

Project Background, Purpose and Objectives

The Interstate 10/Hassayampa Valley Roadway Framework Study is the first of four long-range planning studies that the Maricopa Association of Governments (MAG) will conduct in rapidly developing areas surrounding present-day metropolitan Phoenix. The purpose of these studies is to initiate the transportation planning process in large areas that are expected to experience intense growth and development over the next 30 to 50 years. MAG and its partners are beginning broad-brush planning in advance of growth.

The I-10/Hassayampa study area covers approximately 1,400 square miles bounded by State Route (SR) 303L on the east, the 459th Avenue section line on the west, the approximate SR-74 alignment on the north, and the Gila River on the south. Large topographical features act as barriers to travel, especially the White Tank Mountains in the east central portion of the study area. West of this mountain range, however, a great deal of developable land exists. Over 100 entitlements have been granted for master planned communities and residential and commercial development.

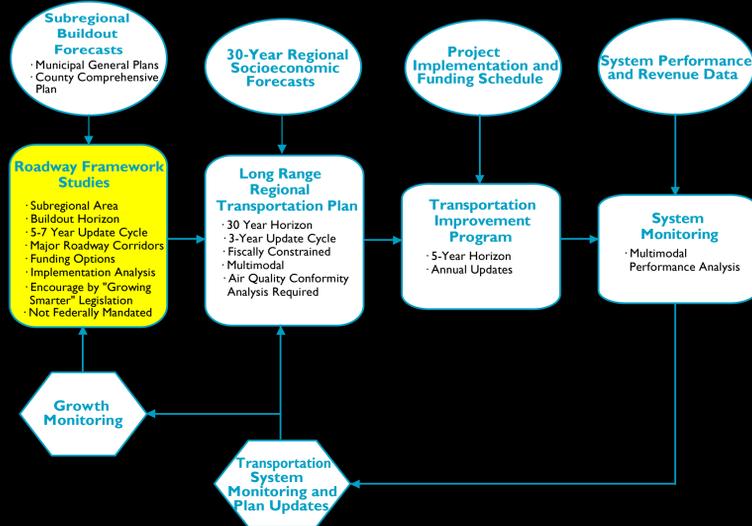
Scenario	Dwelling Units	Population	Employment (jobs)
2005	55,000	131,000	57,000
2030	394,000	936,000	388,000
Buildout Assumptions	1,094,000	2,778,000	1,047,000

Much of the impetus for this one-year study arose from the need to preserve and improve Interstate 10—currently the only freeway serving the area—as the primary corridor for moving people and goods across the United States, as well as between metropolitan Phoenix and the ports in Los Angeles and Long Beach. At “Buildout,” when developed to their planned maximum extent, Buckeye and Surprise expect to be among the five largest cities in Arizona. The previous table indicates the magnitude of projected population and employment growth from 2005 to 2030, and to Buildout.

The following objectives were met through the completion of this study:

- Laid out a conceptual network of north-south and east-west roadways that will provide access throughout the study area and preserve I-10 as an interstate travel and freight corridor;
- Identified potential traffic interchange locations on I-10 and proposed high-capacity roadways;
- Developed priorities for the next steps leading to ultimate construction of the proposed roadway network, regional connections and future I-10 interchanges;
- Studied opportunities for alternative transportation modes;
- Evaluated funding options, and assessed the capacity of existing and potential sources of funding;
- Recommended appropriate access management strategies for each functional class of roadway; and
- Specified future corridors in which right-of-way should be preserved now.

Relationship to Regional Planning



New Parkway Functional Classification

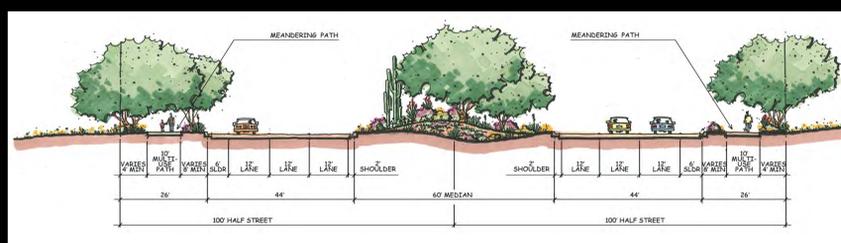
As the study progressed, it became clear that new high capacity roadways will be needed in the Hassayampa Valley. It was equally clear that building a dense freeway grid may never be possible. Therefore, the conceptual network contains many intermediate capacity facilities known as parkways. This facility type has an excellent record of providing capacity up to double that of a conventional arterial elsewhere in the United States, at a fraction of the cost of a freeway.

Parkway characteristics include:

- Six- to eight-lane divided roadways
- More access management than a typical arterial roadway
- Right-of-way of at least 200 feet
- Minimum 60-foot median to accommodate storage for indirect left turns and large vehicle turning radii

A unique intersection design feature that greatly increases parkway capacity is the “indirect left turn.” Traditional left turns are not permitted at intersections, resulting in a simple two-phase signal cycle that improves traffic operations and safety. At high-volume junctions between two parkways, grade-separated intersections may be provided instead of a conventional at-grade intersection.

Parkways are an essential element of the transportation framework recommendation, with approximately 20 proposed alignments. To the extent permitted by topography and local plans, parkways are spaced approximately three to five miles apart—as opposed to a desirable eight- to ten-mile distance between freeways.



