

6.19 SURFACE TRANSPORTATION

Surface transportation is a category of social impact that is considered when evaluating the impacts of airport development projects. Significant modifications to transportation patterns would be defined as roadway or system changes that would alter the existing surface transportation patterns or disrupt established communities to an extent where there would be a noticeable increase in congestion or access time to community facilities, recreation areas, or places of residence, which cannot be prevented or minimized.¹¹⁸ The existing surface transportation network is comprised of a hierarchy of local and regional roadway systems that provide access throughout the existing and replacement airport study areas. These roadway systems provide access to surrounding development for private vehicles while facilitating local and regional commerce, public and private transit, educational and recreational travel, and emergency vehicle support.

Improvements may be made to the local and regional transportation system throughout the planning period of this EIS to provide access to newly developed areas, reduce roadway congestion, improve roadway capacity, and provide linkages to existing and planned surface transportation improvements. The development of the Southern Corridor, a four-lane, limited-access highway beginning at Interstate 15 about three miles north of the Arizona border near the southwest end of St. George and would connect with State Route 9 near Hurricane, Utah, is one of those planned transportation projects. The Southern Corridor, is located within Washington County, Utah, and lies less than one mile to the southeast of the proposed St. George Replacement Airport site. Depending on the alternative selected, the Southern Corridor would be between 20 and 26 miles in length. The primary purpose of the Southern Corridor is to provide a regional transportation facility between St. George, Washington City, and Hurricane that would complement local land use plans. In April 2005, the FHWA and UDOT issued the Final Environmental Impact Statement (FEIS) for the proposed development of the Southern Corridor. The FHWA issued the ROD for the Southern Corridor EIS on October 17, 2005.¹¹⁹

As documented in the FHWA ROD for the Southern Corridor, Federal funding has been identified for the first phase of construction only, which includes the Atkinville interchange at I-15. The Southern Corridor would be initially constructed as a limited-access facility with at-grade intersections and, when traffic warrants, upgraded to a facility with interchanges. The exact location of accesses or interchanges would be based on future development and must be justified based on traffic demand. Additional considerations such as economic benefits or impacts of access locations and topographical constraints would be taken into consideration when a final decision regarding interchange locations is made.

¹¹⁸ FAA Order 5050.4A, *Airport Environmental Handbook*, October 8, 1985.

¹¹⁹ U.S. Department of Transportation, Federal Highway Administration; Record of Decision. Southern Corridor from I-15 at Reference Post 2 in St. George to SR 9 near Hurricane, Washington County, Utah. October 17, 2005.

The alignment of the airport access road and location of the proposed intersection/interchange with the Southern Corridor were provided by the City of St. George. This location is also consistent with the St. George General Plan. The impacts resulting from construction of the airport access road with an at-grade intersection at the Southern Corridor were evaluated in the replacement airport EIS. Based on the findings included in the ROD for the Southern Corridor, the UDOT may reserve the right to modify the location of the intersection/interchange of the airport access road and the Southern Corridor. The final location of this and other future interchanges along the Southern Corridor will be determined through continued coordination among the City of St. George, Washington City, Washington County, the UDOT, and the FHWA. If the location of the airport access road and/or the intersection/interchange is modified, additional environmental studies may be prepared by either the FHWA or the FAA to obtain the necessary approvals for construction of the roadway and the future interchange.

6.19.1 ROADWAY NOISE

6.19.1.1 Roadway Noise Regulatory Overview

The Federal Highway Administration (FHWA) has adopted criteria for evaluating noise impacts associated with federally funded highway projects. The FAA, whose jurisdiction lies within aviation noise, does not have modeling or abatement criteria for noise impacts resulting from surface transportation sources. In contrast to the FAA's evaluation of aircraft noise impacts, which generally requires use of the day-night average sound level (DNL), highway or roadway traffic noise impacts are evaluated using a peak-hour equivalent sound level (Leq). Leq is computed by integrating the actual (or modeled) noise levels during period and expressing the result as an average level. The resulting Leq value is equivalent to a steady sound level with the same total sound energy as the actual time-varying sound levels during the hour. The peak-hour Leq criterion for permissible noise levels for noise-sensitive facilities (i.e., residential, educational, and healthcare facilities) is 67 dBA outdoors. This contrasts with the DNL 65 dBA criterion used by the FAA to determine the threshold of significant aircraft noise impact for noise-sensitive land uses. The FHWA's peak 1-hour Leq criterion for commercial and industrial areas is 72 dBA outdoors.

The current FHWA procedures for highway traffic noise analysis and abatement are outlined in Title 23 Code of Federal Regulations (CFR) Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*. These regulations outline the procedures for highway traffic noise prediction, noise analysis, noise abatement criteria, and coordination with and transmittal of information to local officials. Planning and design of Federal and Federal-Aid Highways must conform to noise standards mandated by Title 23 U.S. Code (USC) 109(i). Traffic noise prediction must comply with the methodology in the FHWA Traffic Noise Prediction Model (TNM).

Traffic noise impacts occur when traffic noise levels "approach or exceed" FHWA noise abatement criteria, or when predicted traffic noise levels "substantially exceed" existing noise levels. **Table 6.332** presents the criteria for determining traffic noise impact where abatement must be considered. The FHWA noise

abatement criteria (NAC) correspond to the level of noise, depending on the land use activity category (A through D), where mitigation must be considered. According to FHWA policy, an impact occurs when the predicted noise levels approach or exceed the NAC or when predicted traffic noise substantially exceeds the existing noise level, even though the predicted levels may be below the NAC. State Departments of Transportation (DOTs) determine their own definition of 'substantial increase,' which typically is an increase of 15 dBA.

Table 6.332
FHWA NOISE ABATEMENT CRITERIA – HOURLY A-WEIGHTED SOUND LEVELS

Activity	Leq,1 hour (dBA)	L _{10,1 hour} (dBA)	Description of Activity Category
A	57 (exterior)	60 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (exterior)	70 (exterior)	Picnic areas, recreational areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (exterior)	75 (exterior)	Developed lands, properties, or activities not included in Categories A and B above.
D	-	-	Undeveloped lands.
E	52 (interior)	55 (interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Note: L_{10, 1 hour} describes the A-weighted sound level that is exceeded 10 percent of the time during a one-hour period.

Source: USDOT/FHWA - Highway traffic noise analysis and abatement policy and guidance.