



Northern Parkway/ Tonopah Parkway Corridor Feasibility Study

Contract 2010-004
Project TT005

FINAL Technical Memorandum 1 **Existing and Future Corridor Features**

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1. INTRODUCTION

Technical Memorandum 1 (TM 1), entitled *Existing and Future Corridor Features*, documents existing and future corridor features for the *Northern Parkway: Tonopah Parkway to Turner Parkway and Tonopah Parkway: Northern Parkway to Interstate 10 Corridor Feasibility Study* (hereafter referred to as the *Northern Parkway/Tonopah Parkway CFS*, or “the project”). The purpose of TM 1 is to provide an overview of land uses, roadway conditions, drainage, access management, socioeconomic conditions, and environmental assessments in sufficient detail to provide a foundation for the identification of issues and constraints and preparation of maps showing feasible corridor alignments within the study area. Additional detailed information about the project is included in the following companion documents: *Environmental Overview* (TM 2), *Conceptual Drainage Report* (TM 3), *Development and Evaluation of Candidate Alternative Alignments* (TM 4), and *Detailed Preferred Alignment* (TM 5).

1.1 Background and Study Need

In July 2008, the Maricopa Association of Governments (MAG) completed the *Interstate 10/Hassayampa Valley Transportation Framework Study* (known as the *Hassayampa Framework Study*), that recommended a comprehensive roadway network to meet the future traffic demands that result when the area west of the White Tank Mountains is completely developed (hereafter referred to as buildout travel demand). This long-range regional transportation network includes the “Arizona Parkway” as a new facility type to supplement more traditional roadway classifications in meeting projected travel demand.

The Arizona Parkway utilizes a distinct intersection treatment that prohibits left turns at major cross-street intersections and controls intersection traffic movements with two-phased traffic signal control. Left-turn movements are made indirectly using directional left-turn crossovers in the median immediately downstream of cross-street intersections.

The *Hassayampa Framework Study* demonstrated the need for both Northern Parkway and Tonopah Parkway. Although today’s land development and travel demands in the project study area do not warrant major new high capacity roadways in the near-term future, the buildout forecast for future land development and travel demands does warrant major new high capacity roadways in the long-term future. Plans are already underway to convert some of the vacant lands within the project study area to land uses that will generate future traffic.

To preserve sufficient public right-of-way for the future Northern Parkway and Tonopah Parkway, the planning process needs to identify right-of-way requirements for buildout conditions. This study is the first step in the roadway development process and is meant to aid the governing bodies in defining and protecting a continuous future roadway corridor that can accommodate buildout traffic demands in the project study area.

The project scope of work for this study includes the tasks necessary to prepare a corridor feasibility report that will provide the Maricopa County Department of Transportation (MCDOT), the Town of Buckeye, area property owners, developers, and other stakeholders with a planning tool for future growth and development that will lead to the preservation of a 200-foot wide right-of-way corridor to accommodate the typical Arizona Parkway design. This will require significant coordination with various governing bodies, other public agencies, development interests, and the general public.

1.2 Project Study Area

The project study area includes the planned Northern Parkway, an east-west corridor centered on the Northern Avenue section line, from the planned Tonopah Parkway (411th Avenue alignment) to the planned Turner Parkway (267th Avenue alignment). The Northern Parkway corridor within the project study area is approximately 18 miles long and two miles wide. This section of Northern Parkway is referred to as the Northern Parkway Hassayampa section to distinguish it from other planned Northern Parkway sections east of the White Tank Mountains.

The project study area also includes the planned Tonopah Parkway, a north-south corridor centered on the 411th Avenue section line, from Interstate 10 (I-10) to the planned Northern Parkway. The Tonopah Parkway corridor within the project study area is approximately 3.75 miles long and two miles wide.

The project study area boundaries are shown in **Figure 1**.

1.3 Study Purpose, Goals, and Objectives

The primary purposes of the *Northern Parkway Corridor Feasibility Study* are to:

- Define and assess the project study area for potential opportunities and constraints for alternative corridor alignments;
- Develop and evaluate conceptual alternative corridor alignments within the study area;
- Recommend a preferred corridor alignment; and
- Define the characteristics of the preferred alignment in sufficient detail for right-of-way preservation.

The study goals for the *Northern Parkway Corridor Feasibility Study* relate specifically to the proposed Northern Parkway and Tonopah Parkway in the context of the existing and future transportation network in the study area. Specific objectives are listed below for each study goal.

Goal #1: Achieve roadway network continuity and connectivity

- Determine the preferred corridor alignment from a regional transportation corridor perspective;
- Protect and preserve right-of-way for the preferred corridor alignment to maintain its long-term viability;
- Provide future connectivity with primary and regional roadway facilities; and
- Provide crossings of alluvial fans, drainage washes, rivers, and canals.

Goal #2: Enhance traffic flow (capacity) and safety

- Preserve functional integrity of the Arizona Parkway by recommending unique segment-specific solutions to address identified opportunities or constraints;
- Identify areas that may require additional right-of-way or easements, especially at crossings with other parkways, alluvial fans, and utility corridors; and
- Enhance traffic operations while maintaining reasonable access for developments.

Goal #3: Preserve the environment

- Comply with governing environmental regulations for new roadway development;
- Minimize adverse impacts to the study area environment, including wildlife corridors and archeological sites; and
- Enhance important environmental features (e.g., habitat areas).

Goal #4: Develop consensus-driven improvement alternatives

- Work with the Technical Advisory Committee and key stakeholders in developing feasible alternatives;
- Develop cost-effective roadway improvement alternatives;
- Conduct public outreach to obtain input on alternatives and build consensus; and
- Ensure consistency between the study’s transportation actions and regional and local plans.

1.4 Project Schedule

The project schedule spans 14 months, from May 2010 through June 2011. The major milestones and their anticipated completion dates are shown in **Table 1**.

Table 1 – Major Project Milestones

Milestone	Anticipated Completion Date
Existing and Future Corridor Features Environmental Overview Drainage Overview	September 2010
Alternatives Development and Evaluation	January 2011
Preferred Alignment Drawings	March 2011
Final Report	May 2011

Throughout the duration of the project, five meetings are planned with a Technical Advisory Committee (TAC) consisting of representatives of state, county, and local jurisdictions within the project study area along with key project stakeholders. Three public meetings will be conducted during the project: following the assessment of existing and future conditions, following the development and evaluation of alternatives, and following the identification of the preferred alignment.

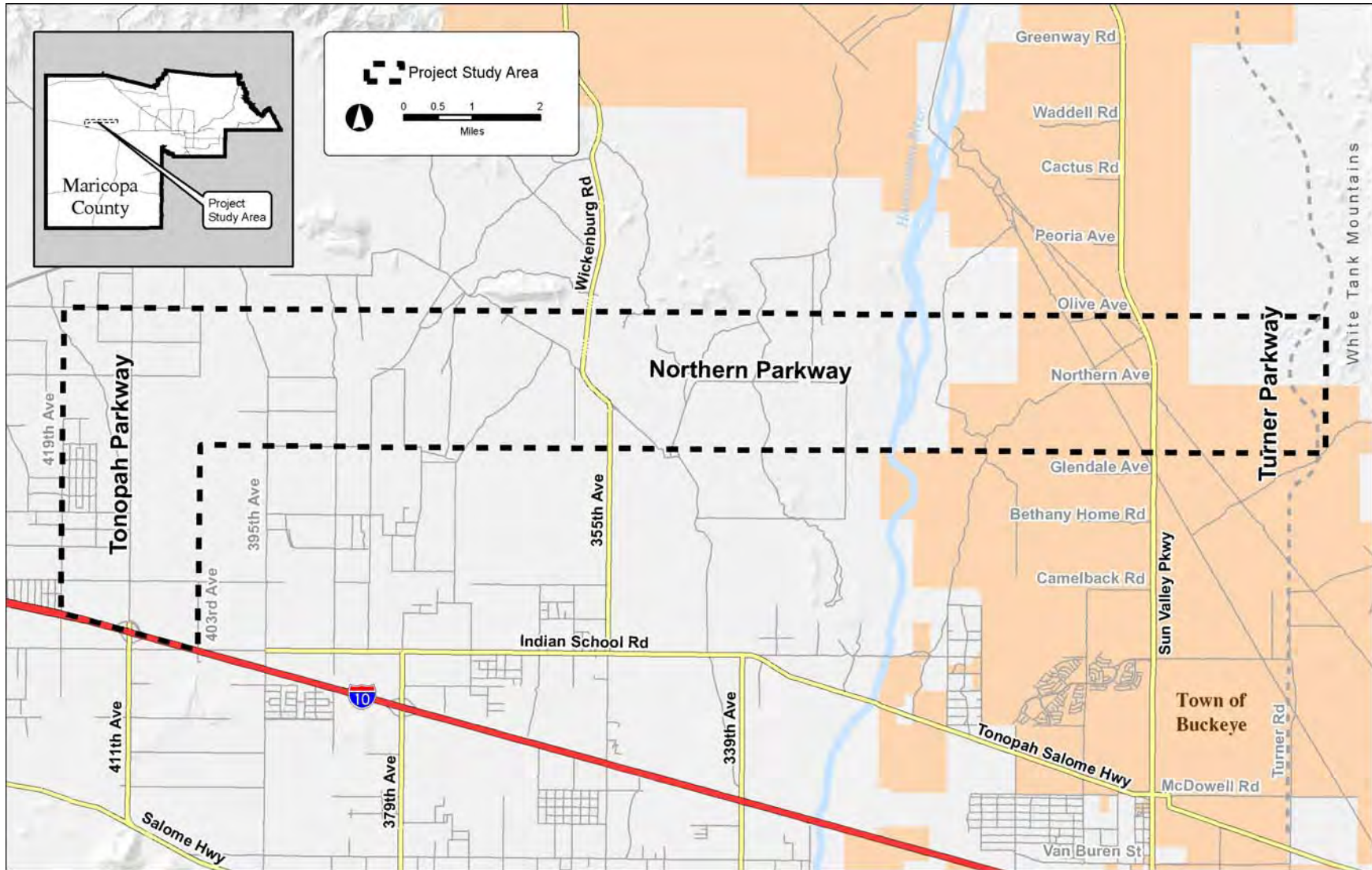


Figure 1 - Project Study Area

2. PLANS AND STUDIES

2.1 Plans, Studies, Reports, and Documentation

Relevant information on existing and future corridor features was obtained from available studies, reports, and other documents. The reports and studies that were obtained and reviewed as part of the Northern Parkway (Hassayampa Section) Corridor Feasibility Study are listed in **Appendix TM1-01**.

2.2 Summary of Findings and Recommendations from Review of Plans and Studies

This section documents the findings and recommendations from existing studies and reports that are pertinent to the general existing and future corridor features of the Northern Parkway study area. Detailed documents discussing environmental and drainage issues and features are addressed in TM 2 and TM 3, respectively.

2.2.1 *Maricopa County Tonopah/Arlington Area Plan (September 2000)*

The *Tonopah/Arlington Area Plan* for 2020 was developed by the Maricopa County Planning and Development Department and adopted in 2000. The plan includes information on land use, transportation, environmental issues, and economic development within the study area between 411th Avenue and the Hassayampa River. Pertinent information from this plan for the project study area includes:

- 379th Avenue is shown as a Core Arterial between I-10 and Glendale Avenue;
- Daily traffic volume data is provided for the following roadway segments:
 - 335th Avenue north of Indian School Road (181 vehicles per day); and
 - 387th Avenue north of Indian School Road (142 vehicles per day).
- 335th Avenue has a future functional classification of Rural Collector through the study area. Both 411th and 387th Avenues south of Glendale Avenue have future functional classifications of Rural Collector and Rural Local, respectively; and
- Several large lot subdivisions are shown within the study area, including Belmont, Belmont Ranches, Silver Star Ranch, Coyote Ridge, West Valley Ranch II, and Ironwood Trails Ranch.

2.2.2 *MAG Interstate 10/Hassayampa Valley Transportation Framework Study (July 2008)*

The *MAG Interstate 10/Hassayampa Valley Transportation Framework Study* is a long-range transportation planning study conducted by MAG and finalized in 2008. This study established a conceptual network of freeways, parkways, and arterial roadways within its 1,400 square mile study area to provide access and preserve I-10 as a transportation corridor. Opportunities for alternative transportation modes and potential traffic interchange locations along I-10 were also identified in this study. Pertinent information from this study for the project study area includes:

- Northern Parkway is proposed to originate at Tonopah Parkway and continue east through the study area boundary to Turner Parkway;



- Tonopah Parkway is proposed to originate at the State Route (SR) 801 Parkway Extension and continue north to Northern Parkway;
- The proposed alignment of Northern Parkway dips to the south between 363rd Avenue and Hidden Waters Parkway;
- Other proposed parkways in the project study area are Camelback Parkway, Wintersburg Parkway, Hidden Waters Parkway, Sun Valley Parkway, and Turner Parkway;
- A new freeway known as the Hassayampa Freeway is envisioned to traverse the project study area at about the 355th Avenue alignment within the Belmont master-planned community;
- The study identifies proposed parkway traffic interchanges at Northern Parkway's intersection with the Hassayampa Freeway and Tonopah Parkway's intersection with I-10;
- 411th Avenue has a current functional classification of Arterial Roadway through the study area. 395th Avenue is classified as an Arterial Roadway south of the Northern Avenue alignment. 387th Avenue is classified as an Arterial Roadway south of the Glendale Avenue alignment. I-10 is classified as a Rural Principal Interstate between 419th and 403rd Avenues along the study area boundary;
- A potential CANAMEX Corridor is shown through the study area along the Hassayampa Freeway alignment;
- Tonopah Parkway and the section of Northern Parkway west of the Hassayampa Freeway have been designated "low priority" for implementation. The section of Northern Parkway east of the Hassayampa Freeway has been designated "high priority" for implementation;
- The conceptual transit options include a freight-rail connector line running north-south through the project study area near 387th Avenue and a high-capacity community transit line running north-south through the project study area east of Sun Valley Parkway; and
- Exhibits showing the conceptual transportation framework, the projected roadway geometry and intersection/interchange locations, and the unofficial daily traffic volume projections at buildout are provided in **Appendix TM1-02**.

2.2.3 MCDOT Design Guideline Recommendations for the Arizona Parkway (August 2008)

The *Design Guideline Recommendations for the Arizona Parkway* was prepared for MCDOT in August 2008. These recommendations detail the indirect left-turn parkway design concept to be used for Arizona Parkway roadway facilities such as Northern Parkway and Tonopah Parkway. Pertinent details regarding the design and layout of the Arizona Parkway include the following:

- 200-foot minimum right-of-way corridor recommended for both four- and six-lane sections. Additional right-of-way and/or easements may be needed for turn lanes, bus bays, drainage structures, drainage facilities, side slopes, utilities, and landscaping;
- Twelve-foot wide lanes are recommended, with four-foot wide inside paved shoulders and six-foot outside paved shoulders;



- An additional eight-foot minimum width public utility easement is recommended on each side of the parkway;
- Median width varies based on the number of lanes needed;
- Minimum design speed for rolling terrain is 50 miles per hour (mph) in urban areas;
- WB-50 is the recommended design vehicle;
- U-turn directional crossovers are recommended to be restricted to a maximum of eight per mile;
- Left turns in any direction are prohibited at all intersections;
- Left turns from a side-street or driveway onto the parkway are prohibited;
- Left turns from the parkway to a side-street or driveway are discouraged due to conflicts between u-turns and right turns;
- Intersections (full median breaks) will preferably be restricted to one-mile spacing, with a minimum spacing of one-half mile, and are only recommended where intersecting with arterial or major collector streets;
- Recommended minimum driveway spacing is 165 feet for low-volume segments and 330 feet for high-volume segments. The typical driveway will be limited to right-in/right-out maneuvers; and
- Parkway typical cross-sections and the typical parkway at-grade intersection are provided in **Appendix TM1-03**.

2.2.4 *MCDOT Arizona Parkway Intersection/Interchange Operational Analysis and Design Concepts Study (August 2009)*

The *Arizona Parkway Intersection/Interchange Operational Analysis and Design Concepts Study* analyzed the parkway network established by regional transportation framework studies and identified parkway intersection treatments for the purpose of preserving future right-of-way needs. Pertinent information from the study for the project study area includes:

- Based on level of service thresholds for the buildout condition, both Tonopah Parkway and Northern Parkway are anticipated to ultimately need four through lanes throughout the project study area;
- Right-of-way preservation of 200 feet is adequate to meet the needs of at-grade parkway-to-parkway intersections of up to eight lanes on each approach;
- There are six parkway-to-parkway intersections within the project study area:
 - Tonopah Parkway/Camelback Parkway;
 - Northern Parkway/Tonopah Parkway (411th Avenue);
 - Northern Parkway/Wintersburg Parkway (379th Avenue);
 - Northern Parkway/ Hidden Waters Parkway (339th Avenue);
 - Northern Parkway/Sun Valley Parkway; and
 - Northern Parkway/Turner Parkway.
- All six project area parkway-to-parkway intersections are recommended to be at-grade intersections; and



- Intersection entering volumes for each of the six project area intersections are discussed in the study. Based upon these volumes, the following number of lanes approaching each intersection are recommended:
 - Tonopah Parkway (4 lanes)/Camelback Parkway (4 lanes);
 - Northern Parkway (4 lanes)/Tonopah Parkway (4 lanes);
 - Northern Parkway (4 lanes)/Wintersburg Parkway (6 lanes);
 - Northern Parkway (4 lanes)/ Hidden Waters Parkway (8 lanes);
 - Northern Parkway (4 lanes)/Sun Valley Parkway (8 lanes); and
 - Northern Parkway (4 lanes)/Turner Parkway (8 lanes).

2.2.5 MCDOT Enhanced Parkway Study (August 2007)

The *Enhanced Parkway Study* was prepared for MCDOT in 2007 and analyzed the indirect left-turn parkway corridor design. The study found the minimum required parkway-to-parkway right-of-way width with dual right turn lanes to be approximately 225 feet, assuming the continuation of the full 60-foot median width through the intersection.

2.2.6 Unofficial MAG Updated Buildout Traffic Projection (June 2009)

In June 2009, MAG developed updated unofficial buildout traffic projections associated with the network of facilities from the *Interstate 10/Hassayampa Valley Transportation Framework Study*. Pertinent information from the unofficial buildout traffic projections for the project study area includes:

- Updated projected daily traffic volumes for Northern Parkway range from 6,000 to 50,000 vehicles per day. Project daily traffic volumes for Tonopah Parkway north of I-10 range from 9,000 to 20,000 vehicles per day. The buildout traffic projections are unofficial and have not been adopted by the MAG Regional Council;
- The recommended lane configurations for Northern Parkway are four lanes from Tonopah Parkway to Sun Valley Parkway and six lanes from Sun Valley Parkway to Turner Parkway;
- The recommended lane configuration for Tonopah Parkway is four lanes from I-10 to Northern Parkway; and
- All proposed intersections with Northern Parkway are anticipated to be at-grade with the exception of the interchange with the Hassayampa Freeway.

2.2.7 Town of Buckeye General Plan (2008)

The *Town of Buckeye 2007 General Plan Update*, adopted in January 2008, outlines the Town of Buckeye's framework and policies for managing the development of the land within its planning area. The *General Plan* includes land use and circulation elements. The *Interstate 10/Hassayampa Valley Transportation Framework Study* served as the framework for the circulation element of the *General Plan*. Pertinent information from this plan for the project study area includes:

- Land use within the project study area consists of very low density residential (0-1 dwelling units/acre [du/ac], low density residential (1.01-3 du/ac), medium density



residential (3.01-6 du/ac), medium high density residential (6.01-10 du/ac), high density residential (10.01-15 du/ac), regional commercial, business park, and open space;

- Sun Valley Parkway, Turner Parkway, and Northern Parkway are classified as parkway facilities; and
- The approved Master Planned Communities as of October 2007 within the study area were Sun Valley South, Sun Valley, and Montiere.

2.2.8 *Maricopa County Transportation System Plan (February 2007)*

The *Maricopa County Transportation System Plan* was last updated in February 2007. The 2007 update outlines Maricopa County's plans for its transportation system through 2026. The existing and future conditions of the roadways owned and maintained by MCDOT were analyzed. Capacity needs for County roadways were also analyzed based on forecasted travel demands for 2015 and 2026. Pertinent information from the plan for the project study area includes:

- Sun Valley Parkway is classified as a Principal Arterial and a Case 1 County Island Roadway through the study area;
- 355th Avenue/Wickenburg Road is classified as a Minor Arterial;
- Sun Valley Parkway is designated as a bike route per the MAG Regional Bikeway Plan;
- The Maricopa County Regional Trails Plan includes one Priority 3 and two Priority 4 trails through the study area; and
- Northern Avenue between 307th Avenue and 355th Avenue is shown as having capacity needs in the year 2026.

2.2.9 *Maricopa County Major Streets and Routes Plan: Street Classification Atlas (revised September 2004)*

The *Maricopa County Major Streets and Routes Plan: Street Classification Atlas* designates the future functional classifications for arterial and collector roadway facilities in the County Road Inventory System. The *Atlas* was last revised in September 2004 to include the most recent street function classification information as of April 2004. Pertinent information from the *Atlas* for the project study area includes:

- 411th Avenue is classified as a Minor Arterial from I-10 to Bethany Home Road;
- 355th Avenue/Wickenburg Road is classified as a Principal Arterial and has a scenic overlay through the study area. The scenic overlay includes a scenic easement of 50 feet on each side of the right-of-way; and
- Sun Valley Parkway is classified as an Enhanced Arterial and a Road of Regional Significance (RRS) through the study area. As an RRS, the desired right-of-way width is 140 feet.

2.2.10 *2010 State of the Systems Report (Fiscal Year 2010)*

MCDOT's *State of the Systems Report* for fiscal year 2010 documents the physical and operational condition of its roadways. The section of the *Systems Report* titled *Low Volume*

Road Management System inventoried and evaluated the unpaved roads owned, operated, or maintained by the County. This report shows the segment of 411th Avenue between Camelback Road and Bethany Home Road on the list of Low Volume Roads with an average daily traffic volume of more than 149 vehicles per day, meaning it has been recommended for further scoping for paving by MCDOT.

2.2.11 MCDOT Turner Parkway Corridor Feasibility Study (May 2010)

The *Turner Parkway Corridor Feasibility Study* was completed by MCDOT in May 2010. This study identified a 200-foot wide corridor for a future parkway between I-10 and SR 74 just west of the White Tank Mountains. The recommended alignment for Turner Parkway within the project study area follows the alignment proposed previously in MAG's *Hassayampa Framework Study*.

2.2.12 Final MAG Regional Transportation Plan (July 2010)

The *Regional Transportation Plan 2010 Update* is MAG's guiding regional transportation planning document for all major modes of transportation through fiscal year 2031. The Plan identifies future transportation facilities including planned roadway, freight, and transit system improvements. Pertinent information from this plan for the project study area includes:

- The 2030 Arterial Street System Total Through Lane plan shows Northern Avenue as having six lanes between Sun Valley Parkway and 339th Avenue and four lanes between 339th Avenue and 411th Avenue; and
- The Hassayampa Illustrative Corridors plan shows the following:
 - Illustrative parkway traffic interchanges at I-10/Tonopah Parkway and Hassayampa Freeway/Northern Parkway;
 - Illustrative freight rail connector west of Wintersburg Parkway through the study area; and
 - Illustrative High Capacity Community Transit parallel and east of Sun Valley Parkway through the study area.

2.2.13 Draft Buckeye Transportation Master Plan (December 2009)

A draft version of the Town of Buckeye's *Transportation Master Plan* was made public in December 2009. The *Transportation Master Plan* uses the Town of Buckeye's *General Plan* as its base and develops the circulation element in more detail, covering short-, intermediate-, and long-term transportation planning time periods. Pertinent information from the *Plan* for the project study area includes:

- Goal 9 of the plan is to "preserve the Arizona Parkway System" by requiring all Community Master Plans and General Plan Amendments for property across a proposed parkway route to be required to preserve parkway right-of-way;
- Sun Valley Parkway, Turner Parkway, and Northern Parkway are classified as parkway facilities;
- The portion of Northern Parkway within the Buckeye Master Planning Area (MPA) is between 331st Avenue and Turner Parkway;



- An Intra-Buckeye Express mass transit route is shown crossing Northern Parkway at the 307th Avenue and Turner Parkway alignments. A light rail/bus rapid transit route is shown along Sun Valley Parkway through the study area; and
- Five local multimodal trails are shown crossing the study area within the Buckeye MPA.

2.2.14 Draft ASLD White Tanks Conceptual Land Use Plan (2007)

In 2007, the Arizona State Land Department (ASLD) assigned land use designations to the State Trust land parcels within the Buckeye MPA for future auction. The land use designations were coordinated with the master-planned communities in the area and existing private land owners. These land use plans have not been finalized and the ASLD study is currently on hold. Pertinent information from this draft land use plan for the project study area includes:

- Designated land uses within the study area include low and medium density residential, commercial, open space, and employment; and
- The ASLD White Tanks Conceptual Land Use Plan showing the land use designations is provided in **Appendix TM1-04**.

2.2.15 Belmont Planning Documents (November 2007)

Belmont is a proposed master-planned development in Maricopa County generally bounded by 331st Avenue on the east, the Cactus Road alignment on the north, 371st Avenue on the west, and I-10 on the south. Belmont is being developed by LKY Development. The Maricopa County Board of Supervisors approved the Development Master Plan for Belmont in June 2008. Pertinent information from the Belmont planning documents for the project study area includes:

- The conceptual path and trail master plan shows an east-west Major Connector trail along the Northern Avenue alignment. The proposed Central Arizona Project (CAP) Loop, Interior Loop, and Village Loop also cross through the study area;
- The phasing plan for Belmont shows the development having 24 development phases. The following phases are within the project study area: 6, 8-14, and 19-21. Phases 11, 13, and 14 are currently on State Trust land;
- A park-and-ride trail head is proposed southeast of the Hassayampa Freeway and Northern Avenue intersection;
- The roadway sections presented include a parkway section with a 200-foot right-of-way;
- Hidden Waters Parkway and Northern Parkway are shown as parkway facilities;
- A new freeway known as the Hassayampa Freeway is envisioned to traverse the project study area at about the 355th Avenue alignment;
- The land uses designated within the study area include: large lot residential, small lot residential, medium density residential, high density residential, mixed use, regional retail center, community retail center, neighborhood retail center, educational, recreational open space, and dedicated open space; and
- The Belmont Land Use Plan, Conceptual Path and Trail Master Plan, and roadway sections are provided in **Appendix TM1-04**.

2.2.16 *Montiere Planning Documents (June 2008)*

Montiere is a proposed mixed-use development within the Buckeye MPA. Montiere is being developed by the Wespac Development Corporation. The development is generally bounded by Glendale Avenue to the south, Johnson Road to the east, Northern Avenue to the north, and the 315th Avenue alignment to the west. The Town of Buckeye has approved a preliminary plat for the development. Pertinent information from the Montiere planning documents for the project study area includes:

- The Montiere Preliminary Plat shows a 200-foot wide strip of land along the Northern Avenue alignment for future additional right-of-way;
- The Regional Circulation plan shows Northern Avenue as a proposed principal arterial (6 lanes with raised median);
- The land uses designated within the study area include: single family residential, mixed use, school, park, utility infrastructure, water supply, open space, and commercial/employment; and
- The Montiere Land Use Plan, Regional Circulation Plan, and Preliminary Plat are provided in **Appendix TM1-04**.

2.2.17 *Anthem Sun Valley Conceptual Land Use Plan (March 2007)*

Anthem Sun Valley is a proposed master-planned development within the Buckeye MPA. Anthem Sun Valley is being developed by Pulte Homes. The development is generally bounded by the White Tank Mountains to the east, Missouri Avenue to the south, Sun Valley Parkway to the west, and Northern Avenue to the north. The Town of Buckeye has approved several preliminary plats for the development. This development is part of the Sun Valley South Community Master Plan, last amended in January 2006. Pertinent information from the Anthem Sun Valley planning documents for the project study area includes:

- The land uses designated within the study area include: residential, clubhouse/community centers, commercial, school, public services, worship, and park; and
- The Anthem Sun Valley Conceptual Land Use Plan is provided in **Appendix TM1-04**. The Regional Roadway Network exhibit and Master Street and Circulation Plan for Sun Valley South (which includes the Anthem Sun Valley development) are also provided in **Appendix TM1-04**.

2.2.18 *Sun Valley Villages III and IV Planning Documents (July 2008)*

Sun Valley Villages III and IV is a master-planned mixed-use development within the Buckeye MPA. The development is generally bounded by Northern Avenue to the south, the 287th Avenue alignment to the east, Greenway Road to the north, and the 307th Avenue alignment to the west. The Sun Valley Villages III and IV Community Master Plan was approved by the Town of Buckeye in April 2009. Pertinent information from the Sun Valley Villages III and IV land use plan for the project study area includes:

- The land uses designated within the study area include: low, medium, and high density residential, commercial, business park, park, elementary school, major wash, and power line easement; and



- The Sun Valley Villages III and IV Land Use Plan and Master Street and Circulation Plan are provided in **Appendix TM1-04**.

2.2.19 *Balterra Planning Documents (January 2007)*

Balterra is a master-planned development in Maricopa County. The development is bounded by Indian School Road to the south, 395th Avenue to the east, Camelback Road to the north, and 415th Avenue to the west. The Development Master Plan for the development was approved by the Maricopa County Board of Supervisors in January 2007. Pertinent information from the Balterra planning documents for the project study area includes:

- The land uses designated within the study area include: small lot residential, medium density residential, mixed use, recreational open space, dedicated open space, office employment center, neighborhood retail center, commercial retail center, mixed use employment center, business park, educational, and public facilities; and
- 411th Avenue is shown as a six-lane principal arterial with 65 feet of dedicated half-street right-of-way; and
- The Balterra Proposed Land Use and Street Circulation Maps are provided in **Appendix TM1-04**.

