



**DENVER UNION STATION  
MASTER PLAN SUPPLEMENT**



**DENVER UNION  
STATION**



Dear Fellow Citizens and Interested Readers:

The Denver Union Station Executive Oversight Committee is proud to present the Denver Union Station Master Plan Supplement. This document has been developed with the help of the community, the Union Station Advisory Committee, and the partner agencies (City and County of Denver, Colorado Department of Transportation, Denver Regional Council of Governments, and the Regional Transportation District) that have been involved in the Denver Union Station process over the last four years since the 2004 Master Plan. Their continued support of this project and their time commitment has been essential to the development of this supplement. All four agencies adopted the plan supplement during the Spring of 2008.

The original vision for Denver Union Station has been maintained and strengthened in this supplement. The station will be "a multimodal transportation hub of international significance, and a prominent and distinctive gateway to Downtown and Denver and the region." The Master Plan supplement increases the reach of the station by creating a transit district around the station so that the influence of the station is more than just the 19.5 acre site.

Denver Union Station is a unique project that will bring together many different transportation modes along with new private development to create a truly special place in Denver that connects the city, region and state in one central location. The historic Denver Union Station building will be the focal point of the project, will be rehabilitated and give new life to the transportation hub.

This Master Plan Supplement turns the page to the next generation of transportation at Denver Union Station. It gives a clear and implementable road map for how the transportation components should be organized and how the overall transit district should be developed to create a truly exciting destination in Denver and a regional transportation hub that will increase mobility, boost the economy, and provide easy connections to the entire state.



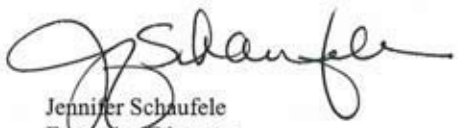
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## Denver Union Station Master Plan Supplement Table of Contents

<b>I. EXECUTIVE SUMMARY.....</b>	6
<b>II. INTRODUCTION.....</b>	13
<b>A. Denver Union Station Master Plan (2004).....</b>	14
1. Why Union Station?.....	15
2. Why is a Supplement Needed?.....	15
Denver Union Station Related Studies.....	15
Denver Union Station Events and Studies.....	16
<b>B. Vision and Goals.....</b>	18
1. Transportation/Multimodal Center.....	18
2. Urban Design and Neighborhood Integration.....	18
3. Historic Preservation.....	19
4. Development Feasibility.....	19
5. Implementation and Governance.....	19
6. Sustainability.....	19
<b>C. Benefits and Expectations for the Transit District.....</b>	19
<b>III. THE MULTIMODAL TRANSPORTATION PROGRAM.....</b>	21
<b>A. Transit District Plan and Transportation Elements.....</b>	24
1. Passenger Rail.....	24
2. Light Rail Transit.....	25
3. RTD Express and Regional Bus.....	26
4. RTD Local Bus.....	26
5. 16th Street Mall Shuttle and Downtown Circulator.....	26
6. Commercial Bus and Private Carrier.....	27
7. Public Parking.....	27
<b>B. Transportation Program Phasing, Costs, and Funding.....</b>	28
<b>C. Circulation.....</b>	28
1. Pedestrian Connections.....	28
2. Bicycle Connections.....	30
3. Private and Service Vehicles.....	31
<b>IV. The Development Program.....</b>	33
<b>A. Neighborhood Context.....</b>	34
1. Lower Downtown.....	34
2. Commons Neighborhood.....	34
<b>B. Private Development at Denver Union Station.....</b>	35
<b>C. Historic Station Building.....</b>	35
<b>D. Public Spaces.....</b>	35
1. Wynkoop Plaza.....	37
2. 17th Street Promenade.....	37
3. 18th and Wewatta Plaza.....	38
4. Pedestrian Deck over Passenger Rail.....	38
5. The Outdoor Train Room.....	38
<b>E. Principles of Urban Form.....</b>	38
1. Public Space.....	38
2. Pedestrians.....	38
3. Bicycles.....	39
4. Vehicle Access and Parking.....	39
5. Multimodal Connections.....	39
6. Building Form and Placement.....	39
7. Historic Preservation.....	39
8. Sustainability.....	39
<b>F. Regulatory Framework for Denver Union Station.....</b>	39
1. Zoning.....	40
2. Landmark Designation.....	41
3. General Development Plan.....	42
4. Design Standards and Guidelines.....	42
5. Design Review Process.....	42
6. Governance.....	43
<b>V. Sustainability as an Overarching Principle.....</b>	47
1. Colorado Department of Transportation.....	48
2. City and County of Denver.....	48
3. Regional Transportation District.....	49
4. Denver Regional Council of Governments.....	49



## EXECUTIVE SUMMARY

### Vision Statement

*“Denver Union Station will be a multimodal transportation hub of international significance and a prominent and distinctive gateway to downtown Denver and the region.*

*Denver Union Station (DUS) will bring critical elements of public and private local, regional, statewide, and national transportation systems, existing and planned, together with private development and inspiring civic features.*

*Denver Union Station will create an exciting setting that will improve the connections between all transportation modes, respect the character and historical significance of the station and its adjacent neighborhoods, and provide a stimulating environment for public activity and economic vitality.”*

Vision Statement for Denver Union Station, developed by the Executive Oversight Committee and the Union Station Advisory Committee, 2002

The Denver Union Station Vision Statement since 2002 has guided the planning process for the rebirth of the historic Denver Union Station as a regional and statewide multimodal transportation center. The vision statement articulates the partner agencies’ and community’s high aspirations for the redevelopment of the station. Planning efforts have seen significant progress since the Regional Transportation District (RTD) with assistance from the partner agencies purchased the 19.5 acre Denver Union Station site in 2001. These efforts also have had to respond to changes in assumptions related to the FasTracks corridors, agency requirements, and funding realities.

This Denver Union Master Plan Supplement

(Supplement) reviews the accomplishments since adoption of the 2004 Master Plan, describes a new element, the Denver Union Station Transit District, and includes updated information about the transportation and private development components. The Supplement adjusts the Master Plan vision and set of expectations and how they will be accomplished. The significant changes between the 2004 Master Plan and the Supplement are: the reorganization of the transportation elements, the updated transportation program, and the addition of the Transit District to the overall plan. The majority of elements featured in the 2004 Master Plan remain intact and are not repeated in the Supplement. The accomplishments and additions discussed in the Supplement were possible as a result of extensive

community involvement.

It is important to understand terms related to partner agencies and organizations used in the Supplement. The Executive Oversight Committee (EOC) refers to the formal entity formed by the partner agencies in 2001 through an intergovernmental agreement between the Regional Transportation District (RTD), the City and County of Denver (CCD), the Colorado Department of Transportation (CDOT), and the Denver Regional Council of Governments (DRCOG) to pursue a common interest in Denver Union Station.

The Historic Station refers to the Denver Union Station Terminal Building, and includes the existing Train Room and wings as they exist today.



*Architectural concept of the outdoor “Train Room” above the Passenger Rail station*



The acronym DUS and the term “site” refer to the Denver Union Station site, which is the 19.5 acres encompassing most of the area from Wynkoop to Wewatta streets and 15th to 20th streets, including the Historic Station. This is the area RTD purchased in 2001, and it is the only property included in the 2004 Master Plan. The Transit District is geographically defined as the area from Wynkoop Street to the Consolidated Main Line (CML) railroad tracks, and from 16th to 18th streets, also extending south and north to include the areas between

15th and 20th streets from the track side of the Historic Station to Wewatta Street. The Transit District includes Denver Union Station and some of the surrounding property involved in the master planning efforts documented in this Supplement.

The Transit District encompasses the set of public and private improvements within the Transit District that are presented in the Supplement. These transportation, public space, and private development improvements will make Denver Union Station into the multimodal transportation hub of regional

significance that was envisioned in 2002. The 2004 Master Plan and the Supplement will be used to guide decisions on how to incorporate future transportation elements into the Transit District.

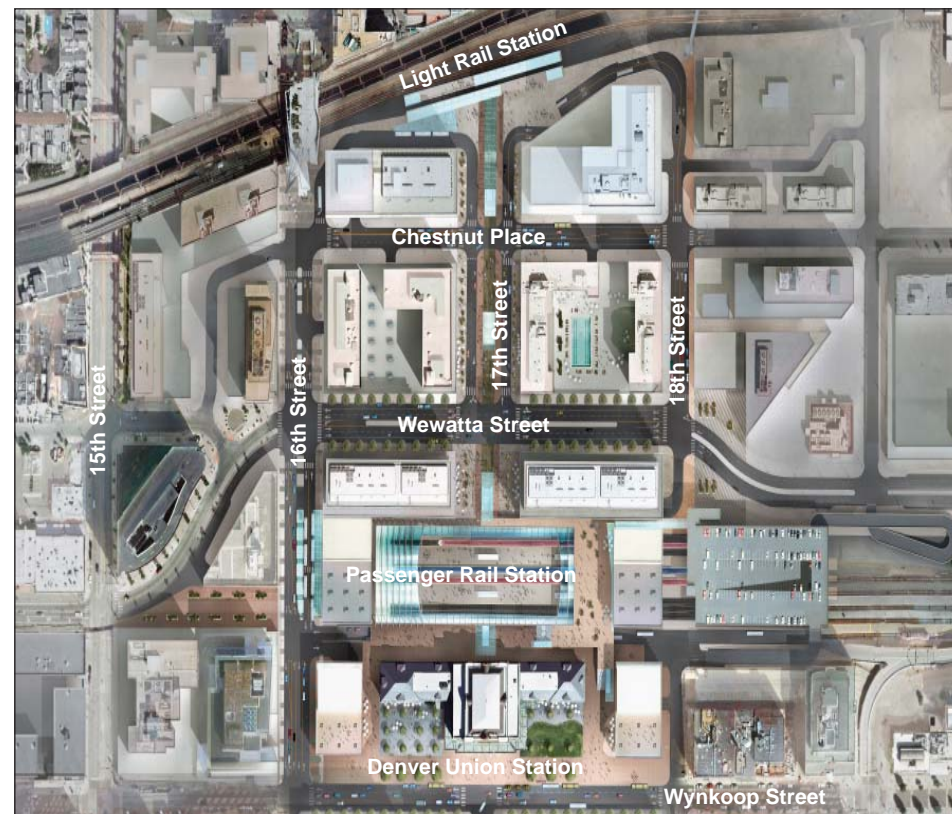
**Elements of the Transit District**

**Historic Station**

The Historic Station, the symbol of the project, will be the heart and soul of the Transit District. The exterior and interior of the Historic Station will be restored and rehabilitated to its historic prominence as a major transportation gateway to Denver. The interior Train Room will connect the east and west sides of the site and serve as a passenger waiting area. The plan envisions that the Historic Station will provide space for transportation and regional information, ticketing, rental car and airline counters, retail shops, the stationmaster’s office, and public uses. The north and south wings will be used for transportation support functions, such as baggage and check-in facilities, and for retail, restaurant, and office uses, much as they have been in the past.

**Passenger Rail**

Passenger rail includes both RTD regional passenger rail services and intercity heavy rail, such as Amtrak and Ski Train. The passenger rail facility will be located at-grade, adjacent to the Wewatta Street side of the Historic Station. The facility includes eight passenger rail tracks, plus a storage track for Amtrak and four passenger platforms and one service platform. The facility will accommodate RTD commuter rail, Amtrak, and the Ski Train, and will provide surplus capacity for future service or special trains. Platforms will be accessed several ways: at-grade from 16th Street, below grade from the Regional Bus Facility, or above from the pedestrian deck adjacent to the buildings along 18th Street. Track 1, which will be closest to the Historic Station,



*Denver Union Station Transit District*



will accommodate the East Corridor Line to Denver International Airport (DIA), and will be accessed directly from the station.

### Light Rail

The light rail station will be located at-grade adjacent to the Consolidated Main Line and will be aligned with the terminus of 17th Street. The light rail station will have two tracks and platforms, with space to add one more track and platform when needed. All trains will arrive from and depart to the south. Arriving passengers will have a clear view of the Historic Station as an immediate orienting feature and will have easy access to the Mall Shuttle and Downtown Circulator for connections to the Historic Station or downtown destinations.

### RTD Regional Bus Facility

The Regional Bus Facility, which will replace RTD's Market Street Station, will be located under 17th Street between the light rail station and the Historic Station. The facility will provide 22 bus bays serving RTD regional and express buses, the Downtown Circulator, and commercial buses. The facility will be climate-controlled and will connect pedestrians on moving walkways between the light rail platforms and the Historic Station and the passenger rail platforms.

### 16th Street Mall Shuttle and the Downtown Circulator

The 16th Street Mall Shuttle and the Downtown Circulator will provide the main distribution means

for passengers to and from downtown. The Mall Shuttle will be extended to provide a convenient connection adjacent to the light rail station, passenger-rail platforms, and the Historic Station.

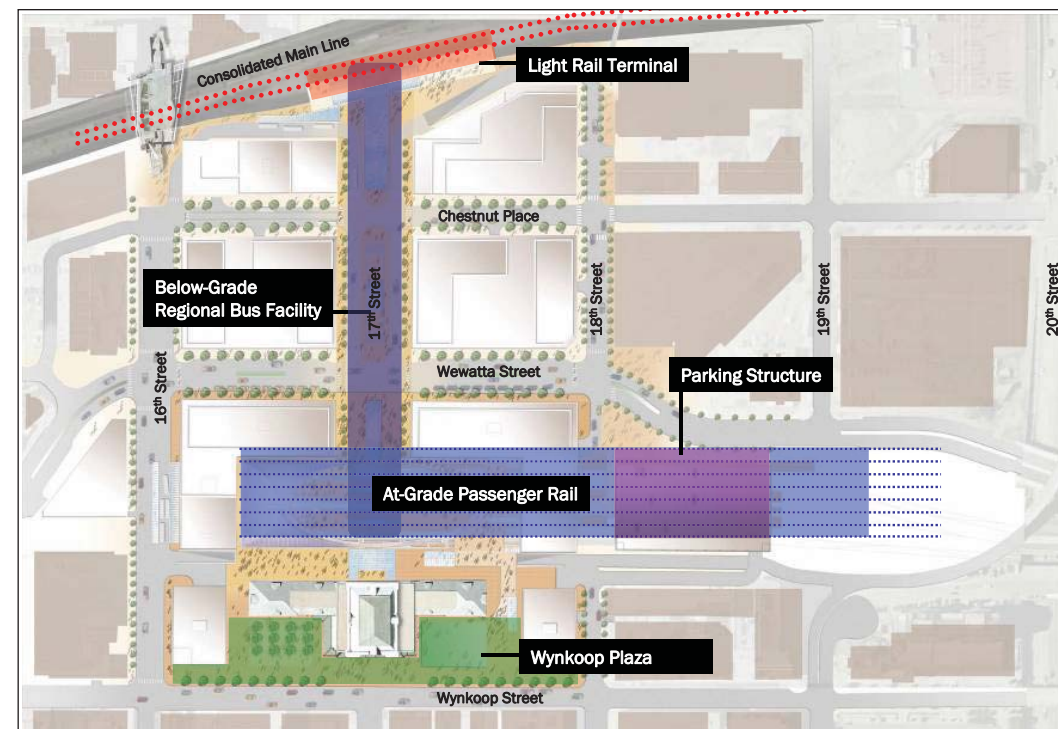
The Downtown Circulator will use 18th Street to access the Regional Bus Facility and connect the Transit District with the rest of downtown. Downtown Circulator stops will be provided at each end of the Regional Bus Facility to provide convenient access to and from light rail and passenger rail.

### Public Space

The primary public spaces for the Transit District are Wynkoop Plaza, located on the east side of the Historic Station, and the 17th Street Promenade on the west.

Wynkoop Plaza will be used as circulation space, outdoor eating and vending, and as a gathering space for small groups or events. This public space will provide views of the Historic Station façade as well as the façades of the historic structures across Wynkoop Street. It will enhance the Historic Station's setting, and create a vibrant and attractive pedestrian amenity that links the Historic Station and Transit District with the Lower Downtown Historic District (LoDo). To ensure that Wynkoop Plaza becomes a lively public space, it will have active uses along the plaza edges, along 16th and 18th streets, and within the plaza itself.

The major public circulation space will be along the 17th Street Promenade. As the spine of the Transit District, the 17th Street Promenade provides a visual and physical connection between the Historic Station, major buildings, and all the major transportation modes. The promenade will be a busy circulation space, providing opportunities for small retail shops, cafes, and transportation services. Spaces along the



*Major Transportation Components of the Denver Union Station Transit District*

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promenade will be designed at appropriate scales and will provide interesting elements for pedestrians making transit connections or traversing the site. The 17th Street Promenade will be anchored by two plazas—one just to the west of the passenger rail platforms, and the other just east of the light rail platforms—both with connections to the Regional Bus Facility.

The deck above the passenger-rail area, another important public space, will be used as a transfer area for pedestrians making key connections to passenger rail, Wewatta Street, and parking.

A large public space in front of the Light Rail Station at the terminus of 17th Street will provide an area for passengers to make connections from light rail to the Mall Shuttle and the Downtown Circulator.

Another smaller public space will be provided at the northeast corner of 18th and Wewatta streets. This smaller plaza will be the counterpart to a new plaza that will be developed on the opposite corner of the intersection. It also will provide the main access for pedestrians over the passenger rail tracks from 18th Street, and will serve as the main connection to the public parking structure from the west side of Denver Union Station.

