WASATCH BOULEVARD IMPROVEMENTS
FORT UNION BOULEVARD TO NORTH LITTLE COTTONWOOD ROAD

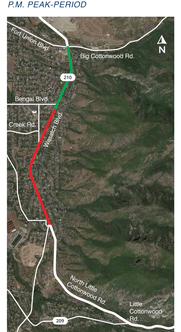
Little Cottonwood Canyon ENVIRONMENTAL IMPACT STATEMENT
Wasatch Boulevard to Alta

INITIAL EVALUATION FOR IMPROVING WASATCH BOULEVARD

Wasatch Boulevard Screening Criteria	Measure
Reduce delay and improve capacity (improve regional mobility)	Achieve a level of service D or better on Wasatch Boulevard and intersections in 2050
Consider the Wasatch Boulevard Master Plan Corridor Study	Meet the overall objectives identified in the master plan corridor study while addressing UDOT's safety and mobility requirements
Improve safety	Meet UDOT's safety standards (such as lane and shoulder widths, access and sight distance) for all roadway users including passenger and freight vehicles, cyclists, pedestrians and recreational users

IMPROVING MOBILITY AND SAFETY FOR WASATCH BOULEVARD

EXISTING CONDITIONS (2015)
P.M. PEAK-PERIOD



FUTURE NO-ACTION CONDITIONS (2050) *P.M. PEAK-PERIOD*

LEVEL OF SERVICE

A — NO DELAYS
Highest quality of service. Free traffic flow with few restrictions on maneuverability or speed.

B — 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.

UDOT Goal

D — NOTICEABLE DELAYS
Traffic flow becoming unstable. Speed subject to sudden change.

E — CONSIDERABLE DELAYS
Unstable traffic flow. Speed changes quickly and maneuverability is low.

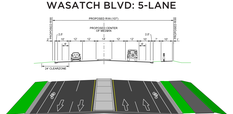
F — CONSIDERABLE DELAYS
Heavily congested traffic. Demand exceeds capacity and speed varies greatly.

APRIL 2019 (PRELIMINARY CONCEPTS: SUBJECT TO CHANGE)

DESIGN NEED ELEMENTS

- Blind intersection at Kings Hill Drive
- Short merge at High-T
- The standard shoulder width for this segment is 8 feet
  (The current shoulder width varies from 4 to 10 feet, with 4 feet being the typical width)
- The length of the deceleration lane for the center left turn at Golden Hills Avenue is substandard
- Unprotected hazards within the clear zone including substandard barrier end treatments, trees and steep slopes
- No pedestrian sidewalks or trail

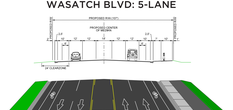
WASATCH BLVD: 5-LANE



5-LANE ARTERIAL W/SHARED USE PATH
CONCRETE MEDIAN AND GRASS PARK STRIP

5-LANE ARTERIAL W/SHARED USE PATH
CONCRETE MEDIAN AND GRASS PARK STRIP
INTERSECTIONS

WASATCH BLVD: 5-LANE



5-LANE ARTERIAL W/SHARED USE PATH
STRIPED MEDIAN AND CONCRETE PARK STRIP

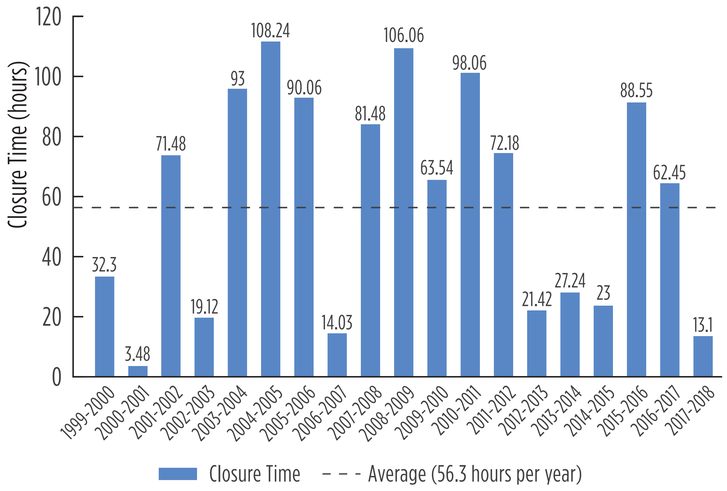
5-LANE ARTERIAL W/SHARED USE PATH
STRIPED MEDIAN AND CONCRETE PARK STRIP
INTERSECTION

