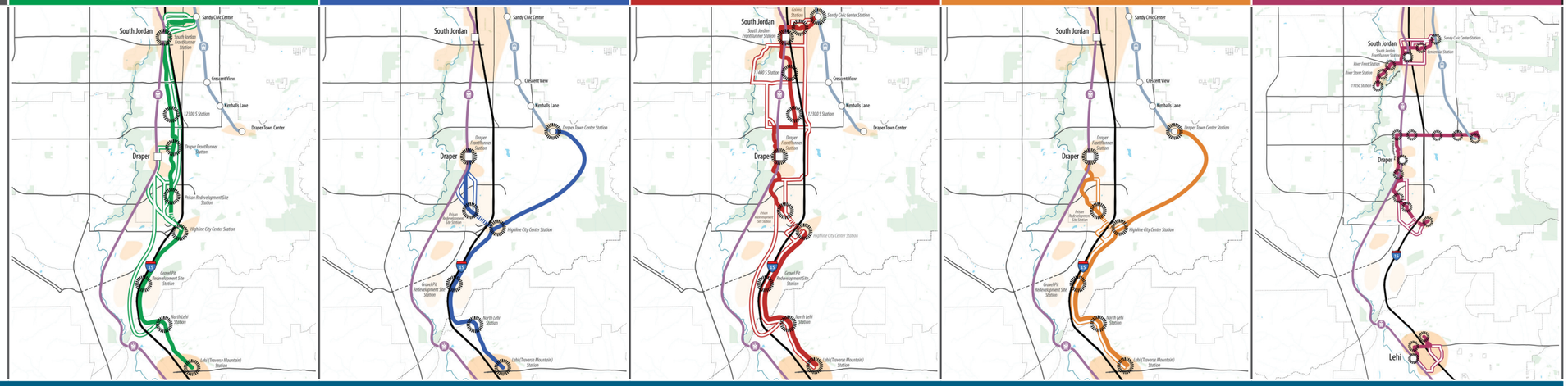
POINT OF THE MOUNTAIN
TRANSIT STUDY

Draft Level 1 Summary of Evaluation Ratings

EVALUATION CRITERIA
• MEASURE

ALTERNATIVES

RATING KEY
- Higher Performing
- Lower Performing



	LRT WEST	LRT EAST	BRT WEST	BRT EAST	EW CONNECTIONS
Transit System Performance Criteria					
Transit Speed					
Transit Reliability					
Ridership					
Access and Mobility Criteria					
Potential to Serve Existing and Planned Centers					
Transportation System Impacts					
Promotes Multimodal Access and Connections					
Ease of Vehicular Access					
Transit Connections					
Land Use Criteria					
Community Compatibility[1]					
Mixture and Density of Land Uses[1]					
Walkable Design[1]					
TOD Opportunities and Economic Development[1]					
Cost, Constructability, and Operational Criteria					
Cost Considerations[2]					
Constructability Considerations					
Operational Considerations					
Natural and Built Environment Criteria					
Effects on the Natural Environment					
Potential Air Quality Improvements					
Effects on the Built Environment					
Support Equity					

[1] *Rating takes into account all stations along alignment, see supporting documentation for performance by station*
[2] *Capital cost range based on representative alignment which includes an allowance for real estate and soft costs, but does not include vehicle costs, maintenance facilities, operations, or station programming elements*

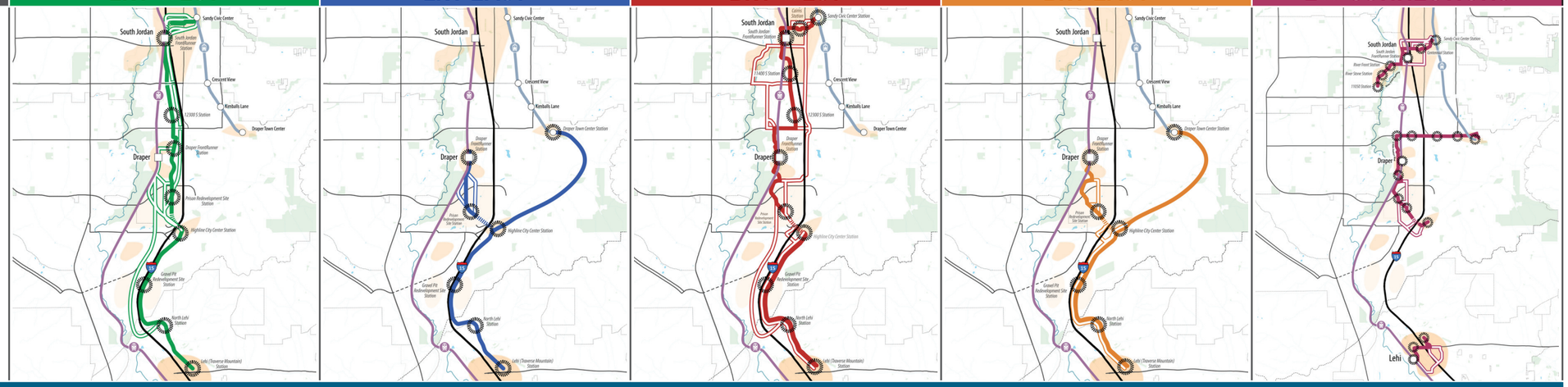
POINT OF THE MOUNTAIN
TRANSIT STUDY

Draft Level 1 Summary of Evaluation Ratings - Differentiating Criteria

EVALUATION CRITERIA
• MEASURE

RATING KEY
- Higher Performing
- Lower Performing

ALTERNATIVES



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Transit System Performance Criteria					
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POINT OF THE MOUNTAIN
TRANSIT STUDY