#### **Private Development**

There are six development parcels on the Denver Union Station site. The intent of the Transit District is to accommodate a dynamic and complementary mix of residential and commercial uses in buildings of the highest quality. The Transit District will include buildings with active ground floor uses fronting Wynkoop, Wewatta, and 16th, 17th, and 18th streets. The Transit District Plan reinforces the architectural character and scale of the Historic Station and provides an area of transition in urban design from LoDo to the Commons Neighborhood.

For example, the site zoning allows for varying amounts of development under different height limits and setbacks.

#### **Pedestrian Circulation and Connection**

The 17th Street Promenade is the Transit District's primary orienting and connecting spine. At street level, the 160-foot-wide boulevard provides a clear connection between the Historic Station and passenger rail, regional bus, and light rail services. The Regional Bus Facility will be located beneath the 17th Street Promenade, providing the choice of an open-air stroll along the Promenade or a weather-protected connection with moving walkways below street level. The Promenade also includes escalators and elevators for vertical circulation from the bus concourse to all the street-level amenities, including connections to rail services, taxis, limousines, and shuttles.

Simple-to-navigate pedestrian routes connect the site internally and with the surrounding neighborhoods, featuring safe and comfortable pedestrian street crossings within and at the perimeter of the Transit District. Careful consideration of pedestrian safety will be needed at the intersection of Wewatta and 17th streets, near the train shed and the below-grade bus facility, because of the especially high volume of people and vehicles. Pedestrians will access the site at 16th, 17th, 18th, 19th, Wynkoop, and Wewatta streets. The 16th Street corridor is now connected to the Highland neighborhood via three pedestrian/bike bridges over the Consolidated Main Line, the South Platte River, and Interstate-25 (I-25).

#### **Bicycles**

The Transit District maintains the area's bicycle access to and from the regional and local bike trail system, and provides bicycle access to the at-grade light rail and passenger rail platforms, as well as convenient access to the Regional Bus Facility.

The plan will improve bicycle flow between the Millennium Bridge and Wynkoop Street. Ample bicycle racks and lockers, situated at key locations, will be provided to encourage people to arrive at the site on bicycles but also to dismount before entering areas congested with pedestrians. Though the Transit District does not identify a location for a bike station where bicyclists could service their bikes, one is envisioned in the Historic Train Building, on the right-of-way, or elsewhere within the footprint of the Transit District. Like pedestrians, bicyclists can access the site on the street network at 16th, 17th, 18th, 19th, Wynkoop (dedicated lanes), and Wewatta streets, as well by the new bridges connecting 16th Street to the Highland neighborhood. A future bicycle connection is planned at 18th Street, over the Consolidated Main Line.

#### **Automobile Access and Parking**

Automobile access within the Transit District will be provided on Wynkoop, 16th, 17th, 18th, 19th, and Wewatta streets and Chestnut Place. Expansion of 16th Street will allow for through movements of the Mall Shuttle and new general purpose lanes that will improve connections to LoDo and the Commons Neighborhood, and will provide local traffic access to Denver Union Station. Primary drop-off zones for taxis, limousines, and private vehicles will be along Wynkoop and Wewatta Streets.

This Supplement outlines the parking needed for on-site private development uses, as well as some additional public parking. Each private development building will provide its own parking. However, because the passenger rail runs beneath the building on 18th and Wewatta streets, some of that building's parking will be located in a structure between 18th and 19th streets. The market rate public parking also will occupy approximately 150 spaces in that structure.

## DENVER UNION STATION

### Sustainability

In the few years since the adoption of the 2004 Master Plan, global events have focused significant attention on environmental sustainability. It is anticipated that sustainable technology will improve markedly in the near future. The Supplement documents the current goals and policies of each of the partner agencies as aspirations for the design and construction of the Transit District.

### Project Costs and Funding Sources

The partner agencies have identified funding sources for up to \$477 million in RTD, federal, and local dollars to construct the public elements of the Transit District. This matches the most recent cost estimate, and has given the partner agencies and Master Developer the confidence to move forward with the final design and approval processes.

### Denver Union Station Transit District Benefits

The Transit District will accommodate light rail, passenger rail, and regional bus, as well as other public and private transportation services. The layout of the transportation components, public space, and development components creates clear and intuitive routes for pedestrians walking from one mode to another or from one destination to another. Perhaps most important, all of the transportation elements can be constructed at the same time, before the FasTracks stations become operable. This single phase of construction also allows for immediate public space construction and eliminates barriers to private development, such as the prospect of future underground construction activity. Benefits of the Transit District will be realized throughout the city, metropolitan region, and



*Outdoor "Train Room" from the end of the passenger rail platforms*

state. The transportation hub will promote economic vitality by providing better access to housing, jobs, and commerce, and by improving connections for business, education, recreation, tourism, and services. Connections within the Transit District also will help people who are young, elderly, or disabled access transportation more independently.

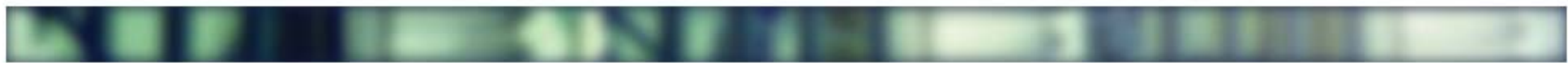




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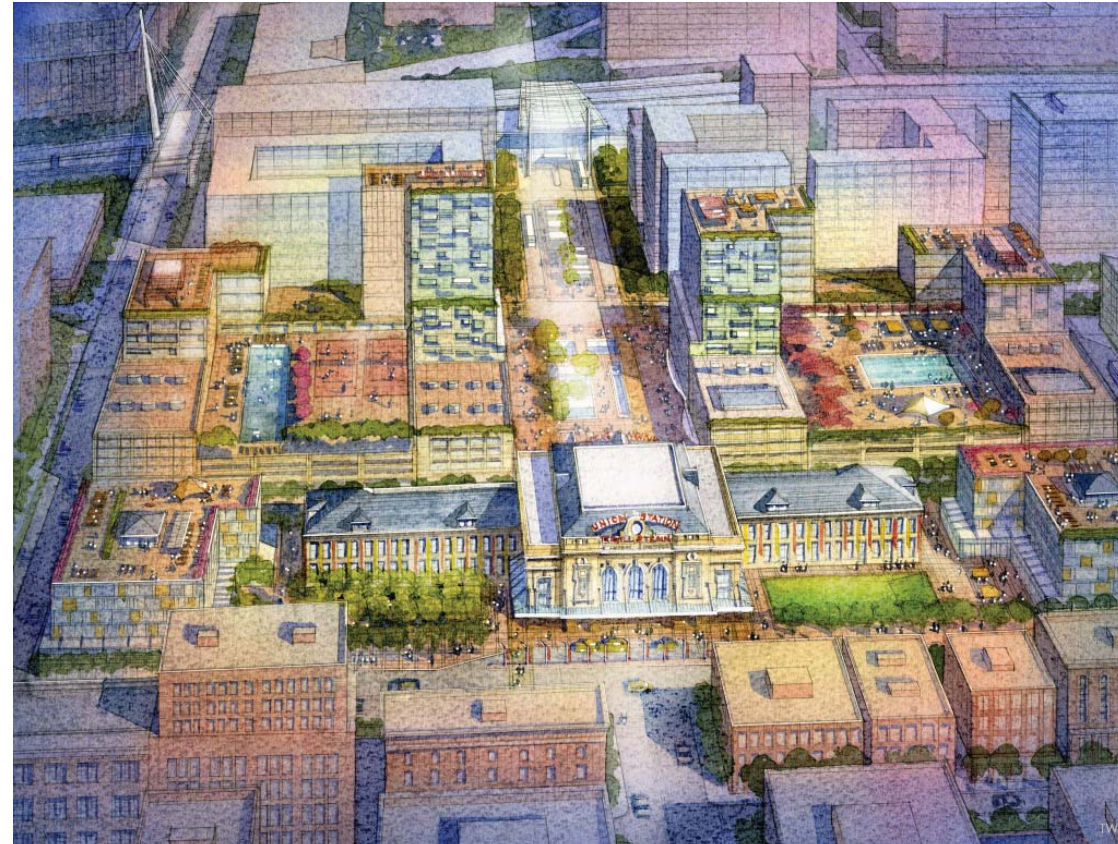






Introduction





*An illustration of the Denver Union Station Transit District, submitted by the Union Station Neighborhood Company, renders a vision for public and private site improvements*

### INTRODUCTION

The purpose of the Denver Union Station Master Plan Supplement is to update the 2004 Master Plan by:

- Reviewing the accomplishments of related planning efforts since adoption of the 2004 Master Plan;
- Reiterating the major elements of the 2004 Master Plan that have not changed;
- Describing the Denver Union Station Transit District; and
- Updating the transportation and development programs.

### Denver Union Station Master Plan (2004)

The Executive Oversight Committee (EOC) was formed in 2001 through an intergovernmental agreement between the Regional Transportation District (RTD), the City and County of Denver (CCD), the Colorado Department of Transportation (CDOT), and the Denver Regional Council of Governments (DRCOG) to pursue a common interest in Denver Union Station (DUS). After RTD with assistance from the partner agencies purchased Denver Union Station in 2001, RTD, CCD, CDOT, and DRCOG jointly initiated the Denver



*2004 Denver Union Station Master Plan*

Union Station Master Plan process. With extensive community involvement, the Executive Oversight Committee created a vision to guide redevelopment and serve as the basis for preparing the environmental impact statement (EIS), zoning the property, achieving historic landmark designation, and other future implementation actions.

In September 2004, the four partner agencies adopted the Master Plan vision, framework, and practical guidelines to transform the Historic Station and the 19.5-acre site into a multimodal transportation center serving the Denver region and the state of Colorado. The multimodal concept intended to bring together many means of transportation in one place with logical, safe, and convenient transfers. It was anticipated that the concurrent design and construction of the site's transportation and development elements would provide mutual advantages and efficiencies.

The 2004 Master Plan detailed the benefits and complexities of combining all of the region's ground transportation modes at one hub. It created the opportunity for Denver Union Station to enhance the value of local, metropolitan region, state, and federal investments in highways, high-occupancy vehicle (HOV) lanes, light rail, passenger rail, buses, parking, bike paths, and pedestrian networks. The



multimodal hub concept also allowed for expanding the transportation network statewide through private bus and rental car services and internationally by linking to Denver International Airport (DIA). The 2004 Master Plan envisioned restoring Denver Union Station as a gateway to downtown Denver, the metropolitan region, and the state of Colorado.

#### **Why Denver Union Station?**

Denver is the primary intersection of transportation modes and corridors serving the region and the state. State and regional road and rail networks, interstate highways, light rail, and bike paths all converge in or near Downtown Denver. The city and its transportation infrastructure create the gateway to the metro region, the state, and the Rocky Mountain West.

In the 1980s, as the Denver region studied light rail and passenger rail, planners identified the need for a central point of connection. The best location for this hub soon came into focus: Denver Union Station. Located in the state's geographic heart and its capitol city, as well as its busiest downtown, Denver Union Station enjoys:

- existing rail lines that allow easy access for new lines,
- convenient highway connections,
- a Historic Station building prime for more active use,
- adjacent sites for complementary transit-supportive development,
- a central location near the region's major entertainment venues and densest employment center,
- a location within a highly walkable downtown, and
- proximity to an extensive bicycle network, including the South Platte River Greenway and Cherry Creek bike path systems.

Through extensive study, planning, design, and public feedback gathered during the 2004 Master Plan preparation process, the Denver Union Station site was confirmed as the best location for a multimodal facility that takes advantage of its geography and transportation infrastructure.

#### **Why is a Supplement Needed?**

While much of the 2004 Master Plan remains relevant, subsequent events and studies related to the Denver Union Station site indicated the need to update information about the proposed treatment of various transportation and development elements and to extend the geographic scope of the plan to include the areas along 17th Street to the Consolidated Main Line.

#### **Denver Union Station Related Studies**

##### **Colorado Department of Transportation Studies**

*I-25 HOT Lanes:* CDOT and the Colorado Tolling Enterprise (CTE) changed the operations of the I-25 HOV lanes to high-occupancy toll (HOT) lanes on June 1, 2006. The change allows single occupant vehicles (SOVs) to use the HOV lanes for a fee. Existing users, including carpools, vanpools, and buses, continue to use the facility free of charge. As a result of the conversion from HOV to HOT lanes, these lanes, which end at 19th Street, now potentially carry more traffic, which could increase travel time and the number of visitors to Denver Union Station.

*Public Benefits and Costs Study:* Front Range rail passenger service is dependent on the relocation of north/south through-freight-rail movements out of the Denver metro area. CDOT completed a Public Benefits and Costs Study in May 2005, which explored opportunities to relocate freight operations so Denver Union Station could become more accessible for future passengers. The study

considered an Eastern Plains bypass rail line for Wyoming-to-Texas coal traffic, and found a wide range of public benefits, as well as private benefits for the Burlington Northern Santa Fe Railroad and the Union Pacific Railroad. These benefits included the opportunity to use the current Front Range rail line for future passenger services.

##### *Colorado Railroad Relocation Implementation Study:*

In 2007, CDOT began a follow-up study, currently underway, to better understand the steps needed to form partnerships, define a project scope, and identify possible funding and financing for relocating railroad lines. The study also is assessing how to secure environmental clearances to relocate significant freight rail movements away from the congested communities along the Front Range.

*Rocky Mountain Rail Authority:* In 2007, CDOT awarded funds to the Rocky Mountain Rail Authority (RMRA), an intergovernmental authority created to conduct a high-speed passenger rail feasibility study for the I-25 and Interstate-70 (I-70) corridors. The high-speed rail feasibility study is analyzing how a new rail service would interface with the Transit District.

##### **Downtown Multimodal Access Plan (DMAP)**

The CCD, working with RTD and CDOT, adopted the Downtown Multimodal Access Plan (DMAP) in December 2005. This plan identifies improvements needed for the downtown Denver transportation system to complement FasTracks. Among other recommendations, DMAP highlights the need for a Downtown Circulator on 18th and 19th streets to supplement the 16th Street Mall Shuttle and improve the movement of people between Denver Union Station, employment concentrations in mid-downtown, and the Civic Center.

## DENVER UNION STATION

### Downtown Area Plan

In 2006, the Downtown Denver Partnership and the CCD initiated a new Downtown Area Plan process to replace the highly successful 1986 Downtown Area Plan. This most recent Downtown Area Plan was adopted in July 2007. Recommendations include refurbishing the 16th Street Mall, focusing more attention on the named streets as important connectors across downtown, capitalizing on the Downtown Circulator as an important public investment in the heart of downtown, and adding more jobs, residents, retail, and visitors to downtown. The plan recognizes the importance of Denver Union Station as the regional transit hub, and advocates for developing it consistent with the vision, goals, and principles of the 2004 Master Plan.

### FasTracks Corridor Environmental Studies

All of the FasTracks corridors are in various stages of planning and completing environmental impact studies. As project plans have developed, some aspects of the 2004 FasTracks Plan, such as refined alignments, station locations, and in some cases modes, have changed in some corridors. The most significant change for the Transit District was establishing the Gold Line as commuter rail, rather than light rail. These proposed improvements were described and evaluated in the Denver Union Station Draft Environmental Impact Statement (Draft EIS).

### Sustainability

Since adoption of the 2004 Master Plan, each of the partner agencies has adopted or updated their sustainability goals. Though these goals are not requirements, they will serve as aspirations for the design and construction of the Transit District.

### Denver Union Station Events and Studies

#### Executive Oversight Committee

Since adoption of the 2004 Master Plan, the EOC,



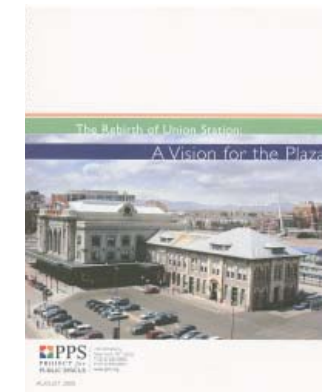
*FasTracks Corridor Plan*

the EOC has continued to seek and secure funding to monitor refinements to the transportation program and the environmental impact assessment process, and to oversee public involvement and developer solicitation processes. These efforts have provided new information, which has changed the assumptions for the Master Plan Supplement.

### FasTracks

In November 2004, the Denver metro region's voters approved a sales tax increase to fund the FasTracks regional transit plan. FasTracks provided part of the

funding required to construct the public elements of the 2004 Master Plan—specifically funding for construction of transit improvements that would make Denver Union Station function as a regional multimodal transportation hub.



*Project for Public Spaces “2005 Wynkoop Plaza Report”*

### The Rebirth of Union Station: A Vision for the Plaza

Following adoption of the 2004 Master Plan, rezoning the site for transit mixed-use (T-MU-30) development, and achieving landmark designation for the Historic Station and its environs, a consortium including CCD and Friends of Union Station contracted with Project for Public Spaces, Inc. (PPS) and Civic Results to undertake a public process to explore potential uses of Wynkoop Plaza. PPS led a public workshop in April 2005 to elicit ideas for a vibrant and attractive new public space that also supports the practical functions of the transportation facility and planned development, as laid out in the 2004 Master Plan. The PPS report, “The Rebirth of Union Station: A Vision for the Plaza,” was released in August 2005.

