THE CHALLENGE
Utah’s population is anticipated to nearly double between 2010 and 2050. That means nearly twice as many demands on our roads and transit lines. More people means more goods and services to be delivered, more employees commuting to work, and more errands to run.

While travel demands continue to grow, there is less room to widen roads or add new transportation infrastructure. This challenge of considerable growth with limited space is most concentrated along the I-15/FrontRunner corridor from southern Davis County to northern Utah County.

THE PARTNERSHIP
To prepare for such a rapidly changing transportation future, Utah’s four largest transportation agencies came together to conduct the Wasatch Front Central Corridor Study. These agencies include the Mountainland Association of Governments (MAG), Utah Department of Transportation (UDOT), Utah Transit Authority (UTA), and Wasatch Front Regional Council (WFRC). Their goal was to develop a more integrated range of solutions along the I-15/FrontRunner corridor that could serve Utahns through 2050.

LOTS OF PEOPLE — NOT MUCH SPACE — LOTS MORE TRAVEL

PLANNING DIFFERENTLY
Substantial population growth combined with limited space, rapidly developing technology, and changing demographics require us to think differently about how we plan for the future.

Because homes and office buildings are so close to I-15, widening roads alone, without adding to other modes of transportation like transit and bike trails, is not a feasible approach to prepare for the Wasatch Front’s growing travel demands. In fact, a roads-only approach would require about 70 percent more miles of travel lanes by 2050 to match the miles of travel lanes per person that Utahns are accustomed to today.

Current I-15 Lanes at 7200 South

I-15 Lanes Needed by 2050 at 7200 South if Widening is the Only Solution Considered

COUNTIES INCLUDED: Box Elder, Davis, Salt Lake, Utah, Weber

Source: Kem C. Gardner Policy Institute, The University of Utah; Utah’s Long-Term Demographic and Economic Projections Summary; Research Brief, July 2017
REVIEWED SCENARIOS

The study team developed three scenarios with solutions to address future travel needs along the I-15/FrontRunner corridor. These scenarios are alike because they integrate I-15, surface streets, transit, active transportation, and transportation-related programs; they differ in their placement along the spectrum that ranges from building more infrastructure to better managing existing infrastructure.

Given the physical constraints of existing office buildings and homes, the geographic location between the mountains and a lake, and the costs required to build more infrastructure, the study team explored ways to maximize the existing infrastructure while keeping people, goods, and services moving.

SCENARIO 1: Balances managing existing infrastructure more efficiently with building more infrastructure

- **I-15**: Barrier-separated lanes exclusively for carpooling and enhanced variable-pricing to help reduce congestion
- **Surface Streets**: Improved street connections
- **Transit**: No-fare transit
- **Active Transportation**: Cycle superhighway
- **Programs**: Pay-per-use transportation apps
- **I-15**: Invests significant funding into building more infrastructure to meet projected travel demands

SCENARIO 2: Tightly manages the existing transportation network to use available travel space and seats more efficiently

- **I-15**: Enhanced variable-pricing on all non-carpool I-15 lanes during rush hours to reduce congestion
- **Surface Streets**: Driveway consolidation (access management) on select arterials
- **Transit**: FrontRunner double-tracked and electrified
- **Active Transportation**: Technology and design strategies that improve bike/ped safety
- **Programs**: Prioritized transportation projects around Transit Oriented Developments (TODs)
- **I-15**: Barriers-separated lanes exclusively for carpooling and enhanced, premium variable-pricing to help reduce congestion

SCENARIO 3: Builds more infrastructure to meet the projected travel demands

- **I-15**: Expanded collector-distributor system
- **Surface Streets**: New capacity on arterials for transit lanes and Express Lanes with grade-separated intersections
- **Transit**: FrontRunner double-tracked and electrified
- **Active Transportation**: Cycle superhighway
- **Programs**: Regional mixed-use transportation hubs
TRANSPORTATION GOALS
The study team worked to find solutions along the I-15/FrontRunner corridor that met broad, desirable goals to connect people to jobs, education, and other interests, balance a variety of transportation choices, manage congestion, and preserve Utah’s exemplary quality of life in a rapidly changing travel environment.

REFINED SCENARIOS COMPARISON
To prepare for a more populated and multi-modal transportation system, planners used more comprehensive measures of success like access to jobs and reliability of travel times. These measures reflect the performance of an entire transportation system: roads, transit, pedestrian, and bike.

