potential Program Location



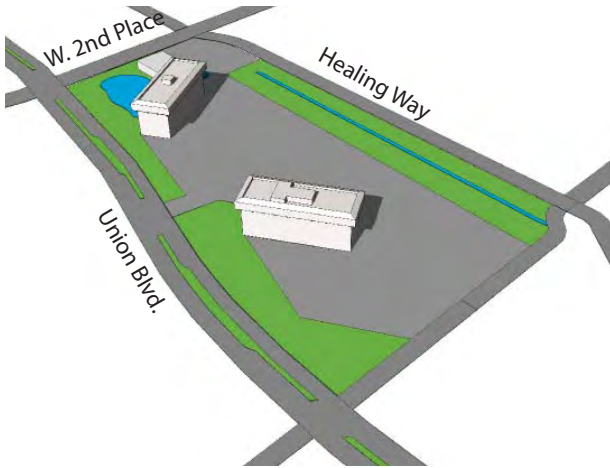


Figure 45. Phase 15

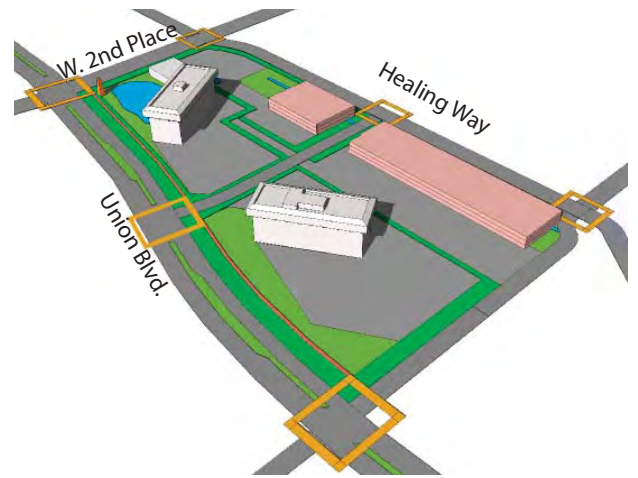


Figure 46. Phase 2

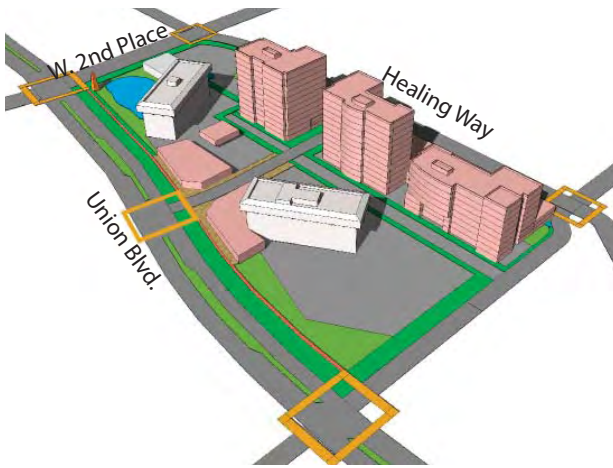


Figure 47. Phase 3

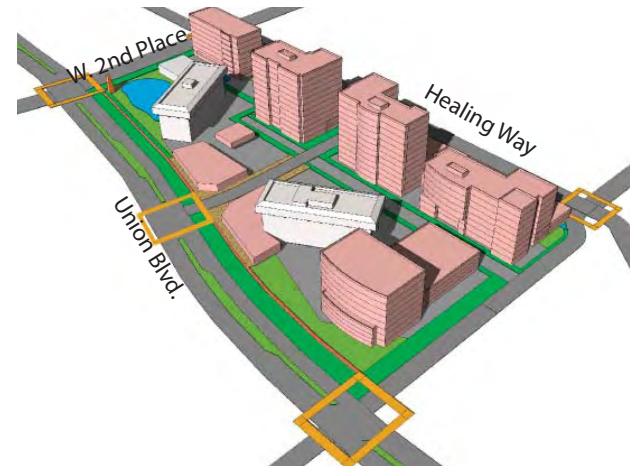


Figure 48. Phase 4

### Densifying the Superblocks

Existing buildings and parking cover most of the land area in the Corridor. To grow the Corridor, sites need to be created for new buildings and associated parking. To do this, some existing parking lots will need to be replaced with structured parking to create new building sites. The sequential diagrams for one of the Corridor superblocks (for illustrative purposes, the Lake Plaza block is used) illustrates how the block can be intensified while retaining the existing buildings. In some

cases, adjacent owners may want to cooperate on development of parking structures to serve both properties. The Implementation chapter discusses how devices such as an improvement district could undertake construction of parking and other improvements.



