Master Circulation Plan

Prepared: July 2021
Revised: October 2021
Revised: February 2022
Revised: April 2022

Fiesta Ranch

Prepared for:

Jade Vista, LLC
7320 E. Butherus Drive, Suite 204
Scottsdale, AZ 85260

Prepared by:

Kimley-Horn and Associates, Inc.
1001 W. Southern Avenue, Suite 131
Mesa, Arizona 85210
(602) 944-5500

091746010

April, 2022

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1.0 INTRODUCTION

1.1 Background and Scope

This Master Circulation Plan has been prepared to support the development of Fiesta Ranch, consisting of a single-family R1-18 and R1-43 zoned subdivision located in the City of Scottsdale, Arizona. The intent of this plan is to identify the scope of roadway improvements associated with each phase of the project.

Reference is made to the stipulations in the following case number: 6-ZN-2019, as requirements of this report. These stipulations are attached as **Appendix A**.

1.2 Location

Fiesta Ranch is a proposed master planned subdivision developed on a 273-acre site located in portions of the Section 31, Township 5 North, Range 6 East, GSRBM in Maricopa County, Arizona. The site is bound to the north by the Rio Verde Drive Alignment and to the west by 136th Street. The Quail Track Road alignment bounds the site to the south. Unincorporated Maricopa County properties border the site to the south and east. **See Figure 1 – Vicinity Map.**

2.0 EXISTING/PROPOSED IMPROVEMENTS AND RIGHTS OF WAYS

2.1 Rio Verde Drive – 136th Street to 142nd Street Alignment

Existing

Rio Verde Drive exists along the northern boundary of the project and is a paved two-lane roadway. One travel lane is provided in each direction. There is no curb, gutter, or sidewalk along either side of the roadway. 100 feet of right-of-way exists both north and south of the section line (200 feet total), however, the existing roadway is entirely south of the section line within the south 100 feet of right-of-way. Rio Verde Drive is classified by the City of Scottsdale as a Minor Collector – Rural/ESL roadway.

Proposed

Rio Verde Drive improvements will include approximately 4,300 linear feet of street widening improvements from 136th Street to the 142nd Street alignment. The stipulated section is a Minor Arterial – Rural/ESL with Trails per the adopted Transporation master Plan, however, the constructed and stipulated cross section will be built to a Minor Collector (one travel lane each direction with center turn lane). As part of the project zoning case (6-ZN-2019), E. Rio Verde Drive will construct a center turn lane to maintain a bike lane in both directions, a 8-foot concrete sidewalk and a 8-foot unpaved multi-use trail along the project frontage. Additionally, east bound deceleration right-turn lanes at 138th Street and 141st Street intersections will be constructed as part of this project.

Outside of the existing 100-foot right-of-way south of the section line, a 100-foot Scenic Corridor easement will be dedicated along the project frontage. In general, the condition will remain in a natural state within the scenic corridor easement, however, the sidewalk and multi-use path will be proposed to meander within the scenic corridor to better traverse the alignment and work with existing features on the property. It is also likely that drainage improvements will be necessary at various locations throughout the corridor to protect the proposed roadway and multi-use path improvements.

Rio Verde exists entirely south of the section line within the 100-foot right-of-way dedicated. This is in large part due to site constraints along the north side of the roadway. Fiesta Ranch proposes to widen the existing roadway south of the current roadway centerline (which offset varies from the section line). Due to existing wash constraints and site features along the project frontage, it is proposed to combine both sidewalk and trail uses along the same meandering alignment south of the roadway. The 8-foot concrete sidewalk and 8-foot multi-use path will be separated by four feet where possible and will provide for pedestrian and trail access along the south side of Rio Verde Drive as intended and meander within both the existing 100-foot right-of-way and scenic corridor easement proposed.

See **Figure 2 – Proposed Cross Sections.**

2.2 136th Street

Existing

An existing compacted dirt roadway runs along the 136th Street alignment for the majority of the project frontage. 55 feet of right-of-way east of the section line and 25 feet west of the section line exists. Approximately 300 feet south of Rio Verde Drive, an additional 5 feet of right-of-way (30 feet total) exists west of the section line along 136th Street. 136th Street is classified by the City of Scottsdale as a Local Collector – Rural/ESL roadway.

The adjacent project known as Reata Ranch is stipulated to widen the west half of 136th Street. The project was never constructed but roadway improvements were approved by the City of Scottsdale previously.

Proposed

136th Street improvements from Rio Verde Drive to the project's southern boundary, approximately 1,300 feet will be constructed with half-street improvements as required by the City of Scottsdale DS&PM. The stipulated section is a Local Collector Rural/ESL. The proposed half-street improvement consists of a 20-foot wide pavement section with a roll curb and gutter on the east side. A 6-foot compacted shoulder on the west side will be provided with the edge of pavement and interim condition proposed with the project (prior to Reata Ranch improvements). Additionally, a 6-foot wide multi-use trail along the east side will be constructed and meander within the existing right-of-way and the dedicated 50-foot

desert scenic corridor proposed. At the intersection of 136th Street and Rio Verde Drive, the proposed improvements will align with 136th Street north of Rio Verde Drive and construct a separate left turn lane for westbound traffic.
Outside of the existing 55-foot right-of-way east of the section line, a 50-foot Desert Scenic Corridor easement will be dedicated along the project frontage. In general, the condition will remain in a natural state within the scenic corridor easement, however, a multi-use trail will be proposed to meander within the scenic corridor to better traverse the alignment and work with existing features on the property. It is also likely that drainage improvements will be necessary at various locations throughout the corridor to protect the proposed roadway and convey flows crossing 136th Street.

See **Figure 2 – Proposed Cross Sections.**

2.3 138th Street

Existing

An existing compacted dirt roadway runs along the 138th Street alignment to the southern boundary of the project, currently providing access to approximately 20 existing homes within unincorporated Maricopa County. A 20' ingress/egress easement exists through the project along the 138th Street alignment. 138th Street is classified by the City of Scottsdale as a Local Collector – Rural/ESL roadway.

Proposed

A 50-foot right-of-way dedication and full street improvements are proposed to approximately 2,500 feet south of Rio Verde to the south boundary of the R1-43 and R1-18 zoning boundaries, just north of the existing wash crossing. No access or proposed improvements are proposed south of the R1-43 and R1-18 zoning boundaries. This project proposed to maintain the existing dirt roadway and wash crossing south to the unincorporated Maricopa County properties. A 25-foot right-of-way dedication east of the 138th street alignment is proposed for the south ~660 feet to the southern boundary of the project.

See **Figure 2 – Proposed Cross Sections.**

2.4 141st Street

Existing

An existing compacted dirt roadway runs along the 141st Street alignment to the southern boundary of the project, currently providing access to existing homes within unincorporated Maricopa County. A 20-foot ingress/egress easement exists through the project along the 141st Street alignment. 141st Street is classified by the City of Scottsdale as a Local Collector – Rural/ESL roadway.

Proposed

A 50-foot right-of-way dedication and full street improvements are proposed to the south boundary of the project. The roadway improvement consists of a 28-feet roadway width (back of curb to back of curb), roll curb and gutter on both sides, a 6-foot wide sidewalk on the west side, and a 6-foot wide multi-use trail along the east side. The roadway will include two major wash crossings and will meet roadway crossing culvert improvement requirements as required in the DS&PM, Section 4.1.204.

Outside of the 50-foot right-of-way dedication, a 50-foot Desert Scenic Corridor easement will be dedicated on both sides of the 141st street alignment along the project frontage. In general, the condition will remain in a natural state within the scenic corridor easement, however, a multi-use trail will be proposed to meander within the scenic corridor to better traverse the alignment and work with existing features on the property. It is also likely that drainage improvements will be necessary at various locations throughout the corridor to protect the proposed roadway and convey flows crossing 141st Street.

See **Figure 2 – Proposed Cross Sections.**

2.5 East-West Collector Road

Required

No street exists along the anticipated East-West Collector alignment proposed. Per the project zoning stipulations, A full street Local Collector – Rural/ESL roadway is required between 141st Street and 136th Street, internal to the development project to provide access to 136th Street and the Rio Verde Drive intersection.

Proposed

A 50-foot right-of-way dedication and full street improvements are proposed with the East-West Collector Road from 136th Street to 141st Street. The roadway improvement consists of a 28-feet roadway width (back of curb to back of curb), roll curb and gutter on both sides, and a 6-foot wide sidewalk on the north side. No direct residential frontage shall be provided to this collector roadway.

See **Figure 2 – Proposed Cross Sections.**

2.6 Internal Local Public/Private Streets

Required

All streets constructed within Fiesta Ranch will be public or private local residential streets and will conform to City of Scottsdale standards for fire truck access. Gated entrances shall conform to Figure 8.1-1 of the City of Scottsdale Design Standards and Policy Manual. All streets will be public up to the gated entrances, beyond the gated entrances the streets will be private. See **Figure 3** for the Master Circulation Plan.

The stipulated section for Internal Streets within the subdivision will be within a 40-foot private tract and will include rights for public utilities. An additional 2-foot public utility easement will be provided outside of the dedicated right-of-way or private tract. This section will maintain consistency within the master planned community and provide for greater opportunities to maintain Natural Area Open Space (NAOS) and lower impacts to the undisturbed landscape.

2.7 In-Lieu Payments

Per the zoning stipulations, Fiesta Ranch shall make an in-lieu payment to the City, prior to any final plat recordation for the following improvements:

A. Curb and Gutter along the south side of Rio Verde Drive along the project frontage.

B. One-quarter responsibility of 136th Street and Rio Verde Drive future traffic control cost at intersection.

Figure 1 – Vicinity Map

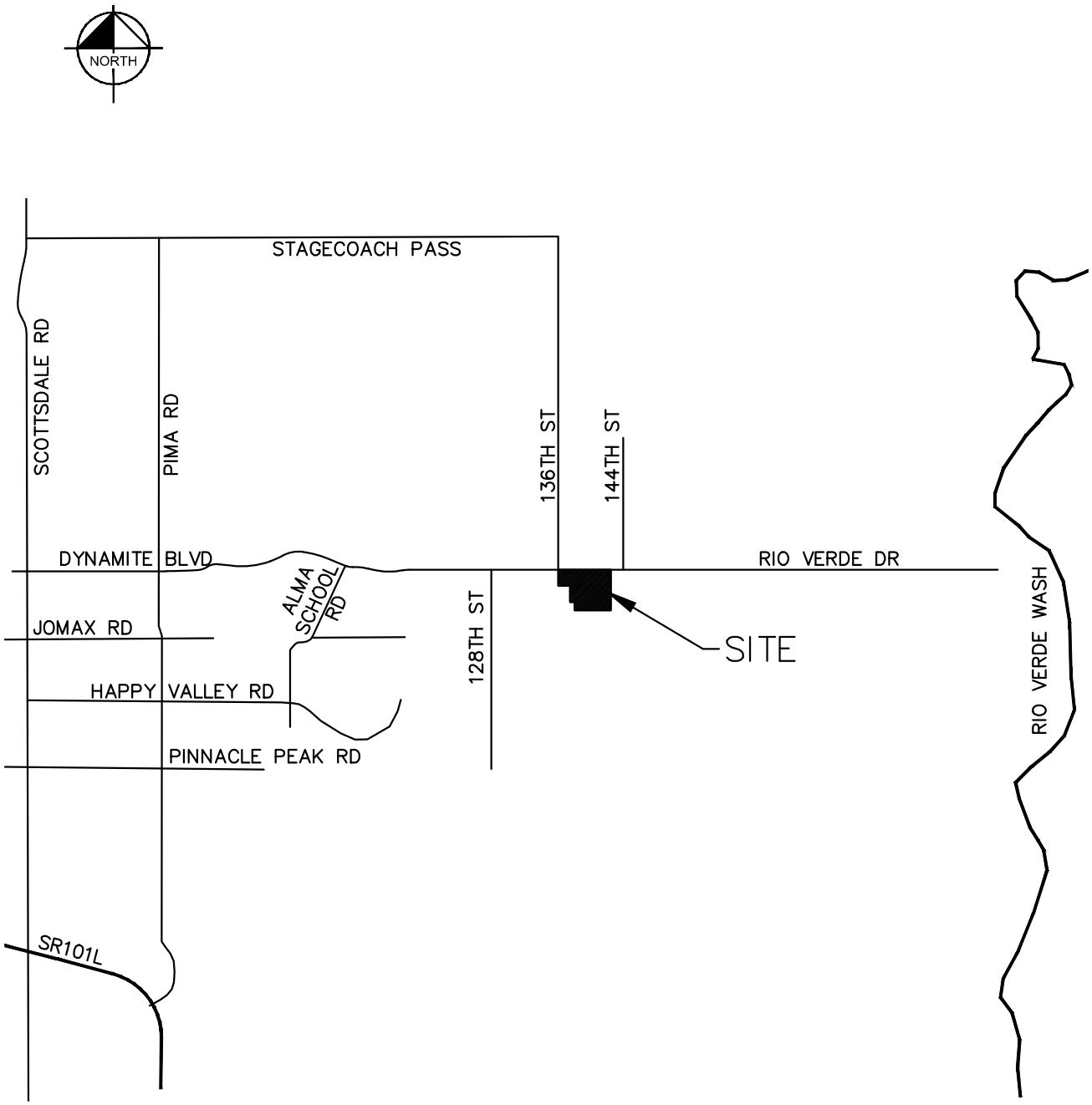
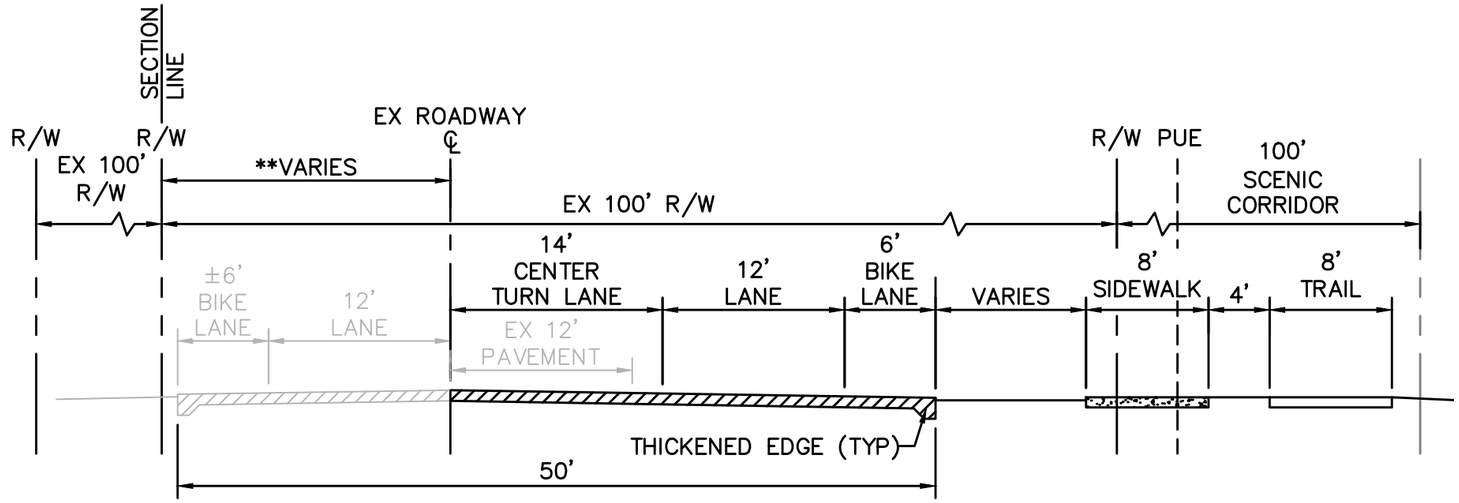


