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Executive Summary

The Inter-Regional Corridor Alternatives Analysis (IRCAA) was initiated as a collaborative effort in October of 1999 by four sponsor agencies: Wasatch Front Regional Council (WFRC), Mountainland Association of Governments (MAG), Utah Transit Authority, and Utah Department of Transportation (UDOT). The study was conducted to develop a comprehensive plan for the best mix of transportation solutions to meet long-term (30 year) inter-regional mobility needs. Key Study elements included:

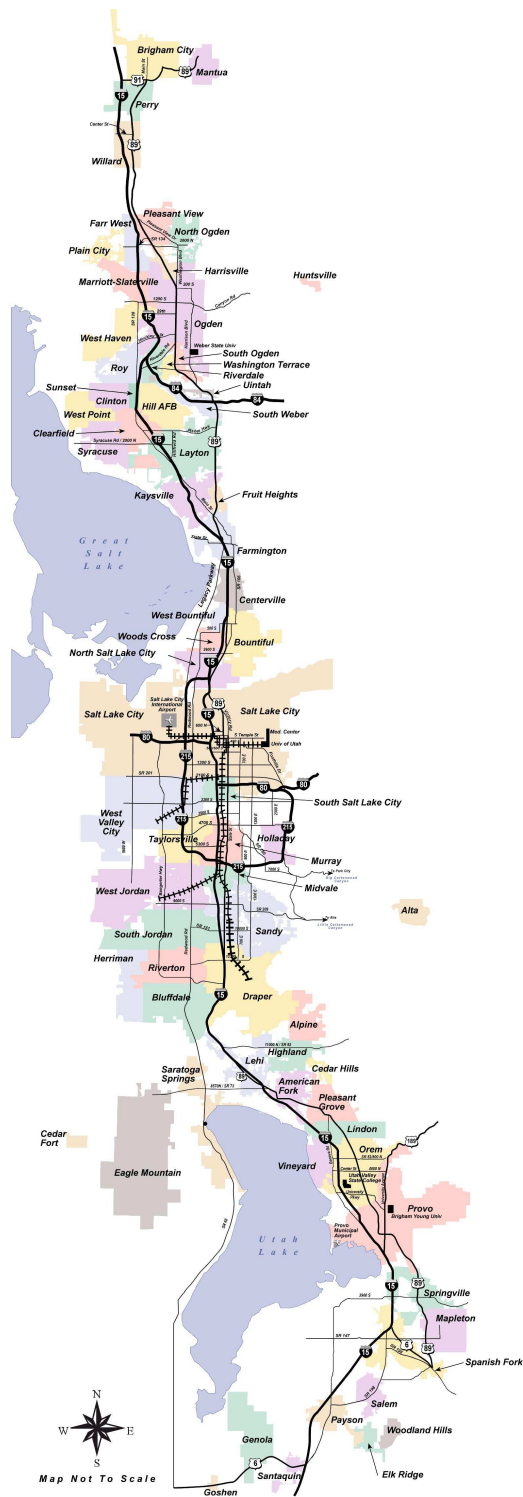
- ▶ Identification of long-term, inter-regional transportation needs.
- ▶ Development and evaluation of alternatives, which will work together as an integrated, multi-modal transportation system.
- ▶ Analysis of transportation improvements in the context of future growth being discussed for the region.
- ▶ Identification of a long-term, multi-modal locally preferred alternative for the Wasatch Front and Mountainland planning regions.
- ▶ Development of a plan to achieve the locally preferred alternative through phasing of short-, mid-, and long-term improvements.

Study Area

The Inter-Regional Corridor Alternatives Analysis study area covers a 120-mile corridor between the communities of Brigham City on the north and Payson on the southern end. The study area, shown in **ES-1, Project Study Map**, encompasses most of the urbanized areas in the State of Utah, as well as the primary commercial, business and education institutions. The corridor is linear and relatively narrow, located between the Wasatch Range on the east and the Great Salt Lake, Utah Lake and Oquirrh Mountains to the west. Over 50 cities and towns in the counties of Box Elder, Weber, Davis, Salt Lake and Utah are part of the study area.