A summary statement in the report suggests the potential of the Denver Union Station Plaza to:





*Denver Union Station Transit District aligns major transportation elements on the 17th street axis with mixed-use development and civic spaces.*

*“attract a wide range of users, from commuters and visitors to families with children, with an ever-changing cavalcade of events and activities, in a space designed to be adaptable, green and shady. Workshop participants envisioned a place where people can retreat, meet friends, eat a take-out lunch, or read a book while waiting for a train, as well as a place with more active uses such as markets,*

*fairs, performances, and sport-related activities. The buildings surrounding the plaza should provide an active edge - a “front porch” with uses that spill out into the plaza -from which diners and shoppers can observe and participate in the life of the plaza. The plaza space should feel like it extends across Wynkoop Street and, on weekends or for special events, the street could even be closed to traffic.”*

### **Master Developer Selection**

Early on, the Executive Oversight Committee recognized that the 2004 Master Plan was a long-term effort that would take many years to implement fully. The EOC engaged a private development entity to reduce the implementation time for transportation elements and to help fund the effort. The EOC also recognized the benefit of including a private developer in the process as important design decisions were made.



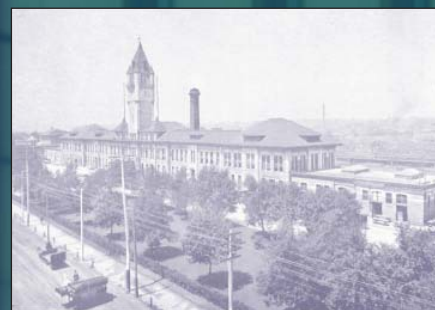
In November 2006, after an extensive solicitation process, Continuum Partners, LLC, East-West Partners, and their development team were selected as the Master Developer to begin exclusive negotiations with the Executive Oversight Committee. The EOC made this selection because the Continuum/East-West proposal outlined a way to accomplish the transportation and development goals of the 2004 Master Plan in a single phase, using the concept of a Transit District. The Transit District concept also enabled development to begin sooner, resulting in a viable transportation and development asset much earlier than expected with the 2004 Master Plan. Continuum and East West formed the Union Station Neighborhood Company (USNC) to undertake the design, construction, and development of Denver Union Station and the Transit District. USNC entered into a letter of intent agreement with the EOC outlining specific commitments to construct the transportation components by late 2012.



Original 1881 Station



After the Fire in 1894



1895 Station

## DENVER UNION STATION

### Letter of Intent

In January 2008, the EOC and USNC entered into a Letter of Intent (LOI) agreement that outlines the responsibilities and arrangements for the partner agencies and Master Developer. The LOI allows the Master Developer to proceed with the contract and design work needed to build the project. The major elements covered in the LOI include:

- A definition of deadlines and deliverables for a 30 percent design package.
- A description of the required elements of a design-build contract, including provisions for development of transit and other public improvements, such as plazas, walkways, pedestrian connections, and renovation of the Historic Station.
- A determination of appropriate master developer fees and a payment schedule.
- Timelines for the appraisals and sale of surplus Denver Union Station land, and Market Street Station and subsequent construction timelines.
- A statement that architectural design and public spaces for this important project will include finishes commensurate with the expectations of the partner agencies and the community.
- Expectations for the renovation of the Historic Station.
- Next steps for
  - completing the final environmental impact statement (FEIS);
  - establishing legal structures for issuing debt and executing and managing the design-build contract;
  - determining agreements for creating a Downtown Development Authority, a structure for use and ownership of the Historic Station, formal development agreements, and bond documentation.

### Vision and Goals

The 2004 Master Plan Vision and Goals statements

were created to guide the future redevelopment of Denver Union Station. These statements were prepared jointly by the Executive Oversight Committee, the Union Station Advisory Committee, and the Technical Advisory Committee. The vision and goals remain valid for this Master Plan Supplement and are reiterated here exactly as they appear in the original 2004 Master Plan.

### Denver Union Station Vision Statement

*Denver Union Station will be a multimodal transportation hub of international significance and a prominent and distinctive gateway to downtown Denver and the region.*

*Denver Union Station will bring critical elements of the public and private local, regional, statewide, and national transportation systems, both existing and future, together with private development and inspiring civic features.*

*Denver Union Station will create an exciting setting that will improve the connections between all transportation modes, respect the character and historical significance of the station and its adjacent neighborhoods, and provide a stimulating environment for public activity and economic vitality.*

### Denver Union Station Goals Statement

#### Transportation/Multimodal Center

Develop a public transportation facility that will:

- Serve as the hub of the regional transportation system.
- Ensure that all modes function together to optimize efficiency for each mode and the whole system.
- Provide connections for all transportation modes into and throughout the Denver region.
- Increase transit ridership and use of other forms of public and private transportation and

alternative transportation modes.

- Provide more ground transportation options.
- Accommodate all ground passenger modes, both public and private, to the greatest extent feasible on the site.
- Create a system of orientation and transfer between transportation modes that allows for simple and efficient connections for travelers.
- Support the region's major activity centers and destinations by providing easy access and seamless connections.
- Provide transportation options and uses that are consistent with the Metro Vision Plan.
- Provide the opportunity for connections to and between local, regional, statewide, and national transportation systems and networks.

### Urban Design and Neighborhood Integration

Develop a plan with pedestrian-friendly urban design elements that:

- Ensure the mass, scale, orientation, and architecture of the redeveloped Denver Union Station site and private development are harmonious with the Historic Station and the surrounding neighborhoods.
- Encourage a mix of land uses on the site that creates appropriate densities of development compatible with neighborhood plans and concepts.
- Connect downtown, the Central Platte Valley, and the adjacent neighborhoods, emphasizing pedestrian and bicycle connections to and through the development, easy access to transportation, and an active, attractive environment.
- Create a positive user experience for the Denver Union Station multimodal transportation center and related on-site development.
- Provide for the creation of public spaces.



### **Historic Preservation**

Develop a plan that:

- Provides for the preservation of the Historic Station building.
- Regarding new development, complements the form, architecture, and character of the Historic Station and the surrounding neighborhoods.
- To the greatest extent feasible, physically and functionally incorporates the Historic Station into the multimodal transportation hub.

### **Development Feasibility**

- Develop a plan that maximizes the opportunities for public/private development that supports transportation ridership, serves neighborhood needs, functions as a regional and statewide amenity, generates project revenues to help offset costs, and enhances the downtown environment.
- Develop a financing package that optimizes the use of funding from federal, state, local, and private sources.
- Integrate transportation and development in an economically sustainable phasing and build-out strategy that takes advantage of available funding and public/private partnerships.

### **Implementation and Governance**

- Develop a plan that provides for governance of the Denver Union Station site that is appropriate for a public/private facility, that does not put undue risk and burden on the taxpayers, and that provides opportunities for private partners and users.
- Ensure that the long-term ownership and governance structure for the Denver Union Station site incorporates strict standards for quality and cost-effectiveness regarding facility design, workmanship, operations, and maintenance.

### **Sustainability**

- Meet the needs of the present without compromising the ability of future generations to meet their own needs.
- Use approaches that have net-positive effects on the local environment, social well-being, and economic health.

### **Benefits and Expectations for the Denver Union Station Transit District**

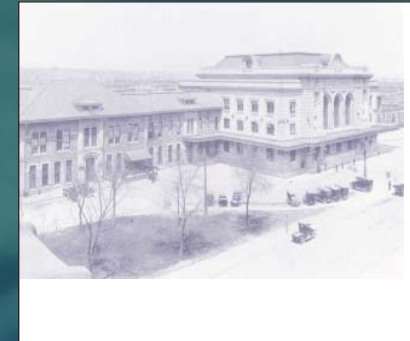
As described below, the transportation and private development elements of the Denver Union Station Transit District will benefit the city, metropolitan region, and state. The transportation hub will promote economic vitality by providing citizens better access to housing, jobs, and commerce, and improved connections for business, recreation, tourism, and services. Connections within the Transit District also will benefit the young, the elderly, and the disabled by helping them access employment, shopping, and leisure activities more independently. Some of the Denver Union Station Transit District benefits are that it:

- Aligns major transportation elements on the 17<sup>th</sup> Street axis for easy wayfinding and passenger orientation.
- Allows all major transportation components—light rail, regional bus, and passenger rail—to be constructed in a single phase, thereby opening the site for private development and avoiding the long-term disruption future construction of these elements would cause.
- Establishes new high-quality public spaces for the enjoyment of transit users and central Denver residents and visitors, and allows Wynkoop Plaza to be constructed in its final form early in the construction phase.
- Creates simple and convenient access to and connections between transportation modes, thereby increasing transportation choices and enhancing time effectiveness and traveler

comfort for tens of thousands of regional commuters, residents, and visitors every day.

- Re-establishes Denver Union Station as a major transportation hub for downtown Denver, the metropolitan area, and the state, with the restored historic building as the icon and central orienting feature.
- Facilitates seamless, efficient connections among urban centers throughout the region, expanding workforce mobility, housing options, and access to essential services, entertainment venues, and shopping for people of all ages, needs, and means.
- Links the important values of historic preservation, transportation efficiency, and economic development by enhancing the use of the Historic Building, creating jobs, generating tax revenues, and attracting tourists and travelers to the Denver metropolitan area.
- Provides space for new economic activity, a variety of jobs, and a range of housing types and prices. In doing so it provides thousands of on-site jobs through office, retail, and transportation uses, and provides construction jobs through multimillion dollar investments in development, historic rehabilitation, transportation, and infrastructure.
- Provides new pedestrian and bicycle links to connect LoDo and the Commons Neighborhood through the site.

The Transit District meets and reinforces the vision and goals established in the 2004 Master Plan. It provides the greatest benefit for all aspects of the endeavor, balancing the needs of transportation, private development, and the pedestrian environment.



*1914 Station*



*1933 Castlewood Canyon Flood*



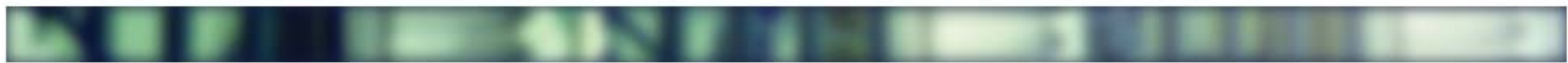
*Mizpah on Welcome Arch*

**MASTER PLAN  
SUPPLEMENT**





**DENVER UNION STATION**





# MASTER PLAN SUPPLEMENT

Multimodal Transportation Program





### THE MULTIMODAL TRANSPORTATION PROGRAM

The multimodal hub will blend many different transportation modes in one place with convenient transfers and connections. This critical mass of transportation services will encourage dynamic redevelopment and give the region's residents and visitors an array of transportation choices. The transportation program aims to serve a large number of visitors.

Understanding how large the number of transit riders will be is important to effective circulation. A common measurement of visits to the site reflects the total level of transportation activity expected from all modes. A visit is



**DENVER UNION STATION**

Section of Passenger Rail between 16th and 17th Streets

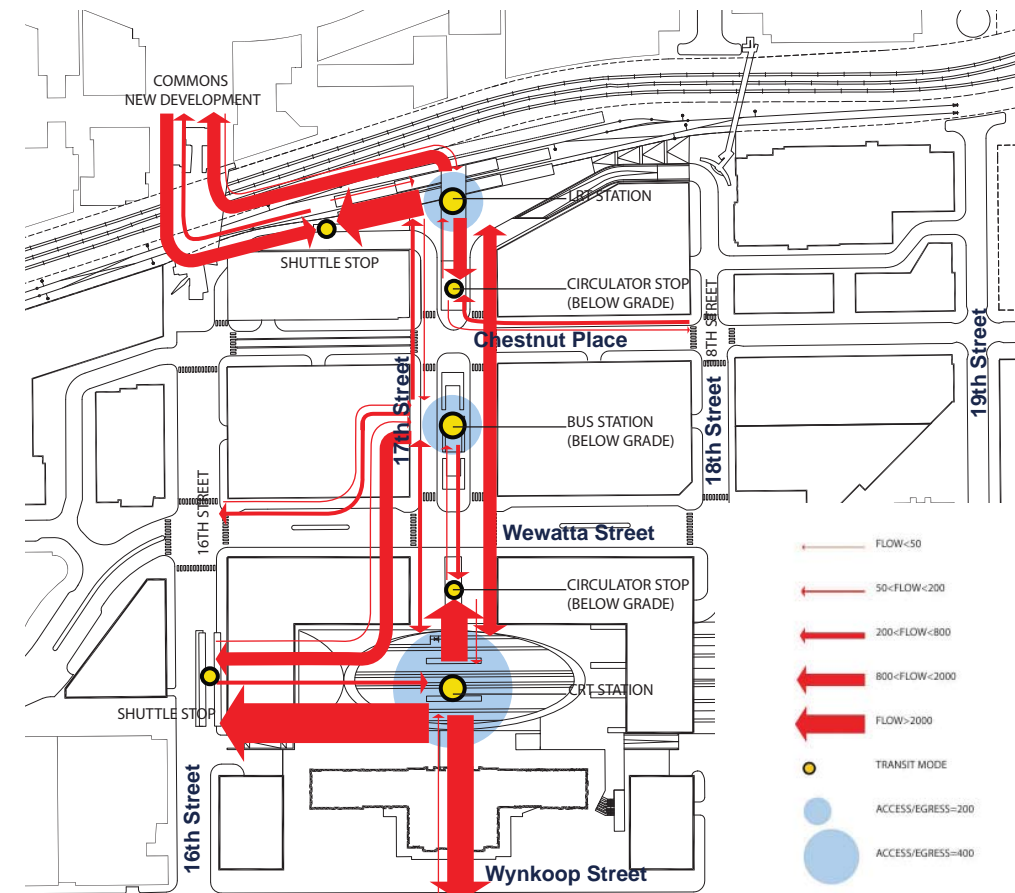
AM Peak Hour Transit Transfers and Through Trips at DUS - 2030 Build

From	TO							Total
	Ped	Mall	Circ	Reg./Exp.	LRT	CRT		
Ped	-	386	211	10	23	49	679	
Mall	79	-	-	20	56	120	275	
Circ	79	-	-	10	31	66	186	
Reg./Exp.	167	405	223	200	140	205	1,340	
LRT	681	1,655	909	75	200	500	4,020	
CRT	1,265	3,072	1,688	125	610	400	7,160	
<b>Total</b>	<b>2,271</b>	<b>5,518</b>	<b>3,031</b>	<b>440</b>	<b>1,060</b>	<b>1,340</b>	<b>13,660</b>	

PM Peak Hour Transit Transfers and Through Trips at DUS - 2030 Build

From	TO							Total
	Ped	Mall	Circ	Reg./Exp.	LRT	CRT		
Ped	-	79	79	167	681	1,265	2,271	
Mall	386	-	-	405	1,655	3,072	5,518	
Circ	211	-	-	223	909	1,688	3,031	
Reg./Exp.	10	20	10	240	75	125	480	
LRT	23	56	31	140	200	610	1,060	
CRT	49	120	66	205	500	400	1,340	
<b>Total</b>	<b>679</b>	<b>275</b>	<b>186</b>	<b>1,380</b>	<b>4,020</b>	<b>7,160</b>	<b>13,700</b>	

Source: RTD



Pedestrian Flow Diagram showing general passenger flow between modes



## Transportation Program

Revised 1/17/08

<b>COMMUTER RAIL (8 track)</b>	<b>Number of req'd tracks/Track No. /share with</b>	<b>Platform Length</b>	<b>Frequency</b>
Amtrak	1 req / track #4 / track #5	1115'	2/day
Ski Train	1 req / track #5 / track #4	1115'	2/day (seasonal)
East Corridor	1 req / track #1 / NA	985'	4/hr.
Northwest Corridor	1 req / track #8 / NA	985'	4/hr.
Gold Line	2 req/track #6 and #7/NA	615'/500'	8/hr.
North Metro	1 req / track #2	500'	4/hr.
Future Commuter Rail Capacity	Track #3	615'	
Intercity Rail (North Front Range)	TBD	TBD	2/hr.
Intercity Rail (South Front Range)	TBD	TBD	2/hr.
Additional Capacity at non-peak times			
<b>LIGHT RAIL (2 Track)</b>			
Light Rail West Corridor	1 req/ all	400'	12/hr.
Light Rail SE/SW Corridors	1 req / all	400'	8/hr.
Platte Valley Trolley	NA	NA	
<b>REGIONAL BUS (22 Bays)</b>			
RTD Regional Bus	16	(10) 45' bays, (6) 65' bays	-
Commercial Bus	2	(2) 45' bays	-
Downtown Circulator	4	(4) straight bays	
<b>OTHER BUS</b>			
Local Bus	None	None	-
16th Street Mall Shuttle (@DUS)	8 (4 EB/4 WB)	45' slips	-
16th Street Mall Shuttle (@LRT)	4	45' slips	-
Tour Buses (Interstate)	Share w/Commercial Bus	45' slips	1/day
Charter Buses	Share w/Commercial Bus	-	-
<b>COMMERCIAL CARRIERS</b>			
Taxi	15 positions	-	-
Rental Car	30 parking spaces	-	-
Vans and Shuttles	3 positions	-	-
Ski Area Shuttles	1 dedicated bay	-	-
Van Pool	Drop off area	-	-
Limo	Designated loading zone	-	-
Courier Services	Designated loading zone	-	-
Taxi & Private Vehicle Curb Drop-off	8 spaces or positions	-	-
<b>OTHER MODES</b>			
Bicycle	Bike Station	-	-
PediCab	On Street (16th /or designated site)	-	-
Motorcycles / Scooters	In Parking Structure	-	-
Small Electric Vehicles	In Parking Structure	-	-
Horse Drawn Carriage	On Street (16th /or designated site)	-	-
Pedestrians	Incorporate into circulation system	-	-
<b>On-Site Public Parking</b>			
Commercial Parking Facility	150 spaces	-	-
Ski Train	-	-	-
Amtrak	-	-	-
Transit Parking (RTD)	-	-	-
<b>Total Public Parking</b>	<b>150 spaces</b>	-	-

defined as a transit patron entering and leaving the Transit District, thus a patron who passes through twice a day makes two visits. More than 200,000 typical weekday visits to the Transit District are expected at full build out. Of these, the vast majority of visits will occur via RTD transit, and are calculated using projected boardings (getting on a transit vehicle), alightings (getting off a transit vehicle) and through trips (not changing transit vehicles). For pedestrians, a boarding is defined as a pedestrian walking to the Transit District, while an alighting is a pedestrian walking from the Transit District. Other transportation services and the retail, commercial, and residential development in the Transit District will attract thousands of additional visits.