Figure 49. Existing Corridor Development

### Evolution of the Corridor

The Corridor will not be fully developed in the short term. It will be the result of many actions by many players, large and small, throughout the district. The following pages describe how development along the corridor could evolve over time.

The sequence illustrates conceptually how a new vision could begin to take place by gradually establishing a new image and identity and unifying the area. Each of the phases consists of both public and private actions. The potential public and private developments are diagrammed first, accompanied by the 3-D model at each phase.

Over time, Union Boulevard is envisioned to develop into a more active pedestrian environment, and prime real estate redevelopment will begin to establish a new identity for the Corridor.

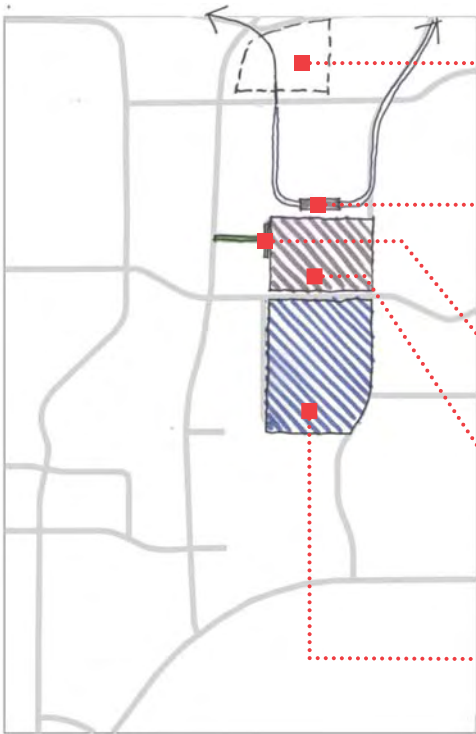




Figure 50. Potential Early Actions

**EARLY ACTIONS**

Evolution of the Corridor begins with the actions that are already underway and can be completed soon or are already completed. The elements are shown in Figure 51.



Clear the existing Cold Spring park-n-Ride lot. This site will be bisected by the Light Rail tracks and the submerged trench section where the tracks cross under Union Boulevard.

Complete construction of the LRT trackage and station platform and plaza prior to opening the station for revenue service.

Build the pedestrian crossing at Union Boulevard, and the ramp to the LRT station.

Complete the Federal Center RTD park-n-Ride lot to prepare for the new LRT station (occured in summer, 2011).

Open hospitals (occured in summer, 2011) and medical office buildings.

Figure 51





Figure 52. Potential Short-Term Actions

**SHORT-TERM ACTIONS**

In this phase, the first private sector development projects are envisioned to be underway, along with the immediately related sections of Union Boulevard streetscape. Lake Plaza is used as an illustration, but other parcels could move forward at this time as well. Meanwhile, preparations are made for GSA property disposition of the parcels north of the Federal Center Station platform. Specifics are shown in Figure 53.

Extend Sere Lane west from Union Boulevard to Van Gordon Street.

Private redevelopment of the Lake Plaza block, with street connecting to St. Anthony Hospital.

