

TransPlan50

2019-2050 REGIONAL TRANSPORTATION PLAN



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REGIONAL TRANSPORTATION PLAN FOR THE PROVO/OREM URBAN AREA

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TransPlan50 is the regional transportation plan for urbanized Utah County. The proposed projects and programs are a coordinated system of capital-intensive roadway projects, transit improvements, and pedestrian/bicycle facilities needed over the next thirty years. The plan attempts to minimize impacts on society and the environment while providing for enough capacity and transportation choices to ensure the region's economy continues to grow.

METROPOLITAN PLANNING

Mountainland Association of Governments (MAG) serves the governments and citizens of Summit, Utah, and Wasatch Counties. As part of this association, Mountainland Metropolitan Planning Organization (MPO) has the task of planning for the urban Utah County regional transportation needs. Located at the southern end of the Wasatch Front region of Utah, the MPO encompasses the rapidly growing Provo/Orem Urbanized Area and includes all 25 Utah County municipalities and contiguous unincorporated areas. Urbanization and the locations of major transportation facilities are constrained by physical boundaries including steep mountain terrain to the east and west and by the large, centrally located Utah Lake. The urban area is roughly bisected by I-15, the only freeway currently within Utah County. The MPO creates the forum bringing together urban leaders with state and federal transportation officials, opening dialogue, and providing a process for all to be involved in planning and funding the transportation needs of the area. MAG has a strong history of working together with stakeholders and accomplishing results.

TransPlan50 follows the guidelines of the last federal transportation bill - Fixing America's Surface Transportation Act (FAST Act) - and embodies them philosophically as well as technically. The Federal Highway Administration (FHWA) requires each MPO to address ten specific planning factors. FAST Act states that the metropolitan planning process shall be continuous, cooperative, and comprehensive. The process will also provide consideration and implementation of projects, strategies, and services to address the following factors:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.





2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for motorized and non-motorized users.
4. Increase accessibility and mobility of people and freight.
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
10. Enhance travel and tourism.

A GROWING REGION

Historically, population growth in Utah County has been robust, rising by 40 percent in each of the last two decades, and surpassing one-half million people in 2009. More recently, the Provo/Orem area was the 4th fastest growing metro area in the country with the population now exceeding 630,000. While the mainly rural transportation system had been over-taxed and unable to sustain such rapid growth, early this decade, the state and county invested nearly \$4 billion in highway and rail projects, making a significant impact towards easing congestion and creating better connectivity.

The cities of Provo and Orem have always been the urban core of Utah County, but this is changing. The two largest metropolitan areas in the state, Salt Lake City and Provo/Orem, converge at the Point of the Mountain, creating a natural center for high growth in both jobs and population.





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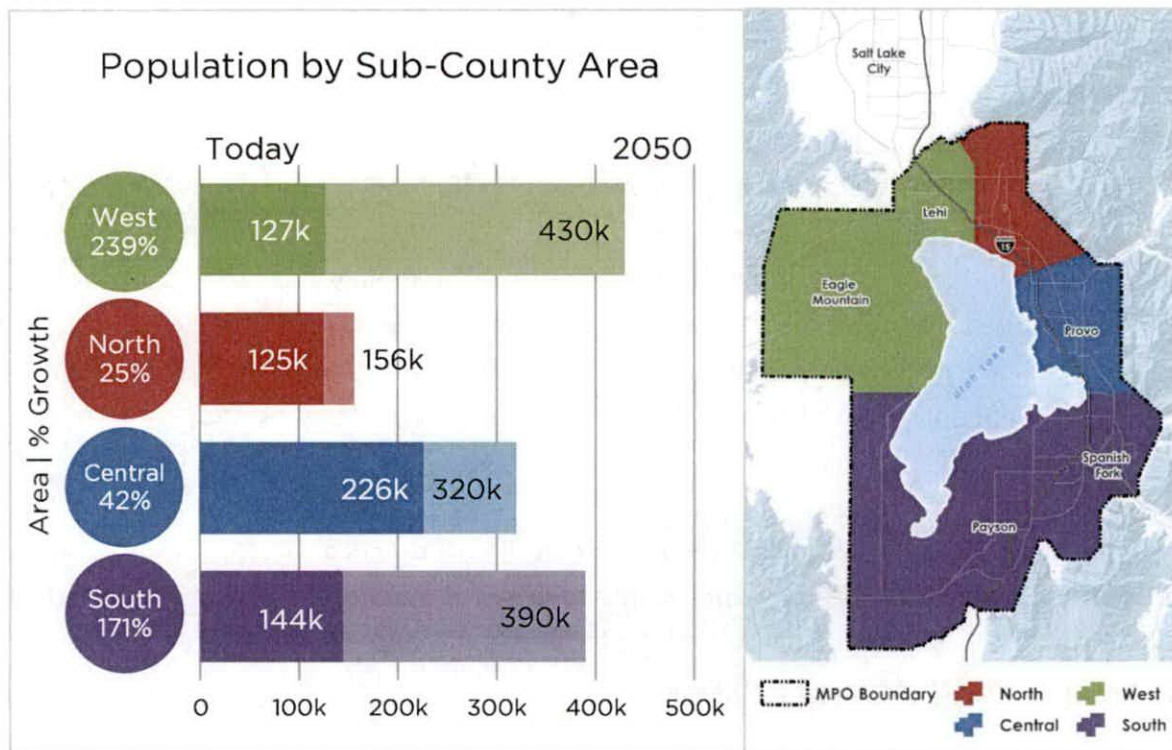
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West Area: Since the year 2000, the West Area (including Lehi, Eagle Mountain, and Saratoga Springs) has been the epicenter of statewide population growth, adding more than 102,000 people. Future growth explodes in the West Area. It is forecasted to add 303k more people reaching 430,000 population by 2050. All of Utah County was 430,000 in 2004.

North Area: This area includes American Fork, Highland, and Pleasant Grove. With less developable land and high real estate values, it still added over 49,000 new people since 2000 and is proposed to add another 31,000 by 2050.

South Area: The largest geographically and with densities mostly at rural values, the South Area is also growing. Most of the 55, 000 new residents since 2000 pushed development outward from the historic city cores. The area is forecasted to add another 246,000 growing to 390,000 by 2050.





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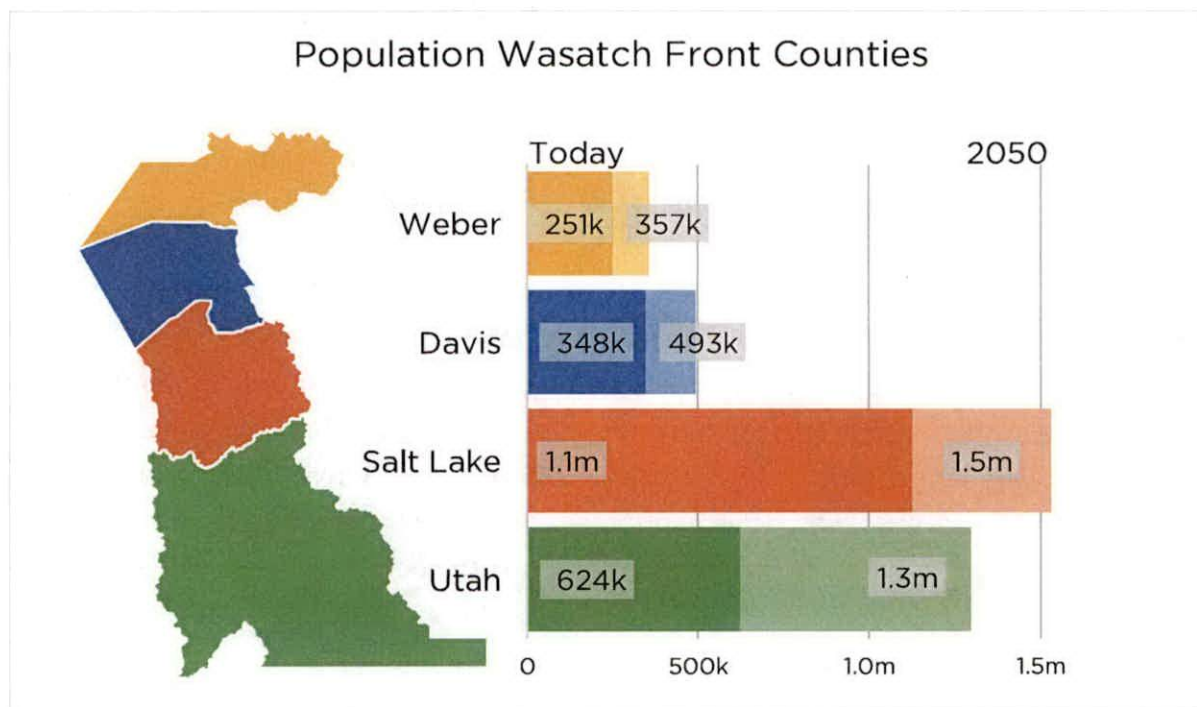
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Central Area: Provo, Orem, and the high growth area of Vineyard encompass the Central Area. Most of Provo and Orem are developed established areas that have increased in density since 2000, adding 32,000 new people. Another 96,000 people are forecasted to move to the area, with increased density and Vineyard building up and out.

Regional Growth Trends: By 2050, Utah County will double in population adding over 660,000 more people, surpassing 1.3 million, slightly larger above the current day population of Salt Lake County. This equates to 100 percent growth and is more than double any other Wasatch Front county. During this period, Utah County's growth is larger than the other three Wasatch Front counties combined. By 2065, Utah and Salt Lake counties are near the same size.



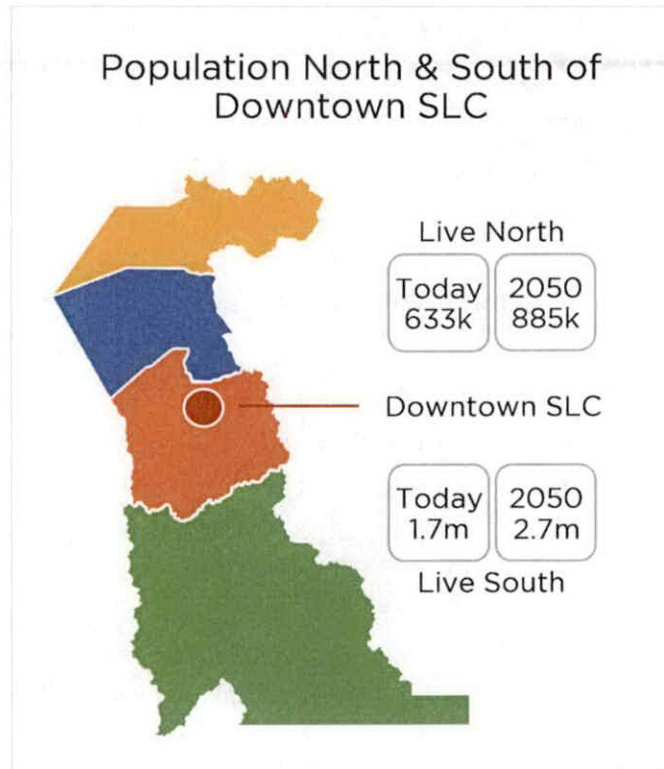


Development along the Wasatch Front has historically favored the areas south of downtown Salt Lake City. Today, 633,000 people live north of downtown, 1.7 million live south of it. By 2050, 885,000 people live north of downtown and 2.7 million south of it. Areas north of downtown add the population of current day Weber County through 2050, areas south will add an equivalent of 11 Weber counties.

Employment mimics population trends for all four Wasatch Front counties. Utah County's employment growth is projected to almost double from 300k jobs today to 600k in 2050. However, even with these additional jobs, Salt Lake City will remain the major urban employment center.

Prior growth trends show that Utah County's development had been tied to in-county employment, but over the last ten years, the two metro areas (Provo/Orem and Salt Lake City) have begun to converge, creating the highest employment growth area in the state. A large, highly educated workforce, abundant developable land, and convenient access to highways, rail, airports, and active transportation has drawn and will to continue to focus economic attention on the area. New job growth will reinforce the attraction of new residents, and with such growth, Utah County's importance in the region increases. Utah County's share of the total Wasatch Front population increases from 20 percent today to 26 percent in 2050.

As growth mounts, the population and employment distribution will continue to increase outside the historical center of Provo/Orem. In 2050, Provo/Orem will still be the urban core, but northward along the I-15 corridor and into Salt Lake County,





similar densities begin to develop. Areas west of I-15 densify and become self-sustaining (more jobs, fewer long commutes), and show more urban characteristics. South of Provo, communities fill in with development and spread out from historic city cores, although densities remain low with suburban characteristics.

TRAVEL DEMAND

Predicting where future transportation facilities are needed in high-growth areas is a continuous effort. Changes in political leadership, anticipated funding, land-use patterns, and many other factors change the dynamics of an area and require constant study. TransPlan50 is updated every four years to stay relevant. This frequency of updates allows the MPO to remain current with emerging trends and policy changes. The work is also collaborative, bringing federal, state, county and city agencies together into one deliberative body. The MPO uses a sophisticated travel demand model co-managed with Wasatch Front Regional Council (Salt Lake/ Ogden MPO) that accounts for these adjoining metro areas to best predict where future transportation improvements are needed. Socio-economic data and land-use are two key inputs to the travel demand model. Socioeconomic data includes household and employment level forecasts for each city. The municipalities and the county produce general plans that influence future land-use growth. MPO staff develop models of region-wide development patterns from these local land-use plans.

Many land-use plans only project for the next 10 to 15 years, leaving a gap between local planning horizons and the needs of long-range regional transportation planning. MPO staff meet with each municipality and the county to review their plans and to gain additional insight into where future growth could occur. The local plans are used to gauge future development on vacant land, infill and redevelopment areas. Most local land-use plans continue historic low-density land-use policies leading to many of the core cities running out of buildable land by 2035. To address the long-range needs to 2050, a regional vision process called Wasatch Choice 2050 is on-going. It is a cooperative regional visioning effort, taking input from transportation stakeholders to coordinate key regional transportation, local land-use, and economic development strategies that aim to achieve regional goals of mobility, connectivity, transportation choices, and quality of life. The land-use outputs of Wasatch Choice





2050 augment TransPlan50 by fostering this creative thinking concerning land-use policies going forward. It proposes denser clusters of housing, retail, and employment in key strategic centers along the Wasatch Front.

FUNDING AND COSTS

Funding assumptions for TransPlan50 are based on coordination between Utah MPOs (Cache, Dixie, Mountainland, and Wasatch Front), UDOT, and UTA. Utah follows an advanced practice in the development of a statewide Unified Transportation Plan (summary of all MPO, UDOT and UTA plans). To ensure consistency within the Unified Plan, each individual plan follows a standard set of demographics, financial revenue, cost estimating, and related assumptions. TransPlan50 funding assumptions are developed for planning purposes only. Transportation funds are generated from several sources, including sales tax, tolls, bonds, and state, local, and federal excise taxes on various fuels, and credit assistance sources. The following planning assumptions are used to determine a "reasonable" future revenue assumption as required by federal law.

Statewide Funding Assumptions	Regional Funding Assumptions
All Auto Related Sales Tax to Transportation	\$5 Vehicle Registration Fee in 2026, 2036, 2046
Federal Funds Growth Rate of 3.49% & 1.5%	Vehicle Reg. Fees Funds Growth at 3.03%
10-cent Motor Fuel Tax in 2030 & 2040	New 1/4-Cent Sales Tax in 2023, 2030, 2040
Motor Fuel Growth Rate of 2.4% & 1.48%	B&C Funds 30% to local governments
Special Fuels Growth Rate of 3.02%	Regional Funds Growth at 5.52%
\$10 Vehicle Registration Fee in 2021,2031,2041	



**TOTAL REVENUE, CONSTRAINED COSTS, NEED**

In summary, revenue expected within the MPO area through 2050 is proposed at \$18.8 billion, \$13.5 billion toward highway operations, preservation, and projects, and \$5.3 billion for transit operations, maintenance, administration, and projects.

