Governments (MAG) Regional Freeway System (now called the Regional Freeway and Highway System) as planned since 1985 (Figure 2). At that time, it was designed as a high-speed, access-controlled freeway and was added into the State Highway System by the State Transportation Board. When completed, it will be part of the National Highway System. Upon its inclusion in the Regional Freeway and Highway System in the mid-1980s, the South Mountain Freeway also became an element of long-range planning efforts of local jurisdictions throughout the Study Area.

Since 1985, ADOT and MAG have sequenced construction of the Regional Freeway and Highway System to meet the most pressing regional transportation needs as funds became available. As other freeway segments were analyzed, designed, and constructed, further studies were prepared to examine alternatives for the South Mountain Freeway. Versions of the freeway have continued to be included in updates to MAG's transportation planning documents, including the *Regional Transportation Plan* (RTP) (MAG 2003) (Figure 2). As described in the RTP, the freeway is integral to the region's adopted multimodal transportation plan as a key element of the plan's freeway system component.

The RTP, most recently updated in 2014 as the 2035 RTP, is a comprehensive regional plan addressing needs for all transportation modes and for planned transportation improvements in the MAG region (see text box on page 1-5 of the Final Environmental Impact Statement [FEIS] for more information regarding the RTP).

ADOT has opted to seek federal highway funds to assist in completing the freeway. For this reason, the Federal Highway Administration (FHWA) is required to ensure that the freeway complies with provisions of the National Environmental Policy Act of 1969 (NEPA) and other federal laws, such as the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended. Study of the freeway in the FEIS was based on logical termini, sufficient length, independent utility, construction priorities associated with the Regional Freeway and Highway System, and projected transportation needs.

Consideration of alternatives and project impacts was comprehensive and extended outside Study Area limits when appropriate. While the Gila River Indian Community (Community) is included in the Study Area, no alternatives were studied in detail on Community land (Figure 1). The Community elected to not grant permission to study alternatives in detail on Community land. FHWA and ADOT, therefore, have determined that an alternative alignment on Community land is not reasonable, and such an alternative was eliminated from further consideration. In addition, the Section 4(f) evaluation determined that such an alternative was not a prudent and feasible avoidance alternative for avoiding the South Mountains.

This record of decision (ROD) has been prepared in accordance with:

- NEPA [42 United States Code (U.S.C.) § 4332(2)(c)]
- Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 U.S.C. § 303, as amended)

2. PURPOSE AND NEED

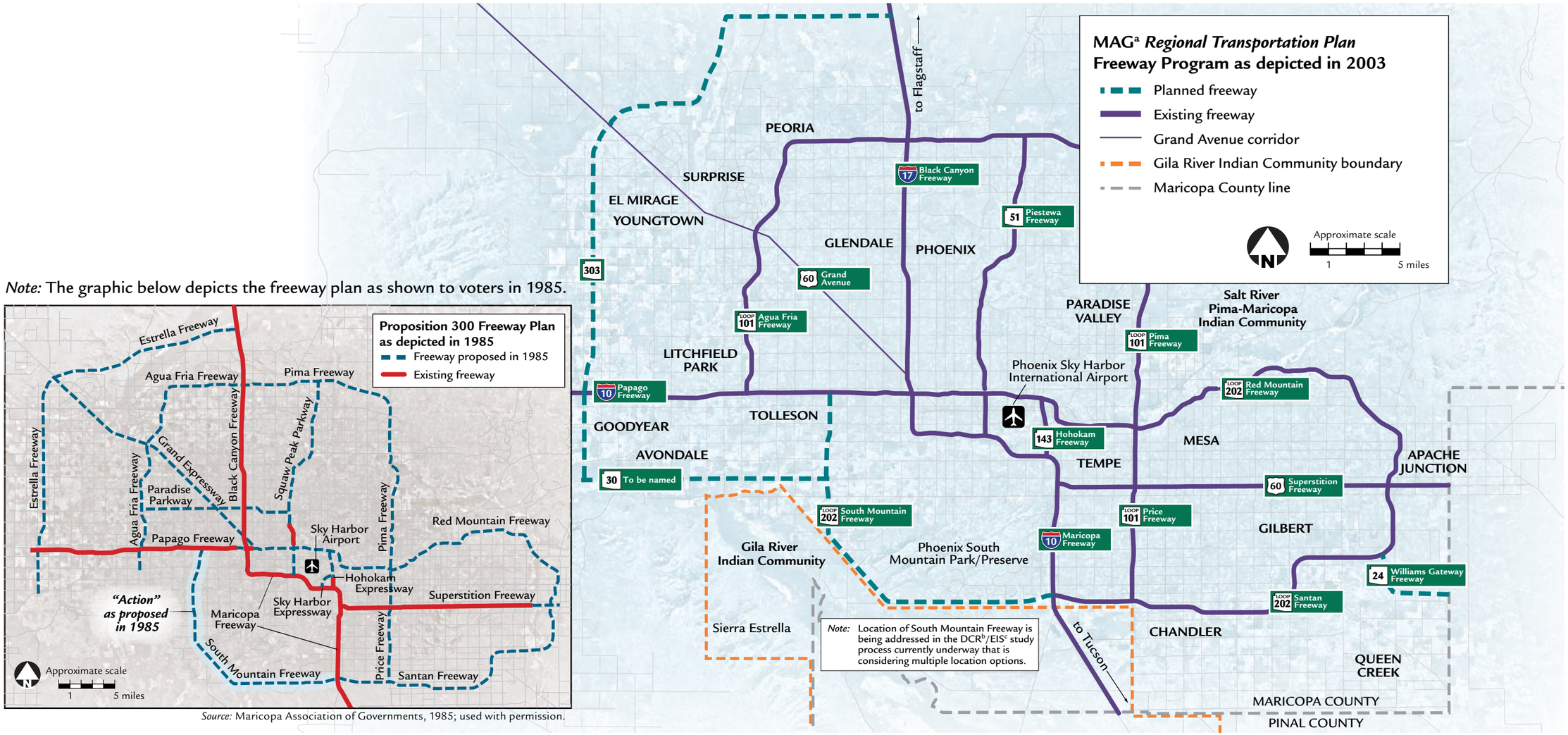
The South Mountain Freeway has been included in the region's adopted transportation planning documents since 1985 and remains in the current RTP. Using state-of-the-practice methods and tools, the analysis conducted for the FEIS revealed that a major transportation facility is needed to address the following socioeconomic factors:

