Station Area Design Issues

- Station Platform Environment
- Station Access
- TOD Potential
Decatur (Federal) Station
Denver West Corridor
1. RTD West Corridor LRT Project
   - Preliminary Engineering
   - EIS
   - Final Design
   - Value Engineering
RTD West Corridor LRT Project

- Preliminary Engineering
- EIS
- Final Design
- Value Engineering
1/2 Mile

1/4 Mile

Decatur Station

DHA Sun Valley

Existing Trackway

Auraria West Station Campus
Existing Trackway
Adjacent to Rude Park
Adjacent to Lakewood Gulch
Lakewood Gulch
Invesco Field

Downtown Denver

Federal Boulevard

Keewood Gulch

Key EIS Issues
1. RTD West Corridor LRT Project
   - Preliminary Engineering
   - EIS
   - Final Design
   - Value Engineering

2001 – 2010 Timeline:
- 2001: Preliminary Engineering
- 2004 – 2005: Final Design
- 2006 – 2007: Value Engineering
- 2008 – 2009: Final Draft
- 2010: Final Engineering

RTD Decatur (Federal) Station 65% Engineering
Decatur Station 65% Engineering
Lakewood Gulch Urban Drainage Plan

To Invesco Field

South Platte River

Lakewood Gulch

City of Denver Maintenance Facility

Light Rail Track

To Station Platform

Lakewood Gulch
1. RTD West Corridor LRT Project
   - Preliminary Engineering
   - EIS
   - Final Design
   - Value Engineering

2. City of Denver TOD Policies
   - Blueprint Denver
   - TOD Strategic Plan

![Project Timeline Diagram](image-url)
Blueprint Denver is the first step in implementing the vision of Plan 2000. It serves as an integrated Land Use and Transportation Plan and is a supplement to the Comprehensive Plan. It was adopted in 2002.

The TOD Strategic Plan recognizes that Denver must strategically approach the 40 stations in Denver in order to achieve appropriate development. It establishes a typology for Denver's stations, defines TOD, addresses the context for TOD in Denver, and explores Denver's readiness for TOD. It also makes citywide policy and action recommendations as well as makes recommendations for individual corridors and stations.
Strategic Plan Vision - (Urban Center)

**Decatur Station**

Provide for:

- A mix of residential, retail and office
- Multi-family and townhomes
- Less than 250,000 SF of office
- More than 50,000 SF of retail
- Buildings 3-stories or greater
- Some park-n-ride linked with district circulator transit and express feeder bus
DHA Sun Valley Future Redevelopment

Hope IV?
Market Analysis Potential Redevelopment Areas
Project Timeline

1. RTD West Corridor LRT Project
   - Preliminary Engineering
   - EIS
   - Final Design
   - Value Engineering

2. City of Denver TOD Policies
   - Blueprint Denver
   - TOD Strategic Plan

3. TOD Station Area Planning
   - Final Decatur Station Area Plan

Timeline:
- 2001
- '02
- '03
- '04
- '05
- '06
- '07
- '08
- '09
- '10

- Final Draft 65% Engineering
- Adopted
- Completed
- ?
Concurrent Station Area Planning Process

West Corridor

Southwest Corridor

Southeast Corridor
Station Area Plans

Decatur

Auraria West

10th & Osage
Decatur Station

Preliminary Plan Objectives (City)

- Address barriers to transit connections at the station
- Identify opportunities for improved pedestrian connections to neighborhoods and extension of the street grid
- Provide mixed income housing that includes low-income and affordable housing
- Mixed-use development should include neighborhood-serving retail
- Identify connection to the South Platte River Greenway and reinforce South Platte River & Park as an amenity
- Create 24-hour safe transit station environment
Decatur Station

Final Plan Objectives (Community)

- Provide mixed income housing that includes low-income and affordable housing
- Provide mixed-income development
- Explore shifting the Decatur station farther east
- Include neighborhood serving retail (possibly a grocery store)
- Keep existing residents involved
- Create safe and walkable pedestrian streets
- Provide better access to and within the station area
TOD Alternatives

Federal Station Alternative

Decatur Station Alternative

TOD Alternatives
Station Area Planning

**Applying Lessons Learned**

1) Station Area Planning
2) Station Area Security
Ideal Station

Competing Space Uses At Neighborhood Hub

- Retail
- Housing
- Public Gathering Area
- Park & Ride

Station
Ideal Station

Neighborhood Hub
- Grocery Store
- In-Line Retail Shops
- Office
- Support Services
- Public Gathering Area