Draft Level 1 Summary of Evaluation Ratings - Differentiating Criteria

RATING KEY

- Higher Performing
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EVALUATION CRITERIA • MEASURE	ALTERNATIVES				
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	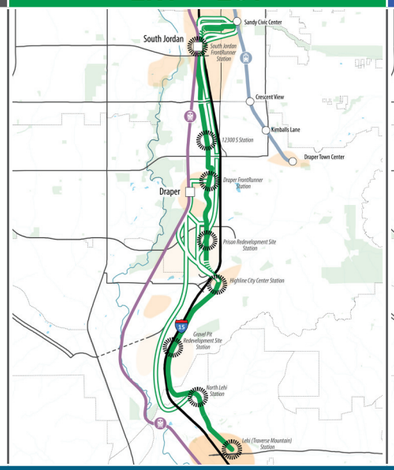	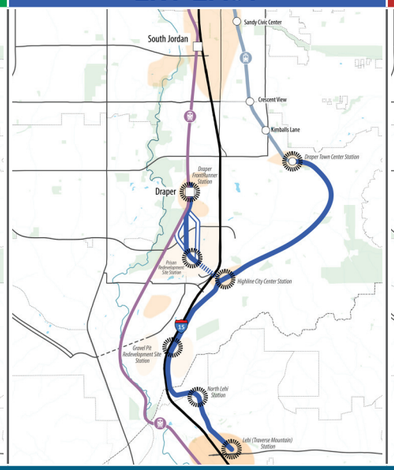	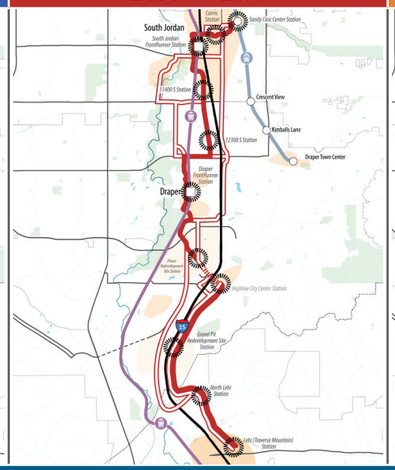	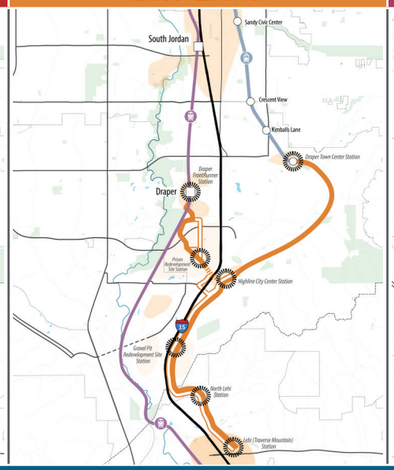	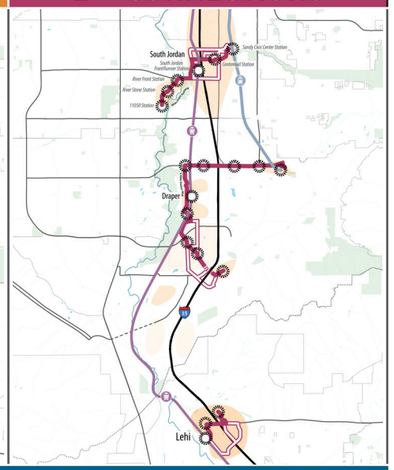
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POINT OF THE MOUNTAIN
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Draft Level 1 Detailed Evaluation Ratings

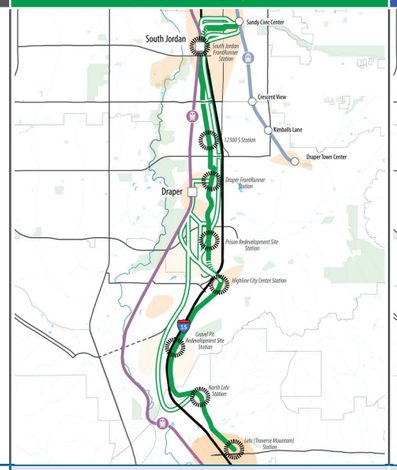
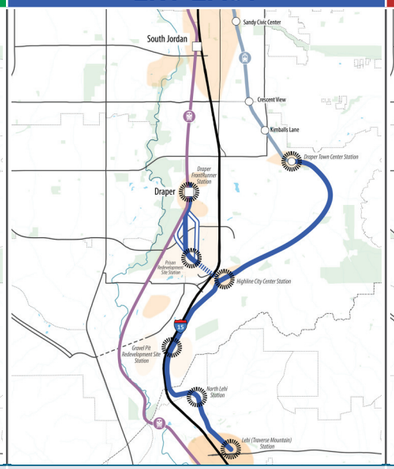
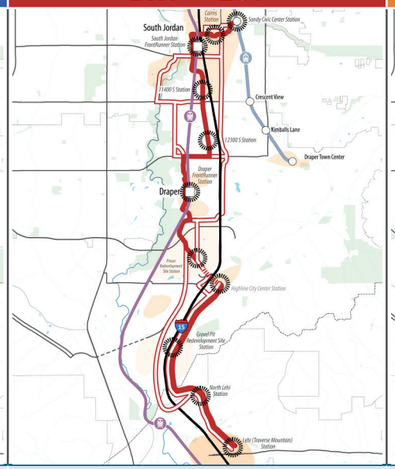
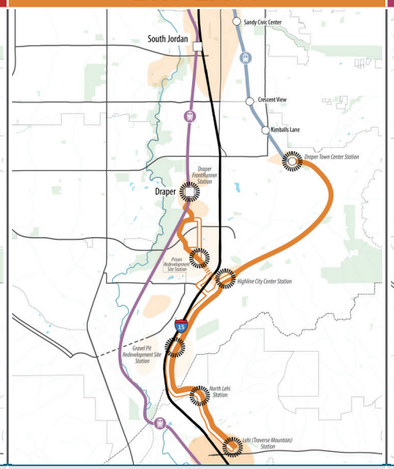
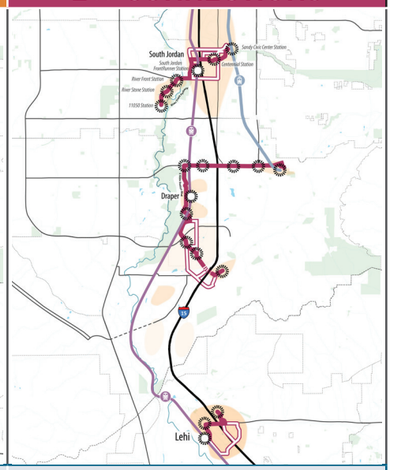
EVALUATION CRITERIA
• MEASURE