FIGURE 1
VICINITY MAP
FIESTA RANCH

Kimley»Horn

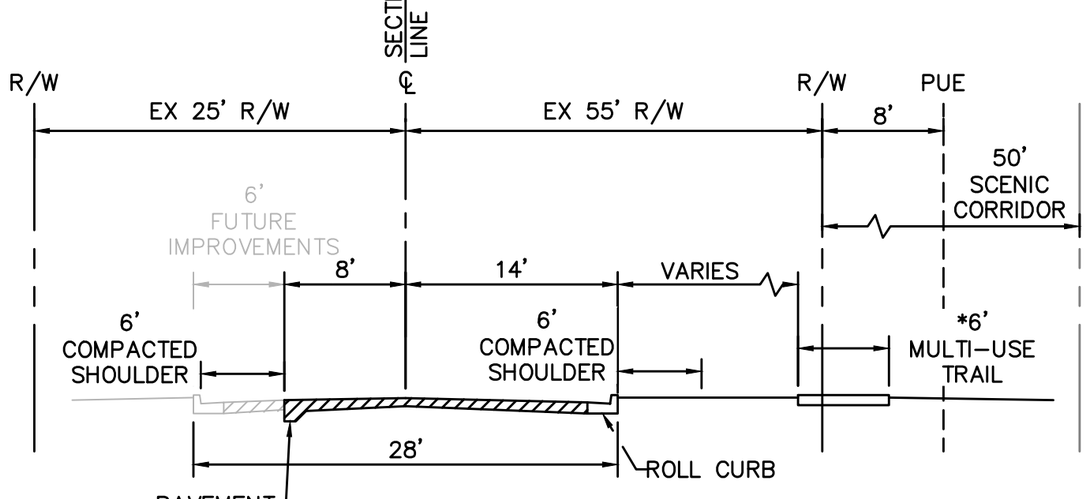
Figure 2 – Proposed Cross Sections



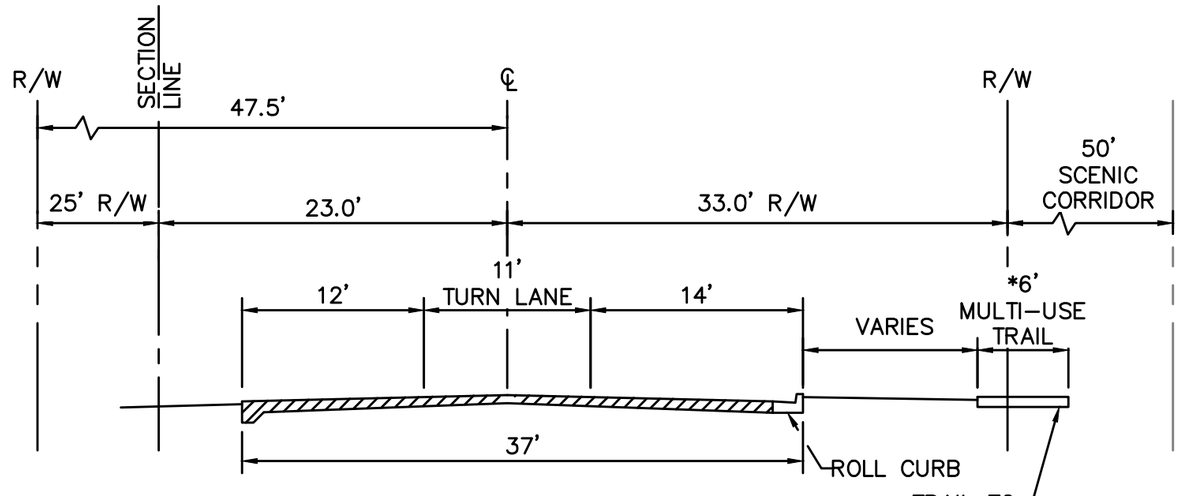
RIO VERDE DRIVE SECTION
MINOR ARTERIAL - RURAL / ESL
MODIFIED
(LOOKING EAST)

*SIDEWALK/MULTI-USE/TRAIL TO MEANDER WITHIN THE EXISTING STREET R/W AS WELL AS THE SCENIC CORRIDOR IN AREAS TO WORK WITH TERRAIN AND EXISTING SITE CONSTRAINTS.

**EX. RIO VERDE DRIVE ROADWAY CENTERLINE IS SOUTH OF SECTION LINE AND VARIES ALONG THE PROJECT FRONTAGE.



136TH STREET SECTION
LOCAL COLLECTOR - RURAL / ESL
(LOOKING NORTH)



136TH STREET SECTION
AT RIO VERDE DR INTERSECTION
LOCAL COLLECTOR - RURAL / ESL
(LOOKING NORTH)

NO.	REVISION	DATE

Kimley»Horn

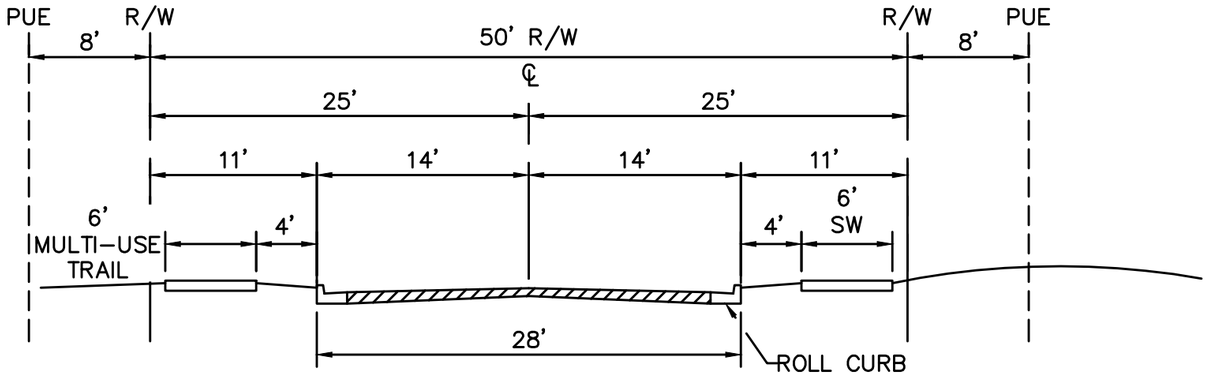
7740 North 16th Street, Suite 300
Phoenix, Arizona 85020 (602) 944-5500

SCALE (H): 1"=10'
SCALE (V): NONE
DESIGNED BY: ZTW
DRAWN BY: ZTW
CHECKED BY: JMB
DATE: APRIL 2022

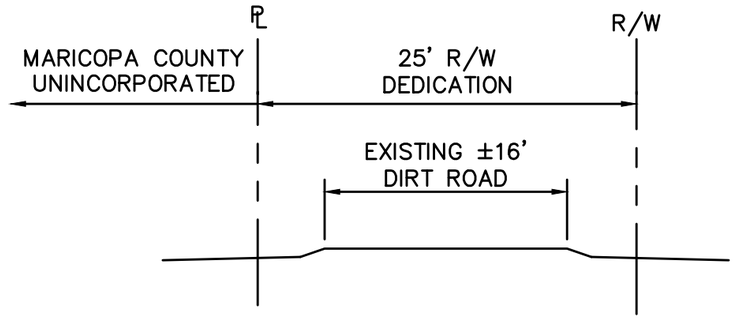
FIESTA RANCH
MASTER CIRCULATION PLAN
FIGURE 2 - PROPOSED CROSS SECTIONS
SCOTTSDALE, ARIZONA

PROJECT NO.
091746010

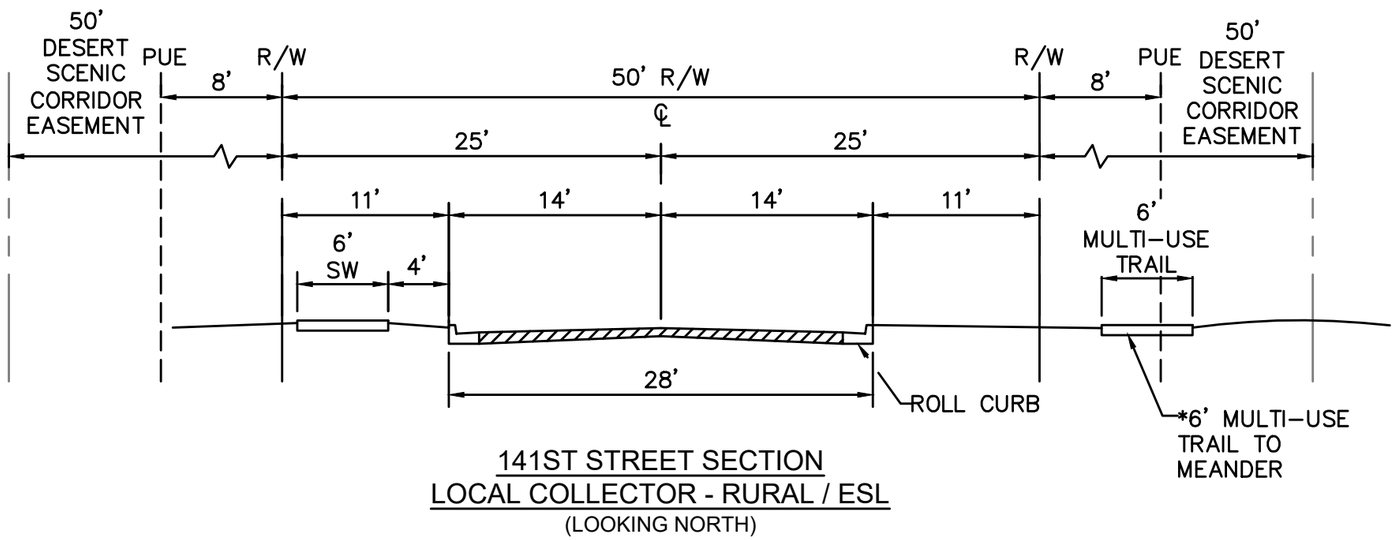
DRAWING NAME



138TH STREET SECTION
LOCAL COLLECTOR - RURAL / ESL
(LOOKING NORTH)



138TH STREET SECTION
EXISTING ROADWAY
(LOOKING NORTH)



141ST STREET SECTION
LOCAL COLLECTOR - RURAL / ESL
(LOOKING NORTH)

*SIDEWALK/MULTI–USE/TRAIL TO MEANDER WITHIN THE EXISTING STREET R/W AS WELL AS THE SCENIC CORRIDOR IN AREAS TO WORK WITH TERRAIN AND EXISTING SITE CONSTRAINTS.

**EX. RIO VERDE DRIVE ROADWAY CENTERLINE IS SOUTH OF SECTION LINE AND VARIES ALONG THE PROJECT FRONTAGE.

NO.	REVISION	DATE

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7740 North 16th Street, Suite 300
Phoenix, Arizona 85020 (602) 944–5500

SCALE (H): 1"=10'
SCALE (V): NONE
DESIGNED BY: ZTW
DRAWN BY: ZTW
CHECKED BY: JMB
DATE: JUN 2021

FIESTA RANCH
MASTER CIRCULATION PLAN
FIGURE 2 - PROPOSED CROSS SECTIONS
SCOTTSDALE, ARIZONA

PROJECT NO.
091746010

DRAWING NAME

3.0 PROPOSED DEVELOPMENT PLAN

3.1 Phasing Overview

The 273-acre "Fiesta Ranch" subdivision will consist of four (4) phases each with possibility for internal sub-phasing (see **Figure 4 – Phasing Plan**). The proposed development consists of 227 single family residential units over the four phases. Phase 1 consists of the northern R1-18 portion of the site between 136th Street and 141st Street. Phase 2 consists of the remaining R1-18 portion of the property, south of the anticipated East-West Collector Road alignment as well as the R1-43 parcel, west of the 138th Street Alignment. Phase 3 consists of R1-43 lots and is entirely east of the 141st Street alignment. The final phase, Phase 4, is the southeastern most R1-43 parcel, south of the southernmost wash, accessing off 141st Street. All phases of development will be required to construct the necessary infrastructure to serve their development. The following sections details the Phases and sub phases infrastructure requirements.

