	Operations & Safety • Balance of Regional Travel /Local Access • Travel Reliability and Safety • Capacity for Growth	Community, Business & Environment • Environmental Impacts • ROW and Acquisitions	Feasibility & Cost • Magnitude of Cost • Constructability and Phasing	Recommendation
Arapahoe Road Options				
• No-Build	• Will not accommodate future traffic demands • Likely decrease in traffic safety as traffic volumes increase	• Some impacts will likely result from planned improvements constructed as separate projects	• Only planned and programmed projects included in No-Action option	USE FOR COMPARATIVE PURPOSES AND NEPA COMPLIANCE
• Add auxiliary lanes	• Potential increase in safety and reliability • Would not accommodate future traffic demands unless combined with other improvement concepts	• Lesser degree of impacts than other options with greater ROW requirements	• $7-10 M, not including ROW • Least cost for substantial safety improvement	RECOMMENDED FOR FURTHER ANALYSIS
• Add break-down area/shoulders	• Potential increase in safety and reliability • Would not accommodate future traffic demands unless combined with other improvement concepts	• Lesser degree of impacts than other options with greater ROW requirements	• $15-37 M, not including ROW • High cost for minor safety/capacity improvement	IN CONJUNCTION WITH OTHER IMPROVEMENTS
• Widen Arapahoe Road from 6 to 8 lanes	• Potential increase in reliability • Reduced congestion may be offset by traffic operations and safety impacts of increased lane changing	• Higher degree of impacts due to greater ROW requirements along entire corridor	• $23-39 M, not including ROW • Could be phased by segment	RECOMMENDED FOR FURTHER ANALYSIS
• Bus/HOV lanes	• Reliability for transit vehicles improved • Option for HOV provided, but unlikely to result in substantial new car or van pools	• Higher degree of impacts due to greater ROW requirements along entire corridor	• $23-39 M, not including ROW • Minimal benefit if not constructed in one package	NOT INITIALLY, BUT FEASIBLE WITH BRT
• Construct separated through lanes/Boulevard	• Provides balance of separated facilities for regional versus local traffic • Not applicable for much of the adjacent corridor development	• Greatest amount of ROW required of any road option; resulting in higher degree of impacts	• $52-63 M, not including ROW • High cost and not effective if constructed in phases	ELIMINATE
• Construct frontage roads	• Provides alternative route to enhance local travel without impacting regional through traffic • Applicable in conjunction with potential future redevelopment of adjacent properties only between I-25 and Havana Street • Does not provide capacity for growth in regional travel along corridor	• Lesser degree of impacts than options with greater ROW requirements	• $20-29 M, not including ROW, but cost could be borne by developers	IN CONJUNCTION WITH FUTURE REDEVELOPMENT
I-25 Interchange Options				
• Partial cloverleaf	• Driver expectancy similar to existing interchange • Provides capacity and storage to increase safety and reliability	• One business relocation required • Existing haz mat sites may require remediation	• $45-55 M, including ROW • Could be built in phases	RECOMMENDED FOR FURTHER ANALYSIS
• Single point urban with Yosemite/ Costilla connection	• Provides capacity and storage to increase safety and reliability • Eliminates traffic signal on Arapahoe	• Up to two business relocations required • Existing haz mat sites may require remediation • Removal of ramps would open areas for future development	• $70-80 M ($100-115 M including Yosemite/Costilla connection and ROW) • Difficult to build interchange in phases, but could phase Yosemite/Costilla connection first	RECOMMENDED FOR FURTHER ANALYSIS
• Tight urban diamond	• Adds left turn movements at two ramp intersections and results in potential left turn queue impacts	• Existing haz mat sites may require remediation • Removal of ramps would open areas for future development	• $50-60 M, including ROW • Difficult to build in phases	ELIMINATE
• Diverging diamond	• The 25 MPH design speed is not appropriate for high volumes and speed on Arapahoe Road • Driver expectancy and off-peak safety are critical concerns • I-25 bridge reconstruction required regardless of this retrofit design's reduced cross-section	• No relocations required • Existing haz mat sites may require remediation • Removal of ramps would open areas for future development	• $40-50 M, including ROW • Very difficult to build in phases	ELIMINATE
• Three level diamond	• Driver expectancy for all movements is critical safety concern • Provides separation of traffic traveling through interchange	• Greatest degree of visual impacts due to high profile • Three business relocations required • Existing haz mat sites may require remediation • Removal of ramps would open areas for future development	• $100-140 M, including ROW • Difficult to build diverges on Arapahoe Road in phases	ELIMINATE
Parallel/Intersecting Roads				
• Widen Broncos Parkway/Easter Avenue/Havana/Dry Creek from 4 to 6 lanes	• Not expected to divert substantial traffic from Arapahoe Road	• Potential noise impacts to sensitive areas east of Potomac Street and east of Jordan Road	• $14-19 M, not including ROW • Could be built in phases	RECOMMENDED FOR FURTHER ANALYSIS
• Enhance Peakview/Caley and Briarwood as parallel routes	• Although not expected to divert substantial traffic from Arapahoe Road, improves local traffic access and separates from regional traffic	• Impacts to potential Section 4(f) property (Family Sports Golf Course) • Some degree of impacts to other resources due to ROW requirements	• $11-18 M, not including ROW • Could be built in phases	RECOMMENDED FOR FURTHER ANALYSIS
• County Line/Cottonwood/Peoria to Jordan Road	• Does little to effect Arapahoe Road traffic volume due to distance from the corridor	• Potential impact to noise sensitive areas east of Potomac Street	• $28-36 M, not including ROW • Could be built in phases	ELIMINATE

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Transit/Alternative Mode/Other Options				