LITTLE COTTONWOOD CANYON SNOWSHED LOCATIONS

WHITE PINE CHUTES, WHITE PINE AND LITTLE PINE

Little Cottonwood Canyon ENVIRONMENTAL IMPACT STATEMENT
Wasatch Boulevard to Alta

YEARLY LCC CLOSURE HOURS DUE TO AVALANCHE MITIGATION

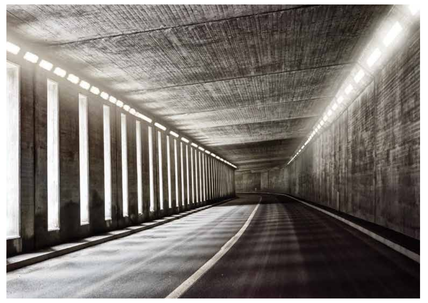


INITIAL EVALUATION FOR IMPROVING CANYON ROADWAY RELIABILITY

Avalanche Mitigation Screening Criteria

Improve avalanche related roadway reliability and safety in 2050

- Substantially reduce number of hours and/or days that avalanches delay users
- Substantially reduce the avalanche hazard for roadway users

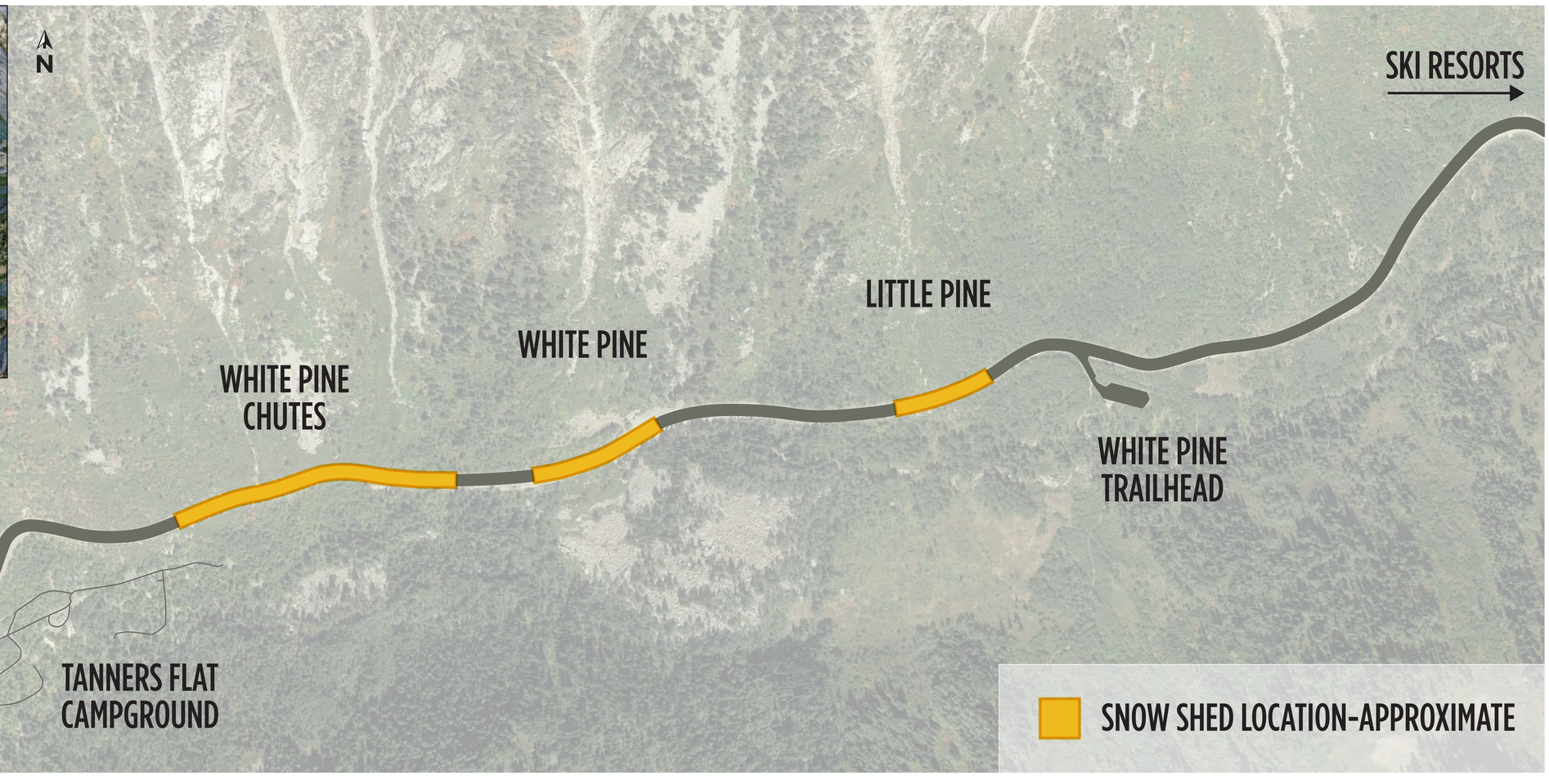


AVALANCHE HAZARD INDEX (AHI):
NUMERIC EXPRESSION OF THE POTENTIAL THREAT OF AN AVALANCHE

CURRENT AVALANCHE HAZARD INDEX

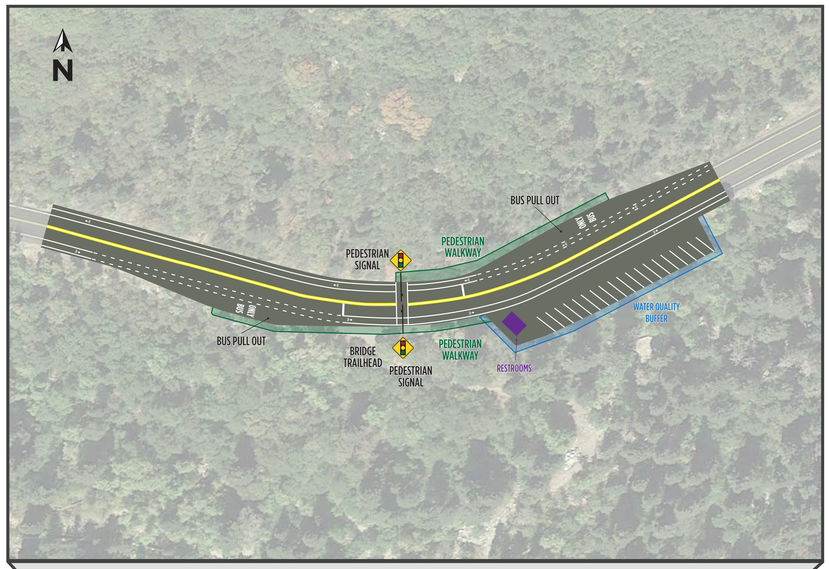
Hazard Category	AHI	
Very Low	Less than 1	
Low	1 to 10	
Moderate	10 to 40	
High	40 to 150	← **LCC AHI=90** *(Mitigated)*
Very High	Greater than 150	← **LCC AHI=7,304** *(Unmitigated)*