2.2.20 *Mirielle Land Use Plan (October 2007)*

Mirielle is a master-planned development within the Buckeye MPA. The development is generally bounded by Bethany Home Road to the south, Sun Valley Parkway to the east, Northern Avenue to the north, and Johnson Road/307th Avenue to the west. The Mirielle development is part of the Sun Valley South Community Master Plan, last amended in January 2006. A preliminary plat for Mirielle was approved by the Town of Buckeye in March 2008. This plat was not extended and has since expired. Pertinent information from the Mirielle land use plan for the project study area includes:

- The land uses designated within the study area include: commercial, high density residential, mixed use, medium density residential, parks, wash, school, water campus, and utility; and
- The Mirielle land use plan is provided in **Appendix TM1-04**.

2.3 Summary of Programmed Roadway Improvements

There are currently no programmed roadway improvements contained in the Capital Improvement Programs, Transportation Improvement Programs, and Regional Transportation Plans that pertain to the project study area.



3. EXISTING AND FUTURE CORRIDOR FEATURES

This section summarizes the information gathered from the documents cited in the previous section into existing and future corridor feature categories. Exhibits are provided, where appropriate, to graphically display the existing and future corridor features that should be considered in determining feasible alignments for Northern Parkway and Tonopah Parkway.

3.1 Jurisdictional Responsibilities

The Northern Parkway and Tonopah Parkway corridors are located within Maricopa County. Maricopa County has jurisdiction over the majority of the land and roadways within the project study area. The Town of Buckeye has jurisdiction over the land within its town limits adjacent to and within the project study area. Portions of the project study area currently under Maricopa County jurisdiction are also within the Buckeye Municipal Planning Area.

Jurisdictional boundaries are illustrated in **Figure 2**, as per the Geographic Information Systems (GIS) data provided by the Public Works Department of Maricopa County in May 2009.

Tonopah, an unincorporated community, lies within the western portion of the project study area. While the most recent attempt to incorporate in 2009 failed, any future attempt that does succeed would result in an additional governing body with jurisdiction over land within the study area.

3.2 Land Ownership

The project study area contains a mix of both public and private lands. Over 81 percent of the land in the project study area is privately owned. Public land owners in the study area include ASLD, which owns 16 percent of the project study area, and the Bureau of Land Management (BLM), which owns 2 percent of the project study area. Land ownership in the study area is shown in **Figure 3**, as per the GIS data provided by the Public Works Department of Maricopa County in May 2009.

3.3 Zoning and Land Use

3.3.1 Existing Zoning and Land Use

Figure 4 shows the existing zoning and parcel boundaries in the project study area as of June 2009. Zoning data for the unincorporated portions of the project study area was obtained from the Maricopa County Assessor's Office website (<http://www.maricopa.gov/Assessor/GIS/map.html>) while the zoning data for the portion of the project study area in Buckeye was obtained from the Town's General Plan.

The Maricopa County zoning designations shown in **Figure 4** include:

- Intermediate Commercial (C-2);
- General Commercial (C-3);
- Planned Shopping Center (C-S);
- Single Family Residential with 6,000 square feet per dwelling unit (R1-6);
- Multiple-Family Residential with 2,000 square feet per dwelling unit (R-4);
- Multiple-Family Residential with 1,000 square feet per dwelling unit (R-5);



- Rural with 190,000 square feet per dwelling unit (RU-190); and
- Rural with one acre per dwelling unit (RU-43).

The only Town of Buckeye zoning designation in the project study area is Planned Community (PC).

The project study area is primarily zoned for rural agricultural activity and low density residential uses, with some commercial and higher density residential zoning near Tonopah and I-10.

Figure 5 shows the existing land uses in the study area per the GIS data provided by Public Works of Maricopa County in May 2009. The predominant existing land use within the project study area is vacant land. There are a few clusters of residential and agriculture use located between 379th Avenue and 419th Avenue within the study area. The only public land use is a service yard owned by the Arizona Department of Transportation (ADOT). There are a few commercial land uses located directly south and east of the study area near the intersection of I-10 and 411th Avenue.

3.3.2 *Future Land Use*

Figure 6 shows the anticipated future buildout land uses within the project study area per the MAG general plan GIS data provided by Public Works of Maricopa County in May 2009. This exhibit indicates that the existing vacant land within the study area is anticipated to be converted to primarily residential land use at buildout. Most of the study area land west of 371st Avenue is planned to have single family low density residential uses, while the land to the east of 371st Avenue is planned to have higher density residential uses. There are also large patches of retail, office, and industrial land uses at major intersections throughout the study area east of 371st Avenue. These future land use patterns follow the land use plans for the large master planned communities in this region.

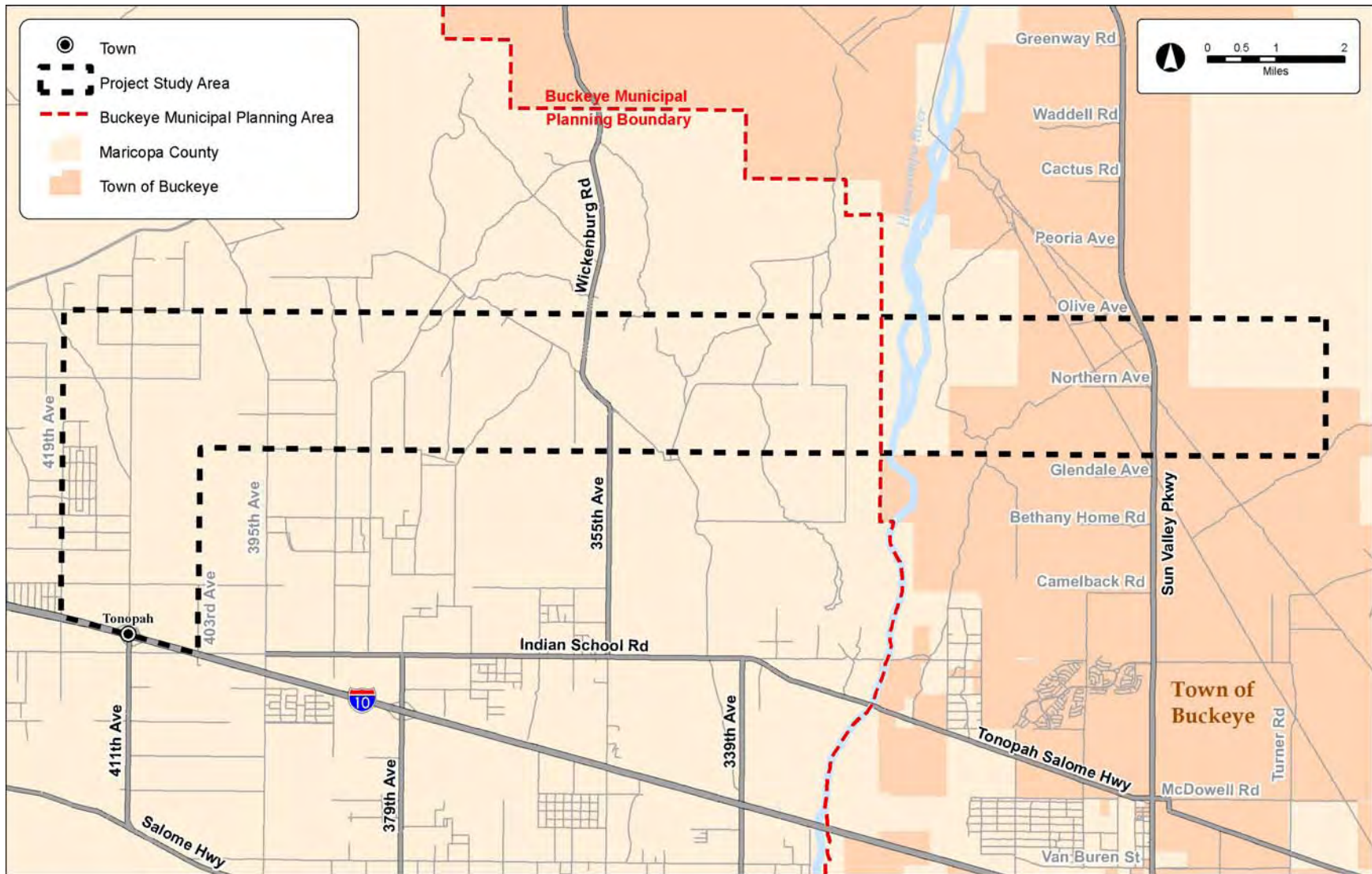


Figure 2 - Jurisdictional Boundaries

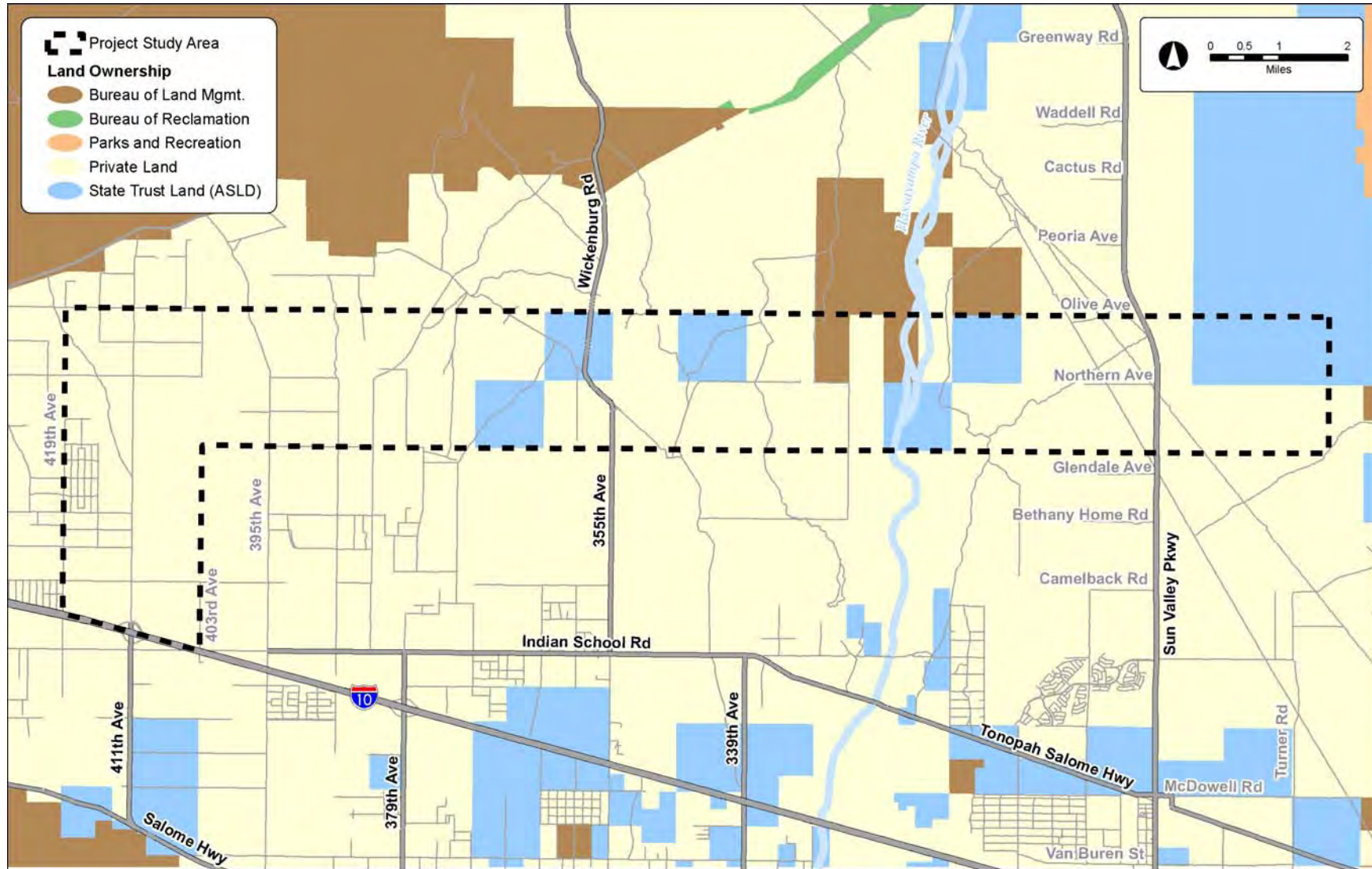


Figure 3 - Land Ownership

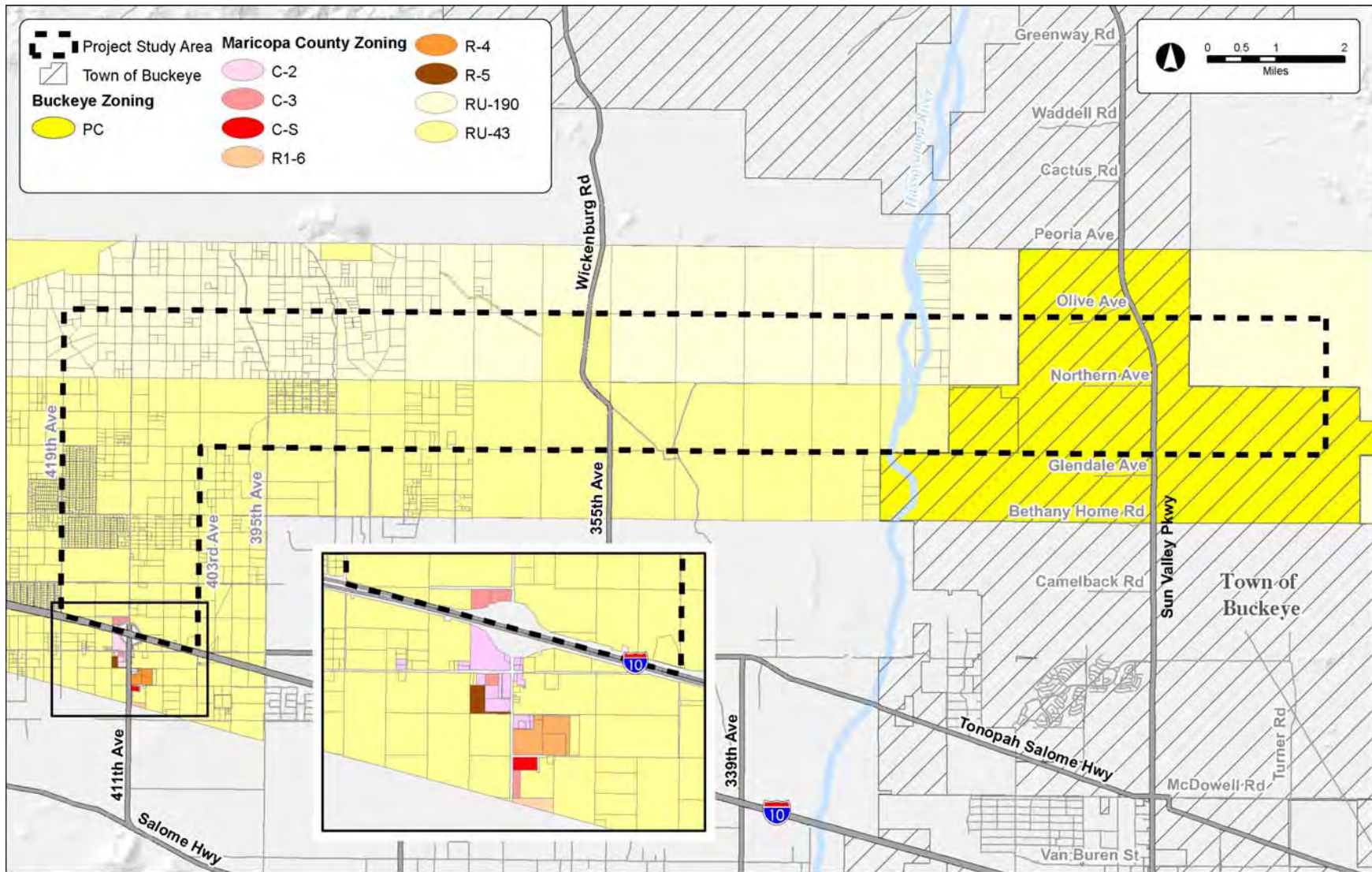


Figure 4 - Zoning

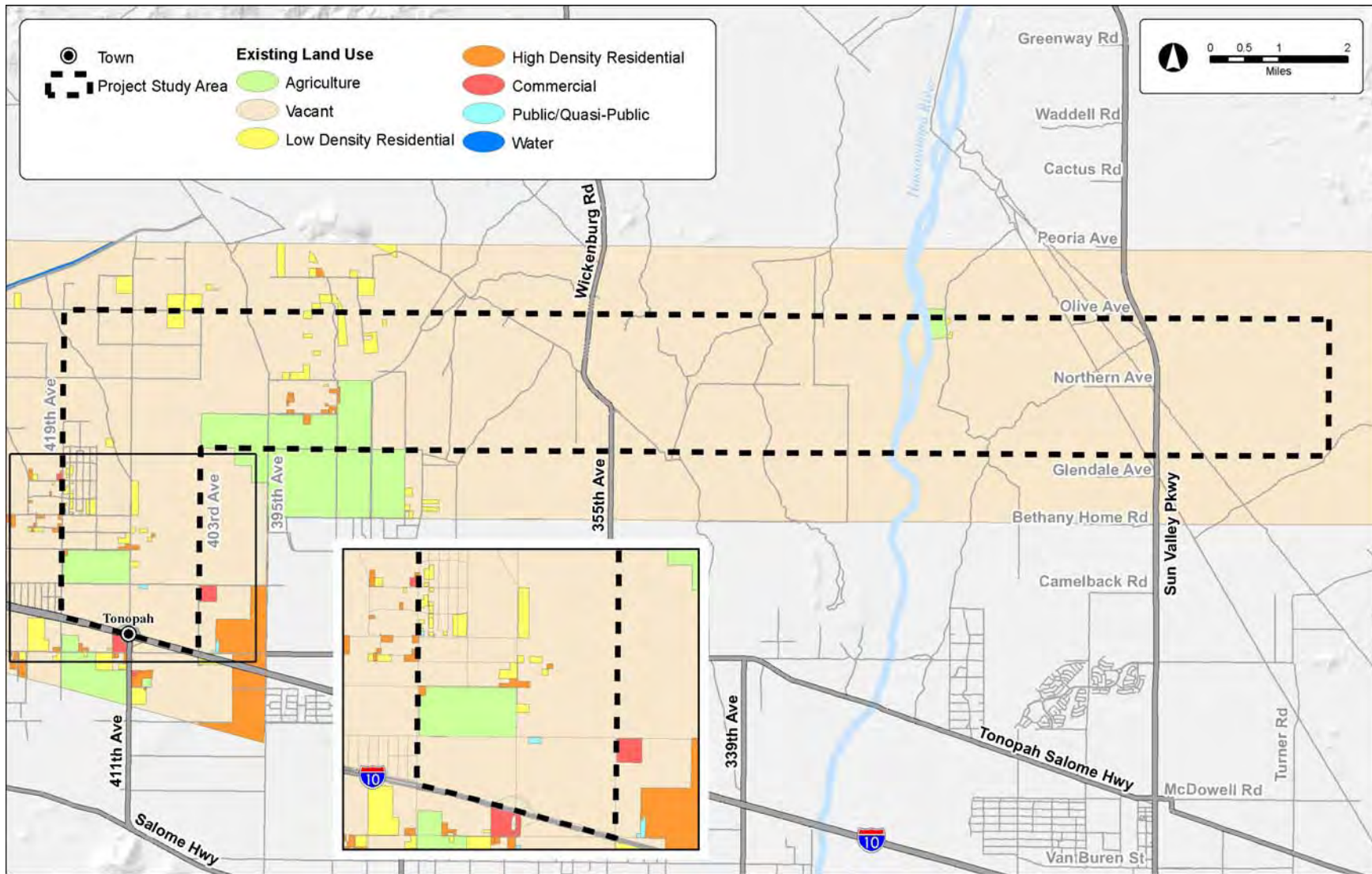


Figure 5 - Existing Land Use

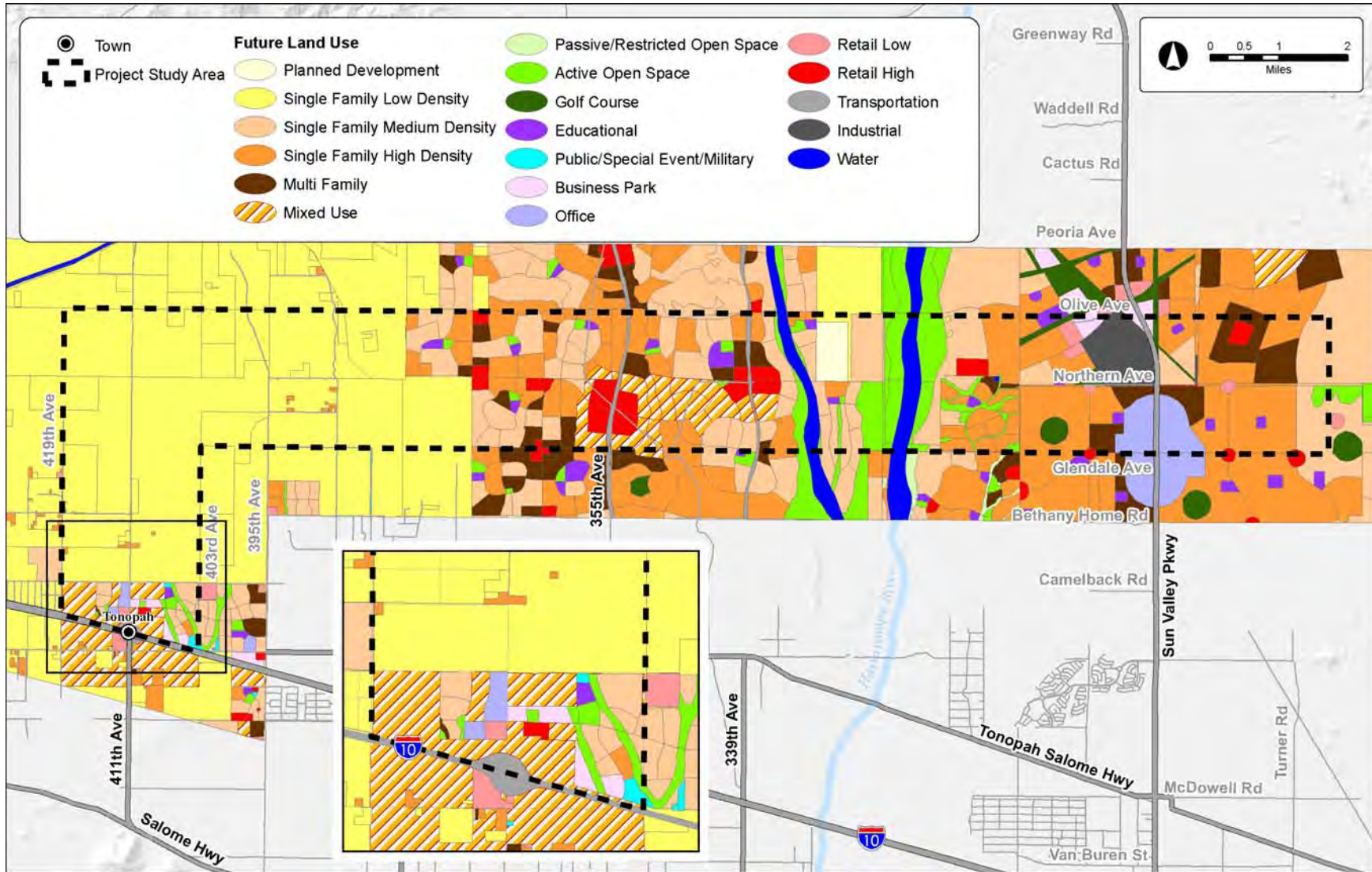


Figure 6 - Future Land Use

3.4 Existing and Planned Developments

Figure 7 shows the existing and active planned developments around and within the project study area. While virtually all of the land within the project study area is currently open desert with unpaved roadways and natural drainage features, a large percentage of the parcels have been subdivided or are part of a development master plan with associated entitlements. **Table 2** provides a summary of the existing and planned developments within the project study area.

3.4.1 Existing Developments

Beginning at the west end of the study area from 419th Avenue to an extension of the Wintersburg Road/379th Avenue alignment, there are several existing low density residential subdivisions, including Coyote Ridge, Silver Star Ranch, Ironwood Trails, West Valley Ranch Phase 2, and West Phoenix Estates 4 and 6. Through these subdivisions, a combination of roadway easements and dedicated right-of-way with various half-street cross-sections exists along the Northern Avenue and 411th Avenue alignments:

- Coyote Ridge Plat – Dedicated a 110-foot easement along Northern Avenue;
- Silver Star Ranch Plat – Dedicated a 35-foot roadway and utility easement along Northern Avenue, and also acknowledges it as a 130-foot designated county road;
- Ironwood Trails Ranch Plat – Dedicated 33 feet of right-of-way along Northern Avenue;
- West Valley Ranch Phase 2 Plat – Dedicated a 33-foot roadway and utility easement along Northern Avenue;
- Belmont Ranches Map of Dedication – Dedicated a 33-foot roadway and utility easement along Northern Avenue; and
- West Phoenix Estates Unit 4 Plat – Dedicated a 55-foot segment and 40-foot segment of right-of-way along 411th Avenue.

The majority of 411th Avenue up to Bethany Home Road has 80 feet of full-street right-of-way. There are also a couple of segments of 55-foot and 60-foot half-street right-of-way along 411th Avenue. Most of the existing right-of-way along 411th Avenue is not associated with plats or large area subdivisions of land.

3.4.2 Maricopa County Planned Developments

West of the Hassayampa River, the land within the project study area is under the jurisdiction of Maricopa County. The planned developments within this region submit to the Maricopa County Board of Supervisors for approval of their development master plans. The Board of Supervisors has approved two developments within the project study area: Balterra and Belmont.

- Balterra is located along 411th Avenue between I-10 and Camelback Road. The approved Balterra Development Master Plan shows 411th Avenue as a major arterial with a 65-foot half-street right-of-way; and
- Belmont is located along a seven-mile segment of the Northern Avenue alignment between the Wintersburg Road/379th Avenue alignment and the Hassayampa River. The Maricopa County Board of Supervisors approved the latest version of the Belmont plan on June 18, 2008, with stipulations requiring right-of-way dedications



and financial participation in constructing the Northern Parkway within a 200-foot footprint. The master plan envisions parkway-to-parkway and parkway-to-freeway interchanges where needed, but does not envision incorporating the indirect left-turn concept at the Northern Parkway arterial street intersections.

3.4.3 *Town of Buckeye Planned Developments*

East of the Hassayampa River, the project study area lies within the Buckeye MPA where there are four approved master-planned communities: Montiere, Mirielle, Anthem Sun Valley, and Sun Valley Villages III and IV.

- Montiere is along the south side of the Northern Avenue alignment. The approved preliminary plat for Montiere currently shows 200 feet of land for future right-of-way dedication along the Northern Avenue alignment which would provide the necessary width for the future parkway;
- Mirielle and Anthem Sun Valley are on the south side of the Northern Avenue alignment and are subdivisions of the approved Sun Valley South Community Master Plan (CMP). Their respective land use plans do not show the Northern Avenue alignment as a parkway. The Sun Valley South CMP was approved in 2006, prior to the parkway framework's acceptance; and
- Sun Valley Villages III and IV is located on the north side of the Northern Avenue alignment. The Master Street and Circulation Plan for the development shows Northern Avenue as a parkway with 200 feet of right-of-way.

3.4.4 *State Trust Land Development Plans*

ASLD has developed a draft conceptual land use plan for the State Trust land located east of the Hassayampa River in the vicinity of the White Tank Mountains. Per this plan, the land use along the Northern Avenue alignment within the study area has been designated to coordinate with the master-planned communities in the area. It is anticipated that this land will be auctioned off for development at some point in the future. Minimizing the number of remnant parcels caused by new roadway alignments is important to ASLD to preserve the value of the State Trust land.

3.4.5 *Framework Study and Development Plan Coordination*

MAG took into account the previously mentioned master-planned developments when the proposed parkway alignments were developed for the *Hassayampa Framework Study*. The Northern Parkway alignment dip to the south between 355th Avenue and 339th Avenue is a result of the Belmont development's plans and approved layout.

3.4.6 *General Development Timeline*

The progression of these master-planned developments, and development in general, within the project study area has slowed significantly in recent years. At the time the Hassayampa Framework Study was conducted, the Phoenix metropolitan area was experiencing significant population growth over a period of several years. In the past few years, however, the rate of growth has slowed due to the economic downturn, as evidenced by the fact there are few development or rezoning requests currently being processed by Maricopa County



and the Town of Buckeye for land within the project study area. The rate of growth within the project study area is expected to increase following a significant economic recovery, but the development timeframes for when buildout will be reached will likely be extended.

