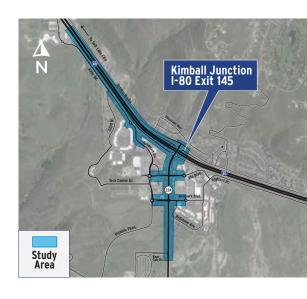
# **PURPOSE & NEED**



## PROJECT BACKGROUND

In May 2021, the Utah Department of Transportation (UDOT), in partnership with Summit County, published the Kimball Junction and SR-224 Area Plan that documented the results of a study conducted using UDOT's Solutions Development process. The Area Plan was conducted to identify and analyze multimodal improvements to address congestion, mobility, safety, access, and travel time reliability at the Kimball Junction interchange and on SR-224 in the Kimball Junction area.

UDOT is currently preparing an environmental impact statement (EIS) to evaluate improvements at the Interstate 80 (I-80) and State Route 224 (SR-224) interchange at Kimball Junction and on SR-224 from Kimball Junction through the Olympic Parkway intersection in Summit County, Utah.



## PROJECT PURPOSE

The project purpose is to address transportation-related safety and mobility for all users of the Kimball Junction area by:

- Improving operations and travel times on SR-224 from the I-80 interchange through Olympic Parkway
- ✓ Improving safety by reducing vehicle queues on I-80 off-ramps
- Improving pedestrian and bicyclist mobility and accessibility throughout the evaluation area
- Maintaining or improving transit travel times through the evaluation area

### What is the purpose and need of a project?

The purpose and need of a project defines a statement of goals and objectives that the study will address (purpose), and identifies the existing and future conditions that need to be changed (need). The purpose and need drives the environmental study process and lays a foundation for the types of alternatives developed.

## **PROJECT NEED**

For the Kimball Junction Project, UDOT looked at the expected transportation mobility needs and projected growth in population, employment, tourism, and development in the evaluation area in 2050.

This projected growth in the area will lead to the following issues:

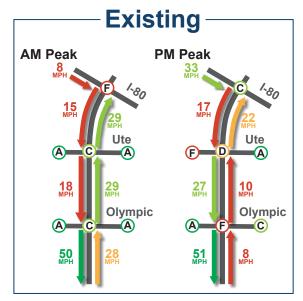
- 1. Future (2050) failing conditions at the intersections of SR-224 and I-80, Ute Boulevard, and Olympic Parkway will create delay and unreliable travel times
- 2. Vehicle queues on the I-80 off-ramps will extend back onto mainline I-80, resulting in unsafe travel conditions
- 3. Growing east-west active transportation (walking and bicycling) demand across SR-224

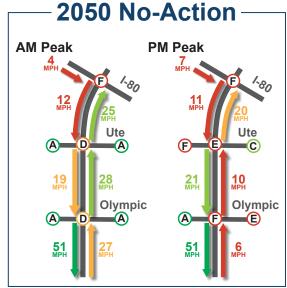


## AVERAGE SPEEDS AND LEVEL OF SERVICE

### What is level of service?

Level of service (LOS) is a measurement of the vehicle-carrying capacity and performance of a street, freeway, or intersection. When the capacity of a road is exceeded, the result is congestion, delay, and a poor level of service. Level of service is represented by a letter "grade" ranging from A for excellent conditions (free-flowing traffic and little delay) to F for failing conditions (extremely congested, stop-and-go traffic, and excessive delay).





#### Level of Service

## A NO DELAYS

Highest quality of service. Free traffic flow with few restrictions on maneuverability or speed.

#### R NO DELAYS

Stable traffic flow. Speed becoming slightly restricted. Low restriction on maneuverability.

#### c MINIMAL DELAYS

Stable traffic flow, but less freedom to select speed.

#### to select speed. - **UDOT Goal** -

D | NOTICEABLE DELAYS

Traffic flow becoming unstable. Speed subject to sudden change.

### L CONSIDERABLE

Unstable traffic flow. Speed changes quickly and maneuverability is low.

### F CONSIDERABL

Heavily congested traffic. Demand exceeds capacity and speed varies greatly.

## TRAVEL TIMES

AM I-80 off ramp travel times can grow from

**2** min.

to over 15 min.

PM outbound travel times on SR-224 can grow from

5 t

to over 20 min.



Majority of worst conditions are on weekdays





## **QUEUE LENGTHS**

Under the 2050 no-action conditions, AM vehicle queue lengths at the I-80 ramp are projected to exceed 3 miles, long enough to back up to the Jeremy Ranch interchange.

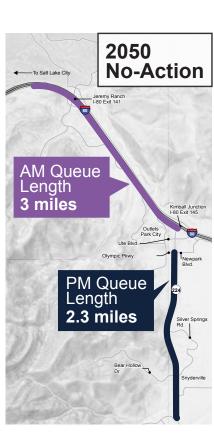
Ramp queues
backed onto I-80
49 TIMES
during winter 21/22



Two-mile outbound queues occurred **25 EVENINGS** 

during winter 21/22





### What is mobility?

Mobility refers to the ease with which people can move from place to place using a transportation system. Impediments to mobility can include traffic congestion, numerous accesses to properties, high crash rates, and other factors.





### **ACTIVE TRANSPORTATION**

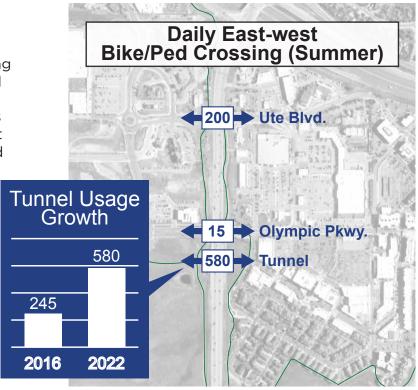
As the Kimball Junction area continues to develop and densify, it is likely that walking and bicycling to different destinations will become a more attractive transportation option. There will likely be more crossings of SR-224 by pedestrians and bicyclists at both the undercrossing and the signalized intersections.



Nearly 800 SR-224 east-west bicycle/pedestrian crossings daily



Tunnel usage has more than doubled since 2016



## TRANSIT RIDERSHIP





2.8 MILLION trips in 2019



**Projected** 

## 1,700 PEAK WINTER DAILY BOARDINGS

at the Kimball Junction Transit Center by 2050



Maintaining or improving transit travel times through the evaluation area is an important element of the project purpose and will be considered in the conceptual design and screening of the alternatives selected for detailed evaluation in the EIS.

The environmental review, consultation and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by UDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated May 26, 2022, and executed by FHWA and UDOT.

