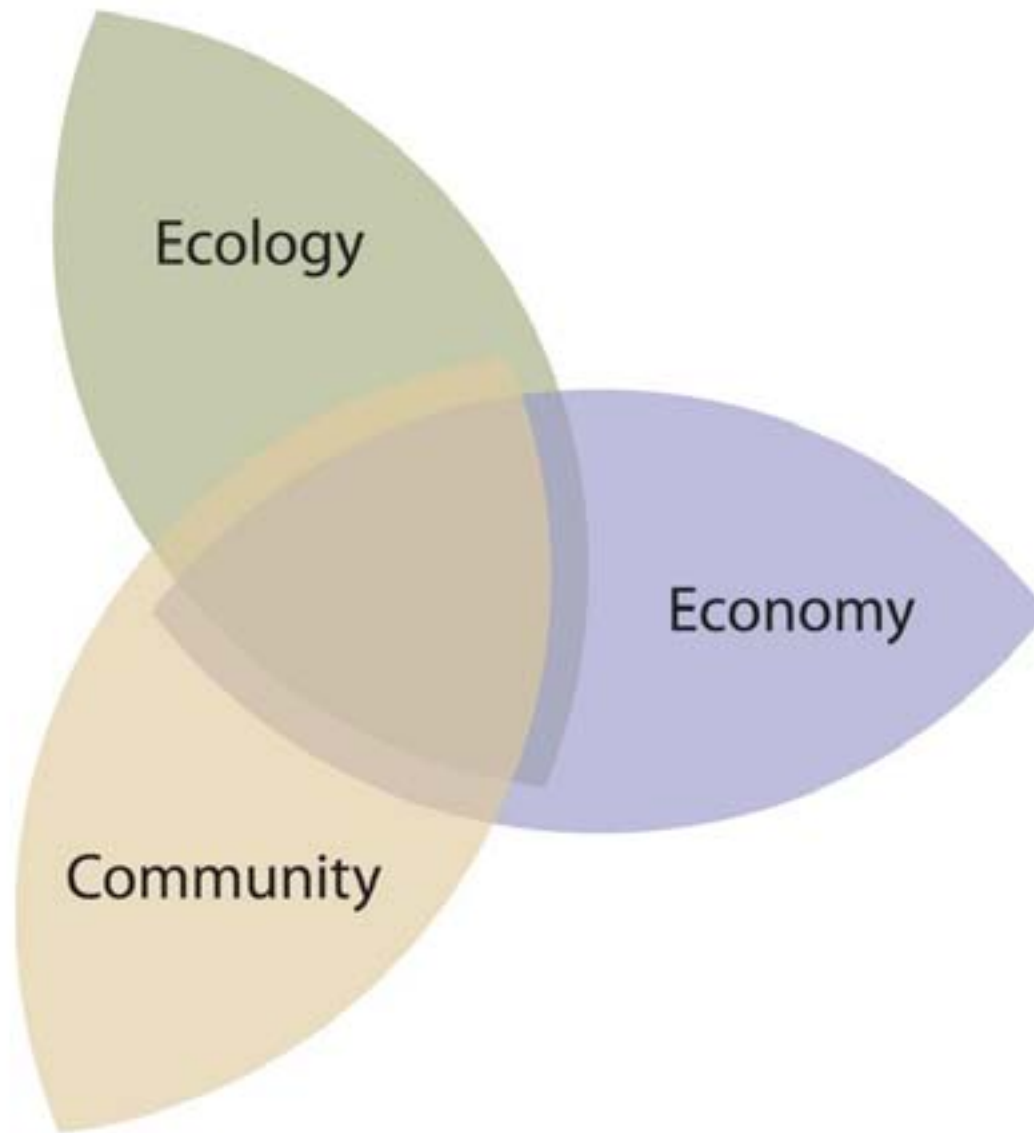




# Strategies for Sustainable Communities

Public Health and TOD

Erin Christensen, AIA, LEED-AP  
Senior Associate, Mithun



“Holistic Sustainability” for a Livable Neighborhood





### Access to Transit

Holtzclaw, 1994



### Access to Recreation

Ewing, Frank, Kreutzer, 2006



### Density

Ewing, Frank, Kreutzer, 2006



10<sup>th</sup> & Osage/ South Lincoln Redevelopment  
 La Alma/ Lincoln Park station area mixed-income redevelopment

