



# South Mountain Transportation Corridor Study

Citizens Advisory Team  
Technical Report Summary

## Draft Visual Resources

### ***Why study visual resources in the Environmental Impact Statement (EIS)?***

A project the magnitude of the proposed South Mountain Freeway clearly has the potential to alter its visual setting. The Federal Highway Administration (FHWA) considers visual effects of highways to be an important part of project development. The agency's guidance for preparing visual impact assessments states "the public nature and visual importance of our highways require that visual impacts—positive as well as negative—be adequately assessed and considered when a highway project is developed." The FHWA process includes assessing visual impacts for the traveler *from* the highway as well as views *of* the highway from the surrounding area. Assessment of impacts on visual resources is required by several legislative acts, including the National Environmental Policy Act (NEPA), the Historic Preservation Act and Section 4(f) of the Department of Transportation Act.

### ***What kind of impacts would occur from construction?***

Overall visual impacts of construction involve activities, such as excavation, soil stockpiling, crane tower placement and use, equipment and materials storage and falsework (concrete forms, panels, scaffolding). Certain views during the construction period would be altered by the presence of construction equipment and emerging freeway facilities. A project like the South Mountain Freeway could also result in substantial excavation and cuts through hillside and mountainside areas. Substantial cuts, if not treated properly, could be highly visible over a long period of time.

### ***How do the action alternatives differ in construction-related impacts?***

All action alternatives would result in extensive and long-ranging construction activities. For a project of this magnitude, most likely construction would be sequenced to complete certain segments of the freeway over a multiyear period. Among the action alternatives currently being studied, no distinctive difference in construction-related impacts are anticipated.

### ***What kinds of freeway operational impacts (postconstruction) would occur?***

Impacts on the visual setting would occur from all of the proposed action alternatives by the addition of project facilities. By nature, introducing a large, linear project could alter/disrupt the visual quality and character through the surrounding landscapes where no such project existed before.

The increasing number of residences in the Western Section of the Study Area would be sensitive to changes in the mostly rural areas that are transitioning to a more suburban setting. The freeway also could create a visual "divide" among communities if not carefully planned. Some communities could be perceived as being more urban or industrial—and, therefore, less desirable for residential use.

In the Eastern Section, the large number of residents in neighborhoods north of and adjacent to the proposed alignment along Pecos Road are provided with extended views southward of agricultural land and distant mountains. The quality of views is to some degree reduced by the presence of Pecos Road and transmission lines running east-west. Replacement of Pecos Road by the proposed action would contribute to further reduction in view quality. Unlike the



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action alternatives in the Western Section, the E1 Alternative would not split the Ahwatukee community but instead, would “hug” the northern boundaries of the Gila River Indian Community (GRIC). As with other similar cases in the Valley, freeways bordering tribal lands can contribute to an appealing visual demarcation between primarily undeveloped and agricultural tribal land and suburban/urban development.

Among the action alternatives currently being studied, no distinctive difference in operational-related impacts are anticipated. Changes in visual quality and character would be similar in magnitude among the action alternatives. In the relatively flat landscape of the Study Area (with the main exception being through the southern side of Phoenix South Mountain Park/Preserve), distances of about one-half mile would provide some level of buffering from many of the adverse visual impacts of the proposed action.

### ***What if the project were not constructed?***

The No-Action Alternative would not result in any direct change in visual character or quality because it would not involve freeway construction and operation. Over time, the visual character and quality of the Study Area would be expected to change because of pressure from the greater Phoenix metropolitan area’s increasing urban development. However, not constructing the project should not result in more or less change in the visual setting that would eventually develop.

If the project were not constructed, there would also be no construction road cuts at the southwestern end of Phoenix South Mountain Park/Preserve and the existing, relatively undisturbed setting in the steep landscape would be retained.

### ***Would there be any specific and/or unique impacts from the action alternatives?***

Two specific areas regarding potential visual impacts warrant further discussion:

- For any of the action alternatives, large system-to-system traffic interchanges would be constructed at I-10 at its existing interchange with the Santan Freeway and at one of three locations along I-10 in the Western Section: 55th Avenue, 71<sup>st</sup> Avenue or the Loop 101 (Agua Fria Freeway) interchange at I-10. Any of these interchanges would be a dominant vertical feature in the area. Because they would be “new” interchanges, the I-10 connections at 55<sup>th</sup> or 71<sup>st</sup> avenues would cause greater impacts on the visual environment than the action alternatives that would connect to the existing I-10 system interchanges at the Santan and Agua Fria freeways. Because of expected interchange size, the structures could become the dominant object on the horizon most everywhere within a half-mile radius.
- In the Eastern Section, the E1 Alternative as currently proposed would require construction of two to three large road cuts through ridge lines at the south and southwestern portions of the South Mountains bordering the GRIC. As exists today, the ridge lines are in a natural, largely undisturbed setting within a park/preserve (for the most part) that is valued for its natural setting so close to an urban environment. These cuts, without appropriate mitigation, would substantially alter the visual setting of the area.



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### ***What could be done to reduce construction impacts?***

The Arizona Department of Transportation (ADOT) would consider many factors when seeking to reduce construction-related impacts. For example, during construction, locating equipment staging areas and material stockpiles near existing industrial and vacant areas would blend them with the visual setting established by those land uses.