Study Background and Transportation Needs

Historically, transportation needs in this corridor have been identified through a series of transportation studies in specific corridors as well as through the long range planning efforts of the two Metropolitan Planning Organizations (MPOs), WFRC and MAG. These planning efforts resulted in improvements and recommendations for both the roadway and transit systems in the corridor, as well as identification of additional long-term needs. As the region continued to grow and the transportation issues extended beyond the individual MPO planning boundaries, the MPOs and the implementing agencies (UTA and UDOT) recognized



**Figure ES-1
Project Study Map**



the need to address the transportation needs for the entire corridor, and to combine the planning efforts into a coordinated, long range assessment of the inter-regional transportation needs. This study is the result of the decision to coordinate the transportation planning efforts for the entire corridor.

The population in the Wasatch Front study area is forecast to grow from 1.6 million to 2.7 million by the Year 2030, an increase of almost 70 percent. Similarly, employment is forecast to increase by 65 percent, with a higher percentage of employment growth occurring in Utah and Weber Counties than in Salt Lake or Davis Counties. As this growth transpires, an increased number of longer trips will place new travel demands on the roadway and transit systems. Forecasts for the year 2030 indicate the number of work trips between counties is expected to be more than double current levels. As a result, the demand on many sections of regional roadways such as I-15 will well exceed capacity by the year 2030. Similarly, demand for inter-regional transit services is expected to exceed supply. Currently, new inter-regional Express Bus routes are filled with passengers upon service initiation.

Process and Community Involvement

Two advisory Committees provided overall guidance for the Inter-Regional Corridor Alternatives Analysis. The Policy Advisory Committee (PAC) was comprised of policy officials from the project's four sponsor agencies (MAG, UDOT, UTA, and WFRM). The Technical Working Committee (TWC) included staff members from the sponsor agencies as well as representatives from communities and federal agencies. Other participants from regional advocacy groups provided input to the TWC as non-voting members. Given the extensive geographic area of the study, public and agency involvement was focused on existing groups, organizations and agencies. The study team relied heavily on the sponsor agencies for much of the outreach to existing groups and organizations. Techniques employed during the study process for communicating information and receiving input included small group meetings, focus groups, presentations to city, county and agency councils and commissions, a website, displays at open houses, a newsletter and one-on-one interviews and meetings with community leaders.

Goals and Objectives

Early in the process, the advisory committees adopted goals and objectives for the study:

Goals

- ▶ Develop a long-term, multi-modal transportation strategy to address inter-regional travel demand.



- ▶ Develop a needs-based (not financially constrained) set of transportation improvements.
- ▶ Develop a phasing plan to implement transportation improvements for the short-, mid-, and long-term.

The PAC and TWC also adopted a set of project objectives to guide the development of the alternatives:

Objectives

- ▶ Increase transportation options to improve mobility for travel along the Wasatch Front;
- ▶ Maximize travel convenience, reliability, safety and efficiency;
- ▶ Ensure long-term viability of the transportation system to accommodate future demand;
- ▶ Maximize person-moving capacity;
- ▶ Provide for the cost-effective movement of people;
- ▶ Provide for the efficient and cost-effective movement of goods;
- ▶ Minimize environmental and community impacts;
- ▶ Identify regional corridors for right-of-way preservation.

Study Process

The IRCAA study included a review previous studies and plans, collection of data on the current transportation system and characteristics, and development and analysis of forecasts of future transportation needs and travel patterns. This information, combined with input from the public and agencies was used to develop evaluation criteria for measuring and comparing the effectiveness of the alternatives in meeting project objectives. The evaluation criteria included a broad cross-section of information requested by the agencies and stakeholders for evaluating potential transportation solutions.

Alternatives for the corridor were developed and evaluated in a three-phase process. During the preliminary screening phase, the focus was to examine each transportation mode individually with the goal of combining the "best" elements into multi-modal packages for further evaluation. The results of the preliminary screening were used to develop and evaluate multi-modal alternatives in second level of alternatives evaluation. Combinations of roadway and transit improvements were evaluated for their costs, congestion, mobility and other



impacts and reviewed with the Committees and agencies in this phase. Two draft alternatives were further refined and evaluated. Based on the detailed evaluation of the final two alternatives, the Committees adopted a Locally Preferred Alternative (LPA) and a phasing plan for the study corridor.

