



# South Mountain Transportation Corridor Study

Citizens Advisory Team  
Technical Report Summary

## Draft Land Use

### ***Why address land use in the Environmental Impact Statement (EIS)?***

Land use planning and transportation planning are intrinsically linked. In the Phoenix metropolitan area, the construction of a major project like the proposed South Mountain Freeway is a result of planning processes undertaken by both the Maricopa Association of Governments (MAG) and affected local jurisdictions. Typically, construction of such a project follows planned development of employment centers and residential and commercial areas.

Construction and operation of a freeway such as the proposed South Mountain Freeway would likely affect land use in the area and the greater Phoenix region.

- The South Mountain Freeway, if constructed, could convert agricultural, commercial, industrial, residential and public lands, such as open space, to a “permanent” transportation use.
- Some land uses may benefit from local freeway construction and others 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 these are typically considered more compatible than others. For example, residential areas would typically be considered less compatible next to a freeway than would industrial or commercial uses. A freeway can raise noise levels and introduce air quality, community character and visual 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?***

Several types of impacts on land use could occur as result of construction of a major project like the South Mountain Freeway:

- One primary impact would be direct conversion of existing land uses to a specific transportation use.
- The desirability of developing 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 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 the most land because it is a longer alignment than other action alternatives in the Western Section. The



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extent of conversion, location and type would differ with each of the alternatives and options. The table below provides a snapshot of the types of existing land uses that would be converted to freeway use.

### Land use conversion (acres)

Land Use	Alternatives			
	W55	W71	W101 <sup>b</sup>	E1
Agricultural	497	583	873-955	169
Residential <sup>a</sup>	36	133	52-79	112
Commercial/Industrial	160	132	75-112 <sup>c</sup>	10
Open Space/Undeveloped	144	217	180-303	549
Public/Quasi-public	1	1	1	13

<sup>a</sup> Residential includes single-family and multifamily

<sup>b</sup> W101 Alternative includes ranges due to design options

<sup>c</sup> 50 to 88 acres of industrial land converted to a freeway use for the W101 Alternatives would be located in Tolleson

Note: The conversion acreages shown represent a fraction of a percentage of the total acreage in the study area and its immediate surroundings.

Land use is an important consideration of transportation alternatives. Vacant and agricultural lands 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 diminished as development in the area continues. Consider what the study area landscape will look like in years to come. 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 now predominant. However, the landscape is changing constantly, as reflected in the current zoning depicted in the table below.

### Land use percentages in Study Area—existing versus 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 because of displacements and relocations, construction-related activities generating noise and dust and neighborhood connectivity that could be obstructed temporarily by possible 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 (postconstruction) would occur?***

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

### ***How would the action alternatives differ in operational-related impacts?***

All action alternatives, when operating, would have similar kinds and levels of impacts on land use. The three action alternatives in the Western Section of the Study Area would carry about the same traffic volumes by the design year 2030. Interestingly, however, motorists using the South Mountain Freeway would seek different destinations, depending on the freeway's location and proximity to the city of Phoenix or Loop 101.

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 ongoing in the Valley since the mid-1980s. The W55 Alternative is very similar in alignment to the location approved by voters in 1985 and by the State Transportation Board in 1988. Similarly, the E1 Alternative in the Eastern Section is consistent with City of Phoenix general planning. It, too, is similar in alignment to the location approved by voters and by the State Transportation Board.

### ***What if the project were 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 land would be acquired for right-of-way purposes. Other existing land use trends and economic forces may influence land use changes. Traffic volumes on the local street network would contribute to increased congestion on local streets. If the South Mountain Freeway were not constructed, its absence would not prevent future attempts to complete the Regional Freeway System as planned by MAG.

Other possible impacts include:

- Land uses planned around previously proposed alignments may change to adapt to different land use planning.
- Existing right-of-way could be released and provide revenue and the opportunity to develop previously unavailable land. However, urban growth is projected to continue in the Western Section, and traffic volumes would increase on surface streets as a result.
- Conversion of existing agricultural and undeveloped land to residential, commercial and industrial uses will likely continue with or without the freeway's construction.



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

For a project the magnitude of the 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 6 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 the South Mountain project passing through the city could have substantial impacts if not carefully planned. The W101 Alternative and its related options could transfer as much as 5 percent of Tolleson's land 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 to 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 by the City and the Laveen Village Planning Committee. The W101 and W71 Alternatives are less compatible with 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 land in the Phoenix Mountain Preserve system without approval of a majority of voters. This would suggest that any freeway proposed through Phoenix South Mountain Park/Preserve would be subject to voter approval; however, the Act provided exception to specifically allow for the South Mountain project. More information on this topic will be provided in the Section 4(f) summary.

#### ***What 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 the Arizona Department of Transportation (ADOT) and the Federal Highway Administration (FHWA) could do to reduce impacts.