All highway capacity projects are placed in the phases when needed, with available funding and bonding used to fund construction. Highway capacity projects are fully funded in the plan when needed, as is state preservation and operation's needs (though there is a deficit for local preservation needs of \$177 million.)

New capacity rail and other major projects are generally not funded when warranted leaving \$4 billion unfunded. Preservation and operations are underfunded at \$2 billion. For air quality conformity compliance, unfunded capacity projects are not considered a part of the fiscally constrained plan.

Total Revenue, Constrained Costs, Need

Funds showed in millions in 2019 dollars

Category	Phase 1 2019- 2030	Phase 2 2031- 2040	Phase 3 2041- 2050	Total Funds
Highway				
Revenue	5.2b	4.1b	4.3b	13.5b
Need	5.2b	4.0b	4.1b	13.4b
Revenue Less Need	-57m	57m	106m	106m
Transit				
Revenue	1.7b	1.7b	1.8b	5.3b
Need	2.6b	4.2b	3.5b	10.3b
Revenue Less Need	-902m	-2b	-2b	-5b
Total				Ok
Revenue	6.9b	5.8b	6.1b	18.8b
Need	7.9b	8.2b	7.7b	23.8b
Revenue Less Need	-959m	-2b	-2b	-5b



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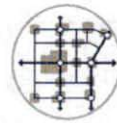
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REGIONAL GOALS

TransPlan50 focuses on building a robust, intermodal, urban transportation system. The primary goals within the plan have evolved to keep pace with our rapidly expanding population and travel demands. In developing TransPlan50, transportation summits were held in the north, central, and southern areas of the county. Transportation stakeholders were invited to share their plans and insights into what the future transportation system should become. Stakeholders included mayors, city council members, planning commissioners, city and agency staff, members of the business community, legislators, and citizens. Their ideas were modeled, and similar meetings were held to go over the results. From these efforts, five overarching goals have emerged.



Goal 1
Update the Regional Highway System to a Metropolitan Grid-based Network



Goal 2
Explore Additional Freeways, Add Capacity



Goal 3
Create a Robust Transit System



Goal 4
Build a Regionally Connected Active Transportation System



Goal 5
Preserve what we have





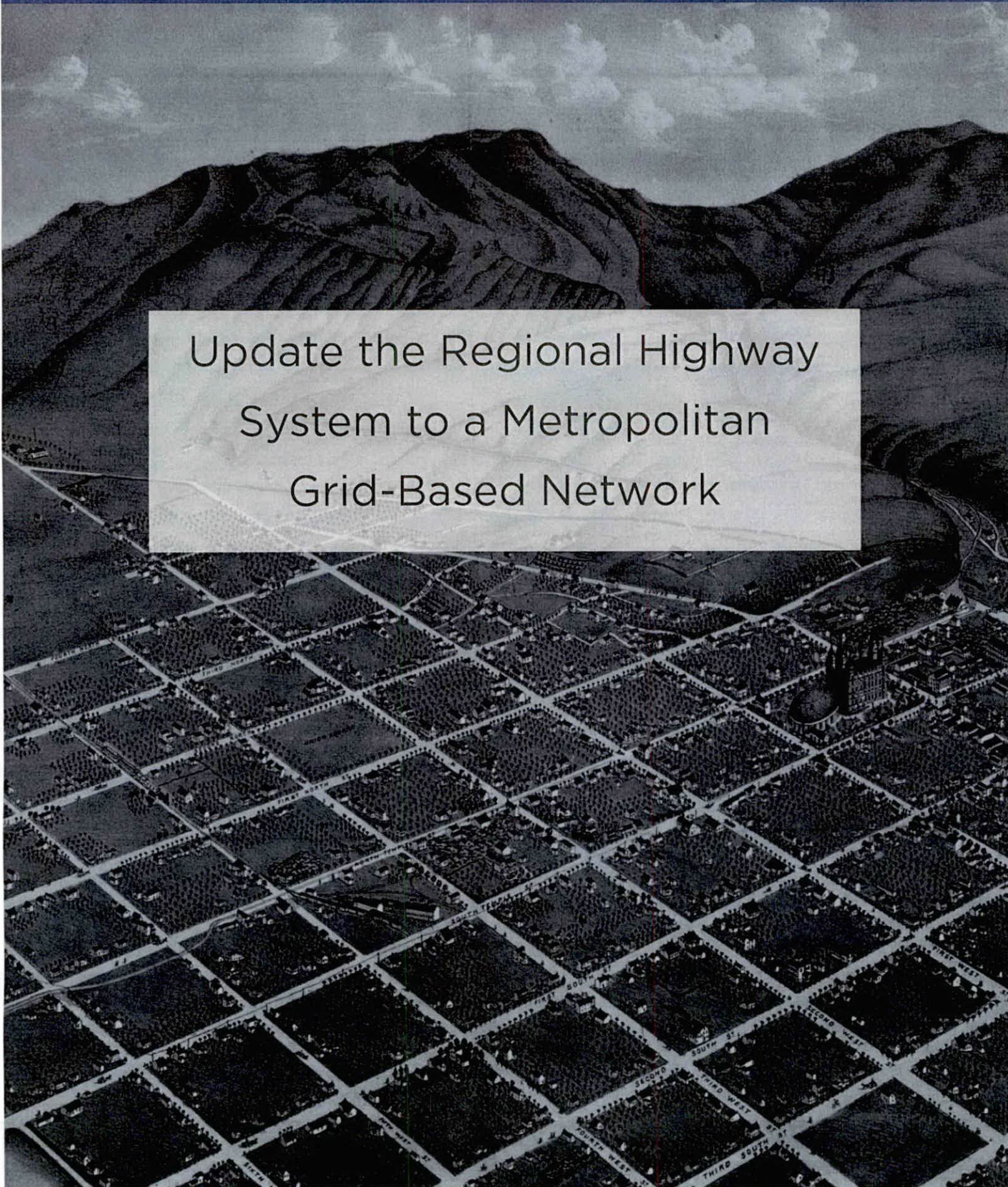
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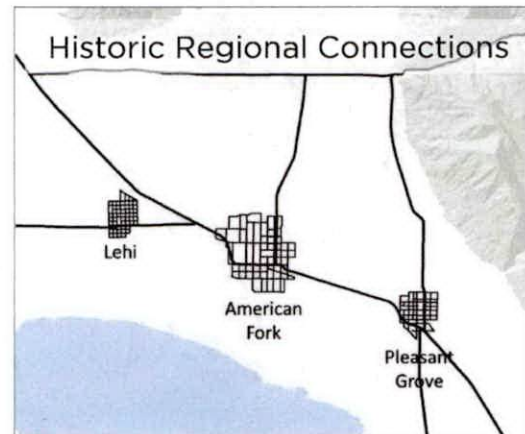
Update the Regional Highway
System to a Metropolitan
Grid-Based Network





GOAL 1 UPDATE THE REGIONAL HIGHWAY SYSTEM TO A METROPOLITAN GRID-BASED NETWORK

Utah County has a rural highway system. The county grew in a nodal, town by town form with each town focusing on its own road systems. The state built the main connecting highway between the cities. As the towns grew and began adjoining each other, the proper sizing and spacing of regional highway connections, in most cases, did not occur – the local street network was not complemented by a regional grid.



Greenfield Development: Rural, greenfield areas on the fringe urban development usually grow slowly, until seemingly overnight, they explode with new development that does not account for nor contribute to an efficient grid system. Congestion starts overwhelming the few existing through streets and highways. Immobility replaces mobility as congestion worsens. Vast areas end up saddled with the consequences of an uncoordinated transportation system. The North Area, for example, has experienced high growth with limited highway connections. East-west corridors between American Fork Main Street and Timpanogos Highway is non-existent. Main Street has a much higher than normal traffic burden. Timpanogos Highway had to be over-built to almost a freeway-type standard to compensate for the lack of an area grid network. With future growth pushing outward, the western and southern areas of Utah County are now at most risk for impacts on developed areas for not having a connected grid network built with growth.

Regional Highway Grid Spacing: Recognizing the challenges greenfield areas face as they urbanize, the Institute of Transportation Engineers (ITE) created a Best Practice recommendation for macro-level network spacing, that if adhered to, would minimize congestion on any given facility. The thought is that having a grid of properly spaced roads that can handle different types of trips (local to sub-regional to regional), that





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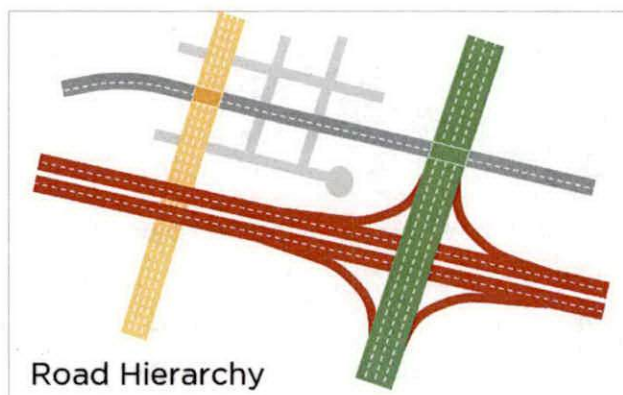
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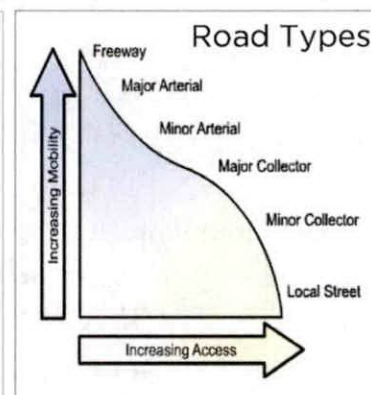
traffic would be spaced out easing congestion and dispersing traffic more evenly throughout the area avoiding placing all traffic on just a few major corridors.

Characteristics of a Freeway, Arterial, Collector?

	Freeway/Expressway Limited Access 50k+ volumes 5 mile spacing
	Principle Arterial Large Road 2 - 6 lanes 20k - 40k volumes 2 mile spacing
	Minor Arterial Mid-Size Road 2 - 4 lanes 12k - 35k volumes 1 mile spacing
	Collector Small Road 2 - 4 lanes 3k - 12k vol Half mile spacing



Road Hierarchy



Utah County Highway Grid Today



ITE Recommended Highway Grid





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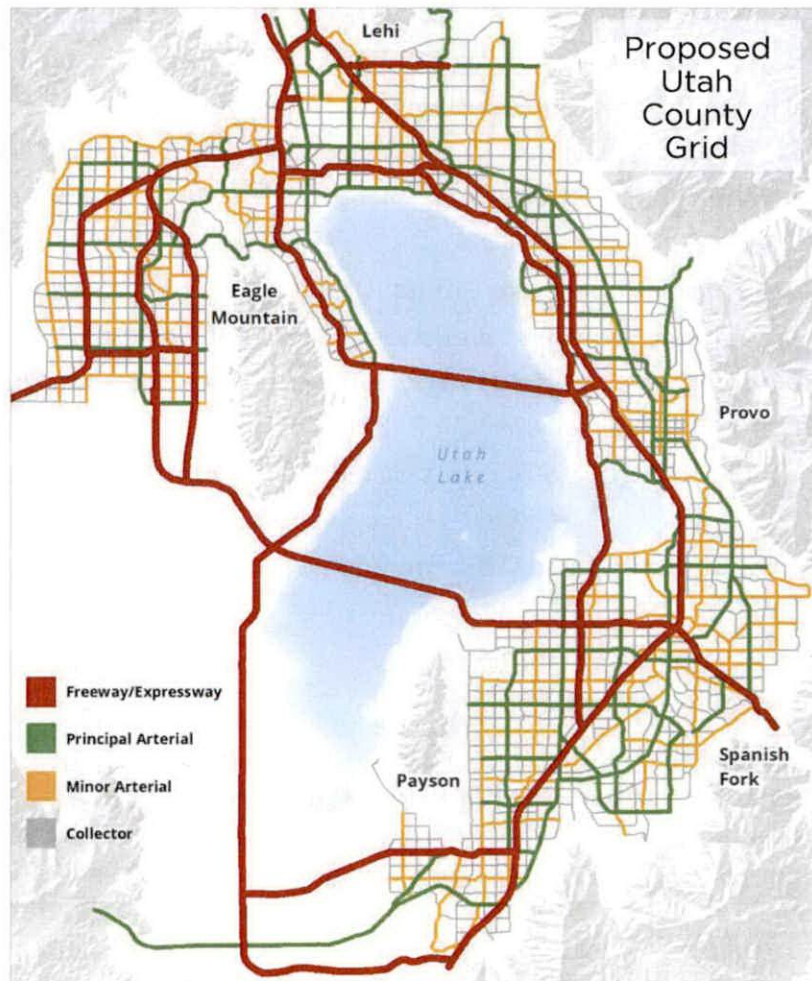
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The hierarchy of a regional highway network starts with Freeways and Expressways. These major corridors have characteristics that include grade-separated interchanges (Expressways can have signaled intersections), higher traffic volumes, higher speeds, and are ideally 5 miles apart. Principal Arterials are the major roads carrying regional traffic, high volumes, generally have controlled access (fewer driveways), and higher speeds. Minor arterials have lower speeds and more access points. Collectors lower volumes and more access.

Proposed Utah County Grid: To create a grid network of arterial and collector highways in Utah County, MPO staff worked with municipal staff to draft a plan that allows for properly spaced corridors within greenfield and developed urban areas. In many cases corridors within the developed areas are mostly complete, connections to adjoining roads in neighboring municipalities are only needed. Some proposals would require little to no neighborhood disruption; others could be more complicated. The proposed grid plan is a starting place to begin the discussion. The proposal is to work with each municipality and the county through their planning processes to vet what corridors can work, what corridors would need adjustment, and what will not work.

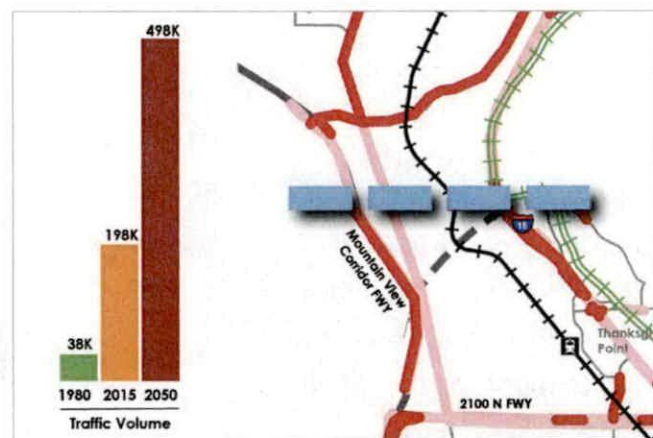




Utah County Grid Potential Costs and Impacts: It is estimated that completing the county-wide urban grid network as proposed requires an additional 1,000 miles of new lanes. A quarter of these lanes are in current built-up urban areas with the remainder in greenfield areas. The proposed grid also removes about 750 structures, more than half of which are located in rural areas and will most likely be incorporated into future developments. The total cost of the grid network is estimated at upwards of \$2 billion dollars, not including projects already proposed and funded in TransPlan50. Of this cost, \$500 million is anticipated within the built-up urban areas. Most of the \$1.5 billion to build the grid in the rural areas will be funded by private development if properly planned for. Moving forward, MAG will work with our stakeholders to identify which projects can be adopted into municipal and regional plans. More importantly, funding to construct the collectors proposed in the grid network will have to be identified. Currently, only local and regional funds can be used in funding these types of facilities, with these funds already stretched thin. State-wide solutions will most likely need to be sought to these regional non-state-owned roads in the future.

Transportation Choke Points: Utah County has a unique geography with its towering mountains, lakes, and wetlands. These features create a unique geographic environment making transportation connections a challenge. In the county, there are five areas where transportation corridors must traverse within narrow strips of land bordered by these features called transportation choke points.