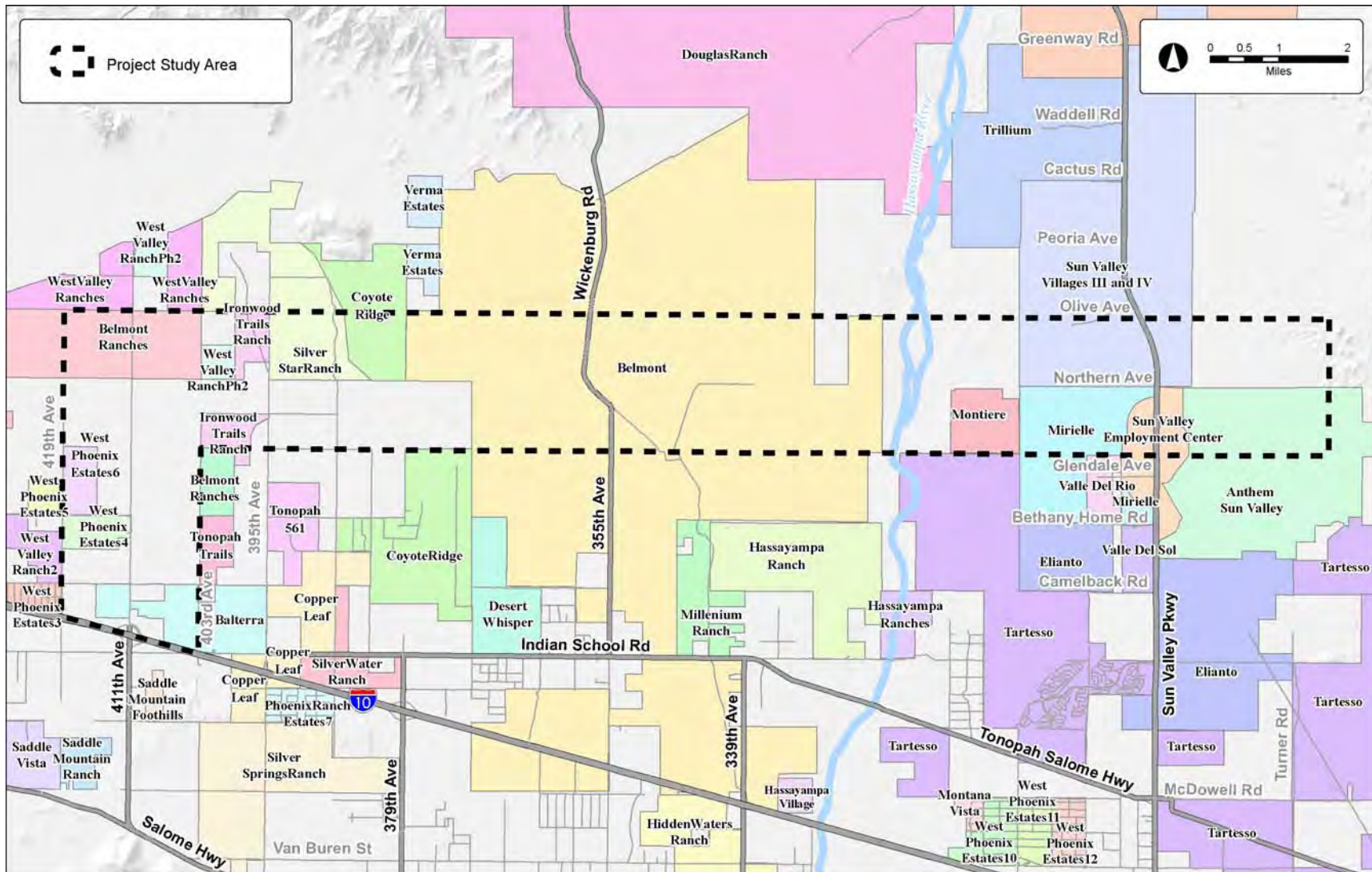


Figure 7 - Existing and Planned Developments

Table 2 - Summary of Existing and Planned Developments

Jurisdiction	Development Name	Area [acres]	Planned Units/ Existing Lots	Approval Date	ROW Stipulations/Existing ROW	Assumed Functional Classification of Roadway	Length of Segment along Study Area Center Line	Timeframe for Final Plat/Plan of Development
Maricopa County	Balterra	1,110	4,458	December 2006	130' full street, 65' half street (411 th Ave)	Major Arterial	1/2 mile	4 years
	West Phoenix Estates 4	780	228	March 1970	55' half street (411 th Ave)	Major Arterial	1/3 mile	Plat Recorded
	West Phoenix Estates 6	780	251	September 1970	75' half street (419 th Ave); 40' half street (415 th Ave)	Major Arterial; Major Collector	N/A	Plat Recorded
	Belmont Ranches	3,220	8	March 1993	33' half street easement (Northern Ave); 55' half street easement (411 th Ave)	Minor Arterial; Major Arterial	3 miles	Plat Recorded
	West Valley Ranch Phase 2	160	4	April 1996	33' half street easement (Northern Ave)	Minor Arterial	1/2 mile	Plat Recorded
	Ironwood Trails Ranch	260	15	October 1996	33' half street (Northern Ave)	Minor Arterial	1/8 mile	Plat Recorded
	Silver Star Ranch	2,000	54	February 1996	35' half street easement/ 130' Designated County Road (Northern Ave)	Major Arterial	1-1/2 miles	Plat Recorded
	Coyote Ridge	1,150	31	June 1997	110' reserved easement (Northern Ave)	Major Arterial	1/2 mile	Plat Recorded
	Belmont	24,800	48,000	June 2008	200' full street (Northern Ave)	Parkway	7 miles	4 years
Town of Buckeye	Montiere	780	1,584	June 2006	200' full street (Northern Ave)	Major Arterial	1-1/6 miles	N/A
	Mirielle	1,733	8,419	March 2008	65' half street (Northern Ave)	Major Arterial	2 miles	N/A
	Sun Valley Villages III and IV	6,099	16,117	April 2007	100' half street (Northern Ave)	Parkway	2-1/2 miles	N/A
	Anthem Sun Valley	4,445	12,420	October 2006	65' half street (Northern Ave)	Major Arterial	2-1/2 miles	N/A
	Sun Valley South (Employment Center)	929	0	January 2006	65' half street (Northern Ave)	Major Arterial	1/2 mile	N/A

3.5 Transportation Network

3.5.1 Existing Transportation Network

Within the study area, Northern Avenue is an unpaved road not owned or maintained by Maricopa County. 411th Avenue is currently a paved two-lane road between I-10 and Camelback Road that is owned and maintained by Maricopa County.

Other paved north-south existing roadways in the project study area are Sun Valley Parkway and Wickenburg Road/355th Avenue, along with portions of 387th Avenue and 411th Avenue. The only paved east-west roadways in the project study area are I-10 and Indian School Road, both of which are in the southwest portion of the project study area.

Northern Avenue exists as an unpaved roadway along the study corridor centerline between 419th Avenue and 387th Avenue. It is neither owned nor maintained by MCDOT. East of 387th Avenue, east-west travel through the corridor is generally an option only for all-terrain vehicles.

MCDOT utilizes the Road Management System (RMS) tool to analyze the physical attributes of roadways as well as the condition of roadway pavement and ride quality. One of the data items included in the RMS is the pavement conditions rating (PCR). The 2010 MCDOT State of the System report shows the PCR ratings for portions of several of the major roads within the project study area. 411th Avenue is rated to be in ‘good’ condition between I-10 and Camelback Road and ‘excellent’ condition between Camelback Road and Bethany Home Road. The only other paved roads with PCR ratings within the study area are Sun Valley Parkway and Wickenburg Road/355th Avenue, which are both rated to be in ‘excellent’ condition.

Existing 2008 daily traffic count volumes for the existing transportation network were taken from the Traffic Counts web pages of MCDOT and ADOT. The daily traffic count volumes are shown in **Figure 8**.

3.5.2 Future Transportation Network

The transportation network in the project study area is anticipated to change dramatically in the future buildout condition. According to the *Hassayampa Framework Study* and the *MAG 2010 Update to the Regional Transportation Plan (RTP)*, most existing roadways are expected to change to a higher functional classification and be upgraded as the existing transportation network is transformed into an interconnected multimodal network of parkways, freeways, arterials, railroad lines, and transit routes, as shown in **Figure 9**.

3.5.2.1 Roadways

The project study area is anticipated to ultimately contain two east-west parkways (all of Northern Parkway and the western edge of Camelback Parkway) and five north-south parkways (Tonopah, Wintersburg, Hidden Waters, Sun Valley, and Turner Parkways) in the buildout condition.



A new freeway known as the Hassayampa Freeway is envisioned to traverse the project study area at about the 355th Avenue alignment within the Belmont master-planned community.

Arterial roadways are projected to typically be spaced about one mile apart from other high-capacity roadways (i.e., freeways, parkways, and arterials), with the spacing being larger in the vicinity of the Hassayampa River and Jackrabbit Wash.

3.5.2.2 Interchanges

A critical component of the envisioned future transportation network is the point where the high-capacity roadways will cross each other. It is anticipated that there will be two freeway-to-parkway interchanges and six parkway-to-parkway interchanges within the project study area.

The two freeway-to-parkway interchanges are proposed where Tonopah Parkway would cross I-10 at the southwestern border of the project study area and where Northern Parkway would cross the Hassayampa Freeway within the Belmont master-planned community. ADOT is currently working on freeway-to-parkway interchange templates that will further define the design standards and right-of-way requirements associated with freeway-to-parkway interchanges.

Five parkway-to-parkway interchanges are proposed along Northern Parkway where it crosses the Tonopah, Wintersburg, Hidden Waters, Sun Valley, and Turner Parkways. A sixth parkway-to-parkway interchange is proposed where Tonopah Parkway crosses Camelback Parkway. Each parkway-to-parkway interchange will have its own associated design standards and right-of-way requirements, as detailed further in the MCDOT *Arizona Parkway Intersection/Interchange Operations Analysis and Design Concepts Study*.

3.5.2.3 Transit and Rail

An Illustrative High Capacity Community Transit line is proposed in the *RTP* that would cross through the study area east of and parallel to Sun Valley Parkway.

An Illustrative Freight Rail Connector is proposed in the *RTP* that would run north from the Palo Verde Nuclear Power Plant and cross through the study area directly west of, and parallel to, the proposed Wintersburg Parkway.

3.5.2.4 Funding the Future Transportation Network

The proposed master-planned developments throughout the study area will play a major role in the future layout, construction timing, and financing of the future transportation network within the project study area.

There are significant financing requirements stipulated in some of the approved development master plans. For example, the Belmont Development Master Plan stipulates a regional transportation infrastructure contribution for each residential dwelling unit. In addition, the Belmont developer is stipulated to perform an archaeological survey and work with the Arizona Game and Fish Department to develop plans to mitigate potential wildlife impacts.



For areas not addressed with this level of master plan stipulations, design and construction of the proposed future transportation network will likely require a combination of existing public and private funding sources, and perhaps new funding sources.

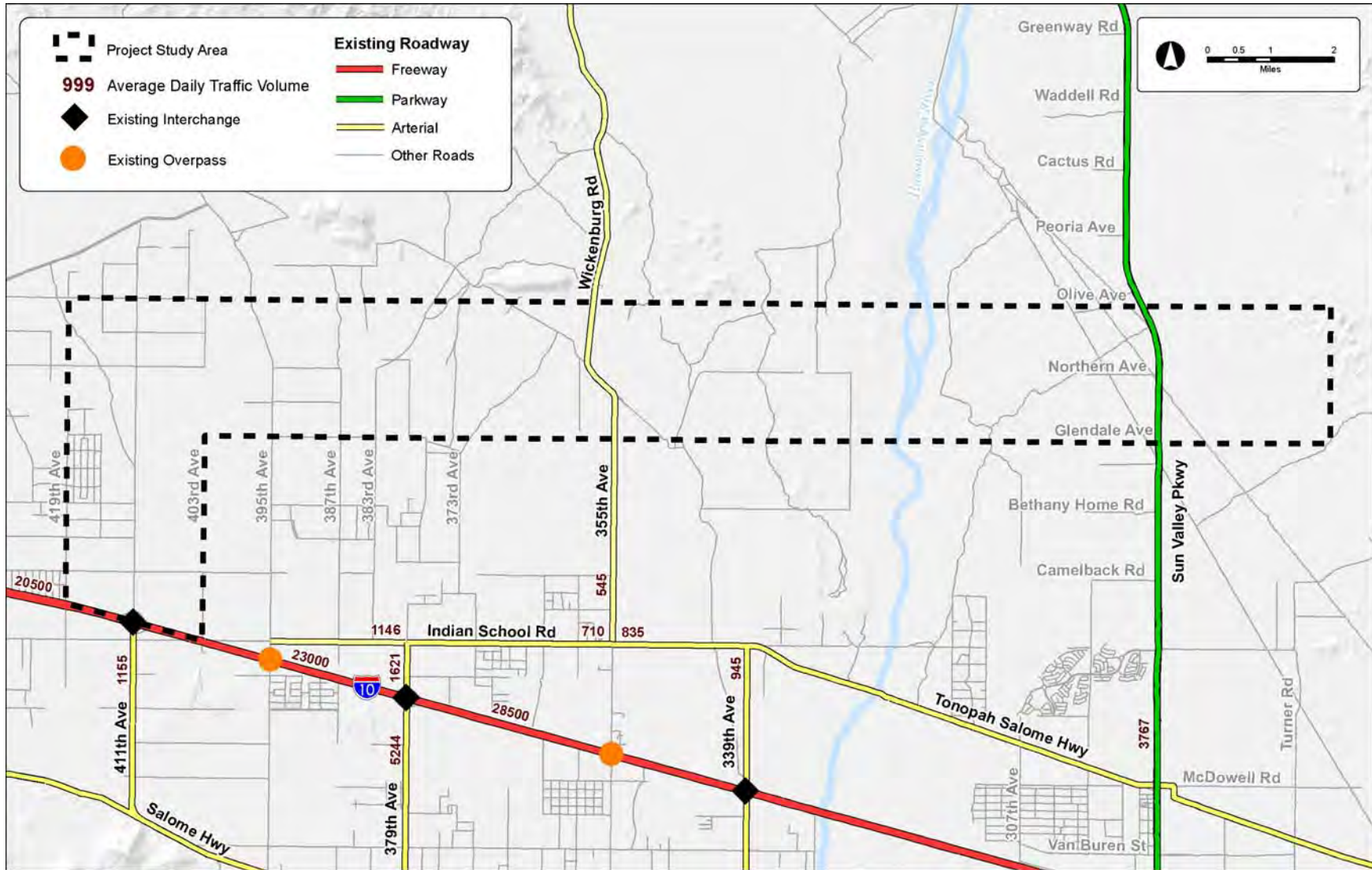


Figure 8 - Existing Transportation Network

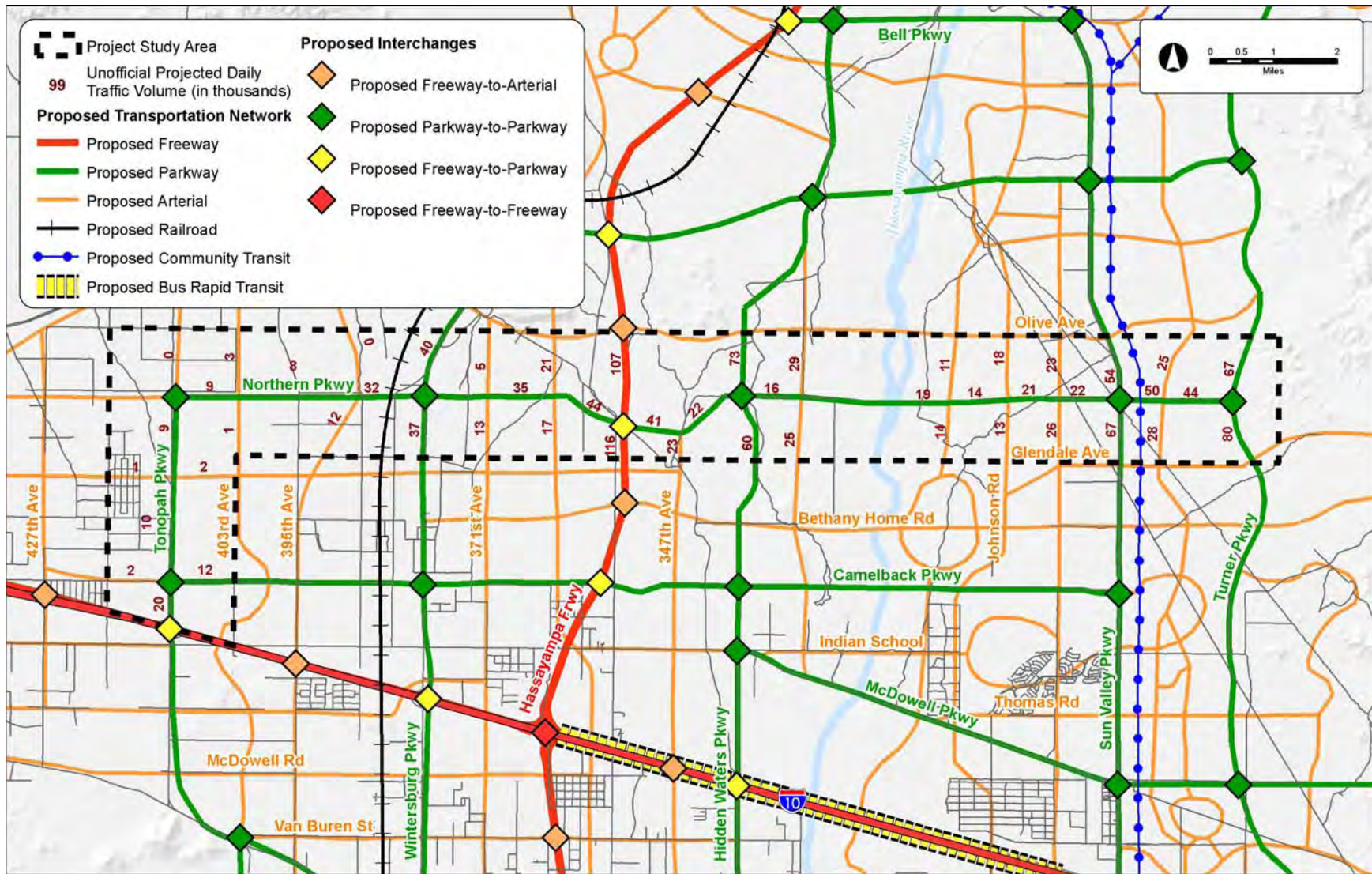


Figure 9 - Future Transportation Network

3.6 Utilities and Facilities

Figure 10 depicts the existing and planned major utilities and facilities within the project study area.

3.6.1 Water

The developed properties within the project study area have individual wells to supply water. The western portion of the study area is within the anticipated service area for the Water Utilities of Greater Tonopah, but there are currently no facilities within the study area.

3.6.2 Sewer

There are no known existing or planned municipal or county sewer facilities in the project study area. Existing developed properties utilize septic tanks.

3.6.3 Electric

Per the *Tonopah Area Plan* and maps provided by Arizona Public Service (APS), several major power transmission corridors run through the project study area.

Three Western Area Power Administration (WAPA) transmission lines – two 500kV and a 345kV – diagonally cross through the project study area directly west of Sun Valley Parkway. Two APS 500kV transmission lines also cross through the project study area along the west side of Sun Valley Parkway.

There are no known additional power transmission lines planned by APS or WAPA within the project study area.

3.6.4 Gas

There is an existing 36-inch natural gas pipeline owned by Transwestern that crosses through the project study area parallel to the existing APS 500kV transmission lines that run along Sun Valley Parkway.

There are no known additional transmission gas pipelines planned by Transwestern within the project study area.

3.6.5 Irrigation

A branch of the Central Arizona Project (CAP) Canal named the Tonopah Canal crosses through the project study area diagonally north of Northern Avenue and along the east side of 383rd Avenue south of Northern Avenue. This concrete-lined canal is owned by the Bureau of Reclamation and operated by the Tonopah Irrigation District (TID).

The TID boundary is generally located along Northern Avenue to the north, 379th Avenue to the east, Salome Highway to the south, and 435th Avenue to the west. Within this district boundary, the TID uses the canal to distribute CAP water to farms. The canal right-of-way

width transitions from 100 feet north of the Northern Avenue alignment to 75 feet south of the Northern Avenue alignment.

3.6.6 Farming and Ranching

There are two dairy farms within the project study area: Belmont Dairy along 387th Avenue and Tonopah Dairy along 395th Avenue. ASLD has granted grazing special land permits on the three State Trust land parcels west of the Hassayampa River. There are no grazing leases or permits on the four State Trust land parcels east of the Hassayampa River.

3.6.7 Tonopah Desert Recharge Project

The 542-acre Tonopah Desert Recharge Project, owned and operated by the Central Arizona Water Conservation District, is located approximately 1.5 miles west of the project study area.

The ground uplift caused by this recharge facility affects land as far east as 355th Avenue/Wickenburg Road, but the magnitude of the ground uplift is relatively small (zero to three centimeters between 2006 and 2010).

Uplift or subsidence in the area affected by the recharge project should be monitored in future design phases, especially if the Tonopah Desert Recharge Project modifies or stops the groundwater recharge.

3.6.8 Palo Verde Nuclear Generating Station

The Palo Verde Nuclear Generating Station (PVNGS) is located approximately eight miles south of the project study area. A portion of 355th Avenue/Wickenburg Road is a planned evacuation route for PVNGS. A small portion of the study area near the I-10 interchange at 411th Avenue is within the ten-mile radius Emergency Planning Zone and the entire study area is contained within the fifty-mile radius Ingestion Pathway Zone for PVNGS.

3.6.9 Solar Energy

There are currently no large-scale solar energy projects within the project study area. There is, however, a 9,950-acre solar energy project in the planning stages west of the project study area. This project is called the Palo Verde Project and it is included in the BLM's list of pending solar projects on file. Environmental studies have not begun for this project.

3.6.10 Sand and Gravel Operations

There are currently no sand and gravel operations permits within the project study area. It should be noted, however, that the land within the project study area along the Hassayampa River has been determined to have potential for future sand and gravel operations by ASLD's Mineral Assessment Asset Management GIS project. A proposed bridge where Northern Parkway crosses the Hassayampa River could impact future sand and gravel operations as there are currently restrictions on these operations within one mile upstream and two miles downstream of a bridge.

3.7 Topography

Figure 11 illustrates the topography of the region through slope analysis around and within the project study area.

Most of the project study area is fairly flat, particularly west of the Hassayampa River. The Hassayampa River, which crosses the project study area roughly between the 315th Avenue and 333rd Avenue alignments, has resulted in significant topographic changes within the project study area immediately west and east of the river. There is an increase in elevation and topographic relief towards the eastern boundary of the project study area.

There is a difference of 643 feet between the low elevation of 1,100 feet in the southwestern portion of the project study area and the high elevation of 1,743 in the northeastern portion of the project study area. Most of the project study area has an elevation between 1,100 and 1,400 feet.

There are significant topographical changes (i.e., slopes greater than five percent) just to the east and north of the project study area. To the east of the project study area are the White Tank Mountains and to the north are the Belmont Mountains and Flatiron Mountain.

3.8 Recreational and Wildlife Areas

Several recreational and wildlife areas exist within or adjacent to the project study area. **Figure 12** shows the various potential wildlife linkage zones, wildlife habitat areas, and regional parks within or near the project study area.

There are two potential wildlife linkage zones within the study area along both the western and eastern ends of the project area. There is also an existing recognized Sonoran Desert Tortoise habitat along the northern and eastern edges of the study area. The White Tank Mountain Regional Park is located northeast of the project area.

According to the *Maricopa County Trails Plan*, there are three planned trails crossing through the project study area. These proposed trails are low-priority regional and conceptual corridors that traverse the project study area along the Hassayampa River, the Old Camp Wash, and the power line corridor which runs diagonally across the eastern portion of the study area.

The Belmont master-planned development also has numerous trails planned within its boundary, including a trail along the Northern Avenue alignment.