- Relative to conversion of nontransportation 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.
- Physical barriers could be constructed to reduce noise impact on adjacent, qualifying, sensitive uses.
- Consideration could be given rezoning 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 jurisdictions.



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- Consideration would be given to using a partially depressed freeway to reduce visual impacts on adjacent land uses when such a measure would effectively reduce the impact.
- Plans could be prepared to integrate corridor and adjoining land uses; this would be a measure that would have to be undertaken by the affected jurisdictions.
- 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*. For 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 (MUTCD)* 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 regarding 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 an 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 would 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 the Gila River Indian Community (GRIC) regarding granting permission to perform studies on GRIC land
- Potential updates to traffic forecasts as revised regularly by MAG
- Potential updates regarding the special 2005 survey to augment the 2000 Census
- Cost estimates for construction, right-of-way acquisition, relocation and mitigation would be updated regularly as design progresses.



# South Mountain Transportation Corridor Study

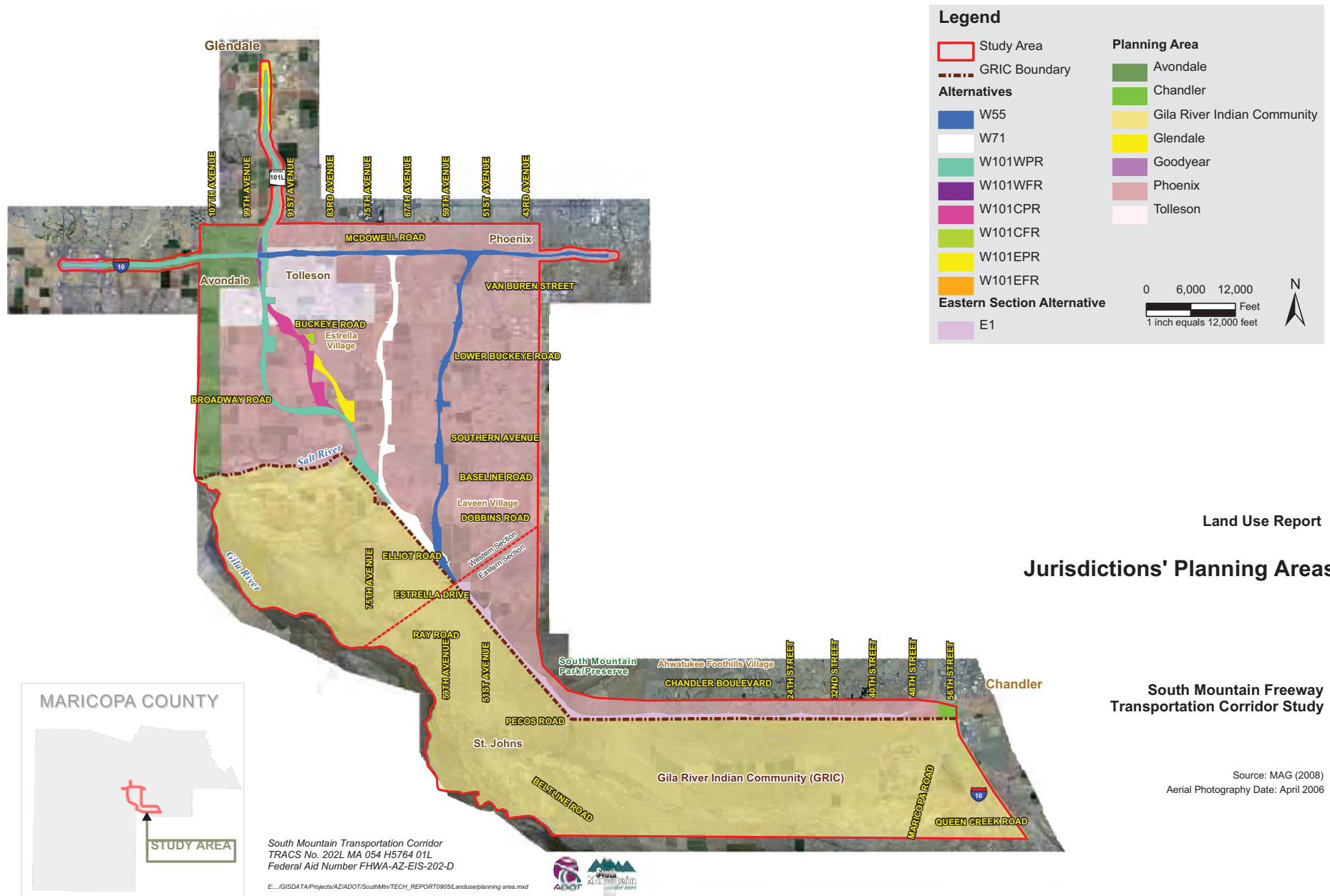
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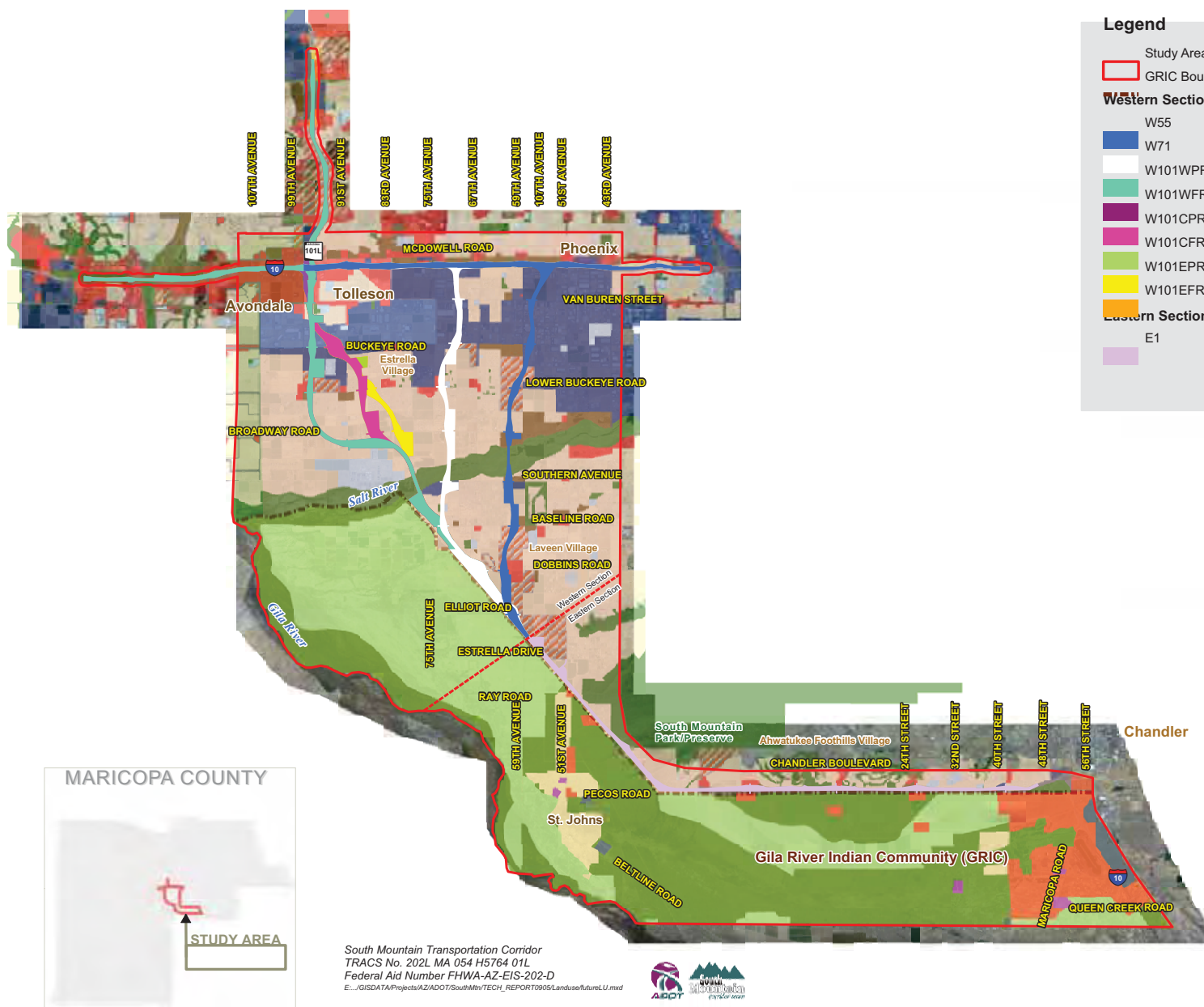
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Even with these factors affecting findings, it is anticipated that the effects would be roughly equal among the alternatives and, consequently, impacts would be comparable. This assumption would be confirmed if and when such changes were to occur.

***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.





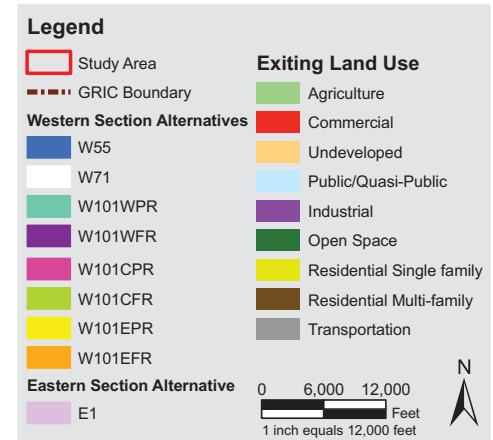
Land Use Report

## Future Land Use

### South Mountain Freeway Transportation Corridor Study

Source: HDR, MAG (2008)  
Aerial Photography Date: April 2006





## Land Use Report

## Existing Land Use

## South Mountain Freeway Transportation Corridor Study

Source: HDR  
Aerial photography date: April 2006



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