Locally Preferred Alternative

The LPA is a multi-modal needs-based alternative as shown in **Figure ES-2**, and described below.

Commuter Rail

Commuter Rail service from Ogden to Provo using either locomotive hauled coaches or self-propelled diesel multiple units (DMU)s. The trains would operate on the Union Pacific alignment from Ogden to Salt Lake City, and the Ex-Denver and Rio Grande Western alignment from Salt Lake City to Provo. Key elements of the commuter rail service include:

- ▶ 80 miles of commuter rail service from Ogden to Provo;
- ▶ Thirteen stations at: Ogden, Roy, Clearfield, Layton, Farmington, West Bountiful, Salt Lake City, Murray, South Jordan, Lehi, American Fork, Orem, and Provo;
- ▶ Trains every 30 minutes during peak periods and every 60 minutes during the off-peak; and
- ▶ Parking provisions at rail stations.

A supporting network of feeder bus service to rail stations is also included in the Commuter Rail element.



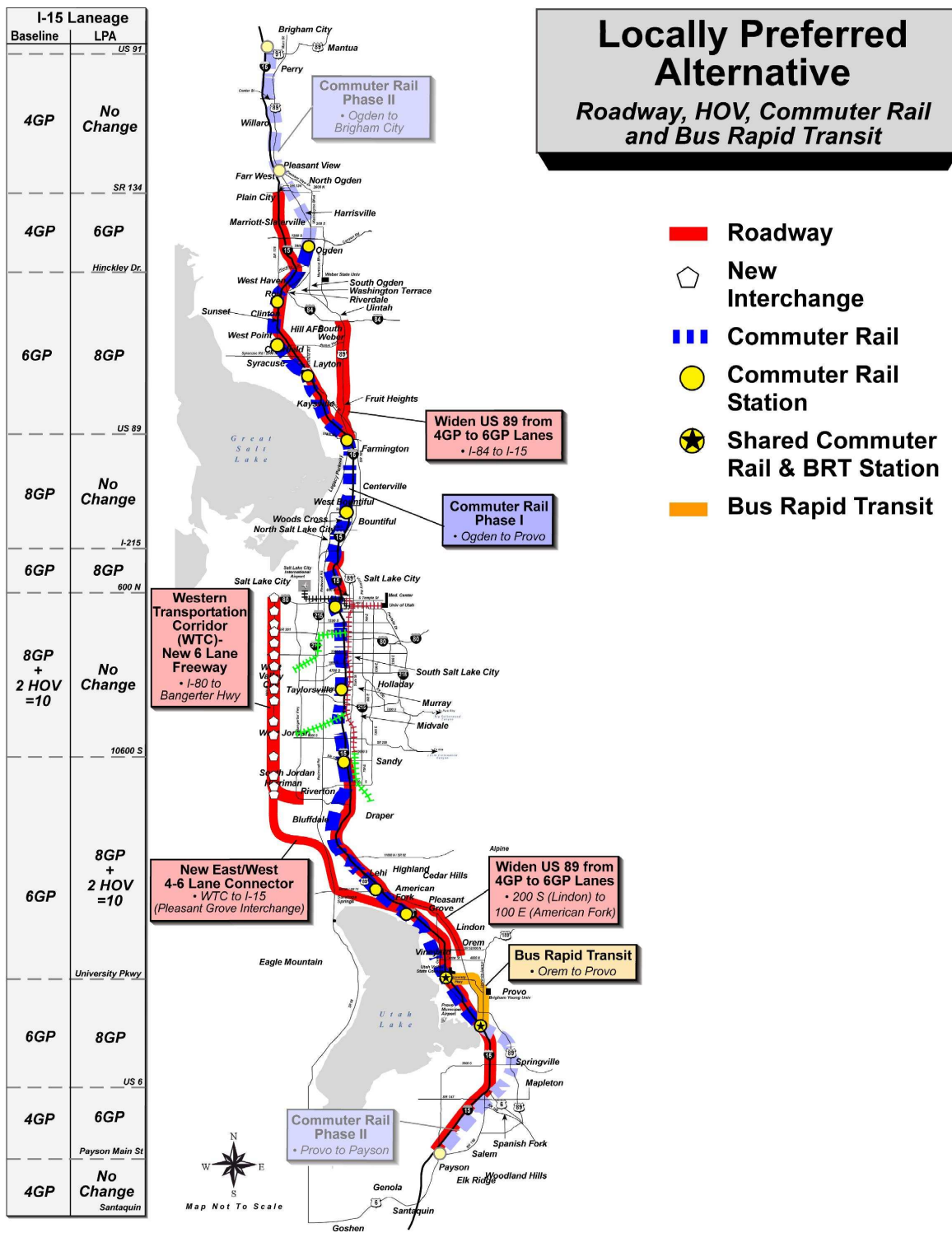


Figure ES-2
Locally Preferred Alternative



Bus Rapid Transit (BRT)

Bus Rapid Transit (BRT) service in Utah County between Orem and Provo. The bus service would operate similar to rail with features that include frequent service, on-line stations, dedicated lanes and attractive vehicle and station design.



Key elements of the bus rapid transit service include:

- ▶ Service on four miles of dedicated lanes along University Parkway and five miles of shared lanes on University Avenue/200 West;
- ▶ Fifteen stations, or “superstops” along the route, with connections to commuter rail at both the Orem and Provo inter-modal centers;
- ▶ Stations or “superstops” to include amenities such as shelters, information kiosks, expanded platform areas, pedestrian amenities, and landscaping; and
- ▶ Bus priority signalization at intersections.

The concept also includes provisions for landscaping and pedestrian amenities along the route as well as bus priority signalization at intersections. **Figure ES-3** illustrates the BRT route and stations in Utah County

