



**SOUTH BROADWAY NEPA PROCESS
BICYCLE & PEDESTRIAN WORKSHOP
NOVEMBER 29, 2005
LINCOLN ELEMENTARY SCHOOL**

Meeting Summary

IN ATTENDANCE

Project Team:

Brendon Harrington	UrbanTrans Consultants, Inc.
Jason Longsdorf	Denver Public Works
Larry Gibson	Carter & Burgess

Public:

Twenty-Five Participants (See Attached Sign-In Sheets)

WELCOME AND OPENING PRESENTATION

Workshop purpose: The purpose of this workshop is to gather input on suggested bicycle and pedestrian improvements within the study area that will be incorporated as elements into the alternatives development process and assist with determining the final project termini.

An overview of current conditions within the South Broadway NEPA study area was given, covering existing Denver bicycle routes, bicycle trails, bicycle access to transit and bicycle signage. Also covered was a snapshot of existing pedestrian conditions, pedestrian crossings, and pedestrian signals. A summary of the Transportation Demand Management (TDM) and Transportation Systems Management (TSM) Alternative was also included as part of the opening presentation.

The TDM/TSM Alternative incorporates measures within the South Broadway NEPA Process Study Area that attempt to meet the project purpose and need using the existing roadway network. TDM and TSM strategies are designed to reduce demands on the transportation system and/or enhance the efficiency of the existing infrastructure. These strategies increase person-moving capacity that balances the demand for travel with the capacity of roads to handle travel demand. These strategies include programs, policies and various other multimodal infrastructure improvements that could provide safe and efficient north-south mobility in the South Broadway Corridor for all modes.

TDM is designed to make the most efficient use of existing transportation facilities by managing the actual “demand” placed on these facilities. TDM measures may also have additional air quality and economic development benefits. Using a wide array of integrated multimodal strategies that maximize available travel-mode choices, increase vehicle occupancy, reduce travel distances and shift peak-period demand to non-peak periods, TDM programs extend the

useful life of transportation facilities and enhance mobility options. The package of TDM strategies will include a number of multimodal options.

TSM measures involve operational improvements to existing transportation facilities that maximize their person-moving capacity, reduce the severity and duration of temporary (i.e., crash and weather) delays, improve safety and incorporate advanced technologies and communications to optimize the efficiency of transportation systems. The package of TSM strategies will include a number of options designed to improve traffic and increase the number of people using alternate modes of transportation.

The TDM/TSM alternative could be implemented as a stand-alone alternative that meets the purpose and need of the project or integrated as elements of other “build” alternatives. Through the screening process, the TDM/TSM alternative has been identified as element number 48 in the project suggestions matrix. Each of the strategies and concepts below will be included as part of that alternative, though some specific suggestions/elements have been called out separately as noted in the footnotes at the bottom of this page below.

Initial TDM Strategies and Concepts
Improved bicycle and pedestrian safety, access and connections to Platte River trail.
Bicycle and Pedestrian-friendly programs, amenities and improvements ¹
Enhance ridesharing with existing carpool and vanpool programs.
Increased promotion of teleworking and establishment of new teleworking centers
Increased promotion of flexible work schedules
Provide incentives to employers for providing their employees with TDM programs and benefits.
Parking Management policies and programs ²
TDM-friendly site design standards
Public information, education, and marketing
Guaranteed Ride Home

Initial TSM Strategies and Concepts
Expansion of designated transit lanes and High Occupancy Vehicle lanes (HOV) ³
Implementation of Intelligent Transportation systems (ITS) such as travel delay information, synchronized traffic signals, bus pre-emption and prioritization at Kentucky and/or Ohio Avenues at Broadway.
Incident Management programs and policies
Intersection signalization improvements throughout the Study Area.
Transit Service improvements such as shortened bus headways, articulated buses, expanded park/ride facilities, and timed-transfer operations with bus routes and the light rail system. ⁴

¹ Many bicycle and pedestrian recommendations have been specifically called out as elements/suggestions in the project screening process including 21, 22, 24, 25, 26, 28, 34, 35, 54, 61, 77, and 87. Additional elements are suggested later in this summary per the input received at the bicycle and pedestrian workshop.