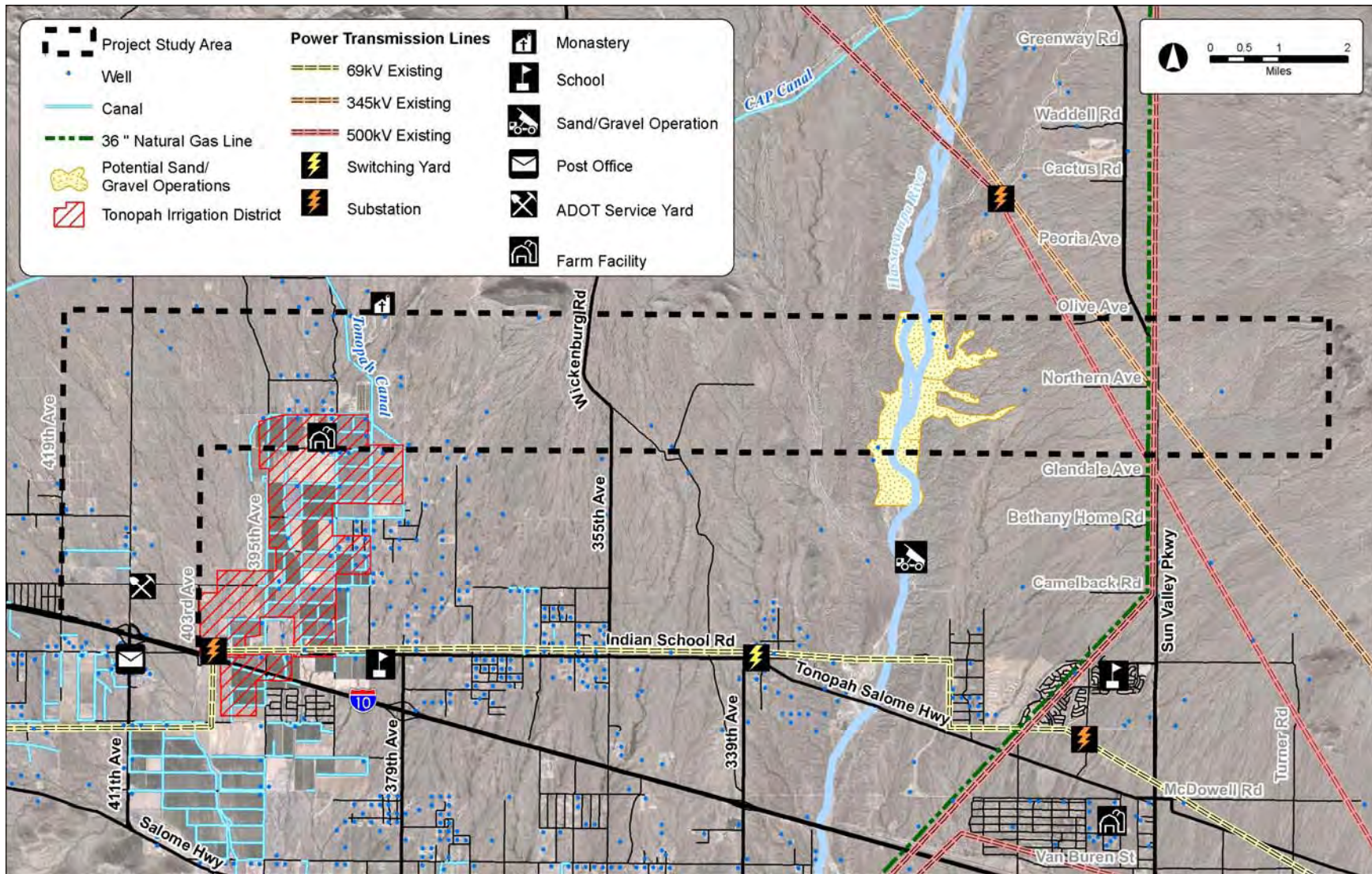


Figure 10 - Existing Utilities and Facilities

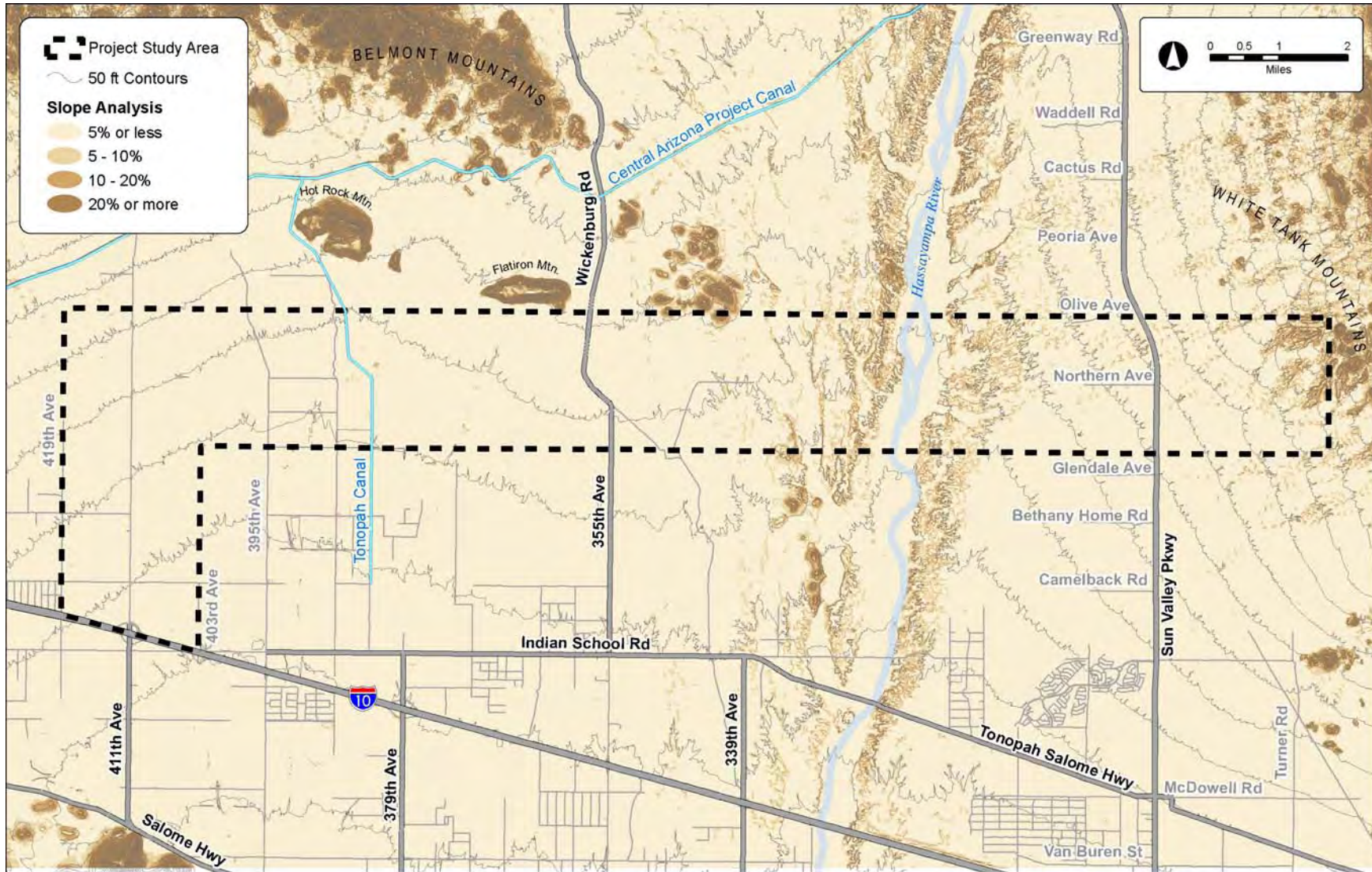


Figure 11 - Topography

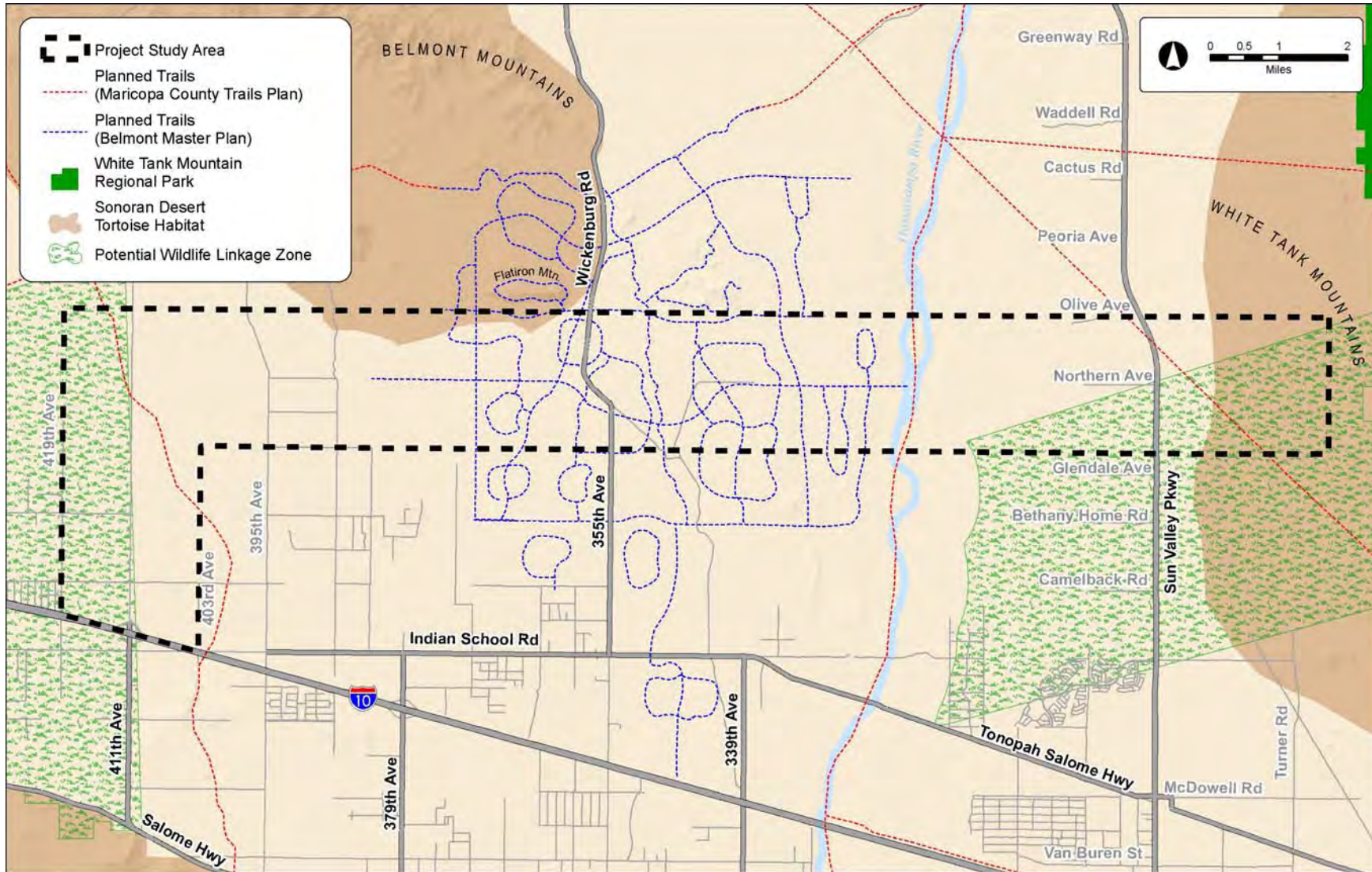


Figure 12 - Recreational and Wildlife Areas

4. SUMMARY OF IDENTIFIED OPPORTUNITIES AND CONSTRAINTS

Based on the existing and future corridor features discussed previously, the following potential opportunities/constraints have been identified (generally listed in order from west to east and south to north in the project study area) that should be considered in determining feasible alignments for Northern Parkway and Tonopah Parkway:

- Existing I-10/411th Avenue interchange;
- Potential wildlife linkage zone west of 411th Avenue;
- Segments of existing right-of-way and roadway easements along 411th Avenue and Northern Avenue;
- Existing vacancy of land;
- Relatively flat topography west of the Hassayampa River;
- Tonopah Canal;
- Planned rail line west of the proposed Wintersburg Parkway;
- Planned trails through the study area;
- Existing communities, such as West Phoenix Estates 4, West Valley Ranch Phase 2, Ironwood Trails Ranch, Silver Star Ranch, Coyote Ridge;
- ASLD State Trust land;
- Belmont master-planned community;
- Planned freeways, parkways, and arterials through the study area;
- Topography changes near Hassayampa River;
- Hassayampa River;
- Potential sand and gravel operations along the Hassayampa River;
- Montiere master-planned community;
- Mirielle master-planned community;
- Anthem Sun Valley master-planned community;
- Sun Valley Villages III and IV master-planned community;
- Potential wildlife linkage zone on eastern end of study area;
- Existing Sun Valley Parkway and utility corridor alignment;
- Planned community transit route along Sun Valley Parkway;
- High voltage power corridors running diagonally through the eastern end of study area;
- Recommended Turner Parkway alignment; and
- Topography changes near White Tank Mountains.



Kimley-Horn
and Associates, Inc.



APPENDIX TM1-01

SUMMARY TABLE OF DOCUMENTS REVIEWED

Summary Table of Documents Reviewed - Kimley-Horn and Associates

AZGS = Arizona Geological Survey
 ADOT = Arizona Department of Transportation
 ADWR = Arizona Department of Water Resources
 FCDMC = Flood Control District of Maricopa County
 FEMA = Federal Emergency Management Agency
 KHA = Kimley-Horn and Associates
 MAG = Maricopa Associated Governments
 MC = Maricopa County
 MCDOT = Maricopa County Department of Transportation

**Northern Parkway/Tonopah Parkway
 Corridor Feasibility Study
 Data Collection Summary**

LIBRARY KHA No.	ITEM				TRACKING			
	Title	Description	Author	Date	Source	Format/ File Type	Collected By	Discipline
1	2010 Update - Regional Transportation Plan	transportation improvement planning info	MAG	Jul 2010	MAG	pdf	BCP	Transportation
2	A Compilation of Geomorphic and Hydrologic Reports on the Jackrabit Wash Flood, October 2000, Maricopa County, Arizona	3 reports: Landsat flood detection, geomorphic assessment, and flood reconstruction. Primarily looks at Jackrabbit Wash upstream of confluence with Star Wash (north of NP study area) so is not esp. pertinent.	AZGS	Jun 2002	FCDMC	pdf	BML	Drainage
3	Active Land Subsidence Areas in Arizona Based on ADWR InSAR Data	map showing active subsidence areas	ADWR	Jul 2009	ADWR	pdf	BML	Water
4	ADWR GIS Data CD-ROM	Shapefiles: recharge points, industry points, depth to water and water level elev (Phoenix AMA only), irrigation polygons, hardrock	ADWR	Mar 2009	ADWR	CD	BML	Water
5	Approximate Flood Hazard Assessment for White Tank Fans Alluvial Fan Site 37A (East of Sun Valley Parkway) Town of Buckeye, Arizona Technical Data Notebook	determines flood hazard delineation for alluvial fan. Fan 37 is just south of NP study area and ends at Sun Valley Pkwy	Coe & Van Loo Consultants	Oct 2006	FCDMC	pdf	BML	Drainage
6	Approximate Zone A Floodplain Delineation Study of Watershed "OO" Coyote Wash and Tributaries	2 volumes in TDN. North of NP study area so not esp. pertinent.	JE Fuller	May 2003	FCDMC	pdf	BML	Drainage
7	Approximate Zone A Floodplain Delineation Study of Watershed "OO" Hassayampa River Tributaries & Lower Jackrabbit Wash Tributaries	6 volumes in TDN, report in vol 1 and exhibits in vol 4-6. only 2 tributaries at southern end of this study impact the NP (Inset 46B and 46C in maps).	JE Fuller	Apr 2003	FCDMC	pdf	BML	Drainage
8	Approximate Zone A Floodplain Delineation Study of Watershed "OO" Upper Jackrabbit Wash and Tributaries	Zone A delineation study, not esp. pertinent to NP because is upstream of study area	JE Fuller	Dec 2003	FCDMC	pdf	BML	Drainage
9	Arizona Parkway Intersection/Interchange Operational Analysis and Design Concepts Study	AZ parkway intersection ROW information	Wilson & Company	Aug 2009	MCDOT	PDF	MLG	Transportation
10	Arizona Parkway Intersection/Interchange Operational Analysis and Design Concepts Study	report with R/W requirements, traffic volumes, intersection layouts	Wilson & Company	Aug 2009	MCDOT	pdf	MLG	Transportation
11	Arizona Parkway Projected Travel Volumes and Laneage/Interchange Needs	Projected build-out traffic volumes for Hassayampa and Hidden Valley Framework areas with laneage and interchange needs on parkways; GIS shapefiles	Wilson & Company	Jun 2009	MAG	pdf/GIS on CD	MLG	Transportation
12	As-Built Report Buckeye Site 1 Drain Maricopa County, Arizona	as-built inspection report for 4.5 miles of 17.5' deep embankment drain trench for Buckeye FRS #1, includes plans at end of document	ERTEC, Inc.	Mar 1981	FCDMC	pdf	BML	Drainage

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	Title	Description	Author	Date	Source	Format/ File Type	Collected By	Discipline
13	Buckeye Area Drainage Master Plan Recommended Design Report	describes various plan components to manage runoff. Study area is south of I-10 so not esp. pertinent to NP.	Dibble Engineering	Jun 2009	FCDMC	pdf	BML	Drainage
14	Buckeye Area Flood Delineation Study Hydrology Report	FEMA report to estimate 100-yr peak flows for floodplain delineation. Study area is south of I-10 so not esp. pertinent to NP.	McLaughlin Kmetty Engineers	Jul 1992	FCDMC	pdf	BML	Drainage
15	Buckeye/Sun Valley Area Drainage Master Study Volume I: Master Document Summary	overview of the project and the four areas included. References the other eight volumes	PBS&J	Jun 2006	FCDMC	pdf	AOM	Drainage
16	Buckeye/Sun Valley Area Drainage Master Study Volume V-A1: Area 3 Hydrology Report	description of hydrologic methods and results for Area 3	PBS&J	Jan 2006	FCDMC	pdf	AOM	Drainage
17	D.W.R. Hydrologic Map Series Report No. 10	maps showing groundwater conditions in the Hassayampa Sub-basin of the Phoenix Active Management Area	ADWR	1982	ADWR	pdf	BML	Water
18	D.W.R. Hydrologic Map Series Report No. 27	maps showing groundwater conditions in the Phoenix Active Management Area	ADWR	1992	ADWR	pdf	BML	Water
19	D.W.R. Hydrologic Map Series Report No. 35	maps showing groundwater conditions in the Phoenix Active Management Area	ADWR	Nov 2002- Feb 2003	ADWR	pdf	BML	Water
20	Design Guideline Recommendations for the Arizona Parkway	AZ parkway ROW requirements, intersection layout	DMJM Harris; AECOM	Aug 2008	MCDOT	PDF	MLG	Transportation
21	DGM-37	Geologic Map of the Buckeye NW 7.5' Quadrangle, Maricopa County, Arizona	AZGS	Nov 2004	AZGS	CD	BML	Geology
22	DGM-47	Geologic Map of the Wintersburg 7.5' Quadrangle, Maricopa County, Arizona	AZGS	Mar 2006	AZGS	CD	BML	Geology
23	DI-05: Geologic Data for the Phoenix South 30' x 60' Quadrangle	1:100,000 digital map of OFR93-18, in jpg and shp formats	AZGS	Mar 2006	AZGS	CD	BML	Geology
24	Draft Environmental Impact Statement Allocation of Water Supply and Long-Term Contract Execution Central Arizona Project Appendix L	brief history of Tonopah Irrigation District and its CAP water allocation	USBR	Jun 2000	USBR	pdf	BML	Water
25	Drainage Design Report for Sun Valley Parkway Drainage Enhancement	documentation for interceptor channel collector ditch, wagner wash outlet protection, detention basin ditch/inlets, and baffle block design. Not esp. pertinent since all of these drainage improvements are north of the NP study area.	Collar, Williams & White Engineering	Dec 1988	FCDMC	pdf	BML	Drainage
26	Drainage Enhancements for Sun Valley Parkway	written in response to damage from August 1988 storm event: discusses storm frequency analysis, design approach, channel bank protection, Wagner Wash outlet protection, drop structure damage, roadside channel enhancements, interceptor channel damage.	Collar, Williams & White Engineering	Oct 1988	FCDMC	pdf	BML	Drainage

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	KHA No.	Title	Description	Author	Date	Source	Format/ File Type	Collected By
27	Drainage Report Sun Valley Parkway Phase II (Station 410+00 - 1023+95)	quantifies runoff that crosses roadway and sizes culverts/channels. Phase II starts at Northern Ave alignment and extends north/east to Phase I. Drainage area map at end of document.	Collar, Williams & White Engineering	Apr 1987	FCDMC	pdf	BML	Drainage
28	Drainage Report Sun Valley Parkway Phase III (291st Avenue from I-10 to Northern Avenue)	quantifies runoff that crosses roadway and sizes culverts/channels. Pdf is missing drainage area map.	Collar, Williams & White Engineering	Apr 1987	FCDMC	pdf	BML	Drainage
29	Earth Fissure Map of Maricopa County, Arizona	mapping of earth fissures	AZGS	Dec 2009	AZGS	pdf	BML	Geology
30	Enhanced Parkway Study Final Report	AZ parkway intersection ROW information	Morrison Maierle	Aug 2007	MCDOT	PDF	MLG	Transportation
31	Executive Summary Existing Flood Control Facilities Landscape Aesthetics and Multiple-Use Opportunities Assessment	preliminary assessment for retrofitting Buckeye FRS 1,2,3 (and other projects outside NP study area) for enhanced recreational/aesthetic opportunities	Carter Burgess	Feb 2001	FCDMC	pdf	BML	Drainage
32	Flood Insurance Study Maricopa County, Arizona and Incorporated Area	FIS No. 04013CV001A: description of general flooding issues in county, effective discharges, and flood profiles	FEMA	Sep 2005	KHA	pdf	BML	Drainage
33	FY 2011-2015 Transportation Improvement Program	programmed transportation improvements	MAG	Jul 2010	MAG	pdf	BCP	Transportation
34	Geologic Map of the Flatiron Mountain 7.5' Quadrangle, Maricopa County, Arizona	DGM-46. mapped surface and bedrock units with descriptions	AZGS	Mar 2006	AZGS	pdf	BML	Geology
35	Geologic Map of the Wagner Wash Well 7.5' Quadrangle, Maricopa County, Arizona	DGM-38. mapped surface and bedrock units, also includes separate report document with descriptions	AZGS	Nov 2004	AZGS	pdf	BML	Geology
36	Geologic Mapping of Flood Hazards in Arizona: An Example From the White Tank Mountains Area, Maricopa County	OFR 91-10: outlines methods used to map alluvial surfaces of different ages, then converted to five flood-hazards zones. Includes four 24"x36" plates.	AZGS	Mar 1992	AZGS	hardcopy	BML	Geology
37	GIS and Volume Data	GIS Data, buildout traffic volumes	Wilson & Company	Jun 2009	MAG	CD	BCP	Transportation
38	GIS shapefiles from FCDMC	drainage, floodplain, railroad, wilderness, jurisdictions, community features, subdivisions, road features, 10-ft contours, aerials	FCDMC	May 2009	FCDMC	GIS on CD	ES	ALL
39	GWSI Database CD-ROM	Access database of Groundwater Site Inventory: well ownership, historic water levels, construction data, etc.	ADWR	Jul 2009	ADWR	CD	BML	Water
40	GWSI Hydrograph Site ID 333146112560801	historical groundwater levels at 411th Ave and Bethany Home Rd	ADWR	Dec 2009	ADWR	pdf	BML	Water
41	Hassayampa Basin Gravity Survey	shows points for depth to bedrock study	ADWR	unknown	ADWR	pdf	BML	Water

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42	Hassayampa River Planning and Design Analysis Report	investigation of bank erosion next to CAP (and concept designs) -- not esp. pertinent to NP study	CH2MHill	Aug 1997	FCDMC	pdf	BML	Drainage
43	Hydrologic Analysis of the Hassayampa River in Maricopa County, Arizona	FEMA report to estimate 100-yr peak flows for floodplain delineation (reach is Wickenburg to Gila River)	Cella Barr Associates	May 1988	FCDMC	pdf	BML	Drainage
44	Hydrologic Study Report for Luke Wash Zone AE Floodplain Delineation Study	Contains only the hydrology documentation (Section 4) of a larger study	Wood, Patel & Associates	Sep 2008	KHA	pdf	BML	Drainage
45	Hydrologic/Hydraulic Design Analysis of Proposed Sun Valley Parkway Crossing of the Buckeye Watershed Structure	summary of the analysis of the proposed improved interchange on the Buckeye FRS #1. south of the NP study area so not esp. pertinent.	Collar, Williams & White Engineering	Aug 1987	FCDMC	pdf	BML	Drainage
46	Interstate 10/Hassayampa Valley Transportation Framework Study Final Report and Executive Summary	overview, existing and future conditions, evaluation framework, travel demand forecasting, alternatives, implementation, funding; GIS shapefiles	DMJM Harris; AECOM	Jul 2008	bqaz.org/MAG	pdf/GIS on CD	MLG	Transportation
47	Jackrabbit Wash Floodplain Delineation Study Contract Amendment Number One: Hydrologic Model Sensitivity Analysis	supplement to FDS analyzing accuracy/sensitivity of HEC-1 parameters. Also includes FCDMC comments.	Burgess & Niple	Jul 1991	FCDMC	pdf	BML	Drainage
48	Jackrabbit Wash Floodplain Delineation Study Technical Data Notebook Hydrology	2 books. FEMA report to estimate 100-yr peak flows for floodplain delineation	Burgess & Niple	May 1991	FCDMC	pdf	BML	Drainage
49	Lower Hassayampa Watercourse Master Plan Phase I	seven technical reports intended to develop guidance for managing the river floodplain	FCDMC	Apr 2006	FCDMC	pdf	AOM	Drainage
50	Luke Wash Watershed FDS	map of Floodplain Delineation Study boundary	FCDMC	unknown	FCDMC	jpg	BML	Drainage
51	Luke Wash Watershed Zone AE Floodplain Delineation Study Technical Data Notebook	4 volumes. Report, survey field notes, supporting documentation, and exhibits.	Wood, Patel & Associates	Mar 2009	FCDMC	pdf	BML	Drainage
52	Maricopa County Drainage Policies and Standards	drainage guidelines	MC	Jan 2007	KHA	pdf	BML	Drainage
53	Maricopa County Major Streets and Routes Plan Street Classification Atlas	road classifications	MC	Sep 2004	MC	pdf	BCP	Transportation
54	Maricopa County Regional Trail System Plan	description of plans for regional trail facilities	MC	Aug 2004	MC	pdf	BCP	Planning
55	Maricopa County Transportation System Plan	road conditions, road planning info	MC	Feb 2007	MC	pdf	BCP	Transportation
56	Maricopa County Zoning Ordinance	zoning ordinance	MC	Jun 2010	MC	pdf	BCP	Planning
57	Maricopa County Zoning Ordinance	zoning ordinance descriptions and codes	Maricopa County	Jul 2009	MC	pdf	MLG	Planning
58	National Engineering Handbook Part 630 Hydrology	Chapter 7 Hydrologic Soil Groups	NRCS	May 2007	NRCS	pdf	BML	Drainage
59	Open-File Report 91-8	Surficial Geology Around the White Tank Mountains, Central Arizona	AZGS	Nov 1991	KHA	hardcopy	BML	Geology

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	Title	Description	Author	Date	Source	Format/ File Type	Collected By	Discipline
60	Palo Verde Watershed Zone A Floodplain Delineation Study Technical Data Notebook	7 volumes. Hydrology, hydraulics, and floodplain delineation for approx. 400 miles of washes; Area C and Area D cover western portion of NP study area.	Entellus	May 2003	FCDMC	pdf	BML	Drainage
61	Phase I Report Project Calculations Hydrologic Analysis Buckeye Floodwater Retarding Structures #1, #2, and #3	precipitation calcs, PMP storm distributions, HEC-1 input parameters, capacity data and reservoir routing documentation	Dames & Moore	Jan 1990	FCDMC	pdf	BML	Drainage
62	Phoenix Active Management Area	maps shows major infrastructure and grandfathered water rights	ADWR	Sep 2003	ADWR	pdf	BML	Water
63	Preliminary Geologic Maps of the Eastern Big Horn and Belmont Mountains, West-Central Arizona	OFR 85-14. mapped surface and bedrock units with descriptions. Mapped area is north of NP project area.	AZGS	Nov 1985	AZGS	hardcopy	BML	Geology
64	Preliminary Investigation Report for Tonopah Watershed Maricopa County, Arizona	high level overview of various problems and proposed drainage projects, contains useful exhibits at end of documents	USDA SCS	Jul 1974	FCDMC	pdf	BML	Drainage
65	Preliminary Master Drainage Report for Sun Valley Maricopa County, Arizona	very preliminary (no specifics) drainage report for 28,000 ac master planned community north and west of White Tank Mtns, has useful exhibits at end of document	Collar, Williams & White Engineering	May 1986	FCDMC	pdf	BML	Drainage
66	Proposed Development: Belmont	proposed site map showing development boundaries and primary features, vicinity map showing other developments in area	Hadley Design Group	Nov 2007	MC	pdf	MLG	Planning
67	Proposed Development: Douglas Ranch	conceptual land use and framework plans	Greey Pickett	Jul 2008	MC	pdf	MLG	Planning
68	Proposed Development: Mirielle	conceptual land use plan	WRG Design	Oct 2007	Communities Southwest	pdf	BCP	Planning
69	Proposed Development: Montiere	proposed site map showing development boundaries and uses	David Evans	May 2006	MC	pdf	MLG	Planning
70	Proposed Development: Sun Valley South	conceptual land use plan with boundaries; KHA traffic impact analysis	CMX; KHA	May 2006	MC; KHA	pdf	MLG	Planning
71	Proposed Development: Sun Valley Villages III and IV	conceptual land use plan with boundaries	Carter Burgess	Jul 2008	MC	pdf	MLG	Planning
72	Roadway Design Manual	guidelines for standard roadway design	MCDOT	Apr 2004	KHA	pdf	BML	Transportation
73	Solicitation/Specifications Main Canal and Laterals Tonopah Irrigation District, Arizona Central Arizona Project	Vol 2 of 2 (DRAWINGS) -- contains construction plans and soil boring for major canal that runs along 383rd Ave alignment	Franzoy Corey Engineering	Feb 1985	FCDMC	pdf	BML	Drainage
74	Statewide Rail Framework Study	2050 Vision plan with maps	BQAZ	Aug 2009	BQAZ	pdf	MLG	Transportation

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75	Sun Valley Area Drainage Master Plan Area 4 Hydrology Technical Data Notebook	provides updated hydrology for Area 4 of ADMS -- downstream end of this area impacts the NP study.	JE Fuller	Aug 2006	FCDMC	pdf	BML	Drainage
76	Sun Valley Area Drainage Master Plan Planning and Regulatory Coordination	describes federal, state, and local ordinances that guide development, also includes inventory of proposed developments	EDAW	Dec 2006	FCDMC	pdf	BML	Drainage
77	Sun Valley Area Drainage Master Plan Scenery Multiuse Data Collection and Analysis	assessed scenic/recreational resources and provides alternatives evaluation	Logan Simpson Design	Jan 2007	FCDMC	pdf	BML	Landscape Architecture
78	Sun Valley Area Drainage Master Plan Step 1 Alternatives Formulation and Preliminary Analysis	outlines preliminary alternatives for flood protection alternatives. Hassayampa and White Tank Wash sub-areas apply to NP study.	JE Fuller	Aug 2006	FCDMC	pdf	BML	Drainage
79	Sun Valley Area Drainage Master Plan Step 2 Proposed Alternatives Report	7 volumes. Vol 1 provides overview of ADMP process, and Volumes 4 and 5 contain the specific alternatives for the NP study area.	JE Fuller	Sep 2006	FCDMC	pdf	BML	Drainage
80	Sun Valley Area Drainage Master Plan Step 3 Recommended Alternative Report	7 volumes. Vol 1 provides overview of ADMP process, and Volumes 4 and 5 contain the specific alternatives for the NP study area.	JE Fuller	Dec 2006	FCDMC	pdf	BML	Drainage
81	Sun Valley Area Drainage Master Plan Technical Data Notebook Approximate Zone A Floodplain Delineation Study of White Tank Fan 6	delineates 100-year floodplain for alluvial fan near NP alignment. Also includes lengthy section on geomorphic methods.	JE Fuller	Nov 2006	FCDMC	pdf	BML	Drainage
82	Sun Valley Area Drainage Master Plan Technical Data Notebook Approximate Zone A Floodplain Delineation Study of White Tank Fans 4 & 5	delineates 100-year floodplain for alluvial fans between White Tank Mtns and Hassayampa River. Also includes lengthy section on geomorphic methods.	JE Fuller	Nov 2006	FCDMC	pdf	BML	Drainage
83	Sun Valley Area Drainage Master Plan Technical Data Notebook: Approximate Zone A Floodplain Delineation Study of White Tank Piedmont Appendix G	compilation of AZGS geologic reports/maps, NRCS soil surveys, and sediment yield analysis	JE Fuller	Sep 2006	FCDMC	pdf	BML	Geology
84	Sun Valley Parkway Access Control and Corridor Improvement Study	study for reference on right of way and utilities	Parsons	Dec 2006	MC	pdf	BCP	Transportation/ Planning
85	Sun Valley Parkway Correspondence	contains various documentation regarding the damage from the Aug 1988 storm, Greiner reviews of CWW drainage reports, variance from standard drainage design criteria -- valuable lessons on building a roadway in this alluvial fan area	FCDMC	unknown	FCDMC	pdf	BML	Drainage

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86	Sun Valley Parkway North FIS Hydrology Report	hydrologic analysis to determine peak 100-yr flows to study area north of White Tank Mtns -- note that this is northeast of NP study area so will not be reviewed further	A-N West, Inc.	Mar 1991	FCDMC	pdf	BML	Drainage
87	SW Maricopa County Linkage Designs and Conservation Priorities	comment letter from AGFD, wildlife linkage designs, conservation priorities, environmental features and constraints	Arizona Game and Fish Department	Jul 2009	KHA	pdf/GIS in e-mail	MLG	Environmental
88	The Use of Multi-spectral Remote Sensing Imagery For Geomorphic Mapping and Determination of Flood Prone Areas on Piedmonts in Maricopa County, AZ: An Example From a Portion of the Jackrabbit Wash Watershed	report explores using LANDSAT imagery to determine floodprone areas -- not esp. pertinent to NP study, only uses NE portion of Jackrabbit Wash watershed as an illustrative example	JE Fuller	Feb 2002	FCDMC	pdf	BML	Drainage
89	Tonopah/Arlington Area Plan	land use, zoning, transportation classifications, environmental information	MC	Sep 2000	MC	pdf	MLG	Transportation/ Planning
90	Town of Buckeye Draft Transportation Master Plan	exhibits showing planned road, trail, and transit networks	Town of Buckeye	Dec 2009	Buckeye	pdf	BCP	Planning
91	Town of Buckeye General Plan Figures	land use, circulation, environmental conditions, growth area land use, floodway transitional areas, master planned communities	Partners for Strategic Action	May 2008	Buckeye	pdf	MLG	Planning
92	Town of Buckeye GIS Data	land use and zoning GIS data	Town of Buckeye	Aug 2010	Buckeye	GIS in email	BCP	Planning
93	Town of Buckeye Zoning and Annexation History Figures	zoning and annexation history	Town of Buckeye	May 2009	Buckeye	pdf	MLG	Planning
94	Uplift in the Vicinity of the Tonopah Recharge Facility	map showing ground uplift from 2006 to 2010 due to recharge plume	ADWR	Mar 2010	ADWR	pdf	BML	Water

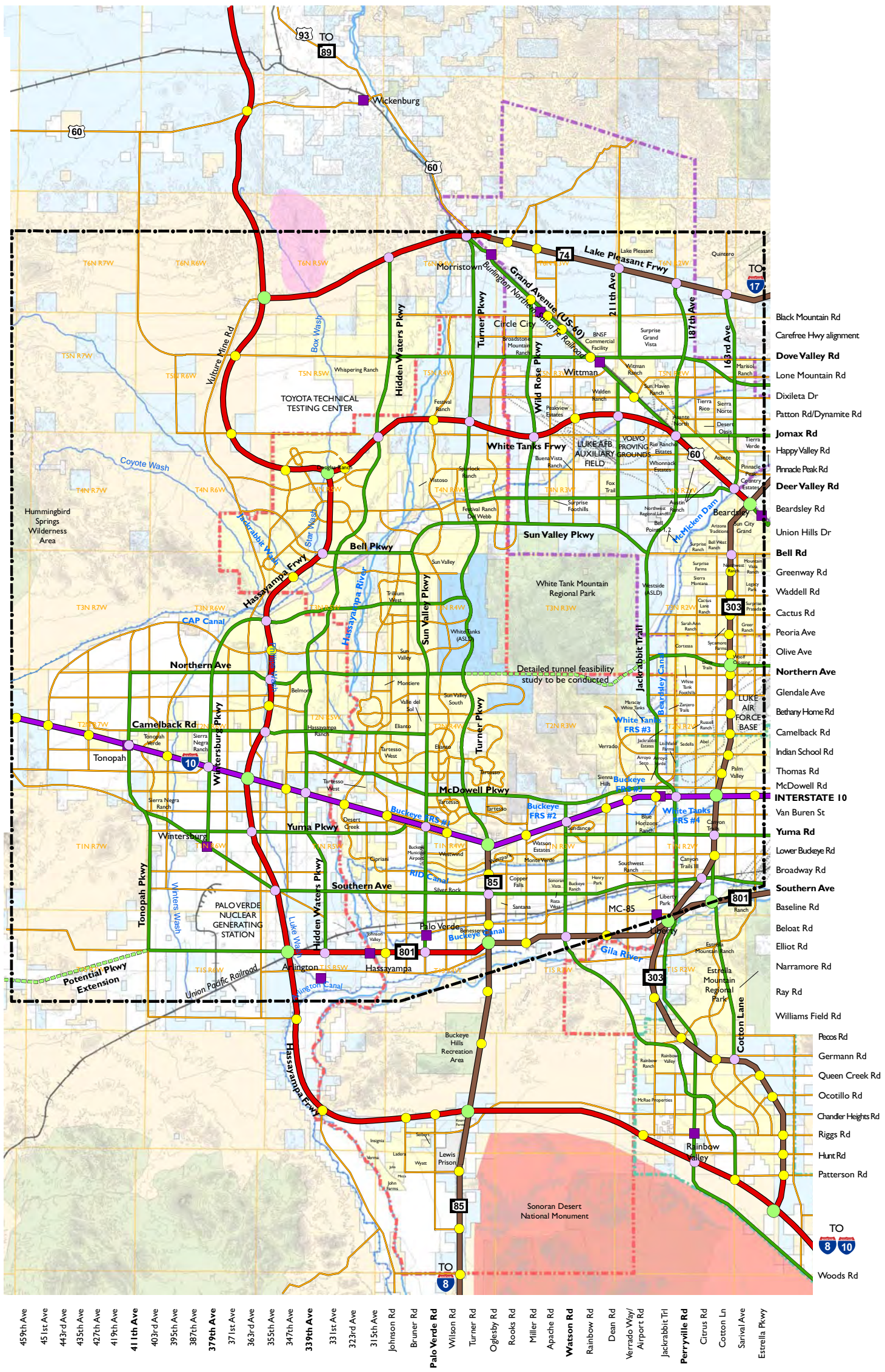


Kimley-Horn
and Associates, Inc.