ALTERNATIVES

RATING KEY

Higher Performing

Lower Performing

	LRT WEST	LRT EAST	BRT WEST	BRT EAST	EW CONNECTIONS
					
Alternative Description	This light rail transit (LRT) alternative starts at the TRAX Sandy Civic Center Station, crosses to the west of I-15, and includes a mix of at-grade, in-street running, and elevated sections before crossing back over I-15 and continues to Lehi using the existing UTA rail corridor.	This LRT alternative starts at the existing Draper Town Center TRAX station, runs along the eastside of I-15 utilizing the UTA rail corridor, and continues to Lehi. The alternative also provides a connection from approximately 14600 South, west across I-15 to the prison redevelopment site and Draper FrontRunner.	This bus rapid transit (BRT) alternative starts at the TRAX Sandy Civic Center Station, crosses to the west of I-15, and includes a mix of at-grade, in-street running, and elevated sections before crossing back over I-15 and continues to Lehi using the existing UTA rail corridor.	This BRT alternative starts at the existing Draper Town Center TRAX station and runs along the eastside of I-15 utilizing the UTA rail corridor continuing to Lehi. The alternative also provides a connection from approximately 14600 South, west across I-15 to the prison redevelopment site to Draper FrontRunner.	This alternative includes three east-west enhanced bus transit connections, primarily using existing public right-of-way. These connections are: 1) TRAX Sandy Civic Center Station to the FrontRunner South Jordan Station and to the River Park area; 2) Draper Town Center TRAX Station to Draper FrontRunner Station and to the Highline Station; and, 3) Lehi FrontRunner Station to the east side of I-15 and north of SR-92.
Miles | Stations	11.9 miles | 8 new stations	12.0 miles | 6 new stations	12.8 miles | 9 new stations	12.0 miles | 6 new stations	9.5 miles | 18 new enhanced bus stops
Implement transit improvements generally along the I-15 corridor that provide faster, more frequent and reliable service.					
Transit Speed • Travel time and operating speed	• Portions of alignment run adjacent to/within the roadway, slowing operating speeds • Provides the second fastest north-south trip of all alternatives, with travel times similar to BRT East • Provides some travel time saving over existing transit trip (approximately 15 minutes faster)	• Utilizing existing UTA rail corridor and grade separation allows for highest operating speeds of all alternatives • Provides the fastest north-south trip of all alternatives • Provides greatest travel time savings over existing transit trip (approximately 30 minutes faster)	• Portions of alignment run within mixed traffic, slowing operating speeds • Provides second slowest north-south trip of all alternatives • Transit trip time would be similar to existing transit trip today	• Utilizing existing UTA rail corridor and grade separation allows for highest bus operating speeds • Provides the second fastest north-south trip of all alternatives, with travel times similar to LRT West • Provides some travel time saving over existing transit trip (approximately 15 minutes faster)	• Majority of alignment runs within mixed traffic, slowing operating speeds • Provides the slowest north-south trip of all alternatives • Does not provide travel savings over existing transit trip (approximately 15 minutes slower)
Transit Reliability • Transit operation in mixed use traffic and signalized intersections	Moderate transit reliability due to: • Second smallest percentage of alignment in mixed-use traffic (10%) • Third lowest number of signalized intersections (17) • LRT operations receive highest level of transit priority compared to BRT	Highest transit reliability due to: • Smallest percentage of alignment in mixed-use traffic (5%) • Least number of signalized intersections (1) • LRT operations receive highest level of transit priority compared to BRT	Low transit reliability due to: • Second highest of alignment in mixed-use traffic (30%) • Second highest number of signalized intersections (27) • BRT operations do not receive highest level of transit priority compared to LRT	High transit reliability due to: • Third smallest percentage of alignment in mixed-use traffic (20%) • Second lowest number of signalized intersections (12) • BRT operations do not receive highest level of transit priority compared to LRT	Lowest transit reliability due to: • Largest percentage of alignment in mixed-use traffic (85%) • Most number of signalized intersections (26) • Enhanced bus operations do not receive highest level of transit priority compared to LRT or BRT
EVALUATION CRITERIA • MEASURE	LRT WEST	LRT EAST	BRT WEST	BRT EAST	EW CONNECTIONS
	ALTERNATIVES				