² Several Parking Management recommendations have been made as separate elements/suggestions in the project screening process including 55, 64, 72, 73, 80, and 88

³ HOV lanes on Broadway are also called out as suggestion 86 in the project screening process.

⁴ Numerous transit improvement recommendations have been made as separate elements/suggestions in the project screening process including 18, 19, 20, 23, 27, 29, 30, 31, 32, 77, 84, 85, 90, 91 and 92.

BICYCLE AND PEDESTRIAN ORIGINS AND DESTINATIONS

Workshop participants were provided the opportunity to indicate their current and desired origins and destinations within the study area by placing colored stars on an aerial map. Bicycle trip origins were indicated with a yellow star and bicycle destinations with a blue star. Pedestrian origins were indicated with a silver star and pedestrian destinations with a green star. Typical origins were homes and schools. Typical destinations included parks, shops, schools, transit stations and the Platte River trail.

CURRENT BICYCLE AND PEDESTRIAN CONDITIONS

An aerial map was provided for participants to indicate current problem areas for bicycles and pedestrians within the study area. Blue post-it notes were used to indicate bicycle issues and pink post-it notes for pedestrian issues. Issues that pertained to both bicycles and pedestrians were marked separately with both pink and blue stickers. The results of this discussion have been divided into current conditions and problem areas for both bicycles and pedestrians. Input that was received pertaining to both bicycles and pedestrians are listed under both sections.

Current Bicycle Conditions/Problem Areas:

- Broadway underpass beneath I-25 viaduct
- Shoulder Bulb outs at the Logan Street T-REX overpass is difficult and unsafe for cyclists
- Logan Bridge expansion joints unsafe for bicyclists, especially Washington & Emerson Bridges
- There does not seem to be standard sidewalk dimensions and in some cases none at all, Buchtel Blvd. has specific concerns in this area.
- Concerns about who provides improvements near schools and parks
- Access to the Platte River trail from Iowa and Florida Avenues. Crossing at Santa Fe Drive is dangerous
- Logan and Mississippi Avenue will become important as Lionstone and other new developments occur.
- Need continuous path to Vanderbilt Park
- Bicycle access to access Thatcher school needs to be improved
- Improved bicycle crossing for the Louisiana/Logan intersection
- Need continuous, safe paths throughout the study area
- Access to the Platte River trail from the City of Glendale
- Need bike lanes and improved access to the Platte River trail along Exposition Avenue from Washington Park
- Future needs for bicycle improvements along Mississippi, particularly crossing at Santa Fe to access the Platte River trail
- Future need to improve bicycle connections to the Louisiana, Broadway and Alameda Stations
- Need bicycle/pedestrian crossing over the Consolidated Main Line at the Cherokee development site
- There is a disparity between rider experience of trail users. There is a need for “fast paths” for experienced cyclists and separate recreational trail. For instance, the path and bicycle lanes along Buchtel Blvd. serve this purpose and work well in the University Park neighborhood.

- Bicycles can not easily access the Broadway or Alameda stations from the west.
- Improve Mississippi for bikes from Logan to west of river
- Alameda is a barrier for cyclists to cross
- Shopping throughout the study area is not conducive to using bicycles to access, it is auto oriented shopping (Broadway market Place)
- Need more bicycle lane striping, bicycle parking racks, and continuous sidewalks. Budget problems at the city prevent improvements and present challenges for addressing maintenance concerns.
- Bicycles must continue to be allowed on Light Rail during peak hours. There was discussion and disagreement about whether there is a need to eliminate the bicycle permit requirement.
- Need bicycle friendly improvements between the study area and Downtown Denver

Current Pedestrian Conditions/Problem Areas:

- Crossing Broadway/Lincoln at Ohio, Center and Virginia is not safe without signals.
- Broadway underpass beneath I-25 viaduct
- Lincoln at Exposition intersection (Traffic signal removed)
- No standard sidewalk widths and in some parts of the study area there are no sidewalks.
- Logan/ Mississippi intersection will become important for pedestrians.
- Need continuous pedestrian path to Vanderbilt park (Tennessee and Santa Fe)
- Pedestrian environment is not friendly going north on Broadway from the west (Baker Neighborhood). There is no vehicle parking which means pedestrians are adjacent to fast moving traffic.
- Need improved access to Broadway and Alameda stations
- Pedestrian safety for accessing Thatcher school
- Pedestrian improvements are needed at the Louisiana/Logan intersection
- Pedestrian access to the Platte River trail from Iowa is dangerous, particularly crossing Santa Fe Drive
- Future needs for pedestrian improvements along Mississippi, particularly crossing at Santa Fe to access the Platte River trail
- Need pedestrian crossing at Cherokee site to both sides of the Consolidated Main Line.
- Need continuous, safe pedestrian paths throughout the study area
- Alameda is a barrier for pedestrian crossings
- Pedestrian area along Broadway south of I-25 is not friendly. Future improvements will be important
- Shopping access not pedestrian friendly (Broadway market Place)
- Walking distance to Light Rail stations, typically up to half a mile, though some transit dependant may be willing to walk a mile or even a mile and a half
- A parking program with parking restrictions may encourage walking or biking
- Weather influences pedestrian trips
- Need pedestrian friendly paths, all the way between the study area and Downtown Denver along Broadway and Lincoln. Five foot sidewalks are too narrow, prefer fifteen to sixteen feet.

BICYCLE AND PEDESTRIAN TRANSIT STATION ACCESS CASE STUDIES

Several case studies were presented that summarize several transit stations with high bicycle and pedestrian mode splits. Specific characteristics of these stations were described, including infrastructure improvements and/or programs that have led to the high number of bicyclists and pedestrians accessing the station.

Clarendon Metro Station

The Clarendon Metro station is located on Metrorail's Orange Line in Arlington, Virginia. It is located in an urban village area of High-Density mixed use including residential, retail, and commercial. There are excellent bicycle lanes along the major arterials in the area (Wilson and Clarendon Blvds.) as well as on other key roads (Fairfax Drive and Kirkwood Road). There is significant bicycle parking at station with forty racks installed at the key station entrance with additional bike parking located at the parking garage at the Market Common. There is also easy access to the regional bike/pedestrian trail from the station, The Arlington Boulevard Trail. There are local pedestrian and bicycle programs, including significant internet resources such as an interactive internet bicycle map. There is also an extensive neighborhood car sharing effort and several bus routes serve the neighborhoods.

Redmond, Washington

The Overlake/40th Street Transit Center in Redmond Washington has had growing success in terms of bicycle and pedestrian access. The site is just east of Seattle and has a 360 space park and ride with a Transit Center that serves as central operations for the Microsoft shuttle system. There is also a Transportation Management Association (TMA) that offices at the center as well as a Police neighborhood outpost. A small Bike Station is located at the center that includes bike lockers, a bike cage, and a unisex changing room. There is some space for retail and/or community operations. There are some challenges at this site including a very small operations space, and somewhat limiting retail space due to difficult vehicular access. Many employers throughout the area do have covered bicycle parking, so some potential users of the bike station do not take advantage of the amenity. For future planning efforts, officials at the station recommend that site design includes specific objectives for bicyclists, and that the retail community be involved early in the planning process. Finally, involving the bicycling community via bike clubs would lead to increases in bicycle usage to the station.

Madison, New Jersey NJTransit Station

This suburban New York City community has significant numbers of bicyclists and pedestrians accessing the station each morning. A significant number of commuters are also dropped off by a spouse who is going on to work somewhere else or taking kids to school. There is a high and fairly dense population located in close proximity to the train station in addition to a popular local business district. In addition, the community made improvements to encourage bike/ped mode use. Rather than trying to expand parking supply the community went into a major "bike friendly" program that included the addition of miles of bike lanes and sidewalks that led to schools, the train and recreation facilities. Numerous bike racks and bike lockers were also installed and are heavily used, many days additional demand means that bikes are chained to other infrastructure at the station. The bike lockers are enclosed fiber glass storage units that were placed at the station by NJTransit and administered locally by the TransOptions

Transportation Management Association (TMA). The traffic around the rail station at peak hours is so significant that many cyclists can get to and from the station in about the same amount of time as a vehicle. There are also several reverse commuters who arrive at the station and bike to work from there.