APPENDIX TM1-02

MAG FRAMEWORK STUDY DATA



TRANSPORTATION FRAMEWORK RECOMMENDATION

Legend

- Study Area Boundary
- Railroads
- Roads
- ~ Rivers/Washes
- ~ Canals
- Unincorporated Communities
- Township/Range
- Noise Contours
- Topography (100' contours)
- Proposed Service Traffic Interchanges
- Proposed Parkway Traffic Interchanges
- Proposed System Interchanges
- Planned Developments
- BLM Raptor Protection Zone
- State Land Development Master Plan
- National Monument
- Wilderness Area
- Land Ownership: BLM
- State Land
- Regional Parks
- Military
- Bureau of Reclamation
- Buckeye
- Glendale
- Goodyear
- Surprise

Proposed Roadway Network

- Improvements to Existing Freeways
- Future Regional Transportation Plan (RTP) Freeways (Prop 400)
- New Freeway Proposals
- New Parkway Proposals
- New Parkway Alternatives
- Future Major Arterial Network

Notes

While every effort has been made to ensure the accuracy of this information, the Maricopa Association of Governments makes no warranty, expressed or implied, as to its accuracy and expressly disclaims liability for the accuracy thereof.

General alignments for new freeway, highway, arterial, and bridge facilities will be determined following the completion of appropriate design and environmental studies.

Locations of proposed freeway interchanges and the use of parallel roads connecting to freeways are preliminary and subject to review and approval of the FHWA and ADOT.

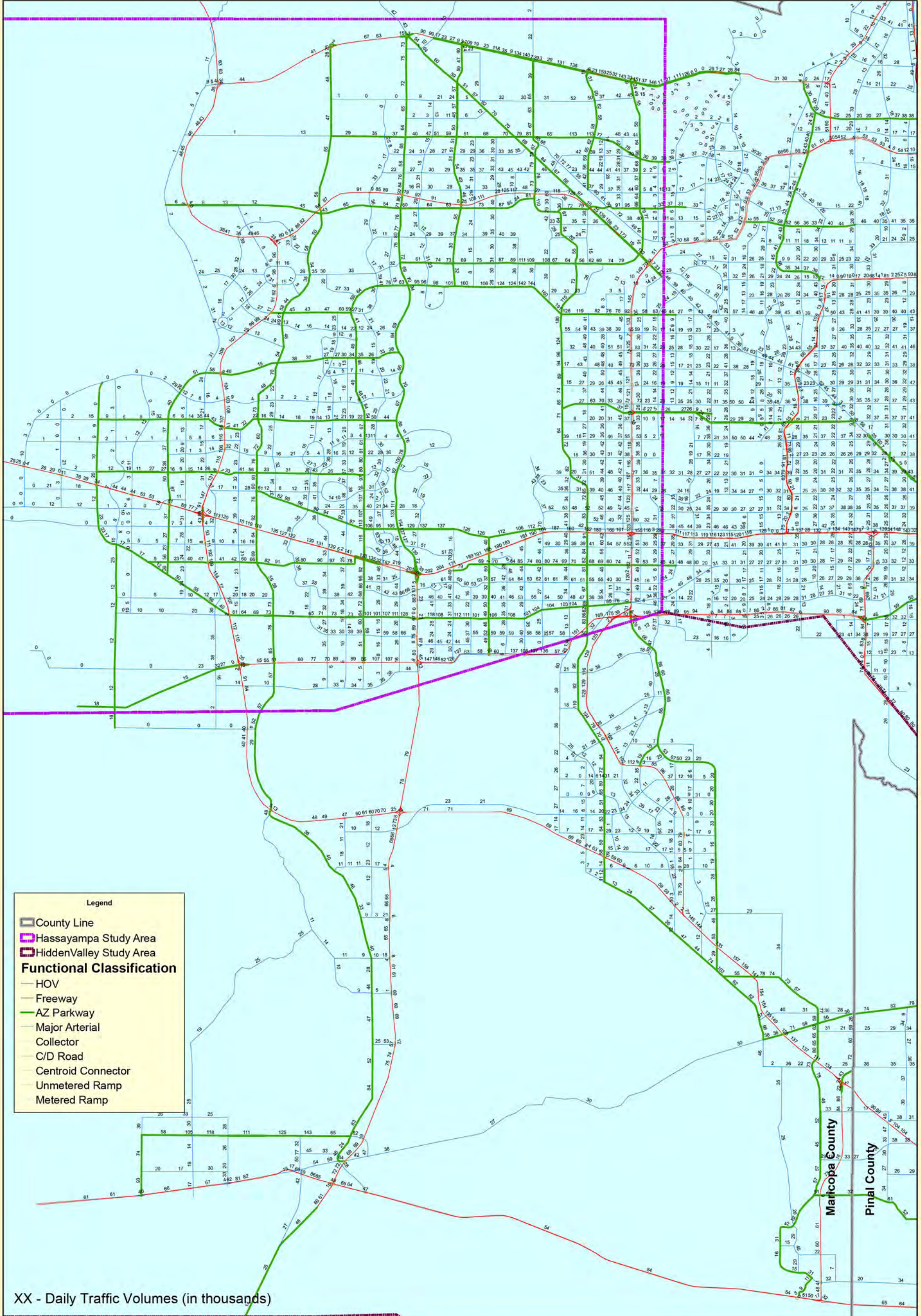
Arterial river crossings are conceptual to demonstrate the number of crossing needed to support development. Final locations and number will be determined in engineering and water resource studies.

Locations of proposed roadway facilities south of the study area are subject to refinement in the I-8 and I-10/Hidden Valley Roadway Framework Study to be completed in 2008, and roadways north to be planned in the New River Roadway Framework Study, schedule to be determined.

Olive Avenue traffic interchange on SR-303L to be a half-diamond.

0 5 7-1 Miles

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Legend

- County Line
- Hassayampa Study Area
- Hidden Valley Study Area
- Functional Classification**
- HOV
- Freeway
- AZ Parkway
- Major Arterial
- Collector
- C/D Road
- Centroid Connector
- Unmetered Ramp
- Metered Ramp

XX - Daily Traffic Volumes (in thousands)

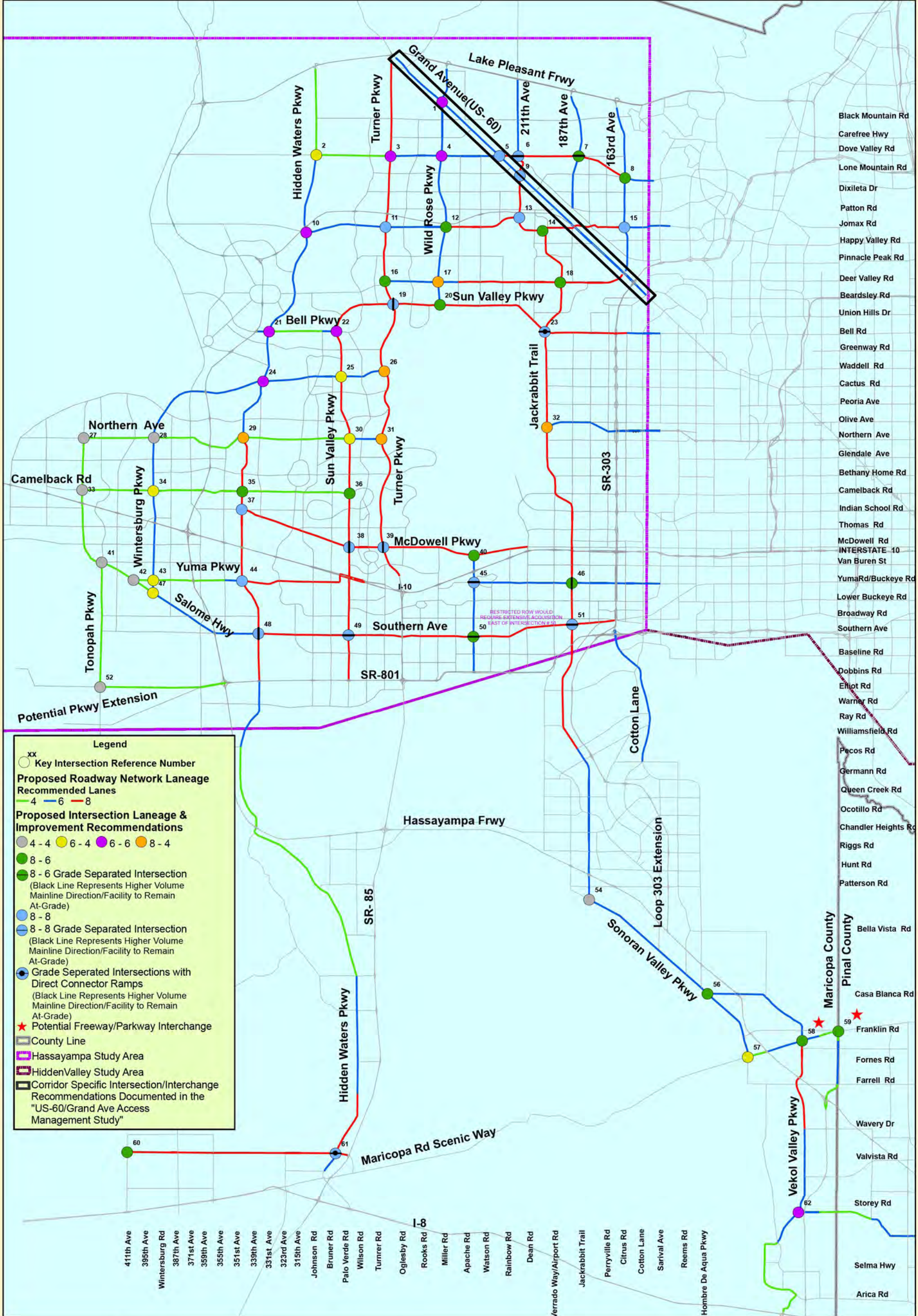
Data Source:
 Maricopa Association of Governments,
 Hidden Valley Buildout 24-Hour Volume
 Forecasts, and Hassayampa Valley Buildout
 24-Hour Volume Forecasts,
 Dated: September 30, 2008.
 Prepared by: Wilson & Company,
 Dated: 06/02/2009

MAG Buildout Traffic Projections

I-10/Hassayampa Valley Framework Study

I-10/Hidden Valley Framework Study





Legend

- xx Key Intersection Reference Number
- Proposed Roadway Network Laneage**
- Recommended Lanes
— 4 — 6 — 8
- Proposed Intersection Laneage & Improvement Recommendations**
- 4 - 4 ● 6 - 4 ● 6 - 6 ● 8 - 4
- 8 - 6
- 8 - 6 Grade Separated Intersection
(Black Line Represents Higher Volume Mainline Direction/Facility to Remain At-Grade)
- 8 - 8
- 8 - 8 Grade Separated Intersection
(Black Line Represents Higher Volume Mainline Direction/Facility to Remain At-Grade)
- Grade Separated Intersections with Direct Connector Ramps
(Black Line Represents Higher Volume Mainline Direction/Facility to Remain At-Grade)
- ★ Potential Freeway/Parkway Interchange
- ▭ County Line
- ▭ Hassayampa Study Area
- ▭ HiddenValley Study Area
- ▭ Corridor Specific Intersection/Interchange Recommendations Documented in the "US-60/Grand Ave Access Management Study"

- Black Mountain Rd
- Carefree Hwy
- Dove Valley Rd
- Lone Mountain Rd
- Dixileta Dr
- Patton Rd
- Jomax Rd
- Happy Valley Rd
- Pinnacle Peak Rd
- Deer Valley Rd
- Beardsley Rd
- Union Hills Dr
- Bell Rd
- Greenway Rd
- Waddell Rd
- Cactus Rd
- Peoria Ave
- Olive Ave
- Northern Ave
- Glendale Ave
- Bethany Home Rd
- Camelback Rd
- Indian School Rd
- Thomas Rd
- McDowell Rd
- INTERSTATE 10
- Van Buren St
- YumaRd/Buckeye Rd
- Lower Buckeye Rd
- Broadway Rd
- Southern Ave
- Baseline Rd
- Dobbins Rd
- Eliot Rd
- Warner Rd
- Ray Rd
- Williamsfield Rd
- Pecos Rd
- Germann Rd
- Queen Creek Rd
- Ocotillo Rd
- Chandler Heights Rd
- Riggs Rd
- Hunt Rd
- Patterson Rd
- Bella Vista Rd
- Casa Blanca Rd
- Franklin Rd
- Fornes Rd
- Farrell Rd
- Wavery Dr
- Valvista Rd
- Storey Rd
- Selma Hwy
- Arica Rd

Prepared by:
Wilson & Company,
Dated: 06/02/2009

Proposed Laneage for Arizona Parkway Segments & Intersection/Interchange Improvement Recommendations

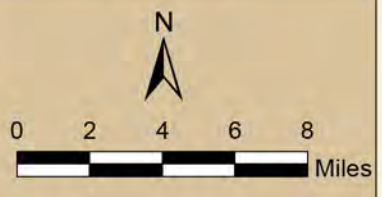
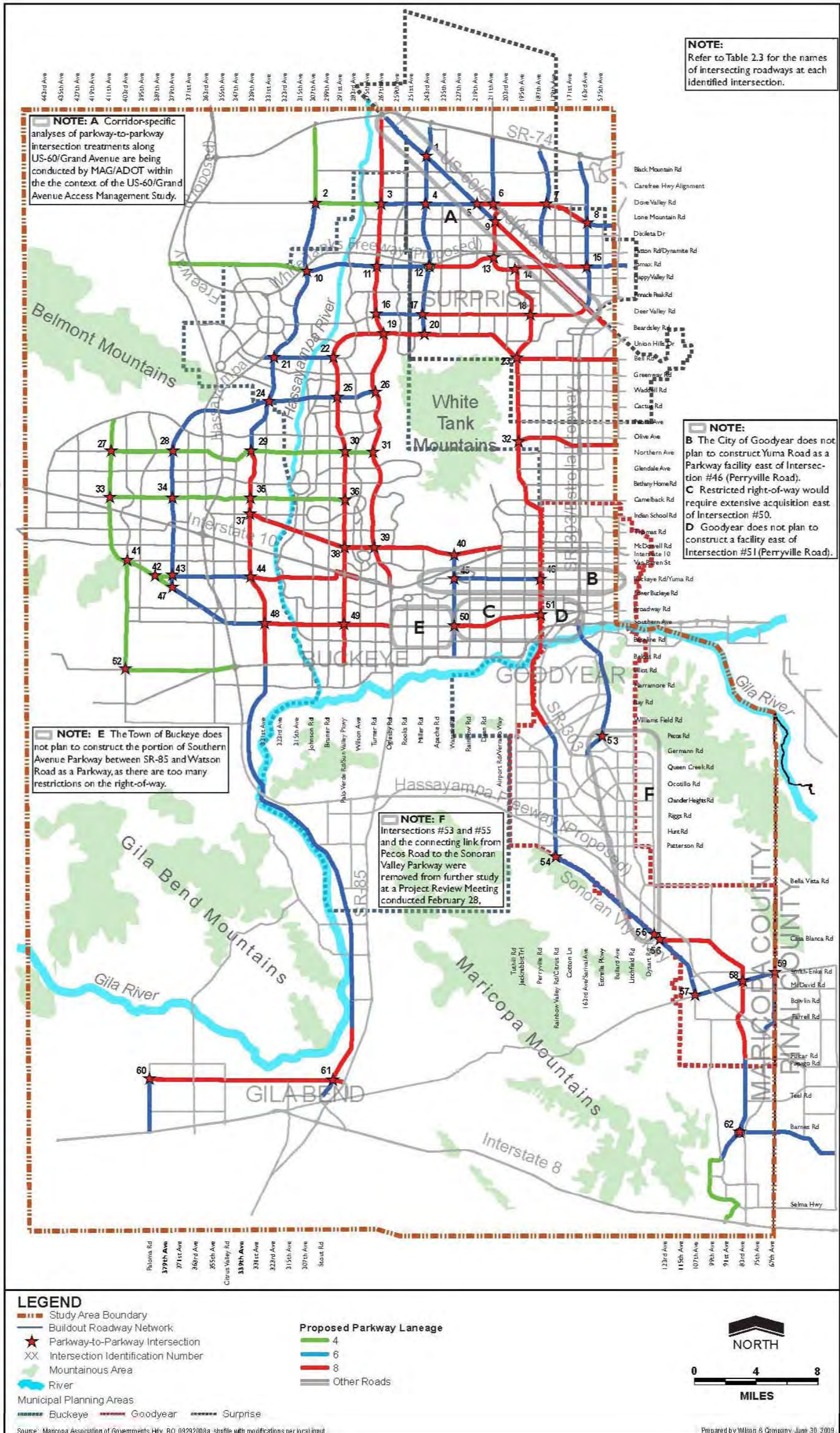


Figure 2.3
Recommended Number of Lanes for Buildout Parkway Network



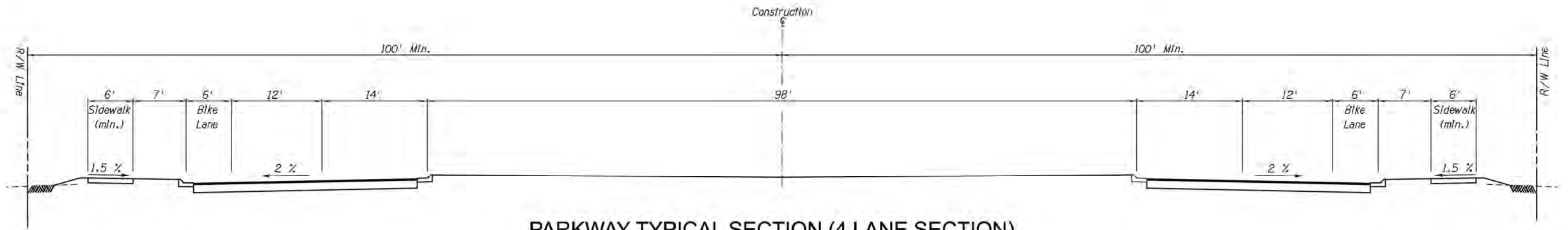


Kimley-Horn
and Associates, Inc.

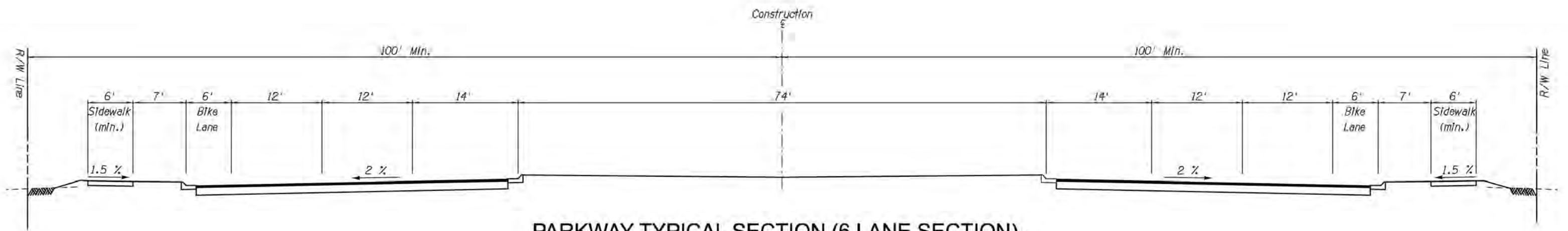


APPENDIX TM1-03

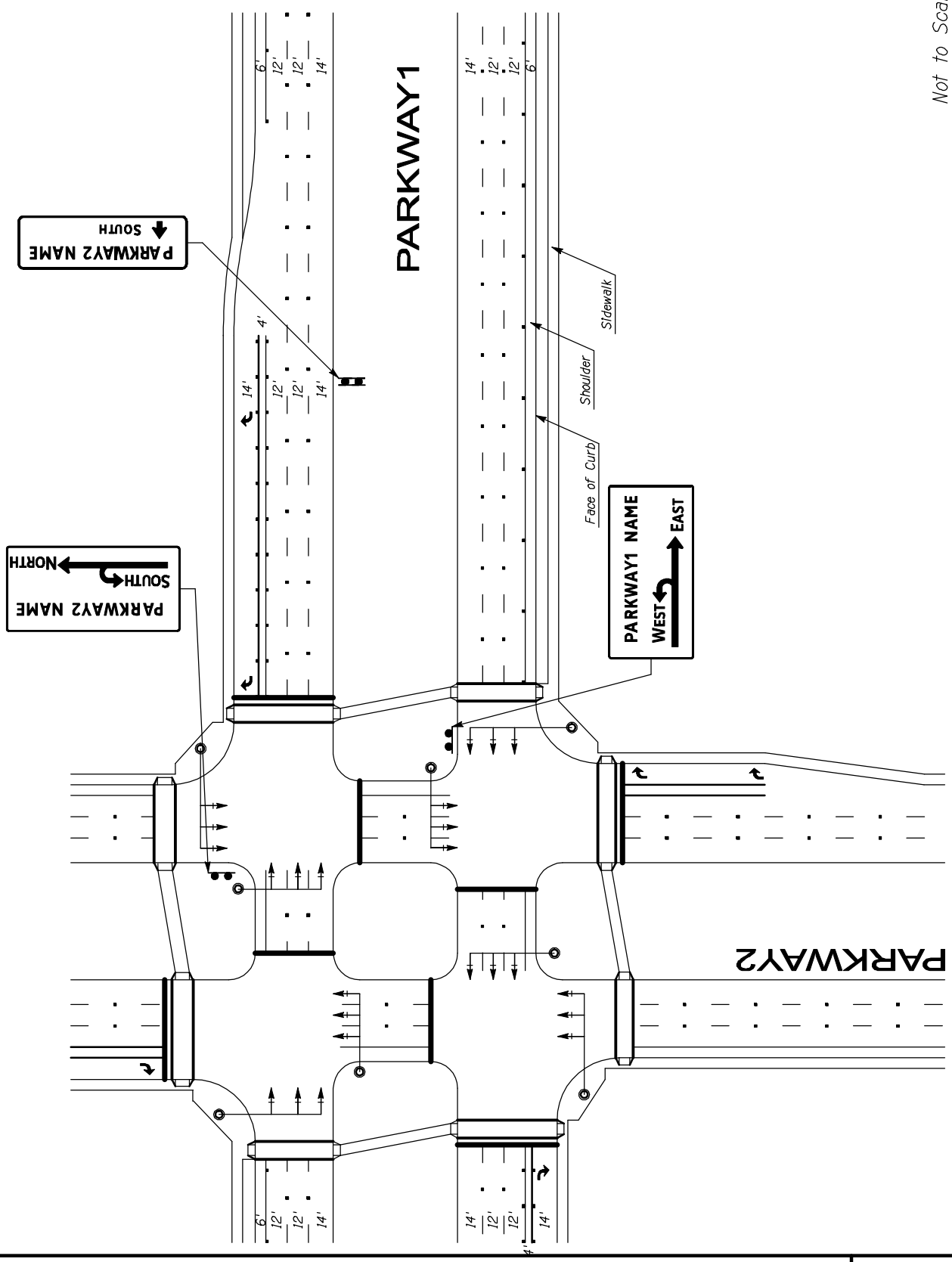
ARIZONA PARKWAY DETAILED INFORMATION



PARKWAY TYPICAL SECTION (4 LANE SECTION)

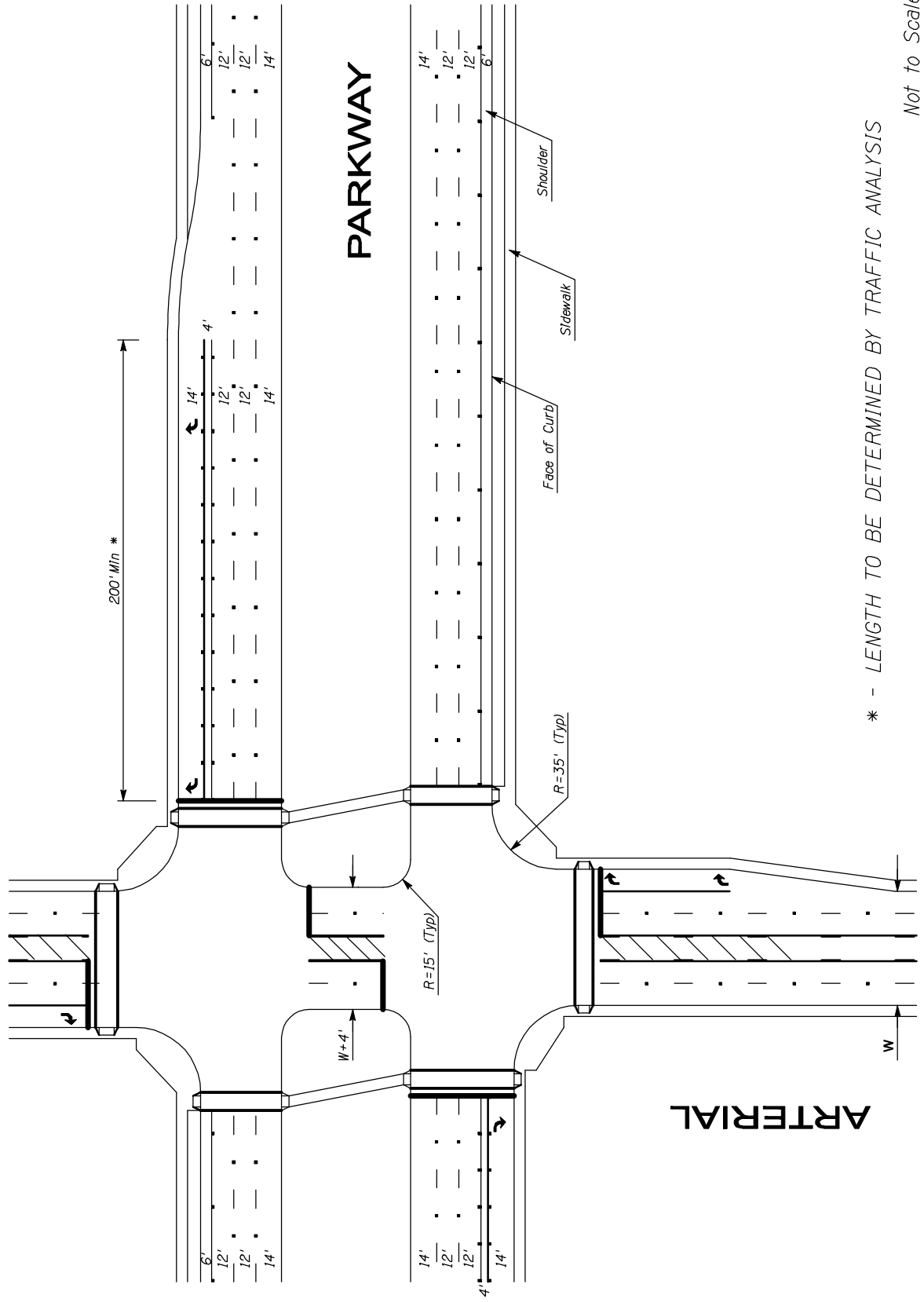


PARKWAY TYPICAL SECTION (6 LANE SECTION)