- Population, housing, and employment are projected to increase by approximately 50 percent between 2010 and 2035, increasing travel demand.
- Growth in vehicle miles traveled is projected to meet or exceed these socioeconomic factors and to further burden the already overtaxed regional transportation system.
- Almost 50 percent of projected increases in population, housing, and employment from 2010 to 2035 for the entire MAG region are expected to occur in the southwestern and southeastern portions of the Phoenix metropolitan area, which the South Mountain Freeway will serve (see Figure 3).
- Although the economic downturn that began in late 2007 slowed growth, historic and projected long-term growth rates indicate the condition was temporary.

Repeated assessment of regional transportation demand and existing and projected transportation system capacity deficiencies revealed that a major transportation facility is needed to address:

- **Transportation demand** – Average daily traffic volumes on freeways and arterial streets are projected to increase substantially in and adjacent to the Study Area between 2012 and 2035.
- **Quality of traffic operations** – Level of service (LOS) is a measure of traffic congestion, with LOS A representing the least congested traffic conditions and LOS F representing the most congested. During peak commuting periods, the LOS on regional transportation facilities operating in the Study Area and its surroundings is poor, with much of the network congested for multiple hours. Even with planned improvements from implementation of the RTP (except the South Mountain Freeway), travel conditions are projected to get worse.
- **Transportation capacity** – The 2012 road network can serve only 84 percent of the total demand while operating at LOS D. Even with implementation of planned RTP improvements (except the South Mountain Freeway), the 2035 road network will be able to serve only 69 percent of the total demand while operating at LOS D.
- **Travel time** – Delays experienced daily by hundreds of thousands of drivers will continue to worsen over the course of the next 20-plus years, resulting in substantial lost time and related costs.

Figure 2 The Maricopa Association of Governments Regional Freeway and Highway System, 1985 and 2003