Victoria, British Columbia

Victoria is often referred to as the “Cycling capital of Canada” with many cyclists riding year round. It is located on the southern tip of Vancouver Island, off Canada's west coast. There is strong use of bicycle and pedestrian infrastructure at a suburban transit exchanges and park and ride. Each transfer center is equipped with significant numbers of bicycle lockers. Many are used for reverse commuters who leave their bicycles in the lockers overnight, and pick them up for the final leg of their multimodal journey. Lockers are rented by month with a three month minimum. In addition, all buses are equipped with a two-unit bicycle rack.

Bike Stations

The Bikestation organization has been expanding their locations. Current facilities exist in Palo Alto, Long Beach, Berkeley, San Francisco and Seattle. The typical Bikestation provides monitored covered parking in addition to other amenities such as changing rooms, bike rental, bike equipment, bike repair and a small café. Numerous pictures showing the interior and exteriors are included in the workshop power point presentation.

SUGGESTED BICYCLE AND PEDESTRIAN IMPROVEMENTS

Participants were asked to identify specific solutions for bicycles and pedestrians within the study area. Based on the input and recommendations received from this part of the workshop, several new elements will be carried into the alternatives screening process and are listed in a new section below the bullets citing input from the workshop. Any suggestion received during the workshop that has already been incorporated as an element in the alternatives screening process is noted by its number when applicable.

- Include a Bikestation at the Broadway station. The most important aspect of the Bikestation for Broadway would be monitored covered parking.
- Improve the Mississippi Avenue connection across the Platte River and Santa Fe Drive. The improvement should continue toward the west to access the designated north/south Denver Bike Map routes that run west of the study area.
- Improve access to Valverde and Ruby Hill parks.
- Crossing improvements at I-25 and Bayaud Avenue. Reference that and other crossings recommended as part of the Valley Highway Environmental Impact Statement.
- Crossing I-25 at Ohio and Broadway must be improved.
- Provide wider sidewalks throughout the study area.
- Provide better street connections at the new T-REX bridges.
- Improve Mississippi; also use internal paths within the new Cherokee & Lionstone developments.
- Improve east/west routes to and from Washington Park. Use Ohio.
- Construct new bridge over I-25 at either the Tennessee or Mississippi alignment.
- Construct a multimodal bridge over Broadway at either Tennessee or Mississippi.
- Coordinate this study with the Baker Neighborhood Plan; improve crossing at Alameda and Cherokee Street intersection and connect neighborhood to the Broadway station
- Construct a new pedestrian plaza at Tennessee. This could be a very wide tunnel under Broadway or an at grade plaza at Tennessee. It should have a strong sense of place. (This is similar to suggestions 21 and 22 received earlier in the alternatives development process)
- Provide Bike parking at Louisiana Station also and ensure good bus access.
- Construct a Bike/Bus lane along Broadway within and beyond the study area to connect Downtown (Civic Center) to Englewood. The approximate boundary could be Colfax to Hampden Avenue (See suggestion 77).
- Build commuter bike trails to provide continuous flow and higher speeds for cyclists.
- Provide a safe pedestrian/ bike crossing at Tennessee and Broadway. Include signage and connections at ends
- There is a 3 mile radius for bike access to Light Rail at Broadway – within that radius improvements should be made.
- Improve access to Broadway/I-25 Park and Ride from Broadway for pedestrians
Improve and construct pedestrian friendly design for pedestrians. Such amenities as year round vegetation, light poles, pavement colors/textures, benches, and improved pedestrian crossings that better warn motorists.
- Provide Maintenance and Ownership of bicycle and pedestrian improvements (snow removal, graffiti removal, etc.)
- Improvements should focus on the needs to feel safe using pedestrian and bicycle modes.