Not to Scale

FIGURE 18 - TYPICAL PARKWAY INTERSECTION



* - LENGTH TO BE DETERMINED BY TRAFFIC ANALYSIS

Not to Scale

GEOMETRICS FOR TYPICAL PARKWAY / ARTERIAL INTERSECTION

DATE: 08/08

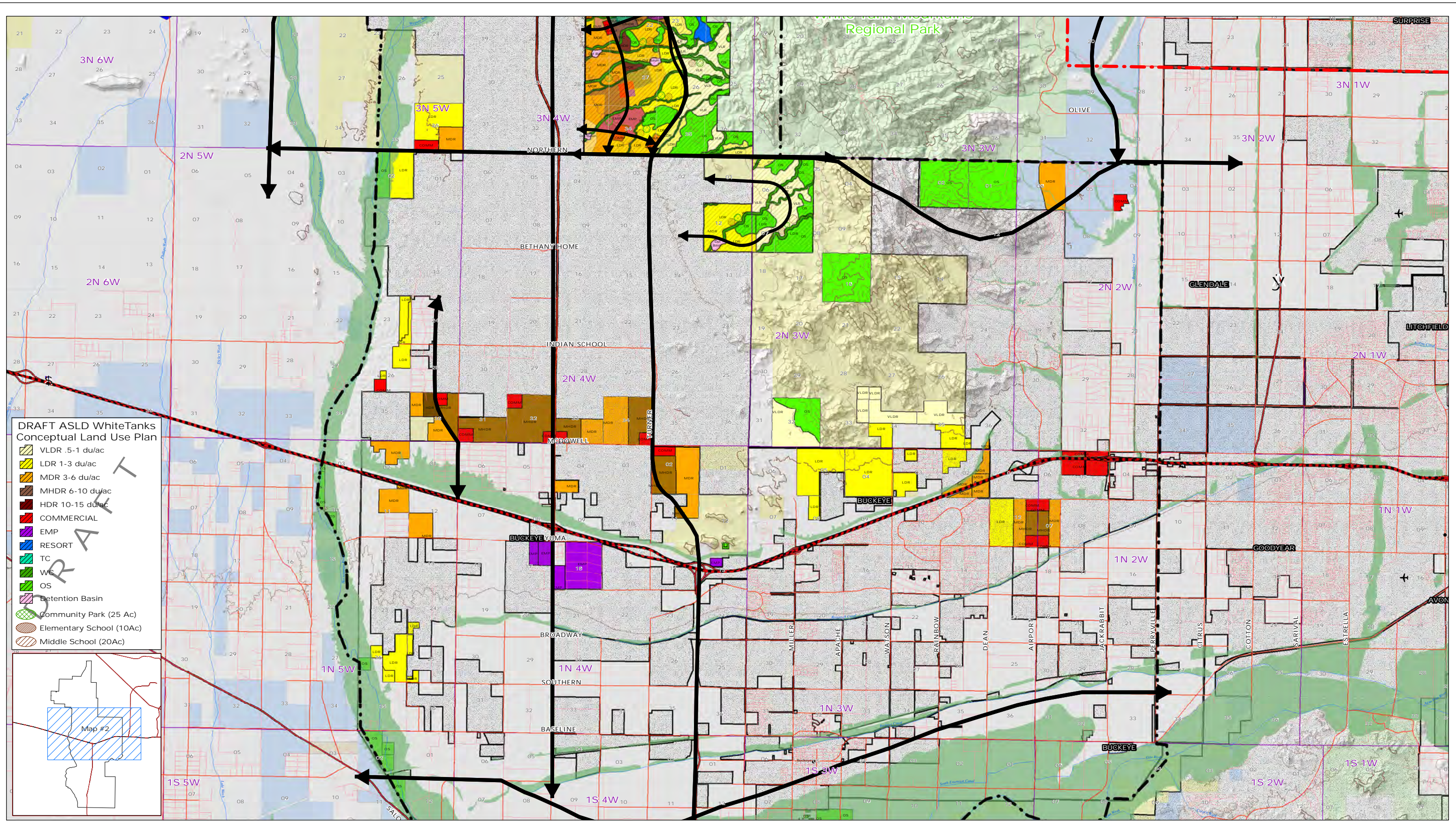
SHEET NO: S-2



Kimley-Horn
and Associates, Inc.



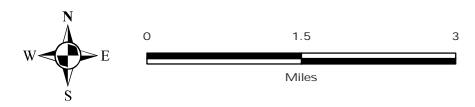
APPENDIX TM1-04
MASTER PLANNED COMMUNITIES
LAND USE AND CIRCULATION PLANS



- Buckeye Planning Area
- Surprise Planning Area
- State Trust Land
- Cities
- Private
- U.S.B.L.M.
- Indian Reservation
- Military
- State & Local Park
- FEMA Floodplain
- Interstates
- Highways
- Roads
- Streams
- Gas Pipeline

- BUCKEYE CONCEPTUAL PLAN - Draft Status**
- | | | |
|----------------------------------|----------------------------------|-------------------|
| Very Low Density Res (5-1 du/ac) | Medium High Den Res (6-10 du/ac) | Employment |
| Low Density Res (1-3 du/ac) | High Density Res (10-15 du/ac) | Land Fill |
| Medium Density Res (3-6 du/ac) | Commercial | Open Space |
| | | Proposed Roadways |

ASLD CONCEPTUAL LAND USE PLAN for BUCKEYE
DRAFT
Map #2






ASLD makes no warranties, implied or expressed, regarding information shown on this map.
Produced by Planning / J/W 11/2006, revised 2/2007
o:\jlaney\asset\greg\Buckeye\BuckeyeConceptualPlan.mxd

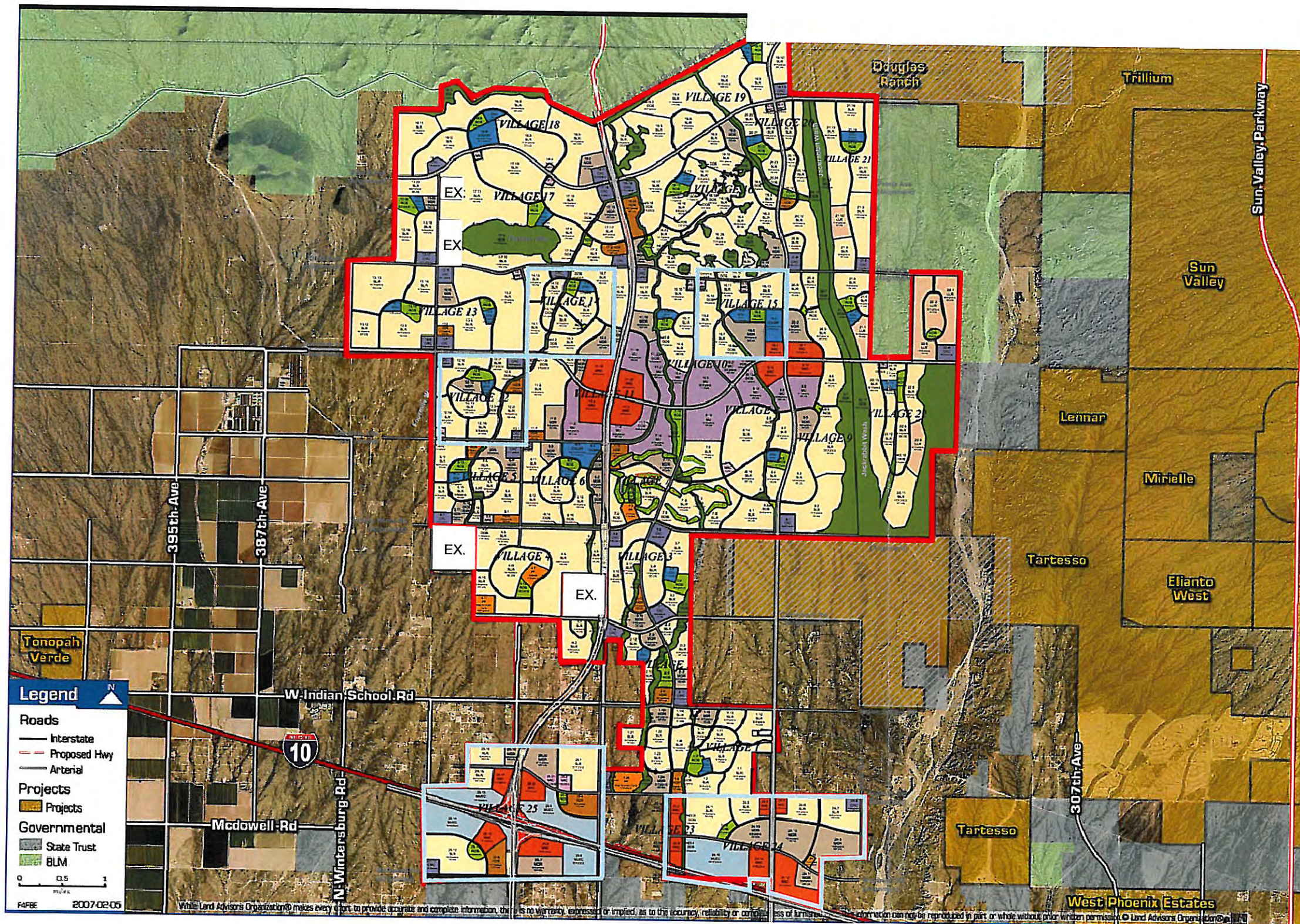


Belmont

Exhibit A Regional Vicinity

LEGEND

-  BELMONT DMP
-  STATE LAND WITHIN THE BELMONT DMP
-  EX. EXCEPTION



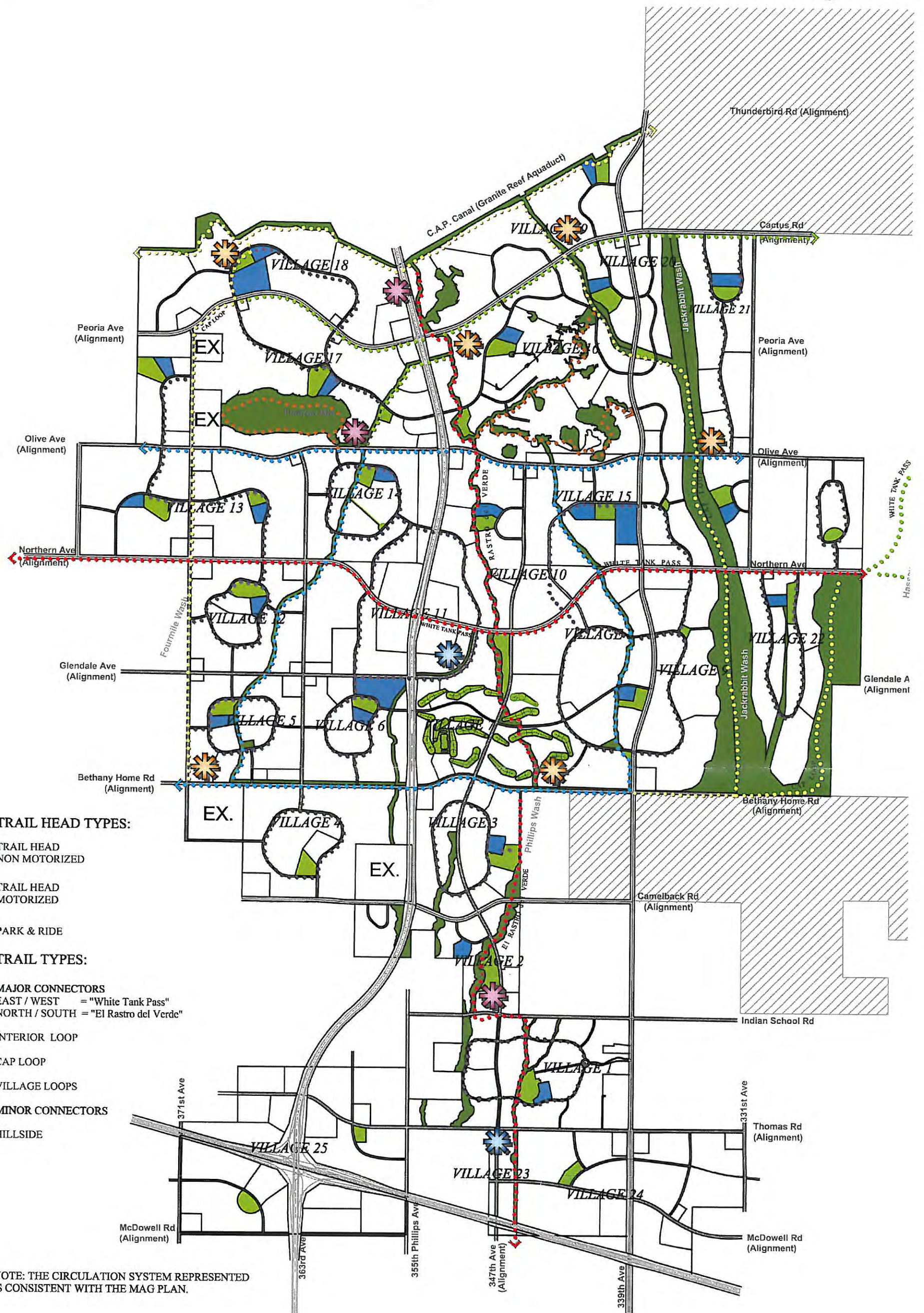
HADLEY DESIGN
GROUP

7272 E Indian School Rd, Suite 472
Scottsdale, Arizona 85251
Tel. 480.429.0500 Fax. 480.429.0501



Date:







30 November 2007



TRAIL HEAD TYPES:

-  TRAIL HEAD NON MOTORIZED
-  TRAIL HEAD MOTORIZED
-  PARK & RIDE

TRAIL TYPES:

-  MAJOR CONNECTORS
EAST / WEST = "White Tank Pass"
NORTH / SOUTH = "El Rastro del Verde"
-  INTERIOR LOOP
-  CAP LOOP
-  VILLAGE LOOPS
-  MINOR CONNECTORS
-  HILLSIDE

NOTE: THE CIRCULATION SYSTEM REPRESENTED IS CONSISTENT WITH THE MAG PLAN.

Belmont

Exhibit L Conceptual Path and Trail Master Plan

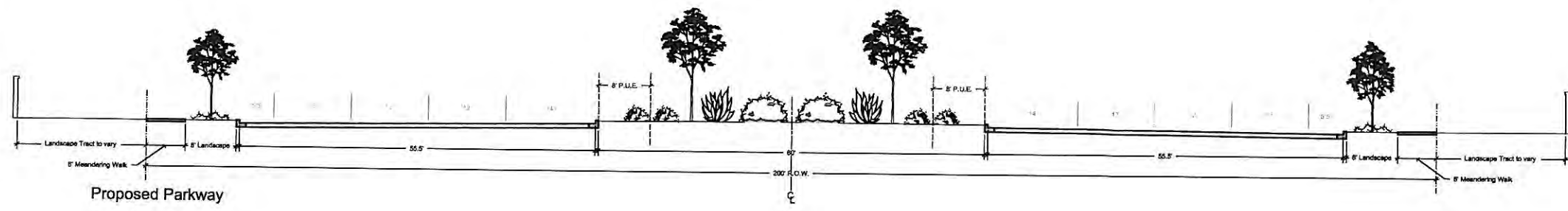
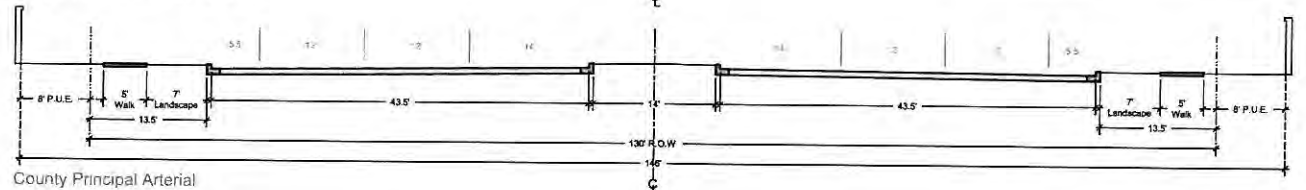
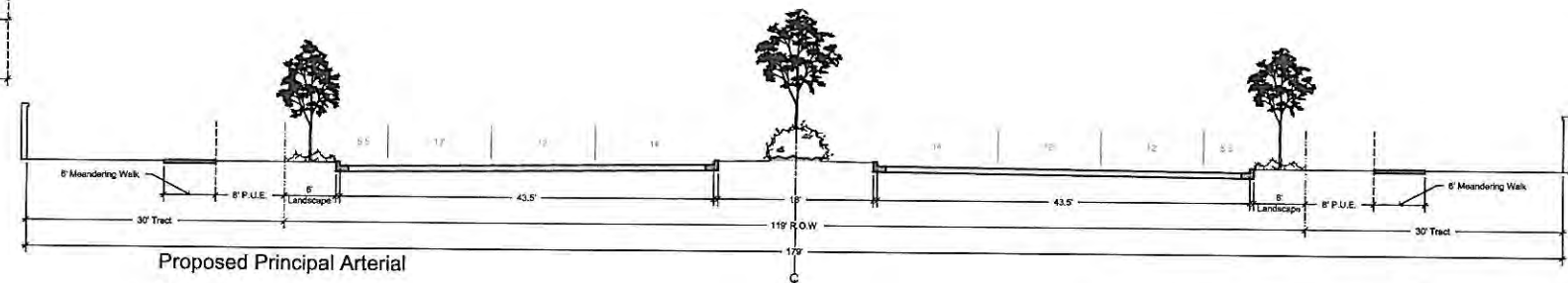
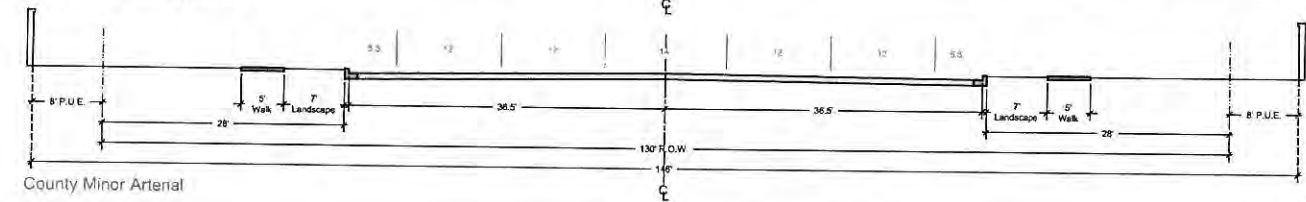
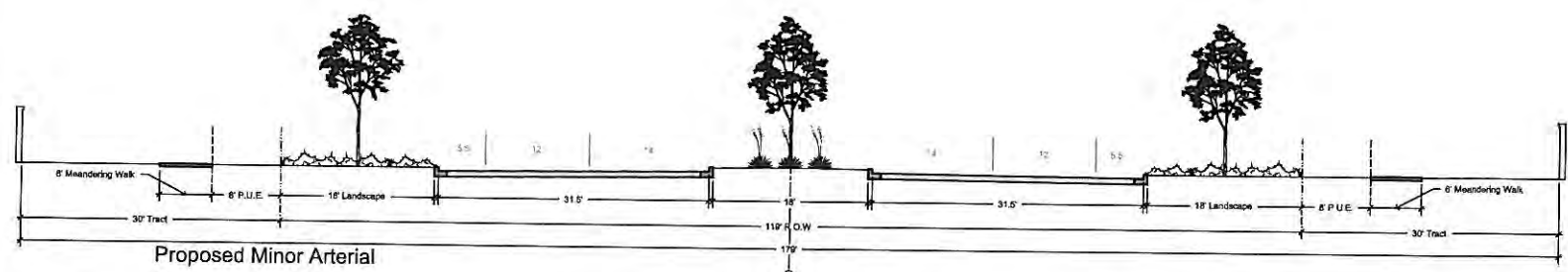
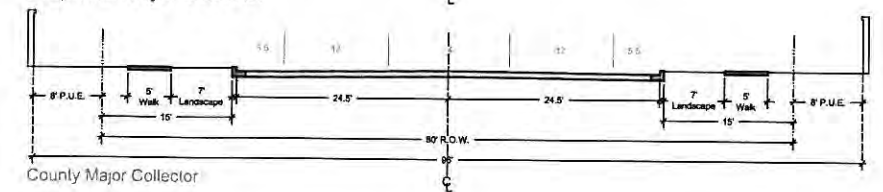
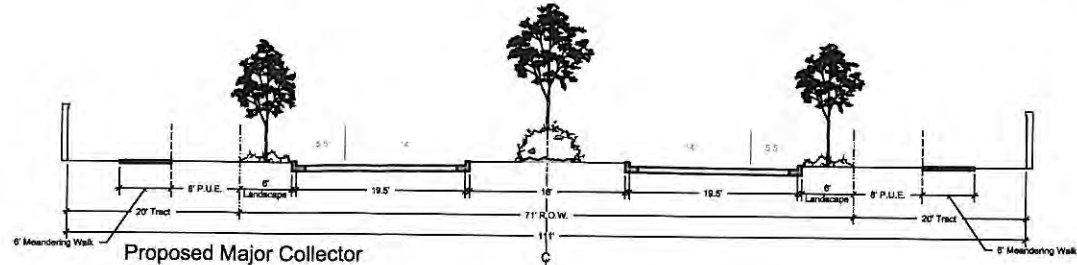
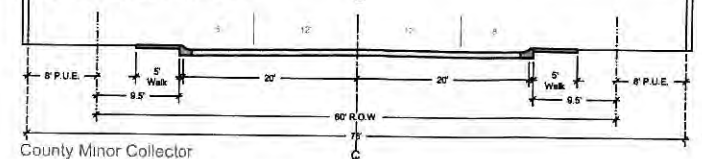
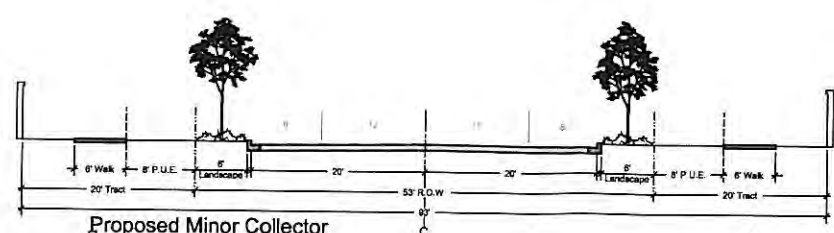
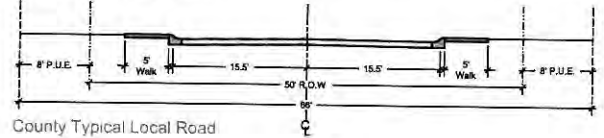
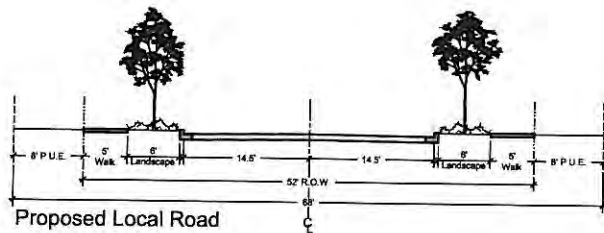


NTS

NOVEMBER 30, 2007



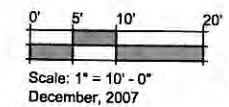
7272 E. Indian School Rd. Suite 472
Scottsdale, Arizona 85251
Tel. 480.429.0500 Fax. 480.429.0501



- NOTES:**
1. A minimum clear zone of 9 feet from the travel lane will be provided on all collector, arterial, and parkway roadway sections.
 2. Standard sight distance and sight triangles will apply.
 3. See attached Roadway Plant Palette for a list of trees proposed for use within the medians and landscape tracts adjacent to the roadway.
 4. All maintenance of plant material within rights of way will be the responsibility of the HOA.
 5. Roadway dimensions measured from face-of-curb or edge of pavement.
 6. All roadways will have vertical curbs. Horizontal driveway cuts on local roadways to be made at time of home construction.

Belmont

Roadway Sections Comparison

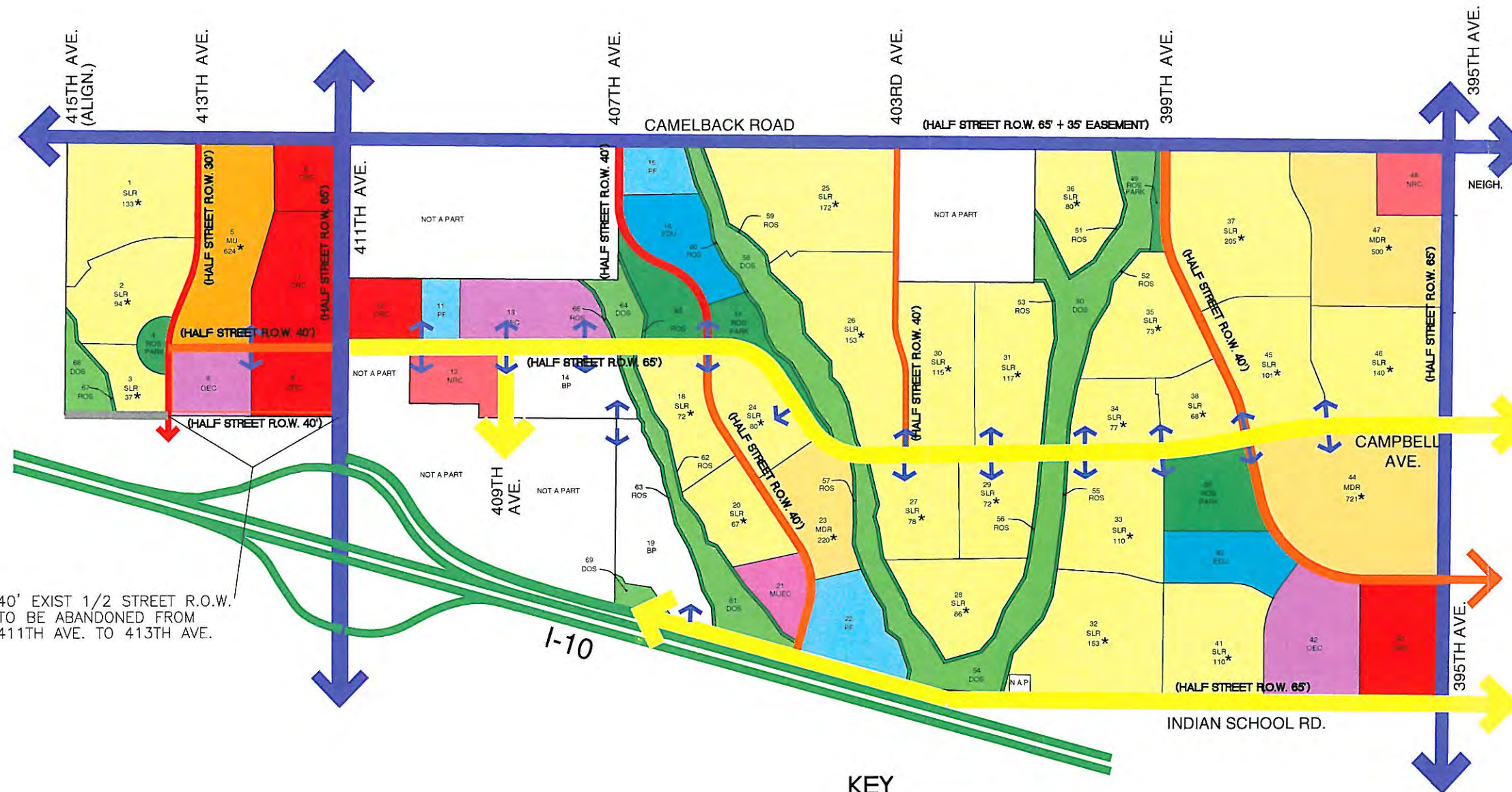


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Scottsdale, Arizona 85251
Tel. 480.429.0500 Fax. 480.429.0501

EXHIBIT M
BALTERRA
STREET CIRCULATION MAP

N.T.S.

- NOTES:
1. COLLECTOR AND ARTERIAL STREETS TO BE PUBLIC. LOCAL STREETS MAY BE PUBLIC OR PRIVATE. STREET OWNERSHIP AND MAINTENANCE WILL BE DETERMINED AT TIME OF FINAL PLAT OR SITE PLAN APPROVAL.
 2. ALL STREETS TO MEET MCDOT STANDARDS AND SPECIFICATIONS UNLESS APPROVED OTHERWISE.
 3. ALL ROADS TO BE PAVED
 4. LOCATION OF BUS STOPS, PARK & RIDE LOTS, AND ELECTRIC VEHICLE RECHARGE STATIONS TO BE DETERMINED AT TIME OF PLAT OR SITE PLAN APPROVAL.
 5. REFERENCE THE LANDSCAPE CHARACTER GUIDELINES FOR TYPICAL STREET CROSS SECTIONS.



40' EXIST 1/2 STREET R.O.W.
TO BE ABANDONED FROM
411TH AVE. TO 413TH AVE.

KEY

- █ FREEWAY
- █ PRINCIPLE ARTERIAL (6 LANES)
- █ MINOR ARTERIAL (4 LANES)
- █ MAJOR COLLECTOR (2 LANES)
- █ MINOR COLLECTOR (2 LANES)
- █ EXISTING CAMPBELL AVE ALIGNMENT
- ↑ APPROXIMATE PARCEL ENTRY LOCATIONS



DAVID EVANS
AND ASSOCIATES INC.