POINT OF THE MOUNTAIN
TRANSIT STUDY

Draft Level 1 Detailed Evaluation Ratings

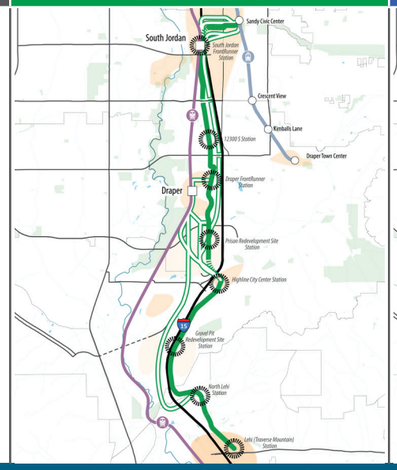
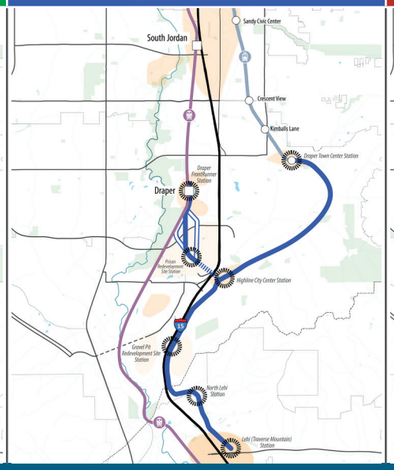
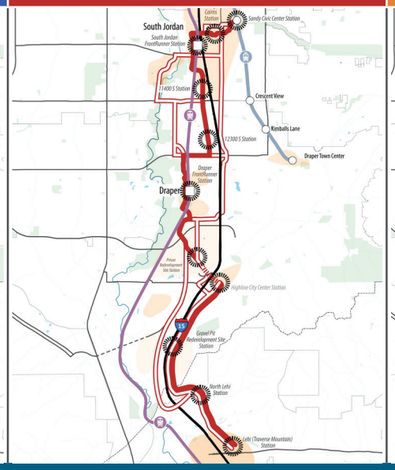
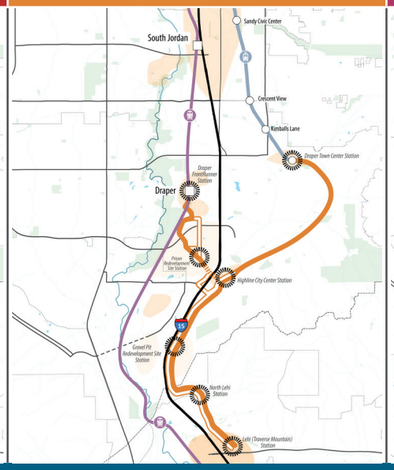
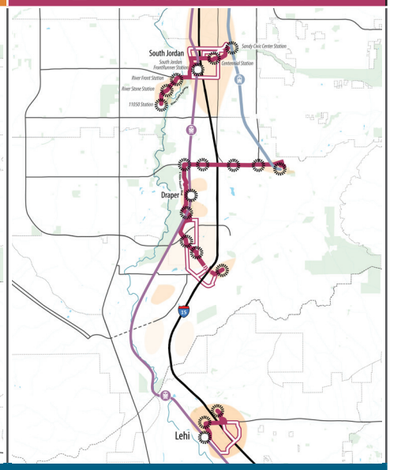
EVALUATION CRITERIA
• MEASURE

ALTERNATIVES

RATING KEY

Higher Performing

Lower Performing

LRT WEST	LRT EAST	BRT WEST	BRT EAST	EW CONNECTIONS
				

Equitably improve access and mobility between existing and planned centers and development areas in southern Salt Lake County and northern Utah County. Support the long-range transportation demands of planned growth in population and employment in southern Salt Lake County and northern Utah County.

	LRT WEST	LRT EAST	BRT WEST	BRT EAST	EW CONNECTIONS
Ridership • Forecasted transit ridership	• Highest estimated ridership compared to other alternatives	• High estimated ridership compared to other alternatives • Ridership shows some variation depending on operational assumptions at Highline Station	• Moderate estimated ridership compared to other alternatives	• Moderate to low estimated ridership compared to other alternatives • Shows less variation based on operational assumptions at Highline Station than LRT E	• Moderate to low estimated ridership compared to other alternatives
Potential to Serve Existing and Planned Centers • Access to existing and planned centers	• Provides access to six urban/city centers	• Provides access to five urban/city centers	• Provides access to six urban/city centers	• Provides access to five urban/city centers	• Provides access to seven urban/city centers
Transportation System Impacts • Impacts on local traffic circulation	• Significant portions operate inside or adjacent to existing roadways in developed areas affecting street and business access and through the addition of numerous traffic signals • Largest impacts on local traffic circulation	• Primarily operates outside of existing roadways with grade-separated crossings of major roadways • Limited impacts on local traffic circulation	• Significant portions operate along at-grade center running roadways in developed areas affecting street and business access and through the addition of numerous traffic signals • Largest impacts on local traffic circulation	• Operates outside of existing roadways in UTA right-of-way except through prison site to Draper FrontRunner • Major roadways have grade separated crossings except for Bangerter Highway. Traverses through some traffic signals in street • Some impacts to local traffic circulation	• Primarily operates as in-street bus with impacts due to buses pulling in and out of shoulder stations or stopping in lane when no shoulder is present • Limited impacts on local traffic circulation
Promotes Multimodal Access and Connections • Assessment of bicycle and pedestrian accessibility	• Some stations offer direct connections to regional trails. Vacant parcels interrupt the sidewalk network • Requires grade separated crossing structure to connect alignment to Draper FrontRunner station, but could provide benefit by connecting FrontRunner to the employment opportunities east of the tracks	• Most stations offer direct connections to regional trails	• Some stations offer direct connections to regional trails. Vacant parcels interrupt the sidewalk network	• Most stations offer direct connections to regional trails	• Several stations offer direct connections to regional trails. Sidewalk network is largely complete
Ease of Vehicular Access • Assessment of vehicle accessibility	• Most of the alignment parallels I-15 with stations near many major east-west crossroads allowing for vehicle access	• Southern half of alignment has stations near major east-west corridors	• Most of the alignment parallels I-15 with stations near many major east-west crossroads	• Southern half of alignment has stations near major east-west corridors	• Routes are too short to attract park and ride users