This section of Passenger Rail at approximately 18th Street shows bus access to the Regional Bus Facility.



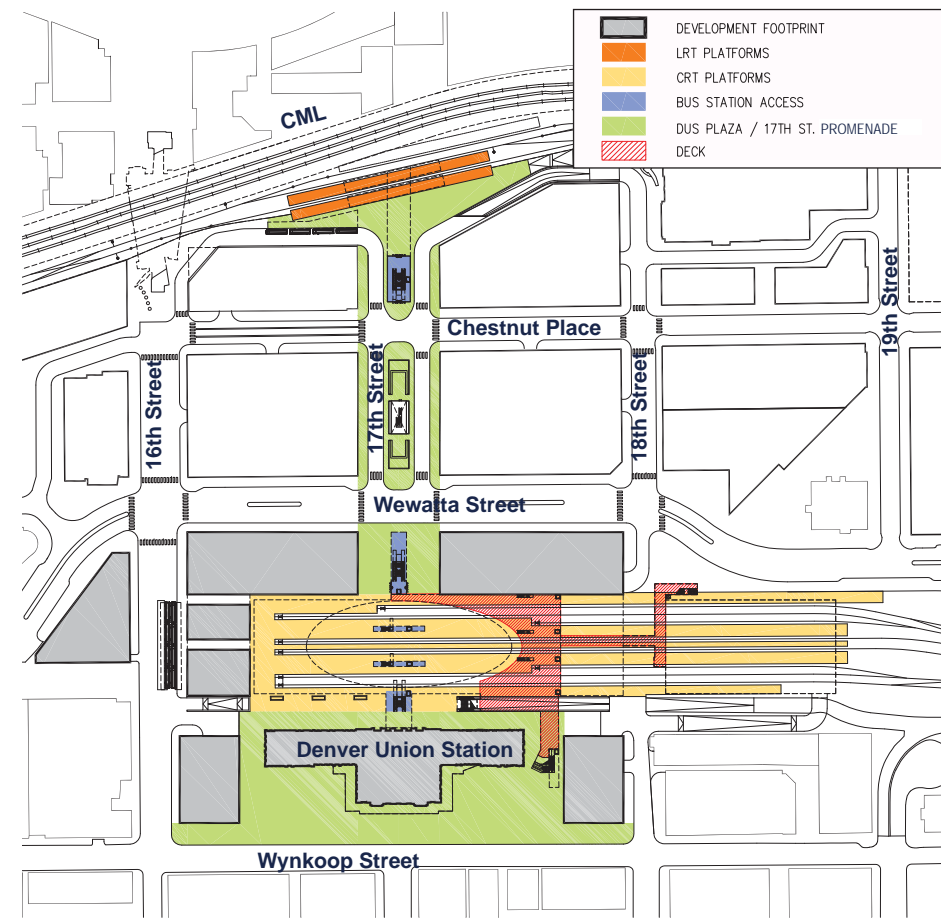
**Transit District and Transportation Elements**

**Passenger Rail**

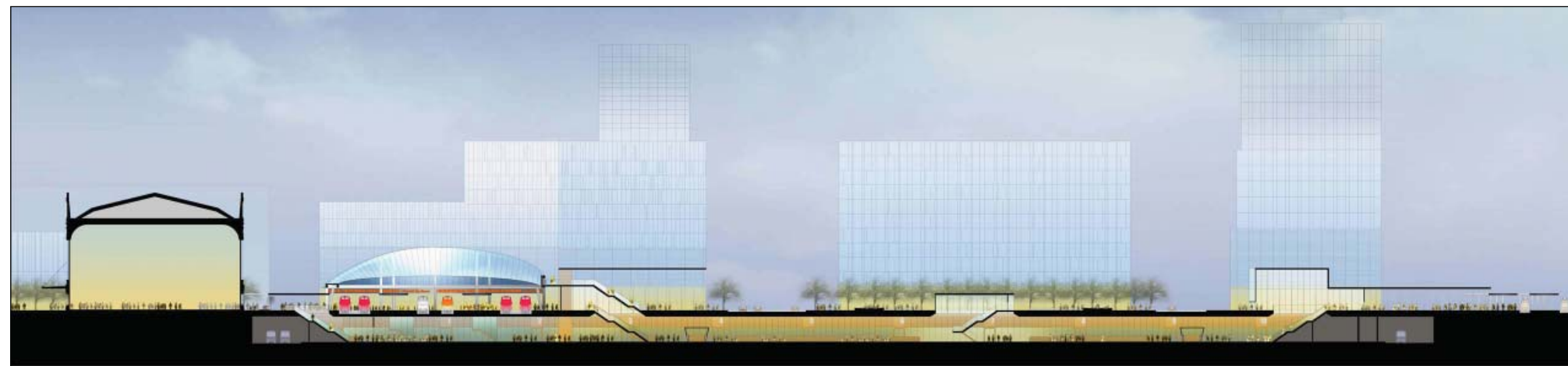
On the west side of the Historic Building, the existing five passenger rail tracks accommodate Amtrak and Ski Train rail services up to 1,100 feet long, with “tail tracks” that cross 16th Street and extend to Cherry Creek. Train access is provided to the site only from the north, over the 20th Street grade-separated structure. Denver Union Station has three lead tracks in the track throat north of 20th Street. One active pedestrian tunnel connects below the passenger rail tracks between the light rail platforms and the Historic Station.

Under the Transit District, passenger rail service will be accommodated on eight at-grade tracks immediately west of the Historic Station. The tracks will stub end just to the north of 16th Street. The passenger rail program includes RTD’s Northwest, East, North Metro, and Gold passenger rail lines, existing Amtrak and Ski Train services, and capacity for occasional special trains and potential new rail services, as listed below:

- Northwest Corridor: Passenger rail connections to Longmont, Boulder, Louisville, Broomfield, and Westminster
- East Corridor: Passenger rail through east



*At-Grade Transportation Plan*



*A cross section of the 17th Street spine shows (left to right) the Historic Station, passenger rail platforms, the Promenade, with below-grade bus facility, and light rail platforms.*

Denver and Aurora to Denver International Airport

- North Metro Corridor: Passenger rail to Commerce City, Thornton, and Northglenn
- Gold Line Corridor: Passenger rail to Adams County, Arvada, and Wheat Ridge
- Intercity Passenger Rail: Amtrak and other potential regional and national rail service
- Private Excursion Rail: Including Ski Train and Cheyenne Frontier Days service
- I-70 Mountain Corridor: Potential new rail service to mountain communities
- Front Range Rail: Potential new rail service between Denver, Fort Collins, and Loveland to the north and Colorado Springs and Pueblo to the south

Platform lengths and widths for the passenger rail lines will vary depending on the program for each corridor. Denver Union Station can accommodate up to a 970-foot-long platform for RTD's passenger rail lines. Platform width varies from 30 feet where the platform will be shared by two tracks to 15 feet wide where it will be used by one track.

For Amtrak and Ski Train, there will be space for two passenger platforms, up to 1,100 feet long, to serve three locomotive trains with 13 cars each. These

carriers run on infrequent schedules and have the longest dwell time at the station. Their schedule gaps will allow flexibility to share platforms with other carriers. Denver Union Station also will have a long-tracks service platform for baggage handling and in-station maintenance.

As part of the passenger rail improvements, the track throat north of 20th Street will be rebuilt to provide five tracks with switches to improve efficiency of operation and allow the passenger rail trains to access any platform. The current configuration provides adequate passenger rail capacity for the 2030-year planning horizon and beyond. These improvements will replace the functions of the existing tail tracks between 16th Street and Cherry Creek, thus allowing removal of these rail tracks. The public right-of-way under the removed tracks, a portion of which will be occupied by the ultimate Wewatta Street cross section, will be retained by CCD.

Denver Union Station will continue to function as a "stub-end" station for passenger rail. This stub-end configuration requires all trains to enter and exit the station from the same direction (from and to the north). The long trains from Amtrak and Ski Train will generally back into the station. The commuter rail technologies under consideration will allow

trains from the north to go in either direction to and from the station. The location of the rail at-grade will prevent a future through station from occurring at this location due to crossing conflicts at 15th and 16th streets and Speer Boulevard.

With the potential of new rail services emerging, the plan preserves the option to expand passenger rail services adjacent to the light rail station within the Consolidated Main Line property. Outside RTD's peak hours, there also will be available capacity for new service at the stub-end passenger rail station. For through service, a passenger rail station adjacent to the light rail station at the Consolidated Main Line will be possible. This area will be located immediately next to and connected with the Transit District, with connections to light rail, the regional bus facility, and the Mall Shuttle and Downtown Circulator services.

#### **Light Rail Transit (LRT)**

Currently, the Southeast and Southwest light rail transit (LRT) lines arrive at-grade between the Historic Station and Wewatta Street. The Transit District Plan calls for LRT to be adjacent to the Consolidated Main Line. A plaza between the LRT and Chestnut Place will include a signature canopy to provide shade and weather protection and help create



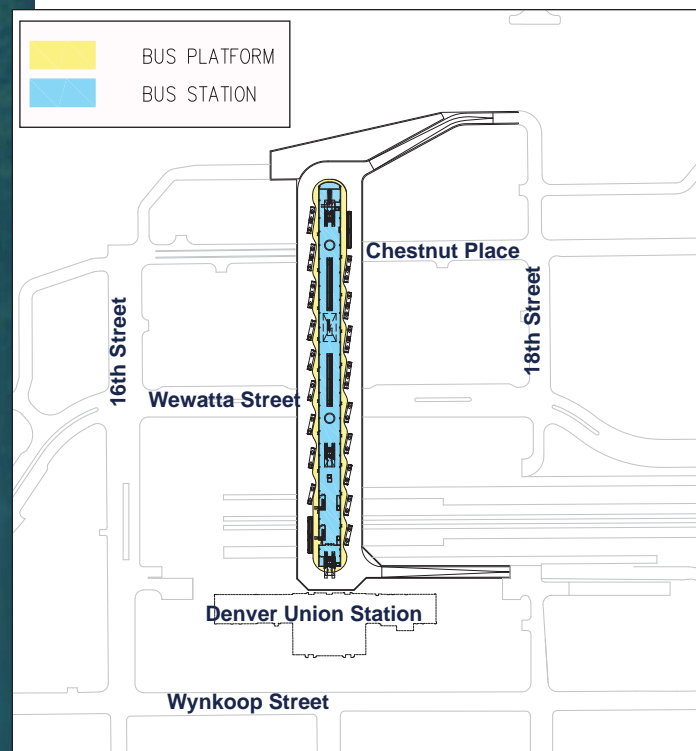
*Site section looking west at the Passenger Rail Station*



## DENVER UNION STATION

a sense of arrival and orientation for transit users and other pedestrians. The 17th Street Promenade, the 16th Street Mall Shuttle, and Regional Bus Facility concourse will provide the primary connections between light rail, passenger rail, and the Historic Station. The LRT program within the Transit District includes:

- West Line: Light-rail connections to Golden and Lakewood
- Southeast Line: Light-rail connections to southeast Denver, Aurora, Centennial, Greenwood Village, and Lone Tree
- Southwest Line: Light-rail connections to south Denver, Englewood, Littleton, Sheridan, and Highlands Ranch



*Located below-grade, under the 17th Street right-of-way, the Regional Bus facility provides 22 bays for bus routes that serve the city, region, and beyond.*

The Transit District will accommodate four-car LRT trains with 400-foot-long platforms. The width for the LRT tracks and platforms will be 100 feet. An additional 50 feet of space will be provided within the RTD right of way for a future third track and platform, if needed.

The Transit District also includes space for tail tracks north of the platforms to store two four-car trains and to provide access to the other light rail tracks, which extend to approximately 19th Street.

### **RTD Express and Regional Bus**

Currently, regional and express bus routes from the north and northwest metro area access downtown Denver via the HOV lanes next to 20th Street, and circulate adjacent to the Historic Station to access the Market Street Station via the 16th Street Mall.

The Regional Bus Facility in the Transit District will replace Market Street Station. The Transit District locates the Regional Bus Facility below grade under the 17th Street right of way between the light rail platforms and the Historic Station. Buses will access and exit the facility from new ramps at either the HOV lane near 18th Street or at 18th Street and Chestnut Place. This will reduce the number of buses using the 16th Street Mall and circulating through Lower Downtown between Blake Street and Wynkoop Street. The bus facility will have 22 bays: 16 for RTD regional and express buses, four for the Downtown Circulator, and two available for other commercial carriers or new services. The bus facility will be approximately 1,000 feet long and 150 feet wide. Pedestrians will access the facility from the light rail platforms, the passenger rail platforms, the Historic Station, and at 17th and Wewatta streets. An emergency exit also will be located between Chestnut Place and Wewatta Street. Pedestrians will be able to circulate from end to end in a climate-controlled environment.

As the only underground component of the Transit District, the Regional Bus Facility will be mechanically ventilated, and the ventilation stacks will be accommodated in the site design.

### **RTD Local Bus**

Several local bus routes will continue to serve Denver Union Station and LoDo at street level and have curbside stops. These include the 20, 0, 6, 15, and 10B routes. The 20 route will continue to serve Wynkoop Street, and the other routes will be rerouted to Wewatta Street.

### **16th Street Mall Shuttle and Downtown Circulator**

The Transit District also will include new transportation services to help distribute passengers to downtown destinations.

The 16th Street Mall Shuttle now terminates at Denver Union Station next to the “C” Line and “E” Line light rail platform. Under the Transit District, the Mall Shuttle will extend to a location adjacent to the new light rail station at the Consolidated Main Line. The Mall Shuttle will have four bus bays for passenger loading and unloading, and new space to stage four shuttle vehicles. Space for loading and unloading will be provided on 16th Street, next to the stub end of the passenger rail tracks and the light rail platform at the Consolidated Main Line. The Mall Shuttle will run in dedicated lanes and be separated from vehicle traffic between Wynkoop Street and the light rail station.

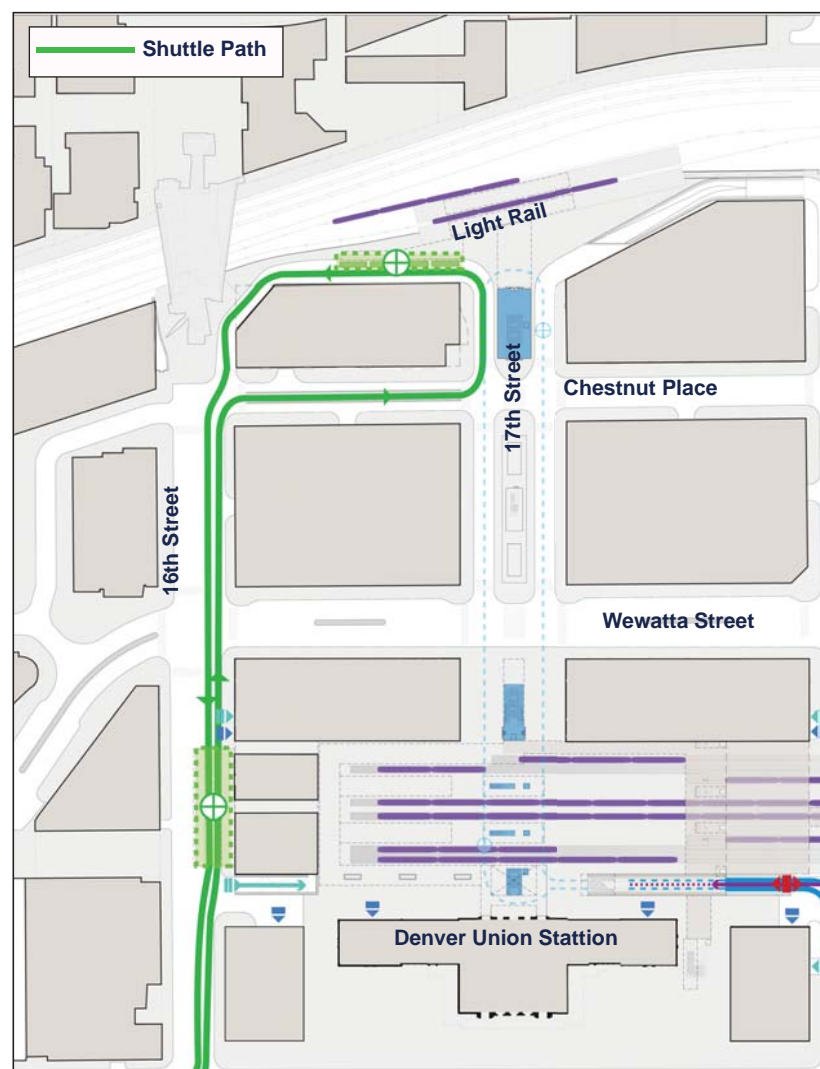
On the basis of recommendations in the Downtown Multimodal Access Plan (DMAP), the Downtown Circulator will connect Denver Union Station to the employment center in mid-downtown and continue to Civic Center Station and the Civic Center cultural facilities. The DMAP has proposed a rubber-tire vehicle with service frequency similar to the 16th

Street Mall Shuttle on 18th/19th streets and Lincoln/Broadway between Denver Union Station and the Civic Center. It will provide service to passenger rail, regional bus, and light rail riders via the bus facility located beneath 17th Street. The Downtown Circulator will access the ramp into the Regional

Bus Facility via 18th Street. Space will be provided in the Regional Bus Facility for the circulator to access two dedicated bus bays below passenger rail and two dedicated bus bays adjacent to the light rail station. The Downtown Circulator will provide service similar to the 16th Street Mall Shuttle to meet

the demand for distributing passengers to the east end of downtown and Civic Center attractions. It will operate in both exclusive lanes and mixed traffic on 18th and 19th streets and Broadway and Lincoln.