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Phoenix, Arizona 85016
Phone: 602.678.5151
JOB # JFP000002
DATE: JANUARY, 2007

NORTHERN AVENUE


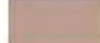







MIRIELLE

MASTER PLAN



LEGEND

Land Use

-  Commercial
-  High Density Residential
-  HDR / Mixed Use
-  Medium Density Residential
-  Parks
-  Wash
-  School
-  Water Campus
-  Utility



Date: 10-08-07



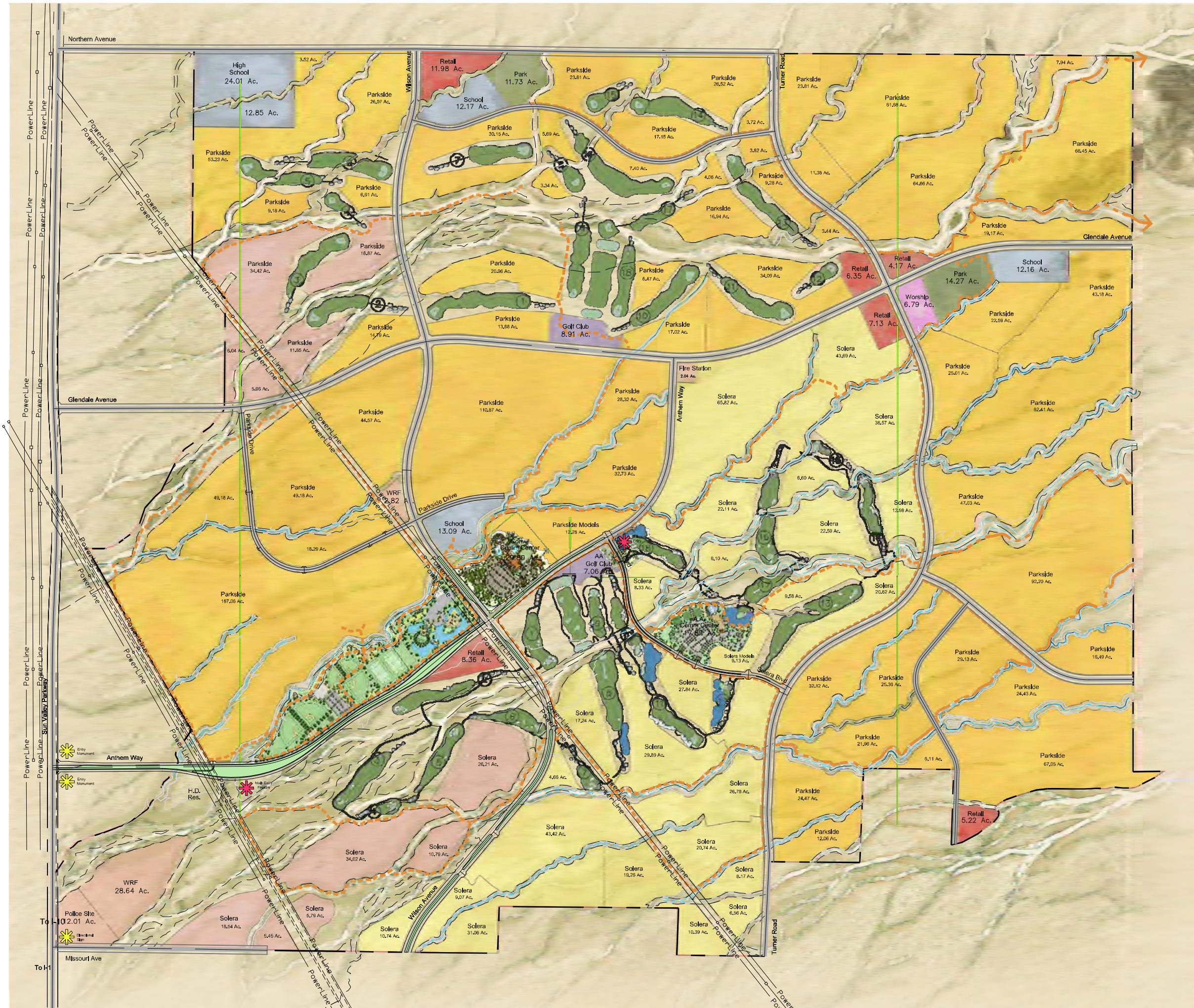
Progress Print Only



anthem Sun Valley

BY DEL WEBB

Conceptual Land Use Plan



Parkside Parcels - 1,683.20 Ac

Solera Parcels - 531.94 Ac

Alluvial Fan Development
Parkside Parcels - 74.92 Ac
Solera Parcels - 100.79 Ac

Clubhouse/
Community Centers
- 54.19 Ac

Commercial
- 43.20 Ac

School
- 87.12 Ac

Public
Services
- 46.88 Ac

Worship
- 6.79 Ac

Park
- 75.95 Ac

Major Entry

Minor Entry

Path and Trails



Date: 13 MARCH 2007

Sun Valley South

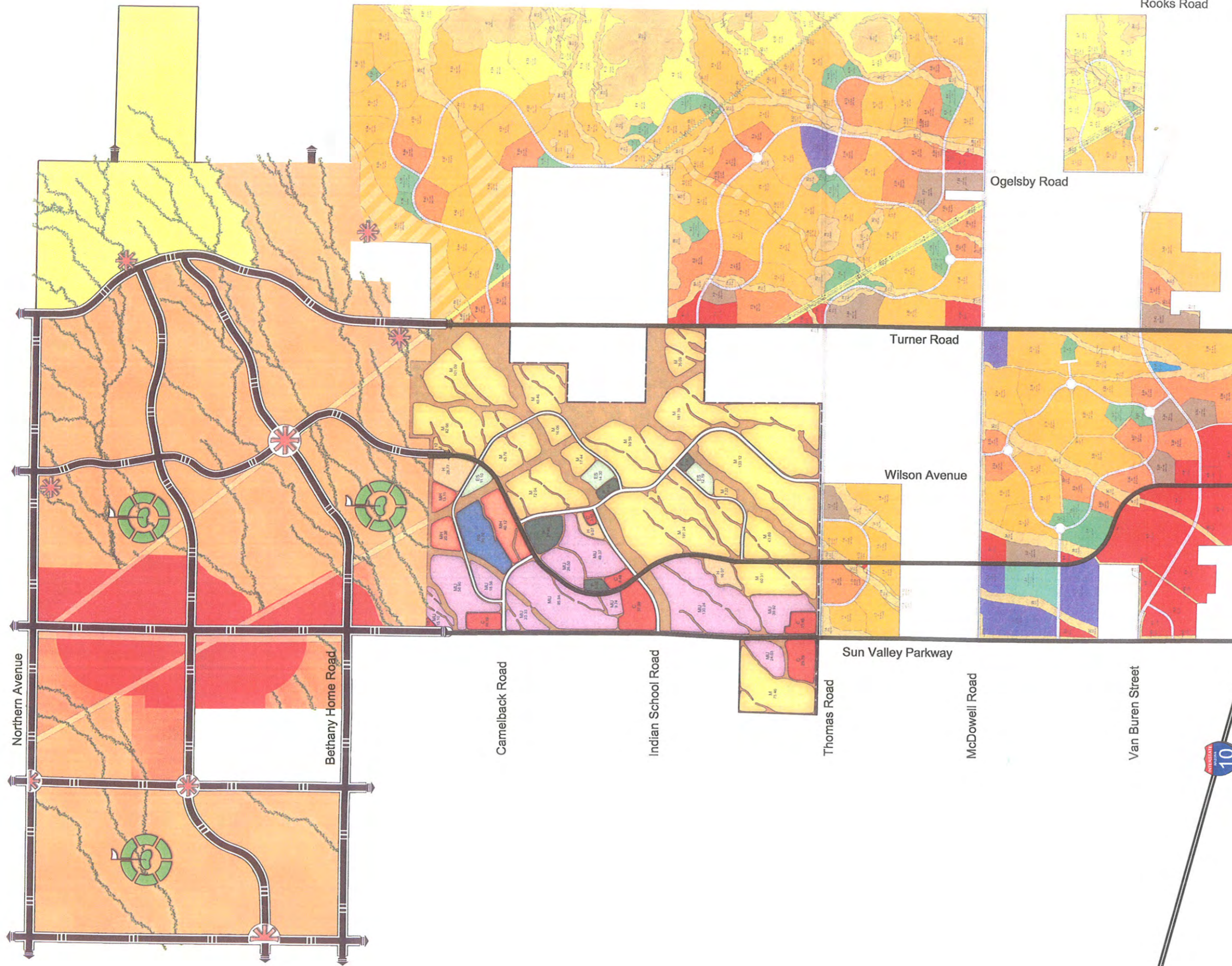
Buckeye, Arizona
CMP First Amendment

Regional Roadway Network

Exhibit L-1



NOT TO SCALE



CMX Project #: 6359.70
May, 2006



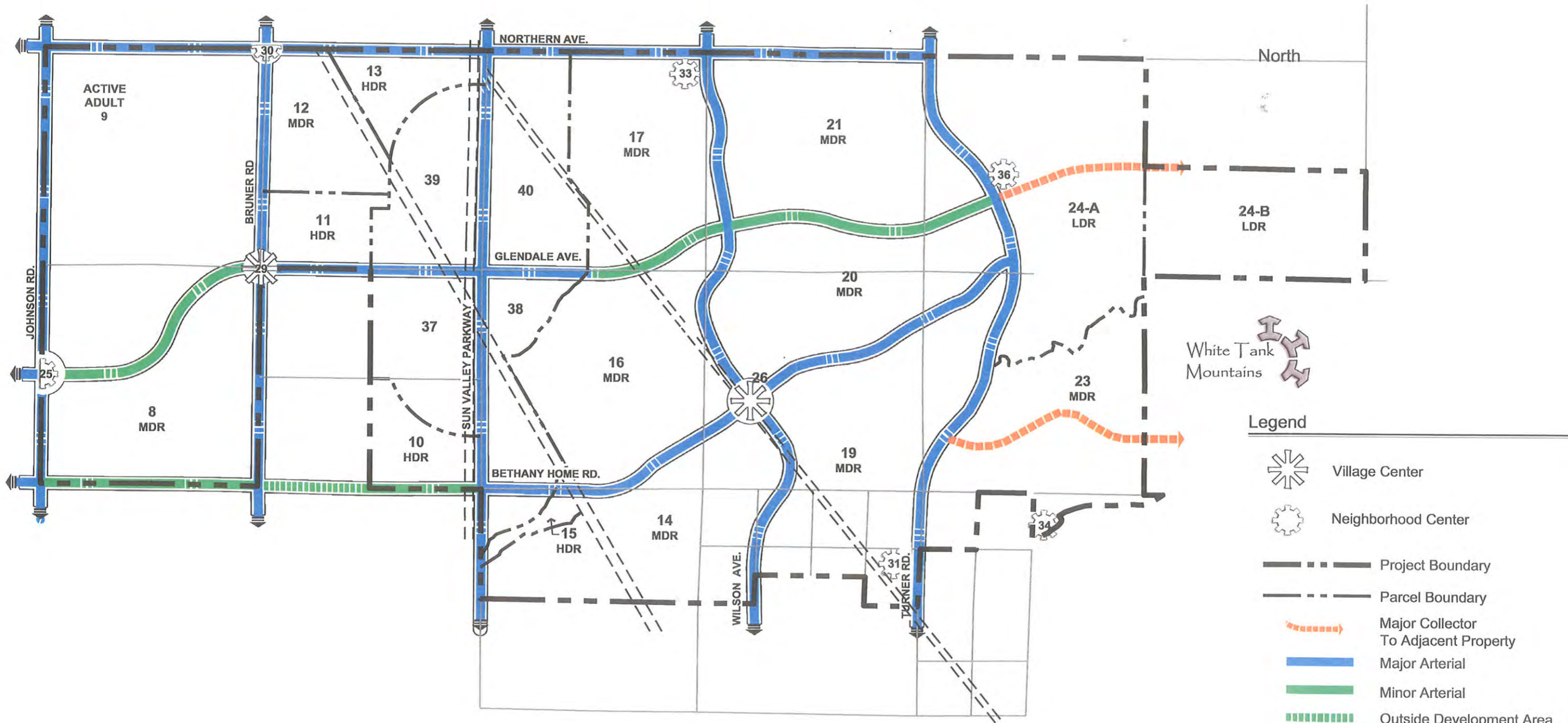
Project Manager: T. Bonar, AICP Designed By: T. Bonar/G. Thompson Drawn By: G. Thompson, CD
X:\16300\6359-70\Planning\IP-Exhibits\Cmp Ammendment\CMP Revision 2nd Submittal\6359-70-Fig-K-

Sun Valley South

Buckeye, Arizona
CMP First Amendment

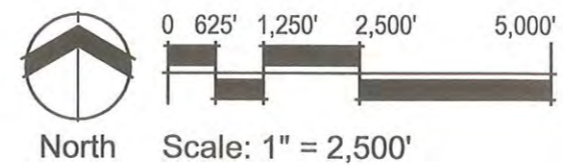
Master Street and Circulation Plan

Exhibit L-2



Legend

- Village Center
- Neighborhood Center
- Project Boundary
- Parcel Boundary
- Major Collector To Adjacent Property
- Major Arterial
- Minor Arterial
- Outside Development Area



CMX Project #: 6359.70
May, 2006



Project Manager: T. Bonar, AICP Designed By: T. Bonar/G. Thompson Drawn By: G. Thompson, CD
X:\6300\6359-70\Planning\IP-Exhibits\Cmp Ammdment\CMP Revision 2nd Submittal\6359-70-Fig-L-2

PROPOSED SETBACKS

1. Corner side street setback is 13' for local streets and 20' for collector and arterial streets unless there is an adjacent tract which requires a total minimum 13' setback from road R/W to residential building.

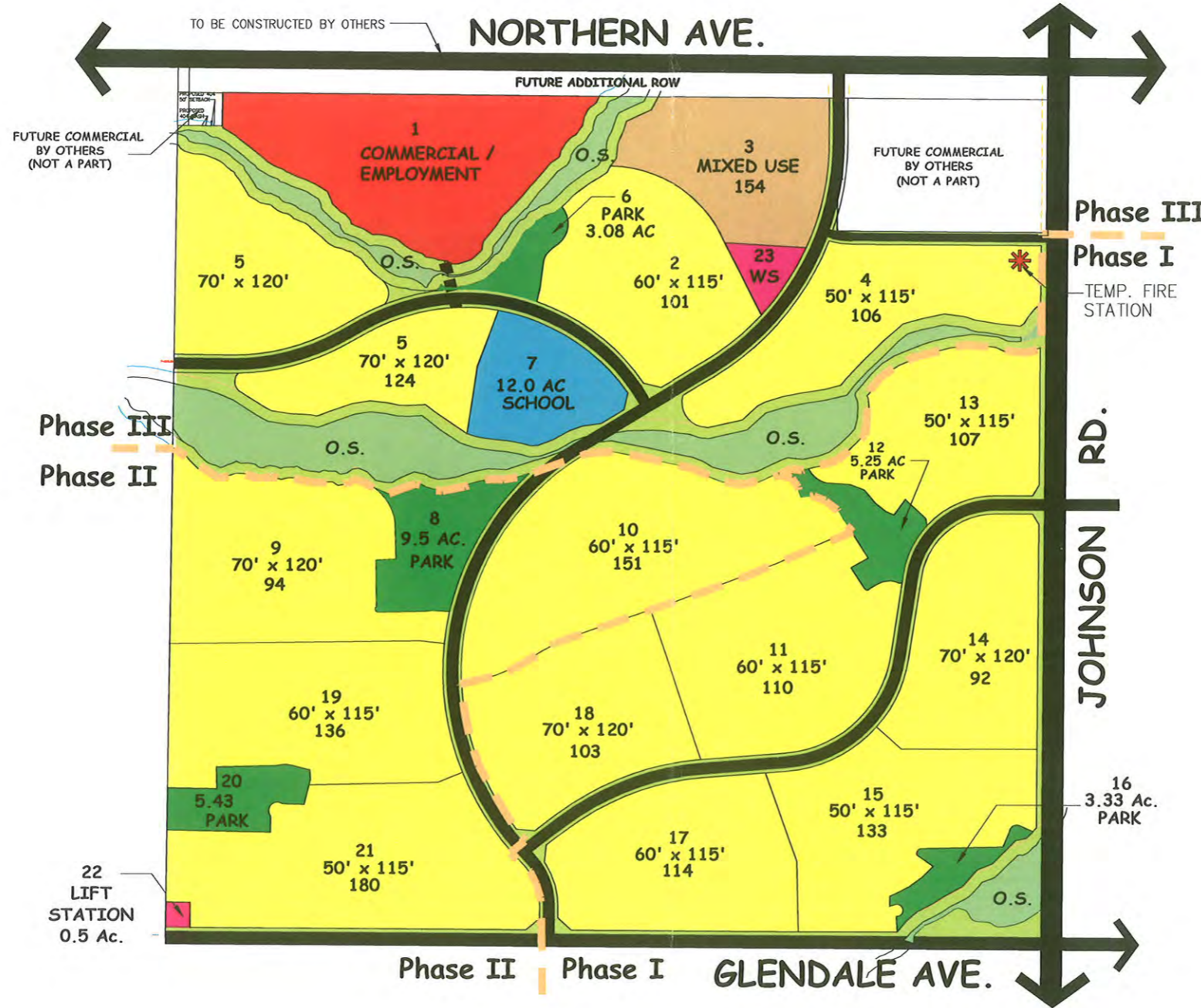
2. Minimum side yard setback will be 5'. The total of two side yards on one lot shall be 13'. Non-structural architectural features such as fireplaces, bay windows and pop-outs may encroach not more than 3' into side yard setback with a minimum 5' setback from the property line. Adjoining lots require a least a 3' variation in setback depths from property lines.

3. All structures (except side entry garages) shall maintain a minimum front yard setback of 18' from the property line. Front yard setbacks will be staggered a minimum of 2' with no more than 2 adjacent lots having the same setback. Vertical opening garages shall maintain a 20' setback, measured from the back of sidewalk. For side entry garages, the minimum front yard setback will be 12' measured from the property line for garage or livable space.

4. Minimum rear yard setback is 20'. Minimum 30' rear setback required adjacent to arterial streets, electrical transmission easements and commercial districts unless a minimum 10' landscape tract is provided, which requires a minimum 20' rear setback.

LEGEND

- 3 PARCEL NUMBER
- ✱ MAJOR ENTRY FEATURE
- * MINOR ENTRY FEATURE
- SPLIT ENTRY W/MEDIAN (I.E. MEDIAN WITH 20' OF PAVING ON BOTH SIDES)
- SINGLE FAMILY RES.
- MIXED USE
- SCHOOL
- PARK
- UTILITY INFRASTRUCTURE
- WS WATER SUPPLY 2.5 ACRES
- OPEN SPACE
- COMMERCIAL / EMPLOYMENT



LAND USE ALLOCATION BY PARCEL

Parcel	Net Acres	Units	Lot Size		Lot Size (Sq. Ft.)
			Width	Length	
1	31.40	n/a	n/a	n/a	Com'l/Employ.
1 (a)	n/a	360	n/a	n/a	Med. High Density
2	25.40	101	60	115	6,900
3	19.45	154	n/a	n/a	Mixed Residential
4	24.13	106	50	115	5,750
5	37.18	124	70	120	8,400
6	3.08	n/a	n/a	n/a	Park
7	12.00	n/a	n/a	n/a	School
8	9.50	n/a	n/a	n/a	Park
9	30.77	94	70	120	8,400
10	38.32	151	60	115	6,900
11	28.45	110	60	115	6,900
12	5.25	n/a	n/a	n/a	Park
13	22.36	107	50	115	5,750
14	24.17	92	70	120	8,400
15	28.01	133	50	115	5,750
16	3.33	n/a	n/a	n/a	Park
17	27.36	114	60	115	6,900
18	29.56	103	70	120	8,400
19	31.83	136	60	115	6,900
20	5.43	n/a	n/a	n/a	Park
21	36.29	180	50	115	5,750
22	0.50	n/a	n/a	n/a	Lift Station
23	2.50	n/a	n/a	n/a	Water Supply
Totals	476.27	2,065			

LOT MIX

Mixed Res./ Med. High Density	514	25%
50 x 115	526	25%
60 x 115	612	30%
70 x 120	413	20%
Totals	2,065	100.00%

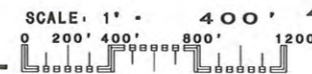
LAND USE ALLOCATION BY ACREAGE

Land Use	Acres
Gross Area	593.11
Gross Residential density (DU/Ac) (b)	3.50
Open space	
tracts	6.15
parks	26.43
washes	56.15
Total open space	88.73
Gross residential area	424.38
School	12.00
Roads	33.60
Utility infrastructure	3.00
Commercial/Employment	31.40

Notes

- (a) If Parcel 1 reverts to Medium High Density, then no fewer than 360 units are allowed for this parcel.
- (b) Gross Residential area includes local roads and parcel landscape tracts.

MONTIERE LAND USE PLAN



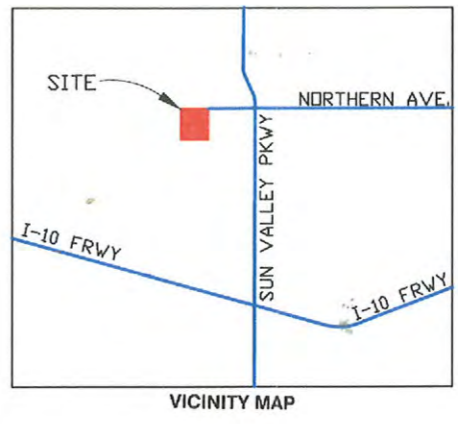
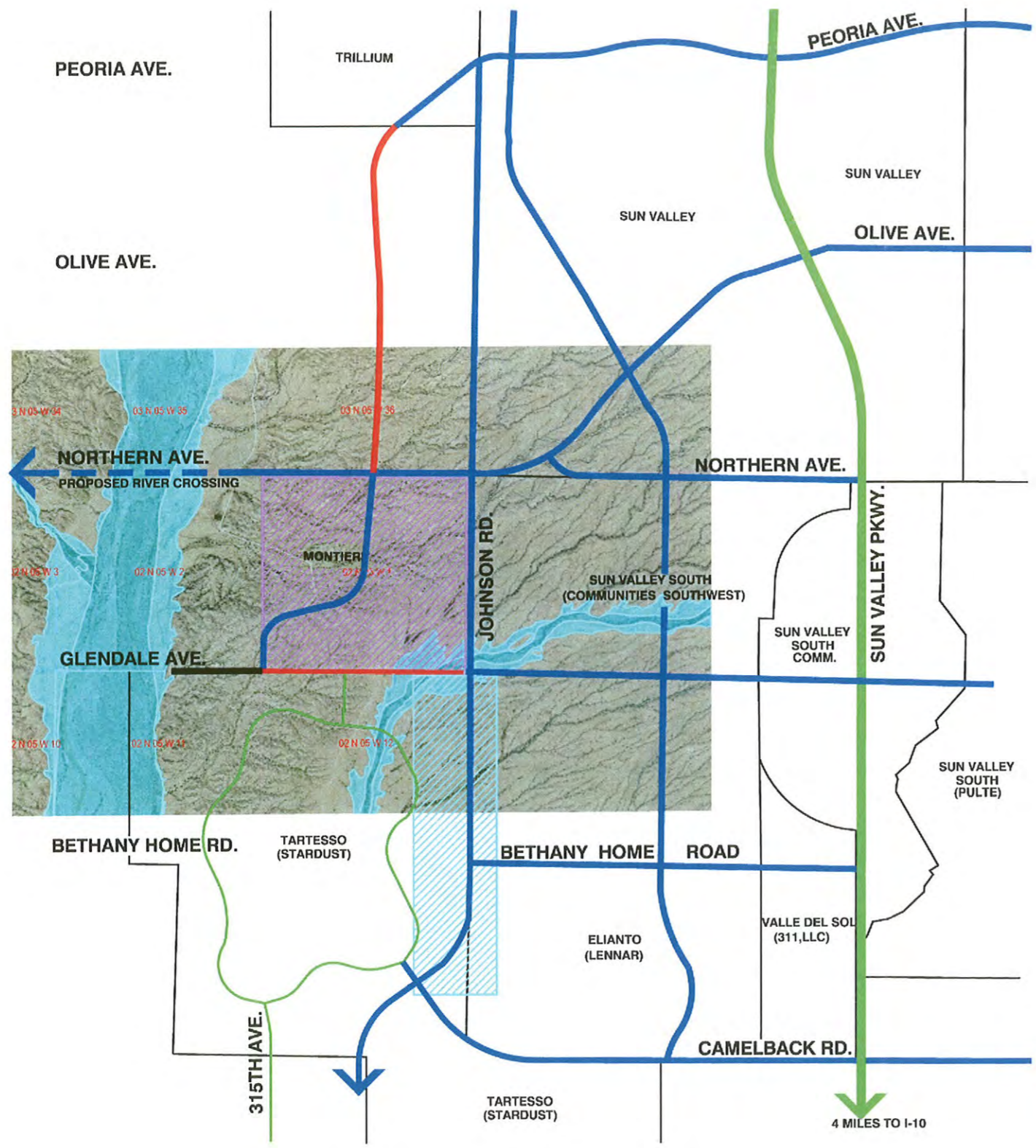
DAVID EVANS AND ASSOCIATES, INC.
 2141 East Highland Avenue Suite 200 Phoenix, Arizona, 85016
 (602) 678-5151
 (FAX) 678-5155

DATE: 05-15-06
 PROJECT NO.: WESP0001












EXHIBIT D

P:\N\WESP0000001\04000001\04000001\DWG\PL\EMWESP0001-Circulation.dwg Mcha Jul 24, 2006 8:50:09am



LEGEND

-  EXISTING PARKWAY (6 LANES WITH RAISED MEDIAN)
-  PROPOSED PRINCIPAL ARTERIAL (6 LANES WITH RAISED MEDIAN)
-  PROPOSED TARTESSO COLLECTOR ROAD
-  JOHNSON PROPERTY PROPOSED ALIGNMENT
-  MINOR ARTERIAL / MAJOR COLLECTOR (4 LANES)
-  PROPOSED MAJOR ARTERIAL (4 LANES)
-  EXISTING PROJECT BOUNDARIES
-  PROPOSED PROJECT BOUNDARY
-  JOHNSON ROAD SEGMENT PROPOSED TO BE CONSTRUCTED BY JOHNSON PROPERTY (CAMELBACK ASSUMED TO BE BUILT BY OTHERS)

NOTE: PROPOSED PRIMARY AND SECONDARY ACCESS: SUN VALLEY PARKWAY TO CAMELBACK ROAD TO JOHNSON ROAD TO SITE AS WELL AS GLENDALE AVE. TO SITE.

CONCEPT PLAN REGIONAL CIRCULATION



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 (602) 678-5151
 (FAX) 678-5155

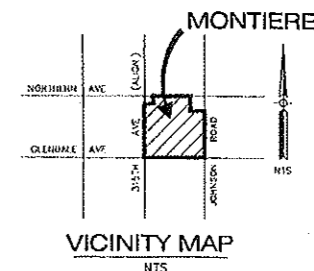


DATE: 07-18-06

WESP0000001

PRELIMINARY PLAT FOR MONTIERE

A PORTION OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 5 WEST OF THE GILA AND SALT RIVER MERIDIAN,
MARICOPA COUNTY, ARIZONA.



DEVELOPER/SUBDIVIDER

WESTPAC DEVELOPMENT CORP.
8501 N. SCOTTSDALE ROAD, SUITE 260
SCOTTSDALE, AZ 85253
(480)889-6900 FAX: (480)889-6001
CONTACT: PRL WELER

ENGINEER

DAVID EVANS AND ASSOCIATES, INC.
2141 EAST PHOENIX AVENUE - SUITE 200
PHOENIX, ARIZONA 85016
(602) 678-5151 FAX: (602) 678-5155
CONTACT: HOWARD CORNELL

BENCHMARK

- MARICOPA COUNTY BRASS CAP IN A HANDHOLE AT VAN BUREN & SUN VALLEY PARKWAY; ELEV. 1100.36
- MARICOPA COUNTY HIGHWAY DEPT. BRASS CAP IN A HANDHOLE AT MCDOWELL & SUN VALLEY PARKWAY; ELEV. 1148.16

BASIS OF BEARINGS

BEARINGS ARE BASED UPON N00°49'35"E ALONG THE WEST LINE OF THE NW 1/4 SECTION 28, TOWNSHIP 2 NORTH, RANGE 4 WEST, PER TARRANTS MAP OF DEEDBOOK BOOK 685 OF MAPS, PAGE 12, M.O.R.

ZONING

EXISTING ZONING: PLANNED COMMUNITY (PC)

UTILITIES/SERVICES

WATER	TOWN OF BUCKEYE
SANITARY SEWER	TOWN OF BUCKEYE
ELECTRIC	ARIZONA PUBLIC SERVICE
GAS	SOUTHWEST GAS
TELEPHONE CABLE	QWEST
REFUSE DISPOSAL	COX COMMUNICATIONS
POLICE PROTECTION	TOWN OF BUCKEYE
FIRE PROTECTION	TOWN OF BUCKEYE
ELEMENTARY SCHOOL	SADDLE MOUNTAIN UNIFIED
HIGH SCHOOL DISTRICT	SADDLE MOUNTAIN UNIFIED

FLOOD ZONE

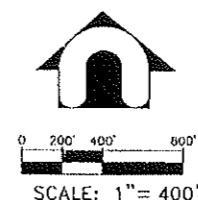
THE CURRENT FEMA FLOOD INSURANCE RATE MAP (FIRM) FOR THIS AREA, MAP NUMBER 04013C1540 H (EFFECTIVE DATE SEPTEMBER 30, 2005) SHOWS THAT THE PROJECT SITE IS PRIMARILY IN FLOOD HAZARD ZONE X (HATCHED). ZONE X (HATCHED) IS DEFINED AS: AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD. A PORTION OF THE SOUTHEAST 1/4 FALLS WITHIN ZONE AE. ZONE AE IS DEFINED AS: BASE FLOOD ELEVATIONS DETERMINED.