Should phasing not progress as proposed herewith, a new phasing plan will be submitted to the city for review and approval through an amendment to this MP case with any sequence of phasing improvements proposed such that regardless of whichever phase goes first, all of Rio Verde Drive stipulated improvements will be a condition of that phase. Each subsequent phase will be required to improve local collectors along their frontage and north to Rio Verde Dr. and south to city jurisdictional boundary and east to 138th Street or 141st Street and west to 138th Street or 136th Street (whichever is closest). Sub-phasing may be considered but doing so will not change improvement requirements for the sub-phase based on the improvements required for phase.

See **Figure 5**, for the required infrastructure for each phase.

3.2 Phase 1

Phase 1 is comprised of the development parcels north of the anticipated East-West Collector Road alignment between 136th Street and 141st Street. Development of this phase may include additional sub-phasing to coincide with market conditions and how many lots will be released at a particular time. Should a developer propose additional sub-phasing internal to each phase, it will be the developer's responsibility to prove each development can meet the requirements outlined in the DS&PM to be a stand-alone project. The infrastructure for each overall Phase to be served as a standalone development is described below.

Phase 1, will be required to construct the Rio Verde widening improvements as outlined in Section 2, from 136th Street to the eastern boundary as outlined in section 2, half-street improvements along 136th Street along the project frontage, full street improvements along 138th Street from Rio Verde Drive to the anticipated East-West Collector Roadway, full street improvements along 141st Street from Rio Verde Drive to the anticipated East-West Collector Roadway, and full street improvements for the East-West Collector Road from 136th Street to 141st Street.

3.3 Phase 2

Phase 2 is comprised of the R1-43 parcel, west of the 138th Street alignment and the remaining R1-18 development parcels south of the anticipated East-West Collector Road between 138th Street and 141st Street. This phase will propose to extend the full street improvements for 138th Street to the south boundary of the R1-43 parcel, just north of the existing wash entering the property and will connect back to the existing dirt roadway accessing unincorporated Maricopa County residences south of the development. This phase will propose to extend the 141st Street south to the southern boundary of the R1-18 parcel, just north of the existing southernmost wash meandering the project.

3.4 Phase 3

Phase 3 is comprised of the east most R1-43 parcels east of 141st Street and north of the existing southernmost wash. The improvements for Phase 3 are internal to the development parcel as 141st Street along the phase frontage will be constructed with Phases 1 and 2.

3.5 Phase 4

Phase 4 is comprised of the southeast most R1-43 parcels, south of the large wash crossing and accessing off of 141st Street. Phase 4 will extend the full street improvements for 141st Street to the project's southern boundary and connect back to the existing dirt roadway. The wash crossing will be constructed to meet the minimum culvert improvement requirements as required in the DS&PM, Section 4.1.204. The remaining improvements for Phase 4 are internal to the development parcel.

3.6 Easements

A 100-foot Scenic Corridor easement is proposed along the south side of Rio Verde Drive along the project frontage. A 50-foot Desert Scenic Corridor easement is proposed along the east side of 136th Street and on both sides of 141st Street.

There are many miscellaneous access easements along 138th Street and the 141st Street alignments. These easements will be abandoned. All proposed right-of-way or other access easements will be dedicated prior to existing easement releases through the property. This process ensures either the easement is no longer needed, or an alternative easement/ access is provided.

Figure 3 – Master Circulation Plan

RIO VERDE DRIVE SECTION

136TH STREET SECTION

EAST-WEST COLLECTOR ROAD SECTION

138TH STREET SECTION

141ST STREET SECTION

1 2 3 4 5 7 8 9 10 11 12 13 14 15

LEGEND

- SUBDIVISION ENTRANCE GATE
- MINOR COLLECTOR – RURAL ESL (MODIFIED PER FIGURE 2)
- LOCAL COLLECTOR – RURAL ESL (MODIFIED PER FIGURE 2)
- INTERNAL – RURAL ESL (5–3.19)

NORTH

GRAPHIC SCALE IN FEET
0 100 200 400

NO.	REVISION	BY	DATE	APPR.

Kimley»Horn

7740 North 16th Street, Suite 300
Phoenix, Arizona 85020 (602) 944-5500

SCALE (H): 1"=200'
SCALE (V): NONE
DESIGNED BY: JSG
DRAWN BY: JSG
CHECKED BY: JMB
DATE: NOV 2021

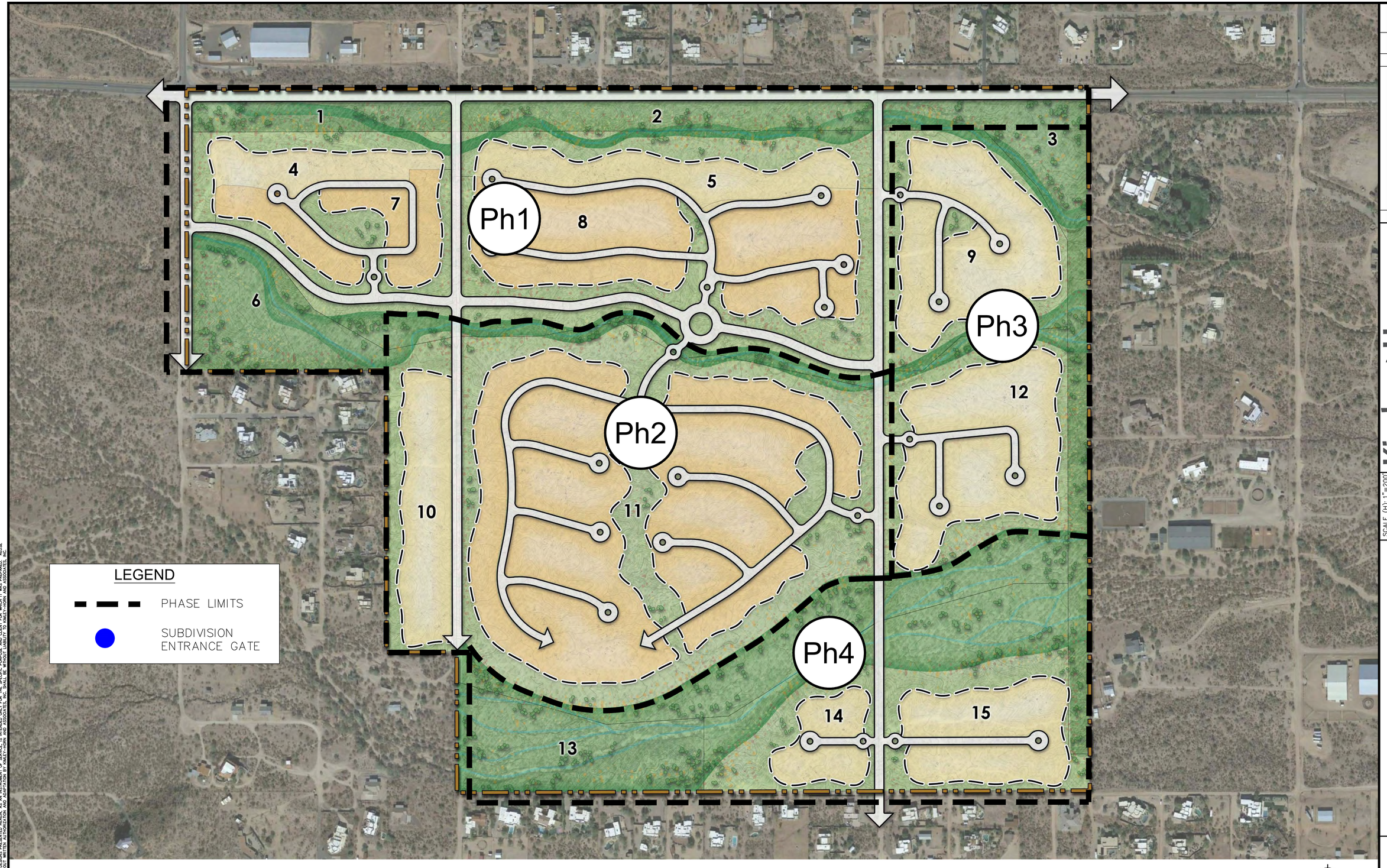
FIESTA RANCH
FIGURE 3: CIRCULATION MAP
SCOTTSDALE, ARIZONA

PROJECT NO.
091746010

DRAWING NAME

1 OF 1

Figure 4 – Phasing Plan Map



SHOULD PHASING NOT PROGRESS AS PROPOSED HEREWITH, A NEW PHASING PLAN WILL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL THROUGH AN AMENDMENT TO THIS MP CASE WITH ANY SEQUENCE OF PHASING IMPROVEMENTS PROPOSED SUCH THAT REGARDLESS OF WHICHEVER PHASE GOES FIRST, ALL OF RIO VERDE DRIVE STIPULATED IMPROVEMENTS WILL BE A CONDITION OF THAT PHASE. EACH SUBSEQUENT PHASE WILL BE REQUIRED TO IMPROVE LOCAL COLLECTORS ALONG THEIR FRONTAGE AND NORTH TO RIO VERDE DRIVE AND SOUTH TO CITY JURISDICTIONAL BOUNDARY AND EAST TO 136TH STREET OR 141ST STREET AND WEST TO 136TH STREET OR 136TH STREET (WHICHEVER IS CLOSEST). SUB-PHASING MAY BE CONSIDERED BUT DOING SO WILL NOT CHANGE IMPROVEMENT REQUIREMENTS FOR THE SUB-PHASE BASED ON THE IMPROVEMENTS REQUIRED FOR PHASE.

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FIESTA RANCH
FIGURE 4: PHASING MAP
SCOTTSDALE, ARIZONA

PROJECT NO.
091746010

DRAWING NAME

1 OF 1

Figure 5 – Individual Phase Improvements

RIO VERDE DRIVE SECTION

138TH STREET SECTION

INTERNAL STREET TYP.

INTERNAL STREET TYP.

INTERNAL STREET TYP.

Ph1

136TH STREET SECTION

EAST-WEST COLLECTOR ROAD SECTION

141ST STREET SECTION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

LEGEND

- PHASE LIMITS
- SUBDIVISION ENTRANCE GATE
- PROPOSED LIFT STATION
- MINOR COLLECTOR – RURAL ESL (MODIFIED PER FIGURE 2)
- LOCAL COLLECTOR – RURAL ESL (MODIFIED PER FIGURE 2)
- INTERNAL – RURAL ESL (5–3.19)
- LIFT STATION ACCESS ROAD

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FIESTA RANCH
IMPROVEMENTS - PHASE 1
FIGURE 5 - INDIVIDUAL PHASE
SCOTTSDALE, ARIZONA

PROJECT NO.
091746010

DRAWING NAME

1 OF 4

LEGEND

- PHASE LIMITS
- SUBDIVISION ENTRANCE GATE
- MINOR COLLECTOR – RURAL ESL (MODIFIED PER FIGURE 2)
- LOCAL COLLECTOR – RURAL ESL (MODIFIED PER FIGURE 2)
- INTERNAL – RURAL ESL (5–3.19)

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FIESTA RANCH
IMPROVEMENTS - PHASE 2
FIGURE 5 - INDIVIDUAL PHASE
SCOTTSDALE, ARIZONA

PROJECT NO.
091746010

DRAWING NAME

2 OF 4

LEGEND

- PHASE LIMITS
- SUBDIVISION ENTRANCE GATE
- MINOR COLLECTOR – RURAL ESL (MODIFIED PER FIGURE 2)
- LOCAL COLLECTOR – RURAL ESL (MODIFIED PER FIGURE 2)
- INTERNAL – RURAL ESL (5–3.19)

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0 ### ### ###

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FIESTA RANCH
IMPROVEMENTS - PHASE 3
FIGURE 5 - INDIVIDUAL PHASE
SCOTTSDALE, ARIZONA

PROJECT NO.
091746010

DRAWING NAME

3 OF 4

LEGEND

- PHASE LIMITS
- SUBDIVISION ENTRANCE GATE
- MINOR COLLECTOR – RURAL ESL (MODIFIED PER FIGURE 2)
- LOCAL COLLECTOR – RURAL ESL (MODIFIED PER FIGURE 2)
- INTERNAL – RURAL ESL (5–3.19)

SHOULD PHASING NOT PROGRESS AS PROPOSED HEREWITH, A NEW PHASING PLAN WILL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL THROUGH AN AMENDMENT TO THIS MP CASE WITH ANY SEQUENCE OF PHASING IMPROVEMENTS PROPOSED SUCH THAT REGARDLESS OF WHICHEVER PHASE GOES FIRST, ALL OF RIO VERDE DRIVE STIPULATED IMPROVEMENTS WILL BE A CONDITION OF THAT PHASE. EACH SUBSEQUENT PHASE WILL BE REQUIRED TO IMPROVE LOCAL COLLECTORS ALONG THEIR FRONTAGE AND NORTH TO RIO VERDE DRIVE AND SOUTH TO CITY JURISDICTIONAL BOUNDARY AND EAST TO 138TH STREET OR 141ST STREET AND WEST TO 138TH STREET OR 136TH STREET (WHICHEVER IS CLOSEST). SUB-PHASING MAY BE CONSIDERED BUT DOING SO WILL NOT CHANGE IMPROVEMENT REQUIREMENTS FOR THE SUB-PHASE BASED ON THE IMPROVEMENTS REQUIRED FOR PHASE.

NORTH

GRAPHIC SCALE IN FEET
0 ### ### ###

NO.	REVISION	BY	DATE	APPR.

Kimley»Horn

7740 North 16th Street, Suite 300
Phoenix, Arizona 85020 (602) 944-5500

SCALE (H): 1"=200'
SCALE (V): NONE
DESIGNED BY: JSG
DRAWN BY: JSG
CHECKED BY: JMB
DATE: APRIL 2022

FIESTA RANCH
IMPROVEMENTS - PHASE 4
FIGURE 5 - INDIVIDUAL PHASE
SCOTTSDALE, ARIZONA

PROJECT NO.
091746010

DRAWING NAME

4 OF 4

Appendix A – Zoning Stipulations

Stipulations for the Zoning Application:
Fiesta Ranch
Case Number: 6-ZN-2019

These stipulations are in order to protect the public health, safety, welfare, and the City of Scottsdale.