Of the approximately 11,000 peak hour trips with downtown origins or destinations, most will use the Mall Shuttle or Downtown Circulator. Of the 10,000 or so trips expected to occur via the Mall Shuttle or Downtown Circulator, the exact split between the modes is not known and will depend on the technology, route, and schedule of this new service. However, since the Mall Shuttle capacity will be approximately 6,000 passengers per hour, the Downtown Circulator will need to be designed to serve approximately 4,000 passengers per hour.



*The 16th Street mall shuttle route to light rail*

#### **Commercial Bus and Private Carriers**

Commercial bus service, including intercity, international, charter, and tour bus carriers, will be accommodated in the Transit District. Two bus slips will be available for private commercial carrier bus during peak hours, with more slips available at nonpeak hours. RTD has an existing agreement with Greyhound to provide this access in their Market Street Station, and may extend this opportunity to Greyhound and other commercial bus companies at the new facility.

Additional private carriers will support the Transit District, and may include taxis, limousines, vans, shuttle services, and auto rentals. These carriers add breadth, variety, flexibility, and convenience to transit patrons, area employees, and residents, as well as tourists and shoppers. Space accommodations will be identified during the final design process for private carriers to pick up and drop off passengers. The program for these services includes:

- Taxis and Limousines: 15 curbside positions, as determined by CCD
- Vans and Shuttle Services: 4 designated curbside positions, as determined by CCD
- Auto Rentals: Market-rate space within structured parking

#### **Public Parking**

Public parking will be provided in the parking garage located between 18th and 19th streets. One level of parking in this structure will provide approximately 150 parking spaces, which can be used by the public at market rates. RTD has determined that a Park-n-Ride is not required within the Transit District, so no free transit parking will be provided. Shared-use parking provisions for evenings and weekends should be pursued with the on-site development.



# DENVER UNION STATION

## Transportation Program Phasing, Costs, and Funding

The Transit District is based on a commitment that all the transportation components will be operating before the openings of the FasTracks corridors, according to the following schedule:

- Light Rail: Fall 2009 completion and operation
- Regional Bus Facility: Fall 2010 completion and 2012 operation
- Passenger Rail: Summer 2012 completion and operation

### Project Costs and Funding Sources Table

Total Estimated Project Revenues	
RTD FasTracks	\$ 208,800,000
RTD Earmarks	
CO-097 (safetea-lu)	\$ 2,000,000
CO-520 (FTA 5309 Bus)	\$ 2,000,000
CO-167 (FTA 5309 Bus)	\$ 4,600,000
CDOT Earmark	
FHWA/CDOT Ear Mark (PNRS safetea-lu)	\$ 40,000,000
CDOT SB-1	\$ 16,800,000
Metropolitan District	\$ 25,400,000
Surplus Land Sale	\$ 38,000,000
City Obligated Revenue	\$ 120,800,000
Other sources	\$ 18,600,000
<b>Total Estimated Project Revenues</b>	<b>\$ 477,000,000</b>

Total Estimated Project Costs	
Light Rail Facility	\$ 35,000,000
Regional Bus Facility	\$ 205,000,000
Commuter Rail Facility	\$ 168,000,000
Street and Utilities	\$ 23,000,000
Plazas and Public Spaces	\$ 29,000,000
DUS Renovation	\$ 17,000,000
<b>Total Estimated Project Costs</b>	<b>\$ 477,000,000</b>

## Circulation

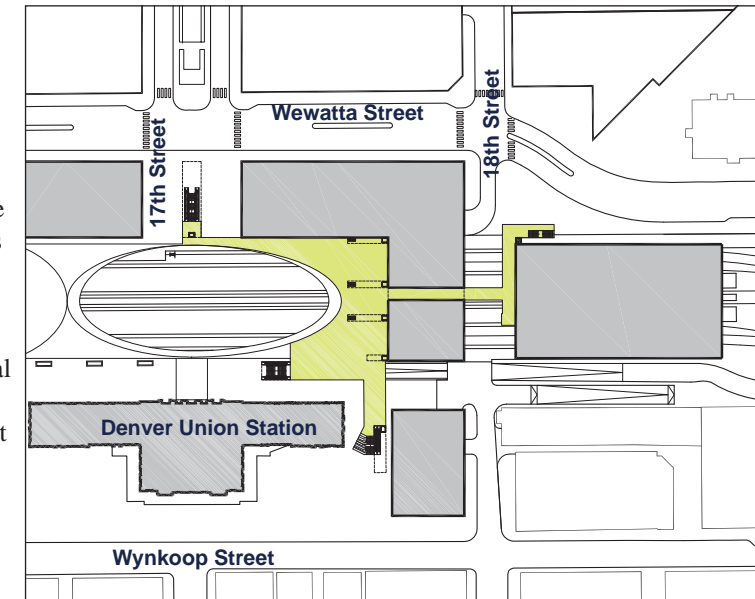
Establishing easy-to-understand circulation for pedestrians, bicyclists, and drivers will be a key component of the Transit District. Pedestrians are defined as those who walk or bike onto the site and exit via another mode, those who arrive via another mode and exit as a pedestrian or cyclist, and those who walk or bike both to and from the site. The majority of these trips are paired with either another transit or commercial carrier mode. Using this definition, excluding on-site circulation, the Transit District expects approximately 35,000 pedestrians per day.

### Pedestrian Connections

Convenient, attractive, and engaging pedestrian connections are important to the success of the Transit District. Pedestrian facilities will be provided on the site to enhance circulation around and through the Transit District. Pedestrian crossings with signals will be provided at the intersections on Wewatta at 16th, 17th and 18th streets, and on Wynkoop at 16th, 17th, and 18th to enhance the ability of pedestrians to access the Transit District from neighboring blocks. Pedestrians will be able to walk through the site in a variety of locations, and will have extensive choices for internal site circulation and transit connections.

For pedestrians accessing the Historic Station and Wynkoop Plaza:

- Easy pedestrian access will be available from Wynkoop, 16th, 17th and 18th streets to LoDo via the existing sidewalk system. Wynkoop Plaza will replace the parking lot that currently exists in front of the Historic Station. This plaza will be the front door to the multimodal facility and the Transit District from downtown.



Pedestrian connections above passenger rail

- Access will be provided from the Central Platte Valley side of Denver Union Station, using either the 16th Street or the pedestrian deck connection from 17th, 18th and Wewatta streets.
- Access will be provided to the Regional Bus Facility, with its east access point adjacent to the Historic Station.

For pedestrians accessing the passenger rail system, there are many ways to arrive at the platforms:

- From Wynkoop Street and Wynkoop Plaza, pedestrians will be able to access transit by walking through the plaza at each side of the Historic Station, or by going through the Historic Station. Pedestrians will be able to walk around the Historic Station exterior in a pedestrian plaza environment. The deck-level connection over passenger rail can be accessed via a grand stairway between the north wing of the Historic

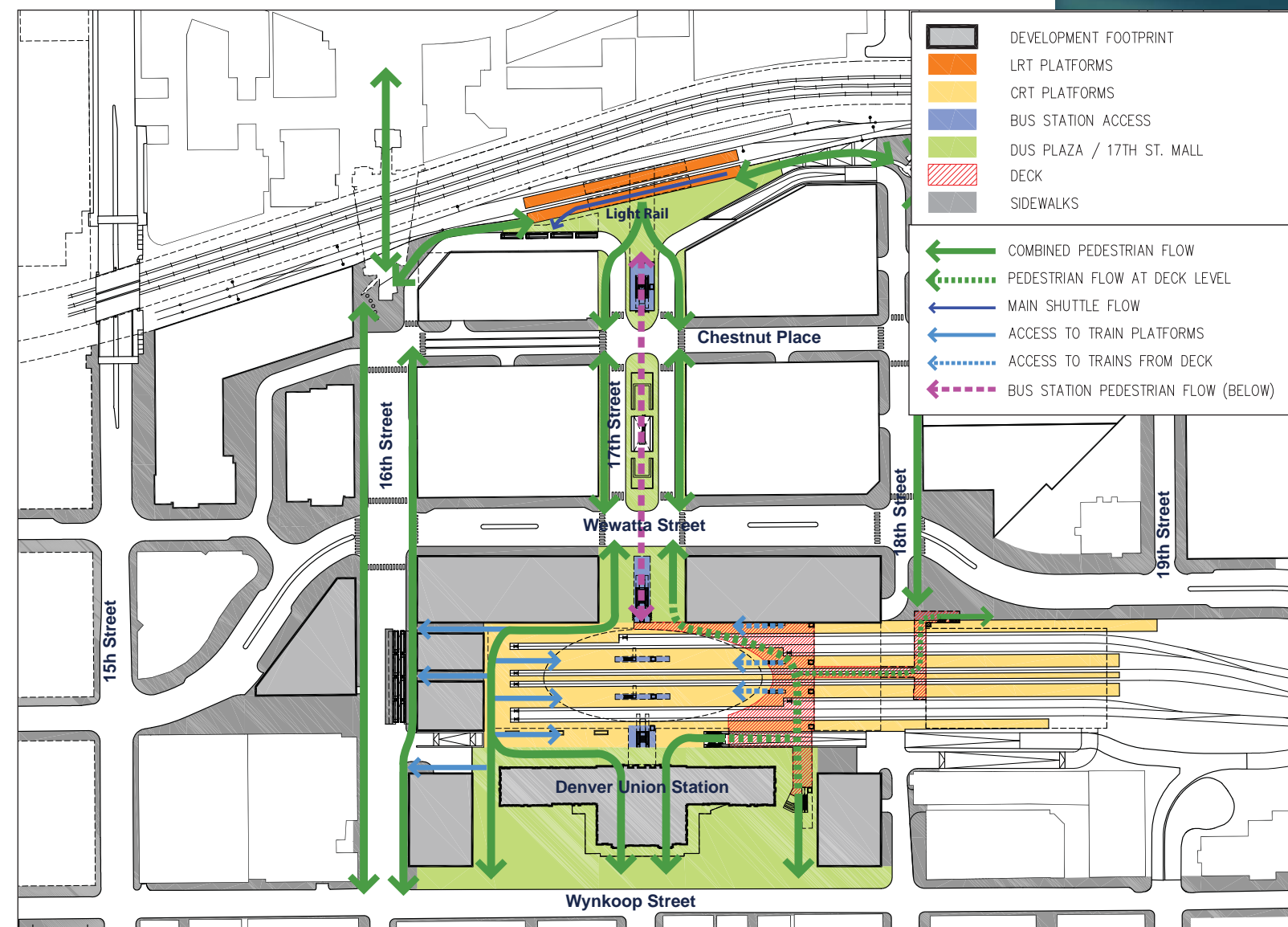
Station and the new development. This deck level access will connect to the passenger rail platforms by stairs and escalators that also lead to the new development along Wewatta Street, the parking structure, and 18th Street.

- From Wewatta Street, pedestrians will be able to access transit from 16th Street along the Mall, from 17th Street at the 17th Street Promenade, and from 18th Street to the parking garage and pedestrian deck over passenger rail.
- From 16th Street, pedestrians will be able to walk directly to the passenger rail platforms, to the Historic Station's west entrance, or around the rail platforms to 17th Street.
- From the Regional Bus Facility, pedestrians will access passenger rail platforms via stairs and elevators. Platform 1, adjacent to the Historic Station building, also will have escalator access.

For pedestrians accessing the Regional Bus Facility, there are many options to choose from, depending on the direction of travel:

- From the Historic Station, access to the below-grade Regional Bus Facility will be located directly out the west doors of the building to stairs, elevators, and escalators that descend to the facility's main concourse.
- To each of the passenger rail platforms via stairs and elevators.
- Via stairs, elevators, and escalators from the east end of the 17th Street Promenade at 17th and Wewatta streets.
- Access to the west end of the facility will be via stairs, elevators, and escalators from the light rail plaza.
- An emergency access point will be located mid-block between Wewatta Street and Chestnut Place.

For pedestrians accessing the light rail facility at the terminus of 17th Street, there are many ways to



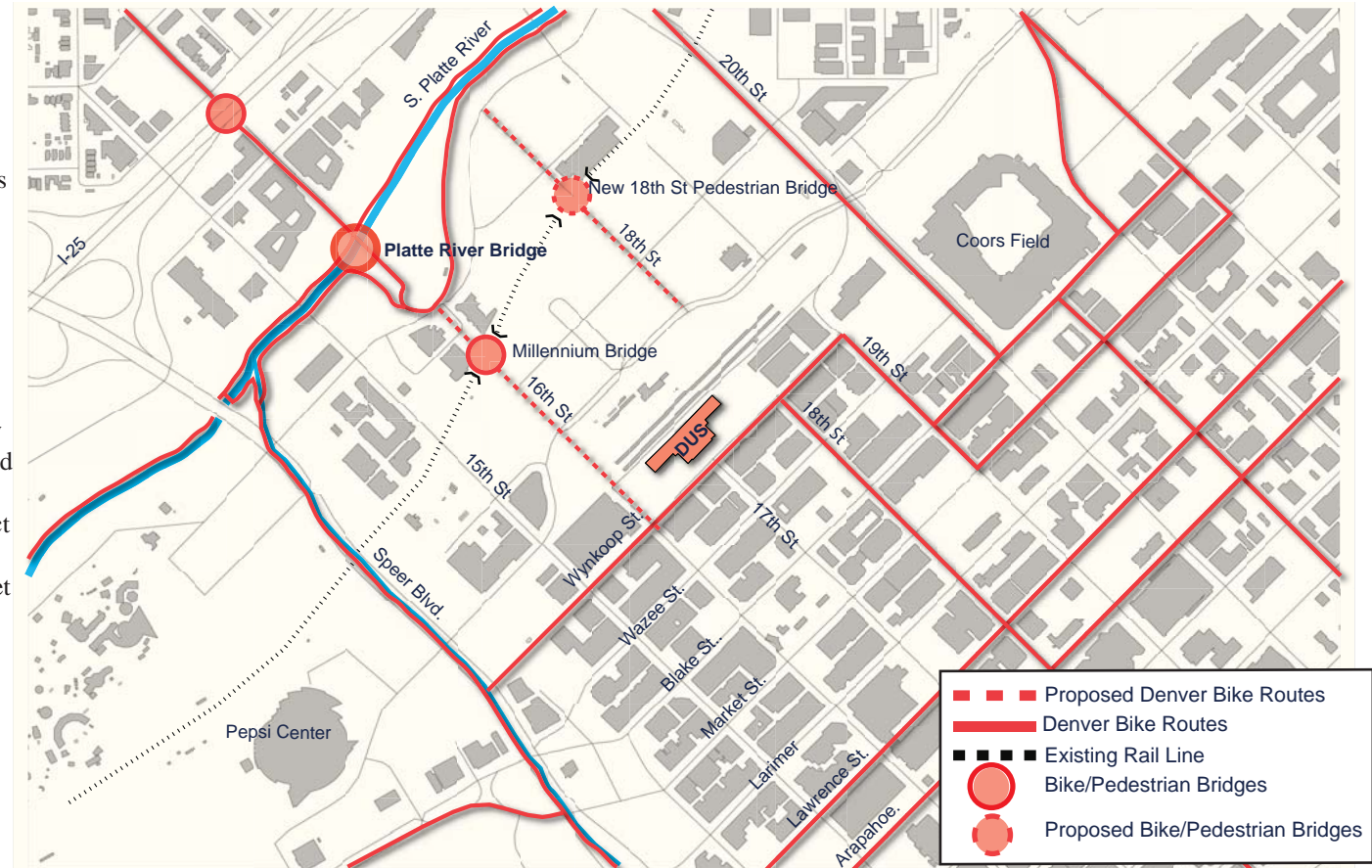
*Pedestrians have many options for circulating through the Denver Union Station site.*





access the light rail platforms:

- From 16th Street, pedestrians can walk from downtown and the Central Platte Valley on 16th Street, or access the Transit District from Commons Park via the Millennium Bridge and walk directly to the south end of the light rail platforms from the downtown side of the bridge.
- From 17th Street, pedestrians can access Denver Union Station via sidewalks on both sides of 17th Street, crossing Chestnut Place to the transit plaza at the light rail station. Pedestrians also can access the transit plaza directly from the station through the Regional Bus Facility with its climate-controlled connection and moving walkway.
- From 18th Street, pedestrians can connect directly to the north end of the light rail platforms if they arrive via the 18th Street pedestrian bridge over the Consolidated Main Line or walk from Denver Union Station or Wewatta Street.
- Access will be provided via the 16th Street Mall Shuttle with a cross-platform transfer, or via the Downtown Circulator with direct access from the west end of the Regional Bus Facility.