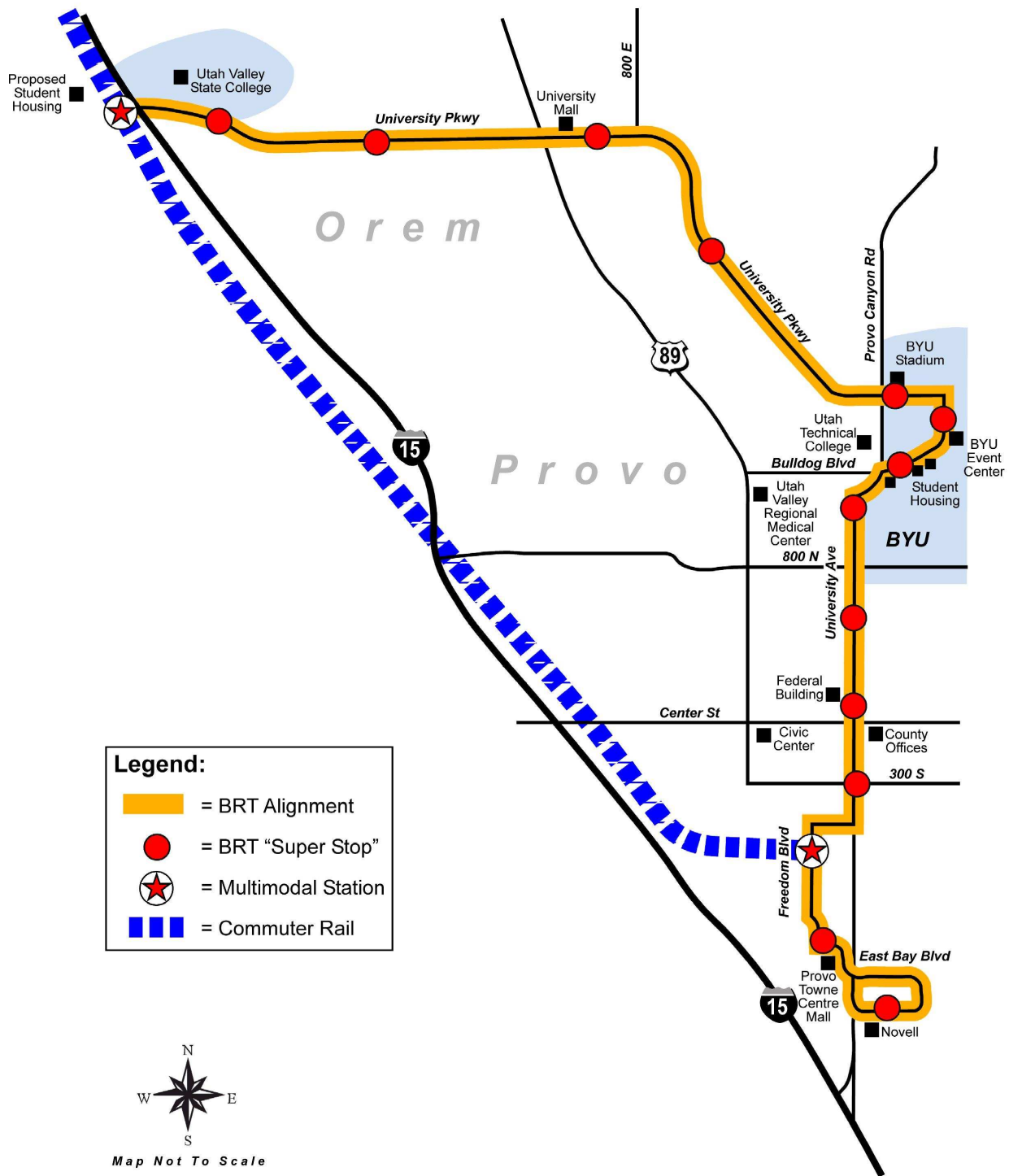


Figure ES-3
Bus Rapid Transit Schematic



HOV Lanes

The LPA includes HOV lanes on I-15 from 10600 South (Sandy) to University Parkway (Provo). The HOV lanes, one in each direction, would extend the current I-15 HOV lanes and have similar physical and operating characteristics. The HOV lanes would be buffer-separated from the general-purpose lanes and have an occupancy requirement of two or more persons per vehicle during the peak period.



New Roadways

The LPA includes the Western Transportation Corridor, (WTC), a new 6-lane freeway parallel to 5600 West in Salt Lake County between I-80 and 13400 South. At the southern end, a new east-west connection would be provided to Bangerter Highway. A new four to six lane connector would also extend from the southern terminus of the WTC freeway into Utah County with a connection to I-15 at the Pleasant Grove interchange.

Roadway Widening

The LPA includes roadway widening of existing roads. The roads and sections recommended for widening include:

- ▶ I-15, from SR-134 (North Ogden) to US 89 (Farmington)
- ▶ I-15, from I-215 (North Salt Lake) to 600 North (Salt Lake City)
- ▶ I-15, from 10600 South (Sandy) to US-6 (Spanish Fork)
- ▶ US-89, from I-84 to I-15 (Farmington)
- ▶ US-89, from 100 East (American Fork) to 200 North (Orem)

Other Elements