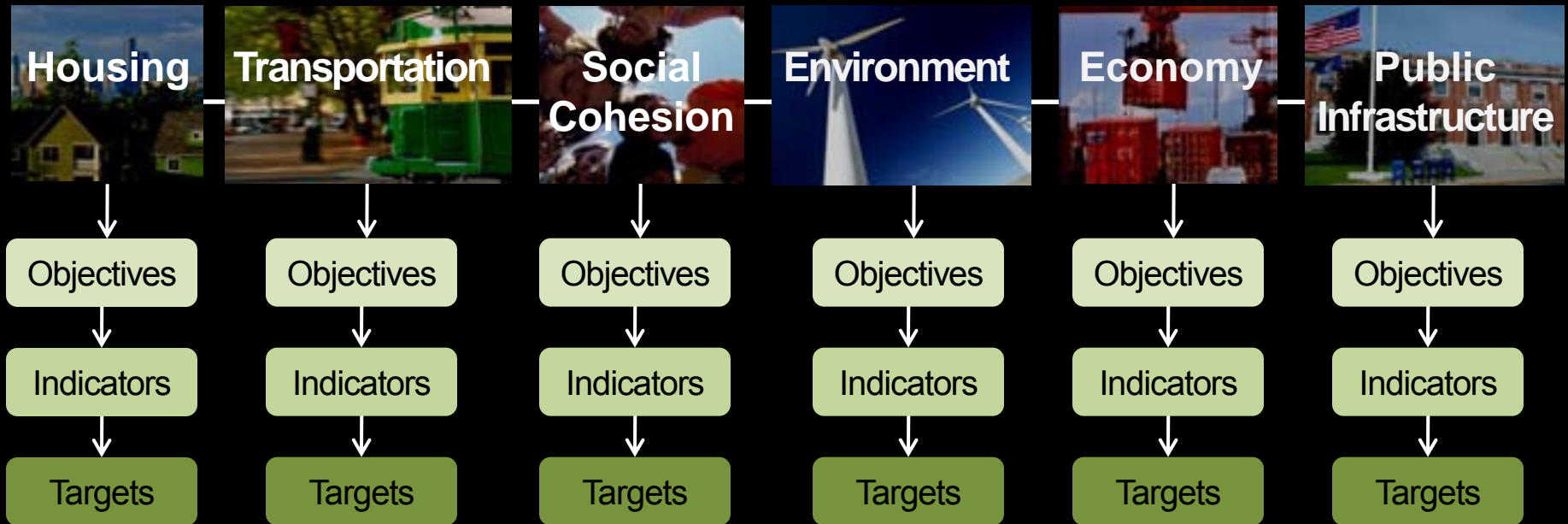


Design Solutions  
Integrating health into the Masterplan



Healthy Development Measurement Tool [www.thehdm.org](http://www.thehdm.org)  
San Francisco Department of Public Health

# HDMT: Healthy Elements Framework



Development Targets as proxies for health  
Denver HDMT Framework





## 10<sup>th</sup> & Osage/ South Lincoln TOD

Denver Housing Authority, Residents, La Alma/ Lincoln Park Neighbors, Stakeholders, City of Denver

- Fatal Bike Accidents
- Bike Accidents
- 1 Non-Fatal
- 2-4 Non-Fatal
- 5-8 Non-Fatal
- 9-12 Non-Fatal
- Denver County (Boundary)
- Denver Bike Routes
- Grid Bike Routes
- Offstreet Grid Bike Routes
- Neighborhood Bike Routes
- Off Street Bike Routes
- Denver Bike Lanes
- Proposed Regional Bike Routes
- Grid Bike Routes
- Neighborhood Bike Routes
- Off Street Bike Routes



PEQI audit results at South Lincoln Homes

**PEQI Intersection and Street Scores**

●	0 - 20	Environment not suitable for pedestrians
●	21 - 40	Poor pedestrian conditions
●	41 - 60	Basic pedestrian conditions
●	61 - 80	Reasonable pedestrian conditions
●	81 - 100	Ideal pedestrian conditions

