



Category	Screening Criteria	Color-Code Legend	NA	1	2	3
			No Action	Single Point Urban Interchange (SPUI)	Traditional Diamond Interchange (TDI)	Diverging Diamond Interchange (DDI)
Optimize operations and reduce congestion	Intersection peak hour Level of Service (LOS) and delay (sec) (AM / PM)	Red = LOS E or F	WB Ramps: D (48) / D (52) EB Ramps: B (20) / E (55)	Ramps: D (47) / E (77)	WB Ramps: C (24) / C (27) EB Ramps: C (27) / C (26)	WB Ramps: C (24) / C (26) EB Ramps: C (22) / B (19)
	Peak hour queue lengths (ft) approaching interchange (AM / PM)	Red = Queues longer than No Action or 600 feet, whichever is greater	SB Kipling: 845 / 1426 NB Kipling: 96 / 2117 WB Exit Ramp: 376 / 2405	SB Kipling: 293 / 649 NB Kipling: 81 / 592 WB Exit Ramp: 159 / 736	SB Kipling: 93 / 64 NB Kipling: 42 / 162 WB Exit Ramp: 85 / 86	SB Kipling: 249 / 87 NB Kipling: 34 / 73 WB Exit Ramp: 92 / 390
	I-70 Vehicle Density (veh/mi/ln)	Green = 28 veh/mi/ln or less Black = 28.1 to 35 veh/mi/ln Red = 35.1 veh/mi/ln or greater	West of Kipling interchange: EB I-70 diverge: 31.6 / 30.6 WB I-70 merge: 50.0 / 18.9 East of Kipling interchange: EB I-70 merge: 32.9 / 27.6 WB I-70 diverge: 28.8 / 107.7	West of Kipling interchange: EB I-70 diverge: 31.1 / 37.2 WB I-70 merge: 25.9 / 21.3 East of Kipling interchange: EB I-70 merge: 27.8 / 28.0 WB I-70 diverge: 25.6 / 54.2	West of Kipling interchange: EB I-70 diverge: 31.2 / 35.9 WB I-70 merge: 26.7 / 24.0 East of Kipling interchange: EB I-70 merge: 27.9 / 28.4 WB I-70 diverge: 21.9 / 22.6	West of Kipling interchange: EB I-70 diverge: 31.0 / 29.5 WB I-70 merge: 26.8 / 24.3 East of Kipling interchange: EB I-70 merge: 27.9 / 24.8 WB I-70 diverge: 21.9 / 28.8
	Perceived driver expectancy (easy, moderate, difficult)	Easy (Green) = Typical layout with directional movements Moderate (Black) = Unusual layout but directional movements or typical layout with movement difficulties Difficult (Red) = Unusual layout with unexpected decision points or unusual turn movements	Moderate Typical urban interchange layout, but close signal spacing and tight area makes maneuvering difficult	Easy Directional interchange layout with layout familiar to Denver metro area	Easy Typical urban interchange layout with greater signal spacing and added capacity to facilitate movements	Moderate Directional interchange layout with limited familiarity in Denver metro area, but more planned at other locations
Improve traveler safety	Expected change in number of accidents	Green = Substantial decrease expected from reduced congestion and conflict points Black = Notable decrease expected from reduced congestion and conflict points Red = Increase expected from additional congestion and conflict points	Increase due to additional congestion as traffic volumes increase	Decrease due to reduction in congestion and less conflict points with fewer intersections	Decrease due to reduction in congestion and less conflict points with fewer intersections	Substantial Decrease due to reduction in congestion and less conflict points
	Reduction in multimodal conflict points (ramps and frontage road intersections on Kipling)	Relative Scale: Green = Reduction more than 50% Black = Reduction 10-50% Red = Reduction less than 10%	Vehicular = 90 points	Vehicular = 84 points Pedestrian crossings of high-speed right turns	Vehicular = 34 points Pedestrian crossings of high-speed right turns	Vehicular = 22 points Controlled pedestrian crossings to center median of interchange would further decrease conflicts
Accommodate multimodal connections	Missing sidewalk/path links & out-of-direction travel	Green = Direct connections Black = Some out-of-direction travel Red = Substantial out-of-direction travel & no bike lanes	Only narrow sidewalk provided directly through interchange and no bike lanes	Path and bicycle lanes provided directly through interchange with signalized connections to frontage roads	Path and bicycle lanes provided directly through interchange, but some out-of-direction travel for pedestrians and bicyclists crossing Kipling at 49th Ave	Path and bicycle lanes provided directly through interchange, but some out-of-direction travel for pedestrians and bicyclists crossing Kipling at 49th Ave
	User perception of comfort and safety of pedestrian and bicycle movements (easy, moderate, difficult)	Easy (Green) = Generally feels comfortable for pedestrian and bicycle movements with direct connections through interchange Moderate (Black) = Key characteristic makes alternative uncomfortable or out-of-direction movements Difficult (Red) = Several characteristics make alternative uncomfortable and out-of-direction movements	Difficult Increasingly uncomfortable for pedestrians with increased vehicular congestion and sidewalks under the bridge with limited median refuge areas	Easy Shared use paths and bicycle lanes directly through the interchange and traffic signals at both frontage roads provide Kipling Street crossing	Moderate Shared use paths and bicycle lanes directly through the interchange, but no signalized crossing at 49th Ave	Moderate Shared use paths and bicycle lanes directly through the interchange, but no signalized crossing at 49th Ave