*Proposed bike routes and pedestrian and bike bridges will extend Denver's alternative transportation options*

**Bicycle Connections**

Bicycle access to the Transit District will allow a popular alternative transportation mode to connect with other transportation options. Bicycles will be allowed on all of the RTD transit modes (except the 16th Street Mall Shuttle), and good bicycle connections to, from, and through Denver Union Station will provide opportunities for people to access transit and make connections to the surrounding neighborhoods.

Bicycles currently can access the site along Wynkoop

Street from the Cherry Creek bike path to the south of the site at 14th Street. Wynkoop Street has dedicated bike lanes, and also is a good connection to Coors Field to the north at 20th Street. Bicycle access will be provided on 16th Street from the Central Platte Valley to the Millennium Bridge, Commons Park, and the South Platte River Greenway trail. Because of the dedicated Mall Shuttle lanes, bicycles will not be allowed east of Wynkoop Street on 16th Street (except on Sundays). Bicycle travel will be accommodated within the 115-foot right-of-way

width between Chestnut Place and Wynkoop Street on 16th Street. Additional study will be needed to determine whether bicycle lanes, shared-use markings, and/or signs are the most appropriate circulation means in this area in the final design of 16th Street. Bicycle access to Denver Union Station also will be available via 18th Street west of the site, using the future 18th Street pedestrian bridge across the light rail and Consolidated Main Line. This connection will have access to Commons Park and the South Platte River Greenway trail. Access to

the site will be via the elevator to the pedestrian deck over passenger rail at 18th and Wewatta streets.

Space will be provided on site for a bike station, which will be equipped with secured bike parking, bike repair, bike accessories, and changing stalls. It may also include amenities such as bike rentals, restrooms, and a café or snack bar. The bike station is intended to be a private concession, and is therefore contingent on a commitment of ongoing operating funds from an as-yet-undetermined source. Inverted-U bike racks and bike lockers will be provided at key locations around the facilities for easy and convenient bicycle parking.

Bicycles will be permitted within the Regional Bus Facility pedestrian concourse, but bicyclists likely will be required to dismount before crossing significant vehicle intersections or congested pedestrian areas within the Denver Union Station site. Bicycles will not be allowed to use the busway within the Regional Bus Facility.

***Private and Service Vehicles***

Private vehicles will enter the site and park in the various parking garages within private development along 16th Street, between Wynkoop and Wewatta streets. They also can enter and park from 18th Street at the intersections with Wewatta and Wynkoop streets. Service-vehicle access and fire access will be provided to each of the private development buildings on the site. The pedestrian area directly behind the Historic Station will be used for service access at off-peak times and for emergency access.







**DENVER UNION STATION**





# MASTER PLAN SUPPLEMENT

Development Program





## THE DEVELOPMENT PROGRAM

The Denver Union Station 2004 Master Plan and the Master Plan Supplement envision development of a regional multimodal transportation center that encourages private buildings on the site to create an active, economically successful, cost-effective, and attractive urban place. The linking of land use and transportation in the Transit

District is consistent with the goals of the *Denver Comprehensive Plan 2000 and Blueprint Denver, the Downtown Area Plan (2007)*, and other local and regional plans. The redevelopment of Denver Union Station will be an asset to downtown by offering high-profile addresses adjacent to LoDo and the Central Platte Valley, easy access for commuters, residents, visitors, and other patrons, high pedestrian volume for retail shops and restaurants, and reduced reliance on private vehicles.

Including private real-estate development in the Transit District realizes several of the original goals related to urban design and neighborhood integration, historic preservation, and development feasibility by:

- Creating activity throughout the site at all times of the day, thus enhancing public use, appeal, and safety;



Private development parcels within the Transit District will help create an active and economically successful regional multimodal transportation center.

- Providing active pedestrian edges to complement the site's perimeter streets and public spaces;
- Buffering the transportation-intensive uses;
- Making the project compatible with surrounding development;
- Providing attractive, usable connections between downtown and the Commons Neighborhood; and
- Creating an appropriate setting for the Historic Building, one of Denver's most important landmarks.

In addition to the transportation program, four key features provide the framework for private development: the neighborhood context, private development at Denver Union Station, the Historic Station, and the public spaces. The following sections outline the desired urban form and the regulatory requirements for both public and private development at Denver Union Station.

## Neighborhood Context

For most of Denver Union Station's history, the Historic Station building has held the western edge of downtown's warehouse district, with the tracks and rail yards beyond creating a significant barrier. As the rail yards have redeveloped and tracks consolidated, the neighborhoods are coming much closer. Due to new development, the context has changed somewhat since 2004.

### Lower Downtown

Adjacent to Denver Union Station and across Wynkoop Street is the Lower Downtown Historic District (LoDo). Approximately 2,000 people now live in LoDo. New infill buildings have been tailored in massing, street orientation, and detailing to respect the district's character, while also differentiating themselves as modern designs. All development activity is subject to design review by the Lower Downtown Design Review Board.

### Commons Neighborhood

The Commons Neighborhood is located between the Denver Union Station site and the South Platte River. Formerly rail yards, this area will be developed to include as much as 6 million square feet of new office, commercial, retail, and residential uses. Zoning for the Commons area allows for larger-scale buildings compared to LoDo. Buildings of 140 feet in height are typical, with five sites allowing buildings as tall as 250 feet. Considerable residential development has occurred on the west side of the Consolidate Main Line. Commons Park along the river is one of the amenities enjoyed by the neighborhood and central Denver residents. Much of the east side closest to Denver Union Station remains vacant. The Gates Corporation occupies the office building at 15th and Delgany, and a new office building at 16th Street and Chestnut Place is just starting construction.

The Transit District extends from Wynkoop Street to the Consolidated Main Line, incorporating Denver Union Station as well as connections through the Commons Neighborhood. The 17th Street Promenade provides the internal connection for the Transit District, providing access to all major elements. The 16th Street corridor connects Denver Union Station to Riverfront Park in the Commons Neighborhood via the Millennium Bridge, and the site is linked to the Highland neighborhood beyond via the pedestrian bridges over the Platte River and I-25. The 18th Street Pedestrian Bridge over the Consolidated Main Line, proposed by the Central Platte Valley Metro District, will provide better connections to the north end of the Commons Neighborhood.

**Private Development at Union Station**

There are six development parcels on the Denver Union Station site. The intent will be to accommodate a dynamic and complementary mix of residential and commercial uses in buildings of the highest quality. Denver Union Station’s T-MU-30 zoning allows for varying amounts of development under different height limits and setbacks to provide the urban design transition from lower downtown to the Commons Neighborhood.



*Development Massing Diagram showing the six parcels on the DUS site.*

Location	Maximum Height	Other requirements	Potential Uses
1. 16 <sup>th</sup> & Wynkoop (South Wing)	65 feet	45-foot setback from Wynkoop	Ground floor retail; office above (75,000 SF)
2. 18 <sup>th</sup> & Wynkoop (North Wing)	65 feet	45-foot setback from Wynkoop	Ground floor retail; office above (75,000 SF)
3. 16 <sup>th</sup> & Wewatta (Triangle)	140 feet		Office or hotel; ground floor retail (200,000-217,500 SF)
4. Wewatta, 16 <sup>th</sup> -17 <sup>th</sup> (A Block)	140 feet; one tower to 220 feet	Portion over 140 feet limited in area; 16 <sup>th</sup> Street frontage will serve as a "head house" for passenger rail.	Office, residential and retail (500,000 SF); 18 <sup>th</sup> Street buildings will be above tracks and will provide pedestrian connections
5. Wewatta, 17 <sup>th</sup> -18 <sup>th</sup> (B Block)	140 feet; one tower to 200 feet	Portion over 140 feet limited in area	Office, residential and retail (500,000 SF)
6. Parking garage			685 spaces

*Private Development Program*

**Historic Station Building**

The Historic Station is one of Denver’s iconic structures. Continuing and expanding the use of a historic railway station as a transportation facility will be a great accomplishment for the community. The continued use of the Historic Station as a transportation facility invites Denver Union Station into the company of great center-city stations such as New York’s Grand Central Station, Washington Union Station, and Los Angeles Union Station.

The Historic Station will continue to have a prominent role in the Transit District. In addition to providing space for transportation functions such as ticketing, the Train Room likely will be the location for visitor information. The specifics of other uses such as retail will await a more detailed program for the entire site. Retaining a meaningful set of circulation functions and public uses is an important goal for reactivating the Historic Station.

**Public Spaces**

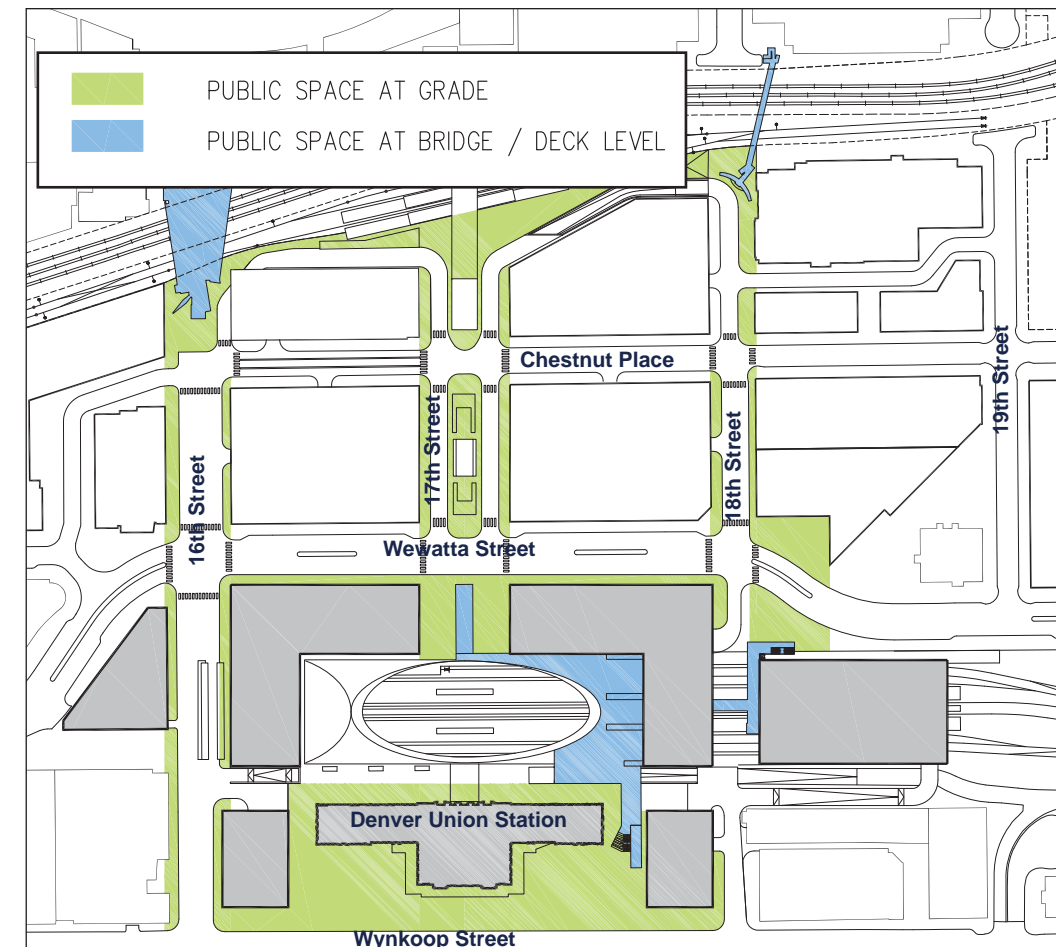
The Transit District will have several significant public spaces: Wynkoop Plaza, the 17th Street Promenade from the east side of Wewatta to the light rail station, the corner of 18th and Wewatta, the pedestrian deck over passenger rail, and the Outdoor Train Room.



## DENVER UNION STATION

Successful public spaces will create opportunities for many different activities and experiences throughout the site. Making public spaces lively and interesting is not an easy task, and each public space will have its own opportunities and challenges. The following are guidelines for actions that have been found to contribute to successful public spaces, and will be used in designing Denver Union Station's public spaces:

- Create active and inviting edges by providing opportunities for street-level retail, restaurants, cafés, and outdoor retailing opportunities.
- Provide ample seating with benches, tables and chairs, movable seating and seating walls, and complementary site furnishings such as bollards, trash receptacles, and banners.
- Provide shade with building canopies and awnings, trees, and structures.
- Provide space for retail vendors and carts for food, flowers, newspapers, arts and crafts, and coffee and drinks. Place vendors and carts along busy passageways where they are convenient, visible, and accessible.
- Provide public art such as sculptures, paving design, fountains, interactive art, and wall art throughout public spaces and along surrounding streets.
- Use a variety of materials that complement the historic building and new development and add interest to the pedestrian environment.
- Provide numerous access points for public and private transportation modes.
- Provide wireless computer internet access.
- Provide power and water for maintenance purposes, as well as for kiosks, performances and events, and temporary uses.
- Create visual interest and focal points with fountains and moving water.
- Provide adequate lighting to make spaces feel safe and useful during evening hours.
- Establish a management entity to program the public space.



*The Transit District features abundant public space, including outdoor passage ways, cafes, retail, seating, and gathering places.*

Design and development of all of the public spaces will take into account the needs of transit users, who can be categorized as follows:

- Hectic: The transit user is late or stressed, and is rushing from one mode to another.
- In control: The transit user is in control and has ample time to make connections.
- Relaxed: The transit user is not required to keep to a schedule for travel connections.

Hectic users need clear paths and easy wayfinding from one mode to another. The “in control” group likely will be regular users who know when and where to make connections or will head off-site to work or to other time-sensitive destinations. They may stop for coffee or food as part of a regular routine. The “relaxed group” will be the most likely to linger to have coffee, meet friends, shop, or use retail and

other site amenities in a more leisurely manner. Transit-related public spaces will be successful only if they accommodate all three user types with the understanding that ratios of each will vary with the time of day and day of the week.

The public spaces of Denver Union Station will create a series of interconnected places and corridors that will help to tie the site together and create a memorable and cohesive pedestrian network. This network needs to have common thematic elements and materials and a high level of quality that will create a clean, attractive, and durable pedestrian environment that can withstand daily use by many people. The design and use of each of these spaces must relate to the other spaces and adjacent uses, be easy to navigate for pedestrians, and provide a variety of opportunities for different functions and activities. Wherever it is possible, pedestrian corridors should have activities to help activate transitions.

#### **Wynkoop Plaza**

Wynkoop Plaza will extend from 16th Street to 18th streets along Wynkoop Street. These three streets create regular edges for the plaza, while the modulated building facades create five distinct areas: in front of each of the two wing buildings, in front of the two Historic Station wings, and in front of the Train Room. The plaza is one of the site's iconic places, and will serve as the front door to the Historic Station and site from LoDo.

In April 2005, Project for Public Spaces presented a community workshop to suggest the types of activities that might occur in the plaza. The nonprofit

organization's report identified a number of activities, both formal and informal, that could contribute to an active open space. Actual programming of the space and design of the plaza will occur incrementally with an expanded public involvement process incorporated into the General Development Plan, Design Guidelines, and final design development processes.

#### **17th Street Promenade**

17th Street provides a major axis and orienting feature, and connects the Historic Station to all of the transportation elements in the Transit District. Located to the east of the Historic Station, 17th Street is well-established as an important downtown street with a strong identity as the "Wall Street of the West." Key spaces for activation and design include the light rail plaza between the platforms and Chestnut Place and the 17th and Wewatta Street plaza between Wewatta



*The 17th Street Promenade, viewed from Chestnut Place, connects the Historic Station with the Wewatta Street Plaza, and new mixed-use private development.*





## DENVER UNION STATION

Street and the passenger rail tracks.

To the west of Denver Union Station, 17th Street will have more complex functions and connections. The right-of-way is 160 feet wide both on the site and in the Commons Neighborhood, and the height of any structures within this area will be restricted to assure a view of the Train Room from the west. The passenger rail tracks and platforms are at-grade, so their canopies and other features will conform to the zoning requirements to protect the views to and from the mezzanine level of the Train Room. Denver Union Station zoning provides a special process for review and approval of any structures that extend into this view corridor.

### **18th and Wewatta Plaza**

The public space located at the northeast corner of 18th and Wewatta streets will provide another access point to the site from the Central Platte Valley, and will be a companion public space to a new plaza being planned for the northwest corner of 18th and Wewatta streets by a private developer. This plaza will have stairs and elevators that will connect to the pedestrian deck above passenger rail and the on-site parking structure.

### **Pedestrian Deck over Passenger Rail**

This upper-level connection across the passenger rail tracks and down to the passenger rail platforms could be one of the most engaging public spaces at Denver Union Station. Easy-to-access connections can be made from the elevated parking garage and street level at 17th and 18th and Wewatta streets and the Wynkoop Plaza to various destinations on the site. The Pedestrian Deck also provides public viewing areas and retail shops that will attract people to this level.

### **The Outdoor Train Room**

The Outdoor Train Room next to the Historic Station includes the passenger rail tracks and platforms with attractive views to and from the west side of the Train

Room and functional elements such as canopy-covered staircases and escalators to the regional bus bays below and upper deck above. Denver Union Station zoning and the Commons Planned Unit Development (PUD) zoning limit the height of structures within the 160-foot-wide corridor extending west from the façade.

### **Principles of Urban Form**

The principles of urban form for Denver Union Station reflect the aspirations for the project as a whole, and are derived from three sources: 1) a relatively universal set of sound urban design precepts, 2) a group of ideas related to downtown Denver and the adjacent LoDo and Commons neighborhoods, and 3) principles related to the preservation of the Historic Building and its environs.