1/4 Mile
1/8 Mile

High Density Residential
Moderate Density Residential

Light Rail
Roads to Station
Ideal Station

Neighborhood Hub
- Grocery Store
- In-Line Retail Shops
- Office
- Support Services
- Public Gathering Area

1/4 Mile
Moderate Density Residential

1/8 Mile
High Density Residential

Light Rail
Ideal Transit Oriented Development (TOD) Assumptions

The Ideal Transit Oriented Development (TOD) has the following characteristics:

- Occurs on vacant land within a 360 degree, 1/4 mile radius of the transit stop
- Includes a neighborhood hub adjacent to the transit station containing a grocery store, retail, support services and public gathering space.

Assumptions related to the Ideal TOD development potential and transit ridership are listed below:

**Gross Areas- Ideal TOD**
- Within 1/8 mile of station: 31.4 acres
- 1/8 mile to 1/4 mile of station: 94.2 acres

**Developable Area (subtract 25% for streets & public facilities)**
- Within 1/8 mile of station: (31.4 acres x 75%) = 23.6 acres
- 1/8 mile to 1/4 mile of station: (94.2 acres x 75%) = 70.7 acres

**Households & Employment**
- 23.6 acres x 24 units/acre: 565 units
- 70.7 acres x 12 units/acre: 848 units
- Employment, 3 acres x 95 employees/acre: 285 employees

**Generated Trips**
- 1,413 dwelling units x 10.8 trips per day: 15,260 trips per day
- 285 employees x 24.88 trips per day: 7,091 trips per day

**Generated Trips**
- 22,351 trips x 10% on transit: 2,235 trips per TOD
Ideal Transit Oriented Development (TOD) Assumptions

The Ideal TOD

- Near a 1/3 mile of station
- 1/8 mile to 1/4 mile of station

Ideal Transit Oriented Development (TOD)

- Medium Density Residential - 12 units/acre
- High Density Residential - 24 units
- Neighborhood

The following characteristics:

- TOD development potential and transit ridership are listed below:

Developable Area (subtract 25% for streets & public facilities)

- Within 1/8 mile of station, (31.4 acres x 75%) = 23.6 acres
- 1/8 mile to 1/4 mile of station, (94.2 acres x 75%) = 70.7 acres

Households & Employment

- 23.6 acres x 24 units/acre = 565 units
- 70.7 acres x 12 units/acre = 848 units
- Employment, 3 acres x 95 employees/acre = 285 employees

Generated Trips

- 1,413 dwelling units x 10.8 trips per day = 15,260 trips per day
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Generated Trips

- 22,351 trips x 10% on transit = 2,235 trips per TOD
Fundamental Characteristics

The Best TODs

Key Features
- Great Retail
- Great Streets
- Great Public Space
- Great Transit
- Housing
- Office
- Cultural
- Entertainment
- Support Services
Fundamental Characteristics

The Best TODs

Key Features
- Great Retail
- Great Streets
- Great Public Space
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- Support Services
Fundamental Characteristics

The Best TODs

Key Features
- Great Retail
- Great Streets
- Great Public Space
- Great Transit
- Housing
- Office
- Cultural
- Entertainment
- Support Services

High Density Residential

Core

Convenient Road & Transit Access

½ Mile

⅓ Mile
Station Area Planning

Applying Lessons Learned

1) Station Area Planning
2) Station Area Security
Transit system’s leadership is the problem

The furor over recent crime at MAX stations has the powers that be scrambling for answers and solutions to this untenable problem. Unfortunately, the transit agency’s general manager, Fred Hansen, wants to focus on the paying of fares, or lack thereof, as a primary reason for our inability to police the system.

And as one might expect, the victim of this lack of police protection becomes Fareless Square, the one shining attribute of downtown public transportation.

By all means, increase fare inspections or conceive a more visible and controllable fare collection method outside Fareless Square. But students, retirees and the law-abiding population in general should not be punished for the crimes of others by even thinking about eliminating Fareless Square.

Let’s not go back in time by making public transportation difficult or out of one’s reach.

ED BERGESON Southwest Portland

Although I applaud Gresham Mayor Shane Bemis for his initiative in providing officers to ride light rail, I wonder why TriMet doesn’t provide enough armed security itself. It would seem wiser to permit the Gresham Police Department to continue its other functions than to provide security for TriMet. The Gresham Police Department is apparently understaffed, as there is a proposed tax levy for more officers.
TriMet increases patrols on MAX
Tuesday, December 18, 2007

Although the MAX light rail system remains one of the safest metropolitan transit systems in the country, there has definitely been an escalation in loud and obnoxious behavior, said TriMet spokesperson Mary Fetsch.

