Salt Lake City
TRANSIT MASTER PLAN

STATE OF THE SYSTEM

Fact Book

FINAL

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1 INTRODUCTION

BACKGROUND

The Salt Lake City Transit Master Plan responds to community and policy mandates to improve public transportation for the benefit of all members of the community. The City's overall Transportation Master Plan emphasizes providing choices in travel and reducing dependence on the single occupant automobile. Both the City Council and the Mayor have adopted policy statements about the importance of continued improvements and investment in public transportation. Finally, residents and other community leaders have also expressed strong support for accessible, safe, reliable, affordable public transportation.

In September 2013, the Salt Lake City Council crafted goals to enhance transit quality and transit passenger experience for Salt Lake City residents and workers. The Transit Master Plan was initiated to help the City and Utah Transit Authority (UTA) partner to meet Council goals and find new resources to expand transit use and value to the community. The project officially launched in January 2015. The schedule for the project is shown at the end of this chapter.

PROJECT OVERVIEW

The Transit Master Plan will help Salt Lake City and UTA set priorities for the next 20 years, guide decisions about the timing and location of capital investments, and increase the use of transit citywide. The Plan will include an in-depth analysis of how people are traveling today, the strengths and weaknesses of the current mass transit system, and projections for future growth to identify a network of corridors for investment.

Salt Lake City is leading the Plan and is focusing on identifying transit needs, desires and investments that will benefit the whole city rather than any one neighborhood. However, it will build on and coordinate with other local and regional planning efforts and will be developed in close coordination with Utah Transit Authority, city departments, and regional agencies. The Plan also hinges on an inclusive public process to ensure community needs and desires are captured.

Why a Transit Master Plan for Salt Lake City?

- Increase safe, reliable, and affordable transportation options for city residents
- Foster business relationships and economic development
- Accommodate urban growth in a sustainable, cost-effective manner
- Provide access to jobs, housing, and recreation
- Enhance partnerships with UTA
- Represent the community's ideal network of buses, trains, and streetcars

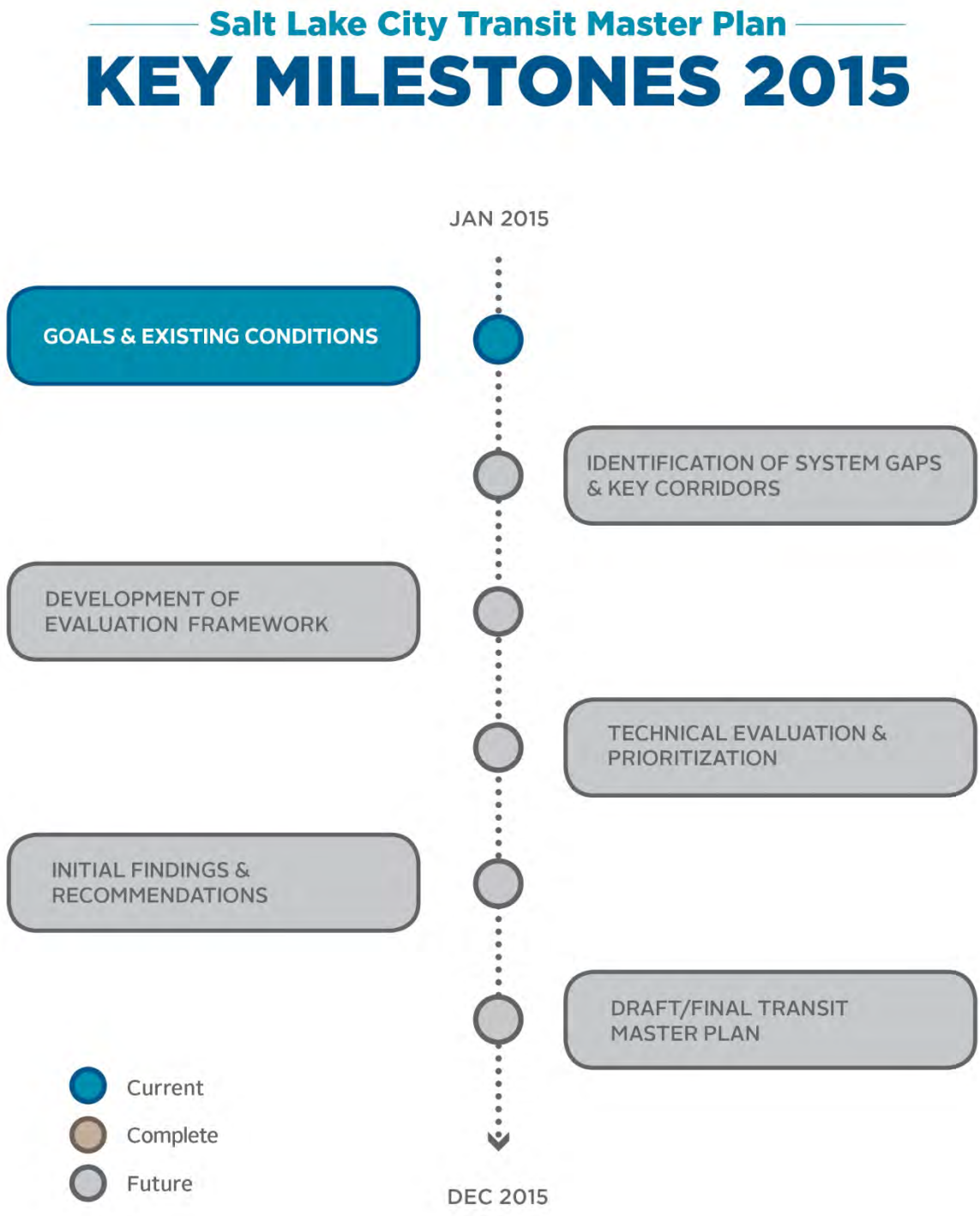
REPORT ORGANIZATION

This report describes existing conditions for transit and identifies key factors – such as travel demand and land use patterns – that affect the performance of transit in Salt Lake City. It serves as a foundation for service and capital policies and recommendations to be developed in later phases of the project.

This report is organized into seven chapters:

1. **Introduction**: Overview of the Transit Master Plan, its goals, schedule, and key outcomes, and introduction to this report
2. **Existing Plans, Policies and Goals**: Summarizes the preceding planning and policy work upon which the Transit Master Plan will build
3. **Travel Demand and Transit Market Analysis**: Analyzes current travel behavior and a variety of factors that influence current and future travel behavior
4. **Transit Service in Salt Lake City**: Provides an overview of existing transit service in Salt Lake City and its performance as well as transit system expansions and enhancements planned for the future
5. **Who Rides Transit**: Describes the demographics and other characteristics of current Salt Lake City transit riders
6. **Amenities and Access to Transit**: Summarizes access to transit and amenities that are available at transit stations and stops
7. **Conclusion**: Summarizes findings from the review of existing conditions

Figure 1-1 Salt Lake City Transit Master Plan Schedule



2 EXISTING PLANS, POLICIES, AND GOALS

Salt Lake City has done considerable planning that is relevant to the Transit Master Plan. This chapter summarizes key themes from these prior efforts. This review of past plans will be used during the next phase of study to inform development of the Transit Master Plan's goals and priorities. A full summary of the purpose, goals/vision, policies/principles, and recommended strategies from each of the previous planning efforts is included in Appendix A. The following plans were considered in this summary:

Salt Lake City Transportation Plans/Policies:

- City Council Goals for Transit (Retreat 2013)
- Complete Streets Policy (2010)
- Downtown in Motion (2008)
- Salt Lake City Transportation Master Plan (1996)
- DRAFT Pedestrian and Bicycle Master Plan (2015)
- Sugar House Circulation and Streetscape Amenities Plan (2013)
- Sugar House Alternatives Analysis (2013)

Utah Transit Authority Plans/Policies:

- UTA First/Last Mile Study (in progress)
- Five Year Service Plan (2013)
- UTA Network Study (2013)
- UTA Strategic Plan (2013)

Salt Lake City Land Use/Sustainability Plans/Policies:

- Sustainable Salt Lake Plan (2015)
- DRAFT Salt Lake City Downtown Community Plan: Story of Our Future (2014)
- DRAFT Plan Salt Lake (In progress)
- West Side Master Plan (2014)
- Mayor's Livability Agenda (2012)
- City Council Philosophy Statements (2012)
- North Temple Boulevard Master Plan (2010)
- Downtown Rising (initiated in 2006)
- Sugar House Master Plan (2005)
- Central Community Master Plan (2002)

Regional Plans/Policies:

- Wasatch Choice for 2040
- Wasatch Front Regional Council Regional Transportation Plan (2011)
- Utah's Unified Transportation Master Plan (2011)
- Envision Utah

Key Themes from Prior Planning Efforts

Transportation, and public transit specifically, are prevalent throughout Salt Lake City's planning efforts. Throughout prior and current plans, the availability of safe, high quality, convenient transportation choices is seen as a critical tool to support achievement of broader outcomes, e.g. health, economic competitiveness, and quality of life. Several plans also include goals, policies, and specific targets that address design and performance of the public transit system.

Common themes that appeared in past planning efforts related to transportation were:

- Providing transportation choices
- High quality transit system
- Multimodal transportation
- Opportunity for all (equity)
- Health and safety
- Economic vitality/economic development
- Efficiency/effectiveness
- Sustainability
- Quality of life and culture
- Engagement/inclusivity/community building
- Coordination/partnership

The Transit Master Plan will refine the transit-related goals and further clarify how transit can support the broader goals under each of these themes. One of the next phases of the project is to refine the goals adopted by the City Council in 2013, shown below. The information presented here will be used to support this effort. Fortunately, there are many commonalities among the goals and aspirations put forth by Salt Lake City, UTA, and the regional agencies related to performance of the transit system which provides a solid base on which to build.

The figure on the following page provides more specifics under each key theme, and calls out specific numerical targets from past plans related to each theme.

City Council Adopted Goals for Transit (2013)

- **Ease of Use:** Anyone in Salt Lake City can get from Point A to Point B using only one transfer
- **Affordability:** Cost for service should be scaled to the length of each trip – or everyone should get a transit pass
- **Destinations:** Everyone should be able to get to two transit routes within a quarter mile of where they live or work
- **Time of Day:** Mass transit hours of operation should mirror the times people leave and return from work and play
- **Immediacy:** Mass transit service should be available every 10 minutes so people can presume service
- **Route Reliability:** Routes should remain stable so residents and developers can make transit part of their long-term housing choice

Figure 2-1 Key Themes and Targets from Prior Planning Efforts

Salt Lake City Plans	UTA and Regional Plans	Specific Targets Relevant to Transit
Quality Transit System		
▪ Frequency: Frequent enough service that riders don't have to consult schedules ▪ Service span: Match breadth of service to all people's daily needs (not just commute trips) ▪ Easy to use and understand: System is legible and convenient; increase awareness of system ▪ Connected and direct: Allow for one-seat rides to major destinations ▪ Access: Improved amenities at bus stops and access to stops; improve last mile connections ▪ Coverage: Service for all Salt Lake residents ▪ Stable and reliable: Limit services changes and provide service people can count on	▪ Frequency: Increase route frequency (UTA) ▪ Service span: Increase daily service span (later in evening), add weekend service (UTA) ▪ Easy to use and understand: Improve system simplicity; establish frequent transit network (UTA) ▪ Connected and direct: Improve route directness (UTA) ▪ Access: Improved amenities at bus stops and access to stops; Improve last mile connections (UTA) ▪ Increase service: Increase service to major activity centers and to target new customers (UTA)	▪ Every downtown resident/worker within a 1/4 mile of a light rail, street car or bus route with 15 minute service or less (Salt Lake City Downtown Community Plan) ▪ Public transit within quarter mile of all homes (Plan Salt Lake) ▪ Two transit routes within a quarter mile of every resident's home or work (City Council 2013 goals) ▪ 10-minute service frequency (City Council 2013 goals) ▪ Creating an interconnected network of routes with 10-minute headways (UTA Network Study)
Multimodal Transportation		
▪ Provide transportation choices ▪ Complete streets (safely accommodate pedestrians and bicyclists) ▪ Optimize pedestrian experience, prioritize walking as core mode of transportation, pedestrian-oriented design ▪ Parking policies that support multimodal transportation system	▪ Improve first mile/last mile connections (UTA) ▪ Active transportation improvements, integration with transit (UTA) ▪ Variety of interconnected transportation choices (regional)	▪ Double transit ridership by 2020 and double it again by 2040 (Salt Lake City Downtown Community Plan) ▪ Double transit ridership (UTA Five Year Service Plan, UTA 2020 Strategic Plan) ▪ More evenly balanced mode share (Salt Lake City Downtown Community Plan)
Opportunity for All (equity)		
▪ Transportation system should be accessible to all income levels ▪ Access to opportunity for all regardless of age, ability, or income	▪ Develop new fare products and equitable fare policies (UTA) ▪ Housing and transportation choices for people at all life stages and incomes (regional)	▪ Reduced-cost transit pass program for Salt Lake City residents (Salt Lake City Downtown Community Plan) ▪ Expand fare-free zone (Downtown in Motion)

Salt Lake City Plans	UTA and Regional Plans	Specific Targets Relevant to Transit
Sustainability		
Sustainable transportation choices		
▪ Reducing use of single-occupancy vehicles/ decrease auto dependency ▪ Providing incentives for the use of transit and other non-auto modes	▪ Increase transit ridership ▪ Attract new markets for transit riders (UTA)	▪ Transportation services that result in a zero carbon footprint (Sustainable Salt Lake) ▪ Reduce Single Occupancy auto trips (Plan Salt Lake) ▪ Reduce growth in per capita vehicle miles of travel (Wasatch Choice 2040) ▪ Vehicle emissions resulting from the transportation projects proposed in the 2040 RTP may not exceed the level or "budget" set for them in the SIP (WFRC Regional Transportation Plan)
Sustainable growth		
▪ Sustainable growth, e.g. transit-oriented development ▪ Encourage sustainable mixed-use urban living ▪ Increased intensity/density	▪ Partner to support UTA station area planning processes and transit-oriented development (UTA) ▪ Compact development (regional) ▪ Jobs/housing balance (regional) ▪ Integration between local land use and development centers with regional transportation (regional, UTA)	
Clean air / emissions / environmental initiatives		
▪ "Green" city ▪ Reduce emissions ▪ Alternative fuels for mass transit systems for cleaner air ▪ Zero carbon footprint ▪ Integration of green infrastructure into rights-of-way and transportation network	▪ Clean air initiatives (UTA) ▪ Balanced fleet of alternative fuel vehicles (UTA) ▪ Protect and enhance the environment (regional)	
Health and Safety		
▪ Encourage active transportation modes ▪ Promote bicycling and walking as ways to enhance personal health ▪ Clean air ▪ Provide parks and natural spaces ▪ Safety for all modes of transportation	▪ Ensure public health and safety (regional)	▪ Decrease pedestrian, bike, and auto accidents (Plan Salt Lake) ▪ Zero fatalities (UDOT Unified Transportation Master Plan)

Salt Lake City Plans	UTA and Regional Plans	Specific Targets Relevant to Transit
Economic Vitality/ Economic Development		
▪ Support a vibrant economy ▪ Transportation investments that yield economic benefits ▪ Utilize transit as a catalyst ▪ Mobility as a competitive advantage in 21st century economy	▪ Promote economic benefits of transit (UTA) ▪ Enhance/strengthen regional economy (regional)	▪ Investment in high quality street infrastructure yields increases in residential and commercial property values and retail activity (North Temple Boulevard Master Plan)
Efficiency/ Effectiveness		
▪ Integrated, efficient system for all modes	▪ Service efficiency/effectiveness (UTA) ▪ Reduce duplication of service (UTA) ▪ Efficient public infrastructure (regional) ▪ Maintain and preserve infrastructure (regional)	▪ Increase levels of service by 50% (UTA Network Study, UTA 2020 Strategic Plan) ▪ Reduce average customer trip time by 25% (UTA Network Study, UTA 2020 Strategic Plan) ▪ Improve reliability on key bus routes (UTA Network Study)
Quality of Life and Culture		
▪ Reinforce community identity, enhance quality of life, e.g. through art and high quality design ▪ Livability ▪ Memorable streets that help define unique character of the city and of neighborhoods ▪ High aesthetic standards, high quality public spaces ▪ Encourage vibrancy and interaction ▪ Welcoming, green, international community ▪ Embrace arts, culture, and entertainment	▪ Strengthen sense of community (regional) ▪ Keep Utah beautiful, prosperous, healthy, and neighborly for future generations (regional)	
Engagement/ Inclusivity/ Community Building		
▪ Inclusivity, engagement, and community building ▪ Support broad community engagement ▪ Facilitate civic, cultural, recreational, and economic interactions ▪ Stronger relationships (local businesses, entertainment, and arts organizations)		

Salt Lake City Plans	UTA and Regional Plans	Specific Targets Relevant to Transit
Coordination/ Partnership		
▪ Balance regional/local needs: Ensure travel within Salt Lake is as easy as travel to Salt Lake from other regional destinations ▪ Integration of jobs, housing, and transportation planning	▪ Public-private partnerships to leverage UTA assets to generate revenue that can support more transit service (UTA) ▪ Partner with communities and external stakeholders (UTA) ▪ Promote regional collaboration (regional) ▪ Integrated decision-making based on comprehensive understanding of impacts (regional) ▪ Coordinate transportation with regional employment, housing, educational and activity centers (regional)	

3 TRAVEL DEMAND & TRANSIT MARKET ANALYSIS

INTRODUCTION

Assessing the current market for public transportation – within Salt Lake City, between its neighborhoods, and between Salt Lake City and the region – is a foundational component of the Transit Master Plan. The population of Salt Lake City is projected to grow by 19% to 250,800 by 2040. Employment is also projected to grow by 8% to 313,300 by 2040.[1] Understanding how transit can serve a growing population and workforce is a key outcome of the Transit Master Plan.

Extensive industry research shows that the built environment significantly impacts travel behavior; this includes land use density and mix of uses, neighborhood form and urban design, and connectivity in the transportation network. Demographics (income, household size, age, etc.) are also important determinants of transit demand.

This chapter explores travel patterns, demographic trends, land use patterns, and how these factors influence demand for transit in Salt Lake City. Each of the following topics is explored in turn to reveal the current and emerging transit markets in Salt Lake City:

- Existing and future land use patterns
- Existing and future residential and employment density
- Major growth areas
- Transit-dependent populations
- Current mode choice and employment patterns
- Transit use patterns
- Overall travel patterns

A note on terminology: For clarity, the term "downtown" in this document is defined according to the area's master plan. A large portion of this zone does not have much density or travel demand today, but is planned to have substantial future growth. Downtown includes the Central Business District, Central City, and East Downtown, which are the densest concentrations of population and jobs in the whole city.

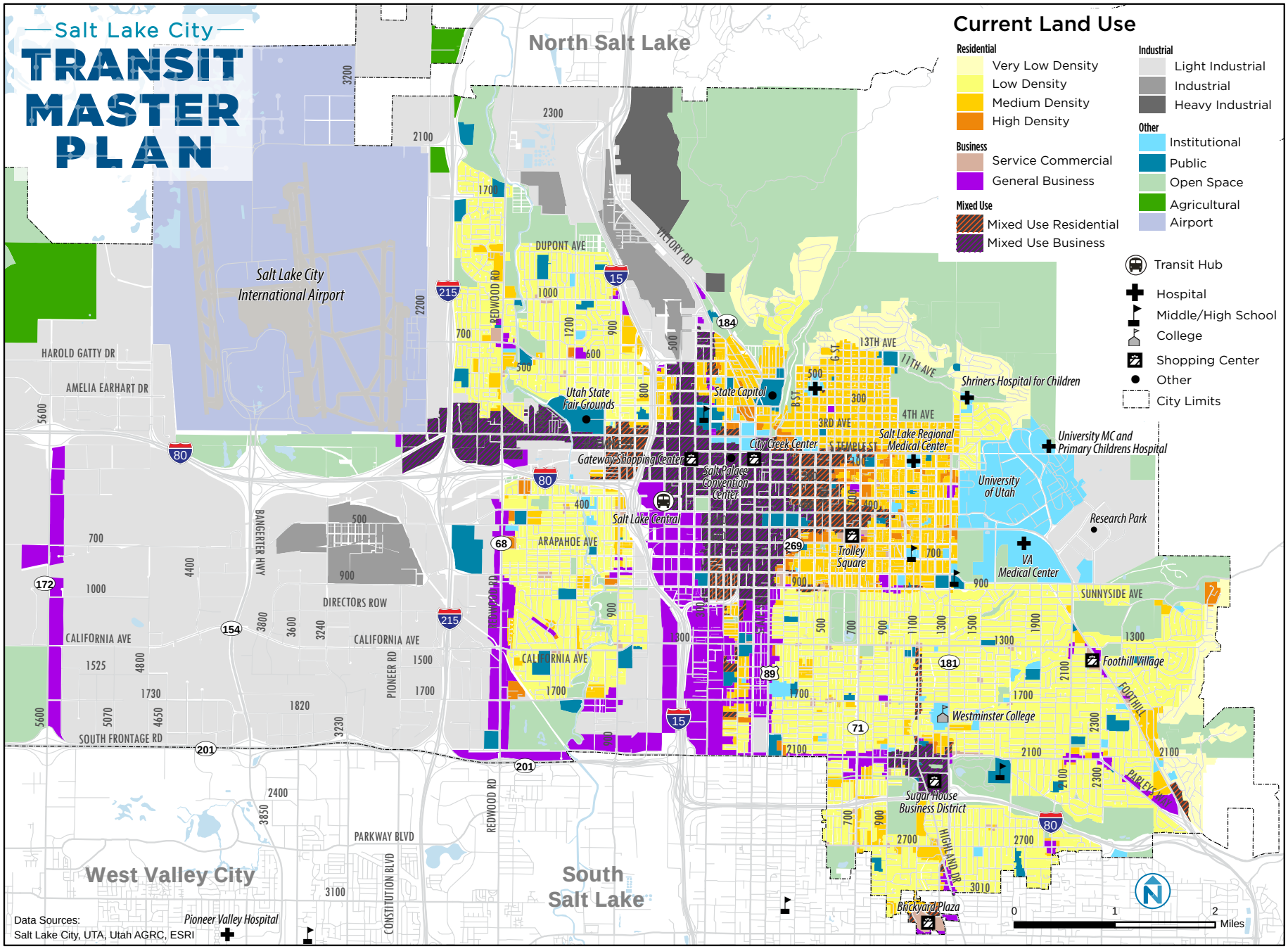
[1] Wasatch Front Regional Council Population and Employment Projections. These projections show 210,381 residents and 291,121 employees in Salt Lake in 2015. www.wfrc.org/new_wfrc/index.php/resources/data

WHAT ARE THE EXISTING LAND USE PATTERNS?

Figure 3-1 shows existing land use designations in Salt Lake City.

- **Mixed-use development** is concentrated in and around downtown Salt Lake City, extending northward into Capitol Hill, and along the TRAX Green Line to the airport in the west.
  - Zoning transitions from mixed-use business in the core of downtown to more residential mixed-use character in east downtown.
  - Sugar House Business District is also zoned mixed use business.
- The TRAX light rail lines are generally supported by mixed-use residential and **business** designations throughout the city.
  - The S-Line streetcar and Redwood Road corridors are also zoned for **business.**
- The west third of the city, west of Highway 215, is designated **industrial.**
- Much of the rest of Salt Lake City is zoned **residential.**
  - Most neighborhoods are low density residential.
  - The areas east and north of downtown are medium density residential (including East Central to the University of Utah, the Greater Avenues, and Capitol Hill)

Figure 3-1 Existing Land Use



WHERE DO PEOPLE LIVE AND WORK IN SALT LAKE CITY?

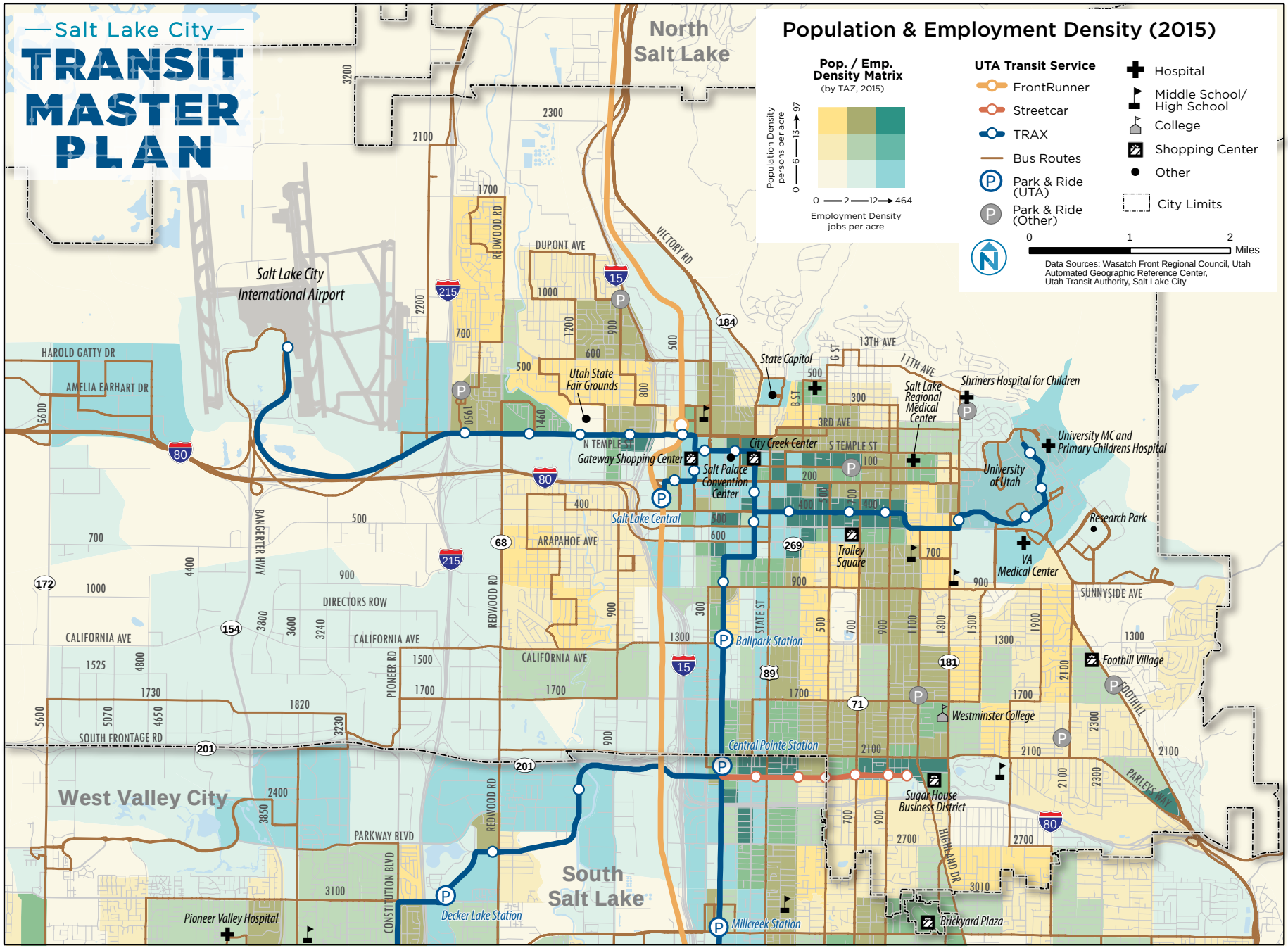
Population and employment density have a significant impact on transit demand. As density increases, incentives to use transit (or disincentives to drive) such as traffic congestion, parking availability, and parking costs tend to increase. In addition, the more people there are, the more cost effective it is to provide frequent transit service.

Figure 3-2 shows population and employment density in Salt Lake City (people and jobs per acre), illuminating the realities of where people are living and working in Salt Lake City. Areas that are the darkest represent the highest concentration of both population and employment combined.

- Major employment centers are:
  - University/Research Park
  - Central Business District
  - North-West quadrant:
    - Airport
    - International Center
    - 2200 West corridor
- Areas of **high employment and residential density** (mixed-use areas) are concentrated in downtown and east downtown, extending east along the 400 South corridor towards the University. There is also a higher density mixed-use node in Sugar House along the S-Line.
- Areas of **high residential density with moderate employment** mixed in are found in the central southeast part of the city (East Liberty Park, Liberty-Wells), the inner parts of the Greater Avenues and Capitol Hill, and the Fair Grounds and Glendale neighborhoods.
- Areas of **high residential density** only are found in the northwest and southwest areas of the city (in parts of Poplar Grove, Glendale, and Rose Park).[2]

[2] Population density is measured in terms of people per acre. Therefore large family size can make areas have higher population density, despite a relatively "low-density" development pattern, as occurs in Poplar Grove and Glendale neighborhoods.

Figure 3-2 Existing Population and Employment Density (2015)



HOW WILL POPULATION AND EMPLOYMENT CHANGE BY 2040?

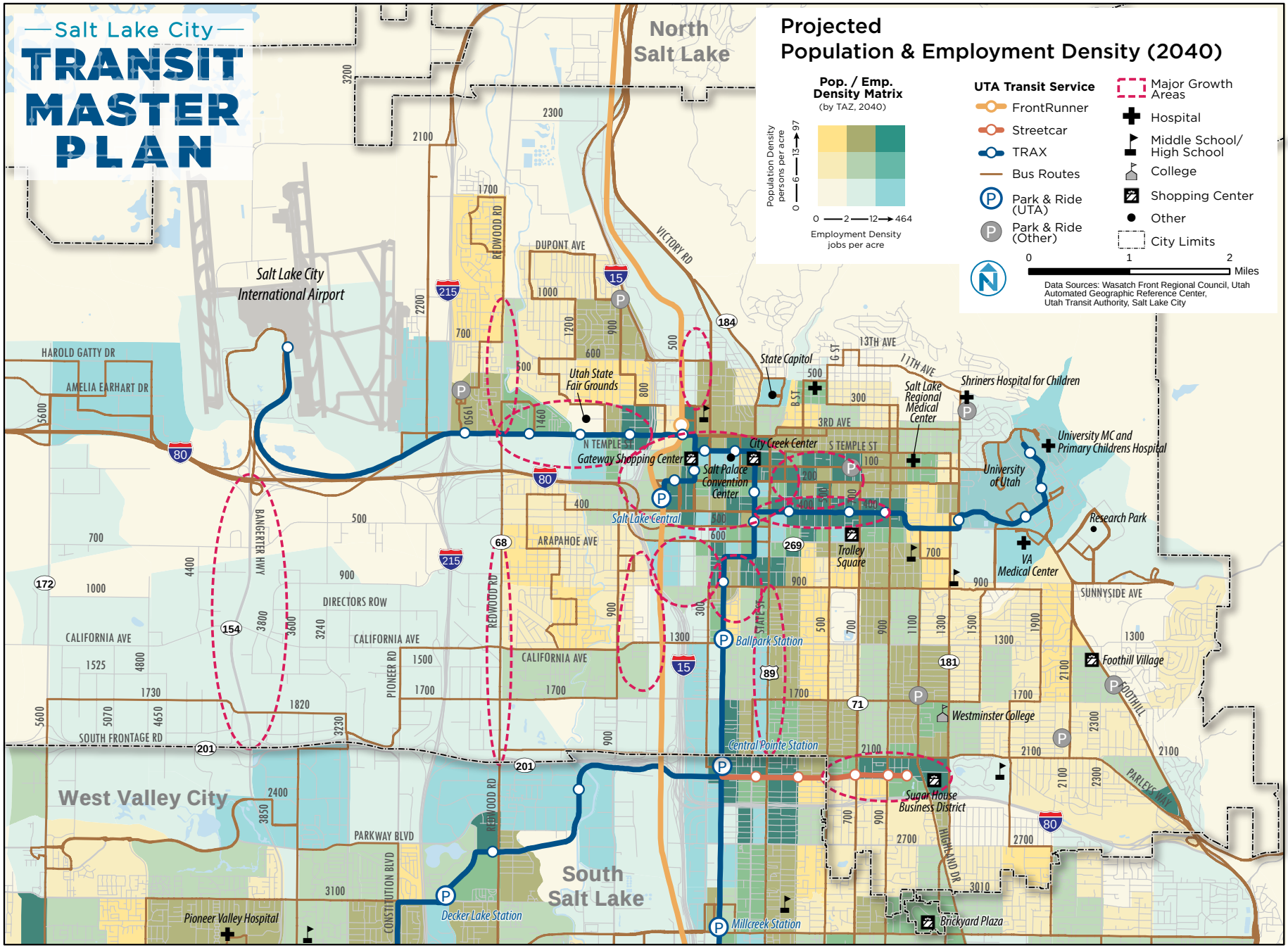
Population and employment in Salt Lake City are expected to grow substantially. By 2040, more than 40,000 new residents and 20,000 new employees are expected in Salt Lake City (19% and 8% growth respectively).[3] This growing population of residents and employees will change demand for transit service.

Figure 3-3 shows future projected population and employment density in Salt Lake City (2040).

- Residential growth is expected in existing higher density mixed-use areas in and around downtown.
  - Population and employment intensity will increase around Salt Lake Central Station in the Granary and Depot Districts.
- Growth is also expected in the following areas:
  - Along the State Street corridor and along 900 South in the Central Ninth neighborhood
  - Along North Temple to the northwest of downtown
  - Along 400 East near the Central Pointe Station
  - In the Sugar House District
- The industrial areas west of Redwood Road are expected to see employment growth.
- Much of the rest of Salt Lake City is not expected to change significantly in terms of overall density of jobs or residents.

[3] Wasatch Front Regional Council Population and Employment Projections. These projections show 210,381 residents and 291,121 employees in Salt Lake in 2015. www.wfrc.org/new_wfrc/index.php/resources/data

Figure 3-3 Future Population and Employment Density (2040)



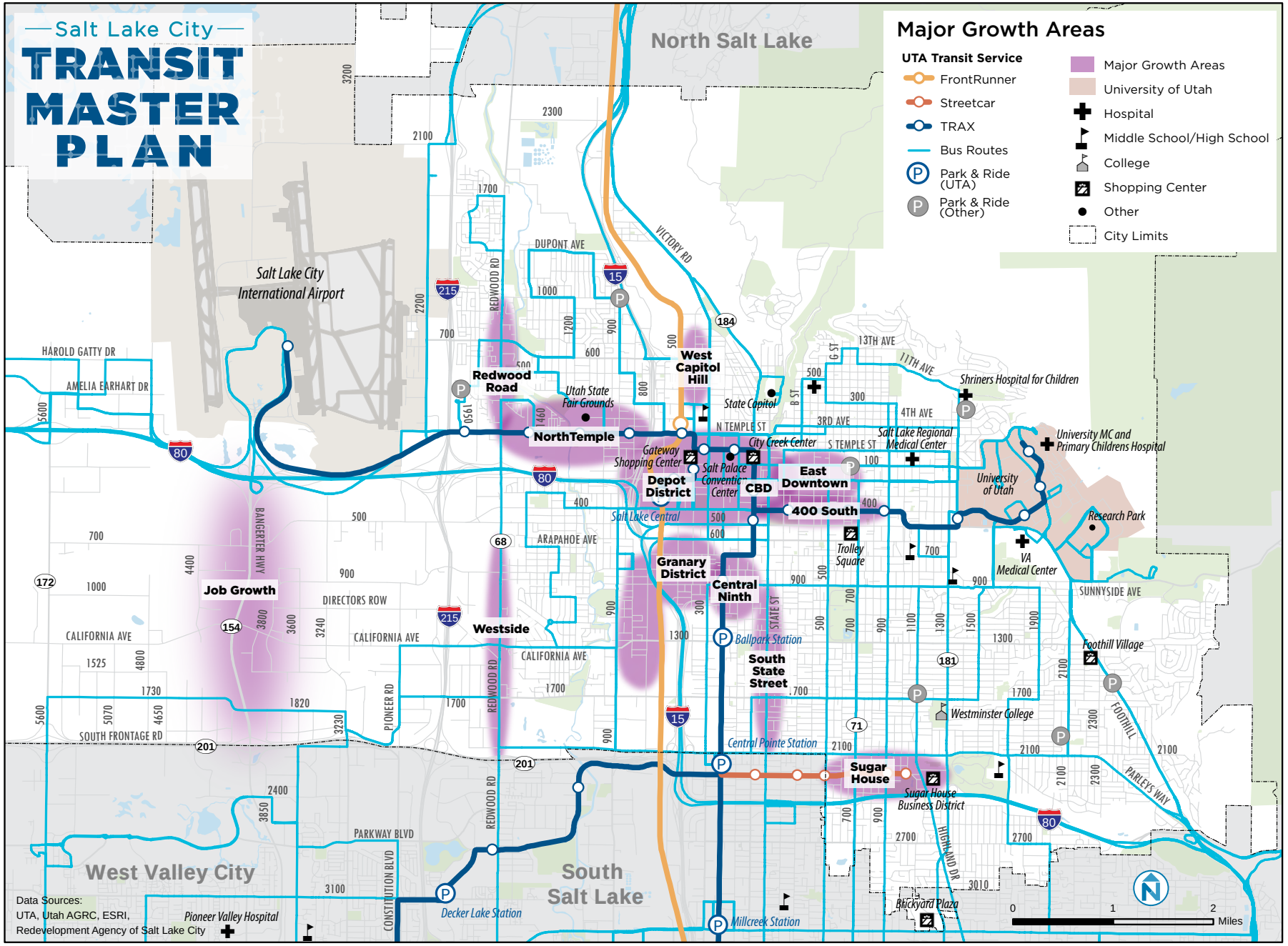
WHERE IS SALT LAKE EXPECTING TO GROW?