EVALUATION CRITERIA
• MEASURE

LRT WEST | LRT EAST | BRT WEST | BRT EAST | EW CONNECTIONS

ALTERNATIVES

POINT OF THE MOUNTAIN
TRANSIT STUDY

Draft Level 1 Detailed Evaluation Ratings

EVALUATION CRITERIA
• MEASURE

ALTERNATIVES

RATING KEY

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Lower Performing

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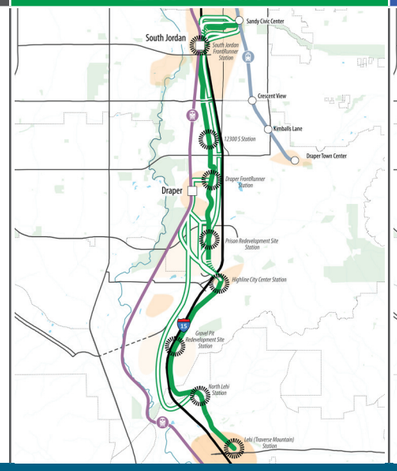	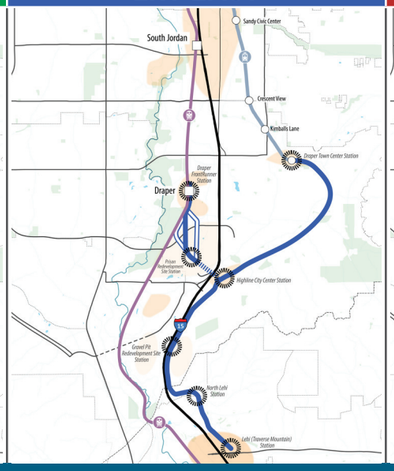	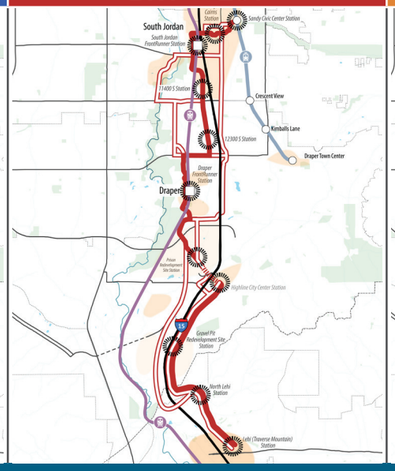	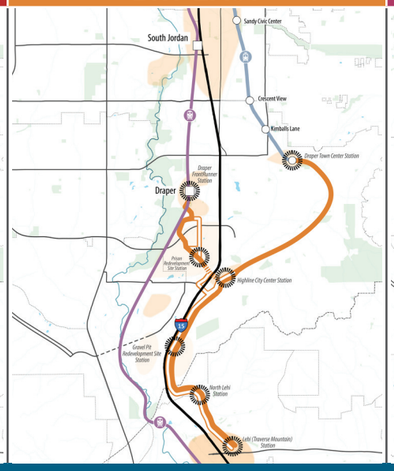	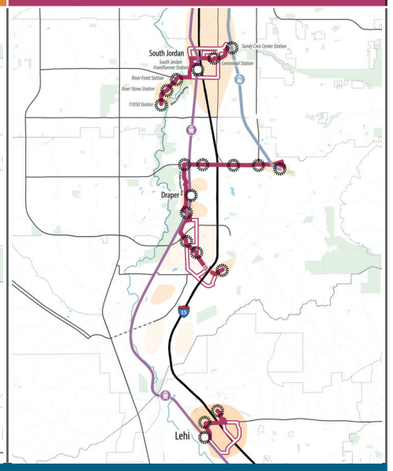
Connect to the regional transit system. Leverage existing and planned transit facilities and services.				
Transit Connections • Ability to directly connect to the local and regional transit network	• Good connections are provided to local and regional transit network through two connections to FrontRunner [however both require walk and access via bridge over FrontRunner tracks] and connections to local bus routes	• Good connections are provided to local and regional transit network through one connection to FrontRunner, and connections to local bus routes	• Good connections are provided to the local and regional transit network through two connections to FrontRunner, and connections to local bus routes	• Good connections are provided to local and regional transit network through one connection to FrontRunner, and connections to local bus routes	• Robust connections between local bus network and regional transit network through three connections to FrontRunner, two connections to TRAX, connections or enhancements to local bus routes
Support land use and economic development goals in the Point of the Mountain communities and region.				
Community Compatibility[1] • Consistency with adopted plans • Consistency with current development interests and requests • Equity (transit dependent populations served) • Displacement risk	• Stations have the lowest amount of consistency with adopted plans • Stations currently would serve an average amount of transit dependent populations • This alignment has a moderate threat to displacement of existing residents	• Stations along this alignment have the most consistency with adopted plans • Stations also currently serve a high amount of transit dependent residents • Alignment also has the lowest displacement risk of all the alignments	• Stations have an average amount of consistency with adopted plans • Alignment serves the fewest transit dependent populations • This corridor has the highest threat to displacement of existing residents	• Stations along this alignment have the most consistency with adopted plans • Stations also currently serve a high amount of transit dependent residents • Alignment also has the lowest displacement risk of all the alignments	• Has a low consistency with adopted plans, with the alignment running through some areas that are not very transit supportive • This corridor serves the highest population of transit dependent residents • This corridor also has the second highest risk of displacement
Mixture and Density of Land Uses[1] • Existing population and employees served (density) • Future (2050) population and employees served (density) • Allowed development (land use mixture and intensity)	• Third lowest existing population served • Third lowest number future population served • Lowest allowed development of the alignments	• Lowest existing population served • Lowest future population served • Second lowest allowed future development	• Second highest existing population served • Highest future population served • Second highest allowed future development	• Lowest existing population served • Lowest future population served • Second lowest allowed future development	• Highest existing population served • Third highest future population served • Highest future development allowed
Walkable Design[1] • Percentage of 1/2 mile station area within 10-minute walk of transit • Block size and street connectivity	• Second highest average percentage of area within a 1/2-mile walk • Lowest average intersection density	• Lowest average percentage of area within 1/2-mile walk • Second highest average intersection density	• Third highest average percentage of area within 1/2-mile walk • Third highest average intersection density	• Lowest average percentage of area within a 1/2-mile walk • Second highest average intersection density	• Highest average percentage of area within 1/2-mile walk • Highest average intersection density
EVALUATION CRITERIA • MEASURE	**LRT WEST**	**LRT EAST**	**BRT WEST**	**BRT EAST**	**EW CONNECTIONS**
	ALTERNATIVES				