- Mississippi from Logan west to Santa Fe seems to be the logical choice for safety and capacity enhancements related to pedestrians and bikes. It is midway between Virginia and Iowa Avenues, and will also connect the new developments.
- Consider extension of Buchtel Blvd northwest into the Gates sites; then west onto Tennessee across Broadway to link with the Light Rail Station
- Consider families as commuters, not just recreators. Need safe routes with lights time to allow several bikes through.
- Improvement to Iowa Avenue from east of Broadway to the South Platte River is important.
- Create off road trail along Santa Fe on the Overland Golf Course
- Safe pedestrian and bicycle access to McKinley Thatcher Elementary School.
- The light at Logan and Iowa intersection needs more time for bicyclists and pedestrians crossing Logan Street.
- Need wider sidewalks and pedestrian amenities throughout the study area
- Downtown access must be very bicycle and pedestrian friendly

Based on the input received from this part of the workshop and outlined above, several new elements will be carried into the alternatives screening process:

97	Include a Bikestation at the Broadway station that at the very least includes monitored covered parking.
98	Improve the Mississippi Avenue connection including safety and capacity enhancements related to pedestrians and bikes across the Platte River and Santa Fe Drive. The improvement should also continue toward the west to access the designated north/south Denver Bike Map routes that run west of the study area.
99	Improve bicycle and pedestrian access to Valverde and Ruby Hill parks.
100	Improve crossing for bicycles and pedestrians at I-25 and Bayaud Avenue.
101	Improve crossing for bicycles and pedestrians at I-25 where Ohio and Broadway intersect.
102	Provide wider sidewalks and pedestrian amenities throughout the entire study area. Amenities should include year round vegetation, light poles, pavement colors/textures, benches, and improved pedestrian crossings that better warn motorists.
103	Provide better street connections at the new T-REX bridges over I-25.
104	Improve east/west routes to and from Washington Park along Ohio Avenue.
105	Construct new bridge over I-25 at either the Tennessee or Mississippi alignment.
106	Construct a multimodal bridge over Broadway at either Tennessee or Mississippi that provides a safe pedestrian/ bike crossing and includes good signage.
107	Coordinate this study with the Baker Neighborhood Plan; improve bicycle and pedestrian crossing at Alameda and Cherokee Street intersection and connect neighborhood to the Broadway station.
108	Provide Bike parking at new Louisiana Light Rail Station and ensure good bus access.
109	Build commuter bike trails throughout the study area to provide continuous flow and higher speeds for cyclists.
110	Create bicycle improvements throughout the entire study area, including a 3 mile radius from the Broadway/I-25 Light Rail station. Improvements should focus on the needs to feel safe using pedestrian and bicycle modes and intersection crossing signals should allow several bikes through.
111	Improve access to Broadway/I-25 Park and Ride from Broadway for pedestrians.
112	Provide Maintenance and Ownership of bicycle and pedestrian improvements (snow

	removal, graffiti removal, etc.)
113	Consider extension of Buchtel Blvd northwest into the redevelopment sites; then west onto Tennessee across Broadway to link with the Light Rail Station.
114	Create bicycle and pedestrian improvements to Iowa Avenue from east of Broadway to the South Platte River trail.
115	Create off road trail along Santa Fe on the Overland Golf Course.
116	Create safe pedestrian and bicycle access to McKinley Thatcher Elementary School.
117	Retime pedestrian crossing signal at the Logan and Iowa intersection to allow more time to cross Logan Street.



AGENDA

South Broadway NEPA Process Bicycle and Pedestrian Workshop

Tuesday November 29th - 5:30pm to 7:30pm

Lincoln Elementary School (Lunchroom)
710 S. Pennsylvania Street (at E. Exposition Avenue)

- 5:30 Welcome and Opening Presentation
 - Meeting goals
 - Meeting format
 - Role of this workshop in the process
- 6:00 Bicycle and Pedestrian Origins and Destinations
- 6:20 Current Bicycle and Pedestrian Conditions
- 6:40 Bicycle and Pedestrian Transit Station Access Case Studies
- 7:00 Suggested Bicycle and Pedestrian Improvements
- 7:30 Adjourn