Avoid and minimize environmental impacts	Potentially impacted noise receptors	Green = Moderate decrease Black = Slight increase or decrease Red = Moderate increase	Moderate noise increase to surrounding homes and hotels from increase in congestion	Slight noise reduction from decrease in congestion	Slight noise increase from higher speeds and ramps closer to homes and hotels	Slight noise increase from higher speeds and ramps closer to homes and hotels
	Potentially impacted parks & recreation areas (Kipling Trail, Fruitdale Park)	Relative Scale: Green = No impact expected Black = Slight impact Red = Minor or major impact	No impacts	No impacts expected	No impacts expected	No impacts expected
Avoid and minimize community impacts	Right-of-Way required	Relative Scale: Green = No full acquisitions Black = 2 or less full acquisitions; less than 5 total acres Red = 3 or more full acquisitions; more than 5 total acres	None	Full = 0.5 acres Partial = 0.2 acres Total = 0.7 acres	Full = 6.8 acres Partial = 0.8 acres Total = 7.6 acres	Full = 6.8 acres Partial = 0.9 acres Total = 7.7 acres
	Number of property accesses impacted	Relative Scale: Green = No accesses Black = 1 - 4 accesses Red = 5 or more accesses	No impacts	No accesses impacted with partial acquisition	2 existing accesses impacted with partial acquisition	3 existing accesses impacted with partial acquisition
	Perceived difficulty to access area businesses (easy, moderate, difficult)	Easy (Green) = Typical layout and full access to frontage roads and driveways Moderate (Black) = Limited access to frontage roads and/or driveway closures Difficult (Red) = Out-of-direction turns to get to frontage roads	Moderate Increased congestion creates issues for accessing businesses due to congestion in peak travel hours	Easy Typical interchange layout and full access to frontage roads	Moderate Typical interchange layout, but limited direct access to 49th Ave and South Frontage Road access moved farther from interchange	Moderate Familiar interchange layout, but limited direct access to 49th Ave and South Frontage Road access moved farther from interchange
Maximize constructability	Conceptual-level probable costs (low, moderate, high, very high)	Green = under \$40 Million Black = \$40 to 60 Million Red = over \$60 Million	None	Moderate Construction = \$50 - 60 Million ROW = \$2 - 5 Million Total = \$55 - 65 Million	Moderate Construction = \$40 - 50 Million ROW = \$10 - 15 Million Total = \$50 - 65 Million	Moderate Construction = \$40 - 50 Million ROW = \$10 - 15 Million Total = \$50 - 65 Million
	Constructability (easy, moderate, difficult)	Easy (Green) = Typical construction mostly outside of existing roadway Moderate (Black) = Moderate construction within tight area Difficult (Red) = Major construction complexity with major traffic impacts	N/A	Difficult due to building clear-span bridge over Kipling adjacent to existing I-70 bridges	Easy because most construction is outside of traffic on new alignments with typical structure construction	Moderate due to constructing geometric changes with tight staging area constraints
	Opportunities to construct in phases (easy, moderate, difficult)	Easy (Green) = Opportunity for substantial benefits with areas implemented separately Moderate (Black) = Some opportunity for initial benefit without throwaway Difficult (Red) = Substantial benefits not realized unless major construction with relatively large funding source	N/A	Difficult Potential for short-term freeway and ramp improvements, but bridge with ramps must be constructed at once	Easy Potential for short-term freeway improvements and ramp improvements with minor throwaway and opportunities for ramps to be constructed separately with bridge work later	Difficult Potential for short-term freeway and ramp improvements, but crossover with bridge must be constructed at once
SUMMARY OF RESULTS			CARRIED FORWARD for comparison in NEPA documentation	NOT RECOMMENDED	NOT RECOMMENDED	RECOMMENDED AS PREFERRED ALTERNATIVE
NOTES			Poor traffic operations and increasing safety issues due to additional congestion by 2035 No changes to inadequate multimodal connections through the interchange	Interchange breaks down with poor traffic operations during peak hours Minor community and ROW impacts and direct multimodal connections through the interchange area Interchange layout with no change to current frontage road and business access Difficult construction impacts and limited opportunities to construct in phases	Improved vehicular operations and safety with direct multimodal connections through interchange area Impacts to area business access with change in frontage road access Opportunities to construct in phases, but moderate ROW impacts with S Frontage Rd relocation	Substantial safety benefits with less multimodal conflict areas and improved vehicular operations and direct multimodal connections through interchange area Impacts to area business access with change in frontage road access Limited opportunities to construct in phases and moderate ROW impacts with S Frontage Rd relocation

GREEN = Comparatively beneficial and/or minor impacts
BLACK = Comparatively neutral benefits and/or moderate impacts
RED = Comparatively minor or no benefits and/or major impacts