Salt Lake City has been planning to accommodate growth in several areas. Planned development areas in Salt Lake City include economic development areas managed by the Redevelopment Agency[4] and several other areas that are experiencing growth:

- **Central Business District, East Downtown, and 400 South Corridor:** As the central core of the city and economic hub of the region, downtown will continue to see a large amount of mixed-use development. The Redevelopment Agency is also working to bring a number of performing arts facilities to downtown including the Utah Performing Arts Center and create a "Cultural Core District" to promote all of the performing arts facilities in the downtown.
- **Depot District:** The Depot District is located on the western edge of downtown, just east of Interstate 15, and includes Salt Lake Central Station. Plans for this area envision a mixed-use development area and preservation of historic buildings.
- **Granary District:** This district is located south of the Depot District west of Interstate 15 and east of 300 West. This district is also envisioned to be a mixed-use neighborhood that supports commercial businesses and reclaims open space.
- **North Temple:** North Temple is a corridor heading west from downtown to the airport. This corridor is envisioned to maximize transit-oriented development and redevelopment opportunities brought by the presence of the TRAX Green Line to the airport. Guided by the North Temple Boulevard Plan, this corridor is planned to be a vibrant, walkable, mixed-use community.
- **Sugar House:** Sugar House is envisioned to be one of the city's mixed-use business districts. There are a number of potential redevelopment sites in the neighborhood. This area is ripe for transit-oriented development since the introduction of the S-Line streetcar in 2013 and improved access to open space, retail, restaurants and entertainment options. The area is already experiencing significant transition at both the Salt Lake City and South Salt Lake City end of line stations.
- **West Capitol Hill:** The West Capitol Hill area is located north of West High School and west of 300 West. The area includes 88 acres of privately owned property including a mix of residential, commercial, and light industrial uses. The focus of this area will continue to be residential while at the same time strengthening the commercial business corridor along 300 West.
- **Redwood Road**: The Northwest area of the city is also anticipated to change, especially along the main corridors (e.g. Redwood Road, 2200 West, 700 North) and at the smaller nodes in the neighborhoods.
- **State Street**: Growth is expected along the State Street corridor and in the Central Ninth neighborhood.
- **Westside job growth**: The Westside Master Plan identifies a potential mixed-use area east of Redwood Road around the Glendale Golf Course (mix of apartments, condominiums, office, commercial, and light industrial) and along 900 West.
  - West of Redwood Road will continue to develop to have a growing concentration of jobs.
- **The East Bench** area has a master plan under way; growth is expected along the corridors, mainly Foothill and Parleys Way, however change may be relatively limited due to the lack of major opportunity sites.

[4] These development areas utilize tax increment funding to fund urban renewal projects.

Figure 3-4 Salt Lake City Major Growth Areas



WHERE ARE SALT LAKE CITY'S TRANSIT-DEPENDENT POPULATIONS?

The demand for transit is determined in part by the demographic make-up of the community.

- **Youth, the elderly, and college-age populations** typically depend more on transit to access their daily needs because they are either too young or too old to drive or do not have the means to own a vehicle.
- **Residents with lower incomes** or residents who do not have access to a vehicle are more dependent on transit.
- **The disabled population** is also more likely to be transit dependent if their disability does not allow them to drive a car.

Figure 3-5 provides a summary of demographic characteristics in Salt Lake City that likely affect the demand for transit. Low-income households (those whose income is below 150% of the poverty level) represent over 32% of the Salt Lake City population. Seniors currently account for over 9% of the population and this number is projected to increase as the Baby Boomer generation reaches retirement; Utah's population of seniors over 65 is projected to double by 2050.[5]

The transit use propensity index, illustrated in Figure 3-7 below, combines the strongest indicators of transit demand noted above (low-income households, persons with disabilities, and seniors aged 65+) with rates of access to automobiles. Analyzing how the TUP aligns with the existing transit network will be a key component of the Gaps Analysis, which is the next phase of this study.
In Salt Lake City, TUP scores are the highest in:

- Neighborhoods between downtown and the University
- Southern portion of the Capitol Hill neighborhood
- Portions of Liberty Wells
- Western Salt Lake City (Rose Park, Glendale, and Poplar Grove neighborhoods)

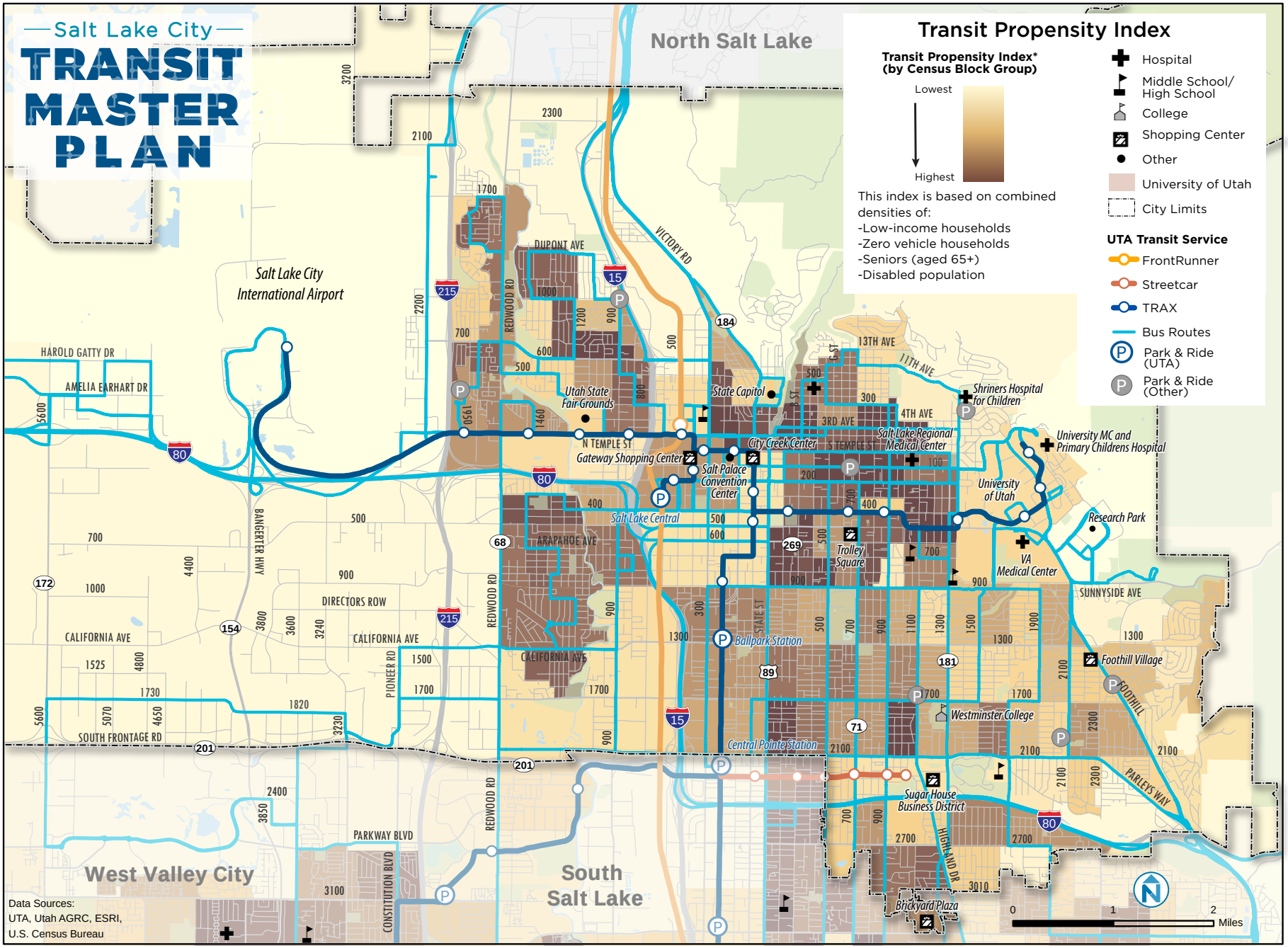
Figure 3-5 Summary of Demographic Characteristics in Salt Lake City (2010)

Demographic Category	Population (2010)	Unit	%
Total Population	186,440	Persons	--
Seniors 65 or older	17,516	Persons	9%
People with disabilities (aged 16-64)	12,836	Persons	10%
Low-income*	60,776	Persons	32%
Zero vehicle households	9,257	Households	12%

Source: Census 2010 (total population and Seniors 65 or older); ACS 5-Year Estimates (2008-2013) (people with disabilities, low-income, and zero vehicle households)
*Note: Population whose income is below 150% of the poverty level

[5] Utah Foundation. A Snapshot of 2050: An Analysis of Projected Population Change in Utah (2014)

Figure 3-6 Transit Use Propensity Index



WHERE DO EMPLOYEES IN SALT LAKE CITY LIVE AND HOW ARE THEY TRAVELING?

Salt Lake City is the region's employment hub. Every day, the population in Salt Lake City nearly doubles with commuters from around the region. This in-commute population has been growing slightly over the last decade as shown in figure 3-7). Of the 81,000 employees who live in Salt Lake City, approximately half work within Salt Lake City limits and half commute out of the city. One outcome of the Transit Master Plan will be to determine how to increase the number of these trips made by transit.

Although Salt Lake City has not set mode share goals, numerous local plans and policies call out the need to increase the number of people who bike, walk, and take transit to support a sustainable Salt Lake. For example, Plan Salt Lake – the city's vision plan for the next 25 years – sets a goal to reduce the number of single occupancy auto trips, increase the mode share for public transit, bicycling, walking, and carpooling, and provide public transit within ¼ mile of all homes.

For more than a decade, the mode split for Salt Lake City residents' commute trips has remained relatively steady at 81% auto (69% drive alone, 12% carpool) and 6% transit (Figure 3-8).

Regionally, transit ridership has kept pace with population growth so transit mode share has stayed reasonably steady as well.[6] Overall, employees who live in Salt Lake commute by transit at a higher rate than those who work elsewhere, illustrating the Salt-Lake City-centric orientation of the regional transit network (Figure 3-9). Transit mode share is highest for commuters who work in Salt Lake City and live outside the city at 6.5%. Employees who both live and work outside of Salt Lake City have a much lower transit mode share, between 1%-3% depending on the county.[7]

According to the 2012 Utah Household Travel Survey, mode share varies by district within Salt Lake City:

- Transit mode share is well above the city-wide average in University of Utah (18.4%) and the Airport district (13.2%).
- Transit mode share is aligned with or slightly above the citywide average in downtown (6.4%) and areas surrounding University of Utah (7.4%).
- Transit mode share is below the city-wide average in Capitol Hill/Avenues (3.3%)
- Transit mode share is well below the city-wide average in the following districts: Sugar House/East Bench (1.6%), Rose Park (1.6%), and Glendale/Poplar Grove (0.7%) (notably, bike share is highest in Glendale/Poplar Grove at 7.5%)[8]

[6] UTA.

[7] US Census, Transportation Planning Products, 2006-2010 CTTP. Note: these numbers do not include more recent rail expansions in the SLC region.

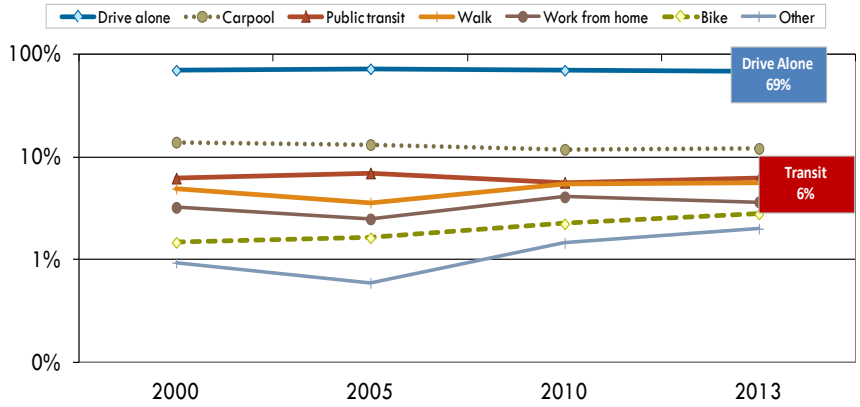
[8] 2012 Utah Household Travel Survey

Figure 3-7 Salt Lake City Employee Home Locations (2003 – 2011)

	2003		2005		2007		2009		2011	
	# of Jobs	% of Jobs	# of Jobs	% of Jobs	# of Jobs	% of Jobs	# of Jobs	% of Jobs	# of Jobs	% of Jobs
Total Jobs	206,943	100%	213,062	100%	219,913	100%	219,451	100%	227,846	100%
In-Commuters	162,007	78%	168,136	79%	175,746	80%	173,656	79%	186,759	82%
Live Here/Work Here	44,936	22%	44,926	21%	44,167	20%	45,795	21%	41,087	18%
Out-Commuters	36,355	18%	38,801	18%	46,486	21%	46,502	21%	38,970	17%

Source: LEHD On the Map "Inflow/Outflow Analysis for All Jobs"

Figure 3-8 How Salt Lake City Residents Travel to Work (2000 – 2013) (Logarithmic Scale)



Source: Census 2000 SF 3 Table P030: Means of Transportation to Work for Workers 16 years and over; 2005 ACS Table B08006: Sex of Workers by Means of Transportation (Workers 16 years and over); 2006-2010 ACS Table B08301: Means of Transportation to Work (Workers 16 years and over); 2009-2013 ACS 5-Year Estimates Table S0802: Sex of Workers by Means of Transportation to Work

Figure 3-9 How Salt Lake City Residents Travel to Work Compared to the Region (2010)

Home Location	Work Location	Transit Mode Share
Salt Lake City Resident	Salt Lake City	6%
	Outside Salt Lake City	4%
Non-Salt Lake City Resident	Salt Lake City	6.5%
	Outside Salt Lake City	1%-3%*

Source: US Census, Transportation Planning Products, 2006-2010

*Depending on the county of origin.

WHERE ARE PEOPLE BOARDING TRANSIT?

To understand current use of the transit system, Figure 3-10 and Figure 3-11illustrate the location of existing transit boardings.

TRAX:

- In Salt Lake City, transit ridership is highest in downtown and at the University of Utah, especially along the TRAX lines. Transit demand tends to be highest at ends of the lines, where park-and-rides are located, and at major transfer points between bus, TRAX, FrontRunner, and Streetcar lines.
- TRAX stations in downtown get the highest usage. The most boarding activity occurs along Main Street (100 N to 400 S). Courthouse Station has the highest ridership, other high usage stations, in descending order are: City Center, Salt Lake Central, Arena, Gallivan, and Temple Square.
- There is also high TRAX usage at the Airport, Stadium Station at the edge of the University, and Central Pointe (due to the park-and-ride. there are also high bus boardings).

Bus Ridership:

- The highest ridership bus corridors are: 200 S between downtown and the University and State Street. Other high bus ridership corridors are: Redwood Road, 500 E, 900 E, and 2100 S.
  - Major transfer points between these corridors have particularly high boardings.
  - Other key transfer nodes appear to be Redwood Road where it meets: 1700 S, North Temple, and 1300 N.
- In downtown, the majority of bus boarding activity is on State Street from 200 N to 400 S, and at Salt Lake Central.
- Other key bus nodes are (north to south and west to east): 200 N and 500 W, 2nd Ave at 300 W and between State and Main, 300 W and 200 S, and at the University of Utah.

Figure 3-10 Average Daily Transit Ridership by Stop in Salt Lake City

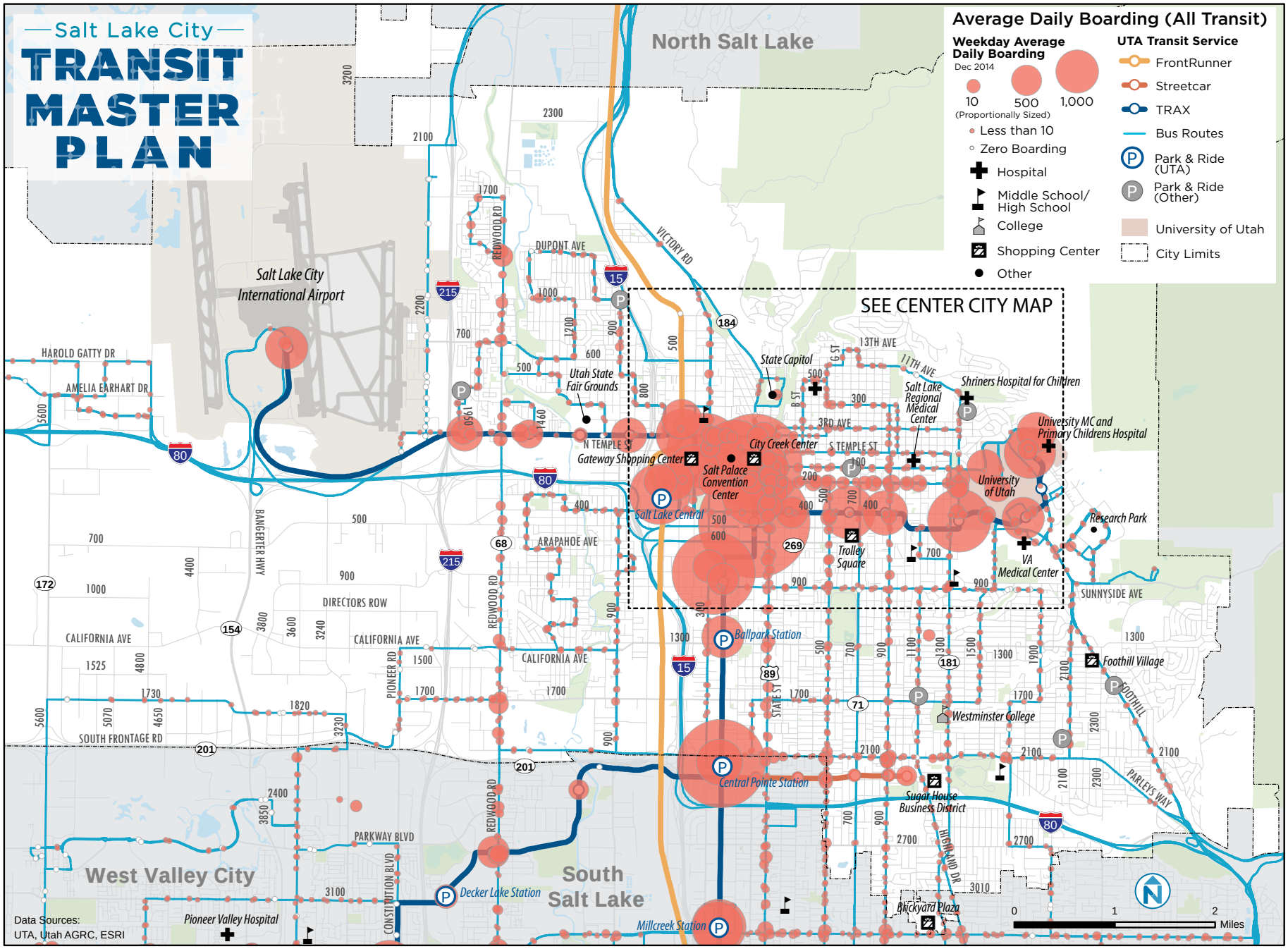


Figure 3-11 Average Daily Transit Ridership by Stop in Central Salt Lake City

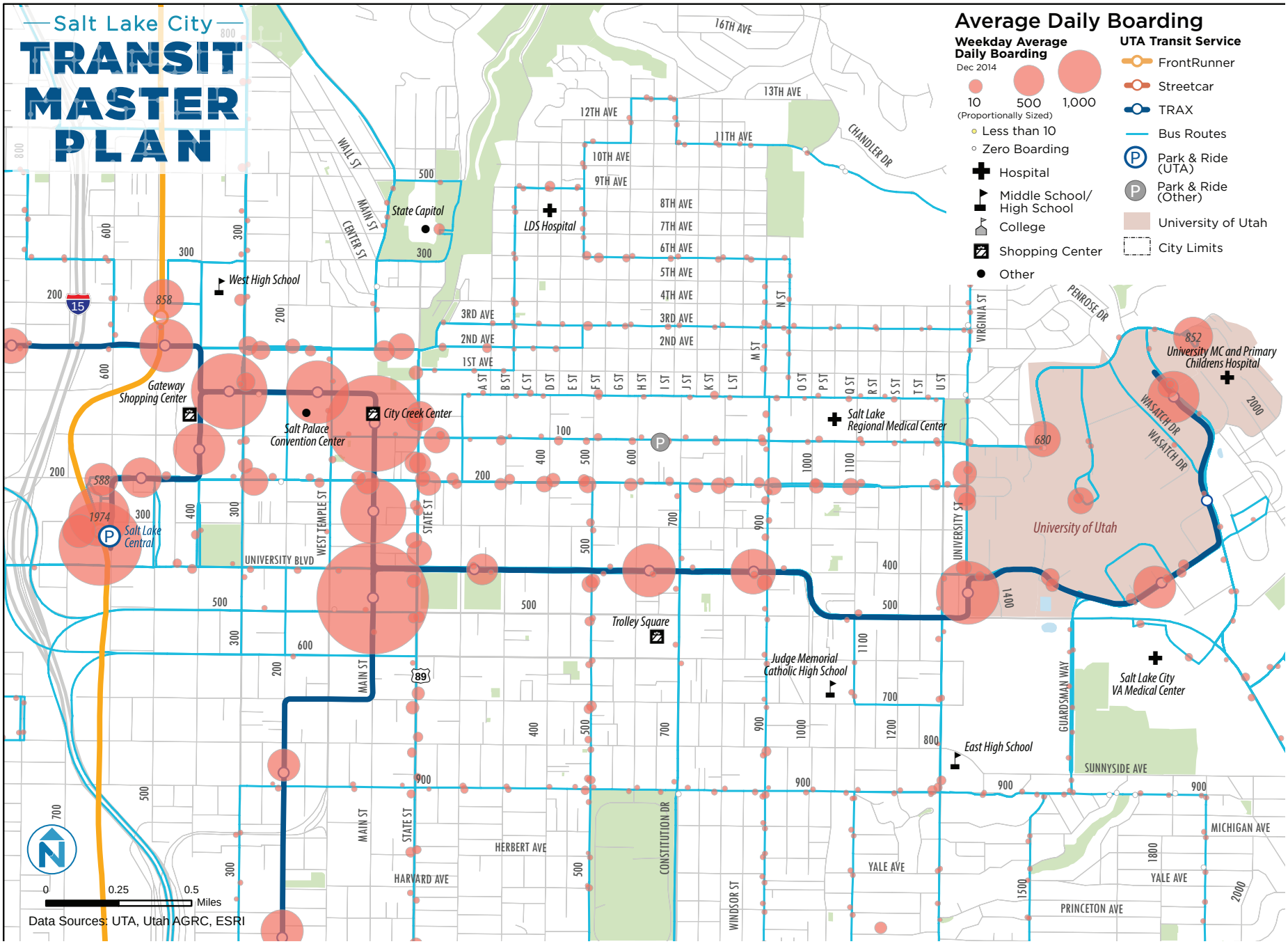


Figure 3-12 Average Daily Ridership by Stop in Salt Lake City (Bus Only)

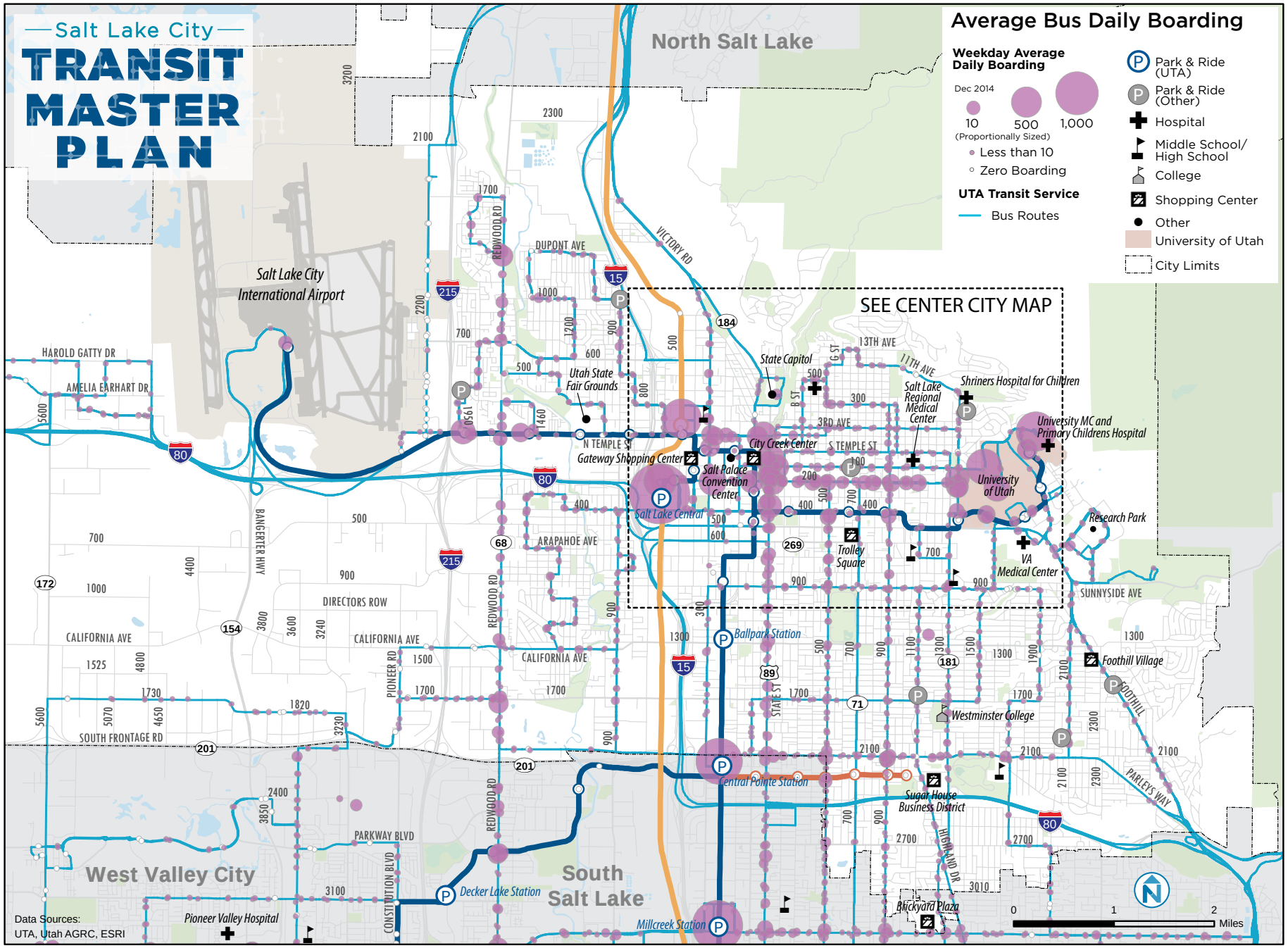
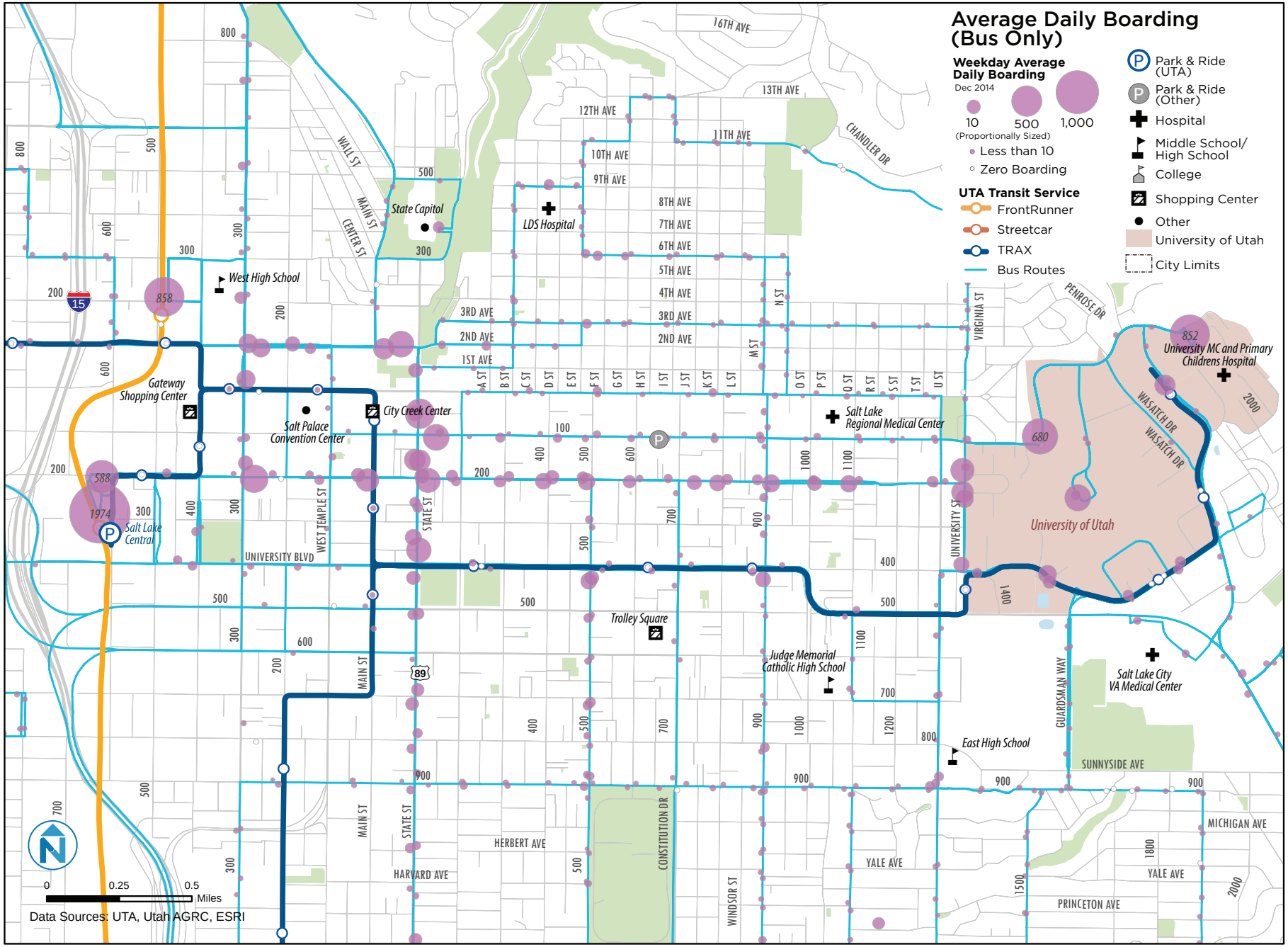


Figure 3-13 Average Daily Ridership by Stop in Central Salt Lake City (Bus Only)



WHERE ARE PEOPLE TRAVELING?

A key goal of the Salt Lake City Transit Master Plan is to increase transit use. To plan effectively, it is important to know where trips start and end today and how trip making might change in the future. It is also important to understand how transit trips differ from trips made by other modes and how commute trips differ from non-commute trips. Further analysis of the information presented here will be a key part of the Gaps Analysis, which constitutes the next phase of this study.

To understand the point-to-point travel patterns both within Salt Lake City and from the region to Salt Lake City, a travel pattern analysis was conducted based on the Wasatch Front Regional Council regional model using origin destination data for the year 2011 and a forecast of trips for the year 2040.

The analysis is illustrated in Figure 3-14 through Figure 3-20 below. It explores trip making from several different angles:

1. Local trips (Salt Lake City only):
    a. All trips by all modes (2011 and 2040)
    b. All transit trips (2011 and 2040)
    c. Commute trips (2011)
    d. Non-commute trips (2011)
2. Regional trips to/from Salt Lake City
    a. All trips by all modes (2011)

Origin Destination Map Methodology

In this section, the origin destination data is summarized and illustrated in a series of maps to describe major point-to-point travel patterns between Salt Lake City neighborhoods and between Salt Lake City and the region.

For the local Salt Lake City maps, data was aggregated at the TAZ level and combined to create neighborhood zones. It is important to note that the arrows on the maps point to neighborhood zones, not to individual destinations. Trip paths are shown “as the crow flies” between the centroid of the different neighborhood zones. The top 50 origin-destination pairs are displayed (i.e. the origin-destination pairs that have the highest volume of trips being made between two destinations).

For the regional map, Salt Lake City was segmented into four analysis areas (downtown, the University of Utah, southeast, and west). All trips within Salt Lake City were eliminated on the regional map. Trip paths are shown “as the crow flies” between the centroid of the cities in the region (or the centroid of each of the four analysis zones in Salt Lake City). The top 50 origin-destination pairs are displayed (i.e. the origin-destination pairs that have the highest volume of trips being made between two destinations).

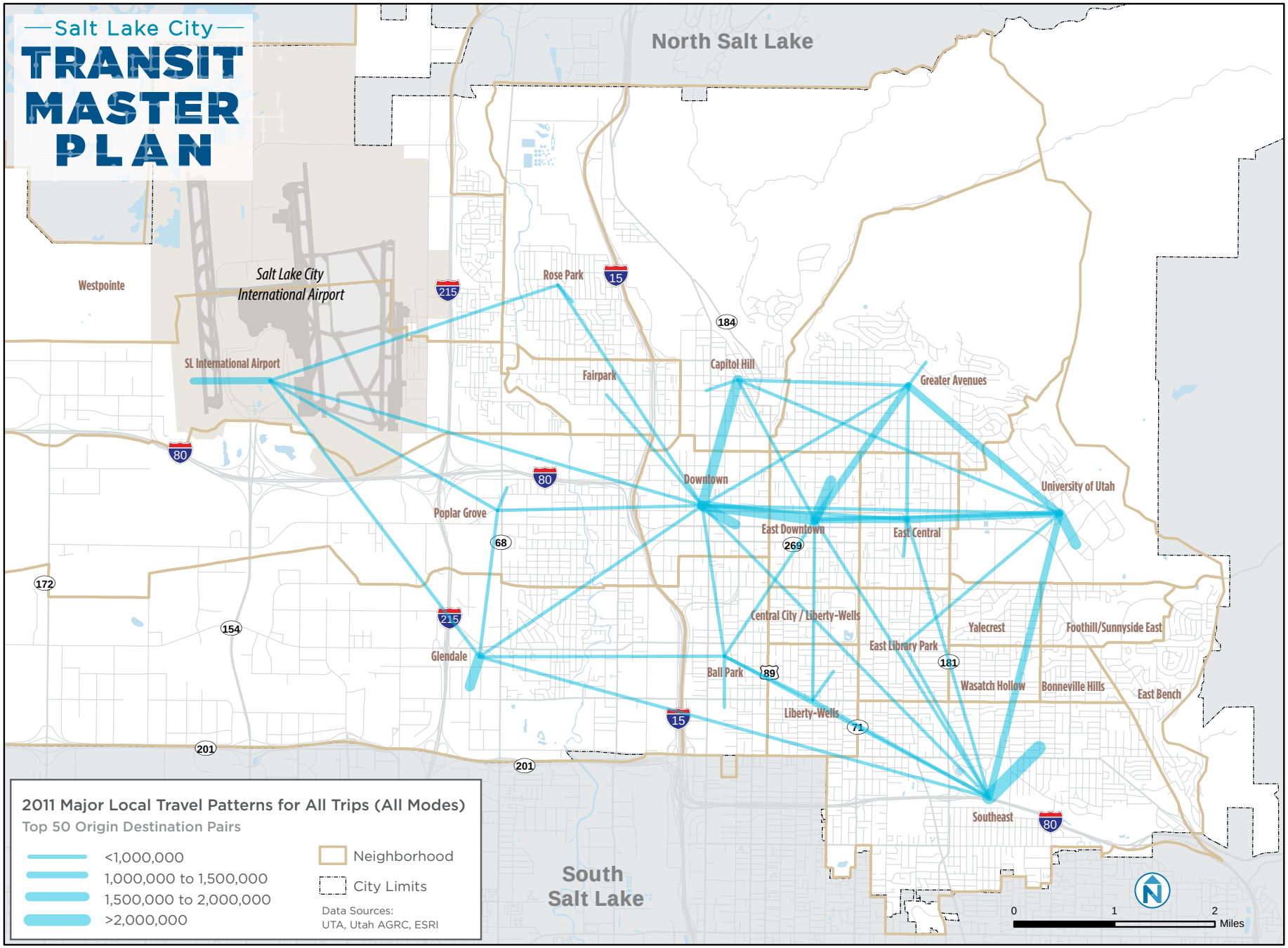
LOCAL TRAVEL PATTERNS – ALL MODES (2011)

Figure 3-14 illustrates major local travel patterns for all modes of travel in 2011.[9] Key findings include:

- The highest origin-destination pairs in Salt Lake City are between Central City East Downtown and downtown, and Capitol Hill and downtown
- Other notable trip pairs are:
  - Sugar House Southeast and the University of Utah
  - Greater Avenues and the University
  - Greater Avenues and Central City East Downtown
  - Central City East Downtown and East Central
  - East Central and the University
- The airport attracts trips from several residential neighborhoods in eastern Salt Lake and from downtown.
- There is significant internal zone travel within downtown, Central City East Downtown, the University of Utah, Sugar House Southeast, and Glendale.
- Major feeders to the University of Utah include Sugar House Southeast, Central East Downtown, and Greater Avenues.
- Central City East Downtown has the highest overall trip demand, which reflects its mixed-use character including office, commercial, and some of the city's highest density residential.