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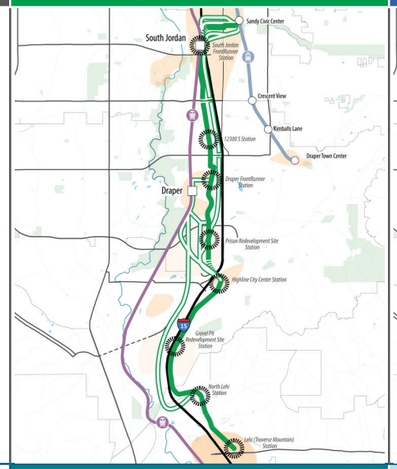
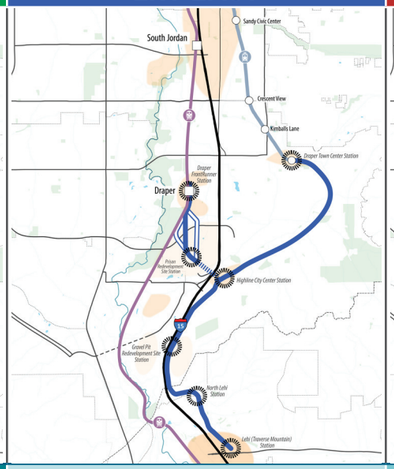
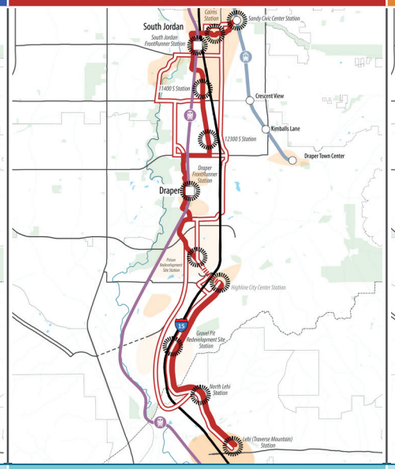
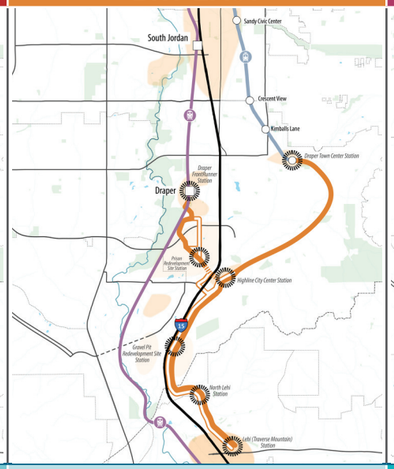
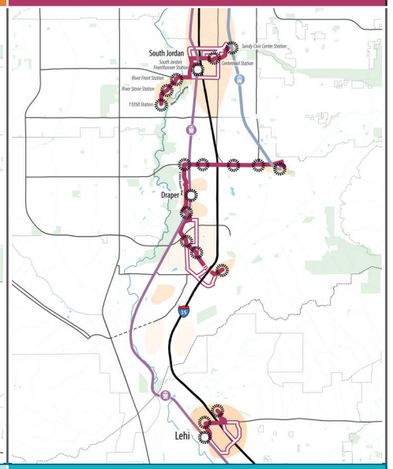
RATING KEY Higher Performing Lower Performing					
Transit-Oriented Development (TOD) Opportunities and Economic Development[1] • TOD opportunities • Effective market trade area • Visibility/exposure	Across all station areas served: • Highest amount of land available for TOD • Highest average market trade area, due to station's proximity to I-15 • Highest average visibility/exposure due to station areas located in proximity to I-15	Across all station areas served: • Lowest amount of land available for TOD • Lowest average market trade area due to lack of robust street grid • Lowest average visibility/exposure due to lack of average daily traffic (ADT) in the station areas	Across all station areas served: • Second lowest average land available for TOD • Second lowest effective trade area • Second highest average visibility/exposure	Across all station areas served: • Lowest amount of land available for TOD • Lowest average market trade area due to lack of robust street grid • Lowest average visibility/exposure due to lack of ADT in the station areas	Across all station areas served: • Lowest TOD opportunities dues to corridor mainly going through built out areas • Highest effective trade areas • Third highest visibility/exposure
Can be affordably constructed and operated.					
Cost Considerations[2] • Rough order of magnitude capital cost	• Light rail construction/stations • 9 stations • Extensive roadway construction • Two major structures to cross I-15 • Four structures to cross arterials • Extensive right-of-way acquisition and relocations • Potential level of investment: $800M-$1.1B	• Light rail construction/stations • 6 stations • One major structure to cross I-15 • Two additional bridges to cross arterials • Right-of-way acquisition and relocations • Potential level of investment: $700M-$1B	• Moderate roadway construction • 10 enhanced bus stations • Two major structures to crosses I-15 • Two structures to cross arterials • Extensive right-of-way acquisition and relocations • Potential level of investment: $500-700M	• Moderate roadway construction • 7 enhanced bus stations • One structure to cross I-15 • Limited right-of-way acquisition • Potential level of investment: $300-450M	• Mostly in-street construction, including signage/ striping to repurpose existing facilities • 11 enhanced bus stops • Two structures to cross I-15 • Limited right-of-way acquisition • Potential level of investment: $200-300M
Constructability Considerations • Potential construction risks • Availability and potential to use publicly owned right-of-way	• Requires the most right-of-way to be able to construct • Greatest amount of roadway widening and roadway reconfiguration • Two major complex structures to cross I-15 • Four structures to cross arterials	• Largely utilizes existing right-of-way • One major complex structure to cross I-15 • Two additional bridges to cross arterials to provide access to Draper FrontRunner, compared to BRT East which utilizes existing roadway networks	• Requires more right-of-way • A large amount of roadway widening and roadway reconfiguration • Crosses I-15 twice • Two structures to cross arterials	• Largely utilizes existing right-of-way • Crosses I-15 once • BRT utilizes existing roadway networks to access Draper FrontRunner, reducing costs compared to LRT East	• Largely utilizes existing streets which minimizes construction impacts • Smaller scope of work associated with the type of improvements • Crosses I-15 twice
Operational Considerations • Consideration of operational elements (e.g. transfers, split service, length of line, etc.)	• Transfer/split of service at Sandy Civic Station is complex due to built environment constraints and geometric requirements to start new line	• Transfer/split of service at Highline Station • End of line operations • Overall length of light rail service to operate	• Required mode transfer	• Transfer/split of service at Highline Station • Required mode transfer	• Required mode transfer
EVALUATION CRITERIA • MEASURE	LRT WEST	LRT EAST	BRT WEST	BRT EAST	EW CONNECTIONS
	ALTERNATIVES				