SITE DESIGN

1. CONFORMANCE TO DEVELOPMENT PLAN. Development shall conform with the Development Plan, entitled "Fiesta Ranch Planned Community District," and incorporated into these stipulations and ordinance by reference as if fully set forth herein. Any proposed significant change to the Development Plan, as determined by the Zoning Administrator, shall be subject to additional action and public hearings before the Planning Commission and City Council. Where there is a conflict between the Development Plan and these stipulations, these stipulations shall prevail.

   MAXIMUM DWELLING UNITS/MAXIMUM DENSITY. Maximum dwelling units and maximum density shall be as indicated on the Land Use Budget Table below.

Land Use Budget Table						
Parcel	Gross Acres	Zoning	Proposed DU/AC	Max Density per ESL	Max # of Units / Lots per parcel	Propose # of Units / Lots
1	5.8	OS	0	0	0	0
2	9.1	OS	0	0	0	0
3	11.9	OS	0	0	0	0
4	8.1	R1-43	.74	.83	6	6
5	12.7	R1-43	.78	.83	10	10
6	9.2	OS	0	0	0	0
7	14.3	R1-18	1.53	1.87	26	22
8	34.1	R1-18	1.75	1.87	63	60
9	18.7	R1-43	1.43	.83	15	11
10	11	R1-43	.63	.83	9	9
11	73.6	R1-18	1.46	1.87	137	108
12	24	R1-43	.62	.83	19	15
13	10.2	OS	0	0	0	0
14	10.2	R1-43	.68	.83	8	**7**
15	20.3	R1-43	.59	.83	16	12
Total:	**273.2**					**260**

Redistribution of dwelling units is subject to the maximum density in the Land Use Budget Table of 260 units and subject to city staff approval. The property owner's redistribution request shall be

submitted with the preliminary plat submittal to the Development Review Board and shall include a revised Master Development Plan and a revised Land Use Budget Table indicating the parcels with the corresponding reductions and increases which shall not exceed the maximum number of allowed units per the parcel's ESL zoning category.

2. CONFORMANCE TO AMENDED DEVELOPMENT STANDARDS. Development shall conform with the amended development standards that are included as part of the Development Plan. Any change to the development standards shall be subject to additional public hearings before the Planning Commission and City Council.
3. CONFORMANCE TO NATURAL AREA OPENS SPACE PLAN (NAOS). Development shall conform with the NAOS plan that is included as part of the Development Plan. The minimum required NAOS shall be 109.3 acres and a minimum of 46.2 acres of this required NAOS shall be in tracts.
4. BUILDING HEIGHT LIMITATIONS. No building on the site shall exceed 24 feet in height, measured as provided in the applicable section of the Zoning Ordinance.
5. LOTS ADJACENT TO LESS INTENSIVE ZONING. Lots on the perimeter of the site adjacent to lots with less intensive zoning, shall have rear yard setbacks equal to or greater than the minimum rear yard setback required by the zoning district of those adjacent lot(s). The minimum lot width of a lot on the perimeter of the site shall not be reduced by amended development standards.
6. ALTERATIONS TO NATURAL WATERCOURSES. Any proposed alteration to the natural state of watercourses with a peak flow rate of 750 cfs or greater based on the 100 year – 2 hour rain event shall be subject to Development Review Board approval.
7. OUTDOOR LIGHTING. The maximum height of any outdoor lighting source shall be 16 feet above the adjacent finished grade.
8. PROTECTION OF ARCHAEOLOGICAL RESOURCES. Any development on the property is subject to the requirements of Scottsdale Revised Code, Chapter 46, Article VI, Protection of Archaeological Resources, Section 46-134 - Discoveries of archaeological resources during construction.

DEDICATIONS

9. RIGHT-OF-WAY DEDICATIONS. Prior to issuance of any permit for the development project, the property owner shall make the following fee-simple right-of-way dedications to the City of Scottsdale:
   a. E RIO VERDE DRIVE, south-half, to Minor Arterial – Rural/ESL character standards existing 100 feet of right-of-way to remain.
   b. N 136th Street, east-half, to Local Collector – Rural/ESL character standards existing 55 feet of right-of-way to remain.
   c. N 138th Street, N 141st Street, full-street, to Local Collector – Rural/ESL standards 50 feet of right-of-way to be dedicated.
   d. East-west collector street connecting 136th Street to 141st Street to Local Collector– Rural/ESL standards – 50 feet of right-of-way to be dedicated.
   e. ALL STREET INTERSECTIONS ADJACENT TO AND WITHIN PROJECT DEVELOPMENT – minimum twenty-five (25) foot radius
10. LOCAL RESIDENTIAL PRIVATE STREETS. All local residential private streets shall be contained within a subdivision tract of land that has minimum total width of forty (40) feet, and dedications to the

property owner's association consisting of property owners within the subdivision of the development project.

11. LOCAL COLLECTOR PRIVATE STREETS. All local collector private streets are to be contained within a subdivision track of land that has minimum total width to Local Collector – Rural/ESL character standards, and dedications to the property owner's association consisting of property owners within the subdivision of the development project.

12. SUBDIVISION TRACTS, PRIVATE STREETS, MAINTENANCE, AND LIABLITY. A property owners association consisting of property owners within the subdivision of the development project shall own and be responsible for all maintenance and liabilities of all subdivision tracts, private streets and related infrastructure

13. LOTS OR TRACTS CONVEYED BY SUBDIVISION PLAT. On the final subdivision plat, and prior to the issuance of any permit for the development project, the property owner shall make any fee-simple dedication to the City of Scottsdale as necessitated by development and in conformance with the Design Standards and Policies Manual.

14. EASEMENTS. Prior to issuance of any permit for the development project, the property owner shall dedicate the following easements to the City of Scottsdale:

    a. VEHICLE NON-ACCESS EASEMENT. A one (1) foot wide Vehicular Non-Access Easement adjacent to any parcels backing up unto a street.

    b. MULTI-USE PATH EASEMENT OR MULTI-USE TRAIL EASEMENT. A minimum twenty-five (25) foot wide Public Non-Motorized Access Easement to contain the multi-use path or multi-use trail to be constructed in accordance with the infrastructure requirements below and within washes. The alignment of the easement shall be subject to approval by the city's Zoning Administrator, or designee, prior to dedication.

    c. PUBLIC NON-MOTORIZED ACCESS EASEMENT. A continuous Public Non-Motorized Access Easement to contain the public sidewalk in locations where the sidewalk crosses onto private property of the development project.

    d. SAFETY TRAINGLES. Twenty-five (25) by twenty-five-foot safety triangle easement at all street intersections adjacent to and within project development.

15. SCENIC CORRIDOR LOCATION, EASEMENT, AND IMPROVEMENTS. Prior to issuance of any permit for the development project, the property owner shall dedicate a minimum 100-foot wide continuous Scenic Corridor Easement and within a Tract to the City of Scottsdale along the development project's E. Rio Verde Drive frontage. The width of the Scenic Corridor Easement shall be measured from E. Rio Verde Drive right-of-way. Unless otherwise approved by the Development Review Board, the area within the Scenic Corridor Easement shall be left in a natural condition.

16. DESERT SCENIC ROADWAY SETBACKS LOCATION, EASEMENT, AND IMPROVEMENTS. Prior to issuance of any permit for the development project, the property owner shall dedicate a minimum 50-foot wide continuous Scenic Corridor Easement to the City of Scottsdale along the development project's N. 136th Street and N. 141st Street frontage. The width of the Scenic Corridor Easement shall be measured from N. 136th and N. 141st Street right-of-way. Unless otherwise approved by the Development Review Board, the area within the Scenic Corridor Easement shall be left in a natural condition

17. VISTA CORRIDOR EASEMENTS. Prior to issuance of any permit for the development project, the property owner shall dedicate a continuous Vista Corridor Easement to the City of Scottsdale to

cover any watercourse with a peak flow rate of 750 cubic feet per second or greater, based on the 100 year – 2 hour rain event. The minimum width of the easement(s) shall be minimum one hundred (100) feet and average one hundred fifty (150) feet. Each easement shall include, at a minimum, any existing low flow channels, all major vegetation, and the area between the tops of the banks of the watercourse. At the time of the Development Review Board submittal, the owner shall stake the boundaries of the Vista Corridor Easement(s), as determined by city staff. Unless approved by the Development Review Board, the area within the Vista Corridor Easements shall be left in a natural state.

INFRASTRUCTURE

18. CONSTRUCTION COMPLETED. Prior to issuance of any Certificate of Occupancy or Certification of Shell Building, whichever is first, for the development project, the property owner shall complete all the infrastructure and improvements required by the Scottsdale Revised Code and these stipulations.

19. STANDARDS OF IMPROVEMENTS. All improvements (curb, gutter, sidewalk, curb ramps, driveways, pavement, concrete, water, wastewater, etc.) shall be constructed in accordance with the applicable City of Scottsdale Supplements to the Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction, Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction, the Design Standards and Policies Manual (DSPM), and all other applicable city codes and policies.

20. CIRCULATION IMPROVEMENTS. Prior to issuance of any permit for the development project, the property owner shall submit and obtain approval of construction documents to construct the following improvements:

    a. E RIO VERDE DRIVE.

        1. Construct center turn lane from N 136th Street and N 144th Street to include maintaining bike lanes in both directions.

        2. Construct a minimum eight (8) foot wide sidewalk along site frontage in ultimate location based upon full build out of this corridor to a minor collector cross-section, consistent with the conceptual improvement design prepared by Maricopa County Department of Transportation.

        3. Construct a minimum eight (8) foot wide unpaved multi-use trail along site frontage.

        4. Construct east bound deceleration right-turn lanes at the N 138th Street and N 141st Street intersections.

        5. Construct west bound deceleration left-turn lanes at the N 136th Street, N 138th Street and N 141st Street intersections.

    b. N 136th STREET.

        1. Construct full pavement cross-section along site frontage in accordance with the Local Collector – Rural/ESL Character figure of the DSPM.

        2. Construct east half curb and gutter along site frontage in accordance with the Local Collector – Rural/ESL Character figure of the DSPM.

        3. Construct six (6) foot compacted shoulders on west side of new pavement along site frontage.

4. Construct a minimum six (6) foot wide unpaved, pavement separated multi-use trail along site frontage.
5. Construct south leg intersection widening with E Rio Verde Drive to match the existing cross section on the north side to include separate left turn lane, north going west.

c. N 138TH STREET AND N 141ST STREET.

1. Construct full street improvements (curb, gutter, pavement, etc.) along site frontage in accordance with the Local Collector- Rural ESL character figure of the DSPM.
2. Construct six (6) foot sidewalk on at least one side of roadway along site frontage in accordance with the Local Collector- Rural ESL character figure of the DSPM.

d. NEW EAST-WEST CORRIDOR.

1. Construct a full pavement cross-section east-west connector street between N 141st Street and N 136th Street, internal to development project, in accordance with the Local Collector-Rural/ESL Character figure of the DSPM to provide access to the N 136th Street and E Rio Verde Drive intersection. The street cross section shall include a six-foot wide sidewalk on at least one side of the street
2. No direct residential frontage nor access shall be provided to this collector street.

21. WATER SYSTEM. Prior to issuance of any permit for the development project, the property owner shall submit and obtain approval of construction documents to construct the following water distribution improvements:

a. Twelve (12) inch waterline in E Rio Verde Drive along project frontage. This waterline will not be eligible for any reimbursement agreement and shall be at sole cost of the Developer or Project Owner.

b. Sixteen (16) inch waterline in E Rio Verde Drive from N 122nd Street to N 128th Street, if the development of this project precedes the development project known as Reata Ranch. This waterline may be credit eligible compliant to Scottsdale Revised Code.

c. Twelve (12) inch water line in E Rio Verde Drive from N 128th Street to N 136th Street, if the development of this project precedes the development project known as Reata Ranch. This waterline may be credit eligible compliant to Scottsdale Revised Code.

d. Twelve (12) inch waterline in N 136th St. along project frontage. This line may be eligible for reimbursement (developer's payback) agreement compliant to Scottsdale Revised Code.

e. Pressure Reducing Valves on any water main with pressure in excess of one hundred twenty (120) pounds per square inch (psi). This will not be eligible for any reimbursement agreement and shall be at sole cost of the Owner.

22. WASTEWATER SYSTEM. Prior to issuance of any permit for the development project, the property owner shall submit and obtain approval of construction documents to construct the following improvements:

a. Gravity sewer systems along property frontages including E. Rio Verde, N 136th Street, N 138th Street, N 141st Street and all internal development local streets. These sewer systems will not be eligible for any reimbursement agreement and shall be at sole cost of the Owner.

b. Upsize the Reata Ranch Lift station (Case 15-ZN-2011; Ord. 3996) lift station and dual force mains, to meet the demands of both Reata Ranch and Fiesta Ranch or if the development of this project precedes the development project known as Reata Ranch, enter into an agreement to

construct and transfer the Reata Ranch lift station, dual force mains and associated parcel(s) to the City. The agreement may provide an alternative suitable site location acceptable to the City's Water Resources Department enabling sewer service to both developments. This sewer facility and dual force mains will not be eligible for any City reimbursement agreement and shall be at sole cost of the Owner.

c. Upsize the Scottsdale National Golf Course Lift Station and its downstream gravity system along E Rio Verde Dr to N Alma School Parkway if design and conveyance capacities with the addition of this development's sewer generation exceed the existing sewer system's capacity as analyzed per the Design Standards and Policy Manual, and update the Master Sewer Plan for review and approval by Water Resources. This upsizing will not be eligible for any City reimbursement agreement and shall be at sole cost of the Owner.

d. Upsize or construct the Reata Ranch Lift Station's downstream dual force main system if either the max velocity of six (6) feet per second or max capacity of the proposed 4-inch force mains be exceeded with the addition of this development's sewer generation, per the Design Standards and Policy Manual's sewer generation criteria to be analyzed by Owner in the Master Sewer Plan Update for review and approval by Water Resources. This sewer system will not be eligible for any City reimbursement agreement and shall be at sole cost of the Owner.

e. Upsize the Scottsdale National Golf Course Lift Station's downstream dual force main system if either the max velocity of six (6) feet per second or max capacity of the existing force main system be exceeded with the addition of this development's sewer generation per the Design Standards and Policy Manual's sewer generation criteria to be analyzed by Owner in the Master Sewer Plan for review and approval by Water Resources. This sewer system will not be eligible for any City reimbursement agreement and shall be at sole cost of the Owner.