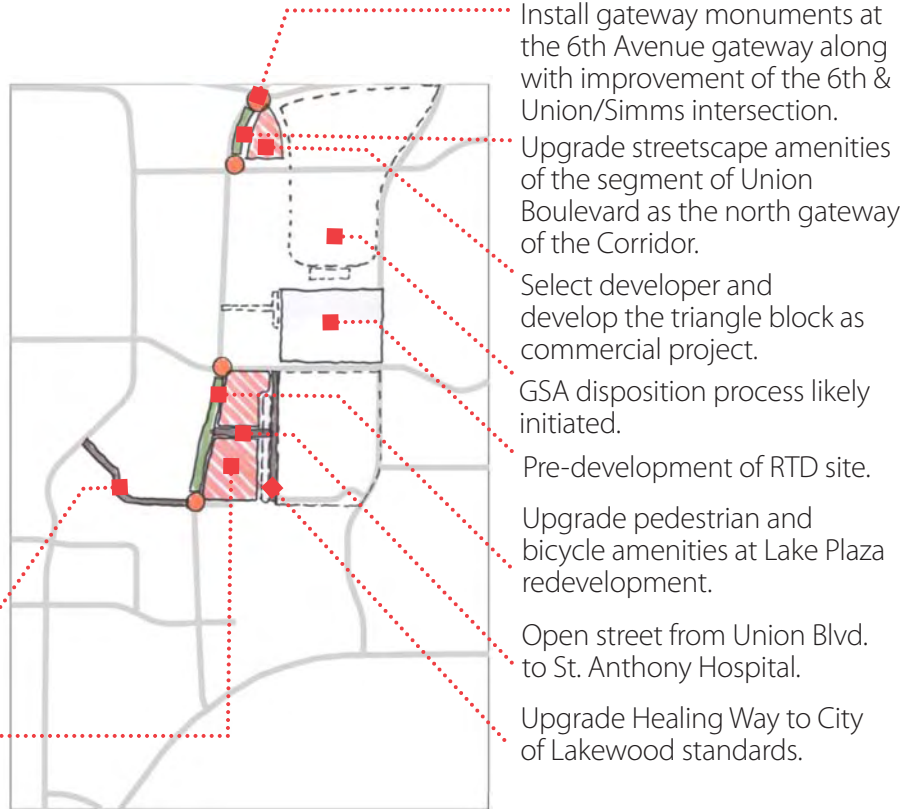


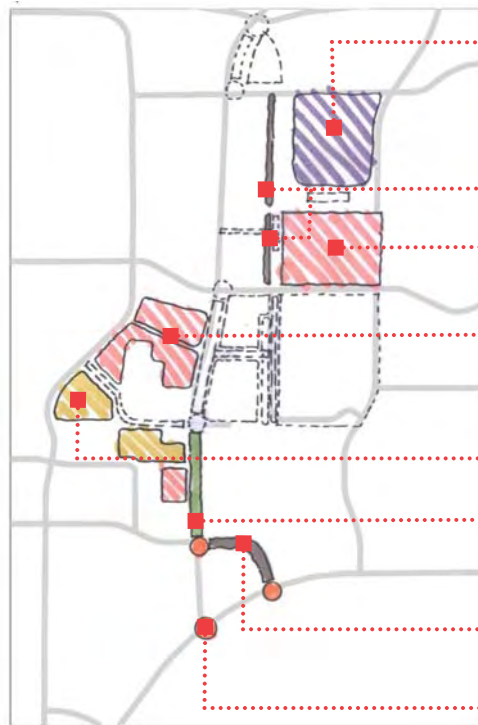
Figure 53



Figure 54. Potential Mid-Term Actions

**MID-TERM ACTIONS**

In this phase, several projects could be in a position to move forward in the central Corridor. Other developments could include a first phase of the GSA parcel and the RTD joint development. Specifics are shown in Figure 55.



- Likely development of the first phase of the GSA "horseshoe" parcel .
- Development of new street between 2nd Place and 4th Avenue.
- Development of the RTD mixed-use TOD site.
- Development of commercial projects including office, retail and entertainment.
- Development of residential projects.
- Upgrade Union Boulevard pedestrian and bicycle amenities.
- Development of new Cedar Drive to West Alameda Parkway.
- Gateway monumentation at southern end of Union Boulevard Corridor.

Figure 55





Figure 56. Potential Long-Term Actions/Vision

**LONG-TERM ACTIONS/VISION**

In this phase, projects are completed on remaining underdeveloped parcels, and the upgrading of Union Boulevard pedestrian and bicycle amenities and other image and identity elements in the Corridor are completed. Specifics are shown in Figure 57.

A longer range vision of the Corridor could also include development of the pedestrian promenade with private redevelopment (as illustrated), and other projects that may not be specifically identified in this plan.

Development of commercial office project.

Upgrade pedestrian and bicycle amenities.



- Completion of development of the 40 acre GSA "horseshoe" parcel.
- Development of projects related to park.
- Redevelopment to create pedestrian promenade to LRT station.
- Pedestrian promenade at LRT station, connecting with the Federal Center axis leading to a major open space east of the station.
- Upgrade Union Boulevard pedestrian and bicycle amenities.
- Completion of north-south street by building the last segment from Sere Lane to Cedar Drive.