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET AND PARCEL INDEX MAP
2	STREET SECTIONS AND LOT DETAILS
3	SHEET INDEX MAP AND TRACT TABLE
4-12	PLAT SHEETS

INDEX MAP LEGEND

A	INDICATES PARCEL NUMBER
---	PROPERTY BOUNDARY LINE
---	PARCEL BOUNDARY LINE
-----	PHASE LINE



SCALE: 1" = 400'

LEGAL DESCRIPTION:

A PORTION OF SECTION 1, TOWNSHIP 2 NORTH, RANGE 5 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT GLO BRASS CAP FOUND AT THE SOUTHEAST CORNER OF SAID SECTION 1; THENCE NORTH 89°41'30" WEST, ALONG THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 1, A DISTANCE OF 2652.48 FEET TO A GLO BRASS CAP FOUND AT THE SOUTH QUARTER CORNER OF SAID SECTION 1;

THENCE NORTH 89°41'22" WEST, ALONG THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 1, A DISTANCE OF 2655.14 FEET TO A GLO BRASS CAP FOUND AT THE SOUTHWEST CORNER OF SAID SECTION 1;

THENCE NORTH 00°50'50" EAST, ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 1, A DISTANCE OF 2638.42 FEET TO A GLO BRASS CAP FOUND AT THE WEST QUARTER CORNER OF SAID SECTION 1;

THENCE NORTH 00°42'30" EAST, ALONG THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 1, A DISTANCE OF 2252.56 TO A POINT ON A LINE PARALLEL WITH AND 400.00 FEET SOUTH OF THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 1;

THENCE SOUTH 89°32'47" EAST, ALONG SAID PARALLEL LINE, A DISTANCE OF 265.00 FEET TO A POINT ON A LINE PARALLEL WITH AND 265.00 FEET EAST OF THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 1;

THENCE NORTH 00°42'30" EAST, ALONG LAST SAID PARALLEL LINE, A DISTANCE OF 200.00 FEET TO A POINT ON A LINE PARALLEL WITH AND 200.00 FEET SOUTH OF THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 1;

THENCE SOUTH 89°32'47" EAST, ALONG SAID PARALLEL LINE, A DISTANCE OF 2375.35 FEET TO A POINT ON A LINE PARALLEL WITH AND 200.00 FEET SOUTH OF THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 1;

THENCE SOUTH 89°38'48" EAST, ALONG SAID PARALLEL LINE A DISTANCE OF 1319.65 FEET TO THE WEST LINE LOT 1;

THENCE SOUTH 00°27'33" WEST, ALONG SAID WEST LINE OF LOT 1, A DISTANCE OF 800.00 FEET TO A POINT ON A LINE PARALLEL WITH AND 1000.00 FEET SOUTH OF THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 1;

THENCE SOUTH 89°38'48" EAST, ALONG LAST SAID PARALLEL LINE, A DISTANCE OF 1321.84 FEET TO THE EAST LINE OF THE NORTHEAST QUARTER OF SECTION 1;

THENCE SOUTH 00°18'17" WEST, ALONG SAID EAST LINE, A DISTANCE OF 1638.10 FEET TO A GLO BRASS CAP FOUND AT THE EAST QUARTER CORNER OF SAID SECTION 1;

THENCE SOUTH 00°23'57" WEST, ALONG THE EAST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 1, A DISTANCE OF 2042.80 FEET TO THE TRUE POINT OF BEGINNING.

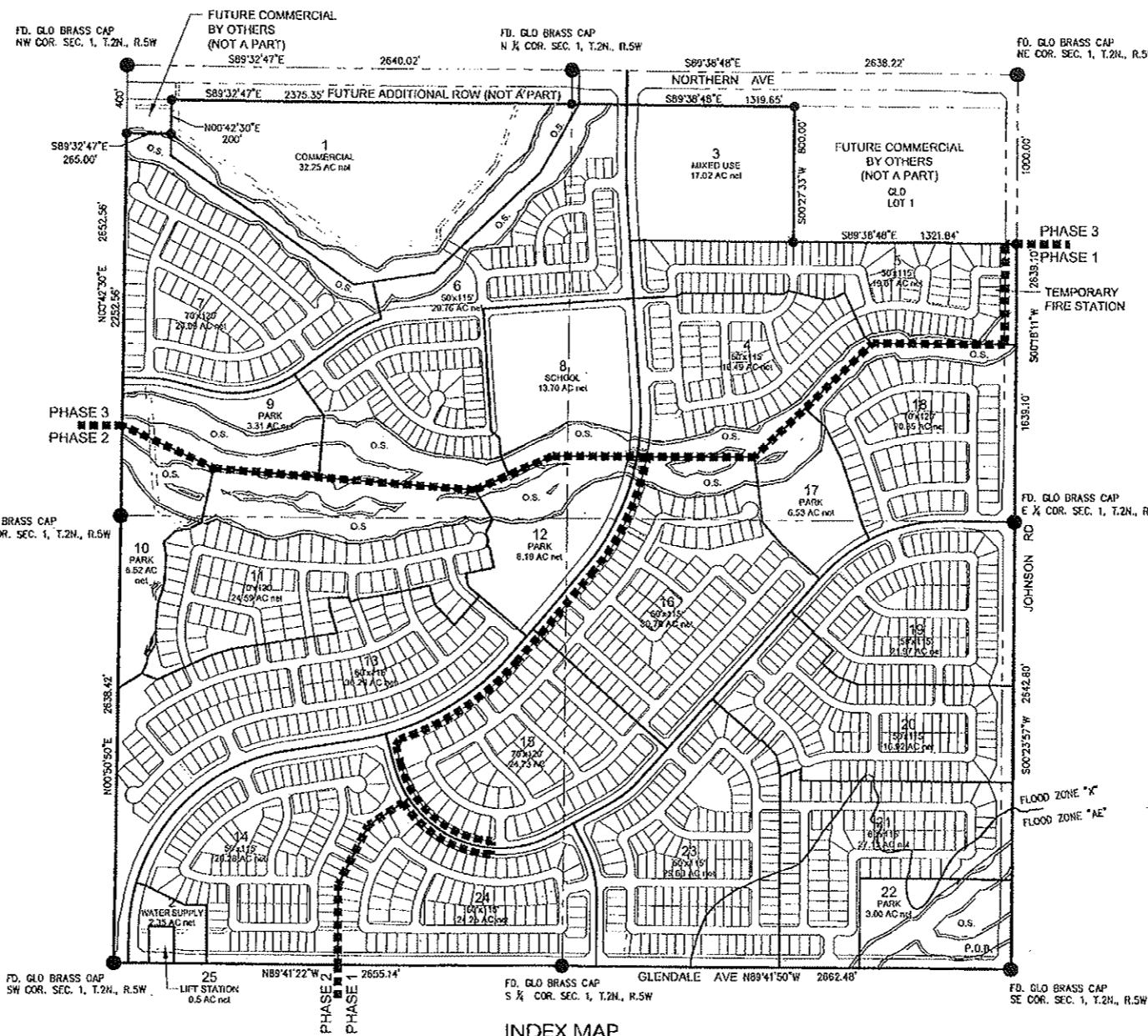
SAID PARCEL CONTAINING 26,833,133 SQUARE FEET OR 583.047 ACRES, MORE OR LESS.

SITE DATA

GROSS AREA:	593.047 AC
NET AREA:	472.226 AC
RESIDENTIAL AREA:	378.619 AC
COMMERCIAL AREA:	32.26 AC
MIXED USE AREA:	16.99 AC
SCHOOL AREA:	13.70 AC
PARK AREA:	27.60 AC
WATER SUPPLY FACILITY AREA:	2.53 AC
SANITARY SEWER LIFT STATION AREA:	0.52 AC
JURISDICTIONAL WASH OPEN SPACE AREA:	74.61 AC
TOTAL OPEN SPACE AREA:	168.44 AC
ARTERIAL/COLLECTOR ROW AREA:	46.31 AC
NUMBER OF DWELING UNITS:	1,584 (1,430 SF, 164 HD)
NUMBER OF TRACTS:	218
GROSS DENSITY:	2.86 DU/AC
NET DENSITY:	3.61 DU/AC
MINIMUM LOT SIZE:	5,750 S.F. (SINGLE FAMILY)
MAXIMUM LOT SIZE:	12,180 S.F.
AVERAGE LOT SIZE:	6,125 S.F. (SINGLE FAMILY)

GENERAL NOTES:

- THIS PROJECT IS A PLANNED COMMUNITY WITH THE FOLLOWING LAND USES: SINGLE FAMILY RESIDENTIAL, MIXED USE RESIDENTIAL, PUBLIC FACILITY USES, SCHOOL, PARK, AND COMMERCIAL.
- ALL STREETS CONSTRUCTED SHALL MEET TOWN OF BUCKEYE DESIGN STANDARDS, AND THE APPROVED CMP ROADWAY STANDARDS TYPICAL CROSS-SECTIONS.
- A HOME OWNER'S ASSOCIATION INCLUDING ALL LOT OWNERS IN MONTIERE WILL BE FORMED AND HAVE THE RESPONSIBILITY OF MAINTAINING ALL COMMON AREAS NOTED AS TRACTS INCLUDING DRAINAGE FACILITIES, ENTRY FEATURES, LANDSCAPING, WALLS, AND RECREATION AMENITIES.
- ALL STREETS WILL BE DEDICATED TO THE PUBLIC.
- ALL PROPOSED UTILITIES WILL BE LOCATED UNDERGROUND, EXCEPT TEMP. FACILITIES OR ANYTHING LARGER THAN 12KV.
- STREET LIGHTING TO BE INSTALLED AS REQUIRED BY THE TOWN OF BUCKEYE.
- ALL LANDSCAPING WITHIN PUBLIC RIGHT-OF-WAY WILL BE MAINTAINED BY THE HOME OWNERS ASSOCIATION.
- UP TO 10% OF THE SINGLE FAMILY DETACHED LOTS MAY BE UP TO 2X LESS THAN THE MINIMUM LOT AREA AND UP TO 10' LESS THAN THE MINIMUM LOT WIDTH OR DEPTH DUE TO PHYSICAL CONSTRAINTS SUCH AS OUL-DE-SACS, KNUCKLES, CURVES, ETC.
- MIXED USE RESIDENTIAL AND COMMERCIAL PARCELS REQUIRE SEPARATE SITE PLAN APPROVAL PRIOR TO DEVELOPMENT.
- EMERGENCY ACCESS TO BE MAINTAINED DURING DEVELOPMENT AS REQUIRED BY THE TOWN OF BUCKEYE.



SINGLE FAMILY DETACHED

LOT SIZE	UNITS	MIN. LOT AREA (S.F.)	PERCENTAGE	MAX. LOT COVERAGE (PRIMARY STRUCTURE)	MAX. LOT COVERAGE (PRIMARY SHADE)
50x115'	637	5750	44.25%	45.00%	50.00%
60x115'	489	6900	34.20%	45.00%	50.00%
70x120'	304	8400	21.26%	45.00%	50.00%
Total	1430		100.00%		

MIXED USE / HIGH DENSITY

PARCEL	UNITS	AREA (AC)	DENSITY
3	154	18.038	8.54

CMP VS. PRELIMINARY PLAT

LAND USE	APPROVED CMP UNITS	PLAT YIELD	APPROVED CMP ACRES	PLAT ACRES
Mixed Use	514	154	18.45	17.02
50x115'	526	637	110.76	149.48
60x115'	612	489	151.30	132.23
70x120'	413	304	121.68	99.90
School	n/a	n/a	13.50	13.70
Utility Infrastructure	n/a	n/a	3.00	3.04
Commercial/Industrial	n/a	n/a	31.40	32.25
Open Space	n/a	n/a	87.23	168.44
Arterial/Collector Roads	n/a	n/a	33.90	45.75
Total	2365	1684		

REVISIONS PER TOWN COMMENTS	11/07/07	DATE	
REVISIONS PER TOWN COMMENTS	06/22/07	DATE	
REVISIONS PER TOWN COMMENTS	04/12/07	DATE	
REVISIONS PER TOWN COMMENTS	03/29/07	DATE	
REVISIONS PER TOWN COMMENTS	01/27/07	DATE	
BY			
DATE			
DRAWN BY:	MDH/A	CHECKED BY:	HCC
DATE:	JAN 31, 2007		

DAVID EVANS AND ASSOCIATES, INC.
2141 East Phoenix Avenue, Suite 200
Phoenix, Arizona 85016
Phone: 602.678.5151

PRELIMINARY PLAT
COVER SHEET
MONTIERE
BUCKEYE, ARIZONA

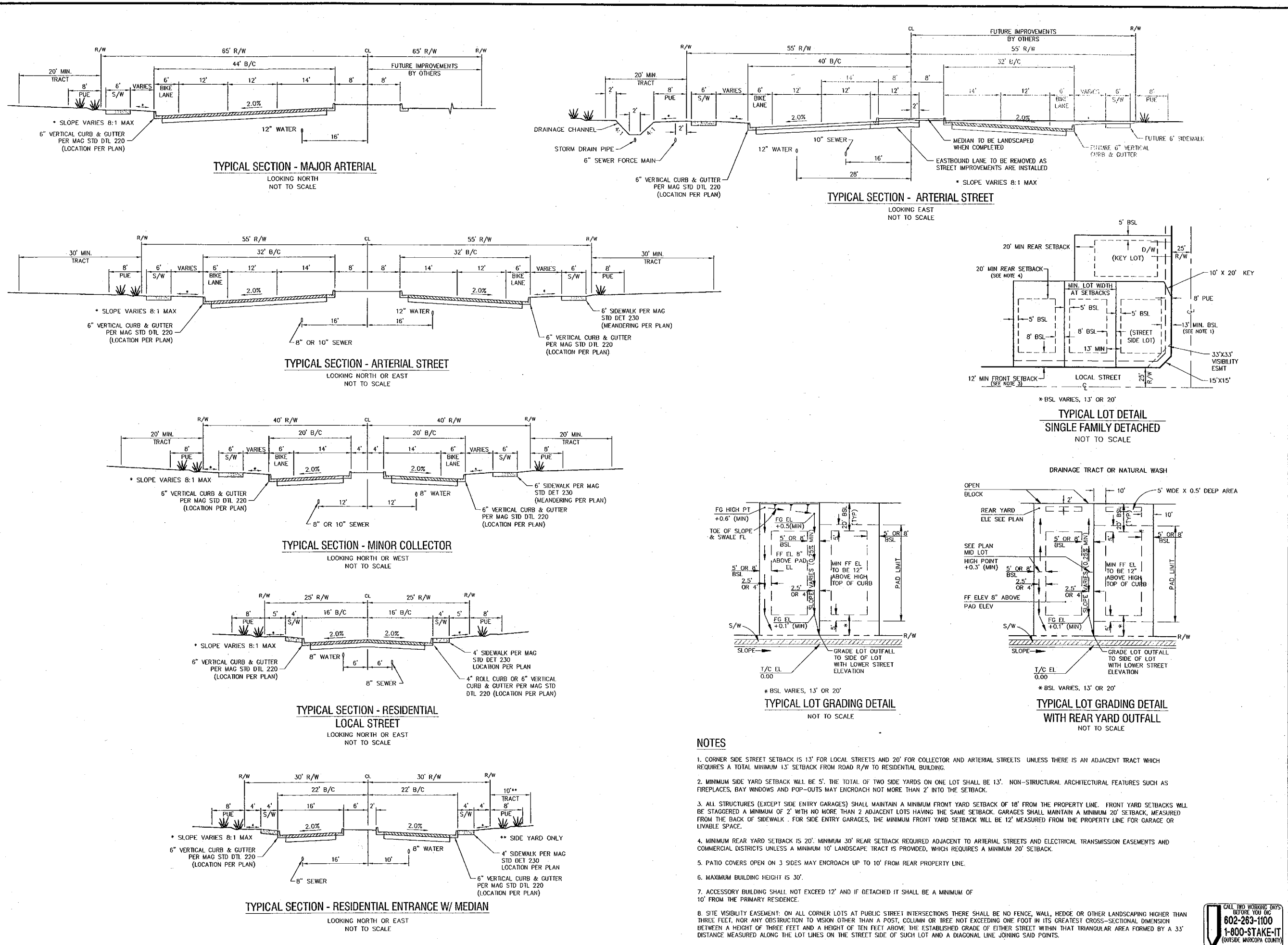
SCALE:
1" = 400'

SECTION: 1
TOWNSHIP: 2N
RANGE: 5W

SHEET
1 OF 12

JOB NO.:
WESP0000001

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NOTES

- CORNER SIDE STREET SETBACK IS 13' FOR LOCAL STREETS AND 20' FOR COLLECTOR AND ARTERIAL STREETS UNLESS THERE IS AN ADJACENT TRACT WHICH REQUIRES A TOTAL MINIMUM 13' SETBACK FROM ROAD R/W TO RESIDENTIAL BUILDING.
- MINIMUM SIDE YARD SETBACK WILL BE 5'. THE TOTAL OF TWO SIDE YARDS ON ONE LOT SHALL BE 13'. NON-STRUCTURAL ARCHITECTURAL FEATURES SUCH AS FIREPLACES, BAY WINDOWS AND POP-OUTS MAY ENCRoACH NOT MORE THAN 2' INTO THE SETBACK.
- ALL STRUCTURES (EXCEPT SIDE ENTRY GARAGES) SHALL MAINTAIN A MINIMUM FRONT YARD SETBACK OF 18' FROM THE PROPERTY LINE. FRONT YARD SETBACKS WILL BE STAGGERED A MINIMUM OF 2' WITH NO MORE THAN 2 ADJACENT LOTS HAVING THE SAME SETBACK. GARAGES SHALL MAINTAIN A MINIMUM 20' SETBACK, MEASURED FROM THE BACK OF SIDEWALK. FOR SIDE ENTRY GARAGES, THE MINIMUM FRONT YARD SETBACK WILL BE 12' MEASURED FROM THE PROPERTY LINE FOR GARAGE OR LIVABLE SPACE.
- MINIMUM REAR YARD SETBACK IS 20'. MINIMUM 30' REAR SETBACK REQUIRED ADJACENT TO ARTERIAL STREETS AND ELECTRICAL TRANSMISSION EASEMENTS AND COMMERCIAL DISTRICTS UNLESS A MINIMUM 10' LANDSCAPE TRACT IS PROVIDED, WHICH REQUIRES A MINIMUM 20' SETBACK.
- PATIO COVERS OPEN ON 3 SIDES MAY ENCRoACH UP TO 10' FROM REAR PROPERTY LINE.
- MAXIMUM BUILDING HEIGHT IS 30'.
- ACCESSORY BUILDING SHALL NOT EXCEED 12' AND IF DETACHED IT SHALL BE A MINIMUM OF 10' FROM THE PRIMARY RESIDENCE.
- SITE VISIBILITY EASEMENT: ON ALL CORNER LOTS AT PUBLIC STREET INTERSECTIONS THERE SHALL BE NO FENCE, WALL, HEDGE OR OTHER LANDSCAPING HIGHER THAN THREE FEET, NOR ANY OBSTRUCTION TO VISION OTHER THAN A POST, COLUMN OR TREE NOT EXCEEDING ONE FOOT IN ITS GREATEST CROSS-SECTIONAL DIMENSION BETWEEN A HEIGHT OF THREE FEET AND A HEIGHT OF TEN FEET ABOVE THE ESTABLISHED GRADE OF EITHER STREET WITHIN THAT TRIANGULAR AREA FORMED BY A 33' DISTANCE MEASURED ALONG THE LOT LINES ON THE STREET SIDE OF SUCH LOT AND A DIAGONAL LINE JOINING SAID POINTS.

REVISIONS PER TOWN COMMENTS	11/07/07	DATE	BY
REVISIONS PER TOWN COMMENTS	06/22/07		
REVISIONS PER TOWN COMMENTS	04/12/07		
REVISIONS PER TOWN COMMENTS	03/29/07		
REVISIONS PER TOWN COMMENTS	01/31/07		
DRAWN BY:	MXHA	CHECKED BY:	HCC
DATE:	JAN 31 2007		

DAVID EVANS AND ASSOCIATES INC.
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Phoenix, Arizona 85016
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PRELIMINARY PLAT STREET SECTIONS AND LOT DETAILS
MONTIERE
BUCKEYE, ARIZONA

SCALE: **AS NOTED**

SECTION: 1
TOWNSHIP: 2N
RANGE: 5W

SHEET 2 OF 12

JOB NO.: WESP0000001

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Land Use

- Low Density Residential (LDR)
2 du/acre
- Medium Density Residential (MDR)
4 du/acre target
- High Density Residential (HDR)
13.5 du/acre target
- Commercial (C)
- Business Park (BP)
- Employment (LI)
- High School (HS)
- Elementary School (K)
- Park (P)
- Power Line Easement (OS-E)
- Major Wash (OS-W)
- Village Center
(May be refined and moved in PUP process)

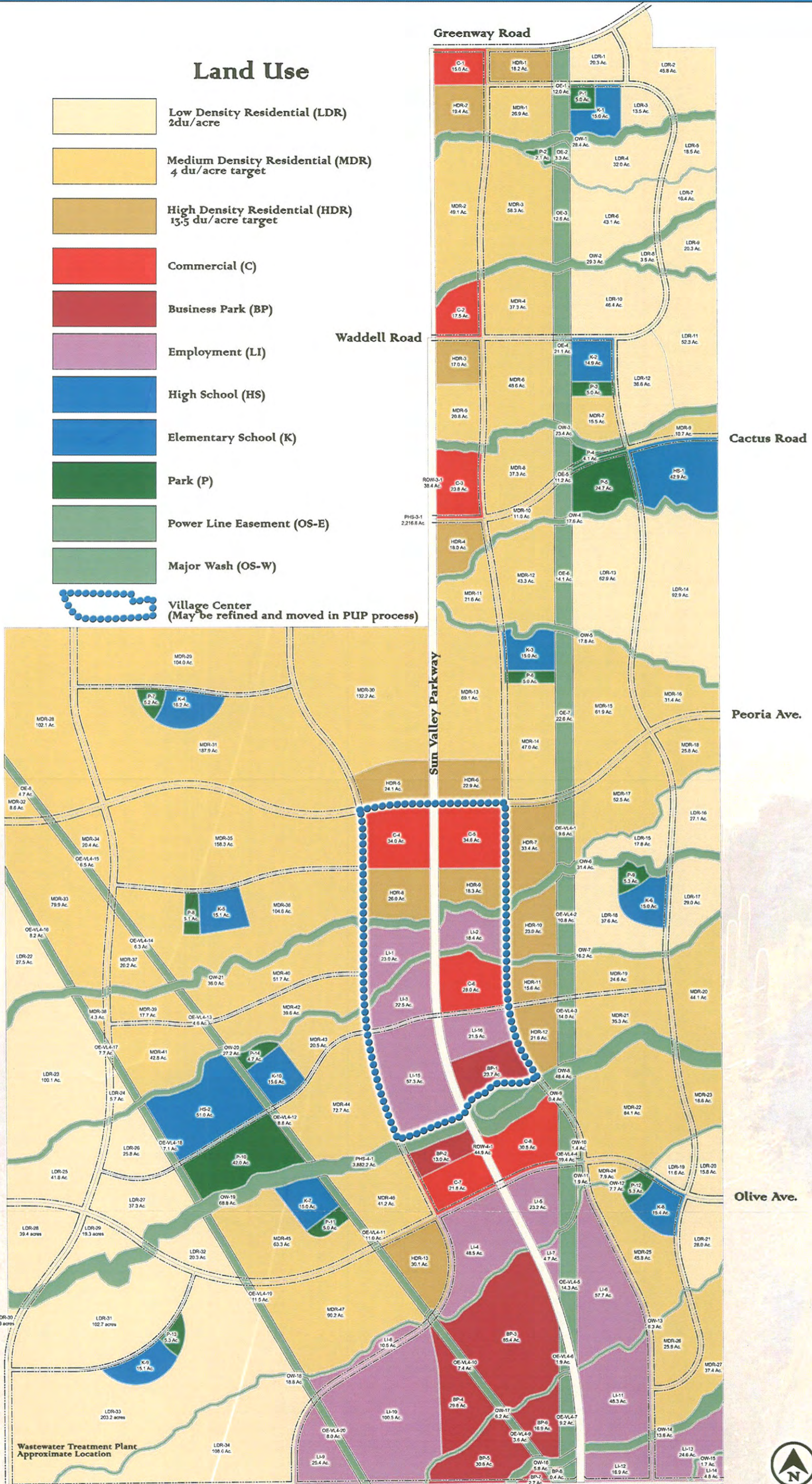


Exhibit D: Sun Valley Villages III and IV
Land Use Plan







Scale: 1"=800'


Carter Burgess

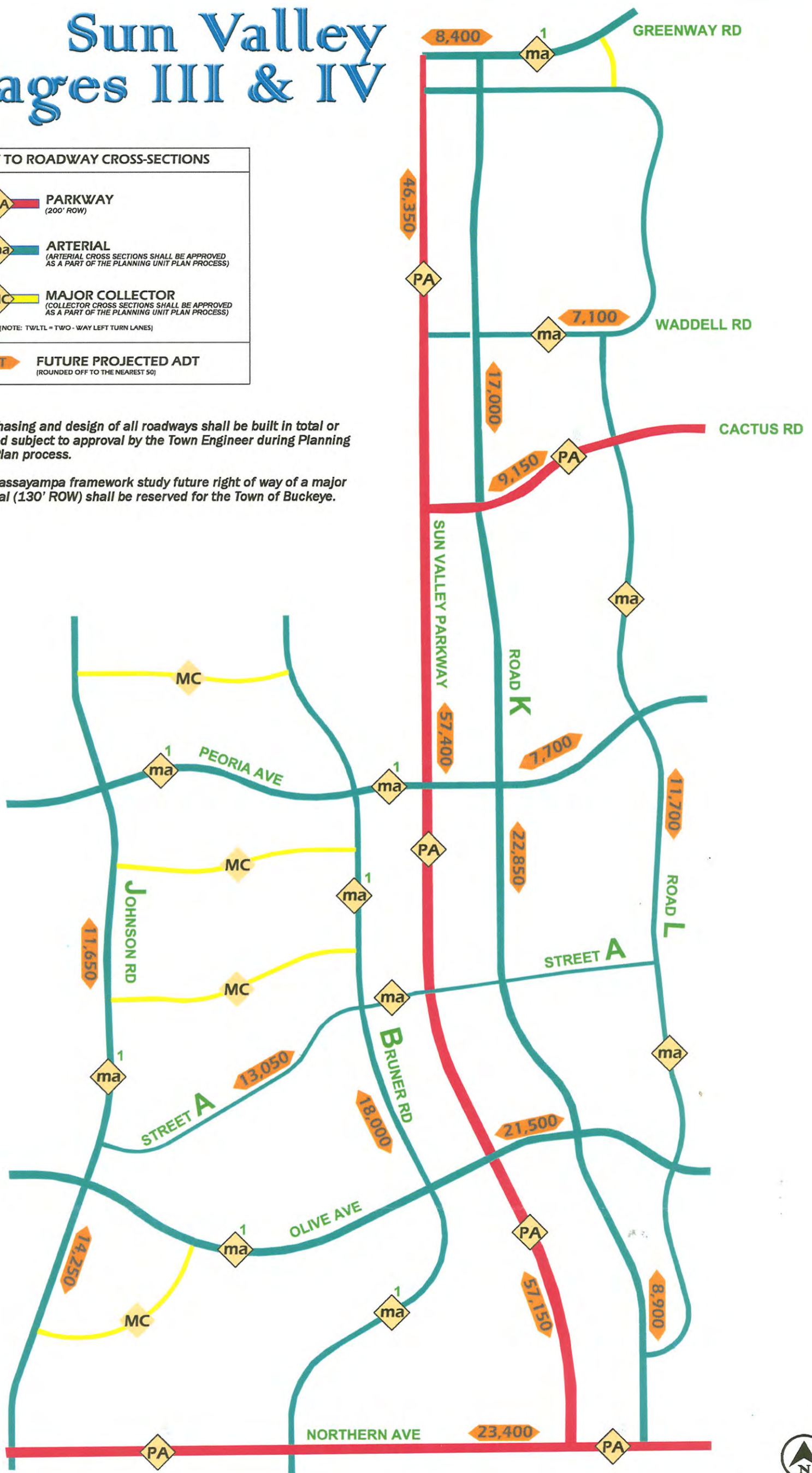
July 2008 Job # 195001

Sun Valley Villages III & IV

KEY TO ROADWAY CROSS-SECTIONS	
	PARKWAY (200' ROW)
	ARTERIAL (ARTERIAL CROSS SECTIONS SHALL BE APPROVED AS A PART OF THE PLANNING UNIT PLAN PROCESS)
	MAJOR COLLECTOR (COLLECTOR CROSS SECTIONS SHALL BE APPROVED AS A PART OF THE PLANNING UNIT PLAN PROCESS)
<small>(NOTE: TWLTL = TWO-WAY LEFT TURN LANES)</small>	
	FUTURE PROJECTED ADT (ROUNDED OFF TO THE NEAREST 50)

The phasing and design of all roadways shall be built in total or phased subject to approval by the Town Engineer during Planning Unit Plan process.

 Per Hassayampa framework study future right of way of a major arterial (130' ROW) shall be reserved for the Town of Buckeye.



Scale: NTS

Exhibit K: Master Street and Circulation Plan

Carter Burgess
March 2009