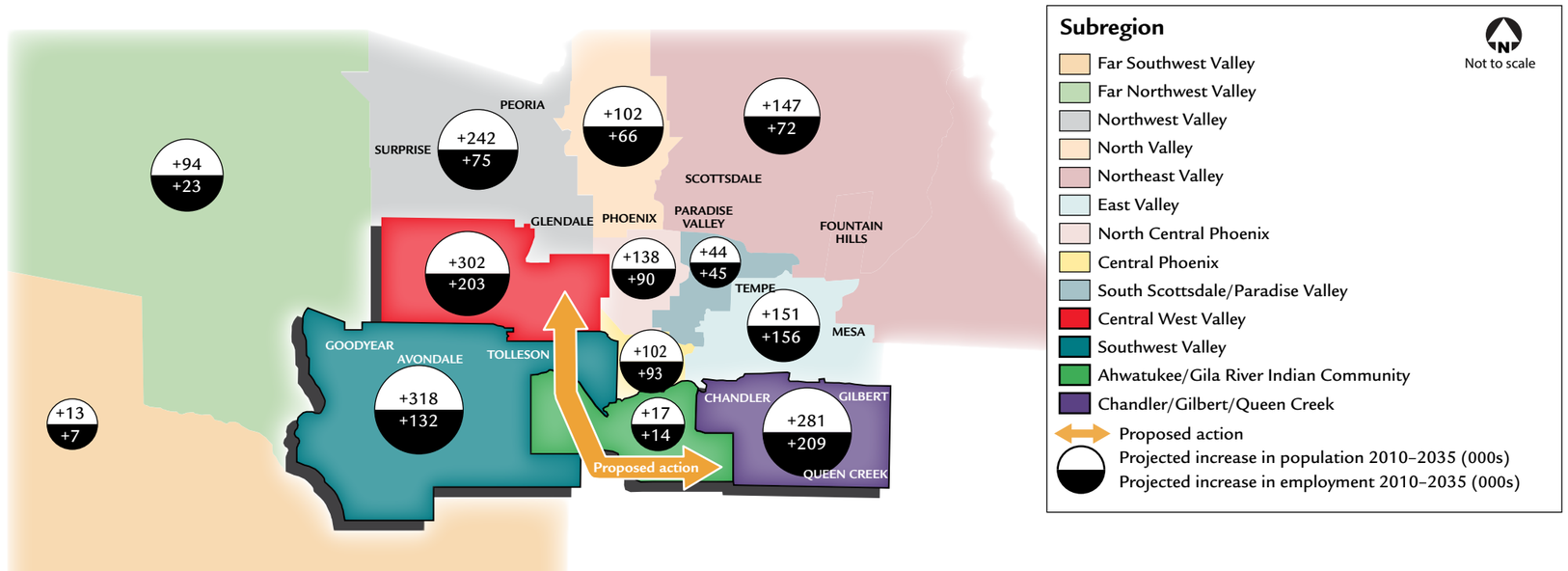


Source: Maricopa Association of Governments, 1985; used with permission.

Source: Maricopa Association of Governments, 2003; extrapolated analysis

[a] Maricopa Association of Governments [b] design concept report [c] environmental impact statement

Figure 3 Growth Distribution



Activity Area	Population (000s)			Employment (000s)		
	2010	2035	Projected Increase	2010	2035	Projected Increase
Central West Valley	578	880	302	136	339	203
Southwest Valley	203	521	318	58	190	132
Ahwatukee/Gila River Indian Community	80	97	17	27	41	14
Chandler/Gilbert/Queen Creek	645	926	281	288	497	209
Total for the proposed action activity area	1,506	2,424	918	509	1,067	558
Total Maricopa County	3,824	5,776	1,952	1,707	2,892	1,185
Percentage contribution – proposed action corridor activity area	**39%**	**42%**	**47%**	**30%**	**37%**	**47%**

Source: Maricopa Association of Governments, 2013; extrapolated analysis

When considering the historical need for a major transportation facility, socioeconomic factors, existing and projected transportation capacity and demand, quality of traffic operational performance, and travel time, the South Mountain Freeway is a needed element of the MAG region's transportation network. Therefore, a need was identified for a major transportation facility. The purpose of such a facility is to fulfill the multiple dimensions of this need.

3. ALTERNATIVES

Alternatives Development and Screening Process Described

Federal regulations stipulate that an environmental impact statement (EIS) shall "rigorously explore and objectively evaluate all reasonable alternatives" (40 Code of Federal Regulations [C.F.R.] § 1502.14). In 1983, the Council on Environmental Quality (CEQ) issued guidance stating "reasonable alternatives include those that are practical or feasible from a technical and economic standpoint" and "us[e] common sense." When a large number of alternatives may exist, "only a reasonable number ... covering the full spectrum of alternatives, must be analyzed and compared in the EIS" (*Federal Register* 46:18026 [1981]). The following text summarizes the decision process ADOT and FHWA used to identify, develop, and screen action alternatives, concluding with identification of the range of reasonable action alternatives (and including the No-Action Alternative) that were studied in detail in the Draft Environmental Impact Statement (DEIS) and were again presented in the FEIS.

Figure 4 illustrates the sequential refinement process used to develop and screen alternatives. The process represented a systematic, interdisciplinary approach to ensure the integrated and balanced consideration of a diverse set of factors including ability to meet the need for the project, design and operational parameters, impacts on the natural and human environments, conceptual-level cost comparisons, and public and political acceptability. The team that conducted the screening process also represented a diverse set of interests to promote consistency in the application of screening criteria. The screening process and results are described in more detail in Chapter 3, *Alternatives*, of the FEIS.

The criteria, or values (ability to meet the need for the project, design and operational parameters, impacts on the natural and human environments, conceptual-level cost comparisons, etc.), were important factors in the screening process. The comparative importance of the criteria was adjusted depending on the iterative step in the screening process, but all were accounted for in each step. In making choices during the screening process, FHWA and ADOT balanced their mandates to provide safe and efficient transportation in the context of other federal requirements (including consideration of both negative and beneficial impacts of the proposed action).

As a first step in the process, a "universe" of alternatives was compiled from previous studies, project team input, and input from other agencies and the public. As a starting point, alternatives to be considered in