"What we heard is that they are seeing an escalation in rowdy behavior that makes other people uncomfortable," Fetsch said.

In response to these and other problems, TriMet General Manager Fred Hansen recently said he would increase the transit police force by 10 percent in 2008, and by another 10 percent in 2009. He also said he was implementing a zero tolerance program on fare evasion.
Portland Light Rail Station Crime Rates

- Willow Creek
- Rose Quarter
- 42nd
- 82nd
- 162nd
- 122nd
- Beaverton Central
- Lloyd Center
- Gateway

- Low Crime Rate 0-10/year
- Moderate Crime Rate 11-20/year
- High Crime Rate 21+/year

Portland Light Rail Station Crime Rates
Mall/SW 5th Avenue
Robberies: 0
Assaults: 0
Menacing and harassment: 1
Thefts and purse snatchings: 0
Graffiti/mischief/theft of Tri-Met property: 0
Other offenses: 0
Total: 1
Mall/SW 5th Avenue Station

Station Platform

Mall/ SW 5th Avenue Station
N.E. 82nd Avenue

- Robberies: 19
- Assaults: 26
- Menacing and harassment: 4
- Thefts and purse snatchings: 5
- Graffiti/mischief/Tri-Met property theft: 6
- Other offenses: 2

Total: 62
82nd Avenue Station
**Lower Crime Stations**

- Moderate to high pedestrian traffic
- Pedestrian traffic from transit users and adjacent businesses
- Located at street level
- “Eyes on the station” from adjacent housing, retail and commercial

**Higher Crime Stations**

- Low pedestrian traffic
- Pedestrian traffic is limited to transit users
- Located below grade “buried stations”
- No “eyes on the station”
- Direct adjacency to parks
TOD Potential
Federal Station Alternative

Decatur Station Alternative
TOD Evaluation Criteria

- Existing Population
- Pedestrian Access
- New Development Potential
- Neighborhood Hub Potential
- Intermodal Connections
- Platform Environment

Decatur Station Area

Rating: Good

- Poor
- Fair
- Good
TOD Evaluation Criteria

- Existing Population
- New Development Potential
- Neighborhood Hub Potential
- Intermodal Connections
- Platform Environment
- Pedestrian Access

Decatur Station Area

Evaluation Criteria:
- Good
- Fair
- Poor
Pedestrian Access

Federal Station Platform

Invesco Field

Pedestrian Access
Stadium-Oriented Transit - San Diego

Comparison to Other Stadiums

0.05 mile to station

Qualcomm Stadium

Stadium-Oriented Transit - San Diego
Comparison to Other Stadiums

0.08 mile to station

Stadium-Oriented Transit - Atlanta
0.5 mile to station

Federal Station Pedestrian Access
Invesco Field

0.30 mile to station

Decatur Station Pedestrian Access
Decatur Station - Invesco Station Events

Direct
TOD Evaluation Criteria

- Existing Population
- Pedestrian Access
- New Development Potential
- Neighborhood Hub Potential
- Intermodal Connections
- Platform Environment

Decatur Station Area

Rating: Poor, Fair, Good
TOD Evaluation Criteria

- Decatur Station Area
- Existing Population
- Pedestrian Access
- New Development Potential
- Neighborhood Hub Potential
- Intermodal Connections
- Platform Environment

Classification: Good, Fair, Poor
Refined TOD Plan

Proposed Decatur Station Relocation

DEVELOPMENT SUMMARY
Retail - 135,000 SF
Commercial - 223,505 SF
Office - 1,430,000 SF
Housing - 5,610 Dwelling Units
Parking - 4,730 spaces
Open Space - 651,325 SF
DEVELOPMENT SUMMARY

Retail - 135,000 SF
Commercial - 223,505 SF
Office - 1,430,000 SF
Housing - 5,610 Dwelling Units
Decatur Station
Final Plan Objectives

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- Provide mixed-income development
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3. **TOD Station Area Planning**
   - Final Decatur Station Area Plan

*Timeline with milestones and completion dates.*
RTD Station Design Alternative (East of Decatur)
Station Area Planning

**Lesson Learned**

TOD Station Area Planning - Concurrent or immediately following EIS process

Early partnership between transit agency and planning to ensure TOD potential is maximized
Presentation available at: www.ca-city.com

Crandall Arambula PC