



FINAL

Environmental Impact Statement

AND SECTIONS 4(F)/6(F) EVALUATION FOR

Little Cottonwood Canyon **S.R. 210 | Wasatch Boulevard to Alta** **in Cottonwood Heights, Sandy, the Town of Alta,** **and Salt Lake County, Utah**

Volume 3: **Chapter 11**

Utah Department of Transportation

UDOT Project No. S-R299(281)

Submitted pursuant to

42 USC 4332(2)(c) and 49 USC 303

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 USC 327 and a Memorandum of Understanding dated January 17, 2017, and executed by FHWA and UDOT.

Contents of Volume 3

Chapter 11: Noise 11-1

- 11.1 Introduction 11-1
- 11.2 Regulatory Setting 11-5
- 11.3 Affected Environment 11-8
 - 11.3.1 Noise Monitoring 11-8
 - 11.3.2 Existing Noise Levels in the Noise Impact Analysis Area 11-12
- 11.4 Environmental Consequences and Mitigation Measures 11-13
 - 11.4.1 Methodology 11-13
 - 11.4.2 No-Action Alternative 11-16
 - 11.4.3 Enhanced Bus Service Alternative 11-18
 - 11.4.4 Enhanced Bus Service in Peak-period Shoulder Lane Alternative 11-22
 - 11.4.5 Gondola Alternative A (Starting at Canyon Entrance) 11-25
 - 11.4.6 Gondola Alternative B (Starting at La Caille) 11-27
 - 11.4.7 Cog Rail Alternative (Starting at La Caille) 11-29
 - 11.4.8 Summary of Noise Impacts 11-31
 - 11.4.9 Mitigation Measures 11-32
 - 11.4.10 Construction Noise 11-34
- 11.5 References 11-38

Appendices

Appendix 11A. Noise Technical Report

Tables

Chapter 11: Noise

Table 11.1-1	Weighted Noise Levels and Human Response.....	11-3
Table 11.2-1	UDOT's Noise-abatement Criteria.....	11-6
Table 11.2-2	Land Use Categories for Mobility Hub and Gondola Base Station Noise Impacts	11-7
Table 11.3-1	Measured Short-term Noise Levels in the Noise Impact Analysis Area.....	11-10
Table 11.3-2	Model Validation	11-11
Table 11.3-3	Measured Long-Term Noise Levels in the Study Area	11-11
Table 11.4-1	Traffic Noise Impacts for the Action Alternatives.....	11-32
Table 11.4-2	Barrier Analysis Summary	11-35

Figures

Chapter 11: Noise

Figure 11.1-1	Noise Impact Analysis Area.....	11-2
Figure 11.3-1	Noise Impact Analysis Area and Noise-monitoring Locations.....	11-9
Figure 11.4-1	Noise Barriers Overview (1 of 2)	11-36
Figure 11.4-2	Noise Barriers Overview (2 of 2)	11-37