Lehi Choke Points: The Lehi area has some of the most challenging issues to transportation in the region. There are multiple choke points in Lehi impacting both north/south and east/west regional traffic. This couple with high residential and commercial growth and being the center point of two metropolitan areas converging, only add to the problem. The Point of





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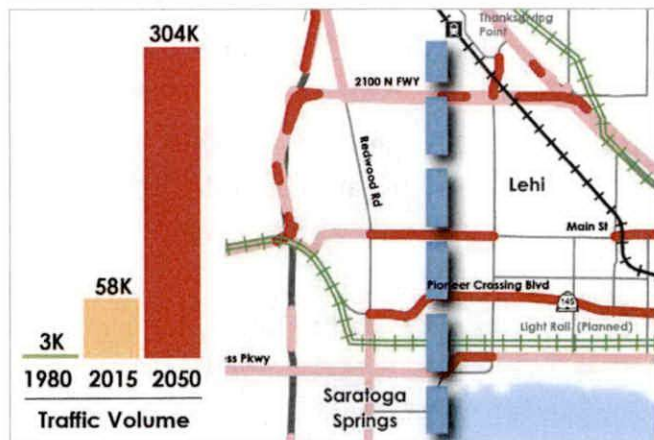
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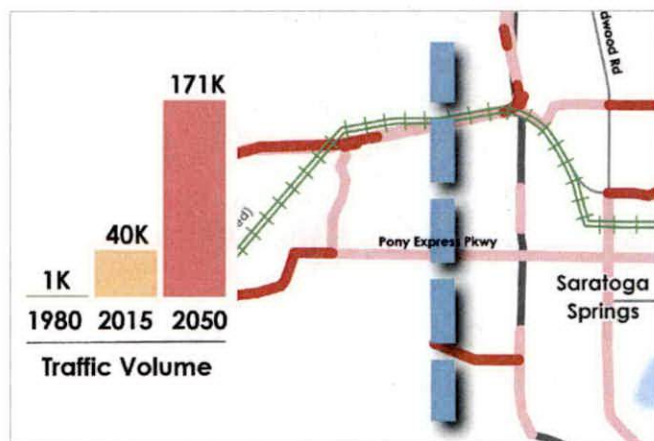
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the Mountain Choke Point is the narrow strip of land between Salt Lake and Utah counties. In the future, this area has more traffic, and people traverse it than any other area in the region. Future projects proposed within TransPlan50 include improvements to I-15 and FrontRunner Commuter Rail, constructing the Mountain View Freeway, and light rail.

East/west travel through Lehi with its numerous wetlands, the Point of the Mountain to the north and Utah Lake to the south, all limit transportation, creating the Lehi Choke Point. In the future Lehi 2100 North becomes a freeway. South of Lehi Main Street, freeway volumes are projected requiring a future facility proposed in the plan. Future study will identify its location.

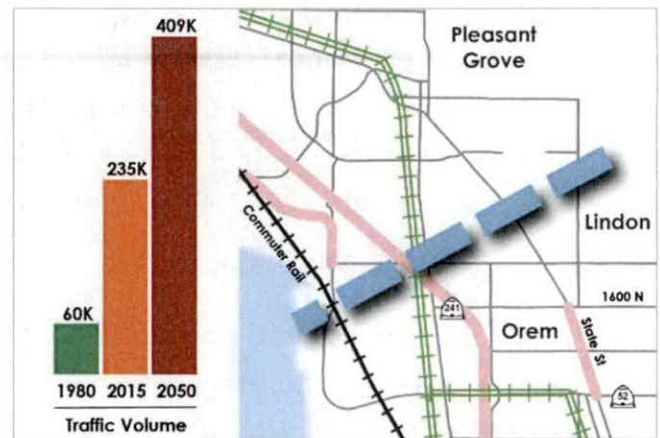


Cedar Pass Choke Point: The narrow connection between Lehi and the Cedar Valley through the mountains create the Cedar Pass Choke Point. The area bordering this choke point is projected to have over 200,000 people by 2050. Because of the limited options for transportation corridors, SR73 is proposed in the plan to be converted into a freeway before 2040.

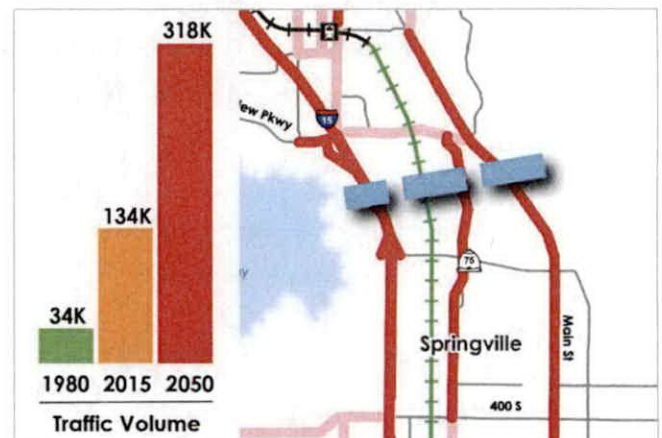




Lindon Choke Point: The Lindon Choke Point today has the highest traffic volumes in the valley with a significant commuter movement between the central and northern areas of the county. With only three highway corridors, State Street, I-15, and Geneva Road, as well as FrontRunner Commuter Rail, this is an important area to focus on relieving congestion. TransPlan50 proposes improvements to I-15 and commuter rail in this area as well as the addition of light rail and bus rapid transit along State Street.



Provo/Springville Choke Point: In the future, the area between Provo and Springville becomes the most congested choke point in the county. It currently only has two regional connections, State Street and I-15. There are very limited transportation solutions due to Provo Bay, wetlands, and the Wasatch Mountains. Future solutions include a parallel freeway over Provo Bay, FrontRunner Commuter Rail, additional lanes on I-15, and light rail.



Congestion Relief: The benefits of relieving regional congestion by completing the grid network and the projects listed in TransPlan50 are great. With the proposed growth to 2050, overall travel delay in the region increases elevenfold compared to 2018. To put this in perspective, Salt Lake County in 2018 had five times more congestion related delay than Utah County. Modeling shows that with a connected arterial and collector grid network (no additional freeways) 2050 travel delay would only grow to seven times that of today. With the addition of the proposed freeways





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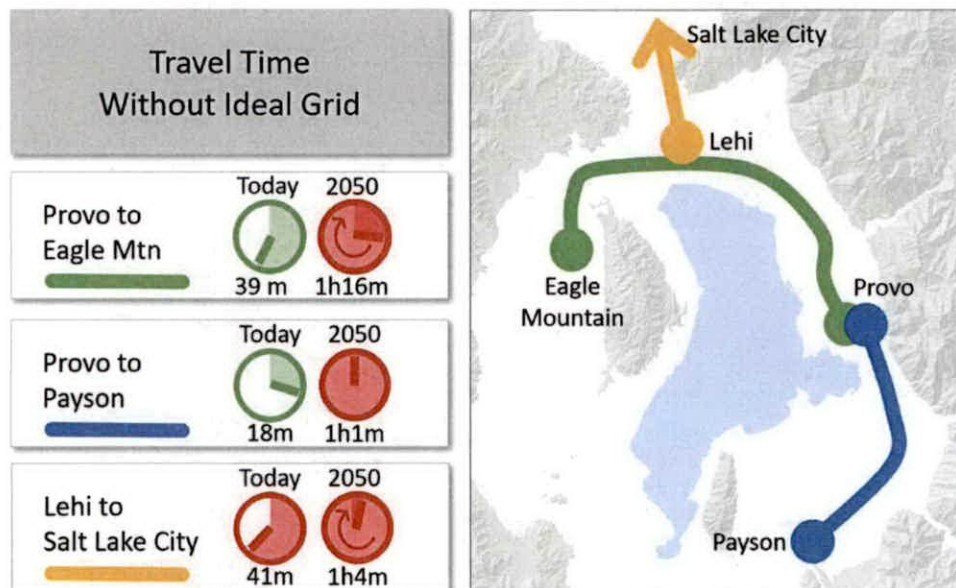
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in the plan, congestion rises to only three times the current delay, well within acceptable limits of a metropolitan area of 1.3 million people.



Travel Time: Another way to understand future network conditions is with travel time. In 2018 a trip by automobile between Eagle Mountain and Provo took about 39 minutes. With no improvements, by 2050 the same trip takes 1 hour and 16 minutes; Provo to Payson 18 minutes versus 1 hour, and Lehi to Salt Lake City 41 minutes versus 1 hour.



Spreading Traffic Out: The reason a network of arterial and collector roads works is its ability to spread out traffic. Today the North and Central areas are connected by three main corridors, all state routes; I-15, State Street (US 89), and Geneva Road (SR





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114). By creating additional connections of smaller roads in this area, localized trips would no longer be required to traverse the major roads, thereby reducing congestion. Connecting collectors and arterials do not necessarily lead to heavy traffic on these roads, rather, by spreading trips out, the total volumes of traffic on a single corridor can be reduced.





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Explore Additional Freeways,
Add Capacity



GOAL 2 EXPLORE ADDITIONAL FREEWAYS, ADD CAPACITY

The I-15 freeway is the economic and mobility lifeline of Utah County and most of the Wasatch Front. Running from Canada to Mexico, our regional economy, as well as our quality of life, is directly tied to it. In 2012, the I-15 CORE project began a multi-year and multi-project effort to rebuild and widen the freeway from American Fork to Payson. Lanes vary from six lanes south of Spanish Fork, ten lanes between Spanish Fork and Provo, and twelve lanes between Orem and American Fork. In 2016 the freeway was widened to twelve lanes from north Lehi to Draper. Currently, the I-15 Freeway is being reconstructed through Lehi bringing a total of twelve lanes through this area.

I-15 Freeway: Due to the lack of a regional grid, the current system funnels all regional trips and many local ones onto I-15, increasing congestion. The practical maximum number of lanes of a freeway in each direction is six, or a total of twelve lanes. Beyond six, drivers encounter great difficulties maneuvering to exits and shoulders. By 2050, even at twelve lanes, anticipated growth reduces service levels on the freeway to highly congested during peak hours. The areas between Springville and Provo, Lindon, and the Point of the Mountain form geographic chokepoints in the system. These areas will experience the worst congestion.

Options for the I-15 corridor include widening the freeway south of Orem to twelve lanes; building a frontage road system or collector-distributor system on each side of the freeway or adding divided





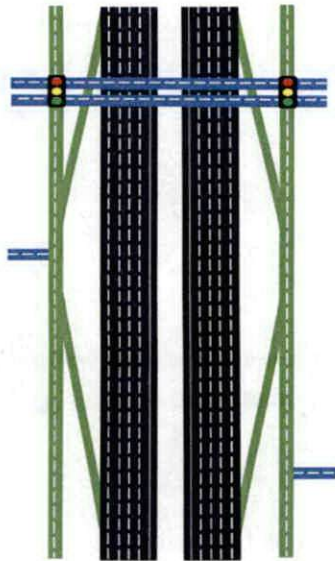
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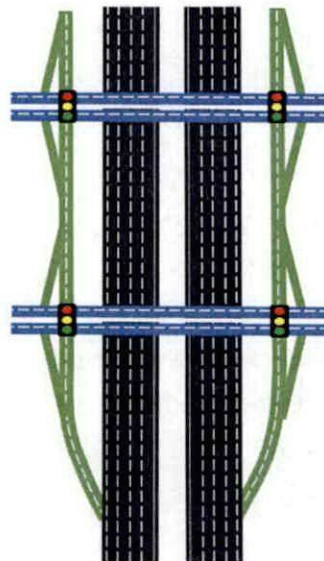
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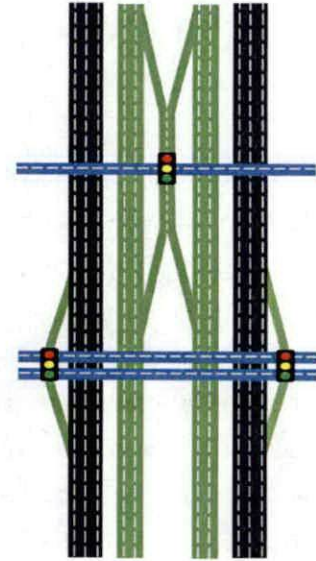
express lanes road down the middle of the freeway. Another option would be to construct a parallel facility along the corridor, like Legacy Parkway in Davis County. Each of these different solutions has benefits and impacts. All require additional study and collaboration with the various transportation stakeholders along the corridor.



Frontage Road FWY



Collector-Distributor FWY



Express Lanes FWY

TransPlan50 proposes that improvements to I-15 occur sometime between 2031 and 2040, phase two in the plan. It does not identify a specific solution; instead, it recommends that a future study should be conducted to determine preferred solutions. Solutions could be one of the four options mentioned, a combination of them, or something completely different. I-15 is the lifeline and backbone of Utah County traffic and its economy. Improvements to I-15 as creating a grid system of collector and arterial roads as well as adequately spaced new freeways, as discussed in the grid discussion in the previous section of this document, will help better handle future traffic volumes and spread traffic more evenly throughout the valley.



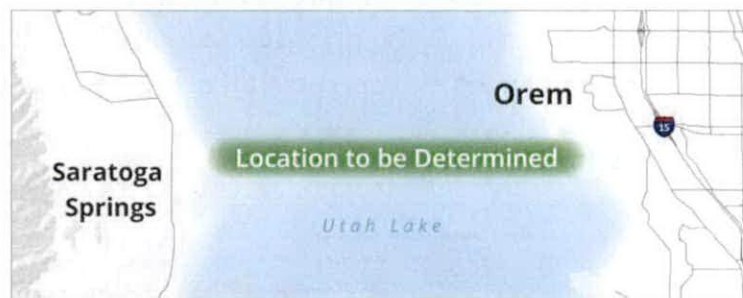


Mountainview, Lehi 2100 North, and SR-73 Freeways: The Mountainview Freeway and Lehi 2100 North Freeway were included in the past regional transportation plan, TransPlan40. They handle traffic and proposed growth in the far north of the county traversing the Point of the Mountain. With Utah County growing to 1.3 million in 2050 and 1.6 million by 2065, a more connected freeway network is required. TransPlan50 proposes multiple new freeways creating the five-mile spacing of a proper grid network.

The extension of the planned Mountainview Freeway south through Saratoga Springs, as well as converting SR-73 through Eagle Mountain into a freeway are included TransPlan50. Narrow strips of land connect these communities, making it difficult for a grid system, requiring larger facilities to take their place. Studies for both corridors have been completed, and the needed corridor preservation is ongoing. Around 2035, many of the I-15 corridor cities between Provo and American Fork are approaching housing capacity, leaving infill and higher density to fuel their growth. Most growth is forecast in the northwest and southern areas of the county.



Utah Lake Bridge: Utah County is home to Utah Lake, a natural lake large in surface area but shallow, with an average depth of 10.5 feet. This body of water complicates creating the freeway grid. For many decades, a highway over the lake has been proposed, but the need had not been demonstrated until now. TransPlan50 proposes that the bridge be built after 2040. The location of the bridge/freeway, as shown in the plan, needs further study





but is warranted based on projected traffic flows. One concern is that the freeway connection to I-15 not exacerbate congestion in already congested areas. The farther south toward Provo the eastern connection can go, the better, as traffic volumes are more easily dispersed. Design and construction of a bridge may prove challenging. Can or should an earthen causeway be built? With the sediment in the lake, can a bridge be constructed? Could a floating bridge work? All these and more will be studied with future work.