### ***What could be done to reduce visual resource impacts once the freeway was operating?***

ADOT would consider many factors when seeking to reduce operational-related impacts. Some of these measures that could reduce the impact to visual resources would primarily be incorporated during the design phase to ensure the final project minimizes impacts. Some of the measures that could be part of the design process include:

- Using vegetative buffers to screen views both of the freeway and from the freeway
- Leaving rock outcrops in place where possible
- Incorporating saguaros, mature native trees and large shrubs in visually sensitive or critical roadway areas
- Incorporating texture and color treatments and patterning on structures
- Evaluating the use of earth colors for lighting standards, overpasses, abutments, retaining and screen walls and sound barriers
- Using strategic gaps in plantings to frame positive views
- Incorporating characteristics of the adjacent natural rock features into the newly exposed rock faces
- Evaluating using simple structural systems for concrete bridges to provide greater unification to a visually complex landscape

### ***Are the conclusions presented in this summary final?***

It is quite likely that quantitative findings relative to impacts are subject to change. The reasons for future changes that would be presented to the public during the Draft EIS, Final EIS and Final Design stages are based on:

- Refinement in design features through the design process
- Updated aerial photography as it relates to rapid growth in the Western Section of the Study Area
- Ongoing communications with the City of Phoenix regarding measures to minimize harm to Phoenix South Mountain Park/Preserve
- Ongoing communications with GRIC regarding granting permission to perform studies on GRIC land
- Potential updates to traffic forecasts as revised regularly by the Maricopa Association of Governments
- Potential updates regarding the special 2005 survey to augment the 2000 Census



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- Cost estimates for construction, right-of-way acquisition, relocation and mitigation would be updated regularly as design progresses.

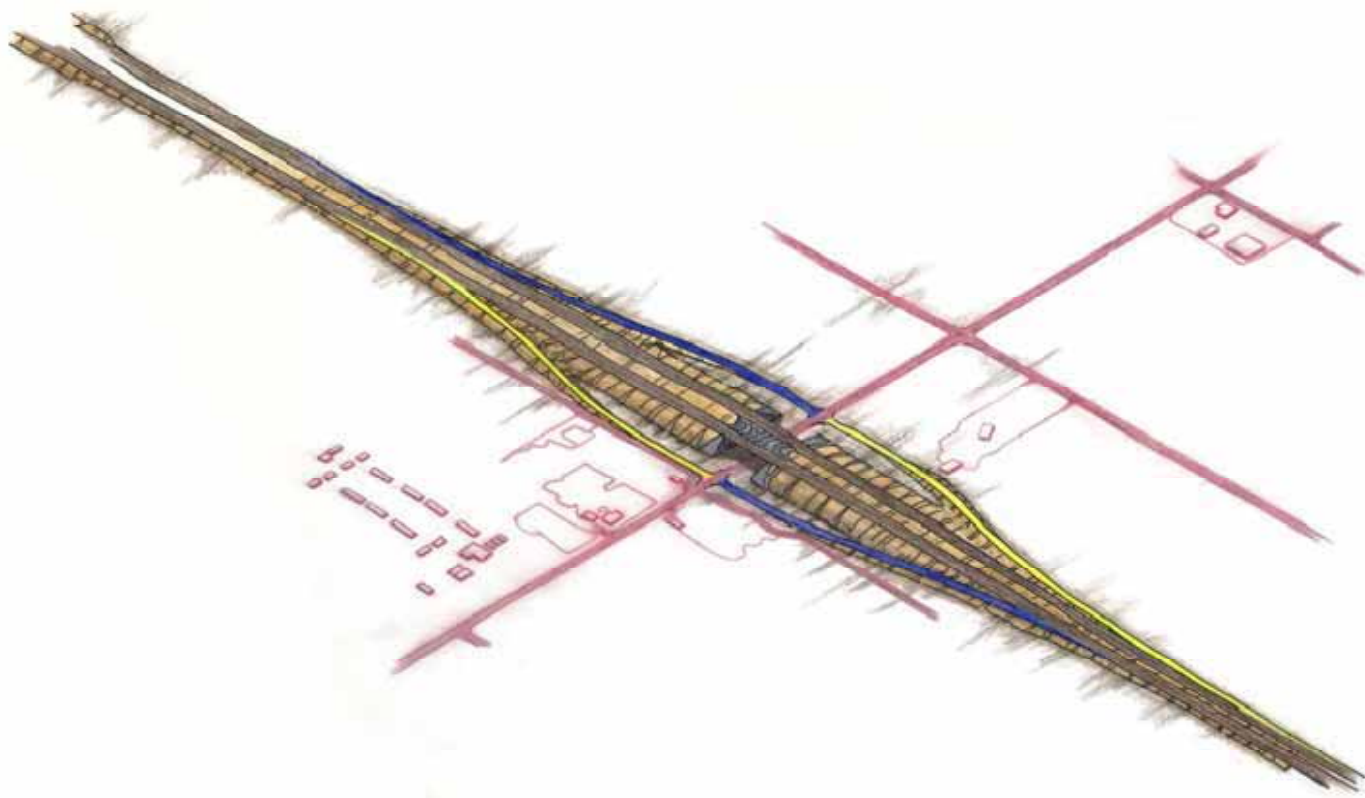
However, even with these factors affecting findings, it is anticipated that the effects would be roughly equal among the alternatives and, consequently, impacts would be comparable. This assumption would be confirmed if and when such changes were to occur.





### ***As a member of the Citizens Advisory Team, how can you review the entire technical report?***

The complete technical report is available for review by making an appointment with Mike Bruder at 712-6836 or Mark Hollowell at 602-712-6819.



Perspective Representation of Proposed System TI at 55<sup>th</sup> Avenue and I-10



Key	
	Loop 202 (South Mountain Freeway) NB/SB
	Loop 202 System TI ramp NB/SB
	Loop 202 System TI ramp NB/SB
	Area features:
	- streets
	- structures
	- secondary roads

Perspective Representation of Generic TI for the Eastern and Western Section Alternatives