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<th>BEST</th>
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<th>WORST</th>
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<tbody>
<tr>
<td>SCENARIO 1</td>
<td>Show a modest shift toward transit and away from single-occupancy vehicles on I-15 by managing freeway and roadway capacity more efficiently and incentivizing transit use.</td>
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<td>SCENARIO 2</td>
<td>Optimizes transportation network utilization through variable freeway pricing, expanding transit and incentivizing transit use.</td>
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<td>SCENARIO 3</td>
<td>Adds freeway and transit capacity without improving efficiency.</td>
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**OVERALL RANKING**

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HYBRID MOBILITY SCENARIO*

Based on the performance of potential solutions relative to the I-15/FrontRunner corridor’s goals, a Hybrid Mobility Scenario was developed. The Hybrid Mobility Scenario includes solutions from the three refined scenarios that remained after additional screening and analysis. These solutions, which combine better managing the existing roadway network and building more transit, are still exploratory and will be considered in regional transportation plans for further discussion and vetting among state and local leaders and the public. (See the last page of this document for more information about public outreach next steps.)

MANAGE MORE

<table>
<thead>
<tr>
<th>I-15</th>
<th>Surface Streets</th>
<th>Transit</th>
<th>Active Transportation</th>
<th>Programs</th>
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<td>Enhanced variable-pricing on all non-carpool I-15 lanes during rush hours to reduce congestion</td>
<td>Driveway consolidation (access management) on select arterials</td>
<td>Double FrontRunner frequency - Double-track and electrify</td>
<td>Buffered bike lanes</td>
<td>Choice Architecture - Incentive strategy to promote more efficient travel choices [Travel Demand Management (TDM) strategy]</td>
</tr>
<tr>
<td>Barrier-separated lanes exclusively for carpooling and enhanced, premium variable-pricing to help reduce congestion</td>
<td>Managed Lanes Networks (includes transit/Express Lanes on arterials)</td>
<td>Double bus service - increase frequency</td>
<td>Extensive active transportation networks</td>
<td>Mobility hubs - Regional mixed-use transportation hubs</td>
</tr>
</tbody>
</table>

BUILD MORE

SCENARIO 2

SCENARIO 1

HYBRID MOBILITY SCENARIO

SCENARIO 3

Increases Accessibility to Jobs Via Transit

Increased transit frequency and faster FrontRunner speeds provide more and quicker options to get to work sites via transit.

Doubles Transit Ridership

The combination of variable freeway pricing, increased transit frequency and no-fare transit doubles projected 2050 transit ridership in the study area.

Reduces Future Travel Times

This combination also produces considerably faster travel times than would exist without managing the transportation network. For example, projected 2050 travel times from Salt Lake City to Lehi decrease by 17 minutes in the I-15 non-carpool lanes and by 13 minutes in the barrier-separated Express Lanes as compared to the study’s Scenario 0, which assumes many of the projects in the 2040 Regional Transportation Plans are built by 2050, but does not include the solutions in the Hybrid Mobility Scenario.

*Assumes 2040 Regional Transportation Plan Projects are Built

The Hybrid Mobility Scenario assumes that many study-area projects in the unfunded or vision phases of the WFRC and MAG 2040 Regional Transportation Plans will be built by 2050. These projects could include widening 14600 South, Redwood Road and the Mountain View Corridor, as well as several Bus Rapid Transit and Enhanced Bus projects.
HYBRID MOBILITY SCENARIO MAP

I-15
- Expanded Collector-Distributor System
- Barrier Separated Carpool/Premium Lanes
- Variable-Pricing on All Lanes During Rush Hours
- Managed Lanes Networks*

Surface Streets
- Bike/Ped/Vehicle Overpasses
- Driveway Consolidation on Select Arterials

Transit
- New FrontRunner Stations
- Doubletrack and Electrify FrontRunner
- No-Fare Transit*
  - Double Bus Services - Increase Frequency*
  - Double TRAX Frequency - Extend TRAX Stations* (Longer Trains)

Active Transportation
- Cycle Super Highways
- Buffered Bike Lanes
- East-West Salt Lake County Trails
- First-Last Mile Connections
- Bicycle/Pedestrian Only Overpasses

Programs
- Mobility Hubs
  - Choice Architecture/Comprehensive and Voluntary Travel Demand Management (TDM) Strategies*

*= Elements not represented on map, as they encompass the entire study area

The study includes Mobility Hubs and New FrontRunner Stations in Weber, Northern Davis and Utah Counties.

(Extends to the end of the FrontRunner line.)
PROCESS AND NEXT STEPS
Solutions from the study will be considered in the WFRC and MAG 2019-2050 Regional Transportation Plans (RTPs) and ultimately Utah’s Unified Transportation Plan. WFRC and MAG develop the RTPs jointly with local government officials, UDOT, and UTA.

The public will have opportunities to provide input during the RTP planning processes.

STUDY FUNDING
The Wasatch Front Central Corridor Study was funded by a Federal Highway Administration (FHWA) Transportation Investment Generating Economic Recovery (TIGER) Grant and matching funds from UDOT, UTA, WFRC, and MAG. The Final Report Summary is based upon work supported by the FHWA under Grant Agreement P-16. Any opinions, findings, and conclusions or recommendations expressed in this summary are those of the Authors and do not necessarily reflect the view of the FHWA.

MORE INFO
Additional study information available at wfccstudy.org