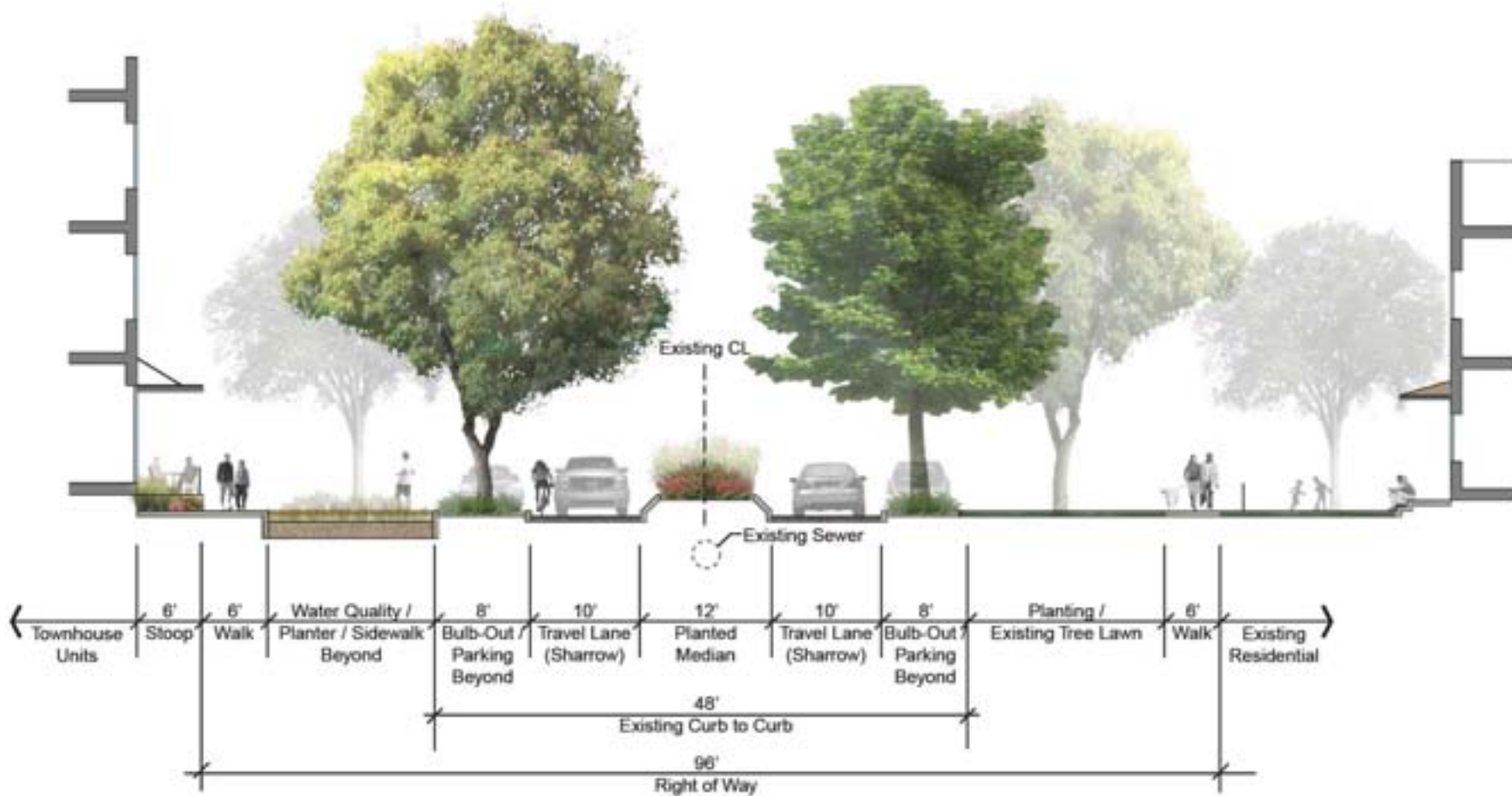


# Pedestrian and Bike Conditions

## Health rationale

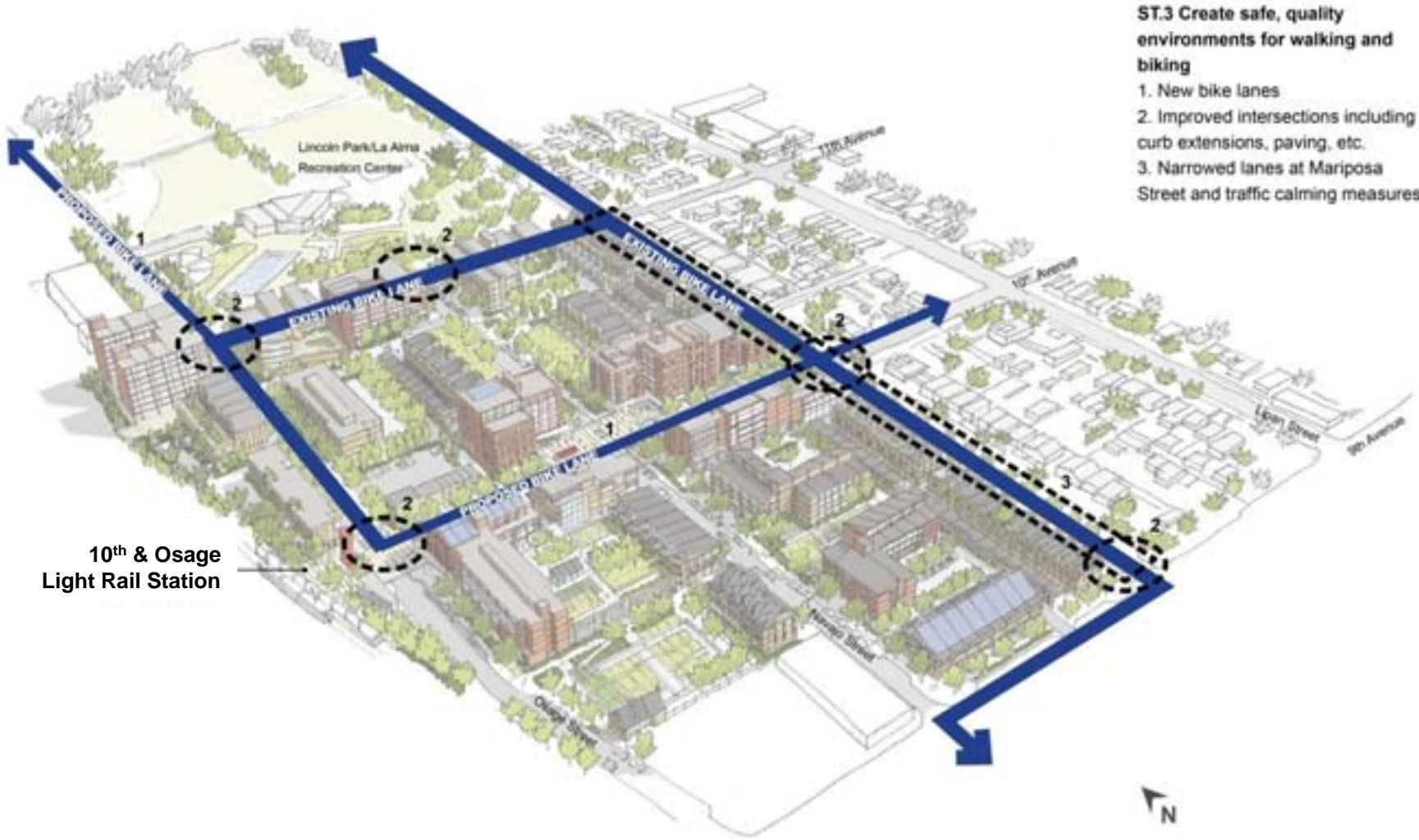


Mariposa Street



*Proposed Mariposa Street*

**Integrated Street Design: Pedestrian and Bike Safety**  
 Traffic Calming at Mariposa Street

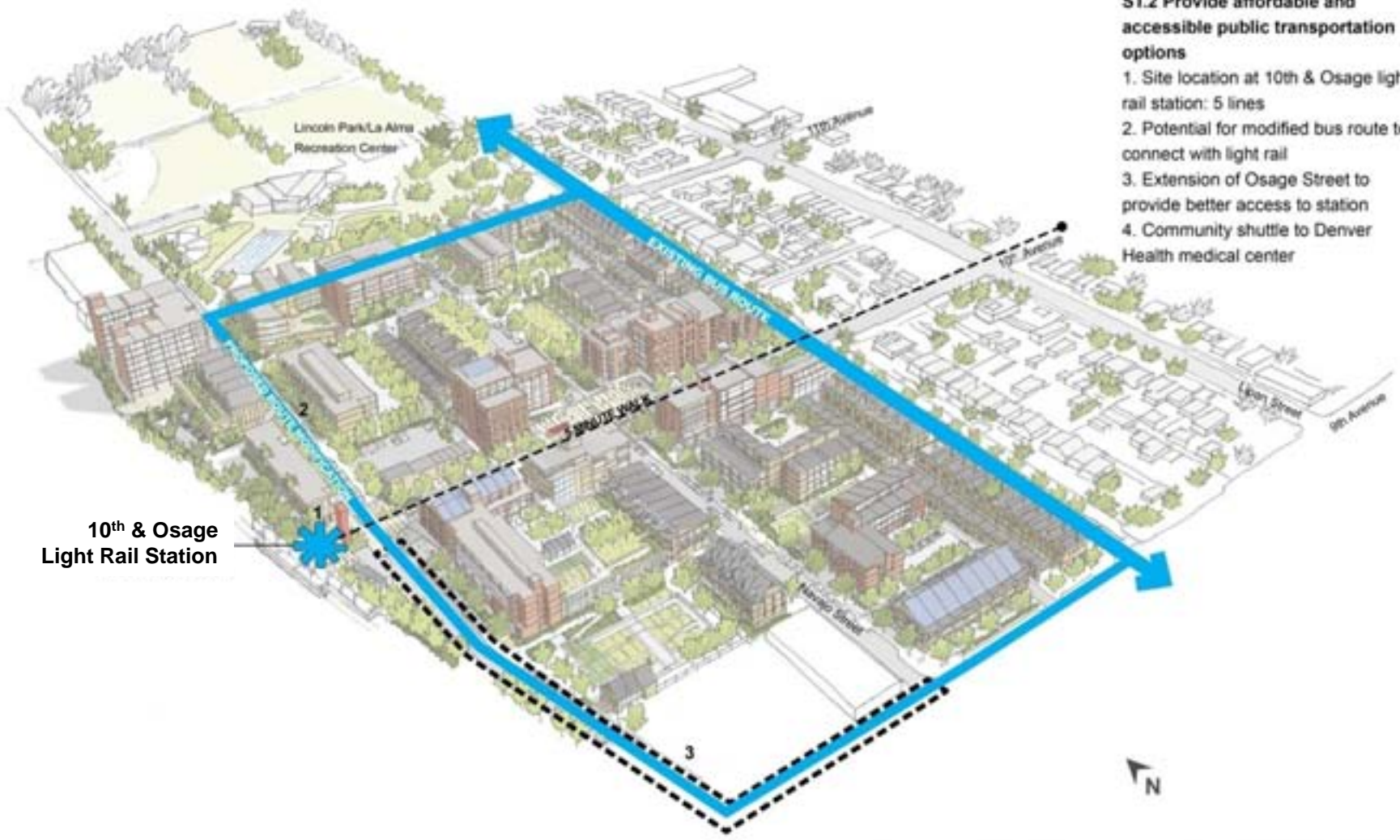


**ST.3 Create safe, quality environments for walking and biking**

1. New bike lanes
2. Improved intersections including curb extensions, paving, etc.
3. Narrowed lanes at Mariposa Street and traffic calming measures

10<sup>th</sup> & Osage  
Light Rail Station

**Sustainable and Safe Transportation**  
Safe, quality walking and biking environments



**ST.2 Provide affordable and accessible public transportation options**

- 1. Site location at 10th & Osage light rail station: 5 lines
- 2. Potential for modified bus route to connect with light rail
- 3. Extension of Osage Street to provide better access to station
- 4. Community shuttle to Denver Health medical center

10<sup>th</sup> & Osage  
Light Rail Station

Sustainable and Safe Transportation  
Affordable, accessible public transportation








































 A detailed map of downtown Denver, Colorado, illustrating the Denver B-Cycle system. The map shows a grid of streets with various colored lines representing different bike routes: blue, orange, green, and red. Numerous circular icons with the letter 'B' are placed along these routes to indicate station locations. Key landmarks such as the Performing Arts Complex, Convention Center, and Lincoln Park are labeled. The map also shows major roads like I-70 and I-25.
 