• Improve existing transit stop facilities and amenities	• Matches different levels of passenger demand to transit stop function and amenities • Improved safety and amenities may encourage increased ridership	• Few impacts due to small areas of potential disturbance	• Standard Transit Stop - $2-5 K/stop • Upgraded Stop - $5-12K/stop • Major Transit Connection Stop - $7-12 K/stop • Can be applied to any alternative and added in phases	**IN CONJUNCTION WITH OTHER IMPROVEMENTS**
• Additional Limited stop route overlay with existing Local Route 66 transit service	• Complements local service and improves travel time for longer trips • Provides flexibility in serving different stops during different periods of day	• No ROW impacts • Could attract more pedestrian activity and result in beneficial business impacts	• Peak vehicles - $2.2 M • Annual operating cost (weekdays) - $750-800 K • No new infrastructure required. • Hours of operation could be phased	**RECOMMENDED FOR FURTHER ANALYSIS**
• Frequent fixed route shuttle	• Provides more comprehensive transit access than local service on Arapahoe Road for residents and employees; connects to Arapahoe and Dry Creek LRT stations • Allows for transit access on lower volume roadways	• Potential new stop locations could result in impacts if in sensitive areas	• Peak vehicles - $3.1 M • Annual operating cost (weekdays) - $1.4-1.5 M • Requires new system of transit stops for implementation	**RECOMMENDED FOR FURTHER ANALYSIS**
• Bus Rapid Transit (BRT)	• Dedicated lanes could maximize travel time improvements for transit • Could be integrated with local service to provide higher quality of service to/from high demand locations • Ridership not proven with current/planned service	• ROW impacts same as "Widen Arapahoe Road from 6 to 8 Lanes" because new lanes would be added	• Vehicles – (3 vehicles) $2.3 M • Annual operating cost – $400 K • Requires significant roadway improvements and infrastructure costs for transit stop enhancements	**NOT RECOMMENDED AS AN INITIAL PHASE**
• Transit Priority Applications	• Could provide more reliable access and reduce delay for buses in the immediate vicinity of Arapahoe LRT station • Could negatively impact general traffic signal time and reduce LOS for through traffic on Arapahoe Road. Basic applications such as turn lane exceptions for buses could minimize impacts	• Could attract more transit ridership, pedestrian and bicyclist activity, resulting in air quality benefits and beneficial business impacts	• Intersection turn lane improvements and traffic signal infrastructure - $5 – 9 M • Traffic signal operations - $120 – 480 K • Requires ongoing coordination with overall traffic management strategies • (Costs assume 12 intersections)	**CONSIDER ONLY IN CONJUNCTION WITH OTHER IMPROVEMENTS**
• Sidewalk improvements along Arapahoe Road	• Provide for improved continuity of pedestrian facilities • Detached sidewalks provide safety buffer between pedestrians and roadway	• Could attract more transit ridership, pedestrian and bicyclist activity, resulting in air quality benefits and beneficial business impacts	• $3 – 5 M, not including ROW • Likely constructed within easements, rather than ROW	**IN CONJUNCTION WITH OTHER IMPROVEMENTS**
• Improved crossings of Arapahoe Road for ped/bike	• Enhanced pedestrian signals would provide safer crossings of Arapahoe Road and connecting roadways • Potential grade separating would eliminate select conflicts between ped/bikes and motorized vehicular traffic	• Could attract more transit ridership, pedestrian and bicyclist activity, resulting in air quality benefits and beneficial business impacts	• At-grade signal and intersection improvements $75 – 300 K per location • Grade separated crossing - $1.5 – 2.5 M per location	**IN CONJUNCTION WITH OTHER IMPROVEMENTS**
• Bike route signing/striping on parallel and intersecting streets	• Enhanced signage/striping would greatly improve ability to utilize safest, designated routes in study area and facilitate connection to regional system	• Could attract more bicycle commuter traffic, resulting in air quality benefits	• $0.75 – 1.0 M (signs and striping only) • (Costs assume 15 miles of bike routes in study area)	**IN CONJUNCTION WITH OTHER IMPROVEMENTS**
• Rebuild/raise Arapahoe Road bridge over Cherry Creek	• Facilitates pedestrian/bicycle path grade separation for extended Cherry Creek Trail, reducing conflicts with motorized vehicular traffic • Provides opportunity for improved ped/bike facilities on new bridge	• Would require mitigation of construction impacts on natural stream environment	• $5 – 10 M - High cost for pedestrian crossing improvement unless constructed in conjunction with other roadway improvement needs	**IN CONJUNCTION WITH OTHER IMPROVEMENTS**
• ITS Strategies	• Traffic monitoring technologies support real-time traffic management needs • Effective traveler information systems can inform drivers of congestion, incidents and alternate routes • *NextBus* technology at transit stops can provide real-time information bus arrivals. Could help encourage increased ridership.	• Could attract more transit ridership, pedestrian and bicyclist activity, resulting in air quality benefits and beneficial business impacts	• Reasonable costs per installation location – costs continue to decrease as technology becomes more common • Improvement elements can easily be phased for implementation	**CONSIDER IN CONJUNCTION WITH OTHER IMPROVEMENTS**
• Travel Demand Management Strategies	• Makes the most efficient use of existing facilities by "managing actual demand". Well-conceived programs promote demand reduction through education, marketing, incentives for use of alternative modes, disincentives to drive/park and guidelines for new developments.	• Could improve traffic operations, resulting in air quality and noise benefits.	• Wide range of costs depending on which elements of the program are supported by local jurisdictions	**IN CONJUNCTION WITH OTHER IMPROVEMENTS**

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