[9] This is consistent with the 2012 Utah Household Travel survey findings, illustrated in the Travel Almanac provided by Salt Lake City staff.

Figure 3-14 2011 Major Local Travel Patterns for All Trips (All Modes)

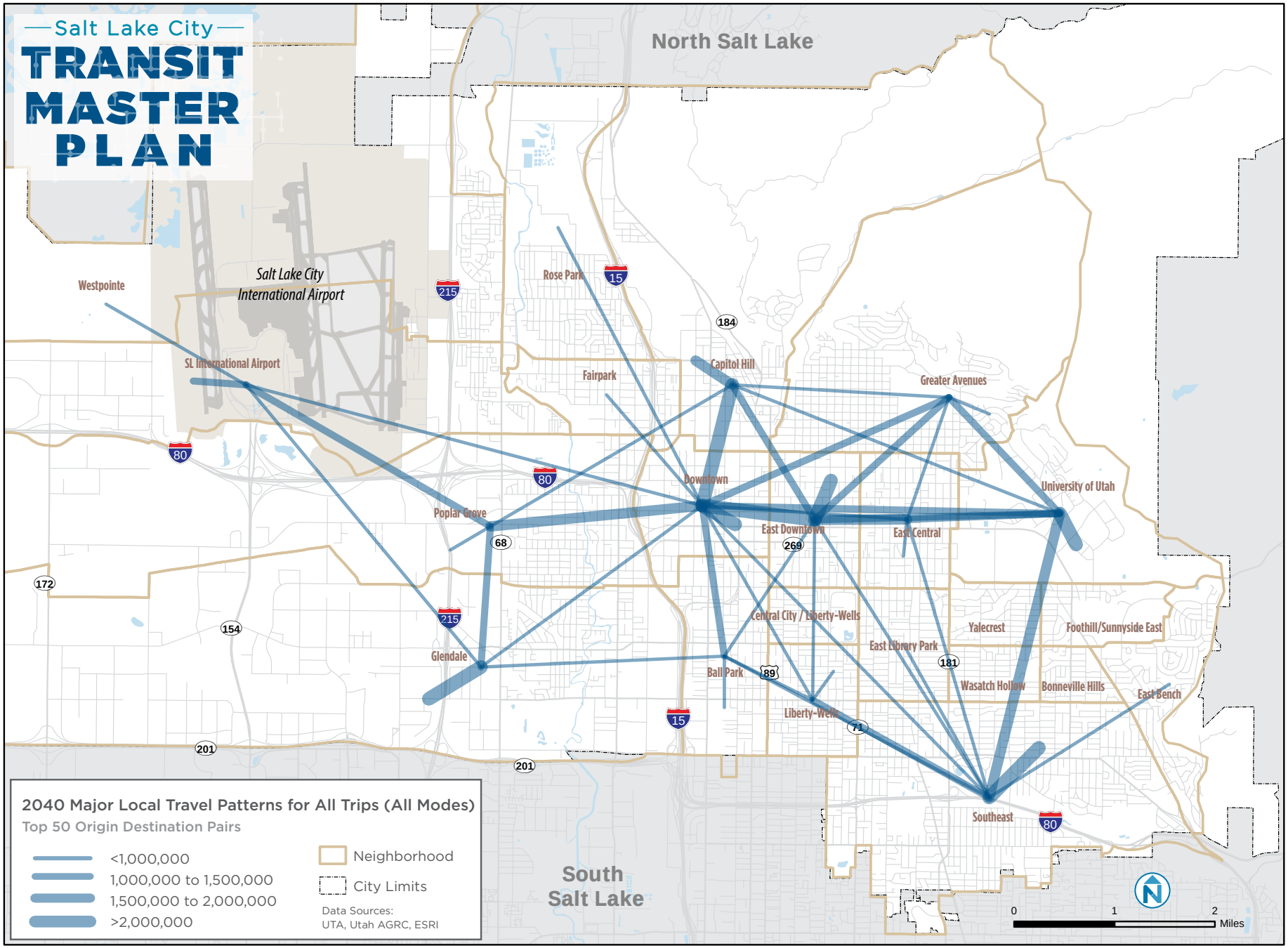


FUTURE PROJECTED LOCAL TRAVEL PATTERNS – ALL MODES (2040)

Figure 3-15 illustrates major local travel patterns for all modes of travel in 2040. Key findings include:

- In 2040, the major travel patterns are projected to be similar to those in 2011; however the intensity of trips between key destinations is projected to increase.
- Several trip pairs are projected to intensify by 2040:
  - Downtown – Central City East Downtown – University of Utah
  - Capitol Hill – Downtown
  - Sugar House Southeast – University of Utah
  - Ballpark – Downtown y
  - Poplar Grove – Glendale
  - Poplar Grove - Downtown
  - Airport – Poplar Grove
- Internal zone travel in many neighborhoods intensifies as well.
- New trips in the top 50
  - Airport – Westpointe
  - Poplar Grove – Capital Hill
  - Liberty Wells – Downtown
  - Sugar House Southeast – East Bench

Figure 3-15 2040 Major Local Travel Patterns for All Trips (All Modes)



LOCAL TRAVEL PATTERNS – PUBLIC TRANSIT (2011)

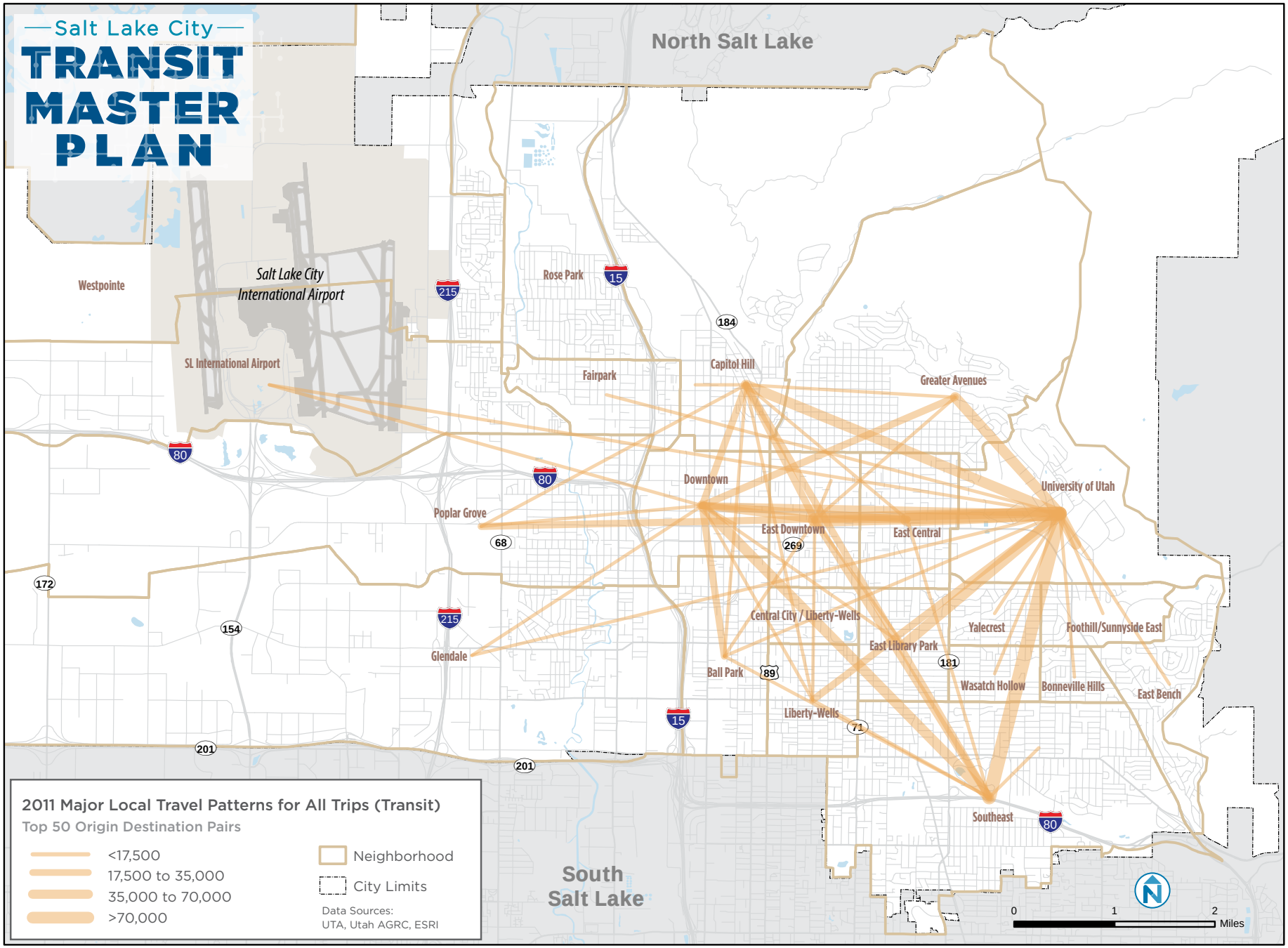
Figure 3-16 illustrates major local travel patterns for trips made on public transit in 2011. Key findings include:

- Transit trips account for just over 2% of *all* trips in Salt Lake City in 2011 and 6% of work trips.[10]
- Downtown, Central City East Downtown, University of Utah, and Sugar House Southeast are the most significant generators for transit trips in Salt Lake City.
- Eight of the 10 origin-destination pairs with the highest number of trips[11] include an end at the University of Utah, making it one of the most traveled to destinations in the city on transit.
- A number of key travel patterns shown in Figure 3-12 above (that represents all trips) do *not* show up as key travel patterns on the transit map in Figure 3-14. This gap indicates that the market for travel is there, yet these trips are not currently being well served by transit. The majority of these key transit gaps are located to south and west of downtown. Top origin-destinations that may not be well served by transit include:
  - Glendale – Salt Lake City International Airport
  - Poplar Grove – Salt Lake City International Airport
  - Glendale – Ball Park
  - Glendale – Poplar Grove
  - Glendale – Sugar House Southeast
  - Rose Park – Salt Lake City International Airport
  - Liberty Wells – Ball Park
  - Sugar House Southeast – East Liberty Park

[10] "All trips" per the Wasatch Front Regional Travel Demand Model includes all types of trips (commute and non-commute) for all people in Salt Lake City (including residents, employees, and visitors). "Work trips" per the Regional Travel Demand Model includes commute trips for all employees in Salt Lake City (including those who live in Salt Lake City and those who travel in to Salt Lake City). The regional travel demand model data for transit work trips is consistent with the mode share from the American Community Survey noted on page 3-15.

[11] "Highest transit trip pairs" refers to the origin and destination with the highest number of trips. This is the top 10 of the top 50 that are mapped.

Figure 3-16 2011 Major Local Travel Patterns for All Transit Trips

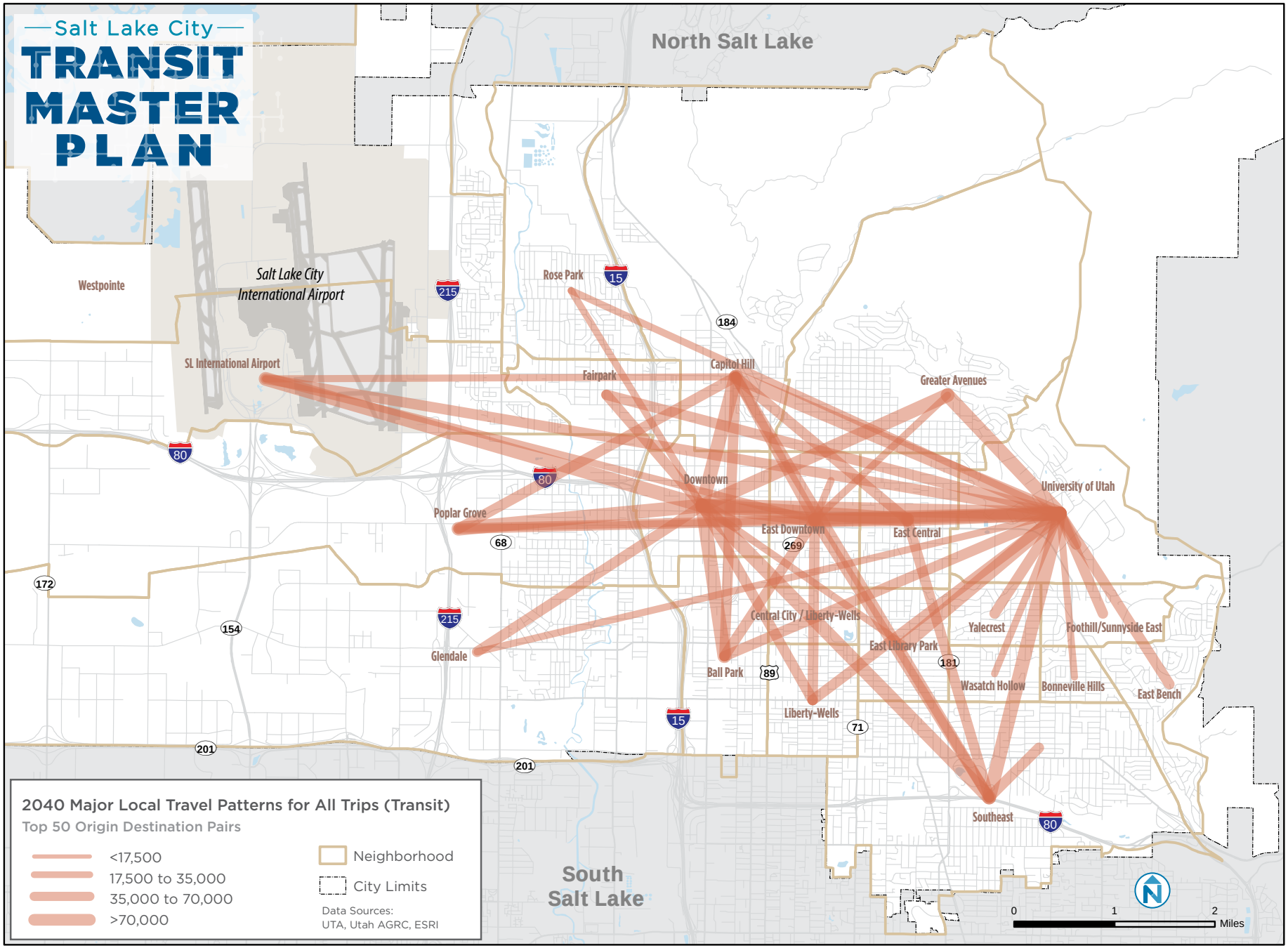


FUTURE PROJECTED LOCAL TRAVEL PATTERNS – PUBLIC TRANSIT (2040)

Figure 3-17 illustrates major local travel patterns for trips made on public transit in 2040. Key findings include:

- Transit trips in 2040 are projected to account for 5% of *all trips* in Salt Lake City (up from 2% currently).
- Transit travel patterns in 2040 are projected to be similar as they were in 2011, although vastly intensified, as would be expected given that the share of trips is projected to more than double and population is expected to grow.
- Some new trip pairs that emerge in the future are:
  - Rose Park-Downtown
  - Rose Park-University
  - Capitol Hill-Airport
  - Fair Park-Downtown

Figure 3-17 2040 Major Local Travel Patterns for All Transit Trips



LOCAL TRAVEL PATTERNS – COMMUTE TRIPS (2011)

In Salt Lake City, as in many cities, commute trips actually comprise a very small portion of overall trip making. If transit systems can be designed to serve both commute and non-commute trips it can lead to greater efficiencies for the transit agency and better service for consumers.

Figure 3-18 illustrates major local travel patterns for commute trips by all modes in 2011 (i.e. "home-based work trips" made from home to work):

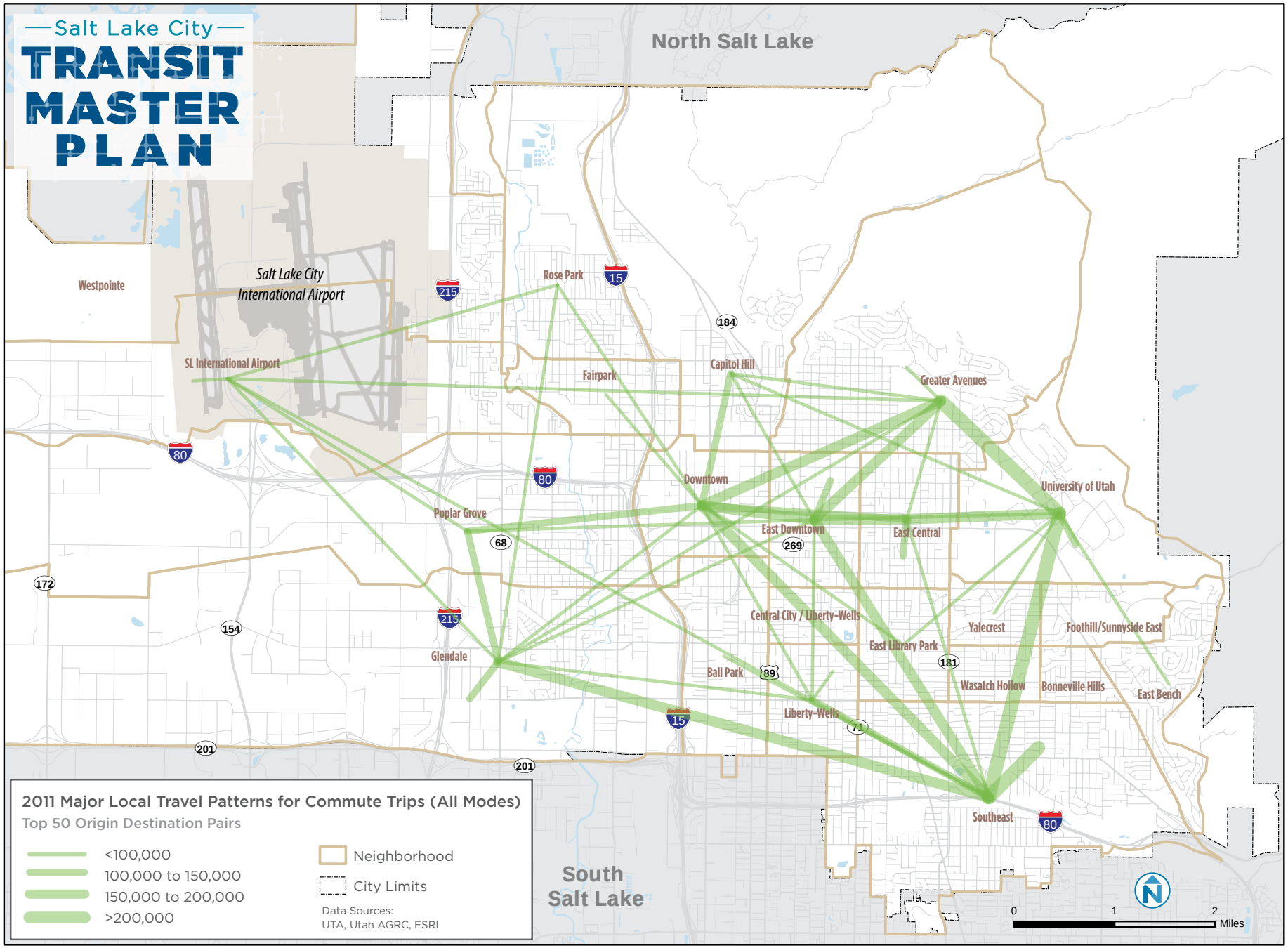
- Commute trips only account for 14-22% of overall trip making in Salt Lake City.[12]
  - Home-based school trips account for another 5% of trips.[13]
  - Non-home-based work trips account for another 18% of trips.[14]
- Downtown is an employment draw for the greatest number of travel markets.
- After downtown, Central City East Downtown,, the University of Utah, and Sugar House Southeast are the most significant work trip destinations.
- Sugar House Southeast, followed by Central City East Downtown and the University of Utah are neighborhoods that see the most internal commuting (in zone trips from home to work/school).
- Viewed in comparison to the non-commute trips map in Figure 3-17 below, the general travel pattern of commute and non-commute trips is similar. Key differences include:
  - The large number of commute trips between Sugar House Southeast and Glendale
  - Sugarhouse Southeast is a less common destination for non-commute trips than for commute
  - Ball park to Central City East Downtown emerges as a non-commute trip
- Lower density neighborhoods such as East Bench have stronger attraction to the University of Utah than Downtown/Central City East Downtown.

[12] The 2012 Utah Household Travel Survey shows that 22% of trips are home-based work trips, the regional model shows that 14% of trips are home-based work trips because it is calibrated to regional averages.

[13] 2012 Utah Household Travel Survey.

[14] Ibid.

Figure 3-18 2011 Major Local Travel Patterns for Commute Trips (All Modes)



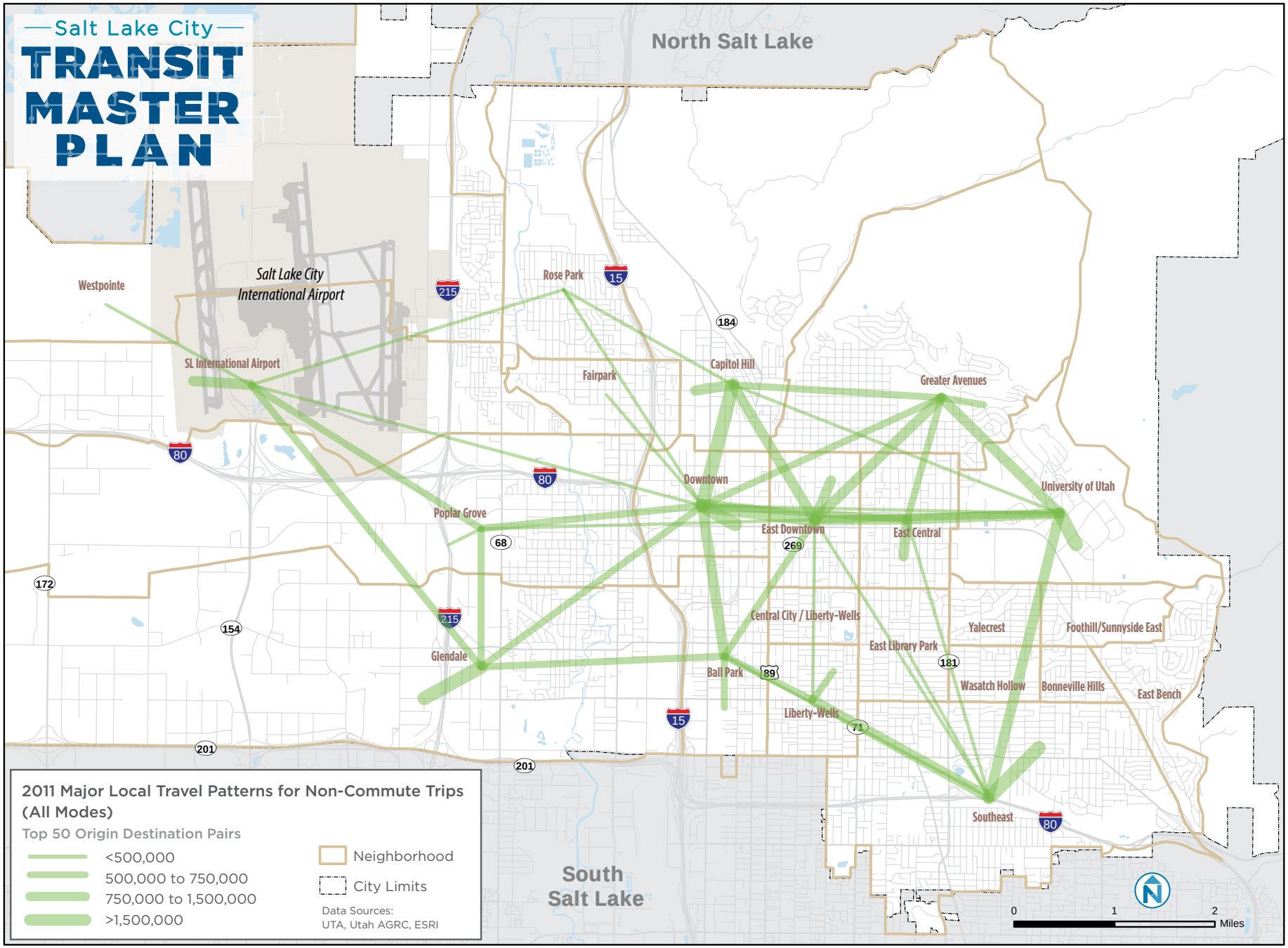
LOCAL TRAVEL PATTERNS – NON-COMMUTE TRIPS (2011)

Figure 3-19 illustrates major local travel patterns for non-commute trips by all modes in 2011 (i.e. those trips that are not for traveling from home to work). Key findings include:

- The vast majority of daily trips made in Salt Lake City are non-commute trips (78-86%).[15]
- Neighborhoods that have the highest levels of internal trip making include downtown, Central City East Downtown, the University of Utah, Glendale, and Sugar House Southeast.
- Relatively short north – south oriented trips between neighborhoods like downtown/Capitol Hill and the University of Utah are more significant for non-work travel than for work/school travel.
- Residents of western neighborhoods such as Poplar Grove and Glendale are more likely to travel east-west to seek services.

[15] The 2012 Utah Household Travel Survey shows that 22% of trips are home-based work trips, the regional model shows that 14% of trips are home-based work trips because it is calibrated to regional averages.

Figure 3-19 2011 Major Local Travel Patterns for Non-Commute Trips (All Modes)

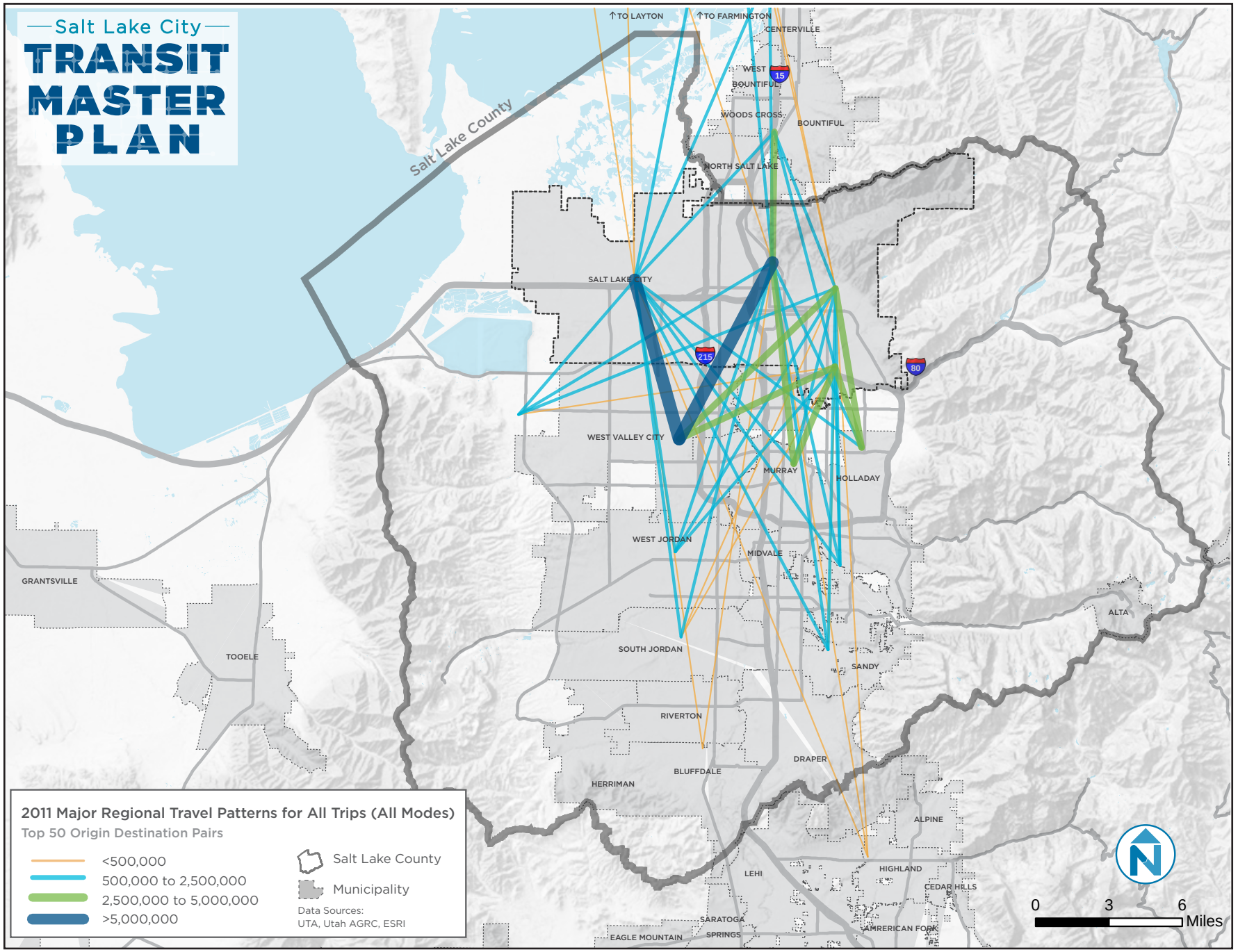


REGIONAL TRAVEL PATTERNS – ALL MODES (2011)

Figure 3-20 illustrates major regional travel patterns for all trips by all modes in 2011. Key findings include:

- From a regional perspective, the majority of trips traveling into Salt Lake City come from West Valley City to downtown and the airport.
- Other major travel patterns are between West Valley City and the Sugar House Southeast neighborhood, West Valley City and the University of Utah, and Murray to downtown and the University.
- Overall, the majority of travel between Salt Lake City and the region is southward.

Figure 3-20 2011 Major Regional Travel Patterns for All Trips (All Modes)



4 TRANSIT SERVICE IN SALT LAKE CITY

Salt Lake City is home to a diversity of transit services managed and operated by the Utah Transit Authority. Transit service includes local and regional bus service, streetcar, light rail, and commuter rail. Over the years, the completion of several major north/south transit capital projects such as TRAX and FrontRunner have improved regional connections and accommodated the large numbers of commuters coming in to Salt Lake City from around the region every day.

OVERVIEW OF THE UTAH TRANSIT AUTHORITY

The Utah Transit Authority (UTA) was founded in 1970 and its service area extends over 732 square miles[1] and six counties, serving over 1.8 million people. The population served by UTA accounts for nearly 80% of Utah's population. Geographically speaking, UTA is one of the largest public transportation agencies in the country. Within Salt Lake City, UTA operates 44 bus routes, three light rail lines (TRAX), one commuter rail train (FrontRunner), and a streetcar line (the S-Line).[2] In addition to traditional fixed-route service, UTA operates one flex route in Salt Lake City. UTA also provides complementary paratransit service.

The UTA service area extends over 1,400 square miles along the Wasatch Front.
Source: Nelson\Nygaard

Organizationally, UTA is governed by a 16-member Board of Trustees, which is the legislative body of UTA and determines all policy questions. Twelve members of the board, including one nonvoting member, are appointed by each county, municipality, or combination of municipalities that have been annexed to UTA. The board also includes one member who is appointed by the State Transportation Commission and acts as a liaison between UTA and the Transportation Commission; one member of the board is appointed by the Governor; one member is appointed by the Speaker of the Utah State House of Representatives; and one member is appointed by the President of the State Senate.

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[1] National Transit Database. Methodology is based on all area within ¾ mile from all bus routes and rail stations.

[2] UTA also operates two ski bus routes that originate in Salt Lake City and connect passengers to Solitude, Brighton, Snowbird, and Alta resorts on Fridays, Saturdays, and Sundays from December to April.

Operationally, UTA is divided into five separate business units – Mt. Ogden, Salt Lake, Timpanogos, Rail Service, and Special Service. Home to a key regional employment center and the University of Utah, the Salt Lake Business Unit (which includes Salt Lake City) accounts for a substantial portion of all of UTA's transit trips – nearly 70% of UTA transit trips begin or end in Salt Lake County and 60% of weekday revenue hours operate within the county.[3]

UTA is funded by a combination of federal, state, and local sources, including local-option sales tax measures in all six counties or cities therein.[4] Over the last 10 years, UTA has secured nearly $1.3 billion in discretionary federal grants.[5]

Several factors guide decision-making about the geographic distribution and levels of transit service within UTA's large service area. UTA Corporate Policy No. 1.1.9 states that "UTA annually compares the operating, capital, and administrative expenditures associated with transit service within each county with the revenue generated within that county according to an approved procedure." The policy goes on to direct UTA to make changes to or add service based on measures of quality and effectiveness such as: on-time and frequency of service, seat availability, vehicle type and age, transfers, ridership, investment per rider, and land use and urban design.

OVERVIEW OF TRANSIT SERVICE IN SALT LAKE CITY

UTA operates fixed-route bus, light rail, streetcar, and commuter rail services in Salt Lake City, illustrated in the map in Figure 4-1. The most service is provided on bus routes in terms of total number of service hours (shown in Figure 4-16).

