

## OVERVIEW

Early in the project, members of the Consensus Committee and the general public (at the first project Public Meeting on May 12, 2005) were asked to identify transportation issues and concerns within their neighborhoods. These issues and concerns were identified as interests that would need to be addressed in the identification of any proposed transportation plan for the area. These interests were grouped into categories, including pedestrian, bicycles, traffic, safety, transit, coordination with plans, neighborhood and community character, local business and economic development, and social/environmental in this matrix.

The matrix records the utilization of these stated interests in specific project activities (see Role in Process). Column 1 indicates interests utilized in development of the project Purpose and Need and the Level 1 (fatal flaw) screening. Column 2 indicates interests utilized in identifying the project needs and goals and the Level 2 (needs) screening. The recordation in red indicates the interests that were specifically utilized in these tasks. Column 3 indicates interests that will be used in the upcoming Level 3 (detailed) screening of the engineered alternatives packages. The recordation in yellow indicates the interests that will be specifically utilized in this upcoming evaluation. Column 4 indicates interests that

Eventually, all of the interests will be indicated as having been utilized somewhere within the project process, or indicated as not having been utilized with explanation.

### Interests/Process Matrix for South Broadway NEPA Process

Interests	Role in Process				Role in Process	Quantitative Measure	Qualitative Measure	Notes
	1	2	3	4				
<b>A. PEDESTRIAN</b>								
1. Safety								
a. Crossing roadways					3 - Detailed Screening 4 - NEPA Screening	Quantify number of crosswalks and pedestrian signals	Determine possibility for safety improvements at identified pedestrian accident locations assess sightlines and other potential hazards	
i. Across Broadway while shopping					3 - Detailed Screening 4 - NEPA Screening	Quantify distance between crosswalks on Broadway		
ii. Across other major streets					3 - Detailed Screening 4 - NEPA Screening	Quantify distance between crosswalks on other major streets		
iii. To and from transit					2 - Needs 3 - Detailed Screening 4 - NEPA Screening	Quantify length of continuous pedestrian-only facilities from bus stops and rail station	Assess safety of access to bus and rail	
2. Aesthetics/Enjoyable Experience							Analyze presence, scale and design of pedestrian amenities. Also, determine potential for pedestrian traffic non-adjacent to auto traffic	
a. Sidewalk/landscape/streetscape design					4 - NEPA Screening		Same as A.2	
b. Noise					4 - NEPA Screening	Model noise levels at several receptor locations proximate to major roadways		
c. Neighborhood scale of streetscape					**duplicate**		Same as A.2.	
d. Consistency of streetscape					**duplicate**		Same as A.2.	
3. Circulation						Quantify total square footage of pedestrian facilities		Question: How is this a meaningful measure of circulation?
a. Distance/spacing of crossings					**duplicate**	See A.1.a.i. aii and A2		
b. Neighborhoods to/from TOD					3 - Detailed Screening 4 - NEPA Screening	Count total street crossings for pedestrians in the study area	Assess convenience of pedestrian connections between TOD and neighborhoods	
4. Access/Connectivity								
a. To parks and recreation paths					2 - Comparative Screening		Assess convenience of connections to recreation paths and parks	
b. To transit					3 - Detailed Screening		See A.1.a.iii. assess ease of access to bus and rail	
i. Ease/Distance to transit					4 - NEPA Screening	Model ped travel time to rail station from particular points in the study area	assess alignment of crossings with needed flows; identify bottlenecks that may discourage access	
ii. Safety – getting there					**duplicate**		See A.1.a.iii.	
c. NSEW all surrounding neighborhoods					3 - Detailed Screening	See A.4.b.i.		

#### LEGEND

- Interests utilized in development of the project Purpose and Need and definition of Level 1 and 2 screening criteria
- Interests to be utilized in definition of Level 3 screening criteria to identify the Preferred Alternative in the EA
- Interests to be utilized in the definition of criteria for the evaluation of the Preferred Alternative and for the definition of impact mitigation measures in the EA