23. WATER AND WASTEWATER IMPROVEMENTS. The property owner shall provide all water and wastewater infrastructure improvements, including any new service lines, connection, fire-hydrants, and manholes, necessary to serve the development.

24. FIRE HYDRANT. The property owner shall provide fire hydrant(s) and related water infrastructure adjacent to lot, in the locations determined by the Fire Department Chief, or designee.

25. UTILITY LINES. All existing above ground utility lines adjacent to and within project boundaries, and any new or relocated utility lines, shall be place underground.

26. STREETLIGHTS. Prior to issuance of any permit for the development project, the property owner shall submit plans and obtain approval to install a streetlight at the intersection of E. Rio Verde Drive and N. 136th Street.

27. CONDUIT FOR CITY COMMUNICATIONS.

    a. Prior to permit issuance, the property owner shall submit construction drawings to install for municipal use, two (2) two-inch conduits with detectable mule tape, and a 2'x3' vault every 500 feet and at each end of the conduit run within the E. Rio Verde Drive right-of-way.

    b. Prior to permit issuance, the property owner shall submit construction drawings to install for municipal use, one (1) two-inch conduit with detectable mule tape, and a 2'x3' vault every 500 feet leading from the E. Rio Verde Drive to any municipal water or wastewater facility

28. IN LIEU PAYMENTS. The property owner shall make an in-lieu payment to the city, prior to any final plat recordation and in accordance with the city's in lieu agreement template, for the following improvements:

a. Curb and gutter along south side of E Rio Verde Drive along site frontage.

b. One-quarter N 136th Street and E Rio Verde Drive future traffic control at intersection at the direction of the Transportation Department.

REPORTS AND STUDIES

29. DRAINAGE REPORT. With the Development Review Board submittal, the property owner shall submit a Drainage report in accordance with the Design Standards and Policies Manual for the development project. In the drainage report, the property owner shall address:
    a. Applicant must provide 75% level design and drainage report as part of the preliminary plat submittal.
    b. Due to the conceptual nature of the information provided with the zoning submittal, the acceptable limits of encroachments on the major washes is subject to detailed review and approval by the City.
    c. The proposed encroachments cannot increase the 100-yr WSEL by more than 1 ft anywhere within the project limits and must match existing conditions at the property boundaries.
    d. The bottom of the major washes must remain natural.
    e. The Applicant must address potential for increased erosion due to increases in velocities caused by encroaching on the washes.
    f. The significant improvement of any wash greater than 50 cfs shall require a Wash Modification application.

MASTER PLANS

30. MASTER INFRASTRUCTURE PLANS. The property owner shall have each Master Infrastructure Plan specified below prepared by a registered engineer licensed to practice in Arizona, and in accordance with the Design Standards and Policies Manual. Each Master Infrastructure Plan shall be accepted by city staff before any Development Review Board submittal. Each Master Infrastructure Plan shall include a complete description of project phasing, identifying the timing and parties responsible for construction.
    a. Master Transportation Systems Plan – To include phasing, street cross sections, proposed traffic control and the like.
    b. Master Drainage Systems Plan
    c. Master Water Systems Plan
    d. Master Wastewater Systems Plan – To include capacity analysis of receiving sewer systems to, and including flow monitoring of, the first manhole east and first manhole south of the intersection of N Alma School Parkway and E Dynamite Boulevard. Owner shall be responsible for all sewer system upgrades required to accommodate development as determined by water resources through the approval of this master plan.

31. MASTER DESIGN CONCEPT PLAN. Prior to any submittal to the Development Review Board, the property owner shall submit a Master Environmental Design Concept Plan for Development Review Board review and approval. The Master Environmental Design Concept Plan shall address the following:
    a. Open space design concepts for open space areas, including location, plant and landscape character, open space corridors, trails, path and bikeways, and integration of drainage plans;
    b. Native plant relocation program and revegetation guidelines for each parcel;

c. Overall streetscape concepts which incorporate streetside and median landscape design concepts, plant and landscape materials, perimeter, head and screen wall designs and locations;

d. Typical outdoor lighting plan for streetlights and design concepts and general specifications for parking lots, paths, trails, and landscaping;

e. General design and architectural themes assuring overall design compatibility of all buildings and structures on the site;

f. General signage/graphic concepts for development signs, including locations and typical design concepts;

g. Construction phasing plan;

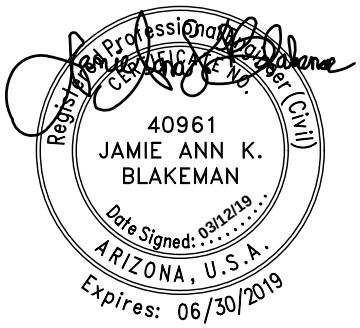
h. Buffer plan; and

i. Multi-use trail design and use, including trail design standards and alignment, design and location of trail amenities, management and controls on trail use and implementation of plan recommendations through city ordinances and policies.

Appendix B – Approved TIMA

FIESTA RANCH

TRAFFIC IMPACT & MITIGATION ANALYSIS



Prepared for:

Wildcat Ridge, LLC
7320 E. Butherus Dr., Suite 204
Scottsdale, AZ 85260

Prepared by:

4649 E. Cotton Gin Loop
Suite B2
Phoenix, AZ 84040

Project Number: 17.1057
March 12, 2019

TABLE OF CONTENTS:

FIGURES:

TABLES:

APPENDICES:

1. INTRODUCTION AND EXECUTIVE SUMMARY

1.1. PURPOSE OF REPORT AND STUDY OBJECTIVES

J2 Engineering and Environmental Design was retained by Wildcat Ridge, LLC to complete a Traffic Impact and Mitigation Analysis for the proposed Fiesta Ranch development. The development is located south of Rio Verde Drive between 136th Street and approximately 1,000 feet east of 141st Street in Scottsdale, Arizona. The proposed site is bound by Rio Verde Drive to the north, 136th Street to the west, and residential land uses to the south and the east. See Figure 1 for the vicinity map.

The proposed 273.3-acre residential development will include 260 single-family residential homes. See Figure 2 and Appendix A for the proposed site plan.

The objective of this Traffic Impact and Mitigation Analysis is to analyze the traffic related impacts of the proposed development onto the adjacent roadway network.

1.2. EXECUTIVE SUMMARY

The report presents the analyses and the results of a traffic study prepared for the proposed Fiesta Ranch residential development, located south of Rio Verde Drive between 136th Street and approximately 1,000 feet east of 141st Street in Scottsdale, Arizona.

The proposed 273.3-acre residential development will include 260 single-family residential homes.

This Traffic Impact and Mitigation Analysis includes:

- Level of service analysis of existing conditions for the weekday AM and PM peak hours
- Three (3) year crash analysis
- Trip Generation for the proposed development
- Trip Generation comparison to the existing zoning
- Level of service analysis for the build out year (2027) weekday AM and PM peak hours
    - 2027 No Build
    - 2027 Build

The following are nine (9) intersections included in this study:

1. Rio Verde Drive and 136th Street (1)
2. Rio Verde Drive and 138th Street (2)
3. Driveway A and 138th Street (3)
4. Rio Verde Drive and 141st Street (4)
5. Driveway B and 141st Street (5)
6. Driveway C and 141st Street (6)

7. Driveway D and 141st Street (7)
8. Driveway E and 141st Street (8)
9. Driveway F and 141st Street (9)

Trip Generation

The proposed development is anticipated to generate 2,454 weekday trips, with 193 trips occurring during the AM peak hour and 257 trips occurring during the PM peak hour.

Land Use	ITE Code	Qty	Units	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Single-Family Detached Housing	210	260	Dwelling Units	2,454	193	48	145	257	162	95
			TOTAL	2,454	193	48	145	257	162	95

Trip Generation Comparison (Existing Zoning vs. Proposed Development)

A comparison between the trips generated by the build out under the existing R1-70 and R1-190 zoning versus the proposed 260 residential development was calculated.

Land Use	ITE Code	Qty	Units	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Single-Family Detached Housing (Existing Zoning)	210	127	Dwelling Units	1,199	94	24	71	126	79	47
			TOTAL	1,199	94	24	71	126	79	47
Single-Family Detached Housing (Proposed Development)	210	260	Dwelling Units	2,454	193	48	145	257	162	95
			TOTAL	2,454	193	48	145	257	162	95
			Difference	1,255	99	25	75	131	83	48

The proposed Fiesta Ranch residential development is anticipated to generate 1,255 more weekday daily trips, 99 more trips during the AM peak hour, and 131 more trips during the PM peak hour.

Future Conditions

Year 2027 (build out) analyses were completed without, as well as with the build out of the proposed Fiesta Ranch development. An annual growth rate of 2.0% was applied to the existing traffic volumes to create the future background traffic volumes for year 2027.

Year 2027

Capacity analyses were completed for both the AM and PM peak hours for the year 2027, without, as well as with the build out of the proposed Fiesta Ranch development. All movements at the study intersection operate at a LOS D or better during the AM and PM peak hours.

Right Turn Lanes

The MCDOT right turn lane warrants were used to analyze the following two intersections:

- Rio Verde Drive and 138th Street (2) - Eastbound
- Rio Verde Drive and 141st Street (3) - Eastbound

Rio Verde Drive will eventually be widened to be a 4-lane roadway, providing 2 lanes for each direction of travel. For the year 2027 analysis it is assumed to be a 4-lane roadway.

Right turn lane warrants are met for both intersections. Based on the 95th percentile queue, the recommended storage length is 100 feet, which is the City of Scottsdale's minimum required storage length.

Left Turn Lanes

The MCDOT right turn lane warrants were used to analyze the following two intersections:

- Rio Verde Drive and 138th Street (2) - Westbound
- Rio Verde Drive and 141st Street (3) - Westbound

Rio Verde Drive will eventually be widened to be a 4-lane roadway, providing 2 lanes for each direction of travel. For the year 2027 analysis it is assumed to be a 4-lane roadway.

Left turn deceleration lanes are not warranted at either of the two intersections.

2. PROPOSED DEVELOPMENT

The study area is located in the City of Scottsdale, Arizona approximately six miles east of Pima Road north of State Route Loop 101. The proposed Fiesta Ranch development will be located south of Rio Verde Drive between 136th Street and approximately 1,000 feet east of 141st Street in Scottsdale, Arizona. The proposed development is bound by Rio Verde Drive to the north, 136th Street to the west, and residential land uses to the south and the east. See Figure 1 for a vicinity map.

The proposed development will be comprised of 260 single-family residential dwelling units. See Figure 2 and Appendix A for the proposed site plan.

There will be eight driveway access points to the Fiesta Ranch development. There will be two along 138th Street, and six along 141st Street. See Figure 3.

The proposed project is anticipated to be built out in year 2027.

FIGURE 1 | VICINITY MAP

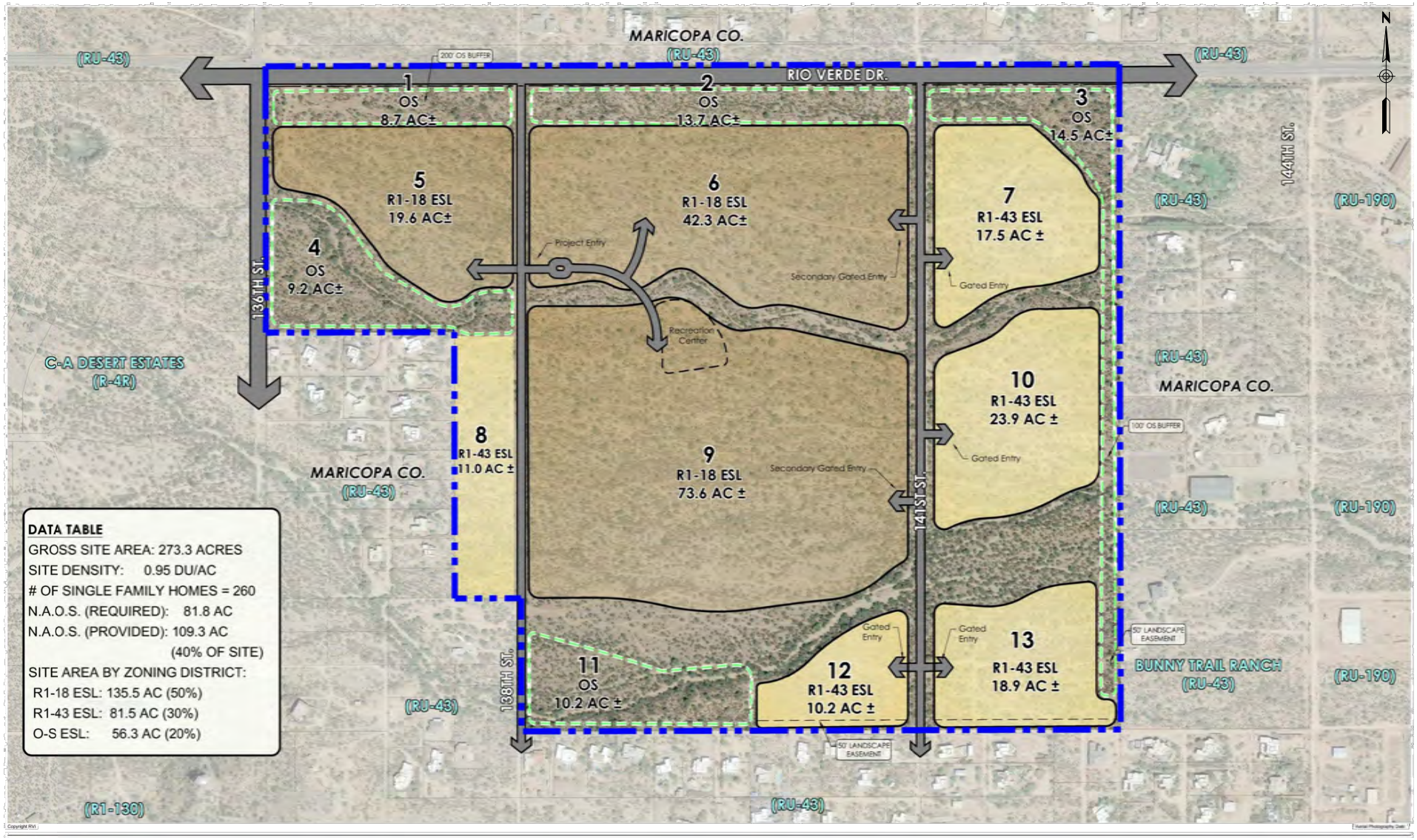


FIGURE 2 | SITE PLAN

3. AREA CONDITIONS

The study area is located in the City of Scottsdale, Arizona. Section 3.1 and Section 3.2 provides detailed descriptions of the study roadway segments and intersections. See Figure 3 for the study area.