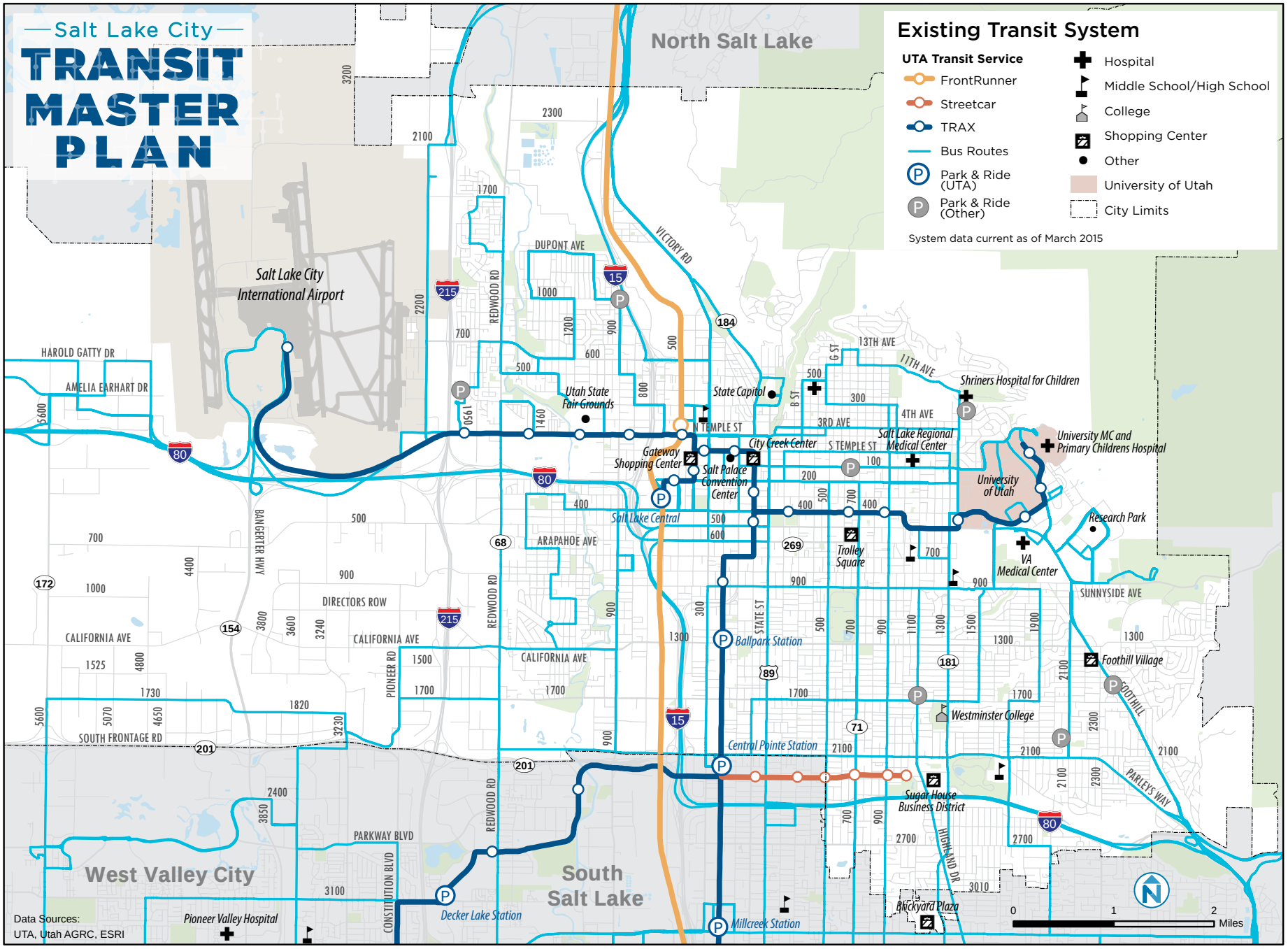
A network of local and regional buses serve Downtown Salt Lake City.
Source: Nelson\Nygaard

[3] UTA. Five Year Service Plan (2013)

[4] Sales tax amounts for transit by county: Utah County – 0.526 cent; Salt Lake County – 0.6875 cent; Davis, Weber, and Box Elder counties – 0.55 cent; Toole and Grantsville cities – 0.3 cent.

[5] UTA Year in Review (2013)

Figure 4-1 Existing Transit Service in Salt Lake City



Fixed-Route Bus

UTA operates 44 bus routes in Salt Lake City, shown in Figure 4-2. Of these:

- Seventeen of the routes are classified as "local" in terms of fare and operate within Salt Lake City only.
  - Of the seventeen, nine routes are classified as "shuttle" or "flex" routes that provide specialized service to specific employment sites and educational destinations.
- Ten routes follow a similar stop pattern as local routes, but have one end-of-line in Salt Lake City and one end outside city boundaries.
- Eight commuter routes provide peak only directional service into and out of the city at a local fare price.
- Five are classified as "express" buses which operate along major highways and connect park-and-rides to major activity centers and require premium fare.
- Four are classified as "fast bus" routes which are similar to "express routes" in terms of operating hours and limited stops, however they operate on a combination of arterial streets and highways in one county and may not connect to park-and-rides.

UTA Route Numbering

< 100: Primarily east-west routes within Salt Lake County

200s: Primarily north-south routes within Salt Lake County

300s: Fast Bus routes within Salt Lake County

400s: Inter-county routes – Express and Commuter

500s: Local circulator-type, shuttle, or flex route within Salt Lake County

900s: Seasonal

Bus routes that serve Salt Lake City account for about 45% of overall UTA bus service hours.

UTA Service Standards

UTA operates under Corporate Policy Number 1.1.19 Corporate Service Standards which define the quality of service UTA is committed to providing. The service standards are summarized in Figure 4-3.

In addition to the quality of service standards, the Corporate Service Standards Policy outlines standards for UTA to track service effectiveness. These standards include: ridership, investment per rider, and investment per passenger mile. Light rail and commuter rail services are also evaluated on ridership relative to seating capacity. When planning new service, the Corporate Service Standards outline land use and urban design guidance to ensure new service is supported by existing land use.

The 2013 UTA Network Planning Study recommended revising UTA's existing service standards for each type of bus service to ensure that service planning principles and performance measures are consistent across all UTA business units. These recommended standards, outlined in Figure 4-4 below, have not been put into effect to date.

Figure 4-2 Bus Routes Serving Salt Lake City

Service Type / Route	Description	Service span
Local		
2	200 South	All-Day
3	3rd Avenue	All-Day
6	6th Avenue	All-Day
9	9th Avenue	All-Day
11	11th Avenue	All-Day
17	1700 South	All-Day
21	2100 South/2100 East	All-Day
200	State Street North	All-Day
205	500 East	All-Day
209	900 East	All-Day
213	1300 East/1100 East	All-Day
217	Redwood Road	All-Day
220	Highland Drive/1300 East	All-Day
223	2300 East/ Holladay Blvd	All-Day
228	Foothill Blvd / 2700 East	All-Day
453	Tooele - Salt Lake Via Airport	Peak-Only
454	Grantsville/Salt Lake	Peak-Only
455	UofU/Davis County/Weber State Univ.	All-Day
456	Ogden/Unisys/Rocky Mountain Express	Peak-Only
460	Woods Cross	Peak-Only
461	Bountiful via State Capitol	Peak-Only
462	North Salt Lake	Peak-Only
463	West Bountiful	Peak-Only
470	Ogden-Salt Lake Intercity	All-Day
471	Centerville	Peak-Only
500	State Capitol	All-Day
516	Poplar Grove / Glendale	All-Day
519	Fairpark	All-Day
520	Rose Park	All-Day
551	International Center	Peak-Only

Service Type / Route	Description	Service span
Fast bus		
307	Cottonwood Heights Fast Bus	Peak-Only
313	South Valley/U of U Fast Bus	Peak-Only
320	Highland Drive Fast Bus	Peak-Only
354	Sandy / U Of U Fast Bus	Peak-Only
Express		
2X	200 South Express	Peak-Only
451	Tooele Express	Peak-Only
472	Ogden-Salt Lake Express	Peak-Only
473	SLC-Ogden Hwy Express	Peak-Only
902	Park City-SLC Connec	Peak-Only
Shuttle		
509	900 W Shuttle	All-Day
513	Industrial Business Park Shuttle	Peak-Only
919	Fairpark (West HS)	Peak-Only
920	Fairpark (West HS)	Peak-Only
Flex		
F522	2200 West Flex Shuttle	Peak-Only
Seasonal		
951	Downtown SLC - Snowbird/Alta	Seasonal
952	U of U - Snowbird/Alta	Seasonal
954	Maverik Center - Snowbird/Alta	Seasonal

Figure 4-3 UTA Quality of Service Standards

Quality of Service Standard Category	Bus	Light Rail	Commuter Rail
On-time performance	0 seconds early and no more than 4 minutes and 59 seconds late 95% of the time	0 seconds early and no more than 4 minutes and 59 seconds late 98% of the time	0 seconds early and no more than 4 minutes and 59 seconds late 95% of the time
Seat availability	Corrective action shall be taken when the maximum number of customers on board exceeds 100% on more than 25% of the trips over two consecutive months	Corrective action shall be taken when maximum occupancy repeatedly exceeds 175% of available seats on more than 33% of trips over 90 consecutive days	Corrective action shall be taken when maximum occupancy exceeds 90% north of the Woods Cross Station more than 25% of trips over two consecutive months
Frequency of service	System-wide average number of minutes between buses on scheduled weekday fixed-route bus service shall not exceed 28 minutes (actual for August 2007) for the service plans implemented prior to August 2015 and 25 minutes for the August 2015 service plan	System-wide average number of minutes between light rail trains on weekdays shall not exceed 20 minutes	Average number of minutes between regional commuter rail trains shall not exceed 30 minutes in peak direction during peak commuting hours
Vehicle type	Over-the-road coaches shall operate on a minimum of 70% of express trips (excluding FastBus) between Utah County, north Davis County, Weber County, Tooele County and the downtown Salt Lake City/University of Utah corridor		
Vehicle age	12-year buses replaced before completing the 13th year; 10-year buses replaced before completing the 11th year; 7-year buses replaced before completing the 8th year	Replaced no later than 30th year	Locomotives replaced no later than 20th year; rail cab cars replaced no later than 30th year; rail coaches no later than 50th year
Transfer coordination	UTA shall coordinate transfers at strategic locations as determined and documented by the business units each service change period. A transfer is considered coordinated when the customer's out-of vehicle time is more than 2 minutes plus the walk time and less than 7 minutes (standard for on-time reliability and walk time contingency) plus the walk time.		

Source: UTA Corporate Service Standards Policy 1.1.19

Figure 4-4 2013 UTA Network Study Recommended Services Standards

Route Type	Description
BRT	Frequent limited stop service with key investments supporting transit speed and reliability. Operates in dedicated lanes.
Bus Plus* (proposed)	Same as BRT except does not operate in dedicated lanes.
Core Arterial	Frequent local bus service, mostly providing direct service along an arterial.
Arterial	All day local bus service, mostly operating along an arterial.
Circulator	All day or peak hour service connecting specific destinations.
Flex Routes	Community or neighborhood service providing route deviation upon demand.
Commuter Routes	Any peak directional service for longer-distance travel, including Fast Bus and Express.

*Note: Bus Plus is a proposed network of high-frequency transit service in the UTA Network Study (2013). It is referred to as Enhanced Bus in the Regional Transportation Plan. See sidebar on the following page for more details.

Source: UTA Network Study

Transit is Fare Free in Salt Lake City's Downtown

Downtown Salt Lake City has a Free Fare Zone where bus and TRAX service is free to use. The zone runs from Salt Lake Central Station on the western border to 200 E to the east and from the State Capitol on the northern border to Courthouse Station to the south.

Bus and TRAX services are free within the Free Fare Zone in Downtown Salt Lake City.
Source: UTA

TRAX

Three TRAX Light Rail lines provide service throughout the UTA service area connecting major destinations such as the Salt Lake City International Airport and the University of Utah to Downtown Salt Lake City.
Source: Nelson\Nygaard

UTA's light rail system – TRAX – opened in 1999 to connect the city of Sandy and downtown Salt Lake City. In 2001, an additional line (then called the University Line) opened to the University of Utah; in 2003 this line was extended to the university's medical complex. Two additional lines – the Red Line to Daybreak in South Jordan and the Green Line to West Valley City – opened in 2011. The Red Line became the new service to the University of Utah. The Green Line and Blue Line extensions to the Salt Lake City International Airport and Draper Town Center, respectively, opened in 2013.

The TRAX system currently has three lines:

- **Red Line** provides service between South Jordan, West Jordan, Sandy, Midvale, Murray, South Salt Lake, and Downtown Salt Lake, and the University of Utah campus.
- **Blue Line** provides service between Draper, Sandy, Midvale, Murray, South Salt Lake, and downtown Salt Lake.
- **Green Line** provides service between West Valley, South Salt Lake, Downtown Salt Lake City, and Salt Lake City International Airport.

TRAX operates seven days a week, every 15 minutes on weekdays, and every 20 minutes on Saturdays and Sundays. Service is provided from approximately 5:00 a.m. to 11:30 p.m. on weekdays, from 6:00 a.m. to 11:30 p.m. on Saturdays, and 9:00 a.m. to 9:00 p.m. on Sundays.

S-Line

The S-Line streetcar connects South Salt Lake to the Sugar House Business District in Salt Lake City.
Source: Nelson\Nygaard

The S-Line (formerly called the Sugar House Streetcar) opened in December 2013 and provides service between the Central Pointe Station in South Salt Lake and the Sugar House Business District in Salt Lake City. The S-Line is funded through a partnership between Salt Lake City, South Salt Lake, and UTA. [6]

The streetcar is two miles long and has seven stops, three of which are located within the City of Salt Lake City. The S-Line operates every 20 minutes from 6:00 a.m. to 9:00 p.m. on weekdays and Saturdays and every 20 minutes from 9:00 a.m. to 7:00 p.m. on Sundays. During its first full year in operation (2014), the S-Line carried just over 1,000 riders on average per weekday. [7]

[6] UTA received a $26 million TIGER II grant in 2010; UTA provided the three streetcar vehicles (valued at $12 million) and the right-of-way (valued at $6.3 million) at no cost to the cities of South Salt Lake and Salt Lake City. The gap in funding to complete the project ($11.18 million) was shared between Salt Lake City ($5.38 million), South Salt Lake ($4.2 million), and UTA ($1.6 million). Salt Lake City and South Salt Lake also share in the cost of operating the line along with UTA for three years. http://www.shstreetcar.com/files/MasterStreetcarTransmittal.pdf

[7] UTA. "Route Operating and Cost Indicators."

FrontRunner

FrontRunner stops at two stations in Salt Lake City: Salt Lake Central Station and North Temple Station.
Source: Flickr Paul Kimo McGregor

FrontRunner provides service from Provo to the south, through Salt Lake City, to Ogden to the north. FrontRunner makes two stops in Salt Lake City – at the North Temple Station and at Salt Lake Central Station.

FrontRunner operates full-length service on weekdays from 4:50 a.m. to 10:20 p.m. every 30 minutes during the peak hour and every hour during the midday and in the evenings. On Saturdays, service is limited to every hour all day from 7:50 a.m. to 1:20 a.m. FrontRunner does not operate on Sundays.[8]

UTA considers FrontRunner a premium service and fares are distance based starting at $2.50 for travel to one station and $0.60 for each additional station. Within Salt Lake City, however, Frontrunner passengers can use either the North Temple or Salt Lake Central Station for the same fare. FrontRunner tickets can be used to transfer to all other UTA fixed route services at no additional cost.

[8] The first FrontRunner train leaves Salt Lake Central Station northbound at 3:25am on weekdays, however full-length runs do not begin until 4:50 a.m.; on Saturdays, the first train leaves Salt Lake Central at 6:03 a.m. or 6:55 a.m. depending on direction and full-length service commences at 7:50 a.m.

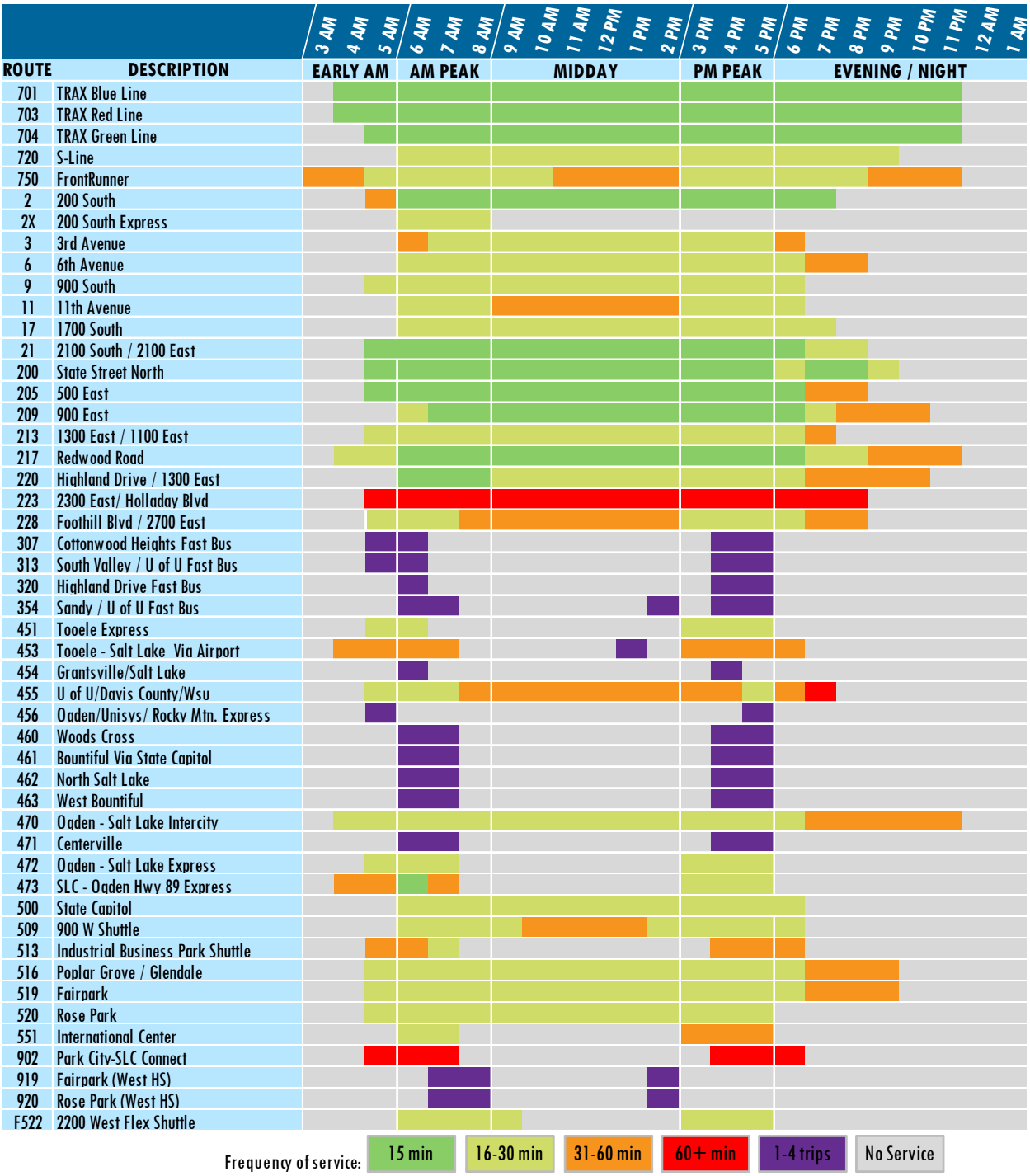
TRANSIT SERVICE CHARACTERISTICS IN SALT LAKE CITY

Figure 4-5 and Figure 4-6 illustrate transit frequency and service span for each transit route provided by UTA in Salt Lake City. Transit frequency is how often vehicles arrive along a route and service span is how early and late transit operates. Frequency varies considerably between the peak and midday hours on weekdays and service span varies between weekdays, Saturdays, and Sundays. TRAX provides the most frequent service and longest span, but a core set of bus routes also provide frequent service (every 15 minutes) over a long span on weekdays. The number of core bus routes and their frequency and span are reduced on Saturdays and Sundays.

On weekdays, bus service starts early in Salt Lake City – most routes begin between 4:30 and 6:00 a.m. Weekday evening service, on the other hand, tends to end relatively early, between 7:30 and 9:30 p.m. on most routes. Saturday service is more limited: express and Fast Bus routes do not run on the weekends and some local routes also are not in service. Saturday service starts running between about 6:30 or 7:30 a.m. Some Saturday routes end service at around 7:00 p.m. and about half operate until 10:00 p.m. On Sundays, service is even more limited. Only nine bus routes operate in Salt Lake City on Sundays primarily between the hours of 8:30 a.m. and 6:30 p.m.

Figure 4-7 through Figure 4-11 illustrate transit frequency geographically in Salt Lake City for the weekday morning peak and midday, Saturdays, and Sundays. These maps illustrate the major north–south and east–west arterial corridors that have service every 15 minutes all day on weekdays, while some other arterial corridors have service every 30 minutes all day. Service frequency on several routes varies over the course of the day. The midday, Saturday, and Sunday maps illustrate corridors that are not served during these time periods. Among corridors that retain service, the highest-frequency service is generally every 30 minutes on Saturdays and every 60 minutes on Sundays. An exception is service on State Street North, which runs every 15 minutes on Saturdays and every 30 minutes on Sundays.

Figure 4-5 Summary of Transit Service Span and Frequency in Salt Lake City–Weekday



Note: Service hours are approximate, rounded to the nearest hour

Source: Data from UTA and UTA schedules

Figure 4-6 Summary of Transit Service Span and Frequency in Salt Lake City–Weekend

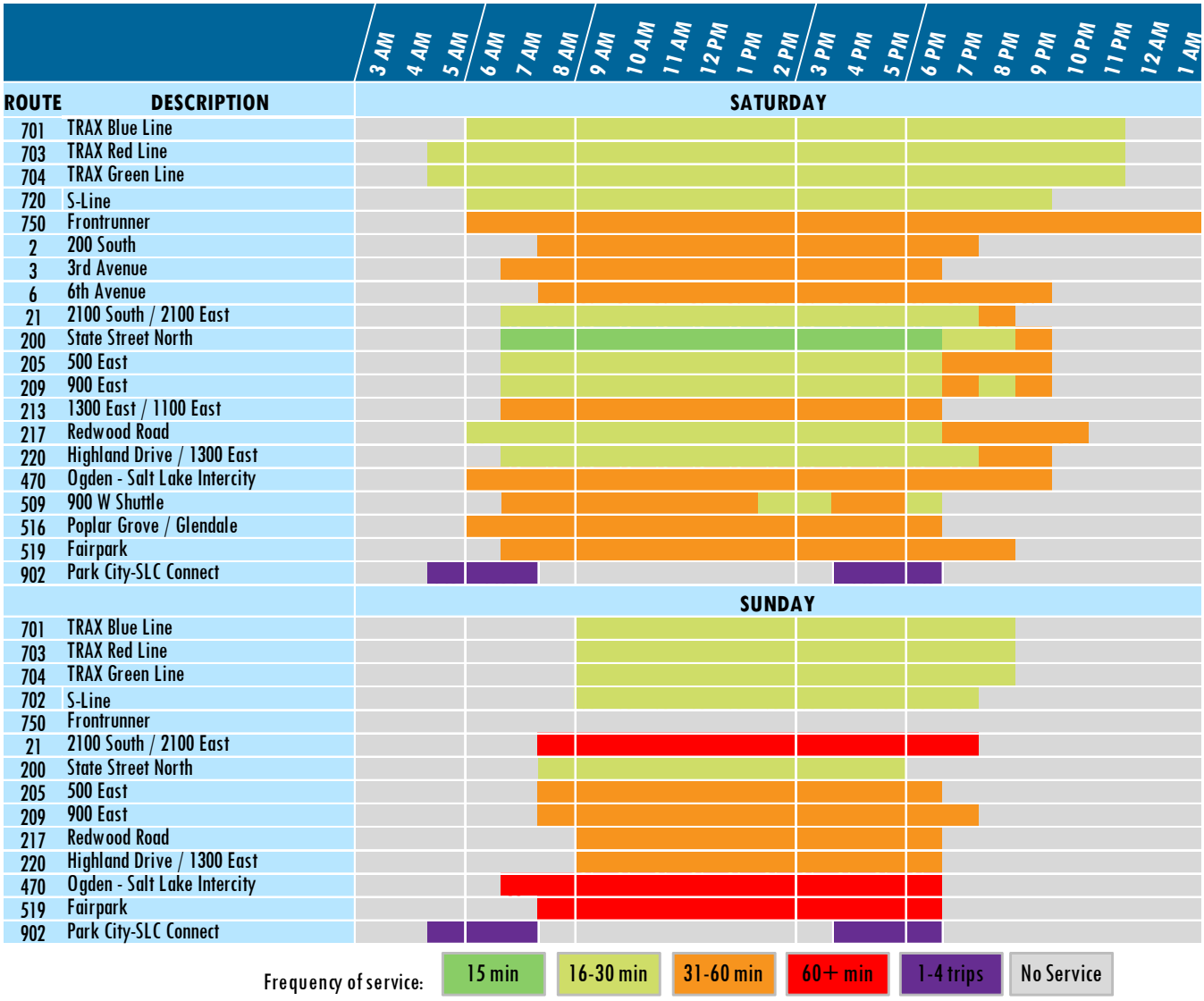


Figure 4-7 Service Frequency (AM Peak Weekday)

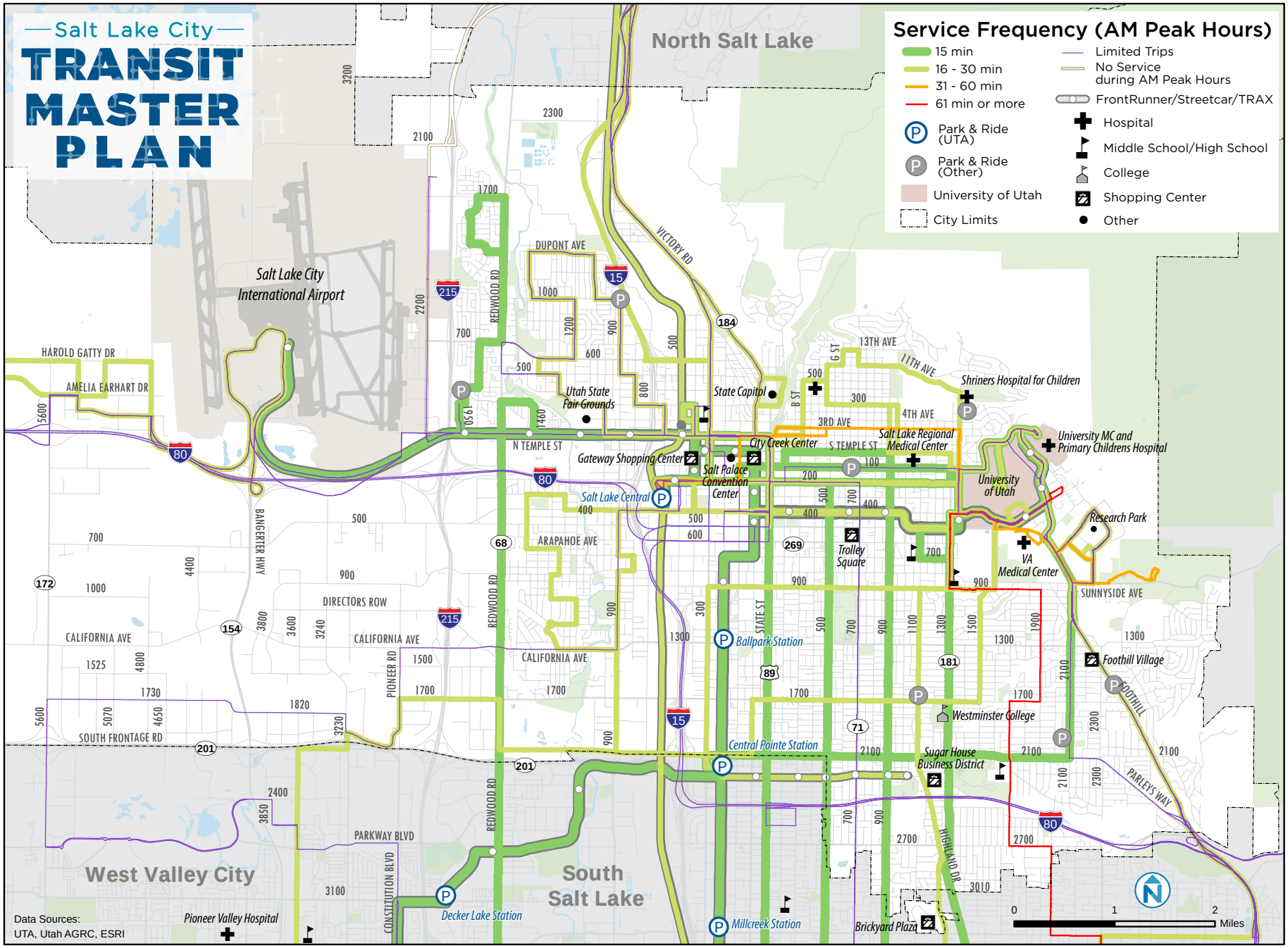


Figure 4-8 Service Frequency (Midday Weekday)

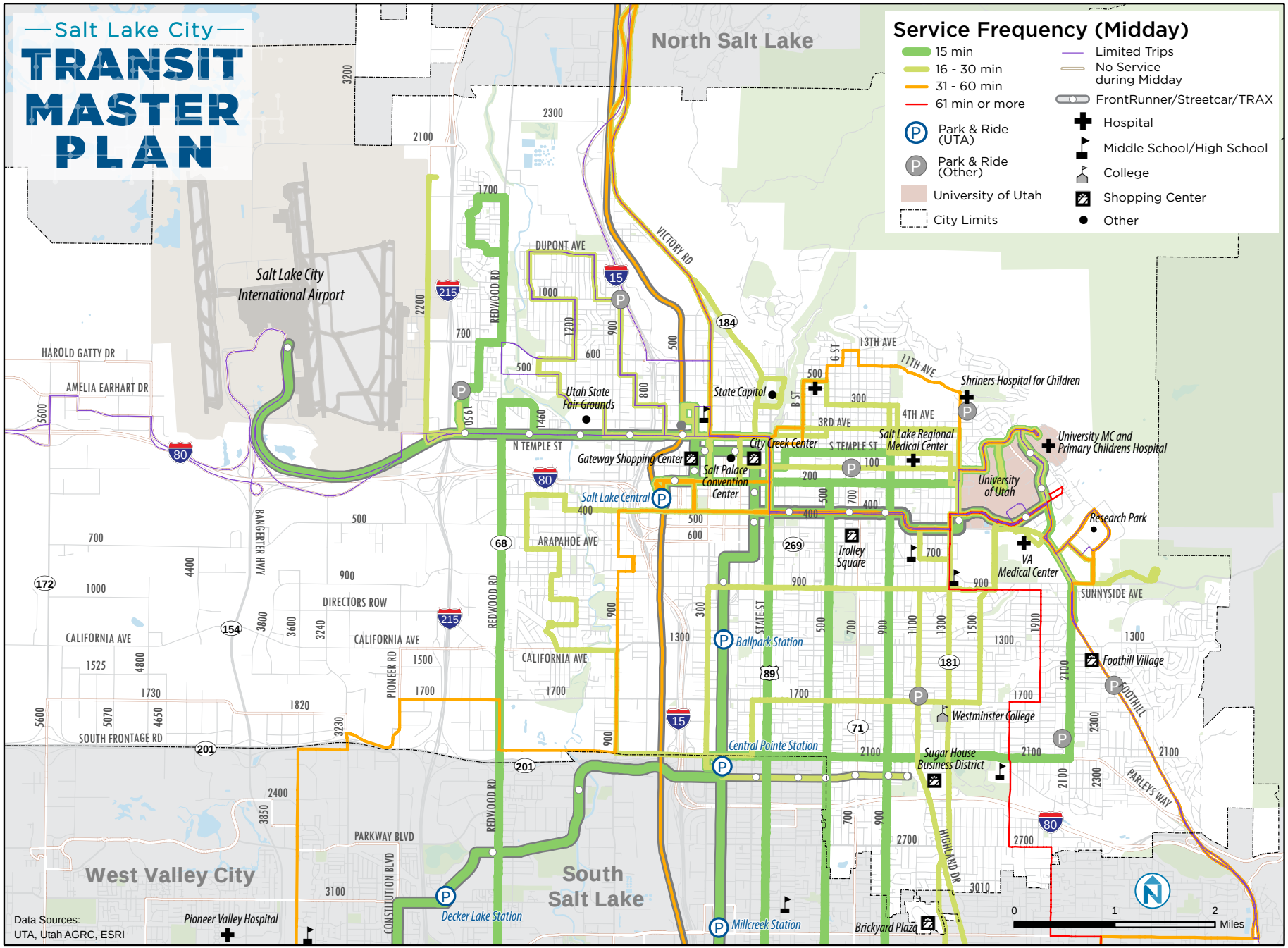


Figure 4-9 Service Frequency (Saturday)

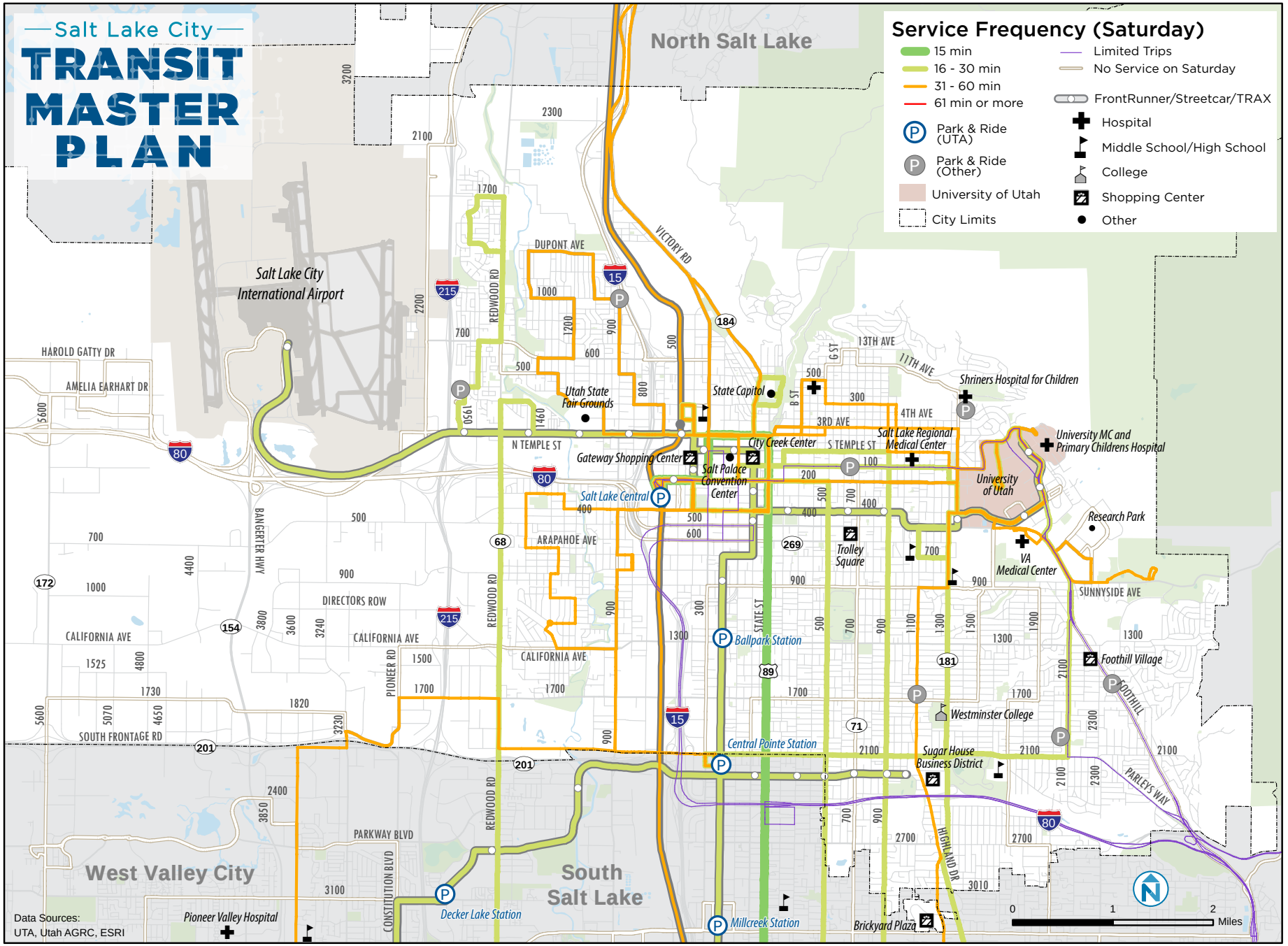


Figure 4-10 Service Frequency (Sunday)