The following principles, along with the Denver Union Station vision and goals, establish the framework for implementation of the 2004 Master Plan and the Supplement.

### **Public Spaces**

- Proportion and articulate public spaces to encourage pedestrian activities within them and along their edges.
- Place active uses along the edges of the public spaces to provide visual interest, amenities, and “eyes on the street.”
- Provide for the creation of small public spaces throughout the site that improve connections to the community, access to transit, and general enjoyment of the site.
- Establish the 17th Street Promenade as the defining pedestrian connection for the Transit District.
- Provide a safe, attractive, and active connection along the 17th Street Promenade between Wewatta Street and the light rail station.
- Relate Wynkoop Plaza to the Historic Station

and the Lower Downtown Historic District.

- Design Wynkoop Plaza to provide clear access to the Historic Station and transportation beyond, and to accommodate programmed activities and reinforce pedestrian continuity along Wynkoop Street.
- Design the Wynkoop Plaza to:
  - Attract different types of people at different times of day.
  - Balance the needs of all users.
  - Be family-friendly.
  - Be flexible and responsive to changing needs.
  - Add to the quality of the pedestrian environment along adjoining streets.
  - Positively interact with the Historic Building and the new wing buildings.

### **Pedestrians**

- Give pedestrians priority in designing streets, service drives, and intersections.
- Provide attractive and convenient pedestrian routes to and through the Transit District to connect downtown, the Commons Neighborhood, and other adjacent neighborhoods with the Historic Station and transit elements. Link pedestrian focal points into the circulation system.
- Depending on the adjacent building and street activities, provide adequate sidewalk widths on all streets to accommodate people in various pedestrian, retail, public space, and curbside zones.
- Design intersections to safely and efficiently accommodate large numbers of pedestrians.
- Use attractions such as an overlook or outdoor café to make the deck-level connections active and interesting.
- Integrate into buildings the deck-level connection from 18th and Wewatta streets to the north end of the Wynkoop Plaza, and provide a graceful

landing that complements the architecture and activates the plaza.

- Design pedestrian and sign systems that accommodate the needs of all transit users—rushing to a connection, seeking amenities, or waiting for a connection.
- Seamlessly incorporate universal access into site circulation and access to transit.

#### **Bicycles**

- Provide bicycle access to and through the site from adjacent and nearby bike routes.
- Strategically locate bicycle parking to attract cyclists and to encourage them to dismount before entering congested areas.
- Accommodate a bike station at a location convenient to bicycle access.
- Provide bicycle access to transit facilities and transit vehicles—light rail, passenger rail, and regional bus.

#### **Vehicle Access and Parking**

- Provide parking for a wide variety of motorized vehicles.
- Locate parking access to minimize impacts to pedestrian and transit movements.
- Locate on-street parking and transportation stops so they are convenient, help activate public spaces, and retain key views into the site.
- Design service access to be unobtrusive and minimize conflicts with pedestrians.
- Maximize shared parking opportunities to the greatest extent possible.

#### **Multimodal Connections**

- Establish continuity of design elements for all the platforms and station areas—light rail, regional bus, passenger rail, Mall Shuttle, and Downtown Circulator.
- Design 16th Street to safely and conveniently accommodate multiple modes—shuttle buses,

pedestrians, bikes, and private vehicles.

- Provide clear and intuitive sign system throughout the Transit District.
- Create a positive user experience for the multimodal transportation center and related on-site development.

#### **Building Form and Placement**

- Respect the continuity of downtown block spacing in the arrangement of buildings and access points along 16th Street between Wynkoop and Wewatta streets.
- Assure that the visual connection to and from the west side of the Train Room remains unimpeded.
- Ensure that the mass, scale, orientation, and architecture of the redeveloped site and private development are harmonious with the Historic Station and the surrounding neighborhoods.
- Provide appropriate horizontal and vertical articulation of buildings along Wewatta Street to promote a comfortable and attractive pedestrian scale.
- Complement the Historic Station and reflect the distinctive character of the adjacent neighborhoods through careful consideration of the form, massing, materials, and architectural design of new buildings.
- Encourage a synergistic mix of land uses that establishes the Transit District as a desirable destination within central Denver and the region.
- Ensure personal safety and visual interest with ground-floor transparency and active uses along street and public space frontages throughout the Transit District.
- Elicit architectural excellence.

#### **Historic Preservation**

- Preserve, rehabilitate, and restore the Historic Station.
- Incorporate the Historic Station into the multimodal transportation hub both physically

and functionally.

- Provide a visual connection to the Train Room from adjacent public space.
- Incorporate into the Historic Building interpretive displays about Denver Union Station.

#### **Sustainability**

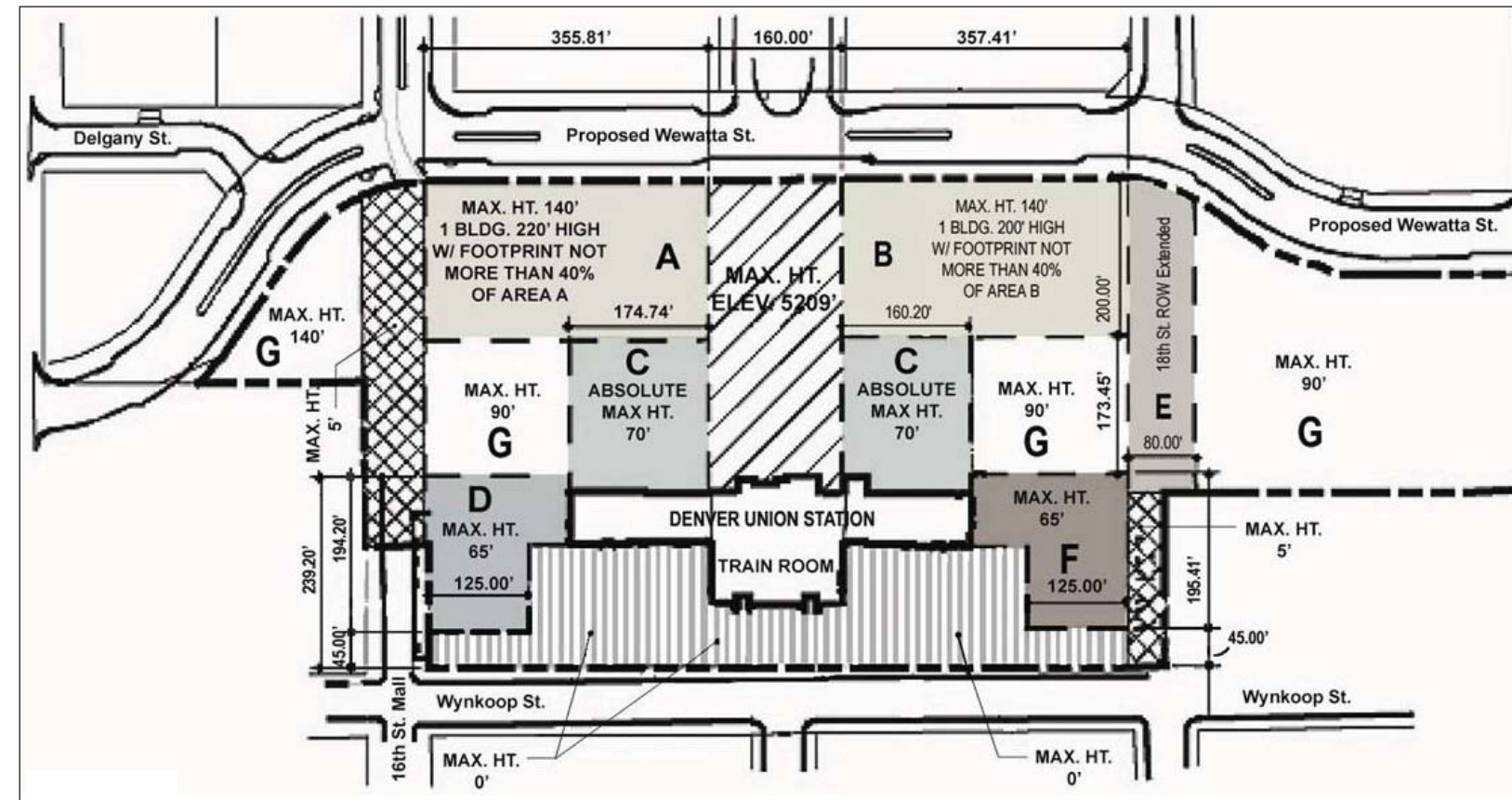
- Recognize the multiple facets of sustainability—environmental, economic, and social equity.
- Enhance the use of the Historic Station as the hub of the Transit District and the region's transportation system.
- Seek Silver Certification in the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) green building rating system for 50-percent of new buildings.
- Encourage the use of alternative transportation to reduce the number of single-occupant vehicle trips.
- Incorporate alternative energy sources for vehicles and buildings to the greatest extent possible.
- Use local materials to the greatest extent possible.
- Use recycled or recyclable materials to construct the transportation and private development components to the greatest extent possible.
- Make provisions for recycling.
- Explore innovative approaches to stormwater and water-quality management.

#### **Regulatory Framework for Denver Union Station**

Two sets of land-use and development regulations affect the Denver Union Station site: zoning and landmark designation. Together these regulatory processes establish the framework for future development and will provide for a clear and predictable redevelopment process that incorporates flexibility over time. Although the Transit District







The Denver Union Station T-MU-30 Zoning Map.

encompasses more property than the 19.5-acre Denver Union Station site, the property beyond the site has previously existing zoning, determined by the Commons Planned Unit Development, which remains in effect and is complementary to the Denver Union Station zoning.

#### Zoning

The Denver Union Station site was zoned T-MU-30 with waivers and conditions in 2004. The T-MU-30 zoning is intended for station areas with enough land to create a successful transit-oriented development,

such as the one envisioned for Denver Union Station.

T-MU-30 zoning permits a wide range of residential, commercial, and civic uses appropriate to areas adjacent to rail transit stations. A number of uses are designated as special review because of particular design considerations or potential off-site impacts. Special review uses can be approved as part of the General Development Plan or as part of the use permit process.

This zoning district allows a floor-area-ratio

(FAR) of 5:1 (or five times the amount of development area to land area). The mixed-use nature of T-MU-30 provides critical flexibility for long-term redevelopment and changing real-estate markets. The waivers and conditions were included to assure that development meets the goals of the Denver Union Station Master Plan.

#### Building Envelopes and Maximum Building Heights

The waivers and conditions in the Denver Union Station zoning focus on potential building envelopes

and heights. Except for the 17th Street View Corridor and the zero and five-foot height areas, the zoning requires that any building be built to a minimum height of 35 feet. Maximum heights vary by building envelope and are defined on the zoning map.

The intent is to have heights on the east side of the site correspond to the Historic Station and buildings in LoDo, and heights on the west complement buildings in the Commons Neighborhood.

- The two buildings along Wynkoop Street (referred to as “the wing buildings”) have a maximum height of 65 feet, which is lower than would be permitted throughout the Lower Downtown Historic District.
- Buildings along Wewatta Street have an allowed height of 140 to 220 feet to correspond with the contemporary development occurring in the Commons Neighborhood. The baseline building height along Wewatta Street is 140 feet; however, greater height allowance is provided to promote architectural diversity along these two long frontages. The area between 16th and 17th streets (Area A) allows for one structure of up to 220 vertical feet, provided the footprint of this structure does not exceed 40 percent of Area A. The area between 17th and 18th streets (Area B) will have a base height of 140 feet, allowing for one structure up to 200 feet tall, provided the footprint of this structure does not exceed 40 percent of Area B.
- Buildings along 16th and 18th streets have a maximum height of 90 feet as a transition.
- Buildings immediately to the west of the Historic Station have a maximum height of 70 feet so that, viewed from the east, they are not apparent behind the Historic Station.

### **Wynkoop Street Plaza**

To create a significant public space and protect views of the Train Room, the zoning provides for a zero-foot height limit between Wynkoop Street and the Historic Station and new wing buildings. The only structures allowed in the zero-foot height area are public art, accessory uses, temporary uses, and structures that provide access to or shelter for transportation facilities. In addition, the zero-foot height area does not allow major transportation uses, parking, or loading. The size and shape of this area were determined by the desire to create and maintain an active public space, honor the Historic Station, and allow for a public space appropriately scaled with the neighborhood and new on-site development.

### **17th Street View Corridor**

As first established in the Commons PUD, the 17th Street View Corridor is the extended 17th Street right-of-way from Commons Park to the west face of the Train Room. Views will be preserved from the Train Room’s second floor windows out to Wewatta Street and beyond along the 17th Street axis.

The zoning restricts height in this area to an elevation of 5,209 feet above sea level, which is the elevation of the second-floor windowsill of the Train Room. Much of this area will contain the eight-passenger rail tracks and associated platforms, canopies, and vertical circulation, as well as multimodal service drives along the west side of the Historic Station.

### **Setbacks**

T-MU-30 zoning typically establishes front, side, and rear setbacks from zero to 20 feet based on building use. Due to the urban nature of the Denver Union Station site, these setbacks were waived to allow for a zero-foot setback for all structures. The one exception is the setback from Wynkoop, which is set at 45 feet to allow views of the Historic Station from Wynkoop at 16th and 18th streets.

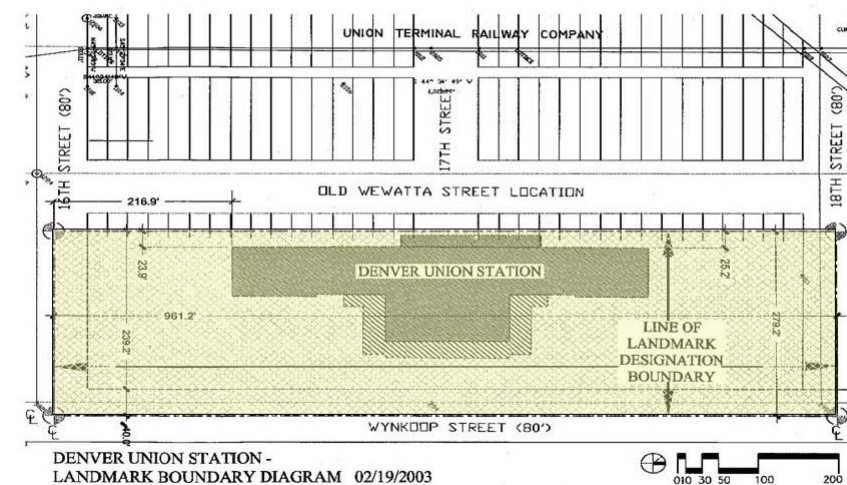
### **Signs**

Defining sign regulations will be complicated due to the complexity of planned transportation and development elements. The waivers and conditions allow for a site-specific comprehensive sign plan to be submitted for approval.

### **Landmark Designation**

The Historic Station and a defined area encompassing the proposed plaza and new wing buildings (see map) were designated as a Denver Landmark in 2004. This designation provides design and demolition review authority through the Denver Landmark Preservation Commission. The Historic Station had been listed in the National Register of Historic Places in 1972. As a designated Denver Landmark, all exterior alterations within the designated landmark area will be subject to design and demolition review by the Landmark Preservation Commission. This includes

## Landmark Designation Area



Denver Union Station Landmark Designation Diagram





**DENVER UNION  
STATION**

all exterior restoration or alteration of the Historic Station itself, any addition to the Historic Station, and any new construction within the Landmark Area. The Landmark Preservation Commission bases its review decisions on “Design Guidelines for Landmark Structures and Districts” (Landmark Preservation Commission, 1995) and guidelines specific to the Denver Union Station property.

#### **General Development Plan**

Denver Union Station zoning requires that a General Development Plan (GDP) be approved before development can occur but exempts RTD Early Transit Elements, should these elements be constructed before a GDP is approved. The GDP process will define the framework for site redevelopment. It includes overviews of land use, open spaces, pedestrian circulation, design standards and guidelines, transportation, and infrastructure. The GDP process requires extensive public notification, a public hearing, and Denver Planning Board approval.

#### **Design Standards and Guidelines**

Design standards and guidelines to be developed for Denver Union Station need to address the area within the Landmark Preservation Commission’s purview, as well as the rest of the site, as required by the T-MU-30 zoning. These standards and guidelines will incorporate contextual elements of the Lower Downtown Historic District to the east and more contemporary new development in the Commons Neighborhood to the west, as well as the characteristics of the Historic Station itself.

Design guidelines such as this are devised in a public process that includes the current property owner, which is RTD, the potential developer, Community Planning and Development (CPD) urban design and landmark staff, and interested parties from the neighborhood. The guidelines will build upon those already adopted for the Lower Downtown Historic

District to the east and the Commons PUD to the west.

In addition to the topics that are typically included in design standards and guidelines, Denver Union Station zoning establishes the following design criteria for the Design Standards and Guidelines:

- Promote visibility of pedestrian-oriented activities at ground level.
- Provide human scale through change, contrast, and intricacy of facade form, color, and material where lower floors of buildings face public streets and spaces.
- Define street spaces to concentrate pedestrian traffic and to create a clear urban character.
- Encourage pedestrian access to structures and uses along public streets, sidewalks, and open space.
- Maintain views of the sky and exposure to light.
- Minimize downdrafts from tall buildings.
- Protect the historic interior and exterior of Denver Union Station.
- Promote vehicle and transportation patterns compatible with pedestrian access, streetscapes, and open spaces.
- Promote architecture that will be sympathetic to adjacent urban areas.
- Maintain substantially unobstructed views of the Train Room for structures within the 17th Street View Corridor Area.
- For structures next to Denver Union Station, provide sufficient transparency and minimize structural incursions to protect the station’s historic character.
- Encourage architectural diversity and varied building heights for structures in Areas A and B.
- Protect sunlight on the 16th Street Mall.