3.1. STUDY ROADWAY SEGMENTS

Rio Verde Drive, in the vicinity of the study area runs east-west adjacent to the north border of the proposed development. One through lane is provided for each direction of travel. There is a posted speed limit of 50 miles per hour (mph). According to the *City of Scottsdale Transportation Master Plan*, adopted in July 2016, Rio Verde Drive is classified as a rural minor arterial. The City of Scottsdale's 2016 *Average Daily Segment Traffic Volumes* map indicates that 10,900 vehicles per day were recorded along Rio Verde Drive, east of Alma School Parkway. Rio Verde Drive becomes Dynamite Boulevard at the intersection of Alma school Parkway, located approximately 3.2 miles west of the proposed Fiesta Ranch development.

136th Street, in the vicinity of the study area runs north-south adjacent to the west border of the proposed development. North of Rio Verde Drive, 136th Street provides one through lane for each direction of travel on a paved roadway with a posted speed limit of 25 mph. South of Rio Verde Drive, 136th Street is a two-way unpaved roadway that currently provides access to single-family residences and terminates approximately two-thirds of a mile south of Rio Verde Drive. According to the *City of Scottsdale Master Transportation Plan*, adopted in July 2016, 136th Street north of Rio Verde Drive is classified as a rural minor collector.

138th Street, in the vicinity of the study area runs north-south through the proposed development. It is currently an unpaved roadway that provides access to single-family residences north and south of Rio Verde Drive. 138th Street terminates less than a mile south of Rio Verde Drive.

141th Street, in the vicinity of the study area runs north-south through the proposed development. It is currently an unpaved roadway that provides access to single-family residences north and south of Rio Verde Drive. 141st Street terminates less than a mile south of Rio Verde Drive.

3.2. STUDY INTERSECTIONS

Rio Verde Drive and 136th Street (1) currently operates as a stop controlled intersection, with stop control on the northbound and southbound approaches. The south leg is unpaved and is offset approximately 115 feet east of the north leg. The southbound and eastbound approaches provide a dedicated left turn lane, and a shared through-right turn lane. The westbound approach provides a through lane and a dedicated right turn lane. The striping does not define a specific lane for the westbound left turn movement, but based on the tracking, this movement is being made. The northbound is an unpaved approach. Based on the dirt tracking left and right turn movements are made at more than one location.

Rio Verde Drive and 138th Street (2) currently operates as a stop controlled intersection, with stop control on the northbound and southbound approaches. The north and south legs are unpaved. All approaches provide a shared left-through-right turn lane.

Driveway A and 138th Street (3) will provide two access points to the proposed development, one to the east and one to the west forming a two-way stop controlled intersection. The two driveways will provide full-access into and out of the site. This access point is located approximately 975 feet south of Rio Verde Drive.

Rio Verde Drive and 141st Street (4) currently operates as a stop controlled intersection, with stop control on the northbound and southbound approaches. The north and south legs are unpaved. All approaches provide a shared left-through-right turn lane.

Driveway B and 141st Street (5) will be a t-intersection, with stop control on the westbound approach. It will be a full-access driveway allowing all movements into and out of the site. The access point is located approximately 725 feet south of Rio Verde Drive.

Driveway C and 141st Street (6) will be a t-intersection, with stop control on the westbound approach. It will be a full-access driveway allowing all movements into and out of the site. The access point is located approximately 930 feet south of Rio Verde Drive.

Driveway D and 141st Street (7) will be a t-intersection, with stop control on the westbound approach. It will be a full-access driveway allowing all movements into and out of the site. The access point is located approximately one-third mile south of Rio Verde Drive.

Driveway E and 141st Street (8) will be a t-intersection, with stop control on the westbound approach. It will be a full-access driveway allowing all movements into and out of the site. The access point is located approximately 2,150 feet south of Rio Verde Drive.

Driveway F and 141st Street (9) will provide two access points to the proposed development, one to the east and one to the west forming a two-way stop controlled intersection. The two driveways will provide full-access into and out of the site. This access point is located approximately 975 feet south of Rio Verde Drive.

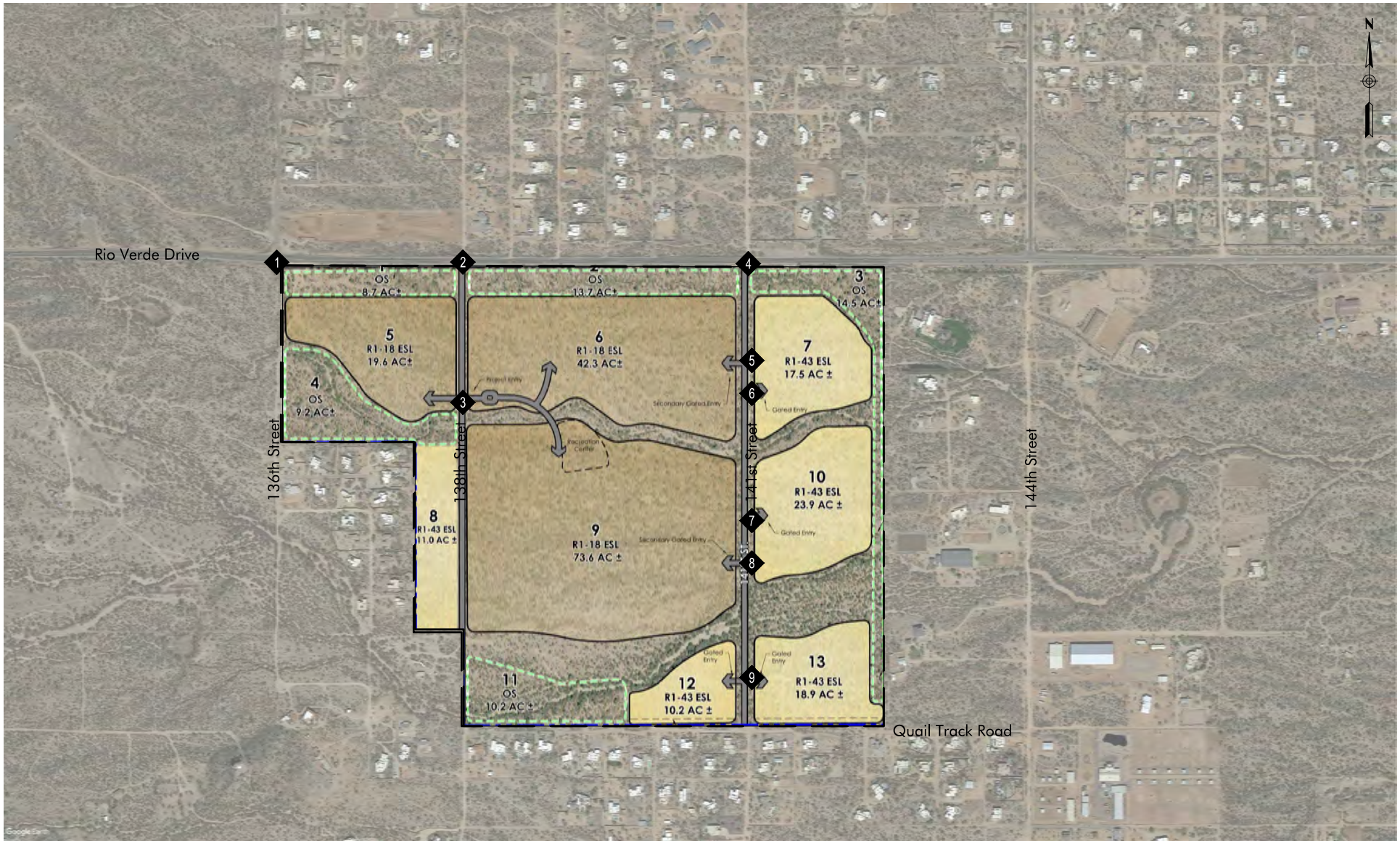


FIGURE 3 | STUDY AREA

3.3. STUDY AREA LAND USE

According to the City of Scottsdale's Land Use Element map, this proposed land use is designated for Rural Neighborhood land use. The surrounding area includes single-family residences and undeveloped land.

3.4. SITE ACCESSIBILITY

Roadway System

The study area is located in the City of Scottsdale, Arizona approximately nine miles northeast of State Route Loop 101 (SR 101L), and approximately six miles east of Pima Road. Within the vicinity of the proposed site, with the exception of Rio Verde Drive, the roadway network is generally unpaved. The proposed Fiesta Ranch development is bordered by Maricopa County to the north, south and east.

Pedestrian Facilities

There are no sidewalks provided along Rio Verde Drive nor along any other roadway in the vicinity of the study area.

No marked crosswalks are provided at the study intersections.

According to the *City of Scottsdale Master Transportation Plan*, adopted in July 2016, 136th Street south of Rio Verde Drive is identified as a high priority shared use unpaved trail. Rio Verde Drive within the study area is identified as a medium priority shared use unpaved trail.

Bicycle Facilities and Shared-Use Paths

Bike lanes are currently provided along Rio Verde Drive between 136th Street to 144th Street, which is the east City limits.

Transit Facilities

There are no transit facilities within the study area.

3.5. COLLISION HISTORY

The most recent 3-year collision history, from April 2015 to April 2018, was obtained from the City of Scottsdale. See Appendix B for collision data. The crash data included the following intersections:

- Rio Verde Drive and 136th Street (1)
- Rio Verde Drive and 138th Street (2)
- Rio Verde Drive and 141st Street (4)

Rio Verde Drive and 136th Street (1)
During the three year period, there were a total of 5 crashes, of which 1 was a possible injury, with the remaining 4 crashes being property damage only. There were a total of 2 rear end, 2 left turn, and 1 single vehicle crash.

Rio Verde Drive and 138th Street (2)
During the three year period, there were a total of 2 crashes, of which 1 was a non-incapacitating injury while the other was property damage only. There was 1 rear end, and 1 other crash.

Rio Verde Drive and 141st Street (4)
During the three year period, there were a total of 2 crashes, of which both were non-capacitating injury crashes. Both were rear end collisions, in which drivers were sighted for driving at speeds too fast for conditions. Both of these crashes occurred 115 to 145 feet west of the intersection. One crash involved eastbound vehicles, and the other crash involved westbound vehicles.

3.6. COLLISION HISTORY

The City of Scottsdale's *2016 Traffic Volume and Collision Rate Data* report provides collision rate and traffic volume information on major roadway segments and at major intersections within the City. Segment collisions are collisions that occur on a major street more than 100 feet from the segment's termini intersections, including those that occur at minor intersections within the segment. Intersection collisions are collisions that occur at or within 100 feet of the intersection.

The City of Scottsdale's 2016 Traffic Volume and Collision Rate Data report does not provide collision rate information for the study roadway segments or intersections.

4. EXISTING CONDITIONS

4.1. EXISTING LAND USE

The existing site is currently comprised of 6 undeveloped parcels, four are zoned R1-70 and two are zoned R1-190.

According to the Maricopa County Assessor's website, the 6 parcel sites consists of 1,488,078 square feet. See Appendix C for detailed parcel information.

4.2. EXISTING TRAFFIC COUNTS

A local data collection firm, Field Data Services of Arizona, Inc. was utilized to collect traffic counts. On Tuesday June 12, 2018 turning movement counts were obtained from 7:00 to 9:00 am and from 4:00 to 6:00 pm at the following location:

- Rio Verde Drive and 136th Street (1)

Additionally, bi-directional tube counts were collected on Tuesday, June 12, 2018 in 15-minute intervals at the following two locations:

- Rio Verde Drive west of 136th Street
- Rio Verde Drive east of 141st Street

See Appendix D for detailed traffic count data.

The turning movement counts were then analyzed for the highest 1-hour within each time period. The following peak hours were analyzed throughout this study:

- AM Peak Hour 8:00 am – 9:00 am
- PM Peak Hour 4:00 pm – 5:00 pm

The City of Scottsdale seasonal adjustment factors were used to adjust the collected traffic counts. The traffic volumes were adjusted based on the month the counts were taken.

The turning movement counts at the intersection of 136th Street and Rio Verde Drive did not include the unpaved south leg therefore trip generation rates were used to generate AM and PM Peak Hour traffic volumes. Utilizing trip generation rates for Land Use 210 – Single-Family Detached Housing, peak hour traffic volumes for the south leg of 136th Street were generated and are shown in Table 1.