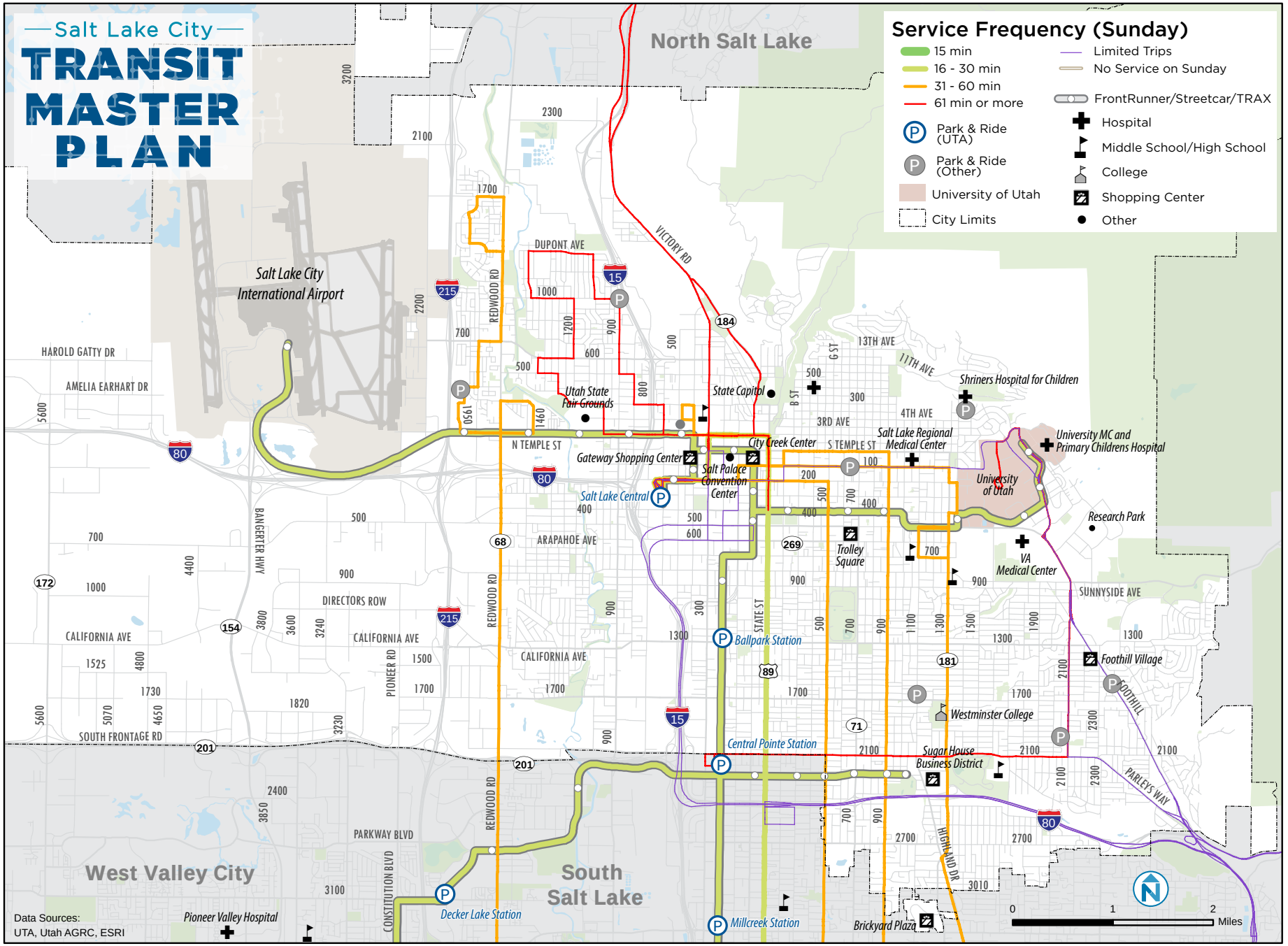
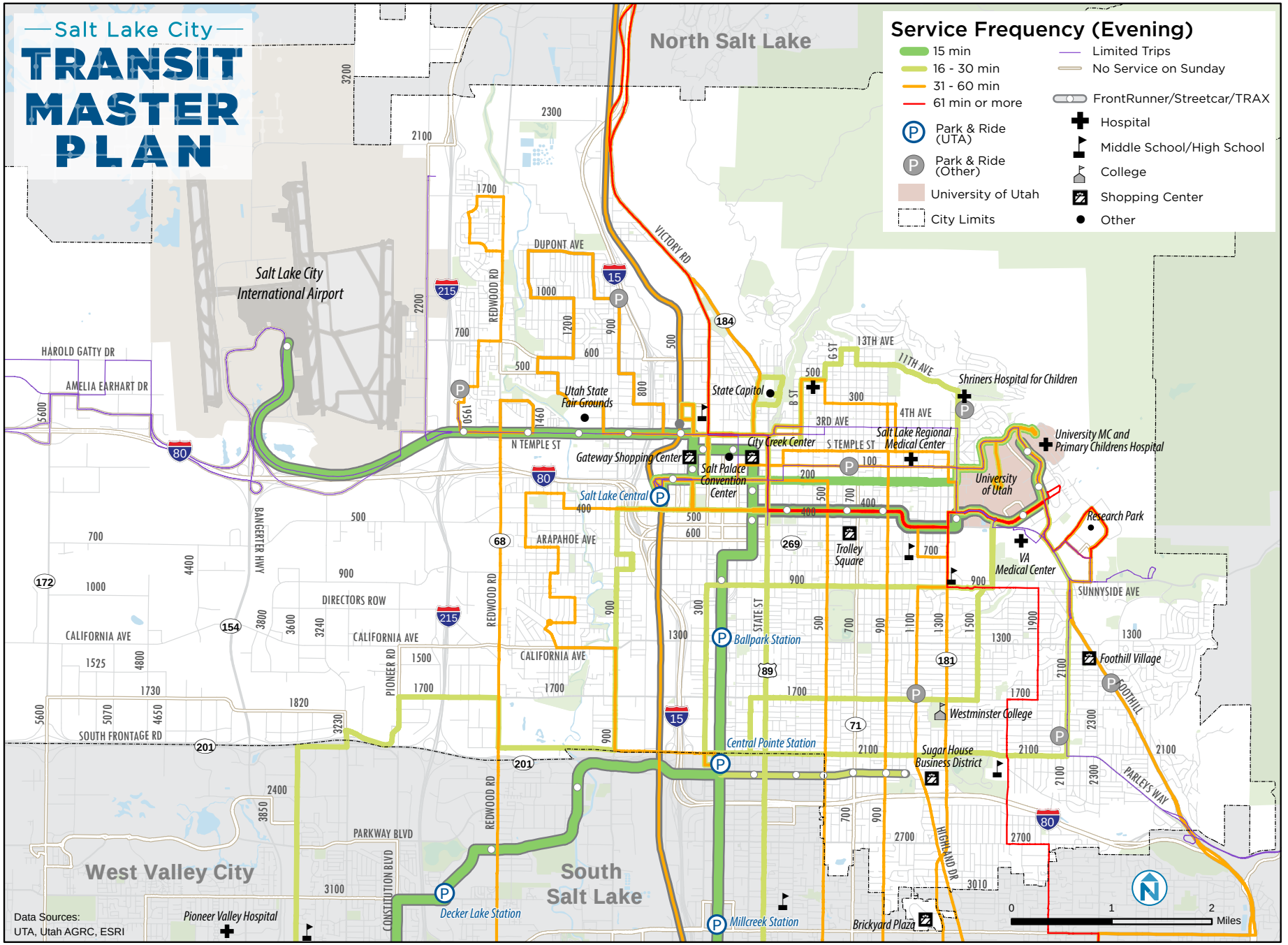


Figure 4-11 Service Frequency (Evening)



Transportation Services and Programs at the University of Utah

The University of Utah is a significant demand center for transit in Salt Lake City with more than 30,000 students and more than 17,000 faculty and staff. With four TRAX stations, more than 15 bus routes, and eight free campus shuttles, university students, faculty, and staff have numerous transit options available. Currently, approximately 35% of university trips are made by transit.[9] Further, Route 2 – 200 South that travels between the University Medical Center and Salt Lake Central Station is one of the most productive routes in Salt Lake City, carrying nearly 1,700 passengers per day and over 40 passengers per revenue hour.[10] UTA Route 2X provides five morning express trips (for local fare) on this route.

University transit programs and services include:

- **U-Card:** Provides staff, faculty, and students access to TRAX, UTA buses, and FrontRunner. In order to be eligible to obtain a pass, an individual must have a valid University of Utah ID Card, and be either a current employee of the University of Utah or a student who has paid tuition and associated student fees for the current semester – including the transportation fee. As of 2009, the transportation fee was $23.16 per semester for a student registered for 12 academic hours and $33.60 for a student registered for 20 academic hours.
- **Free campus shuttles:** The University operates eight routes. Service is generally provided between 6:00 a.m. and 6:00 p.m.; the Gold and "O-Zone" routes operate until 9:20 p.m. and 10:00 p.m. respectively. A live tracker is available on The U website to provide real-time arrival information.
- **Express shuttle:** The University also operates an express shuttle to/from Salt Lake Central Station that circulates the campus. This started as a pilot and has continued. The shuttle runs during the AM peak and makes six trips between 6:00 a.m. and 8:30 a.m. (once every 30 minutes).

The University of Utah provides free shuttle service on campus for faculty, staff, students, and visitors.
Source: Flickr Paul Kimo McGregor

[9] Hal Johnson, UTA

[10] UTA. Route Operating and Cost Indicators (2014)

TRANSIT PERFORMANCE

This section summarizes transit performance for UTA fixed-route transit in Salt Lake City, including transit ridership, revenue hours, and cost per revenue hour. An overview of how transit travel times compare with drive times from key local and regional destinations is also provided.

This analysis includes data for all UTA rail lines, however bus data is limited to UTA bus routes that enter Salt Lake City limits. The analysis categorizes data as follows:

- *Total* ridership/boardings includes: Bus routes that enter Salt Lake City limits, and S Line, FrontRunner, and TRAX boardings for the entire lines, not just within Salt Lake City boundaries.
- *Salt Lake City (SLC)* ridership/boardings includes: Same bus data and S-Line data as total ridership, and TRAX and FrontRunner boardings only at within Salt Lake City limits.
- Revenue hours include: Total revenue hours for bus routes that enter Salt Lake City limits, S-Line, TRAX, and FrontRunner.

All boardings and revenue hour data came from UTA including route operating and cost indicators, historical and current boarding and ridership data.

Trends in Transit Ridership and Revenue Hours

Overall transit ridership and service hours trends from 2011 through 2014 of UTA services serving Salt Lake City are shown in Figure 4-12. Total transit ridership on UTA services that operate in or through Salt Lake City increased by 28% between 2011 and 2014—a slightly higher rate than the increase in revenue hours over this time period (26%). Transit boardings that occurred within Salt Lake City also increased, but at a slower rate (13%) than boardings on the full lines. Ridership increases were largely due to several new lines that opened.

Figure 4-13 through 4-15 show annual average ridership compared to revenue hours for Salt Lake City bus routes, TRAX, FrontRunner, and the S-Line from 2011 to 2014, including both weekdays and weekends. Overall, over this four-year period:

- **Bus** ridership (Salt Lake City routes) decreased slightly (-3%) despite a 14% increase in revenue hours. This drop occurred between 2011 and 2012; ridership has held steady every since. The trend varied by type of bus service—but was driven by a decrease in local ridership, which comprises the majority of bus ridership and service provided.
- **TRAX** ridership and revenue hours increased, reflecting extensions in 2011 and 2013.
- **FrontRunner** ridership and revenue hours increased, reflecting the opening of extensions in late 2012.
- **S-Line** streetcar opened in late 2013 so trend data since 2011 is not available.

A sidebar on the following pages gives an overview of major historical changes in UTA service in Salt Lake City, providing some additional context for historical trends.

Figure 4-12 Total Annual Weekday and Weekend Transit Ridership and Revenue Hours in Salt Lake City (2011-2014)

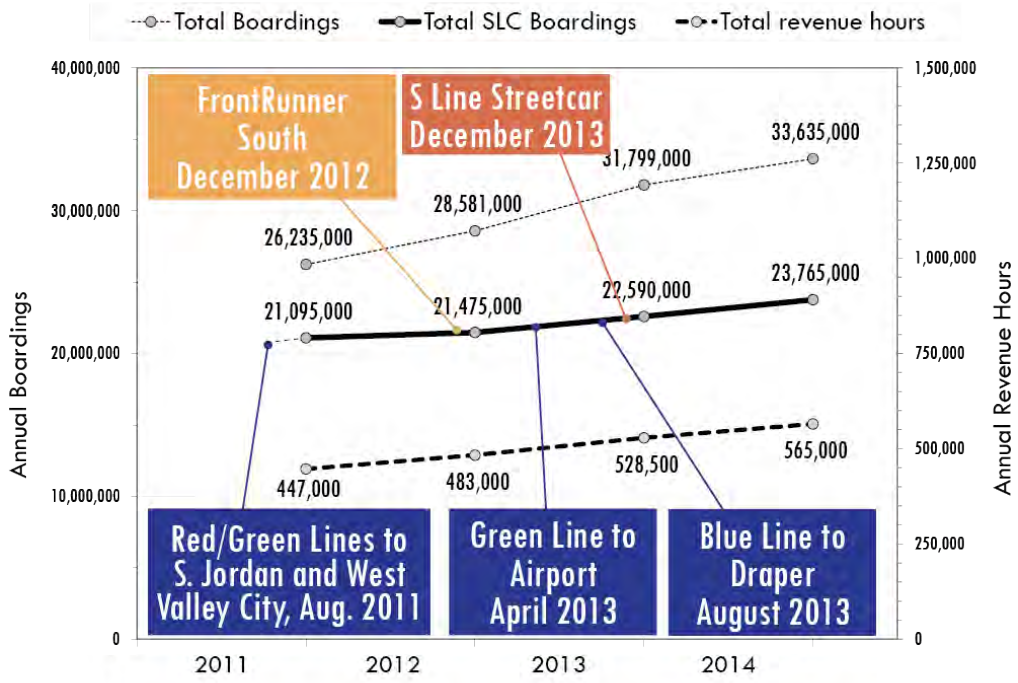
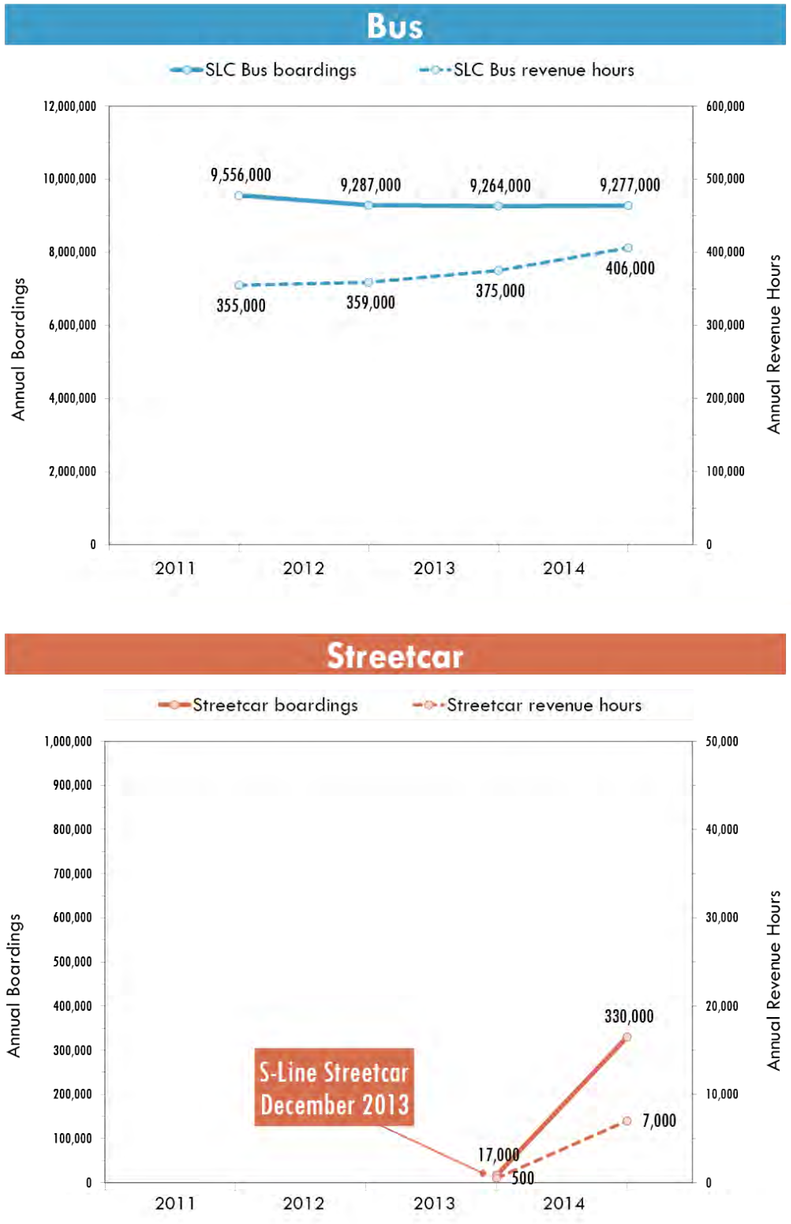


Figure 4-13 Salt Lake City Total Annual Weekday and Weekend Transit Ridership Compared to Revenue Hours, 2011-2014



Note: SLC bus boardings and service hours are defined as any boardings or service hours on bus routes that pass through or stop in Salt Lake City. Therefore, these figures include boardings and service hours on these routes that occur outside of Salt Lake City limits.

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Figure 4-14 Total Annual Weekday and Weekend Boardings and Revenue Hours (All Modes, 2011-2014)

	2011	2012	2013	2014	Change (2011-2014)	% Change
Boardings						
SLC Bus [1]	9,556,000	9,287,000	9,264,000	9,277,000	(279,000)	-3%
TRAX - Total	15,065,000	17,507,000	18,717,000	19,566,000	4,501,000	30%
TRAX - SLC Only [2]	10,883,000	11,498,000	12,420,000	12,997,000	2,114,000	19%
FrontRunner - Total	1,614,000	1,787,000	3,801,000	4,462,000	2,848,000	176%
FrontRunner – SLC Only [2]	656,000	690,000	889,000	1,161,000	505,000	77%
S-Line	--	--	17,000	330,000	330,000	n/a
Total Boardings	26,235,000	28,581,000	31,799,000	33,635,000	7,400,000	28%
SLC Boardings [2]	21,095,000	21,475,000	22,590,000	23,765,000	2,670,000	13%
Revenue Hours [3]						
SLC Bus	355,000	359,000	375,000	406,000	51,000	14%
TRAX	81,000	111,000	123,000	122,000	41,000	51%
FrontRunner	14,000	14,000	31,000	34,000	20,000	143%
Streetcar	--	--	500	7,000	7,000	n/a
Total Revenue Hours	450,000	484,000	529,500	569,000	119,000	26%

Notes: (1) Bus boardings include UTA bus routes that enter Salt Lake City limits. (2) TRAX and FrontRunner boardings that occur within Salt Lake City limits. [3] Revenue hours for TRAX, FrontRunner, and S-Line include the entire systems, since all lines serve Salt Lake City.

Figure 4-15 Annual Weekday and Weekend Boardings and Revenue Hours (SLC Bus Only, 2011-2014)

	2011	2012	2013	2014	Change (2011-2014)	% Change
SLC Bus Boardings						
All-Day Local/Shuttle	8,735,000	8,409,000	8,392,000	8,411,000	(324,000)	-4%
Peak-Only Local/ Shuttle/Flex	250,000	266,000	285,000	291,000	41,000	16%
Express/Fast Bus	562,000	601,000	576,000	564,000	2,000	0%
SLC Bus Revenue Hours						
All-Day Local/Shuttle	320,000	322,000	338,000	368,000	48,000	15%
Peak-Only Local/ Shuttle/Flex	12,000	13,000	14,000	15,000	3,000	25%
Express/Fast Bus	22,000	23,000	22,000	22,000	-	0%

Note: Bus ridership and boardings include only UTA bus routes that touch Salt Lake City limits.

Overview of Historical Changes in Transit Service

UTA makes changes to their system three times per year (3 "change days per year" is required by their collective bargaining agreement). Changes can include re-numbering of routes, re-routing of lines, and schedule adjustments. This can make historical route-by-route ridership and performance data difficult to compile (especially prior to 2011). However, historical milestones can be noted based on information provided by UTA and Salt Lake City staff:

- 2006/2007: The Salt Lake Central Intermodal Hub was completed and much of UTA's transfer activity moved from Main Street to the Hub.
- 2007: UTA undertook a major redesign of their bus service network in 2007 in which bus routes were re-designed to feed rail lines, bus schedules were aligned to rail schedules to facilitate timed transfers, the route numbering system was changed, and a network of bus lines operating at 15-minute frequency was established.
  - Since then, UTA has made some changes to reestablish direct local routes and has established a more iterative scheduling process between rail and bus services.
- 2011: The primary downtown transfer point changed from Gallivan to Courthouse Station upon the opening of the TRAX Red Line and Green Line to South Jordan and West Valley City. This resulted in significant changes in TRAX boarding patterns in Downtown Salt Lake City as shown in the table below.

TRAX Boardings by Station

	2011	2012	% Change
Courthouse Station	1,068	6,616	520%
City Center Station	2,251	2,800	24%
Salt Lake Central Station	4,125	2,663	-35%
Gallivan Plaza Station	3,883	2,009	-48%

Salt Lake City Transit Performance in 2014

The relationship between ridership and revenue hours—productivity, or riders per revenue hour—is an important measure of transit effectiveness. Salt Lake City bus routes on average carry fewer passengers per revenue hour than the S-Line, TRAX, and FrontRunner, which operate with higher-capacity vehicles; however some of these routes are the most productive routes in the entire UTA system. Productivity on routes serving Salt Lake City is as follows:

- **Salt Lake City bus routes,** on average, carried about 23 riders per revenue hour in 2014, slightly higher than average productivity for all UTA bus routes (21 riders per revenue hour). However, the most productive local and express bus routes carry 42 and 85 riders per hour respectively.
- **TRAX** productivity averaged over 160 riders per revenue hour in 2014.
- **FrontRunner** productivity was over 130 riders per revenue hour in 2014.
- **S-Line** carried about 50 riders per revenue hour in 2014.

The list below includes the highest ridership and/or most productive bus routes with all-day service in Salt Lake City.[11] In general, long bus routes, such as those that connect downtown Salt Lake City to Ogden and Murray for most of the day, and all-day local routes that serve University of Utah tend to have the highest average annual ridership.

- **Route 200 – State Street North (900,000 weekday boardings, 32 boardings/hour)** is a north–south route between Salt Lake Central Station and South Murray Central Station. It is the highest ridership route in Salt Lake City.
- **Route 217 – Redwood Road (815,000 weekday boardings, 24 boardings/hour)** is a north–south route on the west side of the city, serving North Temple and West Jordan TRAX stations.
- **Route 209 – 900 East (710,000 weekday boardings, 24 boardings/hour)** is a north–south route between North Temple Station and Fashion Place West in Murray.
- **Route 205 – 500 East (590,000 weekday boardings, 28 boardings/hour)** is a north–south route between Salt Lake Central Station and Murray North Station.
- **Route 21 – 2100 South/2100 East (520,000 weekday boardings, 30 boardings/hour)** is a north-south/east-west route between University of Utah and Central Pointe TRAX station.
- **Route 2 – 200 South (500,000 weekday boardings, 42 boardings/hour)** is an east–west route connecting Salt Lake Central Station to the University of Utah. It is the most productive local bus route at over 42 boardings per revenue hour. An express version (2X) provides over 85 boardings per hour.
- **Route 6 – 6th Avenue (235,000, 36 boardings/hour)** is an east–west route connecting downtown North Temple Station to the University of Utah and the University Medical Center; it travels through the Greater Avenues passing the LDS Hospital and Salt Lake Regional Medical Center. This route's ridership is not as high as the others, but it is the second most productive route.

Figures 4-16 and 4-17 show the breakdown of how much service was provided on each mode in terms of total revenue hours in 2014. Figures 4-18 and 4-19 illustrate performance of Salt Lake City transit in 2014 on several key performance measures: boardings per hour, cost per hour, and cost per passenger (average weekday).[12] The charts illustrate how each route performs relative to the average cost and productivity for all routes. Both charts show productivity (riders per revenue hour) on the horizontal axis. Figure 4-18 illustrates cost per boarding on the vertical axis while Figure 4-19 shows the cost per passenger mile.

The charts differentiate local and shuttle services that provide all-day service (darker blue circles) from routes that provide peak-only or limited service. In Figure 4-18, all-day routes are clustered along the top of the chart as they tend to cost less to operate per passenger trip. Figure 4-19 shows that express and other routes that provide longer-distance, peak-period trips are cost-effective on a per-passenger mile basis. Appendix B provides a table of performance measures for individual routes and services.

[11] Annual weekday boardings and boardings per service hour, 2014. Boardings rounded to nearest 5,000.

[12] Operating cost is the direct, incremental cost per service hour and service mile for each route.

Figure 4-16 Breakdown of 2014 Total Annual Weekday and Weekend Salt Lake City Transit Revenue Hours and SLC Boardings

Service Type	2014 Revenue Hours	% of Total	2014 Boardings	% of Total
Bus	406,000	71%	9,277,000	39%
TRAX	122,000	21%	12,997,000	55%
FrontRunner	34,000	6%	1,161,000	5%
S-Line	7,000	1%	330,000	1%
Total Revenue Hours	569,000	100%	23,765,000	100%

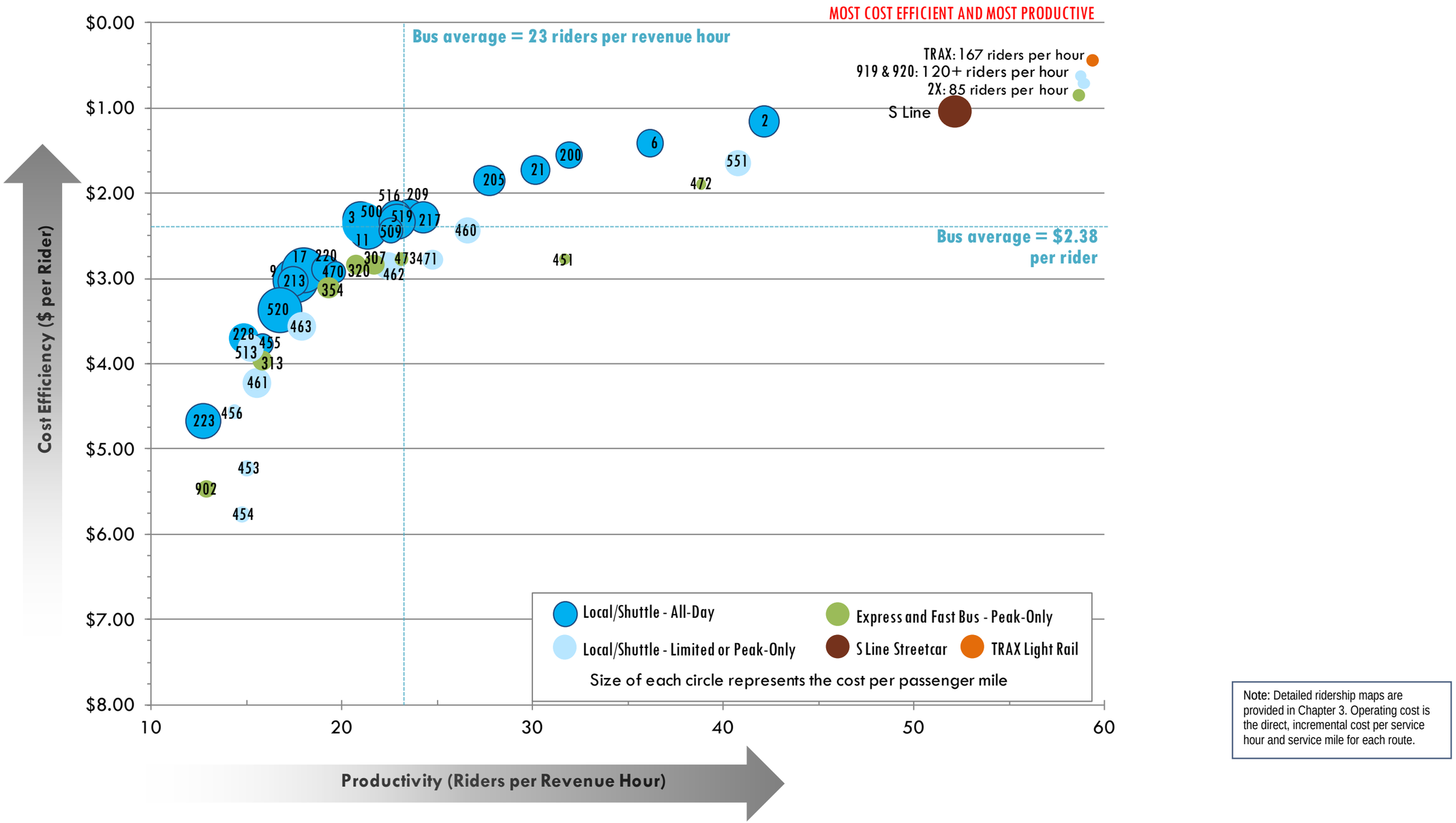
Note: Bus hours and ridership include only UTA bus routes that touch Salt Lake City limits. Revenue hours for TRAX, FrontRunner and S-Line include the entire systems, since all lines serve Salt Lake City.

Figure 4-17 Breakdown of 2014 Total Annual Weekday and Weekend Salt Lake City Bus Revenue Hours and Boardings

Service Type	2014 Bus Revenue Hours	% of Total Bus Hours	2014 Boardings	% of Total
All-Day Local/Shuttle	368,000	91%	8,411,000	91%
Peak-Only Local/Shuttle/Flex	15,000	4%	291,000	3%
Express/Fast Bus Rev Hours	22,000	5%	564,000	6%

Note: Includes only UTA bus routes that touch Salt Lake City limits.

Figure 4-18 Salt Lake City Bus Route Productivity (riders per hour) and Cost Efficiency (cost per rider), Average Weekday (2014)



Note: Detailed ridership maps are provided in Chapter 3. Operating cost is the direct, incremental cost per service hour and service mile for each route.

Figure 4-19 Salt Lake City Bus Route Productivity (riders per hour) and Cost Effectiveness (cost per passenger mile), Average Weekday (2014)

Note: Detailed ridership maps are provided in Chapter 3. Operating cost is the direct, incremental cost per service hour and service mile for each route.

TRANSIT TRAVEL TIME VS. DRIVE TIME

Anecdotally, using transit for east–west travel in Salt Lake City has been particularly challenging for riders. Figure 4-20 below illustrates a theoretical comparison of travel times by car and transit between several Salt Lake City neighborhoods and downtown and between key regional destinations and downtown.[13] This comparison serves not as a specific illustration of travel time, but rather to highlight the neighborhoods where transit carries a particularly high time disadvantage compared to auto travel:

- Sugar House neighborhood
- Glendale neighborhood
- East Bench neighborhood

Figure 4-20 Drive Time vs. Transit Time

Origin	Destination	Drive Time	Transit Time	How many times slower is transit
Sugar House neighborhood	Downtown SLC	0:11	0:26	2.4
University of Utah	Downtown SLC	0:12	0:18	1.5
Rose Park Neighborhood	Downtown SLC	0:08	0:13	1.6
Poplar Grove Neighborhood	Downtown SLC	0:08	0:14	1.8
Glendale Neighborhood	Downtown SLC	0:11	0:23	2.1
Greater Avenues Neighborhood	Downtown SLC	0:11	0:18	1.6
East Bench Neighborhood	Downtown SLC	0:16	0:36	2.3

Note: The times were calculated using the trip planning tool on Google Maps. Drive times were taken at 5 p.m. Transit times were calculated by selecting 5 p.m. as the beginning travel time for weekday trips. For the purposes of this analysis, Salt Palace Convention Center was selected as the default "downtown SLC destination." Walk times are not included for drive time or transit time.

[13] Note: The times were calculated using the trip planning tool on Google Maps. Drive times were taken at 5 p.m. Transit times were calculated by selecting 5 p.m. as the beginning travel time for weekday trips. For the purposes of this analysis, Salt Palace Convention Center was selected as the default "downtown SLC destination." Walk times are not included for drive time or transit time.

PLANNED TRANSIT SERVICE

UTA participates in developing the Regional Transportation Plan (RTP) led by the metropolitan planning organization, Wasatch Front Regional Council. The UTA Network Study had been completed and the results were considered during the drafting of the most recent plan, due to be adopted in May, 2015. The RTP is a fiscally constrained plan and many transit projects and services had to be moved to later phases due to revenue availability.

The UTA Network Study completed in 2013 identifies the next group of capital and operating improvements that the UTA will focus on delivering after completion of the FrontLines 2015 program (see Figure 4-21). Planned capital and service investments by 2040 in Salt Lake City include a range of Bus Plus enhancements, new BRT routes, and a new downtown streetcar line:

- Expansion of the Bus Plus Frequent Transit Network on the following corridors:[14]
  - Salt Lake Central Station to the University of Utah
  - Salt Lake Central Station to Sandy Civic Center south along State Street
  - Other Enhanced Bus improvements
- New BRT routes on the following corridors:
  - BRT along Redwood Road to Sandy Civic Center
  - BRT from the International Center south along 5600 to the Daybreak TRAX Station
  - BRT from Salt Lake Central along State Street to the Draper FrontRunner Station
- Downtown Streetcar along 100 South, 200 South, or another parallel road in same travel corridor.
- Direct TRAX connection from the Salt Lake Intermodal Center to the University of Utah via a new 1-mile track segment from Main Street to Salt Lake Central Station via 400 South.

[14] The Bus Plus Transit Network is a network of high-quality bus service (or BRT-light) proposed to expand the high-quality transit coverage. Bus Plus service would include all of the amenities of BRT without the exclusive lanes.

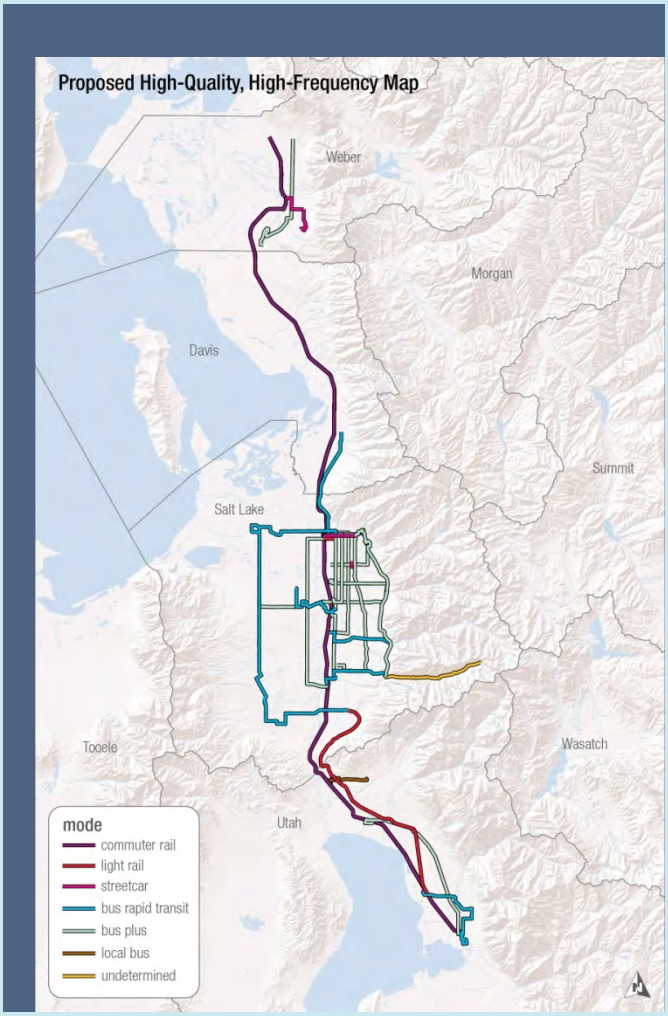
UTA Proposed "Bus Plus" Network

With the completion of FrontLines 2015 (UTA's 70-mile rail investment project), UTA initiated a Network Study to identify the agency's next round of major capital and operating improvements.

Building on UTA's recent investments in light rail, streetcar, and commuter rail, the Network Study proposed a series of network priorities, including a proposed "Bus Plus" network of high-quality, high-frequency transit in Salt Lake City and beyond. Bus Plus, also called Enhanced Bus, is similar to bus rapid transit except that it does not operate in dedicated lanes.

