



South Mountain Transportation Corridor Study

Citizens Advisory Team
Technical Report Summary

Draft Land Use

Why address land uses in the Environmental Impact Statement (EIS)?

Land use planning and transportation planning are intrinsically tied together. In the Phoenix metropolitan area, the construction of a major project like the South Mountain Freeway is planned for by the Maricopa Association of Governments and is part of affected jurisdictions' General Planning process. Typically, the construction of such a project follows on the heels of planned-for land use development of residential areas, employment centers and commercial developments. These projects then lead to increased traffic congestion on the valley's roadways leading to the need for additional roadway capacity in the valley.

The construction and operation of a freeway such as the proposed South Mountain Freeway would likely have wide reaching impacts with regard to land use in the area and the greater Phoenix region.

- The South Mountain Freeway, when constructed, could convert agricultural, commercial, industrial, residential, and public lands such as open space to a 'permanent' transportation use.
- There are land uses that may benefit by local freeway construction and others that may experience negative effects as a result of proximity to a major transportation corridor.
- Some land uses would be adjacent to the freeway; some of which are typically considered more compatible than others. For example, residential areas or schools would typically be considered less compatible next to a freeway than industrial or commercial uses. A freeway can introduce noise, air quality, community character, and visual types of impacts on adjacent land uses.
- Land uses are changing throughout the entire Phoenix metropolitan area; the ultimate location of a regional project like the South Mountain Freeway could alter land use patterns in its vicinity.

What kind of impacts would occur from construction?

There are several types of impacts on land use that could occur as result of the construction of a freeway like South Mountain Freeway:

- One primary impact would be the direct conversion of existing land uses to a specific transportation use.
- The desirability to develop specific land uses such as residential, commercial or industrial may change depending on the location of the proposed freeway.
- Changes to planned land uses may be required to maximize the benefits of a new transportation corridor.
- Temporary construction-related impacts could occur. Detours, construction-related noise and dust could generate localized impacts on residences as well as limit access to adjacent businesses.

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

All action alternatives would have the direct effect of converting existing land uses to a transportation use; the W101 Alternative in the Western Section would convert most land because it is a longer alignment than other action alternatives in the Western Section. The amount of conversion, location and type will be different with each of the alternatives and



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options. The table below provides a snapshot of the types of land uses existing that would be converted to the freeway use.

Land Use Conversion (Acres)

Land Use	Alternatives			
	W55	W71	W101 ²	E1
Agricultural	569	689	1012-1216	169
Residential ¹	67	168	63-92	112
Commercial/Industrial	194	151	82-118 ³	10
Open Space/Undeveloped	165	324	217-354	549
Public/Quasi-Public	5	3	1-47	13
1. Residential includes single-family and multi-family 2. W101 Alternative includes ranges due to design options. 3. 50 to 88 acres of industrial lands converted to a freeway use for the W101 Alternatives would be located in Tolleson.				

Land use is an important consideration of transportation alternatives. Vacant and agricultural land are quickly being converted in the Phoenix metropolitan area, and the opportunity to plan land uses along a major transportation corridor that derive the greatest benefit could be lessened as development in the area continues. Something to be kept in mind is what the landscape will look like in the years to come in the Study Area. Today, much of the Western Section is rural in character and when looking at the three major types of land uses, agricultural land use is a dominant land use. However, the landscape is changing constantly, as reflected in the current zoning as depicted in the table below.

Land Use Percent in Study Area – Existing vs. Planned

Land Use	Existing	Zoned
Agricultural	29	9
Residential	12	25
Commercial/Industrial	8	19

Depending on the type of existing development, some land uses are more sensitive to construction and freeway impacts. Residential development is one of the most sensitive land uses to freeway construction due to displacements and relocations, construction related activities generating noise and dust, and neighborhood connectivity that could be obstructed temporarily due to detours. Commercial operations can also be affected by freeway construction because access to businesses can be temporarily altered. Relocation impacts will be presented in a separate summary for social conditions.



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What kinds of freeway operational impacts (post-construction) would occur?

Transportation access would be altered. Anticipated changes in traffic patterns would likely result in changes to existing and future land uses. The impacts on existing land uses could vary from the conversion of agricultural and vacant land to transportation uses to the relocation of residents or businesses as a result of loss of access.

How do the action alternatives differ in operational-related impacts?

All action alternatives, when operating, would have similar kinds and levels of impacts on land uses. The three action alternatives in the Western Section of the Study Area would carry about the same level of traffic volumes by the design year 2030. Interestingly, however, the driving population using the South Mountain Freeway would use it for different destinations depending on where it is located in proximity to the City of Phoenix or the Loop 101. The reader should refer to the Traffic Report Summary for more information pertaining to that issue.

However, of the three action alternatives in the Western Section of the Study Area, the W55 Alternative is most consistent with City of Phoenix General Planning that has been on-going in the valley since the mid-1980s. The W55 Alternative is very similar in alignment location that was approved by voters in 1985 and the State Transportation Board in 1988. Similarly, the E1 Alternative in the Eastern Section would be consistent with City of Phoenix General Planning that has been on-going in the valley since the mid-1980s. It too is very similar in alignment location that was approved by voters in 1985 and the State Transportation Board in 1988.

What if the project was not constructed?