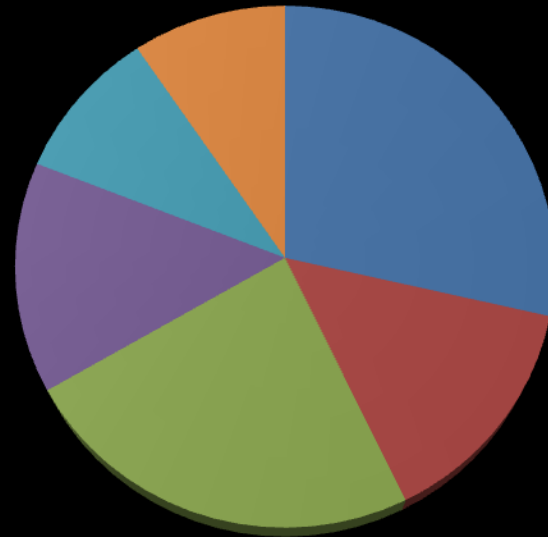
**SAFE RIDING TIPS**

- > Obey traffic signs and signals. Drive your bike like you drive your car.
- > Always ride WITH traffic. Riding against traffic is illegal.
- > No riding or parking on the 16th Street Mall except on Sundays.
- > Ride as far to the right as you feel safe (or to the left on a one-way), always traveling in a straight line.
- > Be predictable and visible. Always signal your

Denver B-Cycle: Bike Sharing Program  
 Transportation and Health partnerships

Performance Metric	Scale	Key Measures	Target Score Checklist	Level of Opportunity	Level of Effort
Energy Star <a href="http://www.energystar.gov">www.energystar.gov</a>		<ul style="list-style-type: none"> <li>• Building energy use</li> </ul>			
Architecture 2030 <a href="http://www.architecture2030.org">www.architecture2030.org</a>		<ul style="list-style-type: none"> <li>• Net zero building energy use</li> </ul>			
LEED ND <a href="http://www.usgbc.com">www.usgbc.com</a>		<ul style="list-style-type: none"> <li>• Neighborhood form</li> <li>• Location + linkages</li> <li>• Green Technology</li> </ul>			
Green Communities <a href="http://www.greencommunitiesonline.org">www.greencommunitiesonline.org</a>	 	<ul style="list-style-type: none"> <li>• Building energy use</li> <li>• Public health</li> </ul>	 		
Healthy Development Measurement Tool <a href="http://www.thehdmt.org">www.thehdmt.org</a>		<ul style="list-style-type: none"> <li>• Neighborhood form</li> <li>• Walkability + public realm</li> <li>• Healthy economy</li> <li>• Social sustainability + public health</li> </ul>			
Sustainable Sites Initiative <a href="http://www.sustainablesites.org">www.sustainablesites.org</a>		<ul style="list-style-type: none"> <li>• Sustainable land design + construction</li> <li>• Walkability + biophilia</li> </ul>			
One Planet Living <a href="http://www.oneplanetliving.org">www.oneplanetliving.org</a>	 	<ul style="list-style-type: none"> <li>• Net zero carbon + waste</li> <li>• Sustainable transport, natural systems, materials + food</li> <li>• Social sustainability + health</li> </ul>			
Carbon Footprint	 	<ul style="list-style-type: none"> <li>• Embodied GHG footprint</li> <li>• Vehicle miles traveled</li> <li>• Building Operations</li> <li>• Food production + distribution</li> </ul>	 		





- City, County Agencies
- Academic
- Foundations
- Non-Profits
- State Agencies
- Private Sector

25 new partners through HIA process

Leveraging Partnerships

Outreach and Public Process through Health Impact Assessment



- 10th & Osage SAP Resident Advisory Cmte
- South Lincoln Steering Committee
- Health Impact Advisory Team:

- City of Denver, Councilwoman Judy Montero
- City of Denver, Community Planning and Development
- City of Denver, Department of Environmental Health
- Colorado Health Department
- Colorado Health Foundation
- Denver Public Health at Denver Health
- Enterprise Community Partners
- EnviroHealth, Public Health Consulting
- Kaiser Permanente
- Livewell Communities
- Nelson Nygaard, Transportation Consultants
- Metropolitan State College of Denver, Family Literacy and Chicana and Chicano Studies
- Partnerships for Healthy Communities
- Perry Rose, Real Estate Development
- Reconnecting America
- San Francisco Department of Public Health
- Tri-county Health Department, CO, Environmental Health
- University of Colorado, Active Communities/Transportation
- University of Colorado, Health and Behavioral Sciences
- Urban Ventures, Real Estate Development

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Community Impact  
Acknowledgements

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