South Lehi Freeway: Lehi sits at the confluence of the two metropolitan areas, Provo/Orem and Salt Lake City. It has become an economic powerhouse with the Silicon Slopes employment center and I-15. North/south traffic between the two metro areas, as well as east/west traffic connecting the high growth areas of Cedar Valley to Utah Valley, make creating the right regional transportation



network paramount. At Lehi, there are distinct splits in the traffic flow. Today and in the future, traffic from Cedar Valley is split about 50/50, half traveling north into Salt Lake County and half south toward Provo. Lehi 2100 North Freeway and Mountain View Freeway handle the northern movement, but freeway volumes south of Lehi Main ST are projected. The current and planned arterials of Pioneer Crossing and Pony Express Parkway cannot accommodate these volumes. By 2050, Pioneer Crossing has over 50,000 trips a day. To put this in perspective, Bangerter Highway in Salt Lake County currently has 45,000 trips a day and is currently being converted into a grade-separated freeway with interchanges. The growth in the area and potential environmental and social impacts make widening the current corridors or creating a new corridor challenging. TransPlan50 proposes a freeway through this area. Further study is needed with extensive work with the stakeholders and citizens in the area.





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US-6 Freeway: US-6 through Spanish

Fork is proposed to be grade separated in the future. Today there is more traffic entering and exiting I-15 at US-6, at freeway volumes, than there is continuing south on I-15 toward Payson. Many alternatives have been studied to by-pass this corridor, but with its direct access to Spanish Fork Canyon and on to Denver, as

well as the high residential and commercial growth potential along the corridor, necessitate the planned improvements. Preliminary design work has shown a narrow freeway design with frontage roads to minimize disruption to surrounding businesses.



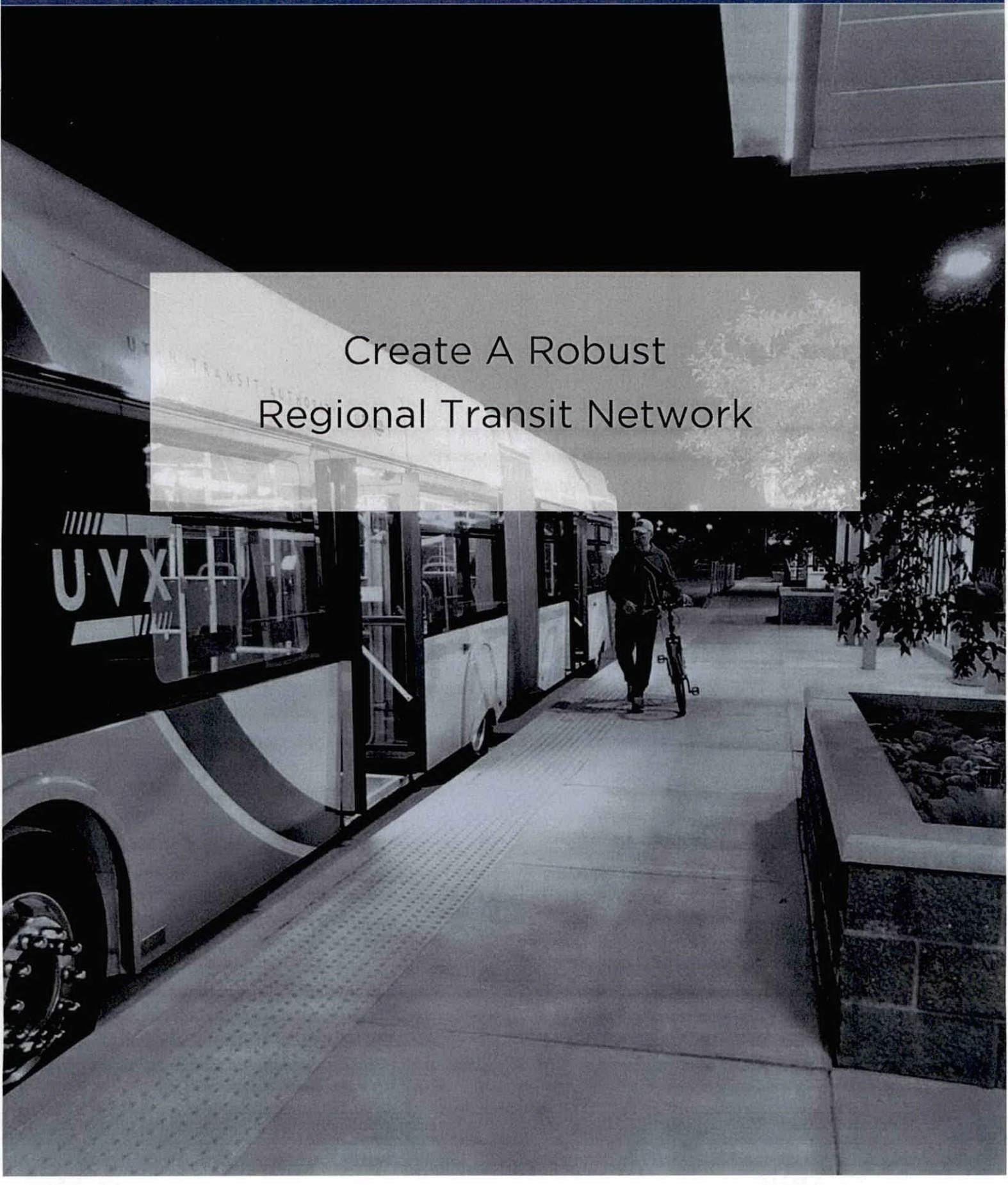


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Create A Robust
Regional Transit Network

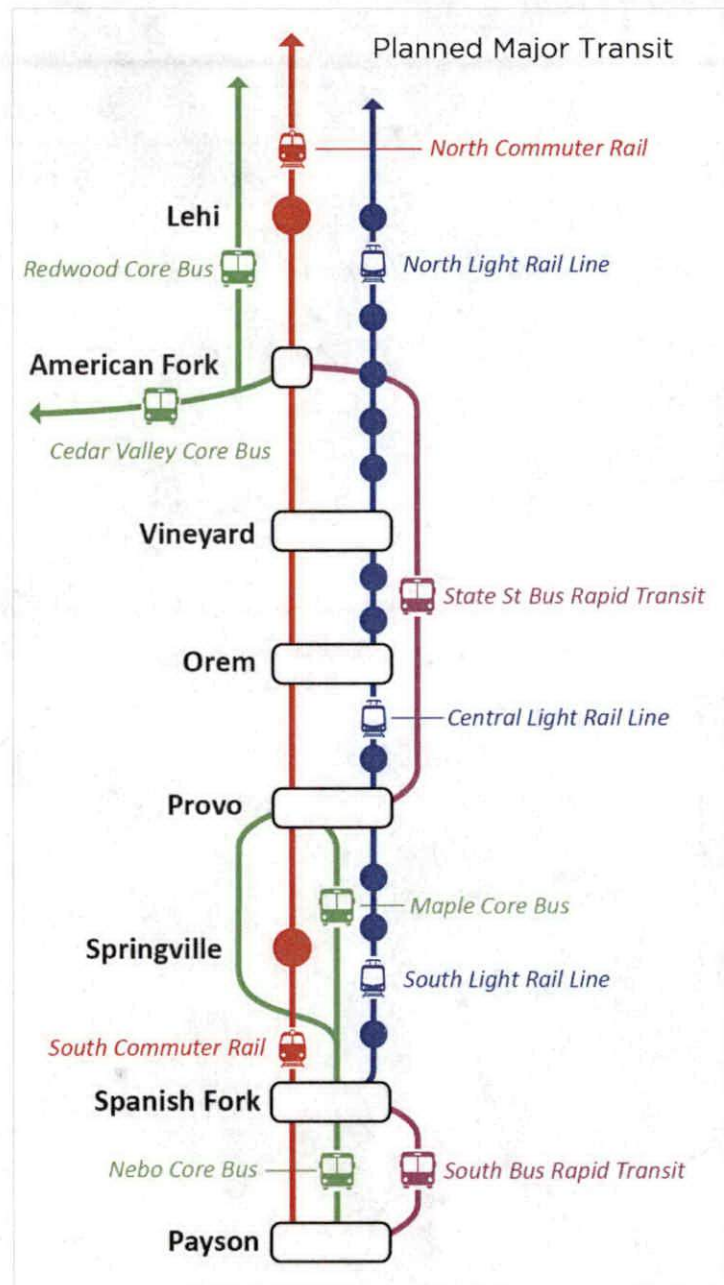


GOAL 3 CREATE A ROBUST REGIONAL TRANSIT NETWORK

Currently, transit in Utah County is evolving. The bus system currently serves with both coverage and frequency in the Provo and Orem areas with less service in the north and south county. Low-density residential in the north and south areas and a lack of clustered job centers makes transit less efficient and underutilized. Future growth plans, especially in the north and west areas of the county, should provide for better efficiencies.

TransPlan50 shows two scenarios for transit, when service is warranted and when, with current funding projections, can service be added. The Utah State Legislature created a new funding account for transit called the Transit Transportation Investment Fund in 2018. This is the first time in Utah history that the state has allocated funding toward transit (all county and federal funding in the past). The only other funding

sources include federal funds, local county funds, and fare collection. Even with this additional funding an assuming for federal and county funds to trend upward, funding for major rail expansion into Utah County is lacking. As the county continues





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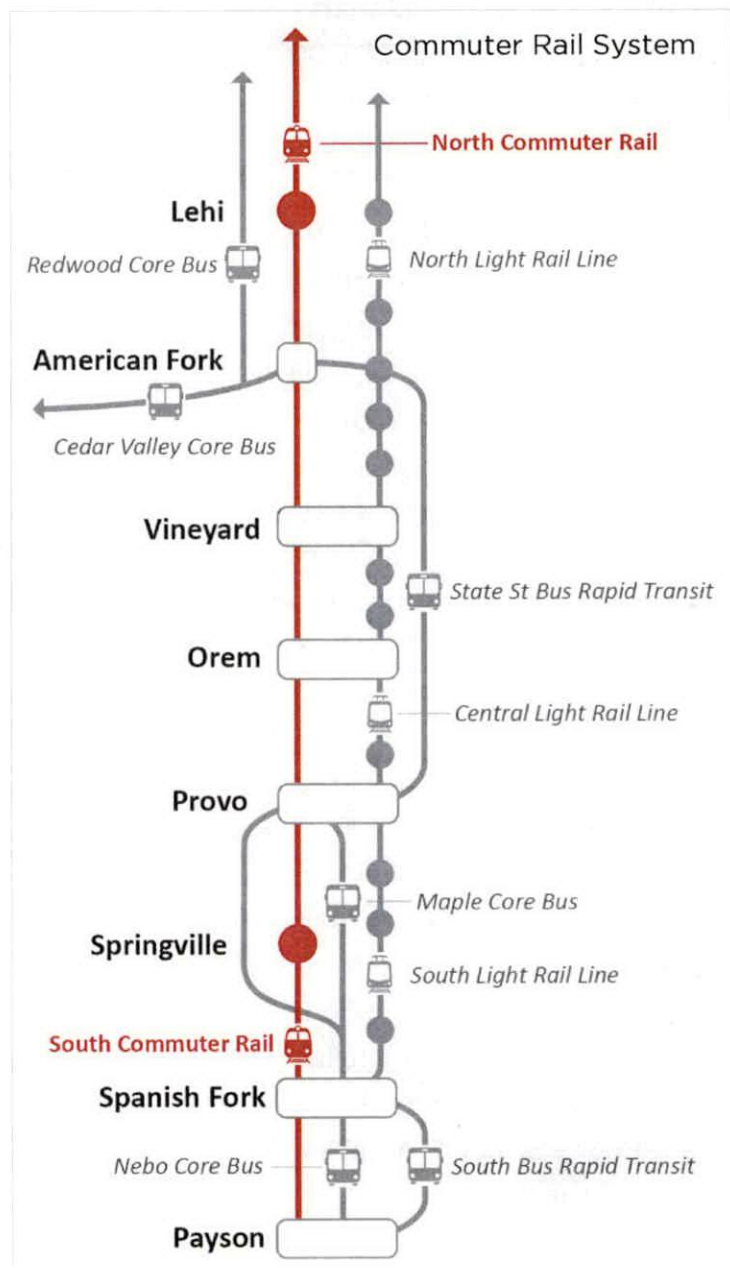
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to grow and densify, further discussion of how to fund a regional rail system will need to occur.

Commuter Rail: The FrontRunner Commuter Rail line was constructed initially between Ogden and Salt Lake City and opened for passenger service in 2008. Service between Salt Lake City and Provo later opened 2012. This 40-mile rail extension has added a secure transit backbone to Utah County. It currently carries over 10,000 riders a day and a half hour service most of the day.

TransPlan50 proposes constructing a double track system (currently most sections are single track) to allow for more frequent service. The plan also proposes an expansion of the system to the south county with stops in Springville, Spanish Fork, and Payson. A new station is proposed in Vineyard and is currently funded and planned to be opened in 2020. Another proposal in the future is electrifying the system and retiring the diesel trains. Electrification is cleaner for the environment, and the trains are faster, improving efficiency.





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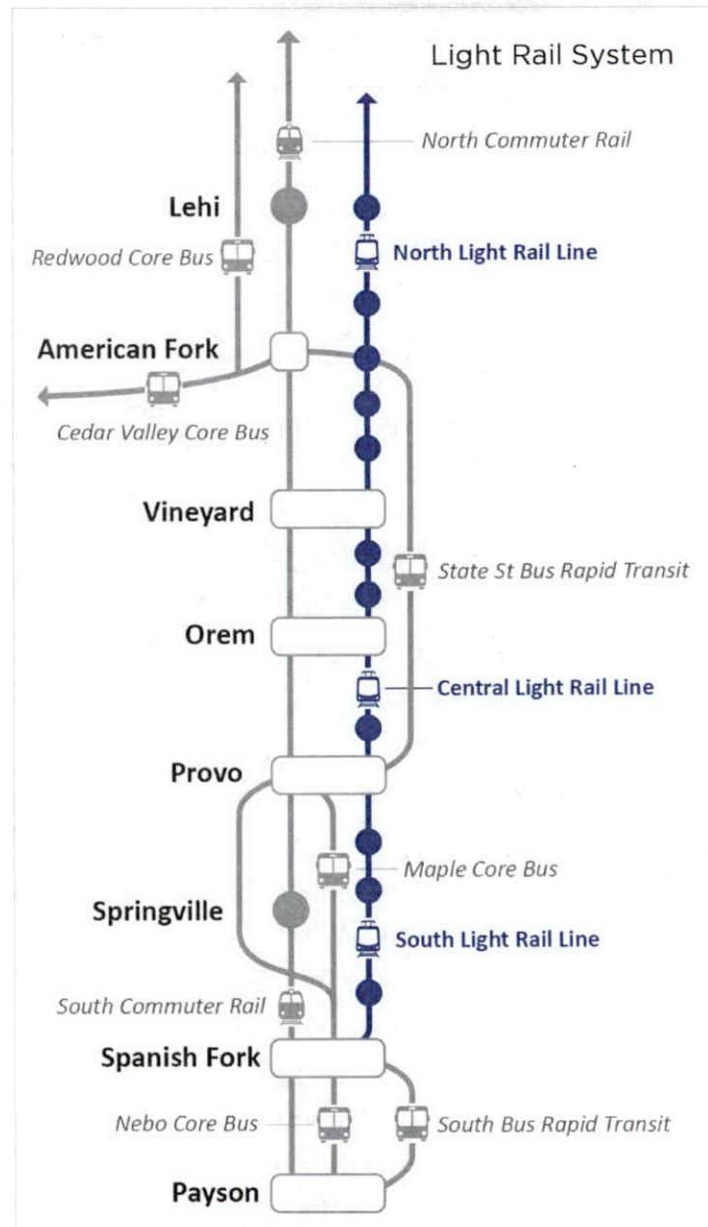
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Light Rail: The Trax Light Rail System in Salt Lake County is a success, carrying over 100,000 people per day. Rail service can work well for Utah County with its linear development patterns (the narrow-developed area between lake and mountains) and planned denser population and job centers. In most cases, light rail can evolve from a bus-type service converting over to rail in the future.

