THE CHALLENGE
Utah’s population is anticipated to nearly double by 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 facilities. This outlook 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 (MAG, UDOT, UTA and WFRC) came together to conduct the Wasatch Front Central Corridor Study. 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
REFINED 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 programs; they differ in their placement along the spectrum below 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
  - Transit lanes and carpool lanes on arterials
- **Active Transportation**
  - Cycle superhighway
  - Extensive active transportation networks
  - Technology and design strategies that improve bike/ped safety
- **Programs**
  - Pay-per-use transportation apps
  - Prioritized transportation projects around Transit Oriented Developments (TODs)
  - Incentive strategy to promote more efficient travel choices

**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
  - Barrier-separated lanes exclusively for carpooling and enhanced, premium variable-pricing to help reduce congestion
  - “Freight-encouraged” lane
- **Surface Streets**
  - Driveway consolidation (access management) on select arterials
  - Reversible lanes on select arterials
  - Managed lanes network
- **Transit**
  - FrontRunner double-tracked and electrified
  - TRAX station platform extensions
  - No-fare transit
  - Increased transit frequency
  - Dedicated bus lanes on arterials with transit signal priority
- **Programs**
  - Comprehensive Travel Demand Management program

**SCENARIO 3:** Invests significant funding into building more infrastructure to meet projected travel demands

- **I-15**
  - Expanded collector-distributor system
  - Double-decked I-15
  - Reversible lanes
- **Surface Streets**
  - New capacity on arterials for transit lanes and Express Lanes with grade-separated intersections
- **Transit**
  - FrontRunner double-tracked and electrified
  - More FrontRunner stations
- **Active Transportation**
  - Extensive active transportation networks
  - Buffered bike lanes or cycle tracks on arterials
- **Programs**
  - Regional mixed-use transportation hubs
  - Pay-per-use transportation apps
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.

<table>
<thead>
<tr>
<th>IMPROVE SAFETY</th>
<th>INCREASE PERSON THROUGHPUT</th>
<th>IMPROVE TRAVEL TIME RELIABILITY</th>
<th>INCREASE ACCESSIBILITY TO JOBS &amp; EDUCATION</th>
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</thead>
<tbody>
<tr>
<td>IMPROVE AIR QUALITY</td>
<td>IMPROVE ECONOMIC OUTCOMES</td>
<td>REDUCE HOUSEHOLD TRANSPORTATION COSTS</td>
<td>IMPROVE MODE BALANCE</td>
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</table>

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.

<table>
<thead>
<tr>
<th>BEST</th>
<th>MODERATE</th>
<th>WORST</th>
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<tr>
<th>ACCESS TO EMPLOYMENT</th>
<th>AIR QUALITY</th>
<th>BENEFIT/COST RATIO</th>
<th>HOUSEHOLD TRAVEL COSTS</th>
<th>HOUSEHOLDS WALK/BIKE DISTANCE FROM TRANSIT</th>
<th>INJURIES AND FATALITIES</th>
<th>JOBS CREATED</th>
<th>MARKET VALUE OF GOODS AND SERVICES</th>
<th>PERCENT OF I-15 VEHICLE SEATS USED</th>
<th>PERCENT OF TRANSIT SEATS USED</th>
<th>PERSONAL INCOME</th>
<th>REDUCTION OF SINGLE-OCCUPANCY VEHICLES</th>
<th>REDUCTION OF SINGLE-OCCUPANCY VEHICLES TO ACCESS TRANSIT</th>
<th>TOTAL PEOPLE MOVED</th>
<th>TRAVEL TIME</th>
<th>TRAVEL TIME RELIABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCENARIO 1: Shows 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>
<td>SCENARIO 2: Optimizes transportation network utilization through variable freeway pricing, expanding transit and incentivizing transit use.</td>
<td>SCENARIO 3: Adds freeway and transit capacity without improving efficiency.</td>
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OVERALL RANKING
WORST  BEST  MODERATE
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 integrated into Regional Transportation Plans for further discussion and vetting among state and local leaders and the public. (See the back of this document for more information about public outreach next steps.)

**Active Transportation**
- Cycle superhighway
- Buffered bike lanes
- Extensive active transportation networks

**Programs**
- Pay-per-use transportation apps
- Choice Architecture - Incentive strategy to promote more efficient travel choices [Travel Demand Management (TDM) strategy]
- Mobility hubs - Regional mixed-use transportation hubs
- Comprehensive and voluntary TDM strategies

**Surface Streets**
- Improved street connections
- Driveway consolidation (access management) on select arterials
- Managed Lanes Networks (includes transit/Express Lanes on arterials)

**I-15**
- Expanded collector-distributor system
- Enhanced variable-pricing on all non-carpool I-15 lanes during rush hours to reduce congestion
- Barrier-separated lanes exclusively for carpooling and enhanced, premium variable-pricing to help reduce congestion

**Transit**
- No-fare transit
- Double FrontRunner frequency - Double-track and electrify
- Double bus service - Increase frequency
- Double TRAX frequency - Extend TRAX stations (longer trains)

**Improves Travel Time Reliability**
Variable pricing reduces the number of cars on the freeway, improving travel time reliability and reducing travel time.

**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 Hour
- 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.
**PROCESS AND NEXT STEPS**

Solutions from the study will be integrated into the Wasatch Front Regional Council (WFRC) and Mountainland Association of Governments (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.

<table>
<thead>
<tr>
<th>INITIAL SCENARIOS</th>
<th>REFINED SCENARIOS</th>
<th>HYBRID MOBILITY SOLUTIONS</th>
<th>REGIONAL TRANSPORTATION PLAN INTEGRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2015-Spring 2016</td>
<td>Summer-Fall 2016</td>
<td>End of 2016-Early 2017</td>
<td>2017-2019</td>
</tr>
<tr>
<td>Developed and discussed conceptual scenarios</td>
<td>Analyzed transportation and economic impacts and fiscal sustainability of scenarios</td>
<td>Identified Hybrid Mobility Solutions</td>
<td>Integrate solutions from the study into various cycles of the WFRC and MAG 2019-2050 Regional Transportation Plans (RTPs) and the Utah Unified Plan</td>
</tr>
<tr>
<td>Stakeholder Workshops</td>
<td>Small-Area Meetings</td>
<td>Final Report</td>
<td>Ongoing Public Involvement</td>
</tr>
</tbody>
</table>

### MORE INFO

Additional study information available at [wfccstudy.org](http://wfccstudy.org)