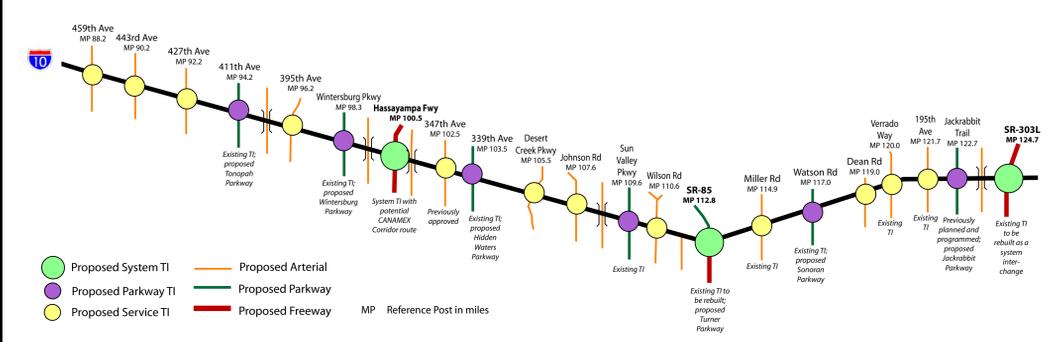
Parkway - Typical Cross Section 55 mph Design Speed



Project Team:
 DMJM HARRIS | AECOM
 Wilson & Company, Inc.
 Partners for Strategic Action, Inc.
 Curtis Lueck & Associates

Traffic Interchange Locations

FHWA, ADOT, and MAG are working to have a minimum spacing of two miles between interchanges on Interstate highways, except where closer spacing already exists or was previously approved. (The minimum spacing from the nearest freeway-to-freeway or “system” interchange is three miles.) On the 36-mile segment of I-10 traversing the study area boundaries, a maximum of 20 interchanges are proposed.

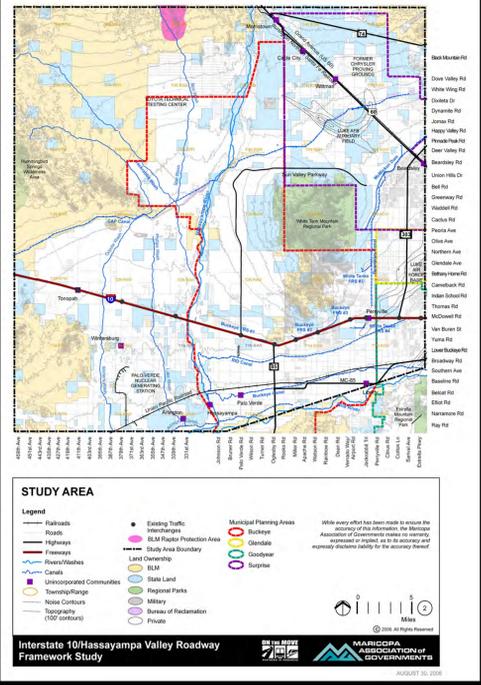


Interstate 10/ Hassayampa Valley Roadway Framework Study

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<http://www.bqaz.org>



Coordination and Outreach

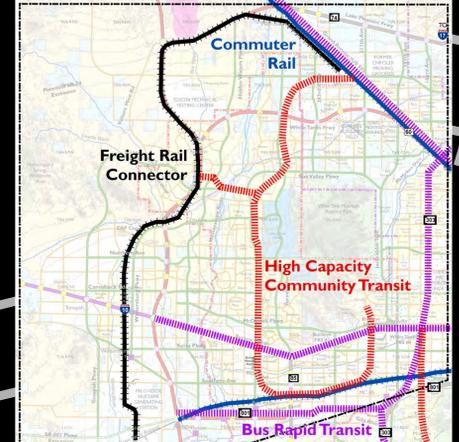


The I-10/Hassayampa Valley Roadway Framework Study included an agency coordination and community outreach program throughout the project. More than 120 meetings were conducted with public agency staff, elected officials, and a wide range of private “stakeholders” with an interest in the area, such as landowners and developers. All of these public and private stakeholders were invited to participate in four forums. Over 100 people attended each event, including several elected officials. A Community Open House followed the third forum.

The MAG team supplemented these meetings and events with two newsletters and a special web page linked to the main MAG website. The website was continually updated to provide the most current information during the entire study.

Transit Framework

While focusing in this study on the future roadway network, MAG and its partners recognize the importance of alternative modes in helping to meet the future travel and freight transportation needs of the Hassayampa Valley. The study recommends investigation of a new north-south freight railroad line across the study area, which would link proposed intermodal facilities of the Union Pacific and BNSF railroads. In addition, MAG is developing a strategic implementation plan for commuter (passenger) rail throughout Maricopa County. There will also be opportunities for other forms of future high capacity transit (e.g. bus rapid transit, high capacity community transit) linking communities within the study area.



Transit Framework Map

Stakeholder Team

- Funding Partners:**
- Maricopa Association of Governments (MAG)
 - Town of Buckeye
 - City of Goodyear
 - City of Surprise
 - Arizona Department of Transportation (ADOT)
 - Maricopa County Department of Transportation (MCDOT)
- Study Review Team:**
- ADOT
 - Arizona State Land Department (ASLD)
 - City of Glendale
 - City of Goodyear
 - City of Surprise
 - Federal Highway Administration (FHWA)
 - Flood Control District of Maricopa County (FCDCM)
 - Luke Air Force Base
 - MAG
 - MCDOT
 - Town of Buckeye
 - U.S. Bureau of Land Management (BLM)