Table 1 – Trip Generation for the South Leg of 136th Street

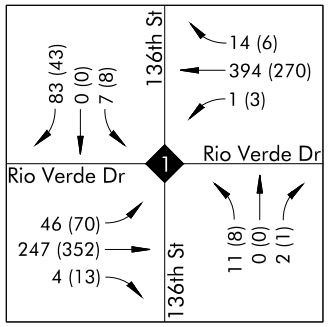
Land Use	ITE Code	Qty	Units	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Single-Family Detached Housing	210	24	Dwelling Units	227	18	5	13	24	15	9
			TOTAL	227	18	5	13	24	15	9

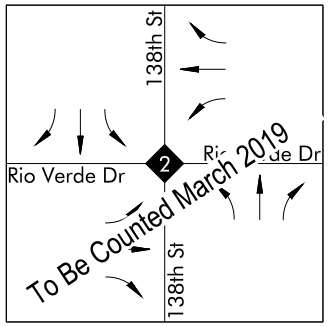
New turning movement count data will be collected in early March 2019 for the following three intersections:

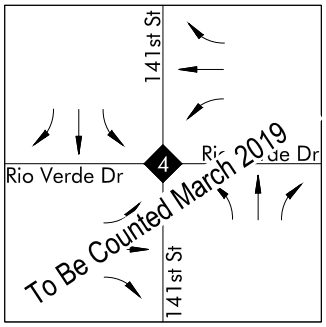
- Rio Verde Drive and 136th Street (including the unpaved south leg)
- Rio Verde Drive and 138th Street
- Rio Verde Drive and 141st Street

This additional traffic count data will be incorporated into the final report.

See Figure 4 for the existing adjusted AM and PM peak hour traffic volumes. For the purposes of this traffic analysis the north leg of the existing Rio Verde Drive and 136th Street intersection was shown aligned with the south leg.







Legend

AM (PM)	Existing Peak Hour Traffic Volumes
X	Intersection
<ADT>	Average Daily Traffic Volume

FIGURE 4 | EXISTING TRAFFIC VOLUMES

4.3. EXISTING CAPACITY ANALYSIS

The existing conditions capacity analysis was completed for the existing study intersections. The capacity and level of service for the study area intersections were evaluated using the methodology presented in the *2010 Highway Capacity Manual*. Traffic analysis software, Synchro Version 9.2, was used to perform the analyses using the existing Peak Hour Factor (PHF) from the traffic counts.

Table 2 is from the *2010 Highway Capacity Manual* Exhibit 18-4 and 19-1, which lists the Level of Service (LOS) thresholds for two-way stop-controlled intersections.

Table 2 – Level of Service Criteria for Unsignalized Intersections

LOS	Control Delay (s/veh)
A	0 - 10
B	> 10–15
C	> 15-25
D	> 25-35
E	> 35-50
F	> 50

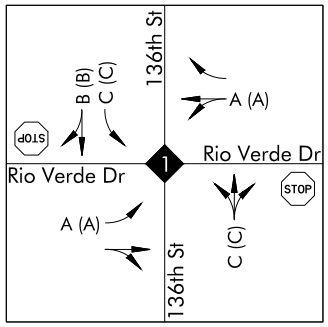
The existing AM and PM peak hour level of service and delay for the unsignalized intersection is shown in Table 3.

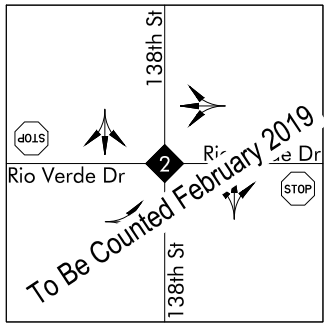
Table 3 – Existing Level of Service and Delay for Unsignalized Intersections

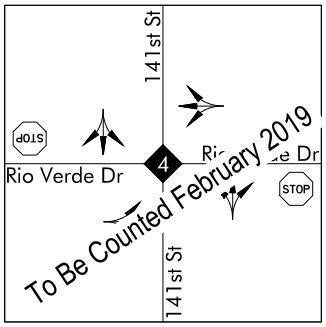
Intersection	Existing			
	AM PEAK		PM PEAK	
Unsignalized Intersections	LOS	DELAY	LOS	DELAY
Rio Verde Drive and 136th Street (1)				
Eastbound Left	A	8.3	A	8.0
Westbound Shared Left-Through	A	7.8	A	8.1
Northbound Shared Left-Through-Right	C	19.8	C	18.1
Southbound Left	C	17.7	C	17.7
Southbound Shared Through-Right	B	11.7	B	10.0

See Figure 5 for the existing AM and PM peak hour capacity analysis. The detailed capacity analysis sheets can be found in Appendix E.

All existing study intersection currently operates with all movements at a LOS C or better during the AM and PM peak hours, which is an acceptable level of service.







Legend

AM (PM)	Existing Peak Hour Capacity Analysis
X	Intersection
	Lane Configuration

FIGURE 5 | EXISTING CAPACITY ANALYSIS

5. PROJECTED TRAFFIC

5.1. TRIP GENERATION

Trip Generation (Existing Zoning)

The trip generation for the existing zoning was calculated utilizing the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation, 10th Edition*. The ITE rates are based on studies that measure the trip generation characteristics for various types of land uses. The rates are expressed in terms of trips per unit land use type. This publication is considered to be the standard for the transportation engineering profession. According to the Maricopa County Assessor's website, the site is currently comprised of six (6) undeveloped parcels as shown in Table 4.

Table 4 – Existing Parcels

No.	Parcel	Single-Family Residential	Lot Size (sq ft)
1	219-39-010M	R1-70 Zoning	737,035
2	219-39-010N	R1-70 Zoning	402,494
3	219-39-010U	R1-70 Zoning	3,165,941
4	219-39-010V	R1-70 Zoning	3,165,941
5	219-39-010G	R1-190 Zoning	850,291
6	219-39-010P	R1-190 Zoning	3,166,376
		TOTAL	11,488,078

R1-70 Zoning, Single-Family Residential

The City of Scottsdale Code of Ordinances for R1-70 single-family residential requires each lot to be at a minimum 70,000 square feet. The four (4) R1-70 parcels are approximately 7,471,411 square feet, resulting in a possible build out of 106 dwelling units.

R1-190 Zoning, Single-Family Residential

The City of Scottsdale Code of Ordinances for R1-190 single-family residential requires each lot to be at a minimum 190,000 square feet. The two (2) R1-190 parcels are approximately 4,016,667 square feet, resulting in a possible build out of 21 dwelling units.

Table 5 – Trip Generation – Existing Zoning

Land Use	ITE Code	Qty	Units	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Single-Family Detached Housing	210	127	Dwelling Units	1,199	94	24	71	126	79	47
			TOTAL	1,199	94	24	71	126	79	47

Trip Generation (Proposed Development)

Utilizing Land Use 210 – Single-Family Detached Housing, the trips generated by the proposed 260 single-family home Fiesta Ranch development were calculated. The total trip generation for the proposed Fiesta Ranch residential development is show in Table 6 below. Detailed trip generation calculations are provided in Appendix F.

Table 6 – Trip Generation – Proposed Development

Land Use	ITE Code	Qty	Units	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Single-Family Detached Housing	210	260	Dwelling Units	2,454	193	48	145	257	162	95
			TOTAL	2,454	193	48	145	257	162	95

5.2. TRIP GENERATION COMPARISON

A comparison between the trips generated by the existing R1-70 and R1-190 zoning and the proposed Fiesta Ranch residential development is shown in Table 7.

Table 7 – Trip Generation Comparison (Existing Zoning vs. Proposed Development)

Land Use	ITE Code	Qty	Units	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Single-Family Detached Housing (Existing Zoning)	210	127	Dwelling Units	1,199	94	24	71	126	79	47
			TOTAL	1,199	94	24	71	126	79	47
Single-Family Detached Housing (Proposed Development)	210	260	Dwelling Units	2,454	193	48	145	257	162	95
			TOTAL	2,454	193	48	145	257	162	95
			Difference	1,255	99	25	75	131	83	48

Table 7 shows that the proposed Fiesta Ranch residential development is expected to generate an additional 1,255 weekday daily trips, 99 AM peak hour, and 131 PM peak hour trips, as compared to potential trips generated by the existing zoning.

5.3. TRIP DISTRIBUTION AND ASSIGNMENT

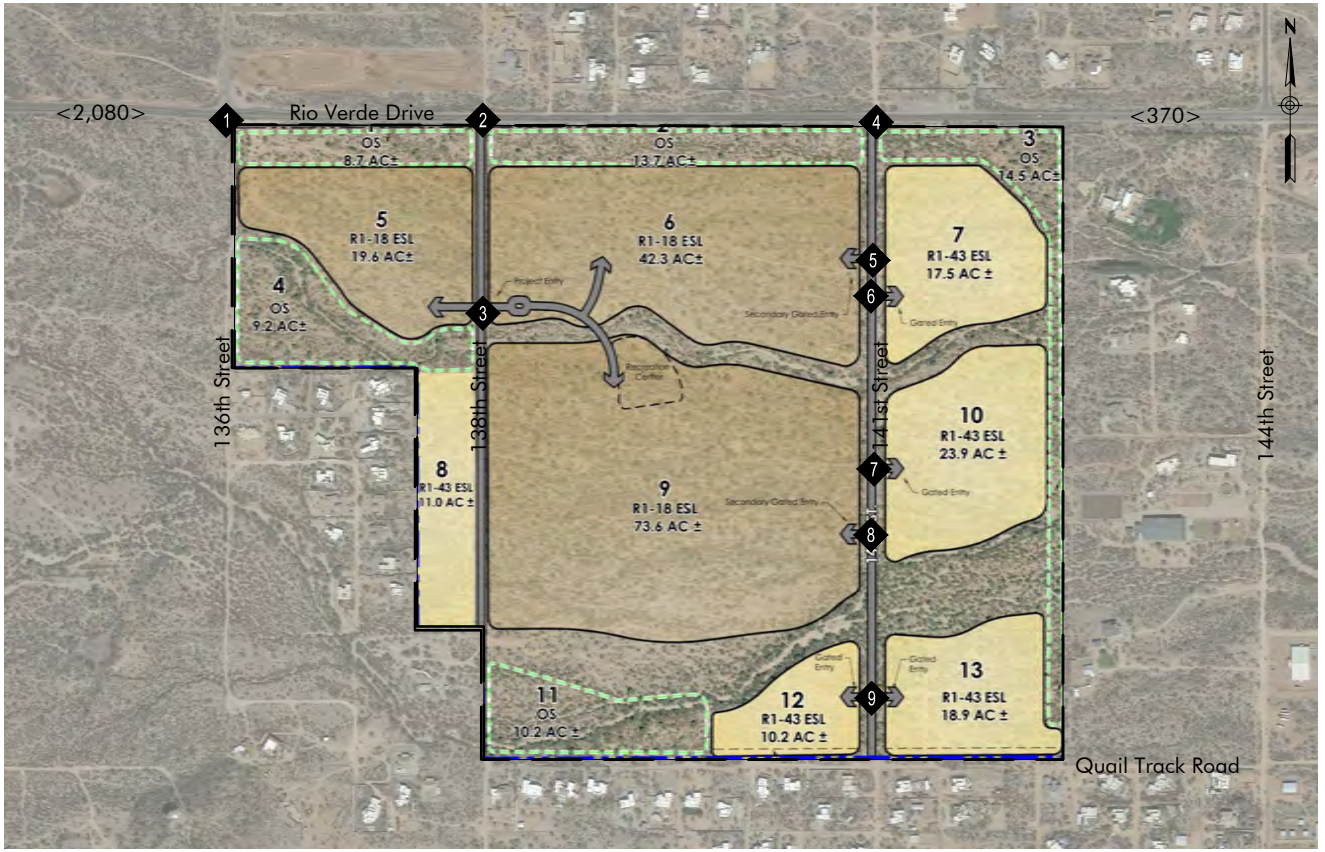
The trip distribution procedure determines the general pattern of travel for vehicles entering and leaving the proposed development. The trip distribution for the proposed Fiesta Ranch residential development is based on the distribution of the existing traffic along Rio Verde Drive. Therefore, it was assumed that 85 percent of the trips will travel to and from west of the site and the remaining 15 percent of the trips will travel to and from east of the site. The trip distribution is shown in Figure 6.

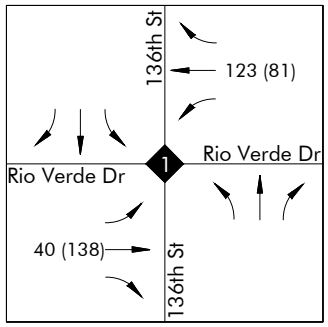
The trip assignment was based on the site layout and the relative proximity of residences to access driveways onto 138th Street and 141st Street. The site generated traffic volumes are shown in Figure 7.