Of note is the difference between light rail and commuter rail service. Both would parallel each other in Orem, both services carry different types of trips. Commuter rail is for long-distance trips such as Provo to Salt Lake City. Commuter rail stops every five to 7 miles taking longer to stop and start than light rail. Light rail is for shorter intra-county trips such as Orem to Lehi. It has frequent stops (usually a mile apart) and is quicker at stopping and starting. TransPlan50 proposes three light rail lines.



North Light Rail Line - Lehi to American Fork: This line uses a mixture of current rail and new connecting the high growth and high use areas the north and west county





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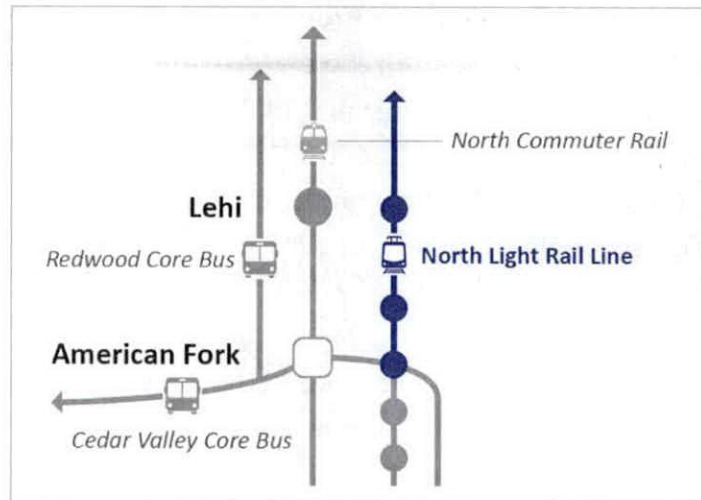
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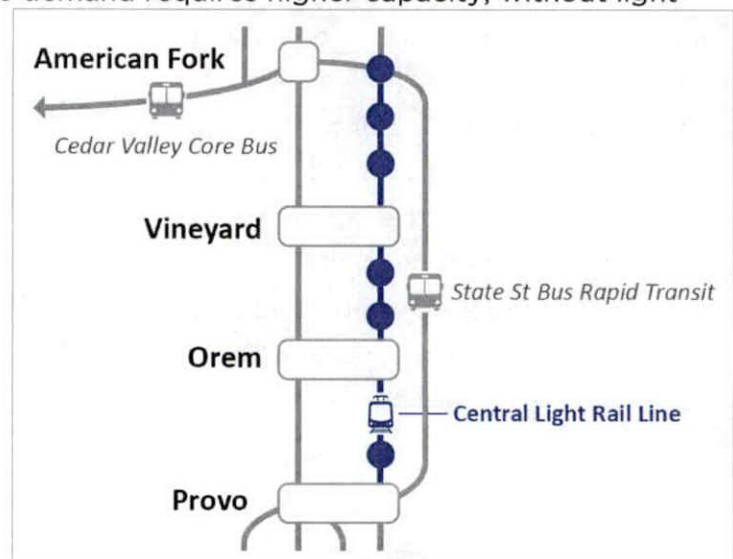
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and Thanksgiving Point into Salt Lake County. This route would be an extension of the current Blue Line that ends in Draper.

There are proposals in Salt Lake County to realign the Draper portion of the Blue Line from the east side of the city to the west closer to I-15, connecting to the future prison site development, and back across the freeway near the county line. Further study will also be done on its alignment through Orem near UVU. This line is warranted within the next ten years, current funding limitations limit its construction out 20 years, and only from Draper to Lehi.



Central Light Rail Line - American Fork to Orem: This line would extent light rail southward to Provo, converting the current Utah Valley Express (UVX) bus rapid transit line into light rail. The only deviation from the current UVX line staying on University Avenue rather than diverting to 900 E. Because BRT buses have lower capacity than a light rail, and future demand requires higher capacity, without light rail as proposed north and south of UVX, there would be a gap in the system. Further study will determine if the Blue Line will extend to Orem or if a break in the line (transfer from the Blue to a new line) will occur. This project is warranted in the next 20 years, although funding beyond today's assumptions would have to be identified.





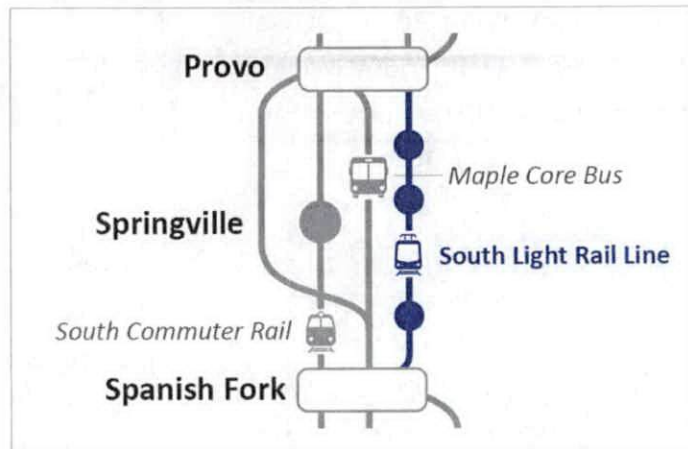
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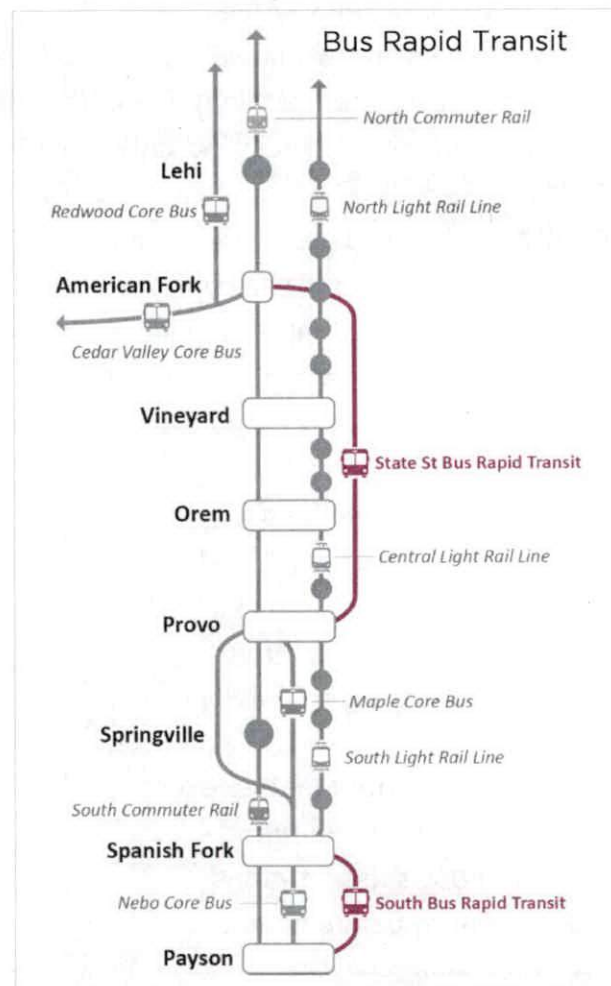
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South Light Rail Line - Provo to Spanish Fork: Nearing the end of the plan, light rail is warranted between Provo and Spanish Fork. A specific alignment is not proposed in the plan and will require further study. Though warranted by 2050, current funding assumptions do not account for constructing this line due to lack of funding.



Bus Rapid Transit: The Utah Valley Express or UVX is a bus rapid transit (BRT) system completed in 2018 connecting the most densely populated areas of Provo and Orem. The system opened successfully with average daily ridership near 10,000 surpassing by three times what the previous bus route did. The system has dedicated stations, high frequency of service, dedicated bus lanes, and large accordion-style buses with high capacity. Part of this success is having the density of two universities on the line and offering free transit passes to students and faculty. A grant has allowed for the service to be free to all riders for the first three years, with discussions of extending this.





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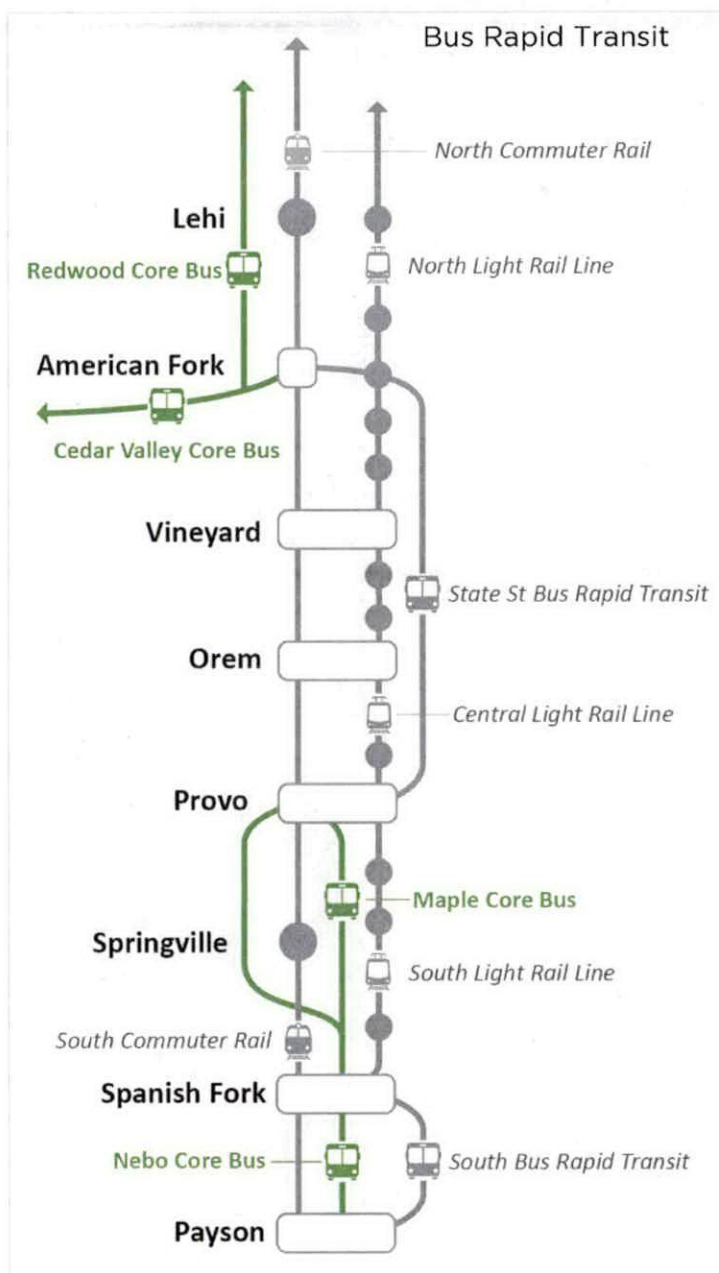
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Two bus rapid transit lines are proposed within TransPlan50. Most likely, the next corridor to have BRT would be the State Street corridor between Provo and the north county. Other planned service includes a line between Payson and Spanish Fork tying into the proposed South Light Rail Line between Orem and Spanish Fork. Most of the light rail lines proposed in the plan could potentially start off as BRT.

Core Bus Routes: Core bus routes act similarly to bus rapid transit in frequency but generally share lanes with vehicle traffic and do not have dedicated stations. Routes are planned between Eagle Mountain and American Fork (Cedar Valley CB), Saratoga Springs into Salt Lake County (Redwood CB), Spanish Fork to Provo (Maple CB), and Payson to Provo (Nebo CB). These types of routes could be the pre-cursor to bus rapid transit or light rail service.





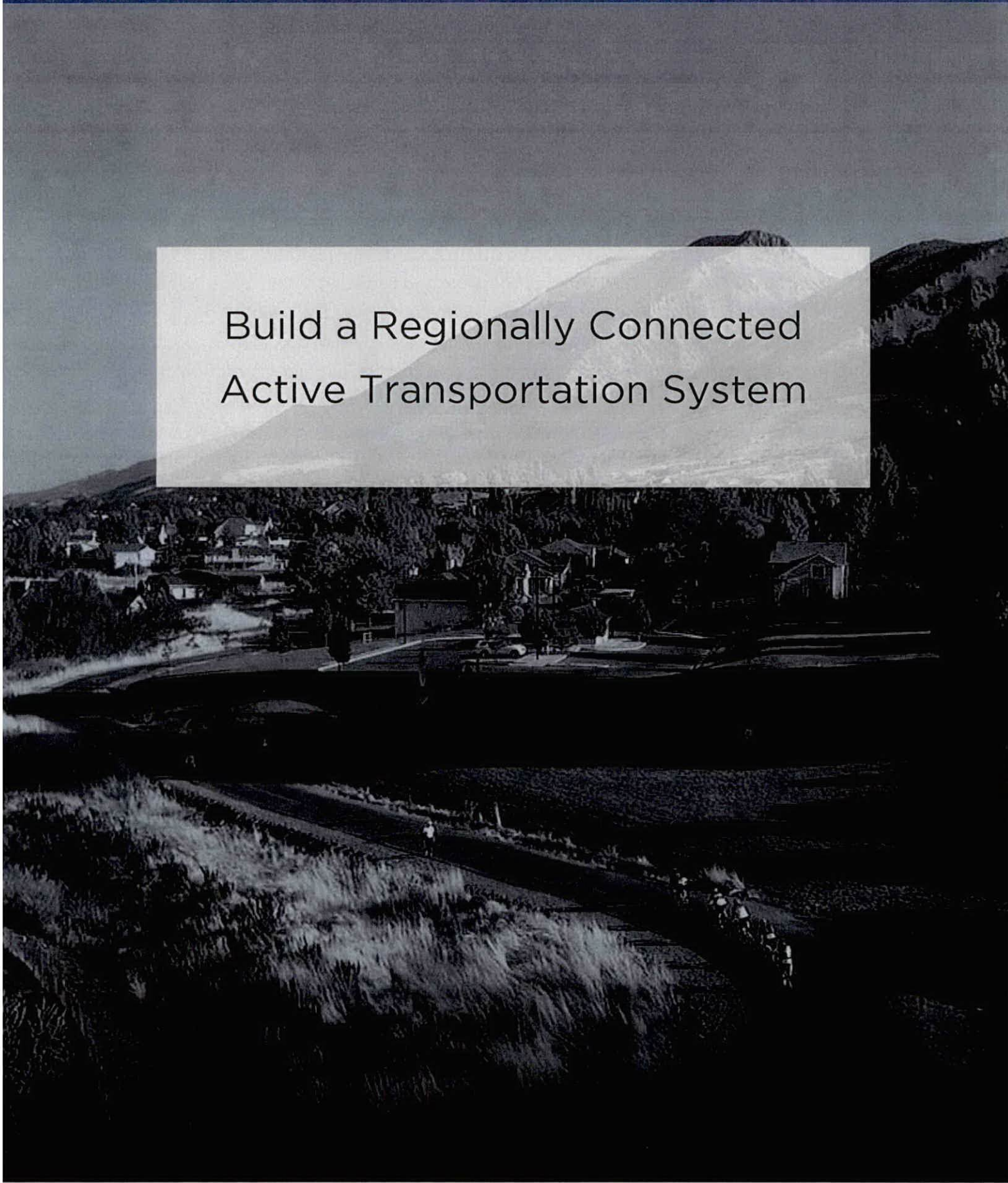
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Build a Regionally Connected
Active Transportation System





Utah County has over 200 miles of paved multi-use trails and 50 miles of regional bike facilities. Utah County leaders have placed a high emphasis on Active Transportation. Many regional facilities have been funded and TransPlan50 plans for many more. Because of our leadership, Utah County is well ahead of Salt Lake County in Active Transportation facilities.

BUILD A REGIONALLY CONNECTED ACTIVE TRANSPORTATION SYSTEM

Utah County leaders have acknowledged non-motorized transportation as an integral part of improving air quality, reducing congestion, and reducing travel costs. While major highway and transit facility construction consumes the vast majority of transportation dollars, bicycle and pedestrian access are low-cost and low-impact improvements to a truly multi-modal transportation system. Initial construction costs are low, especially where facilities are included in the design and construction of highway projects, typically less than 5% of the roadway project costs. The goal of the ped/bike system is to reduce vehicle trips and mitigate traffic congestion. During 2014, the MPO documented 2.2 million user trips on nine regional urban trails.