Intelligent Transportation Systems (ITS) such as advanced traveler information systems and Travel Demand Management (TDM) programs such as discounted transit passes and transit-oriented development strategies are key components that should be developed for individual projects. Both ITS and TDM should be tailored specifically for corridors or sub-areas to maximize the benefit of transportation improvements.



A summary of the key operating characteristics, costs and users for the LPA is shown in **Table ES -1**.

**Table ES -1
Locally Preferred Alternative
Summary Statistics**

Summary Statistics	Draft Modified LPA
Capital Cost*	
Roadway/HOV Lanes	\$3.713 B
Commuter Rail	\$587.1 M
Bus Rapid Transit	\$71.5 M
TOTAL	\$4.372 B
Annual Operating and Maintenance Costs*	
Roadway/HOV Lanes	\$11.6 M
Commuter Rail	\$41.2 M
Bus Rapid Transit	\$1.6 M
TOTAL	\$54.4 M
Commuter Rail Characteristics	
Track Miles	81
Number of Stations	13
Service Frequency Peak/Off-Peak	30/60
Bus Rapid Transit Characteristics	
Miles	8
Number of Stations	15
Service Frequency Peak/Off peak	10/20
Roadway Characteristics	
New Freeway (GP) Lane Miles	290
New Arterial and Other Lane Miles	142
Total New Lane Miles	432
HOV Characteristics	
New HOV Lane-Miles	50
Transit Use Characteristics (2030)**	
Commuter Rail Users	30,500
Bus Rapid Transit Users	8,300

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