Source: Dynamic Avalanche Consulting 2018

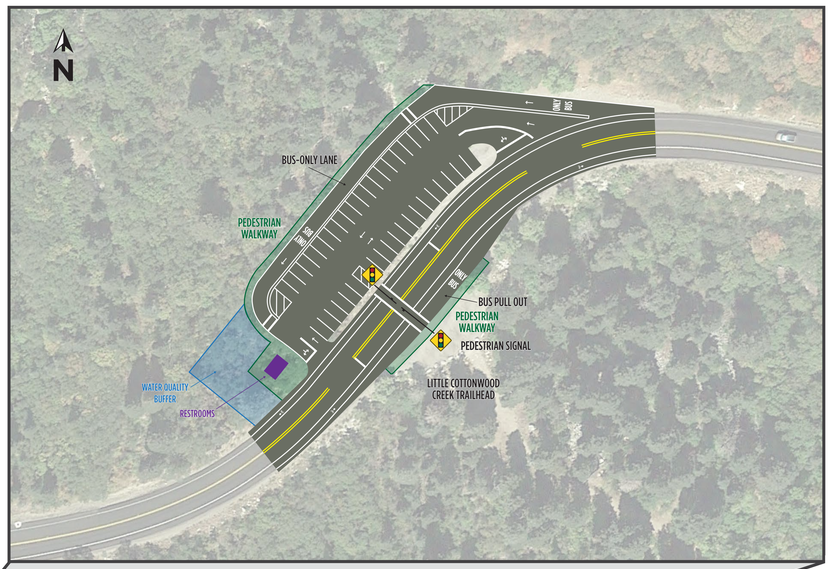


APRIL 2019 (PRELIMINARY CONCEPTS: SUBJECT TO CHANGE)

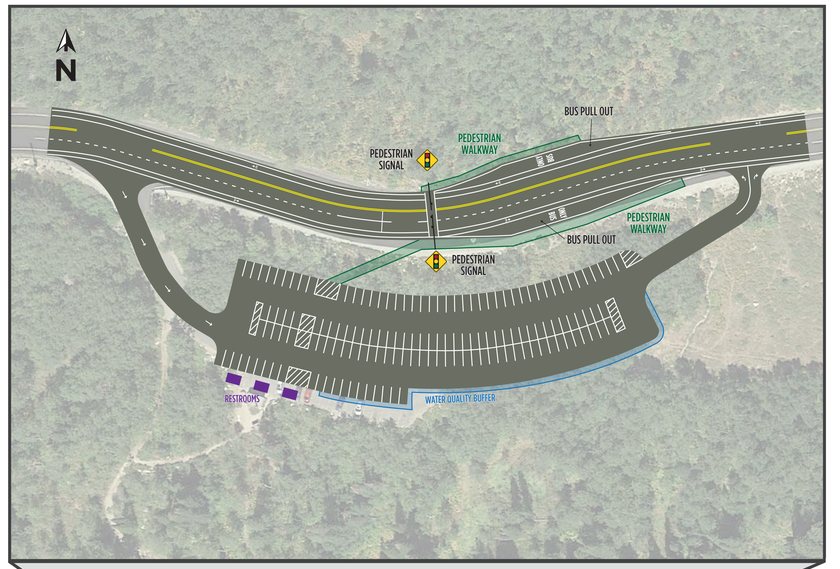
PARKING CONCEPT
BRIDGE TRAILHEAD



PARKING CONCEPT
LISA FALLS TRAILHEAD



PARKING CONCEPT
WHITE PINE TRAILHEAD



NEED TO IMPROVE TRAILHEAD PARKING

- Pedestrian conflicts from parked cars on side of the road
- Cars parked on roadway shoulder force bicyclists into the travel lanes
- Increases sedimentation into watershed from damaged roadway shoulder
- Creates informal non-designated trailheads
- Informal trailheads contribute to erosion, mineral soil loss, the spread of weeds and loss of native vegetation

INITIAL EVALUATION FOR IMPROVING TRAILHEAD PARKING

Trailhead Parking Screening Criteria	
• Improve roadway safety by reducing conflicts • Reduce parking-related congestion	• Improve parking at existing trailheads to support travel modes while improving safety • Reduce traffic conflicts at existing trailhead locations • Keep parking levels at year 2000 levels

WHAT TRAILHEAD OPTIONS WOULD YOU CONSIDER?