[1] *Rating takes into account all stations along alignment, see supporting documentation for performance by station*
[2] *Capital cost range based on representative alignment which includes an allowance for real estate and soft costs, but does not include vehicle costs, maintenance facilities, operations, or station programming elements*

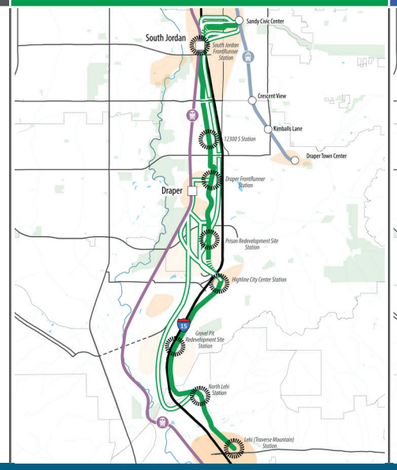
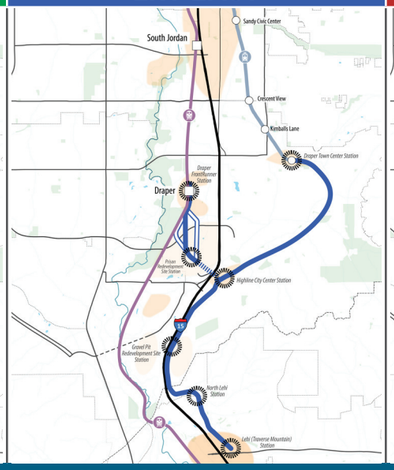
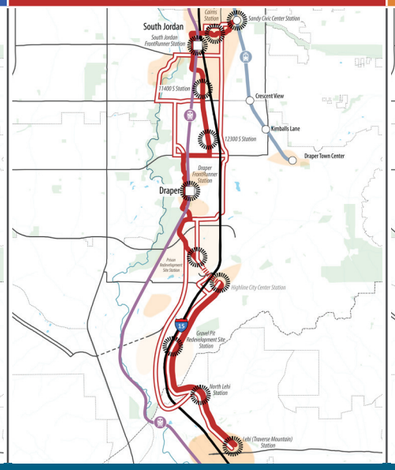
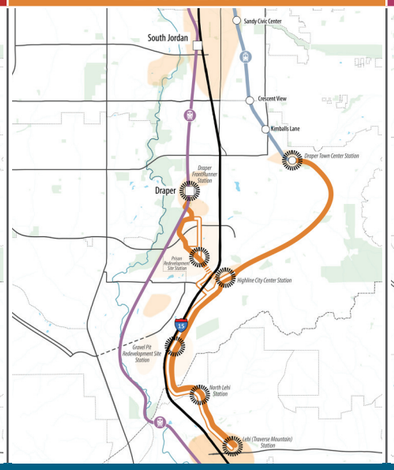
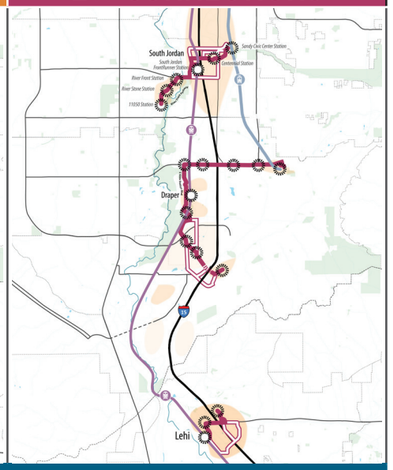
POINT OF THE MOUNTAIN
TRANSIT STUDY

Draft Level 1 Detailed Evaluation Ratings

EVALUATION CRITERIA
• MEASURE

RATING KEY
Higher Performing
Lower Performing

ALTERNATIVES

LRT WEST	LRT EAST	BRT WEST	BRT EAST	EW CONNECTIONS
				

Support regional efforts to protect the environment, including air quality and quality of life.

	LRT WEST	LRT EAST	BRT WEST	BRT EAST	EW CONNECTIONS
Effects on the Natural Environment • Potential impacts on environmental resources	• Some potential to impact water, trails, parks, cultural, and historic resources • Larger acquisition of right-of-way on alignment west of I-15 may result in more potential impacts	• Some potential to impact water, trails, parks, cultural, and historic resources • Utilizing UTA rail corridor for a majority of the alignment would limit impacts	• Some potential to impact water, trails, parks, cultural, and historic resources • Larger acquisition of right-of-way on alignment west of I-15 may result in more potential impacts	• Some potential to impact water, trails, parks, cultural and historic resources • Utilizing UTA rail corridor for a majority of the alignment would limit impacts	• Some potential to impact cultural and historic resources • Utilizing existing roadway right-of-way would limit impacts
Potential Air Quality Improvements • Effect on regional/localized air quality	• Increasing transit trips in southern Salt Lake County and northern Utah County has the potential to improve air quality	• Increasing transit trips in southern Salt Lake County and northern Utah County has the potential to improve air quality	• Increasing transit trips in southern Salt Lake County and northern Utah County has the potential to improve air quality	• Increasing transit trips in southern Salt Lake County and northern Utah County has the potential to improve air quality	• Increasing transit trips in southern Salt Lake County and northern Utah County has the potential to improve air quality