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<b>B. BICYCLES</b>								
<b>1. Safety</b>							Determine possibility for safety improvements at identified bicycle accident locations	
<b>a. Crossing roadways</b>					3 - Detailed Screening 4 - NEPA Screening	Count crossings with bicycle enhancements and number of signalized crossings	assess sightlines and other potential hazards	
<b>i. Across Broadway while shopping</b>					3 - Detailed Screening 4 - NEPA Screening	Quantify ratio of Broadway crossings with bicycle enhancements to total Broadway crossings		
<b>ii. Across other major streets</b>					3 - Detailed Screening 4 - NEPA Screening	Quantify ratio of other crossings with bicycle enhancements to total other crossings		
<b>iii. To and from transit</b>					2 - Needs 3 - Detailed Screening 4 - NEPA Screening	Measure proximity of bicycle/bike-ped-only facilities from bus stops and rail station	Assess safety of access to bus and rail.	Question: How does this measure safety?
<b>2. Aesthetic/enjoyable experience</b>							Rate presence, scale and design of bicycle amenities including presence of bicycle parking at businesses; also, determine potential for bicycle traffic non-adjacent to auto traffic	
<b>a. Streetscape</b>					4 - NEPA Screening		Same as B.2.	
<b>b. Consistent themes along Broadway</b>					4 - NEPA Screening		Same as B.2.	
<b>3. Circulation</b>					4 - NEPA Screening	Same as B.1.a.		Question: How is circulation equivalent to a safety measure?
<b>a. Distance/spacing of crossings</b>					**duplicate**	Same as B.1.a.		
<b>b. Neighborhoods to/from TOD</b>					3 - Detailed Screening		Assess convenience of bicycle connections between TOD and neighborhoods	
<b>4. Access/Connectivity</b>							See B.3.b.	
<b>a. To parks and recreation paths</b>					2 - Comparative Screening		Assess convenience of connections to recreation paths and parks	
<b>b. To transit</b>					3 - Detailed Screening	See B.1.a.iii.		
<b>c. N-S-E-W all surrounding neighborhoods</b>					3 - Detailed Screening	Model bicycle travel time to rail station from particular points in the study area		
<b>d. Neighborhoods to/from TOD</b>					3 - Detailed Screening		See B.3.b.	

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<b>C. TRAFFIC</b>								
<b>1. Capacity/Demand</b>					1 - Purpose			
<b>a. Address anticipated traffic needs</b>					2 - Needs 3 - Detailed Screening 4 - NEPA Screening	1) Model Broadway intersections LOS 2) Model percent of peak hour demand served in study area		
<b>b. Integrate with local streets</b>					3 - Detailed Screening 4 - NEPA Screening	Model side street queues at Broadway intersections and Lincoln, Santa Fe, Kalamath intersections		
<b>c. Minimize right of way impacts</b>					3 - Detailed Screening 4 - NEPA Screening	Quatify the number of properties affected and the number of properties "taken"	Analyze the severity of the impact on affected properties.	
<b>d. Maintain functional roadway class (don't make locals into collectors)</b>					3 - Detailed Screening 4 - NEPA Screening	1) Model side street queues 2) Quantify any changes in street classification or # of lanes		
<b>2. Access/Connectivity</b>								
<b>a. Transportation network regional roadways</b>					**duplicate**	See C.1.a. and C.1.b.		
<b>b. Consider East/West movement</b>					3 - Detailed Screening 4 - NEPA Screening	Model travel times from multiple points crossing the study area east to west and west to east; develop and model impacts of potential new east/west routes		
<b>c. Connections to Surrounding Facilities</b>					3 - Detailed Screening 4 - NEPA Screening	Model north-south and east-west travel times from particular points within the study area		
<b>d. Permeability/movement among neighborhoods</b>					2 - Need Screening 3 - Detailed Screening 4 - NEPA Screening	Model delay by movement (focus on minor street delay)		
<b>e. How Broadway/Santa Fe interact/tradeoff</b>					4 - NEPA Screening		Analyze how different alternatives impact driver choices to use Broadway or Santa Fe; analyze impacts of increased flow on Santa Fe/Kalamath	
<b>3. Circulation/flow</b>								
<b>a. Minimize cut through/spillover traffic</b>					3 - Detailed Screening 4 - NEPA Screening	1) Determine number of local streets that exceed capacity 2) Model increase in traffic on local streets		Comment : Study volume of traffic projected that is derived from south of Englewood to devise alternative routes for this traffic to flow to/fro downtown rather than through Broadway / I25 section.
<b>b. Signal timing</b>					4- NEPA Screening		Design signal timing to move traffic flow at a safe speed	Comment: Study impact of eliminating left hand on southbound Broadway onto Arkansas.
<b>c. Spacing</b>					4- NEPA Screening		Compare necessary signal spacing with the deirable spacing for efficient traffic flow	
<b>4. Safety</b>								
<b>a. Crossing roadways – left turns</b>					3 - Detailed Screening 4 - NEPA Screening	Determine if the alternative can be built to meet minimum City (and other applicable safety requirements)	Determine possibility for safety improvements at identified traffic accident locations	
<b>b. Speed</b>					3 - Detailed Screening 4 - NEPA Screening		Analyze possibility for improvements to mitigate speeding	
<b>c. Interaction with pedestrians and bicycles</b>					3 - Detailed Screening 4 - NEPA Screening	Quantify ratio of linear feet of separate bicycle and ped facilites to total lane miles in study area	Determine possibility for safety improvements at key intersections/crossings	