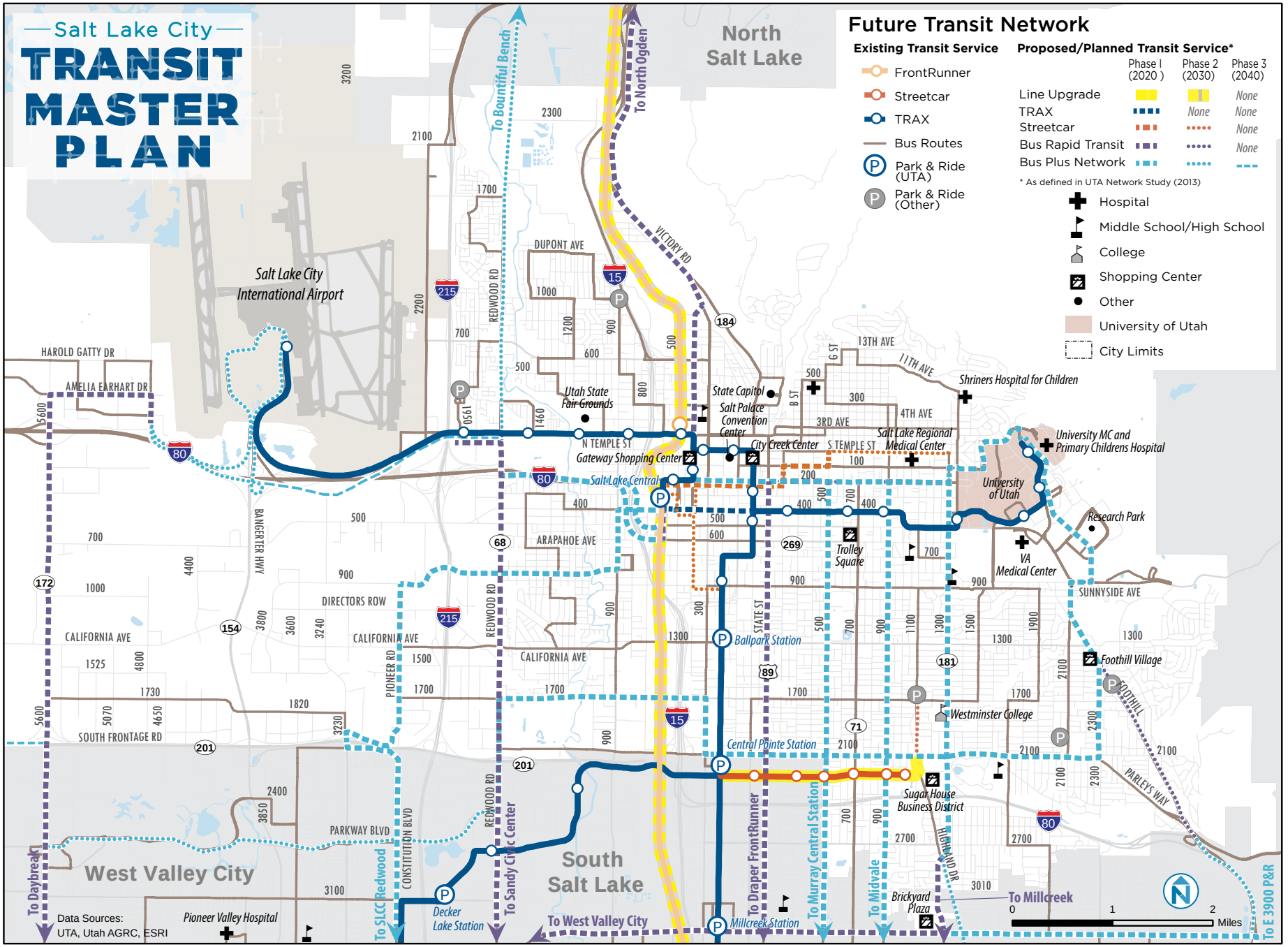
The proposed Bus Plus network proposes key north–south and east–west connections to TRAX, FrontRunner, and key destinations in Salt Lake City. The proposed network:

1. Expands the high-quality transit network
2. Increases service frequency on key routes
3. Decreases travel time across Salt Lake City
4. Improves reliability on key routes using transit signal priority, reduced stops, and pre-board ticketing
5. Provides high-amenity stations including seating, shelters, and real-time information



Source: UTA Network Study (2013)

Figure 4-21 Planned Transit Service in Salt Lake City



SALT LAKE CITY TRANSIT FACILITIES

Salt Lake City Central Station

The Salt Lake City Central Station (also called the Intermodal Hub or "the Hub") is a multimodal transportation hub in Salt Lake City connecting UTA's TRAX, FrontRunner, and numerous buses. Amtrak service also converges at Salt Lake Central Station, along with Greyhound Lines and U Car Share.

Salt Lake Central Station (also referred to as the Salt Lake City Intermodal Hub or "the hub") connects bus, commuter rail, light rail, and other regional transportation services.

Source: Flickr Matt' Johnson

North Temple Station

The North Temple Station is a multimodal transportation hub just north of Downtown Salt Lake City that connects UTA's TRAX, FrontRunner, and numerous bus routes.

Park-and-Ride Facilities

Park-and-ride facilities offer a convenient place for commuters and visitors to park their cars and connect to transit, ridesharing, and bike options. Park-and-ride locations are illustrated in Figure 4-1 at the beginning of this chapter. UTA manages 40 park-and-ride lots at TRAX and FrontRunner stations along the Wasatch Front. Three UTA park-and-rides are located within city boundaries:

- **Salt Lake Central Station** in downtown Salt Lake City has 30 park-and-ride spaces and operates at 100% capacity.[15]
- **Ballpark Station** at W 1300 S has 193 parking spaces and operates at 80% capacity.[16] Ballpark Station has a bus loop, but it is not currently utilized by any UTA routes.
- **Central Pointe Station** has 71 parking spaces and operates at 100% capacity. [17] Central Pointe Station provides transfer opportunities between TRAX, the S-Line Streetcar, and buses.

There are also a number of park-and-ride locations listed on the UTA website that are owned and managed by the LDS Church that serve the local bus routes.[18] These include:

- 1955 West 400 North: 171 spaces
- 1000 North 900 West: no parking space data available
- 630 East 100 South: 80 spaces available
- 1651 South 1100 East: 193 spaces available
- 1930 South 2100 East: 199 spaces available
- 1565 Foothill Drive: 94 spaces available

There is also the potential for a shared lot by the Fairpark (just to the West of the Fairgrounds) that UTA is currently negotiating. The park-and ride will not be available during the Fair, but will serve as a park-and-ride location the rest of the year.

UTA Maintenance Facilities

UTA has two maintenance facilities in Salt Lake City: Central Garage is the bus maintenance facility just north of Salt Lake Central Station and Warm Springs Service Center is a maintenance facility for FrontRunner locomotives located at 900 North just west of 500 West.

[15] UTA. TRAX and FrontRunner Counts, Fall 2014.

[16] Ibid.

[17] Ibid.

[18] LDS lots are based on a master agreement with the LDS church which is re-negotiated every two years – there is no guarantee that UTA will maintain access to these locations on an ongoing basis.

UTA Operational Constraints in Salt Lake City

Bus Layover

In order to increase UTA service in Salt Lake City, especially in areas that already have significant amounts of service, such as Downtown and the University of Utah, UTA would need to identify additional bus layover locations. A layover location is an area where a bus and driver can safely wait after finishing a route, before starting the return trip. Sufficient layover time is required to keep buses on-time and to provide opportunities for drivers to take breaks.

Layover locations, or lack thereof, can be a significant contributor to operational costs. The more centrally located a layover location is, the more operating costs are minimized. If layover locations are located far away, UTA must spend operating dollars travelling to and from the layover location.

There are four primary "nodes" that would make the most sense for additional layover space operationally. However, each has a unique set of constraints that would need to be taken into consideration in development of recommendations of the Transit Master Plan. They are:

- **Salt Lake Central** – This facility is at capacity for buses and cannot accommodate more bus activity at peak periods. Moreover, this location is not optimally located for layover purpose, as it requires out-of-direction travel for many routes to reach.
- **North Temple Station** – This station appears to have capacity for additional vehicles. However, it lacks operator amenities such as bathrooms and/or food and it also lacks facilities for passengers waiting for buses.
- **Core Downtown** – Layover facilities in downtown have been studied and recommended in the past, but these sites are no longer viable (e.g. potential site at 2nd S/State is being developed). Additional downtown layover would be needed for any increased service in this area, and would likely require transitioning on-street space for layover purposes.
- **University of Utah** – The University is a major transit trip generator, but UTA does not have any dedicated operational facilities on campus. Currently, UTA uses three different areas for layover and none of them have sufficient capacity, including the University Medical Center, the Union Building loop, and at Fort Douglas on Hempstead Road. Additional UTA layover facilities would need to be taken into consideration for any expansion of service to/from the University.

TRAX Capacity Issues

TRAX is currently operating three lines through south downtown Salt Lake City. According to UTA, the TRAX interlocking (intersection where tracks come together) at 4th South and Main Street cannot accommodate any additional trains during peak periods. This severely limits the ability to add trains to any of the existing corridors and limits the ability to connect downtown directly with the University of Utah via TRAX. Both are important considerations for the Transit Master Plan.

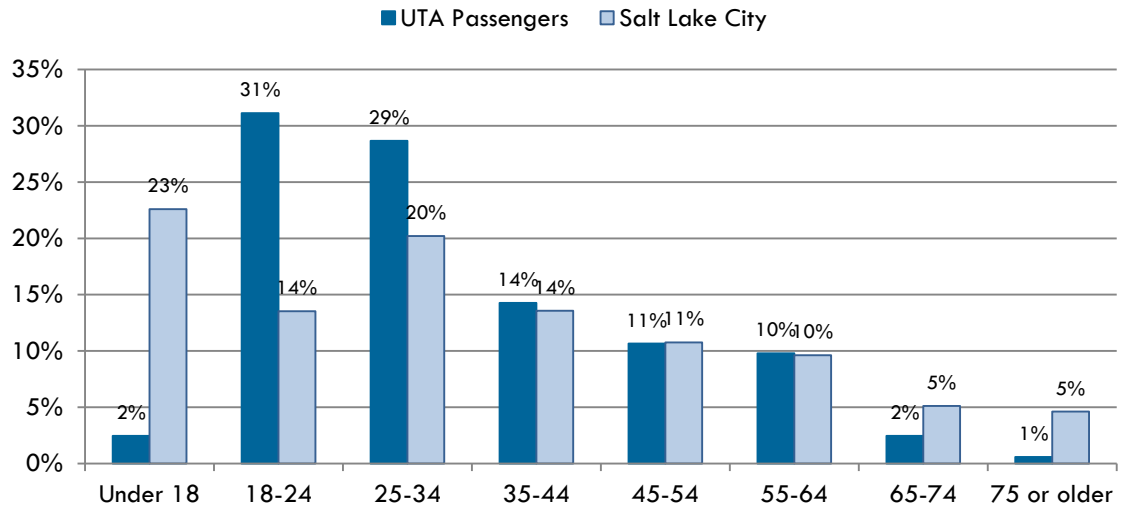
5 WHO RIDES TRANSIT IN SALT LAKE CITY?

This chapter analyzes the demographic data received in the 2014 UTA On-Board Survey for passengers who ride fixed route transit. For the purpose of this study, only respondents whose trips began or ended within Salt Lake City limits are analyzed. Of the 13,282 responses to the UTA survey, 8,491 respondents (64%) meet this criterion. The other 4,791 responses are not included in this analysis.

Gender and Age

Transit riders in Salt Lake City are slightly more male than female at 58% to 42% respectively. Riders are also more likely to be young, due in part to the large population of students at the University of Utah: 62% of riders are 34 years of age or younger and nearly one third are 18 to 24 years old (31%). When compared to demographics of the Salt Lake City population as a whole, the percent of people ages 18 to 34 is higher for UTA passengers than it is in the city as a whole (31% compared to 14%).

Figure 5-1 Age of Transit Riders

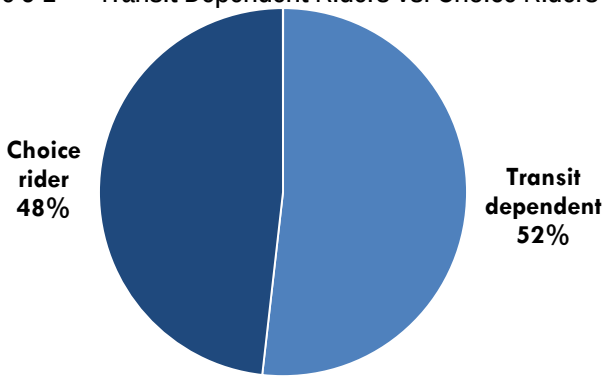


Source: 2014 UTA On-Board Survey; 2009-2013 ACS 5-year Estimates

Transit Dependency

For a variety of reasons, a portion of the population is dependent on the transit system to meet their transportation needs. These include having a disability, not having access to a private vehicle, insufficient income to pay for other modes, or not having a driver's license. According to the survey responses, more than half of UTA transit passengers in Salt Lake City (52%) are transit dependent (Figure 5-2). This means that without adequate transit service, these individuals would not be able to meet their daily needs. The remaining forty-eight (48%) of passengers are "choice riders" which means they have the ability to travel using a mode other than transit.

Figure 5-2 Transit Dependent Riders vs. Choice Riders



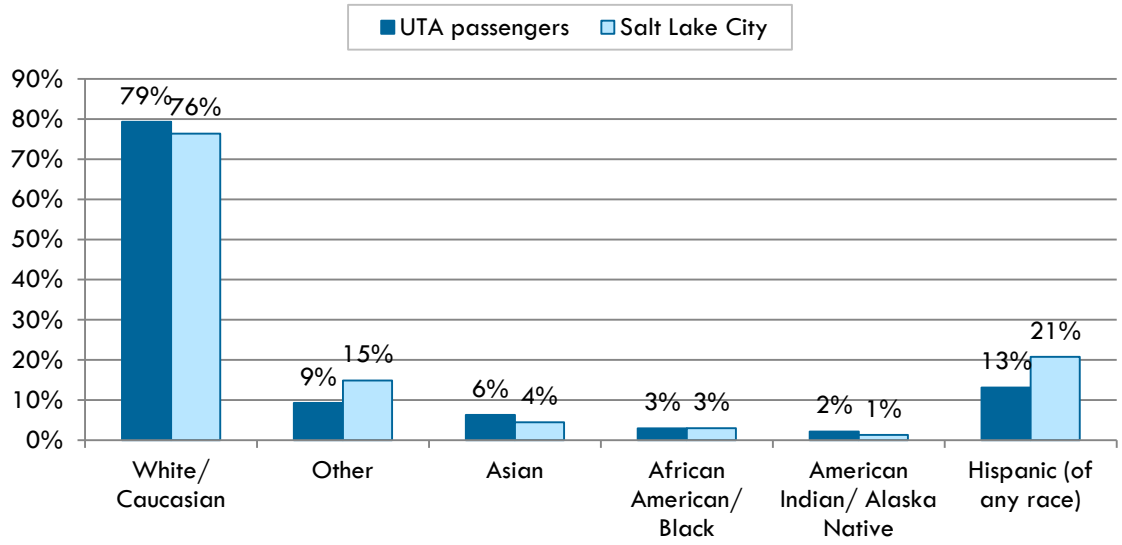
Source: 2014 UTA On-Board Survey

A transit dependency map is provided in Chapter 3.

Race and Ethnicity

Racially, Salt Lake City transit passengers are largely white. Approximately 79% classify themselves as white or Caucasian, followed by Asian (6%), African American/Black (3%), and American Indian or Alaska Native (2%). Ethnically, the majority of respondents indicated they are not Hispanic or Latino (of any race). Only 13% indicated they were Hispanic (Figure 5-3). The racial and ethnic makeup of UTA passengers in Salt Lake City closely matches the Salt Lake City population as a whole. These passengers are less likely to be Hispanic and slightly more likely to be white/Caucasian.

Figure 5-3 Race and Ethnicity (UTA Passengers vs. Salt Lake City Residents)

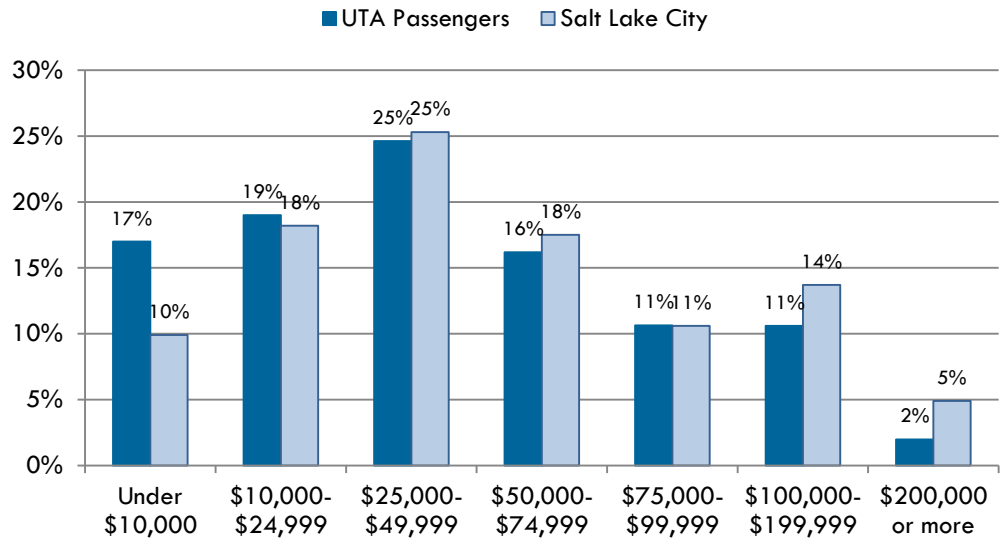


Sources: 2014 UTA On-Board Survey; 2009-2013 ACS 5-year Estimates

Income and Employment

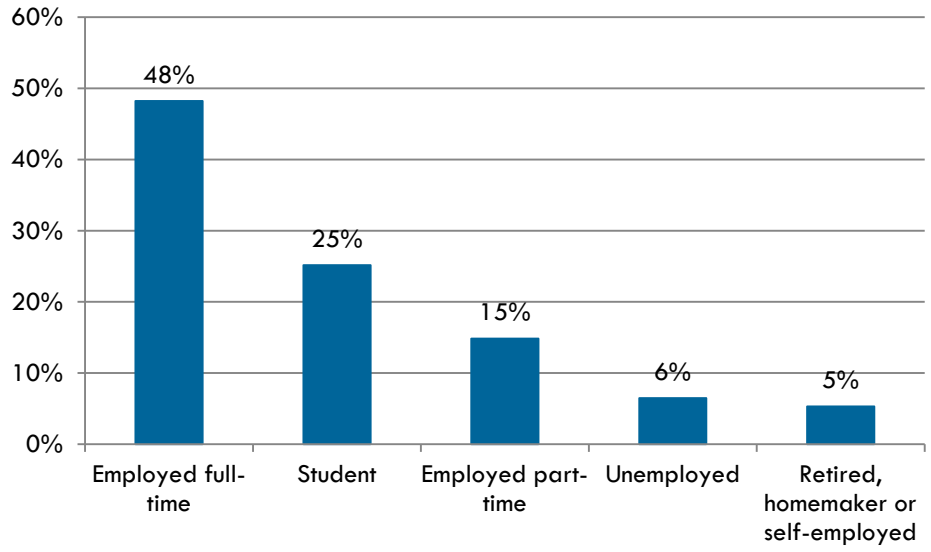
The majority (61%) of UTA passengers in Salt Lake City have a household income of less than $50,000 (Figure 5-5). This is due in part to the population of University of Utah students who rely on transit in Salt Lake City (students account for 25% of the transit passengers in the City). Only 48% of passengers are employed full-time (Figure 5-6). When compared to the income of Salt Lake City residents as a whole, UTA riders are lower income with 17% of UTA passengers earning $10,000 or less versus 10% of Salt Lake City residents.

Figure 5-4 Household Income



Source: 2014 UTA On-Board Survey; 2009-2013 ACS 5-year Estimates

Figure 5-5 Employment Status

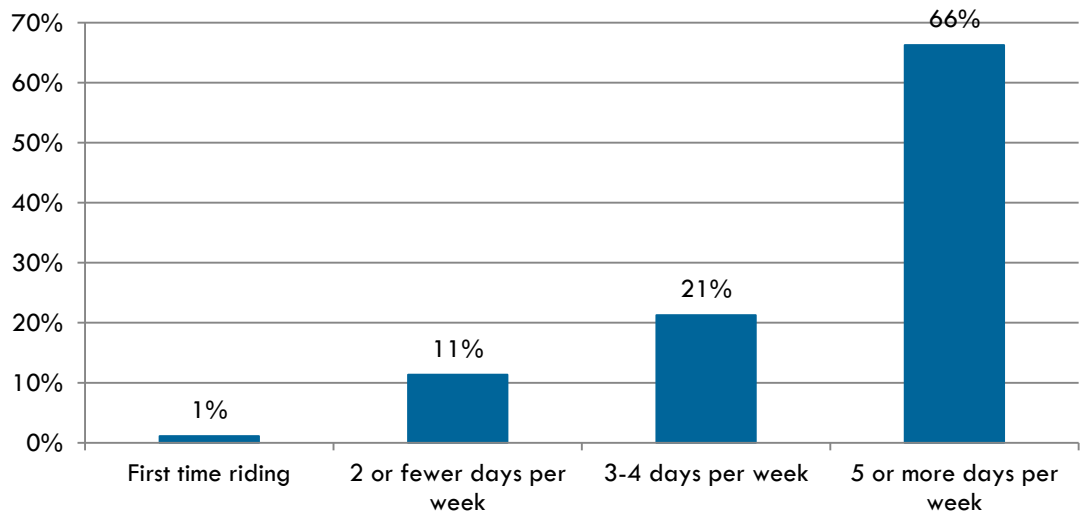


Source: 2014 UTA On-Board Survey

Ridership Frequency and Fares

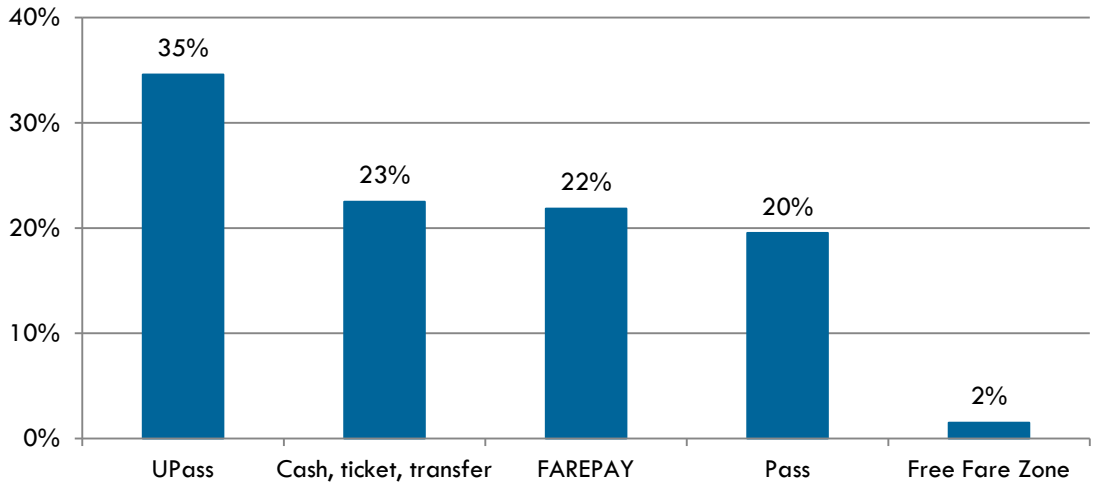
Most Salt Lake City passengers (66%) use UTA five or more days per week (Figure 5-7). Eleven percent ride two or fewer days per week. The UPass is the most common method of payment for Salt Lake City transit trips (used by 35% of passengers), followed by cash, tickets and transfers (23%)[1], FAREPAY (22%), and passes (20%)[2] (Figure 5-8). Trips within the Fare Free Zone account for 2% of Salt Lake City trips.

Figure 5-6 Trip Frequency



Source: 2014 UTA On-Board Survey

Figure 5-7 Fare Payment



Source: 2014 UTA On-Board Survey

[1] Includes cash, tokens, one-way tickets, round-trip tickets, paper bus transfers and reduced fare products.

[2] Includes day/group passes, Medicaid punch cards and paper monthly passes.

Hive Pass Survey Results

In 2013, Salt Lake City, in partnership with UTA, launched a one-year pilot project that allowed people living in Salt Lake City to purchase an unlimited annual transit pass for $360 – called the Hive Pass. A total of 3,200 passes were sold during the pilot project; 233 Hive Pass users participated in an online survey following the pilot. Key findings from the survey include:

- Among those who had ridden transit before, there was a significant increase in the frequency of transit use.
- Seventy percent of Hive Pass holders use transit three times a week or more.
- More than 90% of Hive Pass users are satisfied with their Hive Pass.
- The majority of Hive purchasers live between State Street (west) and the University of Utah (east) and North Temple (north) and 400 South (south).
- Hive Pass users primarily used the bus (51%) followed by the TRAX (38%), FrontRunner (9%), and Streetcar (2%).
- Fifty one percent (51%) of Hive Pass purchases previously paid cash fares; 17% used Farepay cards; 23% purchased monthly passes, and 9% were new riders.

Source: Salt Lake City Hive Pass Pilot Program Evaluation (2014)

6 AMENITIES, FARES, AND ACCESS TO TRANSIT

This chapter looks beyond transit service in Salt Lake City (e.g. where the bus goes and how often it arrives) and outlines elements of the transit system that relate to the overall passenger experience – what is it like to wait for transit to arrive? How easy is it to walk to a transit station? What information is available to help passengers understand the system? What multimodal options are available to connect passengers between transit and the places people start and end their trips?

Salt Lake City plays an important role in ensuring safe and comfortable access to transit. The City controls sidewalks and rights-of-way that pedestrians and cyclists use to access transit stops and stations. It also controls much of the space where transit stops, stations, and amenities are located. A key outcome of this Transit Master Plan will be to identify strategies and investments that improve access to transit and make the overall transit experience more comfortable and convenient.

This section includes an overview of:

- Bus stop amenities
- Physical/geographic transit access barriers
- Transit information and legibility
- Fares and fare payment options
- Supportive programs

Just 17% of bus stops in Salt Lake City have either a bench or shelter for people to wait comfortably for the bus to arrive.
Source: Nelson\Nygaard

BUS STOP AMENITIES

Bus stops are a key component of building a complete transit system; they provide the foundation of a comfortable passenger experience by providing a space for passengers to wait comfortably, seek weather protection, access line and system information, buy fare media, and other practical functions.

Bus stops in Salt Lake City range from just a basic sign at low ridership stops to a shelter with benches, trash cans, and other amenities at high ridership stops. Real time arrival information is available at bus stops via text message. (Real-time information signs are only available at TRAX stations.)

There are over 1,200 bus stops and stations in Salt Lake City. Figure 6-1 provides an overview of the bus stops by level of amenity. Of the 1,227 bus stops in Salt Lake City, 48 of them have a shelter and a bench, 15 have a shelter only, and 143 have a bench only. The majority (82%) only have a sign. Figure 6-3 below illustrates bus stops by amenity in Salt Lake City. High amenity stops are clustered in downtown, in the corridor between downtown and the University of Utah, and at the University of Utah. High amenity stops are also located at Westminster College, the airport, and along E 2100 South in the Sugar House neighborhood.

All TRAX, FrontRunner, and streetcar stations include benches, shelters, and signs.

Figure 6-1 Bus Stop Amenities in Salt Lake City

Stop Amenity	Number	Percent
Shelter and bench	48	4%
Shelter only	15	1%
Bench only	143	12%
Sign only	1,008	82%
No amenities	13	1%
Total	1,227	

Salt Lake City Bus Stops and Bike Share Stations Design Guidelines *(November 2014)*

UTA has Bus Service Design Guidelines, however in 2014, Salt Lake City adopted its own Bus Stops and Bike Share Stations Design Guidelines, building on what UTA had developed. In several instances, the City has additional or differing preferences. Implementation of these additional requirements often depends upon identifying City funding sources. Staff always seeks to capitalize on existing amenities whenever possible.

Salt Lake City Bus Stop Design Guidelines complement UTA's Bus Service Design Guidelines. Stops are prioritized based on the number of boardings per day.
Source: Nelson\Nygaard

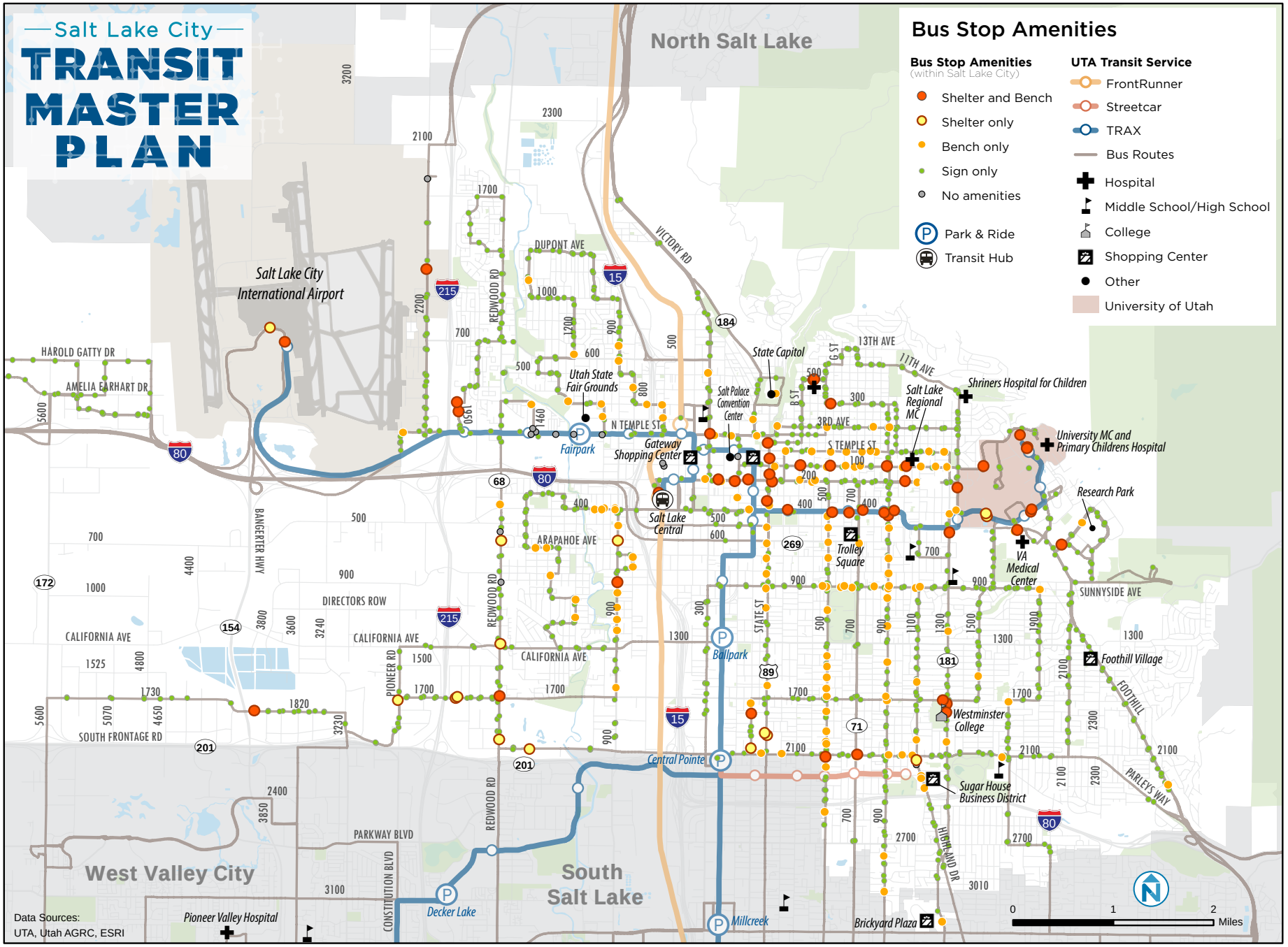
Salt Lake's bus stop design guidelines based on the average number of daily boardings are provided below.

Figure 6-2 Salt Lake City Bus Stop Guidelines by Tier

Tier	Bus Stop Amenity	# of Average Daily Boardings
Tier I	Custom shelter with bench, bike rack, trash, shielded lighting, current bus schedule, real-time bus data, vegetation, pre-board pay	≥ 200 boardings per day
Tier II	16' ADA compliant shelter w/bench, bike rack, trash receptacle shielded lighting, current bus schedule, real-time bus data, vegetation, pre-board fare pay facility	150 to 199 boardings per day
Tier III	12' ADA compliant shelter w/bench, bike rack, trash receptacle, shielded lighting, current bus schedule, real-time bus data, pre-board fare pay facility	100 to 149 boardings per day
Tier IV	8' ADA compliant shelter w/bench, bike rack, current bus schedule, route information panel with instructions on accessing real-time arrival data, vegetation	15 to 99 boardings per day
Tier V	Seating (bench or Simme Seat) on hard surface, bike rack, route information panel with instructions on accessing real-time arrival data	1 to 14 boardings per day

Source: Salt Lake City Bus Stops and Bike Share Stations Design Guidelines (2014)
http://slcdocs.com/council/agendas/2014agendas/November/Nov4/110414A5.pdf

Figure 6-3 Salt Lake City Bus Stop Amenities



UTA FIRST/LAST MILE STUDY

UTA is currently undertaking a First/Last Mile Study, due to be completed spring 2015. The purpose is to identify a list of prioritized strategies to enhance the first- and last-mile connections to the existing transit network in order to increase system ridership. Geographically, the study covers the entire UTA system, but is focused primarily on TRAX and FrontRunner stations, with very little attention to strategies for the bus network. First mile/last mile strategies identified during this process will be verified as part of this Transit Master Plan.

First Mile/Last Mile Survey

A survey conducted in 2014 as part of UTA's First/Last Mile Study demonstrates passenger priorities for improved access to transit. The priorities identified by survey respondents for each last mile category are listed below (1 = highest priority; 4 or 5 = lowest priority). In summary, respondents identified bike paths, improved crosswalks, improved passenger waiting areas, and UTA shuttles as the most important features at or near transit stops.

Bicycle Facilities (in order of priority)

1) *Bike paths (separated trail)*
2) *Onboard bike racks (on train/bus)*
3) *Bike paths (on road)*
4) *Bike racks/lockers*
5) *Bike sharing (GREENbike)*

Pedestrian Facilities (in order of priority)

1) *Improved crosswalks*
2) *Roadway lighting*
3) *Pedestrian-specific signage*
4) *Access improvements for wheelchairs, strollers or people with health concerns(i.e. curb ramps)*

Station Facilities (in order of priority)

1) *Improved passenger waiting areas (i.e. covered shelters, real-time info, etc.)*
2) *Lighting*
3) *Wayfinding and signage*
4) *On-site staffing*

Carpool/Shuttle Options (in order of priority)

1) *UTA shuttles*
2) *Work-based shuttles (i.e. employer shuttles)*
3) *Carpools*
4) *Carsharing programs (Enterprise Carshare)*

Note: Includes responses from entire UTA service area, not just Salt Lake City.

Station Typologies

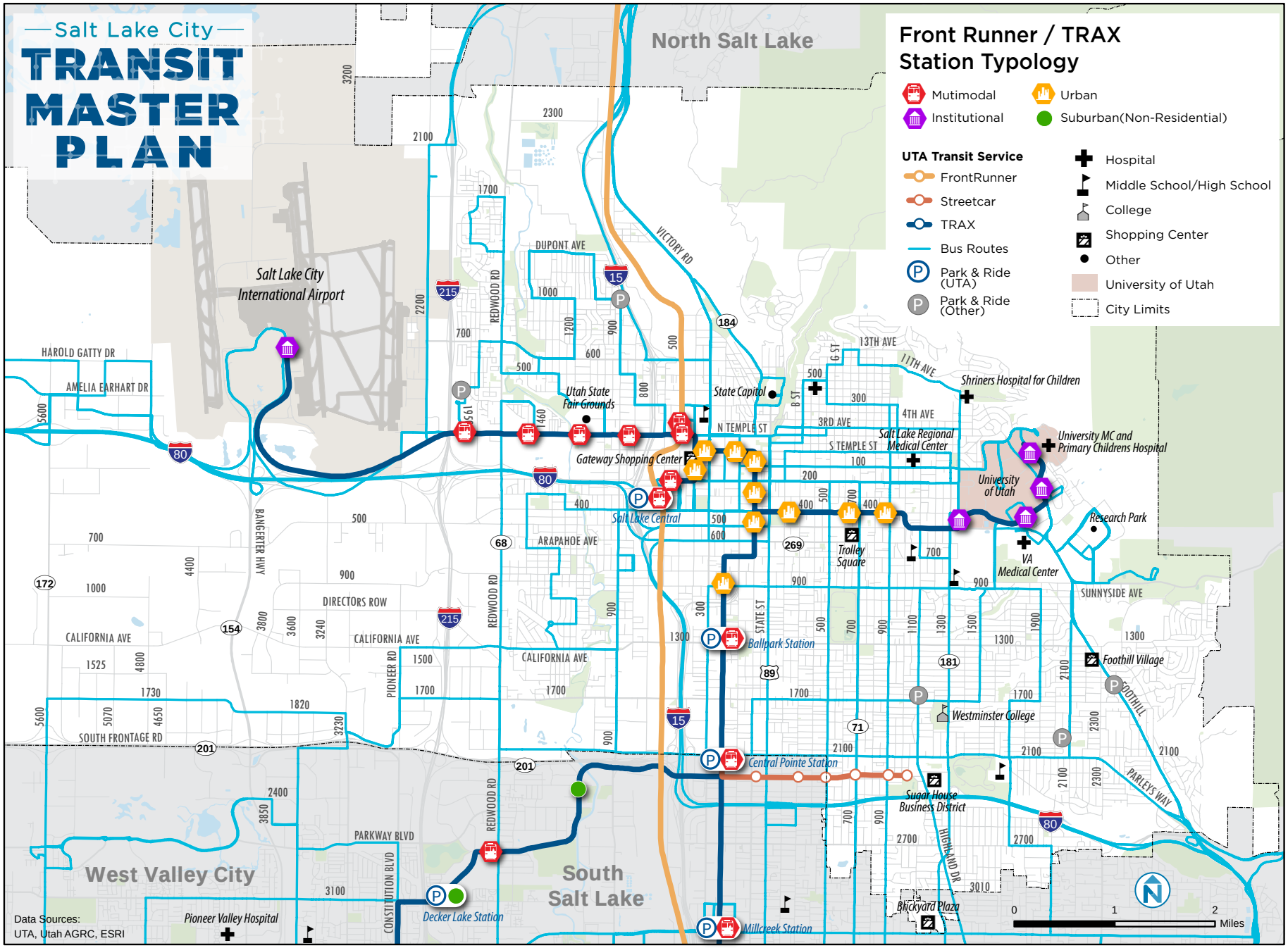
A key outcome of the first mile/last mile study was a station typology for UTA TRAX and FrontRunner stations. Several built environment and ridership-based characteristics were used to identify the types, including connectivity around station areas, modes of transportation currently used by transit riders to get to and from the stations, amount of parking available, and demographic information. Six station types were identified: urban, multi-modal, institutional, suburban, suburban non-residential, and auto-dependent. Only three of these types are represented in Salt Lake City. These three types and the highest priority first/last mile strategies for these stations are shown in Figure 6-4 (the high priority strategies are those which should yield the highest possible benefit for investment). Figure 6-5 shows a map of stations by type.