Alternative	Eliminate On-Road Parking?	Transit Stops?*	Changed Trailhead Parking?
No-Action	No	No	No
Alternative 1	Yes, within ¼ mile radius of trailheads	Yes	No
Alternative 2	Yes, within ¼ mile radius of trailheads	Yes	Yes, trailhead parking will accomodate the on-road parking eliminated within a ¼ mile radius of the trailheads
Alternative 3	Yes, from canyon entrance to Snowbird Entry 1	Yes	

**Transit stops will accomodate future transit*

APRIL 2019 (PRELIMINARY CONCEPTS: SUBJECT TO CHANGE)

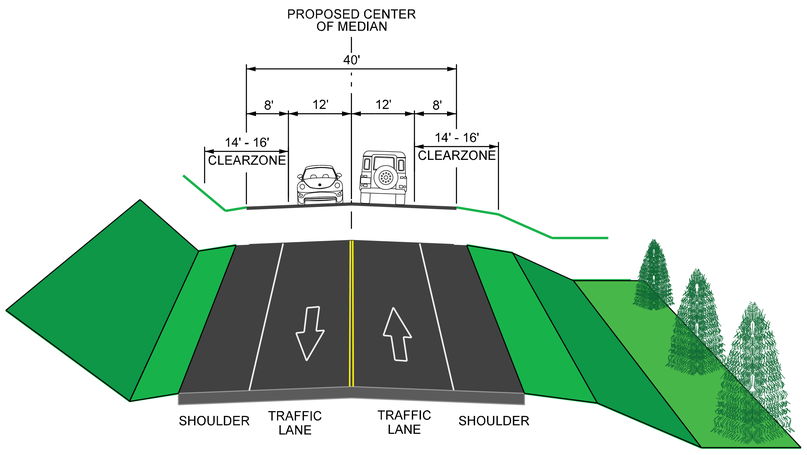
Little Cottonwood Canyon ENVIRONMENTAL IMPACT STATEMENT
Wasatch Boulevard to Alta

ROADWAY CAPACITY

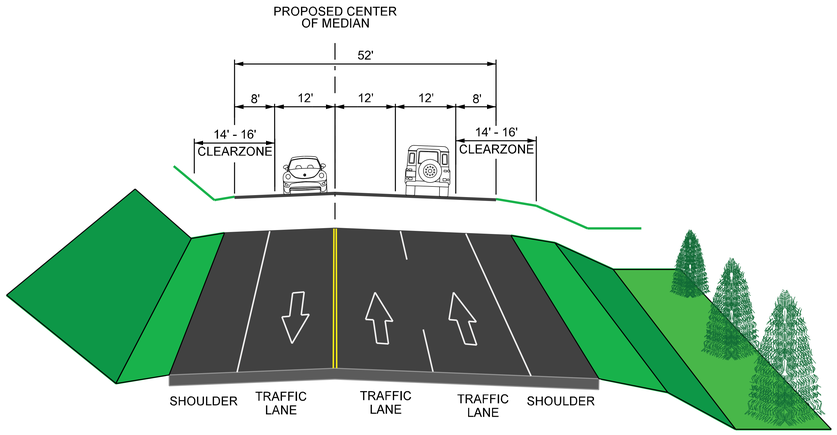
IMPROVING MOBILITY AND REDUCING CONGESTION

Little Cottonwood Canyon ENVIRONMENTAL IMPACT STATEMENT
Wasatch Boulevard to Alta

2 Lanes W/Standard Shoulder



3 Lanes W/Standard Shoulder



INITIAL EVALUATION FOR INCREASED ROADWAY CAPACITY

Trailhead Parking Screening Criteria	Measures
Improve overall mobility and reduce congestion in 2050	• Reduce travel time over 2050 No-Build congested conditions • Support transit use