Effects on the Built Environment • Estimated levels of property impacts	• An estimated 115-125 parcels would be affected, ranging from small temporary construction easements to full parcel acquisitions • Could potentially affect several large tax generating parcels	• An estimated 25-35 parcels would be affected, ranging from small temporary construction easements to full parcel acquisitions • Impacts to large tax generating parcels are not anticipated	• An estimated 90-100 parcels would be affected, ranging from small temporary construction easements to full parcel acquisitions • Could potentially affect several large tax generating parcels	• An estimated 0-10 parcels would be affected, mostly through minor partial acquisitions • No known large tax generating parcels should be impacted	• An estimated 15-25 parcels would be affected, mostly through minor partial acquisitions • No known large tax generating parcels should be impacted
Support Equity • Potential for adverse impacts on low-income or minority populations	• Proportions of minority and low-income populations are generally similar across all alternatives (except for EW Connections) • LRT West and BRT West both would require greater property acquisition, including potential residential displacement, which could have adverse effects on minority or low-income populations that may be present	• Proportions of minority and low-income populations are generally similar across all alternatives (except for EW Connections) • LRT East and BRT East both would require less property acquisition, and no residential displacements, which could limit adverse effects on minority or low-income populations that may be present	• Proportions of minority and low-income populations are generally similar across all alternatives (except for EW Connections) • LRT West and BRT West both would require greater property acquisition, including potential residential displacement, which could have adverse effects on minority or low-income populations that may be present	• Proportions of minority and low-income populations are generally similar across all alternatives (except for EW Connections) • LRT East and BRT East both would require less property acquisition, and no residential displacements, which could limit adverse effects on minority or low-income populations that may be present	• Proportions of minority and low-income populations are generally similar to other alternatives; however, there are several block groups with elevated percentages of minority and low-income populations • However, because this alternative does not require extensive right-of-way and no residential displacements, adverse effects on minority or low-income populations would be limited

EVALUATION CRITERIA
• MEASURE

LRT WEST | LRT EAST | BRT WEST | BRT EAST | EW CONNECTIONS

ALTERNATIVES