Figure 57



## 10. ENVIRONMENTAL CONSIDERATIONS

An environmental database research study was undertaken as part of the overall land use analysis to identify the potential for the existence of any brownfield properties in the Union Corridor district and to evaluate the redevelopment potential of any potentially contaminated sites. Overall, the research did not find any areas with significant brownfield related issues.

The research mostly identified smaller localized brownfield reports commonly found along major transportation corridors and in infill areas with former commercial and light-industrial uses. Types of properties within the district that have some history of contamination-related issues include current or former dry cleaners, gas stations/leaking underground storage tank (LUST) sites, and businesses that used and stored some amount of hazardous waste on site.

Based on the results of detailed file searches at the Colorado Department of Public Health and Environment (CDPHE), most of the brownfield sites within the district have been documented and addressed and do not require any future action at this time. For the remaining sites where contamination has been documented or where cleanup of contaminated soil or groundwater is not yet complete, recommendations are made in a separate report for further investigation and analysis.

The environmental analysis is included in this plan to help further the vision by providing useful information related to any brownfield properties in the area. The findings confirm that there is a reduced risk to property owners in the area and provide useful information to developers interested in the Union Corridor. The information also helps facilitate future development and investment by providing a comprehensive summary of brownfield related issues, determining that there are no major environmental barriers in the area preventing redevelopment and identifying areas where further due diligence is required.

## 11. NEXT STEPS

A variety of next steps are necessary to begin to implement a unique brand and a cohesive identity for the Union Boulevard Corridor. Creation of this cohesive identity will be a long-term effort, and will require a great deal of coordination and economic tools to achieve.

Public-private partnership tools, such as a Business Improvement District (BID) and other special districts, should be utilized to help implement the recommendations in the plan and catalyze private investment in the Union Boulevard Corridor. The implementation of these tools will help achieve the vision for the Corridor and should be considered as important economic development tools for the City of Lakewood.

The Union Boulevard Corridor would benefit from the formation of a BID as BID's have special tax structures that increase the ability to market and promote within their boundaries. Special or seasonal events (such as concerts or farmers markets) as well as themed signage, safety and security, and similar operational needs of the Union Boulevard Corridor can be financed through a BID. This will help create a sense of unity and community in the Corridor, give it a brand, and create a sense of place and opportunity.

### Next Steps: Signage, Wayfinding and Streetscape Elements

The creation of a Corridor-wide BID would establish an equitable financing mechanism to facilitate the development, operations and maintenance of common design themes related to streetscape and pedestrian oriented improvements, common signage

and lighting programs, and other public amenities that help implement the vision of creating a cohesive and visually unified Corridor. In addition, the BID can establish marketing programs to promote business and civic interest in the Union Boulevard Corridor.

While the City of Lakewood cannot play a direct role in the formation of a BID, it can continue to work with interested property owners to support the creation of a BID.

Once funds are secured through a BID or other means, the various Corridor stakeholders and the City should identify priorities related to implementing the signage, wayfinding, and streetscape elements that are recommended in this plan and should retain a designer to work with the stakeholders and City to create a final design for these elements.

### Next Steps: Built Environment/Urban Form

Recommendations related to the built environment, including building placement, street connections and extensions, and other strategies intended to help create a more walkable, urban district should be implemented as properties develop or redevelop. The Transit Mixed Use zoning requires buildings to be located near the street and encourages a mix of uses. This plan should also be referenced to ensure street and pedestrian connections are made through the larger superblocks as properties are developed.

The creation of site-specific developer sponsored Title 32 metropolitan districts also should be considered. Metropolitan districts can be formed by developers or businesses and can provide a financing and maintenance tool for the

investment in public infrastructure necessary to redevelop sites that need new infrastructure, or need to contribute to new regional public infrastructure needs. These districts could be used to extend the Lakewood street grid and related utilities into what was previously private property to create new development parcels with better access, and would help solve financing gaps that can hinder suburban infill redevelopment.

In addition to the next steps outlined above, specific implementation steps are outlined in the Federal Center/Union Boulevard Corridor Connectivity Plan. As the Connectivity Plan is implemented, it will also help advance the recommendations in this plan.