Figure 6-4 Recommended Strategies by Typology for Salt Lake City TRAX and FrontRunner Stations

Typology	Wayfinding	Bicycle Network Improvem'ts	Access Connections	Ped. Network Improvem'ts	Crossing Treatments	Bike Sharing	Car Sharing	Rail/Bus Stop Enhancem'ts
Urban	▲	▲				▲	▲	
Multimodal	▲	▲	▲	▲	▲			▲
Institutional		▲				▲		

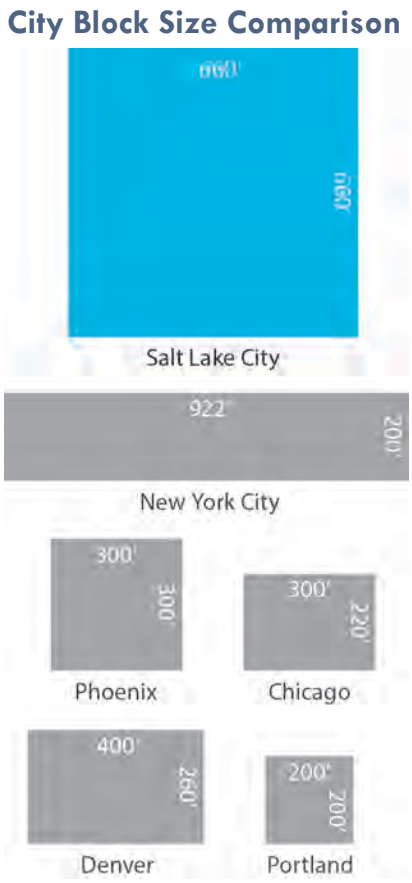
Note: If a box is not "checked" above, it does not mean that this strategy is not important under this typology, it means that these features already exist at the stations in Salt Lake City.

Figure 6-5 Station Typology for Salt Lake City



PHYSICAL/GEOGRAPHIC TRANSIT BARRIERS IN SALT LAKE CITY

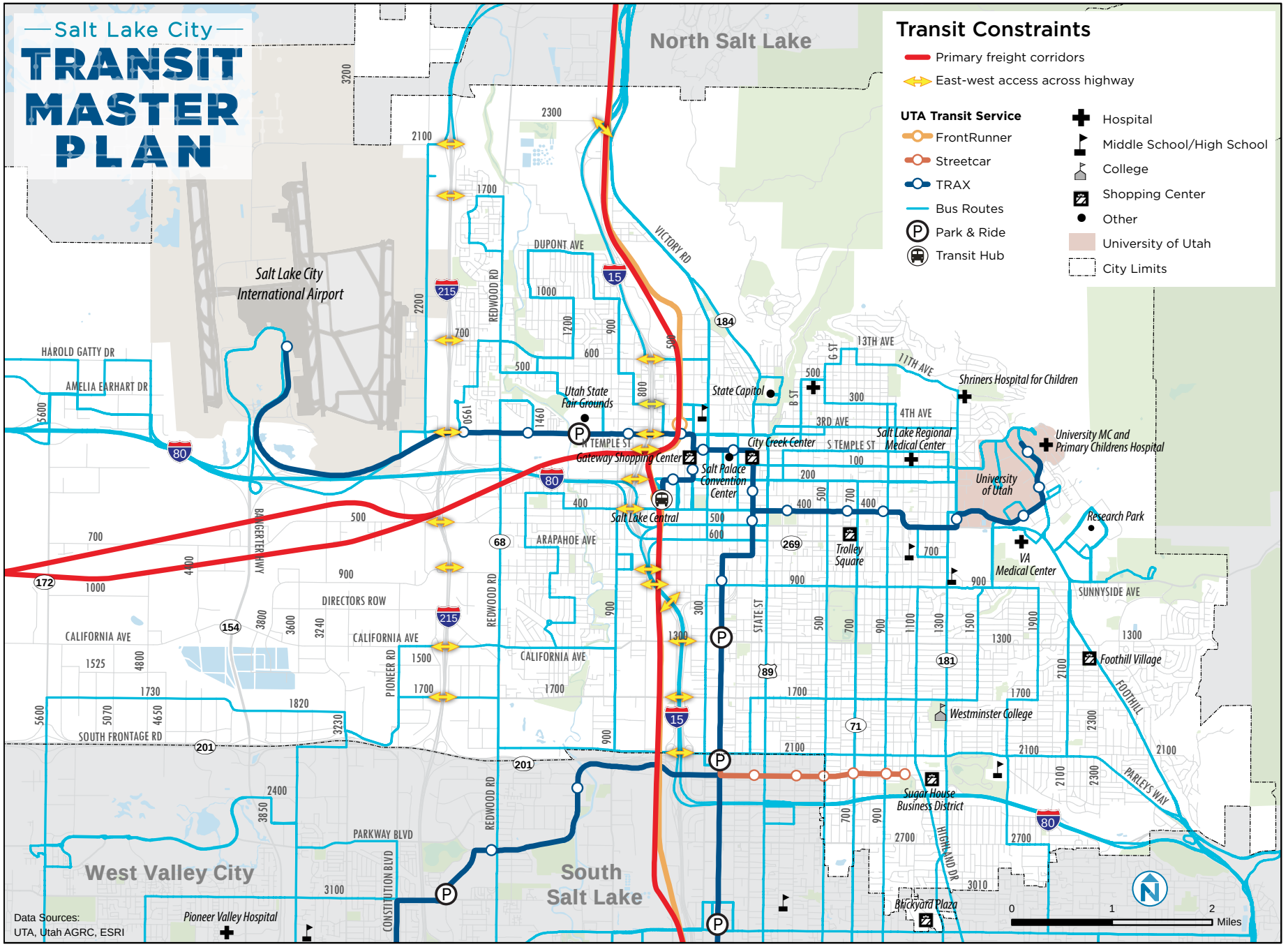
Salt Lake City has a number of physical and geographic barriers that make accessing and planning transit service difficult. These barriers include large blocks, steep hills (particularly in the residential neighborhoods to the east), freeways with a lack of undercrossings, and rail beds that slice through the middle of the city.



Salt Lake City has much larger blocks than cities like New York, Phoenix, and Chicago.
Source: ttp://greatergreater.com/files/2010/gridposter.pdf

- **Block Size/Density:** Block density is a key street connectivity measure. Blocks in Salt Lake City are among the largest of its peers. Large blocks or low-block density can discourage people to bike or walk because distances to destinations are too long. Lack of mid-block crosswalks can make riders have to walk very long distances to transit stops that are very close as the crow flies.
- **Topography:** Steep hills, particularly in neighborhoods to the east of downtown, are quite steep. Steep topography limits people's desire and ability to walk and bike to transit.
- **Highway barriers:** Interstate 15 slices through the center of Salt Lake City, limiting the opportunities for transit passengers, bicyclists, and pedestrians to cross under or over the highway when traveling east to west (see Figure 6-6).
- **Freight Line:** Rail beds that run north–south chop the city in half. Freight trains travel along the rail lines 30-60 times per day for several minutes up to half an hour, making east–west connections difficult in terms of operating efficient transit service and providing easy and comfortable bicycle and pedestrian connections to transit stops.
- **Built Environment:** There are some significant built environment barriers that break up the street grid, such as the Salt Palace Convention Center, the Rio Grande building, the Gateway, and multi-block schools and parks.

Figure 6-6 Transit Constraints in Salt Lake City



TRANSIT INFORMATION AND LEGIBILITY

Key to accessing transit is a legible system with tools to help people understand where, when, and how often transit service operates. Transit passengers and potential passengers have a range of tools available to them in Salt Lake City, including real-time information at some stations and on private apps, an online trip planner, and a mobile app center.

Schedule Information and Trip Planner

Individual route maps, a systemwide map, a downtown map, and the University of Utah map are all available on the UTA website. Route schedule information is available, however the user has to know the route number or name and type it in to the website in order to obtain the information (no drop down menu is available). Route maps are also difficult to use. These maps only show the major destinations along the route, making it difficult for passengers to orient themselves.

UTA's online trip planner underwent major renovations in 2013. The tool now allows users to engage in both map-based and address-based trip planning and provides improved address recognition. The trip planner also features walking directions and allows users to plan trips by preferred mode.

Apps help passengers understand the UTA system at a click of a button on their smart phones.
Source: ksl.com

Real-Time Information

UTA's Ride Time SMS text message service gives riders real-time bus departure information for more than 7,500 stops throughout the UTA service area. Real-time arrival information is not available on the UTA website, however. It is just available through text or using one of the apps in the mobile app center (see below). Some high ridership TRAX, FrontRunner, and streetcar stops do have real-time information signs.

Mobile App Center

UTA made its real-time data feed available to private developers in 2012. This has resulted in over 30 mobile apps for Android, Apple, and Windows users that help UTA passengers use the system in real time.

UTA FARES AND FARE PAYMENT OPTIONS

Eliminating the hassle of having to keep exact change to ride transit is often a key to attracting choice riders. Over the last several years, UTA has developed pass programs for different travel markets.

UTA FAREPAY

In October 2013, UTA unveiled its new FAREPAY reloadable, prepaid fare card. FAREPAY is available for purchase at the UTA website and at more than 300 Wasatch Front retailers. This system allows customers to load a contactless fare card with any amount between $5 and $500. Customers can also schedule automatic fund reloading and manage their account balance online. To help drive the adoption of FAREPAY, UTA offered a 20 percent fare discount to passengers using the card. By the end of 2013, nearly 5,400 FAREPAY cards had been sold at 170 retailers throughout the UTA service area.

Electronic Fare

UTA's electronic fare collection system allows passengers to "tap on" and "tap off" when boarding and exiting TRAX and FrontRunner stations. Card taps provide data about trip origin and destination so that UTA can better evaluate and improve service. Passengers can use this electronic fare system with the following electronic fare products: student passes, Eco Passes, Ski Passes, UTA FAREPAY cards, contactless credit or debit cards, smart phone applications including Isis and Google Wallet. The card will be "charged" the appropriate fare (for FrontRunner, the fare will be charged for only the distance traveled). Electronic fare collection is available on all buses, FrontRunner, TRAX, and streetcar services.

UTA Fare Structure

UTA fares can be purchased online or at any of the UTA Pass Sales Outlets. The fare structure for local bus, TRAX, Streetcar, express bus, and FrontRunner is outlined below. Fares vary significantly depending on the type of service selected.

Local Fares (Local Bus, TRAX, and Streetcar)

- One-way fare: $2.50
- Senior and reduced one-way fare: $1.25
- Day pass: $6.25
- Roundtrip (TRAX only): $5.00
- Adult monthly: $83.75
- Senior and reduced fare monthly: $41.75
- Student 30-day pass: $62.75
- Minor monthly pass: $62.75
- Route deviation (Flex Route) one-way fare: $1.25
- Route deviation (Flex Route) punch pass: $12.50

Premium Fares (Express Buses and FrontRunner)

- One-way fare: $5.50
- Senior and reduced one-way fare: $2.75
- Adult monthly: $198
- Senior and reduced fare monthly: $99
- Minor monthly pass: $148.50
- FrontRunner one-way fare (distance based): $2.50-$10.30
- FrontRunner senior and reduced roundtrip: $2.50 - $10.30
- Individual monthly upgrade* for pass holders: $114.25
- Student 30-day pass: $148.50

* The Individual Monthly Upgrade when presented with another valid pass is good for unlimited travel on all buses including Express buses, FrontRunner, TRAX and Streetcar for one calendar month. The Upgrade Pass is valid with an Eco/Ed/Med Pass, Salt Lake Community College Semester Pass, Student Monthly Pass, Minor Monthly Pass, or Horizon Monthly Pass.

Source: rideuta.com March 2015

Transfers

UTA local fare tickets can be used to transfer to other local fare services for up to two hours from purchase. An upgrade is required to transfer to premium service. A premium ticket may be used to transfer to any other service, also if used within two hours of purchase.

Discount Pass Programs

UTA works with local jurisdictions, businesses, and universities to promote transit through five discount pass programs.

- **Eco Pass** is an employer-sponsored annual pass issued to employees for use on bus and TRAX services. Eco Passes must be purchased for all employees and the cost of the program is based on the level of transit service at the work location. Eco Pass users can also use the pass on express buses and FrontRunner, but are required to pay an additional fare on top of the $2.50 it guarantees.
- **Eco Trip Rewards** is another employer-sponsored annual pass, but employers only pay for the trips employees take.
- **Student Passes** is a program in which students, faculty, and staff at participating schools can obtain a pass to ride UTA services. Valid school IDs are required to use the pass. The University of Utah partners with UTA to provide the U-Pass. As of September 2104, there were 49,127 active U-Pass passes distributed to University of Utah students, faculty, and staff.
- **Co-Op Transit Pass** is a discounted pass available to employees of participating companies. UTA discounts the cost of the passes by 20 percent and the company pays for another 30 percent of the cost. Employees purchase the passes at 50 percent of the price they would pay if they purchased it themselves.
- **RideVan Plus** is a pass program that is available to passengers who use both UTA transit services and the RideVan program to travel between home and their place of work.

Salt Lake City HIVE Pass Pilot Program

In 2013, Salt Lake City, in partnership with UTA, launched a one-year pilot project that allowed people living in Salt Lake City to purchase transit passes for $360. Of the 8,500 passes available for the pilot project, over 3,200 passes were activated during the seven month pilot project period indicating high interest in the program. The program added approximately 300 new transit riders to the system and 160,000 new boardings during the seven month pilot project period. Ninety percent (90%) of HIVE Pass users were satisfied and indicated they would purchase it again.

In March 2015, HIVE 2.0 was approved. This new program will make monthly passes available to Salt Lake City residents. The cost will be shared by the purchaser (who pays 50% of the cost), Salt Lake City (who pays 30% of the cost), and UTA (who pays 20% of the cost). For Salt Lake City residents, that means passes will be available for $42.00 a month compared to $83.75.

Source: Salt Lake City staff; Salt Lake City Hive Pass Pilot Program of Salt Lake City and the Utah Transit Authority Evaluation

SUPPORTIVE PROGRAMS

Transit service in Salt Lake City is supported by a number of programs that help people meet their daily travel needs. These programs range from bike share to car share to rideshare applications. This section provides an overview of these programs.

GREENbike Share Program

GREENbike is Salt Lake City's bike share system in downtown. The system launched with 10 stations and 80 bikes in 2012; just 16 months later, the program's ridership success and private support warranted GREENbike to double in size to 20 stations and 160 bikes.

Users can purchase one of three kinds of memberships: annual ($75), 7-day ($15), or 24-hour ($5). Each bike station includes a map showing the available stations for bike rental/return in the network. Mobile apps such as B-cycle and Spotcycle also show the bikes and docks available at every station in real time.

GREENbike is a 501©3 charitable organization and public/private partnership between Salt Lake City, The Downtown Alliance, The Salt Lake Redevelopment Agency, Salt Lake Chamber, UTA, Visit Salt Lake, SelectHealth, and other private sponsors.

GREENbike is Salt Lake City's bike share program.
Source: Flickr, rudi riet

Bicycle Accommodations on Board and at Stations

Bicycles are currently allowed on UTA buses, TRAX, and FrontRunner, with specific loading areas identified at the stations for cyclists. FrontRunner cars can accommodate between 4-12 bicycles each, depending on the type of car; TRAX cars can accommodate up to 4 bicycles in each car. UTA is currently exploring methods of more efficient bicycle storage on cars, including the installation of hooks on TRAX vehicles for hanging bikes. Bike lockers are also available for rent at TRAX and FrontRunner stations. All UTA buses are also equipped with a bicycle rack that can hold up to two bikes. All new CNG buses will be equipped with three position bike racks.

UTA buses are equipped with bicyle racks with enough room for two bicycles.
Source: Nelson\Nygaard

Enterprise Car Share Program

Enterprise is currently the Car Share vendor in the Salt Lake City area, and their program allows people to reserve a car by the hour. Members reserve the car online or by phone, access the vehicle with a membership card, and then return it to the dedicated parking space once their trip is finished. The cost of the car is $8.00 per hour, including fuel and physical demand/liability protection included.

UTA Rideshare

UTA provides a free ridematching system (www.utacommuter.com) to help pair rideshare users. UTA also sponsors a vanpool program where they provide the van.

TravelWise Travel Demand Management (TDM) Program

UDOT's TravelWise program promotes multimodal transportation across the state by issuing travel alerts during crucial times including major traffic accidents, traffic warnings, weather related road conditions, or periods of poor air quality. People can access the alerts via website (udottraffic.utah.gov) or mobile app. Each alert is associated with a travel suggestion that relates to the TravelWise strategies. Strategies promoted through the program include alternative work schedules, active transportation, carpool/vanpool, public transit, "skip the trip," teleworking, and trip chaining.

7 INITIAL FINDINGS AND CONSIDERATIONS

This chapter summarizes the key findings that emerged from analysis of the rich body of existing transit, land use, demographic, and travel behavior data provided by Salt Lake City, UTA, and the Wasatch Front Regional Council. It summarizes the state of transit service and the myriad factors that impact the use and performance of transit in Salt Lake City today. The key findings (bolded below) will serve as a foundation for the next phase of study.

REVIEW OF EXISTING PLANS AND POLICIES

- **The Salt Lake City Transit Master Plan responds to community and policy mandates to improve public transportation for the benefit of all members of the community.**
  - The City's overall Transportation Master Plan emphasizes providing choices in travel and reducing dependence on the private automobile.
  - The Mayor has adopted policy statements about the importance of continued improvements and investment in public transportation.
  - The City Council has adopted goals that call for a public transit system that is easy to use, affordable, accessible, stable, reliable, frequent, and available for work and play activities.
  - Residents and other community leaders have also expressed strong support for accessible, safe, reliable, affordable public transportation.
- **Salt Lake City has set goals to increase transit use.** Draft Plan Salt Lake – the city's vision plan for the next 25 years, which is currently underway – establishes goals to reduce the number of single occupancy auto trips through the following strategies: increase the mode share for public transit, bicycling, walking, and carpooling; and provide public transit within a quarter mile of all homes.
- **High quality public transit is critical to meeting Salt Lake City's other goals.** A review of goals and themes from prior planning efforts shows that the availability of safe, high-quality, convenient transit service is a critical tool to support achievement of broader outcomes, e.g. health, economic competitiveness, and improved quality of life.
- **UTA and Salt Lake City goals are largely aligned.** When comparing goals from prior planning efforts by both UTA and Salt Lake City, there were far more similarities than differences. One salient difference is that UTA emphasizes efficiency whereas Salt Lake City is more focused on ease of use and passenger convenience.

LAND USE AND GROWTH

- **Density is concentrated in downtown and east downtown with pockets in other parts of the city.** Population and employment density, measured by residents and jobs per acre, is primarily concentrated downtown and east of downtown. Dense population and job clusters are also found in inner parts of the Greater Avenues and Capitol Hill, the Fair Grounds neighborhood, and the central southeast part of the city (East Liberty Park, Liberty-Wells, and Sugar House). Western Salt Lake also has areas of high residential density (Poplar Grove, Glendale, and Rose Park).
- **The highest density areas in Salt Lake are east of the major downtown transfer points.** There is a gap between downtown's primary transit transfer points (Central Station, State Street, and Main Street) and some of the densest areas of the city in eastern downtown. This poses a first/last mile connectivity barrier that is exacerbated by large blocks in downtown.
- **Salt Lake City is the region's employment hub.** Every workday, the population in Salt Lake City nearly doubles with commuters from around the region. Salt Lake has three major employment centers:
  - Central Business District (~69,000 jobs)
  - University of Utah /Research Park (~17,000 jobs /11,000 jobs)
  - Northwest quadrant (~70,000 jobs):
    - Airport
    - International Center
    - 2200 West corridor
- **Salt Lake City is growing.** Between 2015 and 2040, population and employment in Salt Lake City is expected to grow substantially (19% and 8% respectively). By 2040, more than 40,000 new residents and 20,000 new employees are expected in Salt Lake City. Major growth is expected in redevelopment areas, other planned growth districts, and areas that are currently experiencing development activity. These include:
  - Central Business District, East Downtown, and 400 South corridor
  - Depot District and Granary District
  - State Street
  - West Capitol Hill
  - North Temple
  - Sugar House
  - Redwood Road and other job growth in the northwest quadrant

OVERALL TRAVEL PATTERNS

- **The vast majority of trips are non-commute trips.** Approximately 4 out of 5 trips in Salt Lake City are for purposes other than traveling from home to work.
- **East downtown has the highest overall trip demand in Salt Lake City.** This reflects its mixed-use character including offices, commercial buildings, and some of the city's highest density of homes.

- **The areas stretching from downtown to the University of Utah are the most common origins/destinations for trips in Salt Lake City**. Trips between these zones (downtown, eastern downtown, and the University of Utah) are also very common.
- **Travel within neighborhoods represents a very common trip pattern**. These are likely representative of the high portion of non-commute trips, to get to services, run errands, or meet other daily needs.

TRANSIT USE

- **6% of Salt Lake City residents take transit to work.** For over a decade, the mode split for Salt Lake City residents' commute trips has remained relatively steady at 6% transit and 81% auto (comprised of 69% drive alone and 12% carpool).
  - Salt Lake City employees commute by transit at a higher rate than those who work elsewhere.
  - Transit mode share at University of Utah is well above the city-wide average (18.4%).
  - Transit mode share is well below the city-wide average in western Salt Lake City (Rose Park, Glendale, and Poplar Grove) and in Sugar House/East Bench.
  - Bike mode share is highest in Glendale/Poplar Grove (~7%).
  - Walk mode share is highest in the Downtown area (~27%).
- **2% of all trips are made on transit.** This indicates that a smaller share of non-commute trips are made on transit than commute trips.
- **The majority of transit trips in Salt Lake City are on TRAX.** Of all transit boardings in Salt Lake City in 2014, 55% were TRAX boardings followed by 39% bus boardings.
- **Transit ridership is highest in downtown and at the University of Utah.** TRAX stations have particularly high numbers of boardings. Major transfer points between routes also have particularly high boardings, as do park-and-ride lots.
- **State Street and Main Street are high use transit locations**. In downtown, there is significant transit boarding activity along State Street and Main Street, equal to or more than the activity at Salt Lake Central Station.
  - The most TRAX boarding activity occurs along Main Street (100 N to 400 S).
  - The most bus boarding activity occurs along State Street (200 N to 400 S) and at Salt Lake Central.
- **The highest ridership bus routes are generally long inter-city routes, such as those that connect downtown Salt Lake City to Ogden and Murray for most of the day, and all-day local routes that serve University of Utah**; they are:
  - Route 200 – State Street North
  - Route 217 – Redwood Road
  - Route 209 – 900 East
  - Route 205 – 500 East
  - Route 21 – 2100 South/2100 East
  - Route 2 – 200 South
- **Transit doesn't serve all common trips.** An examination of overall travel patterns in Salt Lake City compared to travel patterns on public transit reveals that there may be

some common trip patterns that are not well served by transit. The next phase of study will continue to explore these and other gaps in more detail.

- **West side demographics, land use, and densities should be supportive of transit use, but show less transit use than other areas.** These neighborhoods are higher density, and have high concentrations of seniors, people with disabilities, low-income and zero-vehicle households, but show less transit activity than other areas.

TRANSIT SERVICE AND CONNECTIONS

- **More bus service is provided than service on other modes**. 71% of total revenue hours of routes that served Salt Lake City in 2014 were bus revenue hours, 91% of these bus hours were all-day local services or specialty shuttle services.
- **The structure of the transit network is different on the east and west sides of the city.** In the eastern half of the city, bus lines generally follow a regular grid pattern along major corridors. In the west side of the city, bus lines follow somewhat circuitous patterns and service is more sparse.
  - Barriers such as north-south running highways and freight rail traffic undermine access to service on the west side.
- **There is more limited east-west service than north-south service.** UTA has made significant north-south rail investments over the last several years that have made traveling between key north-south destinations easier on transit. East-west connections can still be challenging, though there are improvements that UTA is currently studying to improve some of these connections.
- **There is limited high frequency bus service, especially on weekends.** Although Salt Lake City has 44 bus routes that operate within city limits, very few operate frequent service that is available every 15 minutes or less (6 routes). Service that operates every 15 minutes or less is considered the minimum service level that allows people to use transit without consulting a schedule.
  - Service frequency on several routes varies over the course of the day.
  - Among corridors that retain service on weekends, the highest-frequency service is generally every 30 minutes on Saturdays and every 60 minutes on Sundays.
- **There is limited evening bus service.** Of the 44 transit routes that operate in Salt Lake, only about half operate outside commute periods and provide midday service. Evening bus service is limited all days of the week after 8:00 p.m. TRAX, FrontRunner, and the streetcar line run on a somewhat later schedule.
- **There is limited weekend bus service.** Bus service on the weekend in Salt Lake City is limited. Sixteen of the 44 bus routes operate on Saturdays and nine operate on Sundays. Most bus routes operating on weekends run no more frequently than every 30 minutes on Saturdays and no more than every 60 minutes on Sundays.
- **Transit travel in some neighborhoods carries a higher time disadvantage compared to auto travel than others**. The following neighborhoods appear to have a particularly high transit time disadvantage when compared to auto travel to downtown Salt Lake City: Sugar House, Glendale, and East Bench neighborhoods.
- **The Regional Transportation Plan includes several future improvements to the transit network.** These improvements include: expansion of the Bus Plus Frequent Transit Network, new BRT routes, a Downtown Streetcar, and a direct TRAX connection

from the Salt Lake Intermodal Center to the University of Utah (potentially through providing direct service on existing rails and/or building an extension from Central Station eastward along 400 S) .

- **UTA needs additional layover space in Salt Lake City.** In order to increase UTA service in Salt Lake City, especially in areas that already have significant amounts of service such as downtown and the University of Utah, UTA would need to identify additional bus layover locations.
- **The TRAX system has a capacity constraint at 4th South and Main Street.** This limitation does not allow UTA to operate any additional trains during peak periods.
- **The University of Utah runs its own transit service.** The University of Utah is a significant demand center for transit in Salt Lake City with more than 30,000 students and more than 17,000 faculty and staff.
  - The University provides an express peak period shuttle from Salt Lake Central and eight free campus shuttles for campus affiliates to use. These routes are not closely coordinated with UTA service.
  - The University is looking to increase transit mode share as part of their current Transportation Master Plan.[1]
- **UTA makes changes to their system three times per year.** UTA is required by their collective bargaining agreement to have three "change days per year." Changes can include re-numbering of routes, re-routing of lines, and schedule adjustments. This can make historical route-by-route ridership and performance data difficult to compile and historical changes and trends more difficult to understand; it may also impact legibility of the system for riders, an issue that will be further explored as part of public outreach.
- **UTA has made some major structural changes in their service in the last 10 years that changed boarding patterns.** Notable changes include construction of Salt Lake Central Intermodal Hub and a redesign of the whole system that occurred in 2006-2007, and the opening of the TRAX Red and Green lines, which changed the main downtown transfer location from Gallivan to Courthouse in 2011.

TRANSIT PERFORMANCE

- **Transit boardings in Salt Lake City increased since 2011, but at a slower rate than the system as a whole and at a slower rate than service hours**. Total transit ridership on all lines that touch Salt Lake City increased by 28% between 2011 and 2014 whereas boardings in Salt Lake City on these lines increased by 13%. During this period, service hours increased by 26%.
  - **Bus** ridership (Salt Lake City routes) decreased slightly (-3%) between 2011 and 2014 despite a 14% increase in revenue hours over this time period. 91% of bus ridership is on local and shuttle routes in Salt Lake City.
  - **TRAX** ridership overall increased by 30% between 2011 and 2014 due in large part to a 50% increase in service hours, largely on new lines; TRAX boardings in Salt Lake City increased by approximately 20%.

[1] Note: UTA has studied a TRAX "black line" that would provide service from University directly to the airport, but is constrained by the fact that the interlocking at Courthouse Station (400 South and Main Street) is at capacity and cannot handle any more transit through movement.

  - **FrontRunner** ridership increased the most over this time period (176% overall, 77% in Salt Lake City), due to addition of major new services (143% increase in service hours overall).
- **On average, local bus routes carry fewer passengers per revenue hour than other modes, though express buses have higher productivity**. Bus average productivity is 23 riders per hour, S-Line productivity is approximately 50 riders per hour, TRAX average productivity is 160 riders per hour, and FrontRunner is approximately 130 riders per hour (rail services operate with higher-capacity vehicles).
  - Route 2 and 2x are the most productive local and express bus routes and carry 42 and 85 riders per revenue hour respectively.
  - All-day routes tend to cost less to operate per passenger trip.
  - Express and other routes that provide longer-distance, peak-period trips are more cost-effective on a per-passenger mile basis.

TRANSIT RIDER DEMOGRAPHICS

- **Transit riders are younger than the population as a whole.** 62% of UTA riders in Salt Lake City are 34 years of age or younger and nearly one-third are 18 to 24 years old (31%). Only 14% of the Salt Lake City population as a whole is 18 to 24 years old.
- **Students account for 25% of the transit passengers in Salt Lake City.** 25% of riders in Salt Lake City are students (this does not include ridership on the free routes operated by the University).
- **Most riders are lower income and many are dependent on transit.**
  - A large portion of UTA riders in Salt Lake City are low income (61% have household income less than $50,000); UTA riders in Salt Lake are lower income than the Salt Lake City population as a whole.
  - Approximately half of UTA passengers in Salt Lake City are dependent on transit service to meet their daily needs:
  - 33% of riders are under the age of 18, most of whom can be characterized as transit dependent
  - A small percentage of riders (10%) are over the age of 65 – an age group that is typically transit dependent
  - The following neighborhoods have high concentrations of transit-dependent populations:
    - Neighborhoods between downtown and the University
    - Southern portion of the Capitol Hill neighborhood
    - Portions of Liberty Wells
    - Western Salt Lake City (Rose Park, Glendale, and Poplar Grove neighborhoods)
- **Less than half of transit riders are employed.** 48% of riders in Salt Lake City are employed full time.
- **Most riders use transit regularly.** Two-thirds of UTA riders in Salt Lake City use UTA five or more days per week and 87% use UTA at least three days per week.

FARE PAYMENT

- **The UPass is the most common method of payment for Salt Lake City transit trips.** 35% of riders use UPass, followed by cash, tickets and transfers (23%), FAREPAY (22%), and miscellaneous types of passes (20%).
- **Trips within the Fare Free Zone account for 2% of Salt Lake City transit trips.**
- **Salt Lake has a new HIVE pass program for travel within Salt Lake.** For the first HIVE pass program, the majority of HIVE purchasers lived between State Street (west) and the University of Utah (east) and North Temple (north) and 400 South (south). HIVE Pass users primarily used the bus (51%) followed by the TRAX (38%), FrontRunner (9%), and Streetcar (2%).

ACCESS AND AMENITIES

- **Salt Lake City has a number of physical and geographic barriers that make accessing and planning transit service difficult.** These include large blocks, steep hills, major interstates, the freight line, and major buildings that break up the street grid.
- **There are limited amenities for passengers at bus stops.** 83% of bus stops do not have a bench or a shelter for people to wait for the bus to arrive.
- **UTA offers several tools to connect passengers to services.** UTA provides a series of online and electronic information resources including an online trip planner, real-time information, and a mobile app center.
- **There are several programs that support transit use in Salt Lake City.** Supportive options include GREENbike Share, bicycle accommodations on vehicles and at stations, Enterprise Car Share, UTA Rideshare, and the TravelWise Travel Demand Management (TDM) Program.

Appendix A:

Inventory of Plans and Policies

INVENTORY OF PLANS AND POLICIES

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
Salt Lake City	City Council Retreat 2013			▪ Ease of Use: Anyone in Salt Lake City can get from Point A to Point B using only one transfer ▪ Affordability: Cost for service should be scaled to the length of each trip – or everyone should get a transit pass ▪ Destinations: Everyone should be able to get to two transit routes within a quarter mile of where they live or work ▪ Time of Day: Mass transit hours of operation should mirror the times people leave and return from work and play ▪ Immediacy: Mass transit service should be available every 10 minutes so people can presume service ▪ Route Reliability: Routes should remain stable so residents and developers can make transit part of their long-term housing choice	
Salt Lake City	City Council Philosophy Statements (2012)	This document provides several guiding philosophy statements to set a vision for historic preservation, housing, the economic health of the city, arts and culture, neighborhood quality of life, transparency, transportation and mobility, parks and open spaces, sustainability, and education.	Transportation Vision: Salt Lake City residents should have choices in modes of transportation which are safe, reliable, affordable, and sustainable. Residents should reap the value of well-designed transportation systems that connect residents to neighborhoods and the rest of the region. The City encourages alternatives to motorized-vehicular transportation and making those options more appealing and accessible to visitors and residents.	Transportation Values: ▪ We support maximizing the accessibility, affordability, and reliability of transportation options into and around the City and support increasing accommodations for non-automotive transportation options. ▪ We support educational efforts that will help residents make informed choices about the types of transportation they use. ▪ We support reducing the environmental and health impacts created by vehicle emissions. ▪ We support efforts that will reduce the need for people to drive alone in vehicles. ▪ We value the social, economic and health benefits that come from active transportation options such as bicycling and walking. ▪ Pedestrian and bicycle safety are a high priority and we believe they can be compatible with other modes of transportation. ▪ We support establishing and maintaining safe routes to schools. ▪ We value coordinating with transportation agencies and other municipalities to improve the movement of people throughout the city. ▪ As the population of Salt Lake City and the region increases, land use design decisions should reflect the intention to better accommodate all modes of transportation and focus on the movement of people.	TOD Recommendations: ▪ The City should support transit-oriented development as well as adequate, reliable public transportation so that residents may easily access employment, goods and services, and housing. ▪ The City should support housing densities, mixed-use and mixed-income projects, parking policies, and pedestrian-oriented urban designs that encourage walking and the use of alternative and public transportation.