As Utah County continues to grow and urbanize, the need and demand for multi-use paths, neighborhood connections, on-street bike lanes, sidewalks, and pedestrian-friendly development increases. Walking and biking are viable alternatives to driving for short trips, typically under two miles. For longer trips, connections to transit are vital.

TransPlan50 identifies a network that connects population and employment centers, based on projected densities through 2050. One tool that planners have to help locate where regional trails are needed is the Active Transportation Latent Demand Model. This model uses population and employment densities, land use, demographic indicators, and proximity to schools, parks, transit and existing facilities to show where higher ped/bike uses are anticipated. Active Transportation projects proposed in TransPlan50 are based mainly on adopted municipal bike/ped plans.



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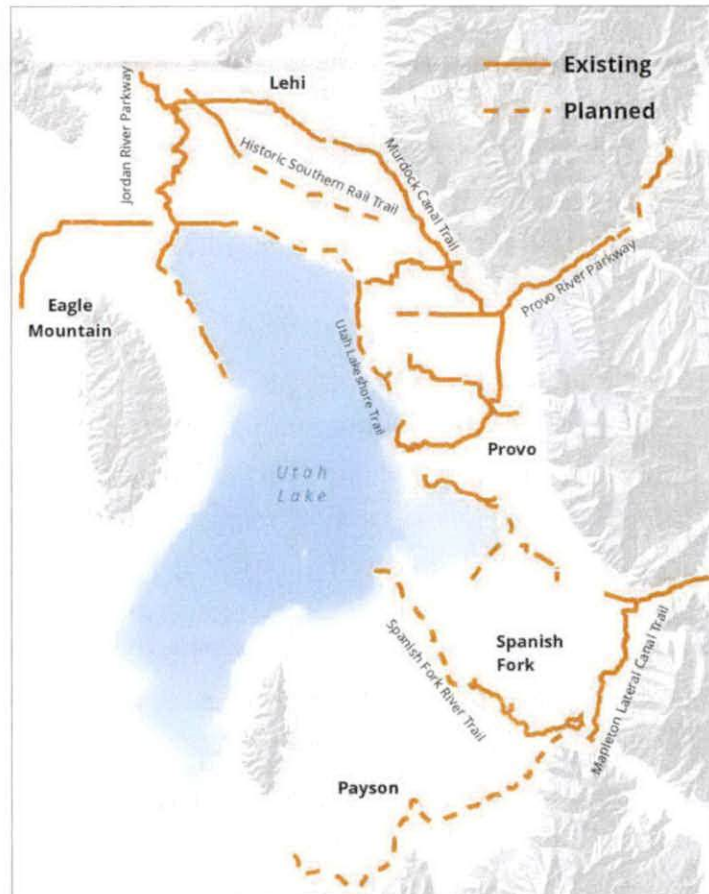
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Regional Trails: The Murdock Canal Trail spans over 20 miles from Lehi to Orem, it is over 15 feet wide, and has only a slight elevation gain. It is wildly popular with between 3000 and 5000 persons using it per day. Other trails that make up our regional backbone include:

- Provo River Parkway Rail traversing Provo from Utah Lake up into Provo Canyon
- The College Connector Trail along University Parkway
- Mapleton Lateral Canal Trail
- Spanish Fork River Trail
- Utah Lakeshore Trail
- Historic Southern Rail Trail in Lehi
- Jordan River Trail connecting into Salt Lake County
- Pony Express Trail connecting Eagle Mountain and Saratoga Springs
- Lindon Heritage Trail connecting the Bonneville Shoreline Trail in the eastern foothills to Utah Lake
- SR 52 Trail connecting Provo Canyon to Geneva Road
- Provo Westside Connector Trail
- Hobble Creek Trail, Springville



These trails constitute, along with multiple standard and buffered bike lanes, the primary backbone for the valley active transportation system totaling over 80 miles. In 2018 the MPO documented 1.6 million user trips on this backbone system. The MPO has funded pedestrian/ bicycle plans for many jurisdictions. These plans help to





develop an interconnected network of both on-street and off-road facilities to enhance highway and transit.

Next Steps: Improvements to the on-street Active Transportation system such as buffered and protected bike lanes are underway and are planned to continue. These attract a wider audience of commuter and casual riders as users feel more protected and comfortable.

Active Transportation and Transit complement and reinforce each other. Safe and inviting bicycle and pedestrian facilities that connect directly to transit increases the geographic range of biking and walking from local, under 1-mile trips, out to the reach of the transit system. Commuting without a car from home in Provo to work in downtown Salt Lake City becomes convenient and doable.

Staff conducted a network analysis of all the stations for FrontRunner and for UVX to understand where connections and gaps between AT facilities and fixed transit centers existed. Filling those gaps has become a significant component of TransPlan50 project selection.

Also, developing technologies and businesses centered on 'Micro-Mobility' such as shared electric scooters and bicycles may significantly increase the market for active transportation, especially when paired with transit. It is vital that both systems design for flexibility in accommodating these and others, not yet understood opportunities.





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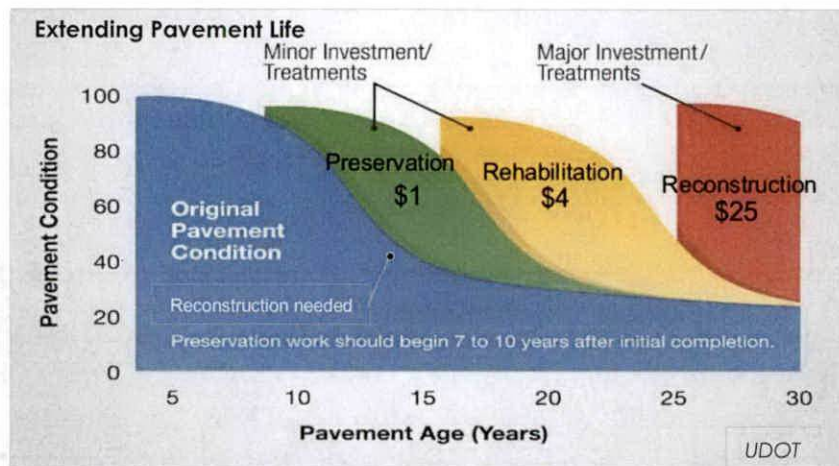
Preserve What We Have





Good Roads Cost Less

UDOT manages and preserves over 16,000 highway lane miles across the state, from multi-lane urban interstates to rural two-lane roads. State roads comprise most of the major highways and carry about 75 percent of all traffic. UDOT's philosophy, "Good Roads Cost Less," means that lower cost preservation and rehabilitation projects in the near-term delay more costly reconstruction. However, there is a deficit statewide in preservation funding. It is estimated that UDOT will have the adequate funding needed to preserve roads within Utah County, but will require an additional \$93 million annually for statewide preservation needs. The local jurisdictions of Utah County require \$6 million more annually to keep up on preservation needs, whereas the state needs \$112 million more annually.



Highway System Preservation

By the year 2050, the grid network of highways, transit, pedestrian, and bikeways will evolve into an urban transportation network. Proper maintenance and preservation can maximize the useful life and effectiveness of the transportation infrastructure. Employing travel demand techniques like ridesharing, telecommuting, and active transportation limits wear and tear by reducing the number of vehicles using the system.

Upkeep of highway pavement provides public infrastructure that is efficient and long-lasting. One of the best ways to accomplish this is through a Pavement





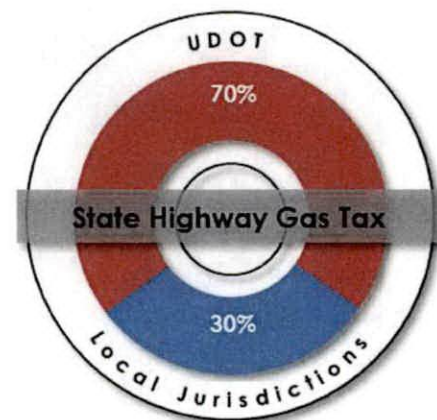
Management program. Maintaining pavement on an extensive regional highway system involves complex decisions about when to schedule resurfacing projects or when to apply other treatments to keep the highway performing, UDOT and most local jurisdictions employ many techniques to maintain their roadways in good condition, and such efforts represent one of the most substantial investments the transportation system.

Local Road Preservation

Preservation needs for local roads are harder to predict due to varying local needs, priorities, and many of the smaller localities not having the staff or means to collect data. The Utah Foundation surveyed Utah's cities and counties to gain a better understanding of local roads, and what these entities would like to see in their transportation network in the future. Many respondents expressed a desire to increase funding to achieve better maintenance and build additional features for pedestrian and bike users. Of the survey's findings, common threads emerged regarding local roads and their contribution to the quality of life. Adequate road capacity to handle traffic demands in urban areas was cited as a critical component of economic development, while better maintenance was a top reason for cost savings among all survey respondents.

Today 30% of the state gas tax goes to cities and counties for road maintenance. It is estimated that this tax covers only a third of local maintenance needs. This means the remaining funds must be made up through city general funds or other means, or that projects are delayed.

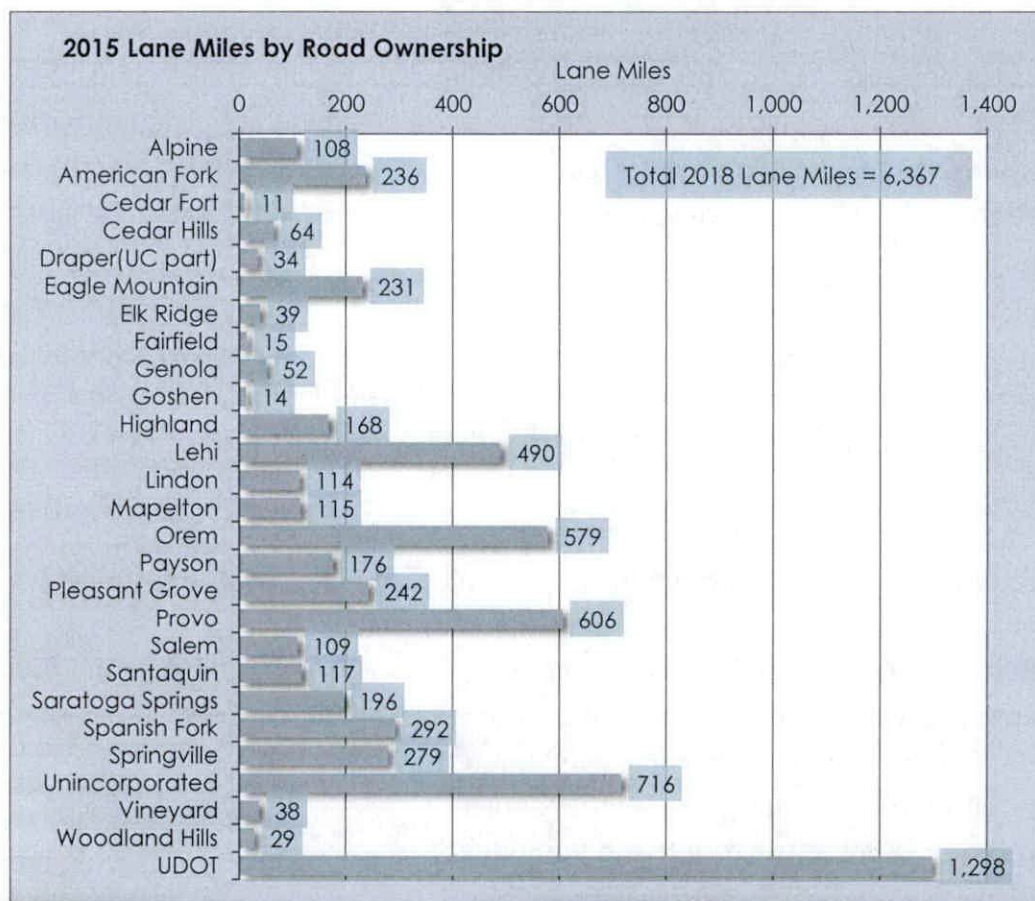
Over 75 percent of Utah roads are under local jurisdiction, and nearly 25 percent of vehicle miles traveled are on local roads, connecting Utahns with their communities, the region, and the interstate highway system. Local connections provide a framework on which cities and counties grow – with roadways being one of the longest lasting pieces of infrastructure that a community will build.





Area Highway Network

There are over 6,000 miles of roads in Utah County. Different routes serve different functions. Most travelers start a trip on a local street and work up to a collector road, to an arterial highway, on to a freeway. Local roads serve access to property and are usually the slower, less used roads. Freeways and arterials have limited access, which helps preserve higher speeds and traffic flow. Municipalities start with a grid network of local roads; the county and state highways create regional connections. The new projects in the last five years have begun the transformation of the regional transportation system from a rural to an urban network. There is still much to do, especially in the far north and south as they develop. Moreover, it all ties into the I-15 Freeway, like tributaries flowing into a large river. Forecasted population growth will place enormous demands on the transportation system.





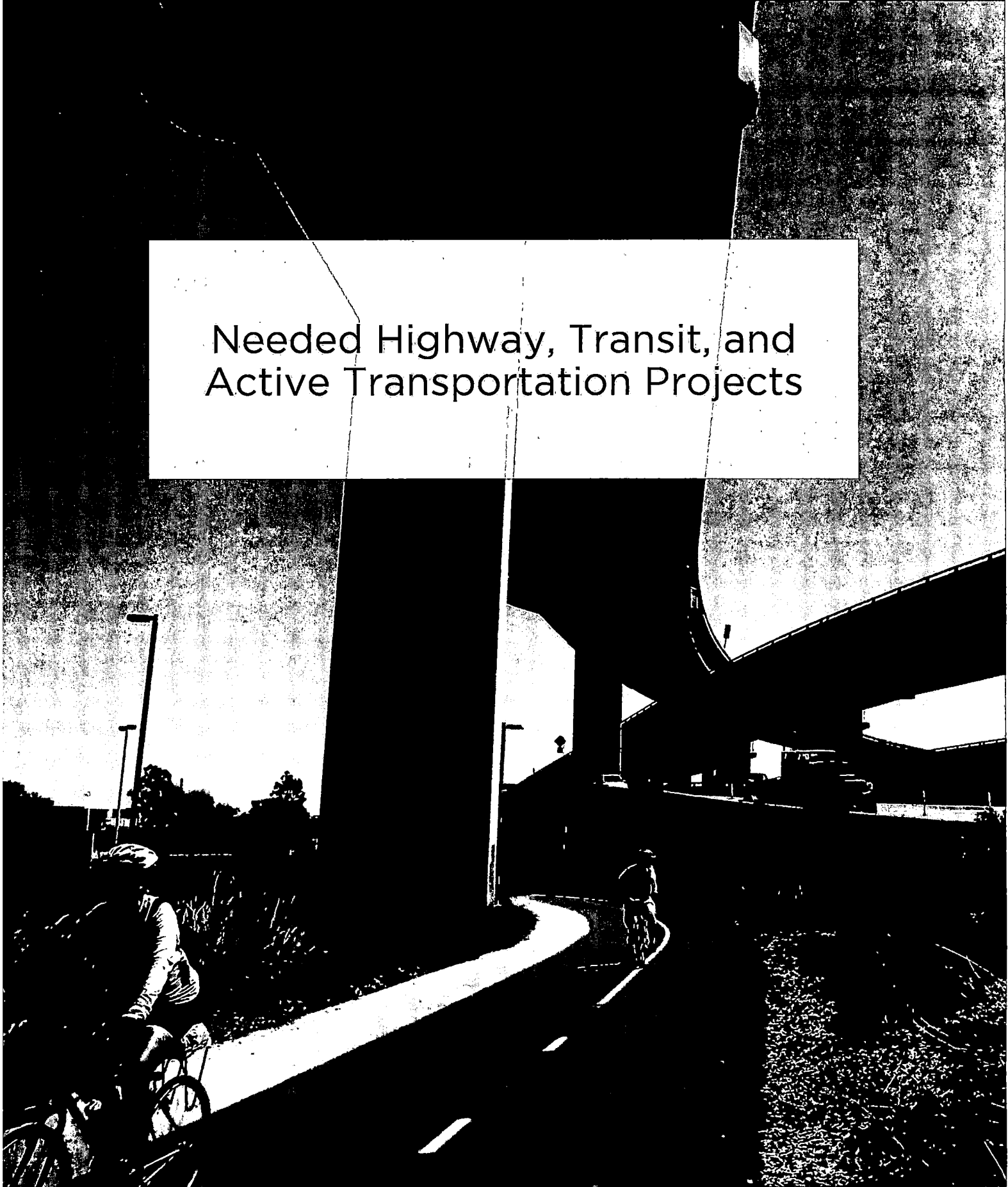
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Needed Highway, Transit, and
Active Transportation Projects