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<b>D. TRANSIT</b>								
1. Encourage Transit Use							Quantify ratio of bicycle, ped and transit facilities to total lane miles in study area	
a. Consider accommodations for additional transit ridership					3 - Detailed Screening	Model transit mode split	Analyze impacts of transit inducing factors (parking, feeder busses, headways, etc.)	
b. Additional rail operating plans or bus operating plans					3 - Detailed Screening	Measure available peak hour and daily transit passenger service hours		
2. Maintain Commitments to Transit Riders								
a. Availability of parking					3 - Detailed Screening	Determine number of parking spaces available to the	Analyze ease of access to available parking	
b. Access to transit					**duplicate**		See A.1.a.iii. and B.1.a.iii.	
i. At peak times					3 - Detailed Screening 4 - NEPA Screening	Model available space on transit vehicles for those boarding at Broadway and I-25		
ii. At key transit facilities/stations					3 - Detailed Screening 4 - NEPA Screening	Model available space on transit vehicles for those boarding at other stops/stations in the study area		
iii. Bus access and circulator					3 - Detailed Screening	1) Analyze travel time by route 2) Also see D.1.b		
3. Maintain/Improve Transit Travel Times								
<b>E. COORDINATION WITH PLANS</b>								
1. Blueprint Denver					3 - Detailed Screening		Compare characteristics of the alternatives to recommendations of the plan	
2. Developing plans: BARD/MDLDC/Marketplace/Cherokee/Lionstone					3 - Detailed Screening		Compare characteristics of the alternatives to recommendations of the plan	
3. Transportation Plans: VHEIS, STP					3 - Detailed Screening		Compare characteristics of the alternatives to recommendations of the plan	
<b>F. NEIGHBORHOOD AND COMMUNITY CHARACTER</b>								
1. Maintain Residential Character of local streets								
a. Preserve residential parking					3 - Detailed Screening 4 - NEPA Screening	Quantify the number of residential spaces lost		
b. Manage traffic volume					**duplicate**	See C.1.a and C.3.a		Comment: Count number of speed humps needed within existing neighborhoods to control volume and speed
c. Control traffic speed					**duplicate**	See C.3.b and C.4.b		
d. Minimize cut through traffic					**duplicate**	See C.3.a		Comment: Study the impact of cement medians on Mississippi to restrict cross over traffic coming out of
e. Noise					**duplicate**	See A.2.b		Question: Noise is not only a concern to pedestrians, how to measure total noise
f. Minimize Right-of-Way Acquisition					**duplicate**	See C.1.c.		
2. Minimize Barrier Effects of Major Roads								
a. Manage traffic volumes					**duplicate**	See C.1.a and C.3.a		
b. Scale of streetscape					**duplicate**		Analyze presence, scale and design of streetscape	

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<b>G. LOCAL BUSINESS AND ECONOMIC DEVELOPMENT</b>								
1. Preserve accessibility of local businesses								
a. Preserve/Promote Pedestrian Access					**duplicate**	See A.1.a.i. and A.1.a.ii.		Comment: This is not just a safety issue
b. Preserve/Promote Vehicle Access					3 - Detailed Screening	See B.2	Analyse ease of vehicular access to businesses	
c. Preserve/Promote Bicycle Access					**duplicate**	See B.1.a.i and B.1.a.ii.		Comment: This is not just a safety issue
d. Preserve/Promote Parking					3 - Detailed Screening 4 - NEPA Screening	See D.2.a and F.1.a		
e. Do not preclude sidewalks/landscape design					**duplicate**	See F.2.b		
f. utilize "gateway" nature of former gates properties					4 - NEPA Screening			
2. Accommodate two transit oriented developments					1 - Fatal Flaw/Purpose		Also 3- Detailed Screening/4 NEPA	
<b>H. SOCIAL/ENVIRONMENTAL</b>								
1. Minimize risk and liability related to hazardous materials					1- Purpose and Need		Alt. intersects known contaminant (TCE plume); determine if construction would be infeasible; or if remediation and long-term monitoring were acceptable; consider construction implications. Determine if the risk is to worker safety or public health and safety; continue to monitor for any new information regarding locations & types of contaminants prior to completion of study; consider opportunities construction might provide for better cleanup	
2. Minimize impact to historic properties					1 - Purpose and Need 2 - Comparative Screening 3 - Detailed Screening 4 - NEPA Screening	Direct impact from alt. footprint		
3. Minimize impact to environmental justice populations					3 - Detailed Screening 4 - NEPA Screening		Noise and air impacts to EJ populations; identify relevant EJ populations	
4. Minimize Air Pollution					4 - NEPA Screening	Model exhaust dissipation during peak auto trip periods, and daily cumulative, for each alternative	Level of service or intersection delay # of receptors adjacent to roads w/ doubling of traffic or greater	
5. Minimize Visual Impact					4 - NEPA Screening	Is there an identifiable degradation in visual character?		
6. Minimize Water Pollution					4 - NEPA Screening	Change in impervious surface; consider mitigation and BMPs		
7. Noxious weed invasion					4 - NEPA Screening			
8. Construction best management practices- dust					4 - NEPA Screening			
9. Swallows					4 - NEPA Screening	Avoid impacts to any swallows nesting under bridges		
10. Water depletion from Platte River					4 - NEPA Screening	Do not deplete any currently occurring natural drainage to the S. Platte River		
11. 4(f) Properties					3 - Detailed Screening 4 - NEPA Screening			
12. Noise					3 - Detailed Screening 4 - NEPA Screening			

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