#### **Design Review Process**

The Denver Union Station site is one of a handful in the city regulated by both the Landmark and Urban

Design review processes. The Denver Landmark Preservation Ordinance regulates the portion of the site within the Landmark Area, and the zoning regulates the entire site. In both cases, the adopted guidelines will be the basis of the staff review and recommendation and Commission/Board action. All private buildings on the site will be subject to design review at the time of permitting. New buildings, the Historic Station, and other improvements within the landmark area will be reviewed and approved by the Landmark Preservation Commission in a public meeting. Buildings on the remainder of the site will be subject to Community Planning and Development staff review and approval, with Planning Board ratification, again in a public meeting. The City and County of Denver will be responsible for coordinating these reviews. All proposed buildings will be subject to one of these two processes.

### **Governance**

The 2004 Master Plan defined the functions of a governing body from the perspective of the need for implementation over a 30 to 50-year time frame. As articulated in the Introduction, much has changed and much has been accomplished since September 2004:

- The Executive Oversight Committee, created by an intergovernmental agreement among the partner agencies, has served as the interim governing body.
- Passage of FasTracks has provided a significant funding source.
- The Master Developer, the Union Station Neighborhood Company (USNC), has demonstrated that construction of all the transportation elements at one time will be technically feasible and essential to a successful project.
- The Letter of Intent between the Executive Oversight Committee and USNC outlines how to accomplish the Transit District, including the framework for USNC land purchases from RTD and payment of a developer fee to USNC.

### **Principles of Governance**

The Third Amendment to the Intergovernmental Agreement (April 20, 2004) between the Executive Oversight Committee established eight Principles of Governance to be used as the framework for implementation. These principles are cited in the Supplement to reiterate their continued relevance and establish the progress that has been made in achieving them.

### **Next Steps for Governance**

The Executive Oversight Committee will focus on five factors as it considers adopting a governance plan:

- Governance must maintain the vision of the Master Plan. The governance approach must reflect the regional and statewide importance of the project and assure continuation of the multimodal aspects of the station and the site.
- Governance must provide appropriate stewardship of the historic Train Room and the public spaces to assure that these spaces remain an asset to the site, the development, and the transit rider experience.
- Governance must allow RTD, in collaboration with the other partner agencies, to effectively and efficiently manage the RTD transit elements and consider the needs of other transportation providers at Denver Union Station.
- Governance must incorporate public input in a meaningful way and develop policies in a transparent and accountable manner, while not compromising the operation of the transportation facilities.
- The governance approach must incorporate an entity with the authority to ensure the long-term financial viability of the project. This will allow the project to generate sufficient revenues to pay off development debts and invest adequate funds in the maintenance of the complex so it can become sustainable as a thriving transportation hub that enriches the entire community.

The community and the partner agencies have confirmed the importance of these values in governance discussions. These values will be at the forefront of discussions as the governance plan is formulated.





**DENVER UNION  
STATION**

<b>Principle</b>	<b>Current Status</b>
1. The primary goal of the governance structure is to make the Union Station Site function as an efficient transportation facility. However, the governance structure shall provide for integration of the entire redevelopment of the Union Station Site, including the transportation, development and civic components, while taking into account the needs and interests of the Parties, users and surrounding neighborhoods.	The Transit District provides for integration of the transportation, development, and civic components of the project.
2. The governance structure shall provide appropriate opportunities for public agency, general public and private interest involvement to assure the viability of the project.	The EOC has proven to be an effective governing body to get the project underway. Through the efforts of the USAC, Break-Out Groups, and other public forums, the public has had an opportunity to participate in ongoing implementation of the 2004 Master Plan, which will continue through approval of the GDP.
3. The governance structure shall consider the needs of all the Master Plan Transportation Facilities and treat them all with importance to make a successful multimodal transportation hub.	The Transit District Plan incorporates all of the modes contemplated in the 2004 Master Plan—light rail, passenger rail, regional bus, 16 <sup>th</sup> Street Mall Shuttle, Downtown Circulator, pedestrian flow, bicycles, private vehicles, and private transportation providers.
4. The governance structure shall diligently pursue the full implementation of the Master Plan Transportation Facilities and the vision it sets forth, and the future needs of the historic station and the Union Station Site.	The Transit District fully implements the vision for transportation, development opportunity, public space, and historic station articulated in the 2004 Master Plan.
5. The governance structure shall be capable of seeking and/or receiving funds from all sources and creating funding mechanisms to fully implement the Master Plan and the Master Plan Transportation Facilities.	The proposed financing plan incorporates funding from federal, state, and local sources. Funding through additional public, philanthropic, and private sources continues to be sought.
6. The governance structure shall be charged with diligently pursuing and using best efforts to secure funding and approval for full implementation of the Master Plan and the Master Plan Transportation Facilities.	As stated in #5 above, the financing plan provides funding needed to construct the transportation and other public facilities. The Final Environmental Impact Statement is being drafted and a Record of Decision is expected in September 2008.
7. The governance structure shall provide that Site-Generated Revenues first be used for the reasonable operation and maintenance of the Union Station Site; second, for reimbursement of any shortfalls in the reasonable operation and maintenance of the Union Station Site if approved by the governing body of the permanent governance structure; and third, to implement the Master Plan to the extent not prohibited by federal statute, court decision, or grant agreement as determined by the appropriate federal agency after the EOC has had an opportunity to present the matter to the appropriate federal agency. Once the Master Plan is fully implemented, all Site-Generated Revenues shall be used for transit projects within the RTD and DRCOG region boundaries consistent with the DRCOG long-range regional transportation plan.	RTD has allocated all of the site generated revenues to furthering the vision for Union Station. RTD has made improvements to the historic station including a new tile roof that is consistent with the original roof material and restoration of the metal mansard on the Train Room. Future use of Site-Generated Revenues will be part of the agreements implementing the 2004 Master Plan.
8. All uses of the Union Station Site shall be planned, constructed and operated so as to not adversely impact the Master Plan Transportation Facilities or any other Master Plan element as determined by the permanent governance structure.	The Transit District fully implements the transportation facilities articulated in the 2004 Master Plan. The transportation components will be fully operational for FasTracks lines, Amtrak, and Ski Train and will allow for concurrent private development and public spaces.

*Principles of Governance from the Executive Oversight Committee*

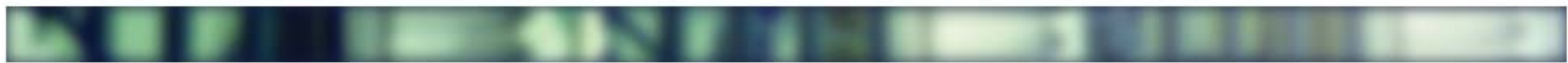


**MASTER PLAN  
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**DENVER UNION STATION**





Sustainability as an Overarching Principle



## DENVER UNION STATION

### SUSTAINABILITY AS AN OVERARCHING PRINCIPLE

In the few years since the adoption of 2004 Master Plan, global events have focused significant attention on sustainability. The partner agencies anticipate that technology in this area will continue to improve at a rapid pace in the near future. This plan documents the current goals and policies of each of the partner agencies as aspirations for the design and construction of the Transit District. The term “sustainability” has many definitions; following are a few common understandings of the term, as reported by staff to the RTD Board of Directors:

- Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs.
- Sustainable development is the achievement of continued economic development without detriment to the environment and natural resources.
- The goal of sustainable transportation is to ensure that environmental, social, and economic considerations are factored into decisions affecting transportation activity.

The partner agencies all recently have updated their sustainability goals. Though these goals are not requirements, they will serve as aspirations for the design and construction of the Transit District.

#### Colorado Department of Transportation

In April 2007, Governor Ritter signed Executive Order D0011-07 “to provide clear guidance and directive to all state agencies and offices in the greening of state government in the State of Colorado.” These goals will apply to all Denver Union Station work directly accounted to CDOT or other state-initiated actions as part of the Transit District. The goals for state agencies and offices include the following:

#### Energy Management

- By fiscal year 2011-2012, achieve at least a 20 percent reduction in state facilities energy consumption from fiscal year 2005-2006 levels.
- By January 2008, develop or update an energy management plan and ensure the development of a study determining the feasibility of energy performance contracting for all state owned facilities.
- On an ongoing basis, assess and implement, where effective, the development of state renewable-energy projects with the support of the Governor’s Energy Office.

#### Materials and Resource Management

- By fiscal year 2008-2009, develop purchasing policies to reduce the state’s environmental impact as a consumer of products and services.
- Adopt a goal of zero waste from the construction of new buildings and the operation and renovation of existing facilities.
- Achieve a paper-use reduction goal of 20 percent by fiscal year 2011-2012 using fiscal year 2005-2006 as a baseline.
- Achieve a reduction in water consumption goal of 10 percent by fiscal year 2011-2012, using fiscal year 2005-2006 as a baseline.
- The Department of Personnel and Administration, in cooperation with the Department of Public Health and Environment, shall develop purchasing policies for selecting environmentally preferable products.

#### Vehicle Petroleum Consumption

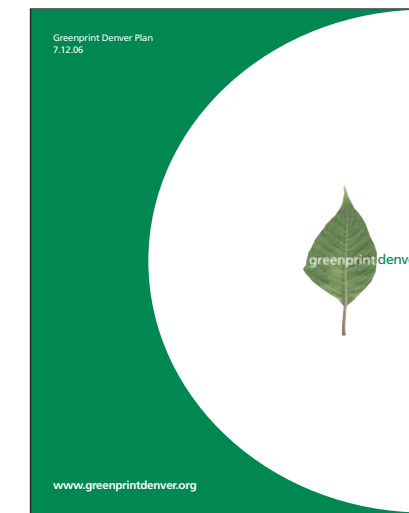
- By June 30, 2012, achieve a 25 percent volumetric reduction in petroleum consumption by state vehicles, measured against a fiscal year 2005-2006 baseline, while increasing energy efficiency of the fleet (excluding vehicles used for law enforcement, emergency response, road maintenance, and highway construction).

- By December 1, 2007, complete a transportation efficiency audit addressing methods for improving the environmental efficiency of the state fleet.

#### City and County of Denver

(adapted from [www.Denvergov.org](http://www.Denvergov.org))

In October 2007, Mayor Hickenlooper signed Executive Order 123 to create the Greenprint Denver Office and establish the city’s sustainability policy and position as a national leader in sustainability. The Executive Order includes several measures to promote sustainability throughout city operations. The Greenprint Denver Office’s intent is to develop and implement solutions to resource challenges and to work with city agencies to ensure that all city policy and program decisions incorporate “triple



bottom line” analysis, balancing short and long-term economic, social, and environmental considerations. Goals include:

#### Green Building and Energy Conservation

All applicable new city building construction and

major renovations will be built and certified to the U.S. Green Building Council's Leadership in Energy and Environmental Design LEED®-NC (New Construction) Silver standard, and achieve Energy Star® status. All capital improvement projects and existing and future city-owned and operated facilities shall incorporate all appropriate LEED® standards.

#### *Vehicle Replacement and Operation*

Replace light-duty vehicles with hybrids, alternative fuel vehicles, or the most fuel-efficient and least-polluting vehicles available as older vehicles are phased out. Diesel-powered vehicles will use at least 20 percent B20 biodiesel. A Green Fleet Committee will be established to ensure the city procures and operates a fleet of vehicles that minimizes environmental impact, enhances domestic energy security, and maximizes fuel efficiency and diversification.

#### *Materials and Waste Management*

All agencies shall direct efforts to use recycling services and pursue integrated waste management strategies that include reducing consumption, collecting used materials for reuse or recycling, and purchasing cost-competitive recycled and recyclable products. Construction projects will use concrete consisting of at least 20 percent fly ash, and construction and demolition waste will be recycled. All city employees shall take measures to reduce waste and reuse resources whenever possible, such as using electronic media in place of paper and dual-sided printing and copying, reducing font sizes and margins in documents, and purchasing paper with at least 35 percent post-consumer content.

#### *Water Conservation*

The city will demonstrate wise water use in city facilities, buildings, and parks through identification of water inefficiencies and implementation of water conservation projects to improve plumbing fixtures,

irrigation systems, cooling towers, kitchen operations, swimming pool operations, laundries, and other water uses.

#### *Environmental Public Health Policy*

All city employees and contractors must be familiar with and follow the city's Environmental Public Health Policy, included with the Executive Order as Memorandum 123-F.

#### **Regional Transportation District**

In October 2006, the Regional Transportation District board adopted a sustainability policy to propose that agency's goals towards more sustainable practices, including:

- Developing and adopting best practices for sustainable design, construction, operations, and maintenance.
- Training RTD staff in sustainable design practices and sponsoring a select group of RTD personnel to become LEED™ Accredited Professionals.
- Hiring FasTracks corridor consultants that have experience with sustainability and the LEED™ program.
- Evaluating adoption of LEED™ as a standard for new RTD transit buildings and major additions/renovations.
- Incorporating LEED™ guidelines into design standards and/or requiring LEED™ certification. (Three new FasTracks maintenance facilities are candidates for LEED™ certification.)
- Investigating the use of many sources of electrical energy, including renewable sources to power trains.
- Evaluating the incorporation of energy-saving features in maintenance facilities, including using solar space heating and new technologies such as SolarWall or equivalents

to complement building heating, and using solar hot water heating for vehicle washing and staff needs.

- Evaluating the incorporation of LEED™ practices and Urban Drainage and Flood Control District (UDFCD) best management practices in Transit Centers, Park-n-Rides, shelters, and corridor projects.
  - Improving stormwater quantity and quality by using locally accepted/encouraged best management practices, such as pervious pavement, wetlands, and bioswales for protection of water quality.
  - Reducing light pollution while maintaining safety and security standards.
  - Using water efficient landscaping and irrigation systems.
  - Incorporating renewable energy (photovoltaic cells) and low-energy light emitting diode (LED) light sources with variable light output for energy savings in bus shelters and rail stations.
  - Using local and recycled materials.
  - Using climate-sensitive building design, including ground-source heating, ventilation, and air-conditioning (HVAC).
  - Developing life-cycle costing analyses that consider several scenarios, using estimates of future energy prices from the U.S. Department of Energy, the Energy Information Agency, the Electric Power Research Center, and others.
- Regarding Denver Union Station redevelopment
- Preserving the historic character of the Denver Union Station building.
  - Creating economic, environmental, and social benefits, including more transportation services, greater energy efficiency, improved mobility, connections between metro-area communities, and walkable mixed-use economic development.
  - Adopting climate-sensitive building and open space design.
  - Investigating ground-source HVAC systems.





## DENVER UNION STATION

### DRCOG

In December 2007, the Denver Regional Council of Governments (DRCOG) adopted the Metro Vision 2035 Plan, the Denver region's updated comprehensive plan for regional growth and development (The Metro Vision 2030 Plan was adopted by the DRCOG board of directors in January 2005). The Metro Vision Plan includes the following policies regarding sustainable development, many of which are relevant to Denver Union Station development. Following are excerpts from the plan:

Sustainable development seeks to meet the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development encompasses three general regional policy frameworks: economic development, environmental protection, and social equity. Sustainable growth and development manifests itself through compact development and the implementation of building practices that aim to preserve agricultural land and open space; conserve and reclaim water resources; prevent water-quality degradation; protect wetlands; conserve energy; minimize traffic congestion and air pollution; reduce the impacts of greenhouse gases; and maintain economic viability.

*“Livable communities”* is a design concept that considers the architectural and urban design elements of the built environment and how they affect people's quality of life. Specifically, the livable communities concept seeks to: promote compact, human-scale, pedestrian-friendly communities; provide varied housing, shopping, recreation, transportation, and employment choices; encourage integrated mixed-use development; preserve, restore, revitalize and refill urban centers; give people the options of walking, biking, and using public transit in addition to driving; provide well-defined public places; create a neighborhood identity; protect environmental

resources; and conserve open space, farms and wildlife habitat.

As the region's planning organization, DRCOG, through the Metro Vision 2035 Plan, seeks to encourage appropriate stewardship of the region's natural and built environments by working with local communities to implement concepts of sustainable development and livable communities in their current and long-range planning activities. The Metro Vision 2035 Plan contains many goals and policies that either directly or indirectly promote sustainable development and livable communities. These include:

- Managing the extent of urban development with an urban growth boundary.
- Developing higher-density, mixed-use, transit, and pedestrian-oriented urban centers.
- Recognizing freestanding communities and rural town centers.
- Minimizing semi-urban development.
- Encouraging senior-friendly development.
- Supporting a vital economy.
- Providing safe, environmentally sensitive, and efficient mobility choices for people and goods.
- Establishing an integrated and permanent parks and open space system.
- Restoring and maintaining the chemical and physical integrity of the region's waters.
- Achieving and maintaining ambient air-quality standards.
- Minimizing exposure to excessive noise associated with land use and transportation activities.

Denver Union Station and its transit district have inherent qualities that make it highly sustainable. First and foremost, it is the hub of the regional transit system, so it provides unprecedented access to jobs and housing throughout the region. It is within the

downtown core, providing easy pedestrian, bike, and shuttle access to the region's greatest concentration of employment, largest event centers, and a wide variety of neighborhoods and housing options. The project also features reuse of one of Denver's best known historic buildings--Denver Union Station. Beyond these fundamental opportunities for more sustainable lifestyles and transportation choices are the opportunities for energy conservation, alternative energy sources, recycling, and the multitude of large and small actions that owners, residents, employees, visitors, and transit riders will take in the future.



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