Map ID	Project Name	Cost	Map ID	Project Name	Cost	Map ID	Project Name	Cost
Phase 1: 2019-2030			South Projects			Spanish Fork 2300 E/Nebo Belt RD		
County-wide Projects			Elk Ridge DR			Spanish Fork 2350 E to Salem 600 S		
1	I-15 Freeway		43	UC 8000 S to SR-198	\$12.3M	103	New 5 lane road	\$37.9M
2	Timpanogas HWY to Lehi Main ST	\$415M	44	New 3 lane road		104		
3	Reconstruction and Widen		45	I-15/Payson Main ST/Nebo	\$96M	105	Spanish Fork Main ST/Provo 500 W	\$56.7M
4	I-15 Freeway		46	Belt RD Interchange		106	Spanish Fork 3400 N to Provo 300 S	
5	US-6 to Salt Lake County	\$84M	47	New Interchange		107	New and widen to 5 lanes	
North Projects			48	I-15/Spanish Fork Center ST Interchange	\$60M	108	Springville 1600 S	\$39.8M
6	Operational Improvements		49	New Interchange		109	SR-51 to US-89	
7	Airport RD		50	I-15/Springville 1600 S Interchange	\$50M	110	New 5 lane road	
8	Cory Wide HWY to East Expressway	\$15.3M	51	New Interchange		111	Springville 500 N	\$25.5M
9	New 5 lane road		52	I-15/UC 8000 S Interchange	\$40M	112	Springville 2250 W to Springville 400 W	
10	American Fork 100 E/Alpine HWY	\$15.2M	53	Reconstruction		113	New and widen to 3 lanes	
11	State ST to Canal BLVD, Highland		54	I-15/US6 Interchange	\$18M	114	SR-198	\$19M
12	Widen to 5 lanes		55	Interchange Improvements		115	Salem 400 N to Payson 800 S	
13	Clubhouse DR	\$29.6M	56	Nebo Belt RD	\$62.5M	116	Widen to 5 lanes	
14	I-15 to Lehi 3600 W		57	Payson Main ST to SR-198		117	UC 5600 S/Spanish Fork 1900 N	\$20.2M
15	New and widen to 5 lanes		58	New 5 lane road		118	UC 3200 W to Spanish Fork Main ST	
16	Cory Wide FWY	\$400M	59	Santaquin Main ST US-6	\$9.9M	119	New and widen to 3 lanes	
17	Mountain View Corridor to Ranches PKWY	\$6.4M	60	I-15 to Santaquin 500 W	\$18.7M	120	UC 8000 S	\$7.5M
18	New freeway, interchange		61	Widen to 5 lanes		121	I-15 to UC 3200 W	
19	Cory Wide HWY		62	Spanish Fork 1550 W	\$7.1M	122	Widen to 5 lanes	
20	Ranches PKWY to Airport RD	\$26.6M	63	UC 8000 S to I-15		123	UC 8000 S/Woodland Hills DR	\$21M
21	Widen to 5 lanes		64	New and widen to 3 lanes		124	I-15 to Nebo Belt RD	
22	East Expressway		65	Spanish Fork 2000 E	\$4.1M	125	New and widen to 5 lanes	
23	Eagle Mountain BLVD to Eagle Mountain BLVD	\$46M	66	US-6 to Canyon RD SR-198		126	US-6	\$16.9M
24	New 3 lane road		67	New 5 lane road		127	Powerhouse RD up canyon	
25	Foothill BLVD	\$85M	68	Spanish Fork Center ST	\$4.1M	128	Widen to 5 lanes	
26	Cory Wide FWY to Stillwater DR		69	Spanish Fork 900 E to US-6		129	US-6 FWY	\$93.6M
27	New 3 lane road		70	Widen Fork 5 lanes		130	I-15 to Spanish Fork 2300 E	
28	I-15/PG BLVD Interchange		71	Spanish Fork PKWY	\$0.9M	131	Convert to freeway	
29	Interchange Improvements		72	Mapleton Slant RD to SR-51		Phase 2: 2031-2040		
30	I-15/Traverse Mtn BLVD Interchange	\$146.9M	73	New 3 lane road		North Projects		
31	New Interchange-Frontage Roads		74	Springville 1200 W/Canyon Creek PKWY	\$81.7M	132	Aviator AVE	
32	Lehi 1200 W	\$6.6M	75	Market Place DR to US-89		133	Eagle Mountain BLVD to Cedar Fort RD	\$5.1M
33	I-15 to Timpanogas HWY		76	New 5 lane road		134	New 3 lane road	
34	Widen to 5 lanes		77	Springville 1400 N SR-75	\$49.3M	135	Cedar Valley FWY	\$103.2M
35	Lehi 2100 N FWY SR-194	\$311M	78	I-15 to Springville Main ST US-89		136	East Expressway to UC 4000 N	
36	Mountain View Corridor to I-15		79	Widen to 5 lanes		137	New freeway	
37	New freeway		80	Springville 1600 S/Spanish Fork 2700 N	\$42.9M	138	Central Valley RD	\$10.6M
38	Lehi 3600 W/Point of		81	Spanish Fork Main ST to SR-51		139	UC 2400 N to Mid Valley RD	
39	the Mountain Connector	\$32.8M	82	Widen to 5 lanes		140	New 3 lane road	
40	Lehi 2600 N to Salt Lake County		83	Springville Main ST/US-89	\$18M	141	Draper Gravel Pit RD	
41	New 5 lane road		84	Interchange Reconstruction		142	Traverse Mtn BLVD to Salt Lake County	\$4.4M
42	Lehi 3600 West	\$16M	85	SR-198	\$17.8M	143	New 5 lane road	
43	Lehi Main ST to Clubhouse DR		86	Arrowhead Trail to Salem 400 N		144	Foothill FWY	\$175.3M
44	New and widen to 5 lanes		87	Widen to 5 lanes		145	Stillwater DR to Redwood RD	
45	Lehi Main ST	\$30.5M	88	Summit Ridge PKWY	\$6.1M	146	Convert to freeway	
46	Commerce DR to Lehi 500 W		89	US-6 to Stone Hollow DR		147	Hidden Valley RD	\$34.8M
47	Widen to 5 lanes		90	New 3 lane road		148	East Expressway to Redwood RD	
48	Mid Valley RD	\$4.4M	91	US-6		149	New 5 lane road	
49	Eagle Mountain BLVD to East Expressway		92	I-15 to Spanish Fork Center ST	\$5.5M	150	East Expressway to Redwood RD	
50	New 3 lane road		Phase 3: 2041-2050			151	Mid Valley RD	\$6.8M
51	Mountain View FWY	\$250.9M	County-wide Projects			152	Eagle Mountain BLVD to Cedar Fort RD	
52	Cory Wide HWY to Porter Rockwell PKWY		101	I-15/Alternatives		153	New 3 lane road	
53	New freeway		102	Payson to Salt Lake County	\$1.8B	154	Mountain View FWY	\$74.4M
54	Mt. Saratoga BLVD	\$2.6M	103	Add capacity (location TBD)		155	Widen to 8 lanes	
55	Talus Ridge RD to Cory Wide FWY		North Projects			156	UC 8000 N	\$19.5M
56	New 3 lane road		104	Cory Wide FWY	\$86.4M	Central Projects		
57	Pioneer Crossing	\$5.9M	105	Ranches PKWY to East Expressway		105	Orem 800 E/Orem 1600 N	
58	Widen to 6 lanes		106	New freeway		106	Orem State ST to Orem 800 S	\$42.9M
59	Pleasant Grove BLVD	\$8.6M	107	Engle Mountain BLVD	\$11.6M	107	Widen to 5 lanes	
60	Vineyard Connector to I-15		108	SR-73 to East Expressway		108	Utah Lake Bridge	\$844.6M
61	Widen to 5 lanes		109	Widen to 5 lanes		109	Redwood RD to I-15	
62	Pleasant Grove BLVD	\$2.3M	110	East Expressway	\$9.8M	110	New freeway bridge (location TBD)	
63	North County BLVD to State ST		111	Cedar Valley FWY to Eagle Mountain BLVD		South Projects		
64	Widen to 5 lanes		112	Widen to 5 lanes		101	Elk Ridge DR/UC 1450 W	
65	Pony Express PKWY	\$107.5M	113	Foothill BLVD	\$48.5M	102	UC 8000 S to UC 4000 S	\$50.5M
66	Redwood RD to Vineyard Connector		114	Stillwater DR to Redwood RD		103	New 3 lane road	
67	New and widen to 5 lanes		115	New 4 lane road		104	I-15 Freeway	\$111.2M
68	Pony Express PKWY	\$10.1M	116	Foothill FWY	\$240.4M	105	Payson Main ST to Santaquin Main ST	
69	Sandpiper RD to Eagle Mountain BLVD		117	Cory Wide FWY to Stillwater DR		106	Widen to 6 lanes	
70	Widen to 5 lanes		118	New freeway		107	I-15/UC 12400 S Interchange	\$40M
71	State ST	\$19.8M	119	Harvest Hills BLVD	\$7.2M	108	New Interchange	
72	American Fork 500 W to Pleasant Grove 200 S		120	Sunflower WAY to Spring Run DR		109	Nebo Belt RD	\$10.9M
73	Widen to 7 lanes		121	New 3 lane road		110	SR-198 to Elk Ridge DR	
74	Traverse Mtn BLVD	\$4M	122	Mill Pond RD	\$3M	111	New 3 lane road (location TBD)	
75	Timpanogas HWY to Triumph BLVD		123	Pioneer Crossing to Pony Express PKWY		112	Nebo Belt RD	\$8.6M
76	New 3 lane road		124	New and widen to 3 lanes		113	Salem 600 S to Woodland Hills DR	
77	Traverse Mtn BLVD	\$19.8M	125	Mt. Saratoga BLVD	\$2.2M	114	New 3 lane road	
78	West Point Connector to East Point Connector		126	Cory Wide FWY to Harvest Hills BLVD		115	Payson 800 S	\$24.4M
79	New 5 lane road		127	New 3 lane road		116	Payson 1700 W to UC 5200 W	
80	Triumph BLVD/Lehi 2300 W	\$24.3M	128	North Lakeshore FWY	\$540.6M	117	New 3 lane road	
81	Timpanogas HWY to Lehi 1900 S		129	Poothill FWY to I-15		118	UC 12400 S	\$29.6M
82	New and widen to 5 lanes		130	New freeway (location TBD)		119	SR-198 to Mountain RD	
83	Vineyard Connector	\$83M	131	State ST	\$3.5M	120	New and widen to 5 lanes	
Central Projects			132	American Fork Main ST to American Fork 900 W		121	UC 8000 S	\$26.5M
30	Freedom BLVD	\$22M	133	Widen to 6 lanes		122	UC 3200 W to UC 5600 W	
31	Provo 600 S RR Crossing		134	Timpanogas HWY Express Lanes	\$32.6M	Vision Projects		
32	New bridge		135	Triumph BLVD to Lehi 1200 E		County-wide Projects		
33	I-15/Orem 800 S Interchange	\$130M	136	Widen to 4 lanes		101	Saratoga Springs to Santaquin	
34	New Interchange		137	Timpanogas HWY Express Lanes	\$35.4M	102	Proposed Freeway	
35	I-15 Improvements	\$130M	Central Projects			103	US-6 to Cedar Valley	
36	Improvements to Freeway (location TBD)		73	Orem Center ST	\$10.8M	104	Proposed Freeway	
37	Lakeview PKWY/Geneva RD	\$42M	74	Orem 1200 W to State ST		North Projects		
38	Provo 500 W to University PKWY		75	Widen to 7 lanes		105	Cedar Valley to Tooele County	
39	New and widen to 5 lanes		76	Orem Geneva RD	\$14.7M	106	Proposed Highway	
40	Orem 1200 W	\$8.9M	77	Widen to 7 lanes		107	Cedar Valley West Expressway	
41	Orem 1600 N	\$20.5M	78	Provo 500 W	\$22M	108	Proposed Expressway	
42	Widen to 5 lanes		79	New bridge		109	East Expressway	
43	Orem Center ST	\$6.4M	80	State ST/University PKWY Bridge	\$46.4M	110	Proposed Expressway	
44	I-15 to Geneva RD		South Projects			111	Point of the Mountain Connector	
45	Widen to 5 lanes		101	Elk Ridge DR	\$8.6M	112	Proposed Freeway	
46	Provo 2230 N	\$6M	102	UC 11200 S to UC 8000 S		South Projects		
47	Provo Canyon RD to Stadium AVE		103	Widen to 5 lanes		101	Santaquin to Elberta	
48	Widen to 5 lanes		104	I-15/Payson 800 S Interchange	\$40M	102	Proposed Freeway	
49	Provo 820 N	\$47.8M	105	Reconstruction		103	South Wasatch Corridor	
50	Geneva RD to University AVE		106	I-15/Santaquin Main ST Interchange	\$40M	104	Proposed Provo Bay crossing between Provo and Payson	
51	Widen to 5 lanes		107	Reconstruction				
52	Provo Center ST	\$8.5M	108	Salem 760 N	\$9M			
53	Provo Geneva RD	\$71.2M	109	Elk Ridge DR to Powerhouse RD				
54	Provo Center ST to Lakeview PKWY		110	New and widen to 3 lanes				
55	Widen to 5 lanes							
56	University AVE/Provo 600 S	\$27.5M						
57	Replace UPRR Bridge							
58	Vineyard Center ST RR Bridge	\$8M						
59	Vineyard Mill RD to Vineyard RD							
60	New bridge							