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
Salt Lake City	Downtown in Motion (2008)	With roots in Envision Utah, the plan promotes sustainable growth and provides a blueprint for downtown Salt Lake City. Its vision is grounded in measurable, incremental steps that make all modes of movement— to, from, and within—Downtown more integrated, efficient, and accessible.	Goal 1 Serving Downtown: Downtown transportation will be supportive of and compatible with Salt Lake City's vision of Downtown and Downtown land uses, activities and businesses. Goal 2 Pedestrian Friendly: Downtown Salt Lake City will be pedestrian friendly, where walking is the primary mode of transportation. Goal 3 Easy to Use All forms of Downtown transportation will be easy to use and understand. Goal 4 Enhanced Transit Accessibility and Mobility All transit resources available in Downtown will be used to enhance regional accessibility to Downtown and mobility within Downtown. Goal 5 Balanced Modes Salt Lake City will creatively address congestion and enhance mobility in ways that are compatible with the other goals and objectives for Downtown.		▪ Develop comprehensive network of TRAX light rail lines to improve general transit access and connectivity ▪ Constructing new TRAX lines along 400 South from Main Street to 600 West and the Intermodal Hub (at 300 South and 600 West) – completing an inner loop of rail circulation in Downtown. ▪ Constructing new TRAX lines on 700 South from 200 West to 400 West, and then continuing north on 400 West connecting to the existing system near Gateway – completing an outer loop that serves Downtown and the emerging southwest quadrant. ▪ Building a bus system that encourages use in and around Downtown and not just for getting to and from Downtown. ▪ Continue State Street and 200 South as the main corridors for bus service in Downtown. ▪ A new bus passenger center will be constructed at State Street and 200 South on the east side of Downtown to complement service on the west side of Downtown at the Intermodal Hub. ▪ Increasing bus service in Downtown, which includes using Branded Bus Corridors, to help visitors circulate easily along set routes without worry of being on the wrong bus. ▪ More attractive and comfortable bus stops Downtown, including better information about bus service. ▪ Expanding the Free Fare Zone in Downtown. The Free Fare Zone will be extended to include the Library TRAX Station and three new stations on the west side of Downtown, including the Intermodal Hub and the hotels on 600 South. ▪ Downtown circulator/shuttle service

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
Salt Lake City	Salt Lake City Downtown Community Plan: Story of Our Future (2014)	The Downtown Community Plan is a 25-year vision and implementation plan that directs growth and development in the downtown. It is a shared citywide vision drawn on already established, adopted City plans and policies. It creates a framework for more focused plans like the Downtown Master Plan.	Vision: Downtown Salt Lake will be the premier center for sustainable urban living, commerce, and cultural life in the Intermountain West. Goal 1: Double transit ridership by 2020 and double it again by 2040 Goal 2: More evenly balanced mode share Goal 3: Improved transit connections to major job, neighborhood, and activity centers (i.e. airport, University of Utah, Sugar House Business District, State Capital) Goal 4: A simple public parking system that balances the city's role as the economic center of the State supports small and large retailers, and supports the restaurant, cultural, and night life of the city.	Principles: A transportation and mobility network that is safe, accessible, reliable, affordable, and sustainable, providing real choices and connecting people with places. Air that is healthy and clean. Targets: The desired trend is to see more people walking, biking, or using transit. The long term trend related to housing and jobs being located close to housing is to have every downtown resident/worker within a 1/4 mile of a light rail, street car or bus route with 15 minute service or less.	▪ Encourage development of Transit Oriented Development (TOD) through form-based codes and allowed increased density within a 10-minute walk of Trax, streetcar and high frequency bus routes. ▪ Work with UTA to implement a downtown circulator that improves local transportation through the downtown. ▪ Continue reduced-cost transit pass program (Hive Pass) for Salt Lake City residents ▪ Work with other agencies to improve access to transit for City residents. ▪ Work with UTA to find ways to improve the efficiency of the transit system for commuters. • Improve the "last mile" transit connections to encourage ridership. ▪ Work with UTA to ensure downtown remains the center of the regional transit system. ▪ Improve the "last mile" transit connections to encourage ridership. ▪ Provide a direct transit connection between Central Station and the University of Utah. ▪ Work with UTA to improve transit access between downtown and other major destinations in the City. ▪ With development of the new airport terminals, parking, and associated facilities, work with the Airport to improve access between downtown and the airport.
Salt Lake City	Complete Streets Policy (2010)			...the city supports the concept of complete streets, requiring the accommodation of pedestrians and bicyclists throughout the planning process. All city owned transportation facilities in the public right of way on which bicyclists and pedestrians are permitted by law, including, but not limited to, streets, bridges, and all other connecting pathways, shall be designed, constructed, operated, and maintained so that users, including people with disabilities, can travel safely and independently.	

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
Salt Lake City	West Side Master Plan (2014)	The Westside Master Plan is a visioning document for the Glendale and Poplar Grove neighborhoods. One of the most common issues brought up in community meetings was the lack of connectivity between the Westside and the rest of the city. Isolation is due to historical development of the city, the railroads, and the placement of I-15 and I-80.	Vision: the Westside Will Be: ▪ Clearly connected to the rest of Salt Lake City through a variety of reliable transportation modes that give residents convenient options for getting around ▪ Home to a healthy and diverse industrial business community that provides a growing employment and economic base for Salt Lake City Goals: ▪ Strengthen the connections both within and between the Westside and other parts of Salt Lake City by improving the community's gateways and corridors and strengthening the transportation network for all modes of travel.		Salt Lake City should encourage the Utah Transit Authority to improve the overall reliability and quality of bus service in the Westside and make efforts to improve the quality and accessibility of bus stops in the community. As part of Salt Lake City's citywide transit master plan, the role of rail service—especially streetcar—in the Westside should be reviewed and the city should consider how it can be used to strengthen the east west connections between the Westside and downtown. Salt Lake City should focus efforts on realizing the proposed bus rapid transit (BRT) route on Redwood Road, as identified in the *2011- 2040 Wasatch Front Regional Transportation Plan*, as redevelopment necessitates direct and efficient travel to both Redwood Road employment centers (from outside the community) and those downtown, at the University of Utah and at Research Park. BRT on Redwood Road within Salt Lake City should, at minimum, feature dedicated rights-of-way for buses with stations similar to those found at light rail stations. As a potential long-term project, Salt Lake City should consider the feasibility of a light rail or streetcar route on Redwood Road.

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
Salt Lake City	Sugar House Master Plan	The Sugar House Master Plan is a visioning document for the Sugar House neighborhood. The Sugar House neighborhood is slated to undergo significant redevelopment.	▪ An integrated program for mobility throughout the community with a commitment toward optimizing the pedestrian experience and alternatives to automobile travel, particularly in the Sugar House Business District, which is a necessary element of a viable commercial center.	▪ Develop the Sugar House Community to be a sustainable, attractive, harmonious and pedestrian oriented community. ▪ Provide a mix of housing types, densities, and costs to allow residents to work and live in the same community. Locate higher density housing on or near public transportation routes to afford residents the ability to reduce their reliance on the automobile. ▪ Direct a mixed-land use development pattern within the Sugar House Business District to include medium- and high-density housing and necessary neighborhood amenities and facilities. These developments will be compatibly arranged, taking full advantage of future transit stations, Sugar House Park, Fairmont Park, and the proximity to the retail core. ▪ Provide for multiple modes of transportation that are safe, convenient and comfortable. ▪ Support the use of transit for commuters and college students. ▪ Support the construction of light rail along the Sugar House rail corridor and determine locations for future transit stations and park and ride facilities within the Sugar House Business District, near the Brickyard Plaza and on 2100 South near 2300 East. ▪ Direct land use decisions to support a light rail station in the Business District. ▪ Create a Citywide transit-oriented development (TOD) zoning district or overlay zone that may be applied to strategic areas and that require development, both public and private, to facilitate transit use. ▪ Encourage UTA to acquire the Union Pacific rail line in order to preserve the options of converting the line to a “rails-with-trails” corridor for cycling, hiking, skating and a light rail line. ▪ Prohibit development that encroaches upon or utilizes the Union Pacific railroad line right-of-way if that development compromises future use of the right-of-way for a trail or light-rail system. ▪ Enforce against those individuals who have illegally built structures that encroach upon the railroad right-of-way. ▪ Encourage UTA to provide more frequent and efficient bus service throughout Salt Lake City. ▪ Improve bus stops to ensure adequate access, safety and comfort for transit riders, including more bus shelters that are fully enclosed glass structures at bus stops. ▪ Create a mini-shuttle system between shopping areas, hotels, offices, and metro links in the Sugar House community. ▪ Support the use of alternative fuels for mass transit systems for cleaner air such as electric, methanol, and other methods of cleaner burning engines.	

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
Salt Lake City	Plan Salt Lake (In progress - August 2014 last version)	Plan Salt Lake sets a citywide Vision for Salt Lake City for the next 25 years.	Sustainability: The goal of livability and making our city one of the greenest, most inclusive, and economically viable cities in the country. Connectivity & Circulation: Connectivity and circulation are critical to responsible, sustainable growth. We must ensure that our neighborhoods and districts are well connected by both providing a wide-range of transportation and mobility options and increasing the number of connections in our community. Smaller blocks and a diversity of connections are necessary to achieve this. 2040 TARGETS: 1. Public transit within 1/4 mile of all homes 2. Reduce Single Occupancy auto trips 3. Decrease pedestrian, bike, and auto accidents	Plan is broken into 13 guiding principles, each with a set of initiatives, #4. Transportation & Mobility: A transportation and mobility network that is safe, accessible, reliable, affordable, and sustainable, providing real choices and connecting people with places. ▪ More affordable, safe, and accessible choices for all ▪ More accessible and more convenient transit ▪ Multimodal transportation network to decrease automobile dependency ▪ Embedded art and pedestrian elements into our transportation network to reinforce community identity, enhance quality of life, and better utilize public right-of-ways for people, not just cars.	Initiatives: 1. Create a complete circulation network and ensure convenient equitable access to a variety of transportation options by: ▪ Having a public transit stop within 1/4 mile of all residents ▪ Expanding pedestrian and bicycle networks and facilities in all areas of the City ▪ Providing incentives for the use of transit ▪ Enhancing the regional transportation network ▪ Creating a system of connections so that residents may easily access employment, goods and services, neighborhood amenities, and housing. 2. Reduce automobile dependency and single occupancy vehicle trips. 3. Make walking and cycling viable, safe, and convenient transportation options in all areas of the City. 4. Prioritize maintenance of existing infrastructure (enhancing quality of life, safety, sustainability, and mobility). 5. Encourage transit-oriented development (TOD). 6. Support and enhance the Salt Lake International Airport as a regional and international amenity (including freight). 7. Collaborate with regional partners to relieve congestion and enhance rights-of-way for alternative modes of transportation. 8. Enhance rights-of-way to join, rather than segregate, adjacent neighborhoods. 9. Incorporate green infrastructure into our rights-of-way and transportation network. 10. Incorporate pedestrian oriented elements, including street trees, pedestrian scale lighting, signage, and embedded art, into our rights-of-way and transportation networks.
Salt Lake City	Bike/Ped Master Plan (2004)	The purpose of the bicycle and pedestrian master plan is to provide SCL with a strong planning tool that will facilitate the continued and orderly development of bicycle and pedestrian facilities and implementation strategies that encourage their use.	Enhance use of the bicycle for transportation and recreation, and walking for pleasure and mobility. Foster community respect for bicycling and walking. Promote bicycling and walking as ways to enhance personal health and improve the community environment.		Incorporate a multiple use trail into the planning for the future transit use of the UTA rail corridor to Sugar House. Coordinate with the UTA to continue to provide bicycle storage on buses and light rail vehicles and to ensure bicycle accommodation on future commuter rail trains. Coordinate with UDOT to provide sidewalks on UDOT roads within SLC to improve pedestrian access to transit stops and other community facilities.

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
Salt Lake City	Sustainable Salt Lake Plan (2015)	Salt Lake City's sustainable transportation system provides safe travel options for residents, is affordable and efficient, limits waste and resource use, and supports a vibrant economy.	▪ Deliver transportation services that result in a zero carbon footprint and make the environment better ▪ Develop a sustainable, high-performance transportation system that supports a robust economy ▪ Enhance quality of life by integrating transportation with the built environment	"Livability" has emerged as a unifying theme for framing our priorities. We have focused on making our city one of the greenest, most inclusive, and economically viable municipalities in the country.	▪ Increase, improve, and promote transit service to and within the city: ▪ Complete and open the Sugar House Streetcar, and complete implementation plan for Phase 2. ▪ Fund or begin construction on a downtown streetcar. ▪ Complete a citywide streetcar network plan. ▪ Finalize plans to extend TRAX along 400 South from Main Street to the Intermodal Hub. ▪ Work with Utah Transit Authority to extend TRAX service until 1:00 a.m., and to provide a "Next Bus" pilot program. ▪ Work with UTA to finalize plans for a mountain transportation system.
Salt Lake City	Central Community Master Plan (2002)	The Central Community Master Plan provides policy guidelines for Salt Lake City commissions, boards and administrative entities to use when directing and implementing projects, programs and public policies that require review, recommendations and approval. This master plan serves the community by providing policies and principles for a sustained and enhanced environment for living and working in the Central Community.	▪ Protect and improve the quality of life for everyone living in the community, regardless of age or ability. ▪ Improve and support community involvement, public participation, and neighborhood activism in the Central Community. ▪ Provide a basis for funding specific programs that assist housing, capital improvement programs, and public services. ▪ Provide opportunities for smarter and more creative development practices to better serve the community. ▪ Prevent inappropriate growth in specific parts of the community. ▪ Encourage specific types of growth in designated parts of the community. ▪ Establish financial incentives to support alternative modes of mobility. ▪ Preserve historic structures and residential neighborhoods. ▪ Establish recommendations for better coordination and administrative review of construction projects and city applications.		

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
Salt Lake City	North Temple Boulevard Master Plan (2010)	This plan provides a framework for land use and urban design decisions that will be required as North Temple changes from an auto oriented street to a street that accommodates all modes. This plan covers 2 ½ miles along North Temple Boulevard from 600 West out to 2200 West. The plan covers five station areas: Viaduct, 800 West, Fairpark, Cornell, and a combined area for 1950 West and 2200 West (future station area). This street serves as a major thoroughfare between downtown and neighborhoods and businesses in the Northwest Community. The addition of the Airport Light Rail Line will result in North Temple Blvd. playing a new role in the community – it will be a major element of the region's mass transit system connecting the entire system to the airport. The Light Rail line will require removal of a center turn lane and one vehicle lane in each direction.	Boulevard Design Book Goals: ▪ Provide policy and urban design direction and guidelines. ▪ Promote high quality and functional street design with efficient project implementation. ▪ Develop a more balanced approach to street design, giving equal weight to transportation, transit, community and environmental goals. ▪ Ensure that the investment in high quality street infrastructure yields economic benefits and increases in residential and commercial property values and retail activity. ▪ Make all expenditures on this project cost effective.	Design Principles: ▪ Design for transit: Utilize transit as a catalyst. Integrate transit into the design of the street to improve the physical character, livability, functionality and economic vitality while providing a memorable welcoming experience for all users. ▪ Design for safety: Design safe and functional streets for all users. ▪ Design for access and mobility: Multimodal streets should accommodate all users by prioritizing the most energy and space efficient modes. ▪ Design for context: Streets help define the character of the City and should respond to the unique qualities and the environment around the street. ▪ Design for livability: Create vibrant, high quality public spaces that facilitate civic, cultural, recreational and economic interactions. ▪ Design for sustainability: Contribute to a healthier, greener, and more sustainable environment. ▪ Design for excellence: Create memorable streets designed to the highest aesthetic standards possible, using durable materials. ▪ Design for cost effectiveness: Provide the greatest possible value to the public that meets today¡¦s needs as well as the needs of the future. ▪ Each Station Area has its own set of policies many of which overlap: ▪ Development: Use innovative zoning techniques to create high quality projects that build on the station area's assets. ▪ Connectivity: Improve the pedestrian environment to create a safe and walkable transit-oriented neighborhood. ▪ Mix of Uses: Intensify the mix of uses. ▪ Placemaking: Create safe, vibrant and useful public spaces and urban infrastructure. ▪ Destinations: Enhance the area as a regional destination and transfer location. ▪ Mobility: Improve the pedestrian environment to create a walkable transit-oriented neighborhood. ▪ Residential Density: Increase the residential density around the 800 West Station.	Recommends Transit Station Area Types that include: ▪ Mix of land uses ▪ Design standards and guidelines ▪ Circulation and connectivity ▪ Station access ▪ Public spaces ▪ Parking Specific strategies include (not a comprehensive list): ▪ Effectively manage parking around station areas ▪ Recognize streets as being important public spaces ▪ Establish minimum residential density of 20 DU per acre ▪ Provide a range of housing options ▪ Rezone the station areas ▪ Develop design guidelines that support pedestrian-friendly environment ▪ Design direct pedestrian routes to station areas ▪ Identify transit-friendly land uses that are appropriate in the station area
Salt Lake City	Mayor's Livability Agenda (2012)	Second term mayor agenda and vision for SLC	The Administration will work to further develop connections between the City's activity centers with a safe, clean and green travel network that will help us 1) use resources and time efficiently and wisely to get around town; 2) connect with our fellow residents through personal interactions; 3) foster stronger relationships with our local businesses, entertainment, and arts organizations; and 4) share and enjoy our parks and natural spaces.	▪ Expand and raise awareness of various transportation options. ▪ Lead the region in user-friendly applications that help people move around the city. ▪ Use mobility as a defining feature to compete in the 21st century economy and environment. ▪ Ensure secure and comfortable experience for all transportation system users	▪ Aggressively develop a neighborhood transit system with a streetcar network as its backbone. ▪ Evaluate the potential for an "owl" TRAX. Provide a late night schedule for after last call ▪ Partner to develop a "Next Bus" pilot program. ▪ Advocate for a year-round Canyons Shuttle and Mountain Transportation System. Through an expansion of the recently established UTA bus route to Park City that may include Mill Creek and Big and Little Cottonwood Canyons, our residents and visitors could have direct, year-round access from Salt Lake City to the Wasatch Canyons via transit. ▪ Work with UTA to bring back the direct TRAX connection between downtown and the University of Utah. ▪ Build a better bus stop. Develop bus stops that are safe, inviting and entertaining places to wait.

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
Salt Lake Chamber and Downtown Alliance	Downtown Rising (initiated in 2006)	Led by the Salt Lake Chamber and the Downtown Alliance, Downtown Rising is an evolving vision for the future of Downtown SLC. The vision includes creating character districts, signature projects, and shared ideas about shaping the future of the city.	Downtown Rising is a shared vision for a great American City that embraces art, culture and education. It envisions a community that is welcoming, green and international.	TOD Goal: Establish the benefits of TOD through land use designations, design guidelines, zoning, and public funding.	TOD: Includes section on transit-oriented development and designates three transit-oriented development land use classifications for the neighborhood (low-, medium-, and high-density). Specific strategies include: ▪ Support a variety of low-, medium- and high-density residential uses around light rail stations in TOD districts, based on the Future Land Use map designations. ▪ At light rail stations in TOD districts, establish a centralized core of land uses that support transit ridership. Anchor transit centers with land uses that act as destination points. ▪ Encourage a variety of commercial uses that share the same clientele and patrons. For example, movie theaters provide a clientele to patronize restaurants, arcades, and retail businesses. Other Access and Mobility Strategies: ▪ Design: With new development encourage the construction of direct pedestrian pathways and/or pedestrian zones to connect with neighboring land uses, parking lots and mass transit.
UTA	Five Year Service Plan (2013)	The Five-Year Service Plan (2013-2018) synthesizes and prioritizes service improvement concepts across multiple modes and business units within the UTA system. This document shows the level of resources necessary to meet unmet needs, address capacity issues, and expand the high-frequency service network throughout Utah, Salt Lake, Weber, and Davis Counties. Plan looks at how to improve the efficiency and effectiveness of UTA's service; purely ridership driven process.		Basis for development of service improvement concepts: ▪ Service level improvements ▪ Improve route headway ▪ Increase hours of operation ▪ Add weekend service where appropriate ▪ System design improvements ▪ Streamline alignments to improve directness and simplicity ▪ Reduce service duplication and improve route spacing ▪ Increase service to major activity centers ▪ Introduce new services targeting potential customers	▪ Recommended route classifications (page 2-2) ▪ Three service concepts were developed based on different funding levels and the following improvements: – Operating on fewer streets within downtown Salt Lake City – Creating an interconnected network of routes with 10 minute headways o Route 2 ¡V 200 South o Route 21 ¡V 2100 South/2100 East o Route 33 ¡V 3300 South o Route 35M ¡V 3500 South MAX o Route 200 ¡V State Street North – Shortening or interlining several routes within the University of Utah campus to reduce running time and improve schedule reliability – Improving headways and service span for many routes – Adding Sunday service to all core arterial routes – Adding Saturday service to all arterial routes

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
UTA	UTA Network Study (2013)	The Network Study identifies the next group of capital and operating improvements that the Utah Transit Authority (UTA) will focus on delivering after completion of the FrontLines 2015 program.	Customer focus Finances/funding Economic development Ridership/service ▪ Double ridership through full funding of the Unified Plan ▪ Increase levels of service by 50% ▪ Reduce average customer trip time by 25% ▪ Develop a fully integrated first/last mile ▪ Find and attract new markets for ridership Accountability Transit oriented development ▪ Partner with stakeholders on station area planning ▪ Pursue public-private partnerships Sustainability ▪ Operate a balanced fleet of alternative fuel vehicles ▪ Support clean air initiatives including pass programs and partnerships with other state and local air quality groups		▪ Salt Lake County State Street Bus Plus ▪ 5600 West Transit Corridor – BRT from Daybreak TRAX to International Center via I-80 to downtown SLC ▪ Bus Plus frequent transit network ▪ More frequent FrontRunner service and operational improvements ▪ SLC Downtown LRT Connection ▪ South Davis Transit Corridor – fixed-guideway transit from SL Intermodal Center to 400 North (BRT assumed) ▪ Active transportation improvements (bike share, bike access on FrontRunner vehicles, and more direct access to transit) ▪ SLC Downtown Streetcar from SL Intermodal Center to 1300 East ▪ Sugarhouse Streetcar ▪ Mountain Transportation – improved transit from SLC to recreation in Big and Little Cottonwood Canyons

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
UTA	UTA Strategic Plan (2013)	2020 Strategic Plan	Relevant Focus Areas/Goals: Finance/funding Ridership/service ▪ Double ridership through full funding of the Unified Plan ▪ Increase levels of service by 50 percent ▪ Develop new fare products and equitable fare policies ▪ Reduce the average customer trip time by 25 percent ▪ Develop a fully integrated First/Last Mile Strategy ▪ Find and attract new markets for ridership Accountability Transit oriented development ▪ Partner with communities and external stakeholders on UTA station area planning processes ▪ Pursue more public-private partnerships to leverage UTA assets in order to generate revenue that can support more transit service Economic Development ▪ Promote economic benefits of transit to existing companies along the Wasatch Front Sustainability ▪ Support clean air initiatives including pass programs and partnerships with other state and local Air Quality groups ▪ Operate a balanced fleet of alternative fuel vehicles		

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
UTA	UTA First/Last Mile Study (in progress)	The purpose of this First/Last Mile Strategies Study is to identify a short list of strategies to prioritize that would be most effective in increasing system ridership. Scope of study focuses primarily on FrontRunner and TRAX facilities however BRT and streetcar line facilities were also considered. The study estimated ridership increases by station typology assuming recommended strategies are implemented.			Recommendations provided based on established station typologies. Station typologies based on walk access, active transportation mode split, non-auto access mode split, and availability of parking supply: ▪ Urban ▪ Multimodal ▪ Institutional ▪ Suburban ▪ Suburban non-residential ▪ Auto-dependent FMLM strategies were recommended by station typology. Urban typology strategies (for example): ▪ Wayfinding and information ▪ Bicycle network connections ▪ Pedestrian network improvements ▪ Crossing treatments ▪ Bikesharing ▪ Car sharing ▪ Rail/bus stop enhancements
WFRC	Wasatch Choice for 2040	The Wasatch Choice for 2040 is a vision for how agencies and communities will develop our communities and transportation system to accommodate projected population growth. In the next 30 years, the population in Salt Lake, Davis, Weber, and Utah counties is projected to increase by 65 percent, adding another 1.4 million residents. Wasatch Choice 2040 is an Envision Utah project.		Growth principles and objectives: ▪ Provide Public Infrastructure that is Efficient and Adequately Maintained ▪ Provide Regional Mobility through a Variety of Interconnected Transportation Choices ▪ Integrate Local Land-Use with Regional Transportation Systems ▪ Provide Housing for People in all Life Stages and Incomes ▪ Ensure Public Health and Safety ▪ Enhance the Regional Economy ▪ Promote Regional Collaboration ▪ Strengthen Sense of Community ▪ Protect and Enhance the Environment	Relevant Objectives for the TMP ▪ Develop a balanced, multi-modal transportation system. ▪ Coordinate transportation with regional employment, housing, educational and activity centers. ▪ Encourage future commercial and residential areas within close proximity of each other to reduce travel distances. ▪ Encourage a balance of jobs and housing in each part of the region to reduce travel distances. ▪ Support actions that reduce growth in per capita vehicle miles of travel. ▪ Coordinate regional transportation with centers of development. ▪ Coordinate transportation decisions with schools and educational centers. ▪ Make land-use and transportation decisions based on comprehensive understanding of their impact on each other.

Plan Owner	Name of Plan	Plan Purpose	Goals/Vision	Policies/Principles	Recommended Strategies
WFRC	WFRC Regional Transportation Plan (2011)	The Regional Transportation Plan is the transportation element of Wasatch Choice for 2040 covering the period 2011 to 2040. The RTP is the plan for all regionally significant road and highway, public transit capacity-expansion and preservation projects in the Wasatch Front. The RTP also incorporates other modes of transportation, including bicycle, pedestrian, trucking and transportation for seniors and persons with disabilities.		The 2040 Regional Transportation Plan (RTP) must conform to the Utah State Implementation Plan (SIP) for air quality. This means that the vehicle emissions resulting from the transportation projects proposed in the 2040 RTP may not exceed the level or "budget" set for them in the SIP.	Downtown SLC Major Transit Projects ▪ 200 South Streetcar and BRT from 600 W/200S to 200S/200E ▪ Downtown SLC Branded Bus ▪ University TRAX Line to SL Central TRAX Connection ▪ SW Downtown SLC Streetcar (Granary Line) ▪ SL Downtown Transit Center (transit hub at 200 S/State Street ▪ Interstate-80 Transit Only Freeway Ramps
Envision Utah	Envision Utah	Beginning in 1997, Envision Utah launched a public effort to keep Utah beautiful, prosperous, healthy, and neighborly for future generations. It's a strategy developed by the people of Utah to make our lives better – that provides more choices for how we, and the next generation, would like to live.	Envision Utah engages people to create and sustain communities that are beautiful, prosperous, healthy and neighborly for current and future residents.		
UDOT	Unified Transportation Master Plan	The Unified Transportation Master Plan is the state's long range transportation plan (2011 to 2040).	▪ Preserve infrastructure ▪ Optimize Mobility ▪ Zero fatalities ▪ Strengthen the economy		Salt Lake County Transit Projects ▪ 200 South — Salt Lake Central to Downtown Salt Lake Streetcar and Enhanced ▪ SLC - Foothill Drive - Wasatch Drive Corridor — SLC to Little Cottonwood Canyon (1st of 3 phases) Enhanced Bus/BRT ▪ State Street Bus Rapid Transit — Salt Lake Central to Draper FrontRunner (1st of 3 Phases) Enhanced Bus ▪ Draper Line TRAX Extension (South) — 10000 South TRAX Station to 12600 South TRAX Station Light Rail ▪ WFRC Redwood Road Bus Rapid Transit — Downtown SL to Draper FrontRunner (1st of 3 Phases) CorPres/BRT/Enhanced ▪ 5600 West Corridor — Downtown Salt Lake to Daybreak CorPres/BRT ▪ West Bench Corridor Preservation (11400 South) CorPres Local Contribution ▪ Sugarhouse Streetcar (1st Phase) — 2100 South TRAX to Highland Drive/Sugarmont Streetcar ▪ 3900 South/3500 South Corridor (west) — Meadowbrook TRAX Station to West Bench (2nd of 4 Phases) Bus Rapid Transit ▪ Taylorsville Murray Central Segment — Murray Downtown to SLCC Redwood (1st of 2 Phases) Enhanced Bus ▪ Taylorsville Murray West Valley Segment — SLCC Redwood to W.V. Intermodal (1st of 2 Phases) Enhanced Bus

APPENDIX B

Route-Level Performance Measures (2014)

APPENDIX B: ROUTE-LEVEL PERFORMANCE MEASURES (2014)

Service Type / Route	Description	Service span	Annual weekday boardings	Annual weekday service hours	Annual weekday passenger miles	Annual weekday incremental operating cost	Weekday operating cost / boarding	Weekday operating cost / service hour	Weekday operating cost / passenger mile	Weekday boardings / service hour
Local			7,777,269	336,857	36,360,467	$ 18,357,893	$2.36	$54.50	$0.50	$23.09
2	200 South	All-Day	503,180	11,938	804,679	$ 579,901	$1.15	$48.57	$0.72	$42.15
3	3rd Avenue	All-Day	146,703	6,996	389,689	$ 338,407	$2.31	$48.37	$0.87	$20.97
6	6th Avenue	All-Day	234,539	6,485	612,715	$ 331,461	$1.41	$51.11	$0.54	$36.16
9	9th Avenue	All-Day	100,223	5,703	194,430	$ 302,706	$3.02	$53.08	$1.56	$17.57
11	11th Avenue	All-Day	102,466	4,798	241,241	$ 249,822	$2.44	$52.06	$1.04	$21.35
17	1700 South	All-Day	95,940	5,330	188,699	$ 278,885	$2.91	$52.33	$1.48	$18.00
21	2100 South/2100 East	All-Day	519,287	17,225	1,499,094	$ 897,078	$1.73	$52.08	$0.60	$30.15
200	State Street North	All-Day	898,639	28,166	2,823,918	$ 1,399,357	$1.56	$49.68	$0.50	$31.90
205	500 East	All-Day	588,829	21,241	1,558,319	$ 1,089,005	$1.85	$51.27	$0.70	$27.72
209	900 East	All-Day	709,114	30,091	2,642,680	$ 1,582,290	$2.23	$52.58	$0.60	$23.57
213	1300 East/1100 East	All-Day	271,857	15,580	1,200,820	$ 825,202	$3.04	$52.97	$0.69	$17.45
217	Redwood Road	All-Day	812,906	33,472	2,437,646	$ 1,855,885	$2.28	$55.45	$0.76	$24.29
220	Highland Drive/1300 East	All-Day	442,982	23,129	2,403,409	$ 1,280,563	$2.89	$55.37	$0.53	$19.15
223	2300 EAST/ HOLLADAY BLVD	All-Day	37,154	2,920	191,703	$ 173,691	$4.67	$59.48	$0.91	$12.72
228	FOOTHILL BLVD / 2700 EAST	All-Day	210,045	14,140	1,126,847	$ 777,200	$3.70	$54.97	$0.69	$14.86
453	TOOELE - SALT LAKE VIA AIRPORT	Peak-Only	69,775	4,633	1,865,164	$ 364,905	$5.23	$78.77	$0.20	$15.06
454	Grantsville/Salt Lake	Peak-Only	10,096	683	285,733	$ 58,260	$5.77	$85.24	$0.20	$14.77
455	UofU/Davis County/Weber State University	All-Day	395,481	24,946	4,563,861	$ 1,493,275	$3.78	$59.86	$0.33	$15.85
456	Ogden/Unisys/Rocky Mountain Express	Peak-Only	9,918	690	285,274	$ 45,276	$4.57	$65.61	$0.16	$14.37
460	Woods Cross	Peak-Only	19,471	732	97,318	$ 47,469	$2.44	$64.84	$0.49	$26.60
461	Bountiful via State Capitol	Peak-Only	22,821	1,468	151,469	$ 96,460	$4.23	$65.69	$0.64	$15.54
462	North Salt Lake	Peak-Only	24,199	1,079	123,411	$ 69,180	$2.86	$64.10	$0.56	$22.42
463	West Bountiful	Peak-Only	13,033	727	76,079	$ 46,496	$3.57	$63.99	$0.61	$17.94
470	Ogden-Salt Lake Intercity	All-Day	891,868	45,298	8,772,891	$ 2,609,512	$2.93	$57.61	$0.30	$19.69
471	Centerville	Peak-Only	21,441	866	189,783	$ 59,565	$2.78	$68.79	$0.31	$24.76
500	State Capitol	All-Day	134,731	6,367	236,776	$ 317,122	$2.35	$49.81	$1.34	$21.16
516	Poplar Grove / Glendale	All-Day	257,680	11,298	805,898	$ 583,623	$2.26	$51.66	$0.72	$22.81
519	Fairpark	All-Day	122,376	5,342	303,595	$ 285,796	$2.34	$53.50	$0.94	$22.91
520	Rose Park	All-Day	79,821	4,761	183,159	$ 268,918	$3.37	$56.49	$1.47	$16.77
551	International Center	Peak-Only	30,694	753	104,169	$ 50,584	$1.65	$67.18	$0.49	$40.76
Fast bus			108,688	5,706	1,108,362	$ 348,513	$3.21	$61.08	$0.31	$19.05
307	Cottonwood Heights Fast Bus	Peak-Only	30,772	1,418	288,017	$ 87,492	$2.84	$61.69	$0.30	$21.70
313	South Valley/U of U Fast Bus	Peak-Only	28,076	1,774	367,433	$ 111,232	$3.96	$62.71	$0.30	$15.83
320	Highland Drive Fast Bus	Peak-Only	18,919	912	190,118	$ 53,715	$2.84	$58.90	$0.28	$20.75
354	SANDY / U OF U FAST BUS	Peak-Only	30,921	1,602	262,794	$ 96,073	$3.11	$59.97	$0.37	$19.30
Express			452,019	16,094	9,560,091	$ 1,140,683	$2.52	$70.87	$0.12	$28.09
2X	200 SOUTH EXPRESS	Peak-Only	36,954	434	126,948	$ 22,642	$0.61	$52.23	$0.18	$85.24
451	Tooele Express	Peak-Only	92,847	2,928	2,475,051	$ 257,284	$2.77	$87.86	$0.10	$31.71
472	Ogden-Salt Lake Express	Peak-Only	124,811	3,213	2,572,312	$ 236,503	$1.89	$73.61	$0.09	$38.85
473	SLC-Ogden Hwy Express	Peak-Only	168,773	7,300	3,688,280	$ 467,587	$2.77	$64.05	$0.13	$23.12
902	Park City-SLC Connec	Peak-Only	28,634	2,220	697,500	$ 156,666	$5.47	$70.58	$0.22	$12.90
Shuttle			254,200	10,766	1,392,348	$ 598,729	$2.36	$55.61	$0.43	$23.61
509	900 W Shuttle	All-Day	192,303	8,521	1,082,810	$ 468,071	$2.43	$54.93	$0.43	$22.57
513	Industrial Business Park Shuttle	Peak-Only	30,248	1,987	215,241	$ 115,384	$3.81	$58.08	$0.54	$15.23
919	FAIRPARK (WEST HS)	Peak-Only	16,674	130	50,407	$ 7,620	$0.46	$58.45	$0.15	$127.90
920	FAIRPARK (WEST HS)	Peak-Only	14,975	128	43,891	$ 7,655	$0.51	$59.82	$0.17	$117.02
Flex										
F522	2200 West Flex Shuttle	Peak-Only	7,770	1,130	N/A	$ 57,620	$7.42	$51.01	N/A	$6.88
Seasonal			6,872	506	110,075	$ 32,845	$4.78	$64.96	$0.30	$13.59
951	Downtown SLC - Snowbird/Alta	Seasonal	4,153	249	79,558	$ 16,597	$4.00	$66.55	$0.21	$16.65
952	U of U - Snowbird/Alta	Seasonal	2,350	212	29,018	$ 13,477	$5.73	$63.66	$0.46	$11.10
954	Maverik Center - Snowbird/Alta	Seasonal	369	44	1,500	$ 2,771	$7.51	$62.30	$1.85	$8.30
TRAX			16,192,817	97,000	85,744,887	8,301,953	$0.51	$85.59		$166.94
Red	West Jordan - University Medical Center	All-Day	6,128,227	37,388	40,734,794	$ 3,349,975	$0.55	$89.60	$0.08	$163.91
Green	West Valley City to Airport	All-Day	4,020,770	28,009	14,440,606	$ 2,214,993	$0.55	$79.08	$0.15	$143.55
Blue	Draper to Downtown SLC	All-Day	6,043,820	31,604	30,569,487	$ 2,736,985	$0.45	$86.60	$0.09	$191.24
Streetcar										
720	S Line	All-Day	257,870	4,945	331,235	$ 268,035	$1.04	$54.20	$0.81	$52.15
FrontRunner										
FR	Ogden - SLC - Provo	All-Day	4,001,220	29,433	112,284,616	$ 11,809,412	$2.95	$401.23	$0.11	$135.94
All Services			29,051,853	501,931	246,782,006	40,882,837	$1.41	$81.45	$0.17	$57.88
Bus Only*			8,599,946	370,553	48,421,268	$ 20,503,437	$2.38	$55.33	$0.42	$23.21

* Excludes Seasonal Services

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