If the project were not constructed, only normal maintenance and minor improvements to the transportation system would occur. Therefore, no major project-related influence on land use would be anticipated. Further, no lands would be acquired for right-of-way purposes. Other existing land use trends and economic forces may influence land use changes to occur. Traffic volumes on local street network would contribute to increased congestion on the local streets. And if the South Mountain Freeway were not constructed, it does not prevent future attempts to complete the regional freeway system as planned.

Other possible impacts would be:

- Land uses planned around previously proposed alignments may change to adapt to different land use planning expectations.
- Existing ROW can be released providing revenue and the opportunity to develop previously undevelopable land. However, urban growth is projected to continue in the Western Section and traffic volumes would increase on surface streets as a result.
- The conversion of existing agricultural and undeveloped land to residential, commercial, and industrial uses will likely continue with or without the freeway construction



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Are there any specific and/or unique impacts from the build alternatives?

For a project of the magnitude of South Mountain Freeway, the types and magnitude of impacts anticipated are not atypical. However, three land use-related impacts are worth mentioning (and will be discussed further in other summary reports).

- The city of Tolleson is six square miles in size. Entirely within the Study Area, the city is located immediately south of I-10 at its juncture with Loop 101. As stated in its planning reports, Tolleson's vision is to retain the foundation of its family oriented, friendly, small town atmosphere. The City plans to support a positive, diverse growth environment while maintaining and enriching the quality of life for everyone. Because of its relatively small size within the context of other municipalities in the Phoenix area, a freeway the size of South Mountain Freeway passing through the City could have substantial impacts if not carefully planned. The W101 Alternative and its related options could transfer as much as seven percent of Tolleson's lands set aside for industrial use.
- In the Circulation Element of the City of Phoenix's most current General Plan, policy clearly encourages the completion of the South Mountain project as adopted by MAG. Within the plan, mapping clearly shows the alignment as being very similar in alignment as the W55 Alternative in the Western Section and the E1 Alternative in the Eastern Section. This is important from a land use perspective in that planned uses are often directly linked to major transportation corridors. A good example is the Laveen urban core as planned for by the City and the Laveen Village Planning Committee. The W101 and W71 Alternatives are less compatible to the planned-for relationship of the South Mountain project and adjacent land uses.
- In 1990, the City of Phoenix approved the Phoenix Mountain Preserve Act. This Act in essence prevents the sale of any lands within the Phoenix Mountain Preserve system without approval of a majority of voters. This would suggest that any freeway proposed through South Mountain Park/Preserve would be subject to voter approval; however, the Act appears to provide exception to specifically allow for the South Mountain project. More information on this topic will be provided in the Section 4(f) summary.

Are there things that could be done to reduce or avoid impacts?

As stated earlier, the kinds of impacts both direct and indirect on land use are diverse in nature. Many other technical reports and summaries will address the types of things ADOT and FHWA could do to reduce impacts.

- Relative to conversion of non-transportation uses to a freeway-use, an acquisition and relocation assistance program would be conducted in accordance with the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970.
- Sound walls to reduce the noise impact on adjacent uses.
- Consideration of re-zoning undeveloped land adjacent to the proposed freeway to zoning that allows development more compatible with a transportation corridor; this would be a measure that would have to be undertaken by the affected jurisdiction.
- Density transfers allowing overall development at gross densities.
- Open space buffers to lessen the impact to adjacent uses, and provide land for community amenities such as multi-use trails.



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- Consider fee simple purchase of incompatible uses.
- Consider using a partially depressed freeway to reduce visual impacts on adjacent land uses.
- Prepare design guidelines for integrating corridor and adjoining land uses.
- For construction related impacts, adjacent land uses may experience temporary inconveniences associated with traffic delays, detours, and construction dust and noise. These impacts would be minimized through the enforcement of local and state government specifications, ordinances, and regulations. Construction activities would be performed in accordance with provisions set forth in ADOT's Standard Specifications for Road and Bridge Construction. Construction sequencing and traffic control, traffic would be managed by detailed traffic control plans, and by procedures and guidelines specified in Part VI of the Manual on Uniform Traffic Control Devices and by the Arizona Supplement to Part VI of the MUTCD.
- During construction, ADOT could coordinate with potentially affected public services in planning traffic control measures. Access could be maintained during construction, and construction activities that substantially disrupt traffic may not be performed during peak travel periods. Requirements of the use of construction notices and bulletins would be identified as needed. The effectiveness of the traffic control measures would likely be monitored during construction and any necessary adjustments would be made.
- In accordance with Maricopa County Rule 310, Fugitive Dust Ordinance, before construction begins, an approved Application for Earth Moving Permit, Demolition, and Dust Control Plan would be obtained from the Maricopa County Environmental Services Department. The permit would describe measures to control and regulate air pollutant emissions during construction.

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 which will be presented to the public during the Draft EIS, Final EIS and Final Design stages are based on the following:

- 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.
- On-going communications with the City of Phoenix regarding measures to minimize harm to South Mountain Park/Preserve.
- On-going communications with GRIC in regards to granting permission to study action alternatives on GRIC lands.
- Potential updates to traffic forecasts as updated regularly by MAG.
- Potential updates with regards to the special 2005 survey to augment the 2000 Census.
- As design progresses, cost estimates for construction, right-of-way acquisition, relocation and mitigation will be updated on a regular basis.

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



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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 or Ralph Ellis at 602-712-7545.