Transit TransPlan50

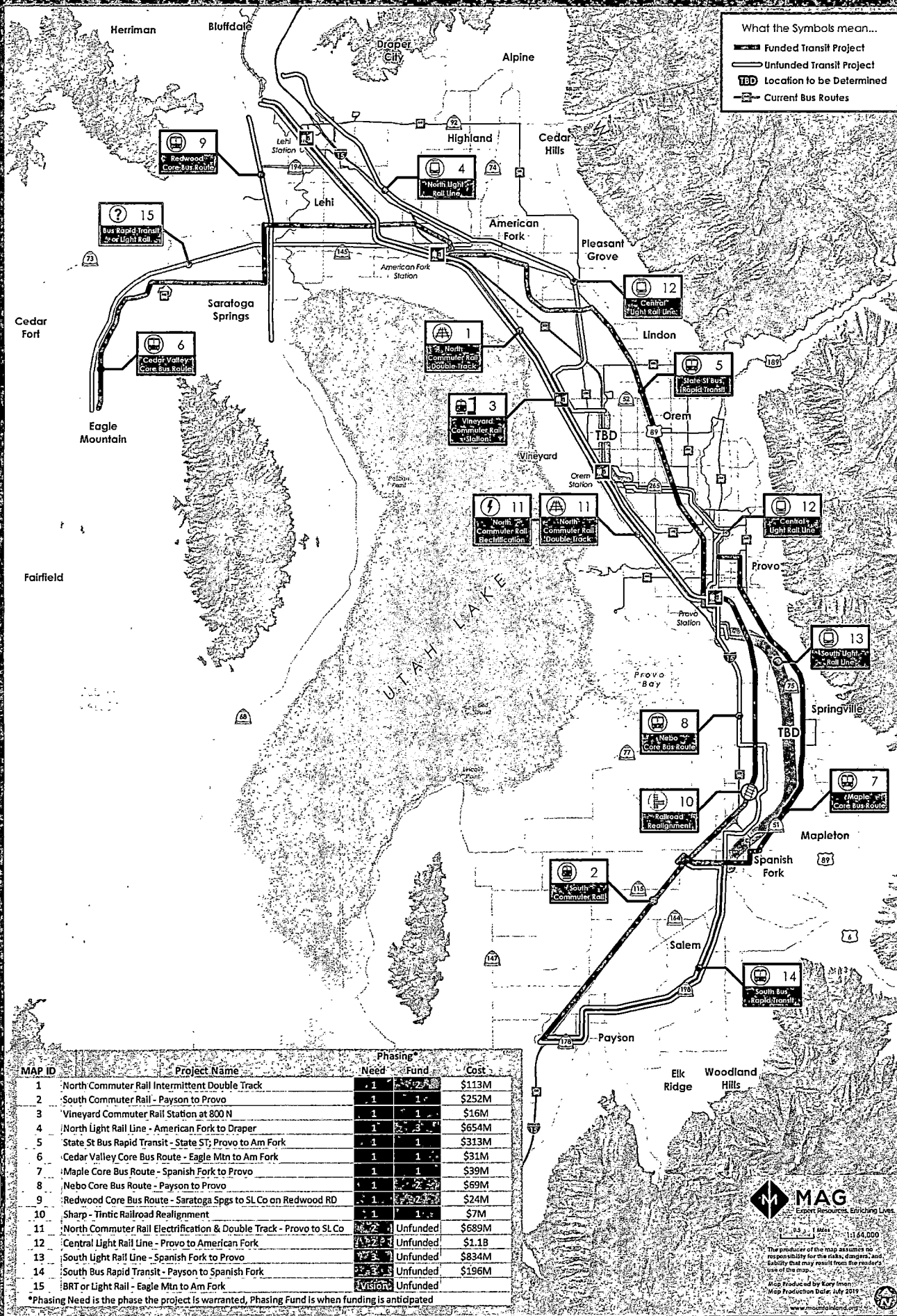
Regional Transportation Plan
2019-2050 Plan for the Provo/Orem
Metropolitan Area

2019-30
Phase 1
2031-40
Phase 2
2041-50
Phase 3
Future
Vision

Modeled Need Phase in Construction

What the Symbols mean...

- Funded Transit Project
- Unfunded Transit Project
- TBD Location to be Determined
- Current Bus Routes



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0 1 2 3 4 5 Miles 1:164,000

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Map Produced by Raytheon
Map Production Date: July 2019

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Bike/Ped TransPlan 50

Regional Transportation Plan
2019-2050: Plan of the Provo/Orem
Metropolitan Area

2019-30
Phase 1

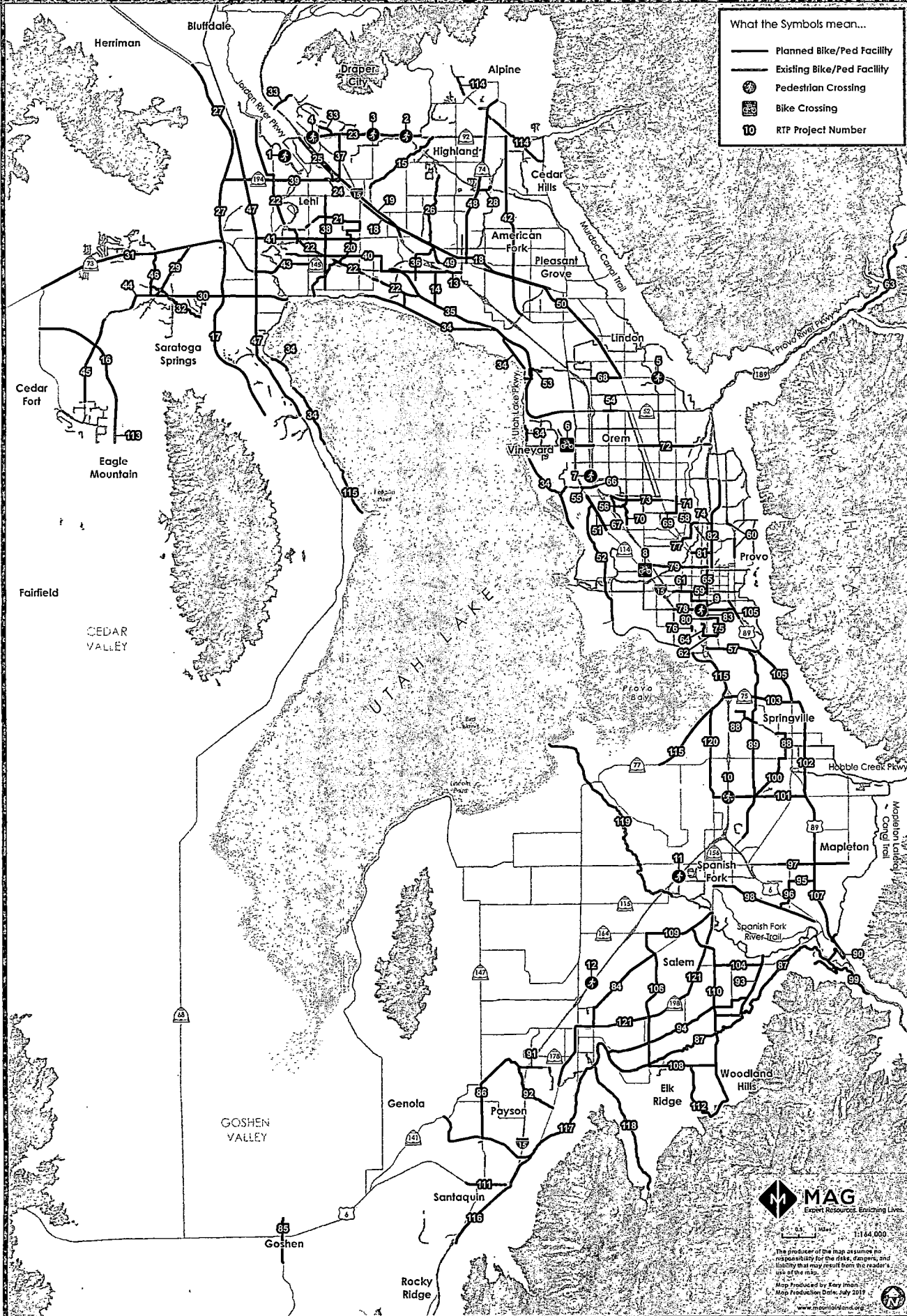
2031-40
Phase 2

2041-50
Phase 3

Future
Vision

What the Symbols mean...

- Planned Bike/Ped Facility
- Existing Bike/Ped Facility
- Pedestrian Crossing
- Bike Crossing
- RTP Project Number



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0 0.5 1 Miles 1:144,000

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Map Produced by Kory Inman
Map Production Date: July 2019

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Map ID	Project Name	Associated with RTP Road Project	Cost
Phase 1: 2019 - 2030			
County-Wide Projects			
Bike/Ped Crossing			
1	Jordan River Trail - Pedestrian Bridge Crossing		\$640,080
2	Lehi SR-92 / 1200 E - Pedestrian Crossing		
3	Lehi SR-92 / Center St - Pedestrian Crossing		
4	SR-92 Pedestrian Bridge Crossing		\$5,300,000
5	Orem 1600 N / 400 E Roundabout & Pedestrian Crossing		\$1,350,000
6	Vineyard Center ST RR Bridge - Add Bike Lanes	*	\$650,000
7	I-15/Orem 800 S - Add Multi-Use Path & Grade-Separated Crossing	*	
8	I-15/Provo Bike/Ped Crossing - Add Buffered Bike Lanes	*	
9	Freedom BLVD - Possible Bike/Ped Improvements	*	
10	I-15/Springville 1600 S Interchange - Add Grade-Separated Crossing	*	
11	I-15/Sp Fork Center ST Interchange - Add Grade-Separated Crossing	*	
12	I-15/Payson Main ST/Nebo RD Interchange - Add Grade-Separated Crossing	*	
North Projects			
Multiuse Pathways			
13	American Fork 200 S - Trail		\$4,500,000
14	American Fork 570 W - Trail		\$985,000
15	Dry Creek Trail - Lehi to Highland		\$2,600,000
16	East Expressway Trail	*	
17	Foothill Blvd Trail	*	
18	Historic Utah Southern RR Trail - Lehi to PG		\$6,500,000
19	I-15 Improvements at crossing & New Trail	*	
20	Lehi - Dry Creek South Trail		\$3,500,000
21	Lehi - Waste Ditch Trail		\$1,700,000
22	Lehi / American Fork - Power Line Trail		\$7,400,000
23	Lehi / Highland - SR-92 Trail		\$3,100,000
24	Lehi 2100 N / SR-194 - Trail	*	
25	Lehi I-15 Frontage Road - Trail	*	
26	Mitchell Hollow Trail		\$2,400,000
27	Mountain View Corridor - Trail & Buffered Bike Lanes	*	
28	Murdock Connector Trail - American Fork		\$637,000
29	Ranches Corridor Trail - Eagle Mountain		\$1,850,000
30	South Pony Express Pkwy Trail - Eagle Mtn / SSprings		\$3,725,000
31	SR-73 - Trail	*	
32	Tickville Trail - Eagle Mountain		\$2,130,000
33	Traverse Mtn Blvd Trail	*	\$1,200,000
34	Utah Lakeshore Trail		\$6,678,750
35	Vineyard Connector - Trail & Buffered Bike Lanes	*	
Bike Facilities			
36	American Fork Meadows - Buffered Bike Lanes		\$205,550
37	Lehi 1200 W - Bike Lanes	*	
38	Lehi 1700 W - Cycle Track		\$1,494,240
39	Lehi 2100 N / SR-194 - Keep existing Bike/Ped Facilities	*	
40	Lehi 700 S - Cycle Track Connecting to 200 S American Fork		\$2,059,200
41	Lehi Main St - Buffered Bike Lanes	*	
42	North County Blvd - Buffered Bike Lanes		
43	Pioneer Crossing - Coordinate alternative Bike/Ped improvements with Saratoga Spgs & Lehi	*	\$1,700,000
44	Pony Express Pkwy - Bike Lanes / Cycle Track		\$656,304
45	Pony Express Pkwy - Buffered Bike Lanes		\$382,500
46	Ranches Pkwy - Bike Lanes / Cycle Track		\$696,960
47	SR-68 / Redwood Road - Buffered Bike Lanes		
48	SR-74 - Buffered Bike Lanes	*	
49	State St / US-89/ Lehi Buffered Bike Lanes	*	
50	US-89 / State St - Buffered Bike Lanes	*	
Central Projects			
Multiuse Pathways			
51	Geneva Rd / SR-114 - Trail		\$890,000
52	Lakeview Pkwy Trail	*	
53	Undon Heritage Trail		\$440,000
54	Orem 800 N Trail		\$395,865
55	Orem FrontRunner Station Trail - Geneva Rd to UVU Ped Bridge		\$280,000
56	Orem Sandhill Rd - Trail		\$410,000
57	Provo 1860 S - Trail		\$1,580,000
58	Provo 2230 N - Trail		\$178,000
59	Provo 500 W / 300 S - Trail		\$750,000
60	Provo 900 E - Trail		\$770,000
61	Provo Center St - Trail		\$560,000
62	Provo East Bay Blvd Trail		\$425,000
63	Provo River Pkwy Trail		\$2,630,000
64	Provo Towne Centre Trail		\$420,000
65	Provo University Ave / US-189 - Trail		\$705,000
66	UVU Pedestrian Bridge		

Map ID	Project Name	Associated with RTP Road Project	Cost
Central Projects			
Bike Facilities			
67	Geneva Rd / SR-114 - Bike Lanes	*	
68	Orem 1600 North - Buffered Bike Lanes	*	
69	Orem 1600 S - Bike Lanes		\$33,000
70	Orem 400 W / 1430 S - Bike Lanes		\$130,000
71	Orem 800 E - Bike Lanes		\$50,000
72	Orem Center St - Bike Lanes		\$236,000
73	Orem University Pkwy - Bike Lanes		\$154,000
74	Provo 2230 N - Bike Lanes		\$14,000
75	Provo 350 E - Bike Lanes		\$55,000
76	Provo 500 W - Bike Lanes		\$12,700
77	Provo 550 W - Bike Lanes		\$84,000
78	Provo 600 S - Bike Lanes and Trail		\$1,980,000
79	Provo 820 N - Buffered Bike Lanes	*	
80	Provo 900 S - Bike Lanes		\$52,000
81	Provo Bulldog Blvd - Protected Bike Lanes		
82	Provo Canyon Rd - Bike Lanes and Trail		\$2,900,000
83	University Ave / US-189 - Bike Lanes	*	
South Projects			
Multiuse Pathways			
84	Arrowhead Trail Rd		\$3,040,000
85	Goshen Center St - Trail		\$1,340,000
86	Goshen Valley Rail Trail		\$2,750,000
87	Highline Canal Trail		\$9,000,000
88	Hobble Creek Trail - Springville		\$1,900,000
89	InterCity Connector Trail		\$5,860,000
90	Mapleton Lateral Canal Trail - Springville to Sp Fork		\$1,460,000
91	Payson South Trail		\$1,220,000
92	Payson Trail		\$1,840,000
93	Salem Trail		\$2,750,000
94	Salem Canal Rd Trail		\$4,800,000
95	Spanish Fork / Mapleton Trail		\$760,000
96	Spanish Fork 2550 E Trail		\$1,000,000
97	Spanish Fork 400 N Trail		\$2,080,000
98	Spanish Fork Canyon Rd - Trail		\$3,260,000
99	Spanish Fork Canyon Trail		\$2,600,000
100	Springville - Tintic Rails Trail		\$1,650,000
101	Springville 1600 S / Sp Fork 2700 N - Trail	*	
102	Springville 400 E Trail		\$3,100,000
103	SR-75 - Trail & Bridge	*	
104	UC 8800 S Trail		\$1,430,000
105	US-89 / State St - Trail		\$2,480,000
Bike Facilities			
106	Elk Ridge Dr/ Salem - Buffered Bike Lanes	*	
107	Mapleton US-89 / 1600 W - Buffered Bike Lane		\$688,500
108	Salem Loop/ 11200 S - Bike Lanes		\$200,000
109	Salem Loop/ SR-164 - Bike Lanes		\$220,000
110	Salem Loop/ Woodland Hills Dr - Bike Lanes		\$453,000
111	Santaquin Main St / US-6 - Extend existing Bike/Ped Facility	*	
112	Woodland Hills Trail		\$3,750,000
Phase 2: 2031 - 2040			
North Projects			
Multiuse Pathways			
113	City Center Corridor Trail - Eagle Mountain		\$495,000
114	Powerline Trail		\$3,200,000
Central Projects			
Multiuse Pathways			
115	Utah Lakeshore Trail		\$6,678,750
South Projects			
Multiuse Pathways			
116	Highland Dr Trail - Santaquin		\$3,350,000
117	Highline Canal Trail		\$9,000,000
118	Payson Canyon Trail - Highline Canal to Four Bay		\$4,350,000
119	Spanish Fork River Trail - Spanish Fork		\$7,230,000
120	Springville 2600 W Trail		\$2,700,000
121	SR-198 Connector Trail		\$8,100,000

Modeled Need Phase of Construction