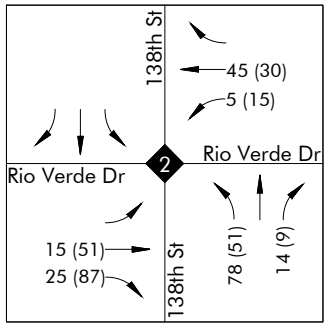
Legend

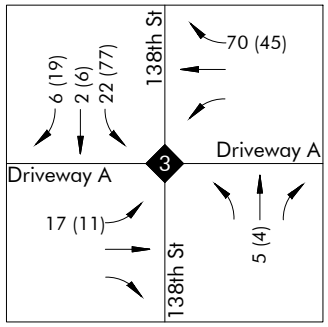
XX %	Inbound Trip Distribution Percentages
XX %	Outbound Trip Distribution Percentages
X	Intersection

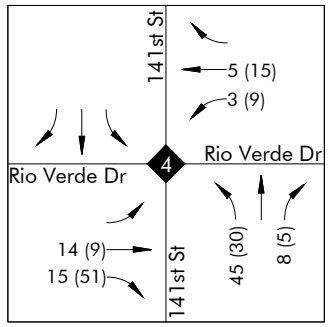
FIGURE 6 | TRIP DISTRIBUTION

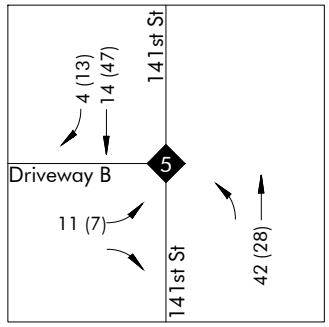


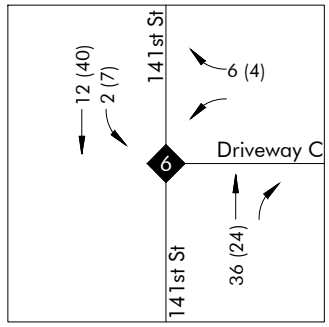


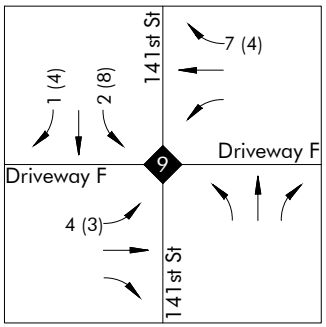


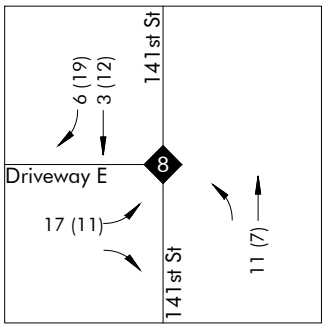


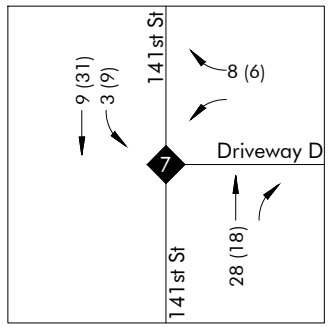












Legend

AM (PM)	Site Traffic Volumes
X	Intersection
<ADT>	Average Daily Traffic Volume

FIGURE 7 | SITE TRAFFIC VOLUMES

6. FUTURE CONDITIONS

The proposed Fiesta Ranch residential development is anticipated to be built out by year 2027. This section analyzes the traffic related impacts of the proposed development on the surrounding roadway network in the build out year.

6.1. YEAR 2027 BACKGROUND TRAFFIC VOLUMES

According to the 2016 Maricopa Associations of Governments (MAG) Socioeconomic projections within the proposed study area, it is estimated that in the year 2050 the population will be approximately 30,323. MAG estimates that the 2015 population of the surrounding area is 18,371. This results in an approximate annual growth rate of 1.44%. As a conservative approach, a 2.0% annual growth rate was utilized to project existing traffic volumes (**Figure 4**) to year 2027. The 2027 background (no build) traffic volumes are shown in **Figure 8.**

6.2. YEAR 2027 BUILD TRAFFIC VOLUMES

To determine 2027 build traffic volumes, site traffic volumes (**Figure 7**) were added to 2027 background traffic volumes (**Figure 8**). This represents year 2027 traffic volumes with the build out of the proposed development. See **Figure 9**.

6.3. YEAR 2027 NO BUILD CAPACITY ANALYSIS

The capacity and level of service for the study area intersections were evaluated for year 2027 no build conditions. See **Figure 10** for the AM and PM peak hour year 2027 no build capacity analysis. The detailed capacity analysis sheets can be found in **Appendix H**.

The results of the 2027 no build capacity analysis level of service and delay for each movement of the unsignalized intersections are shown in **Figure 8**. All movements operate at a LOS D or better.

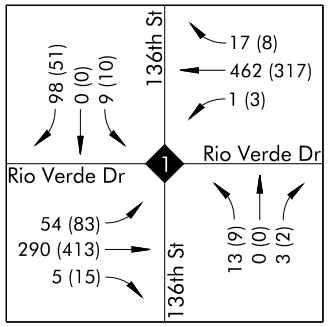
6.4. YEAR 2027 BUILD CAPACITY ANALYSIS

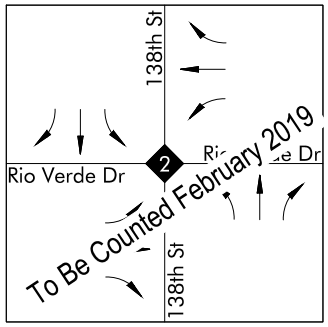
The capacity and level of service for the study area intersections were also evaluated for the year 2027 build traffic volumes. See **Figure 11** for the AM and PM peak hour year 2027 build capacity analysis. The detailed capacity analysis sheets can be found in **Appendix I**.

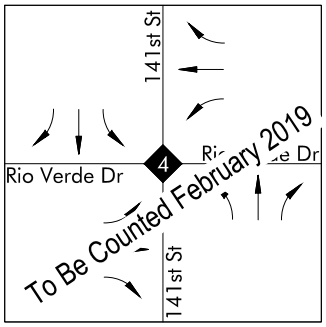
The results of the 2027 build capacity analysis level of service and delay for each movement of the unsignalized intersections are shown in **Figure 8**. All study area intersections operate with movements at a LOS D or better.

Table 8 – Year 2027 Level of Service and Delay for Unsignalized Intersections

Intersection	2027 No Build				2027 Build			
	AM PEAK		PM PEAK		AM PEAK		PM PEAK	
Unsignalized Intersections	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
Rio Verde Drive and 136th Street (1)								
Eastbound Left	A	8.6	A	8.2	A	9.1	A	8.5
Westbound Shared Left-Through	A	7.9	A	8.3	-	-	-	-
Westbound Left	-	-	-	-	A	8.0	A	8.7
Northbound Shared Left-Through-Right	D	24.4	C	22.8	D	32.3	D	31.8
Southbound Left	C	21.3	C	23.0	D	26.9	D	31.8
Southbound Shared Through-Right	B	12.8	B	10.6	B	14.7	B	11.3



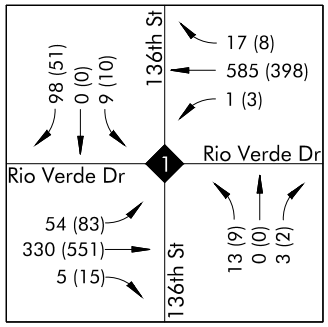


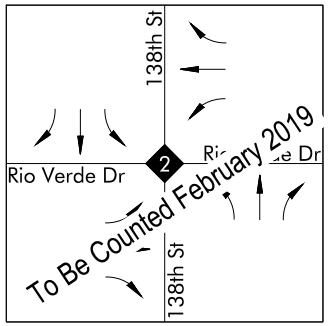


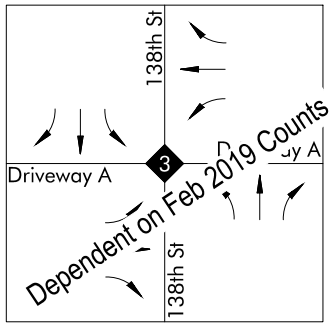
Legend

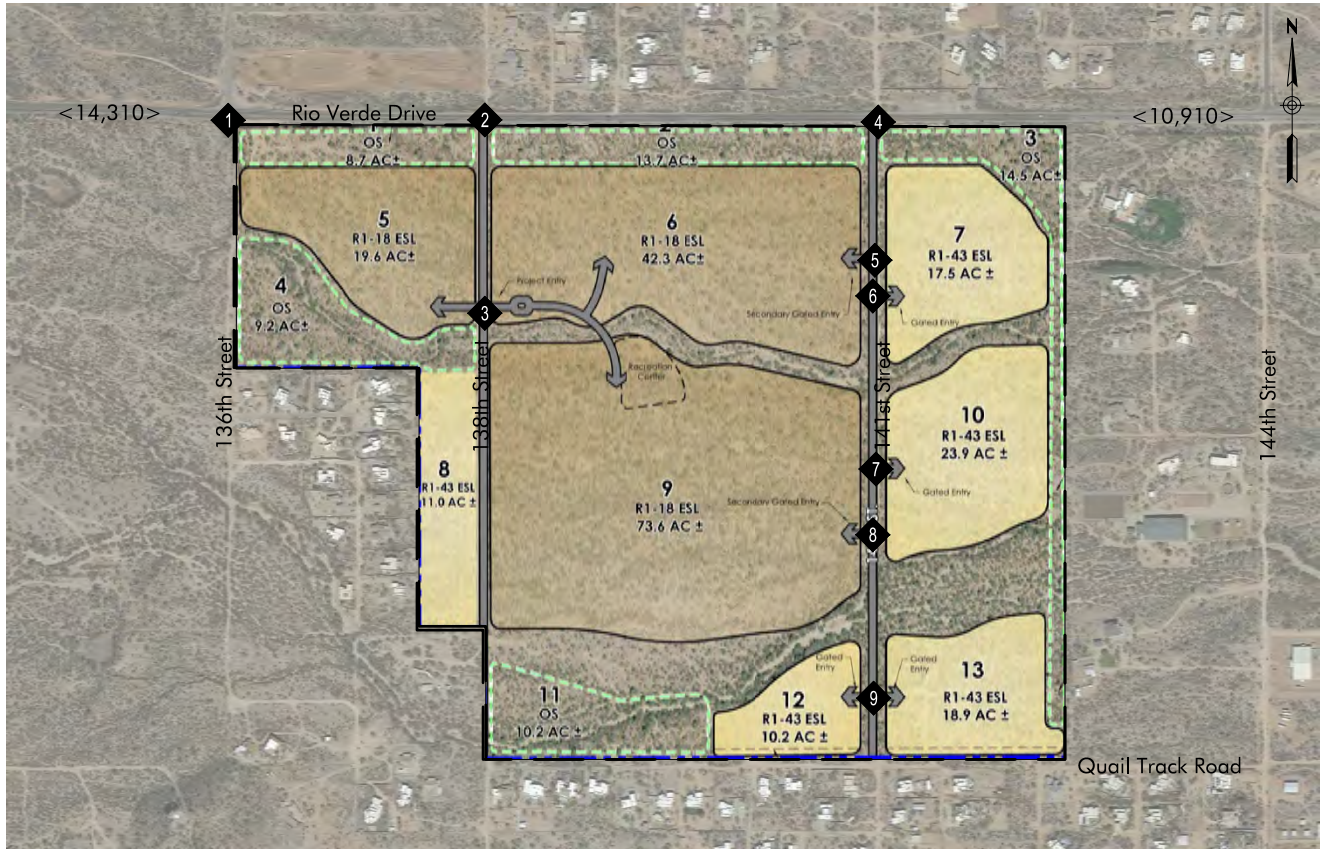
AM (PM)	Background Peak Hour Traffic Volumes
X	Intersection
<ADT>	Average Daily Traffic Volume

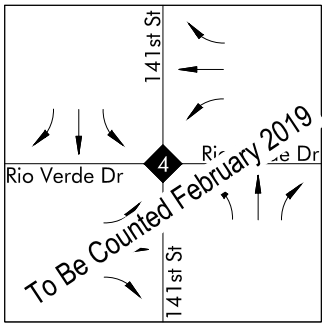
FIGURE 8 | YEAR 2027 BACKGROUND TRAFFIC VOLUMES

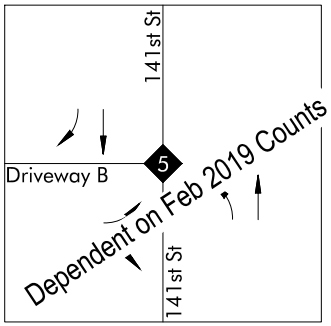


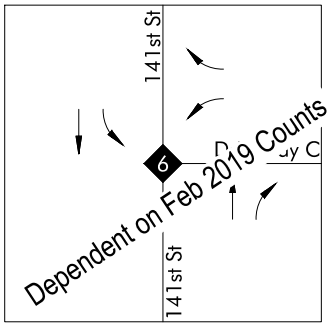


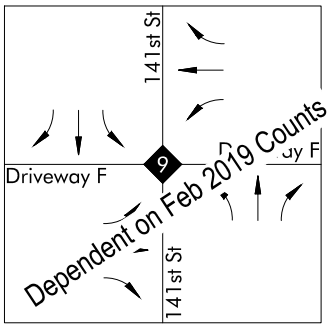


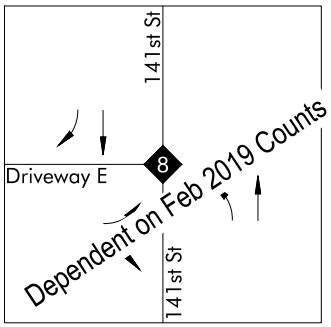


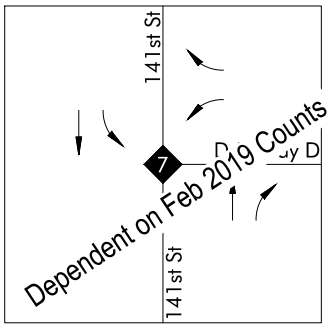








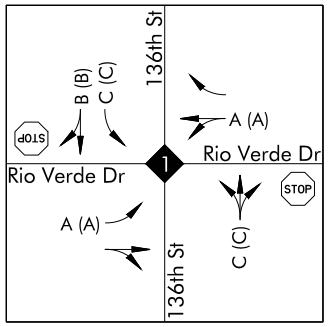


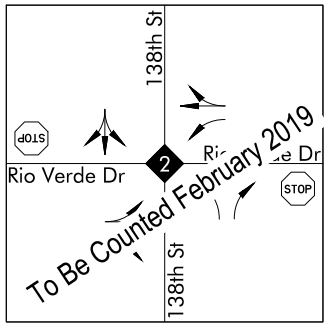


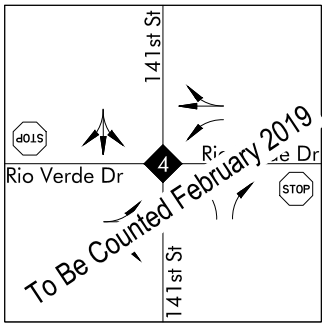
Legend

AM (PM)	Build Peak Hour Traffic Volumes
X	Intersection
<ADT>	Average Daily Traffic Volume

FIGURE 9 | YEAR 2027 BUILD TRAFFIC VOLUMES



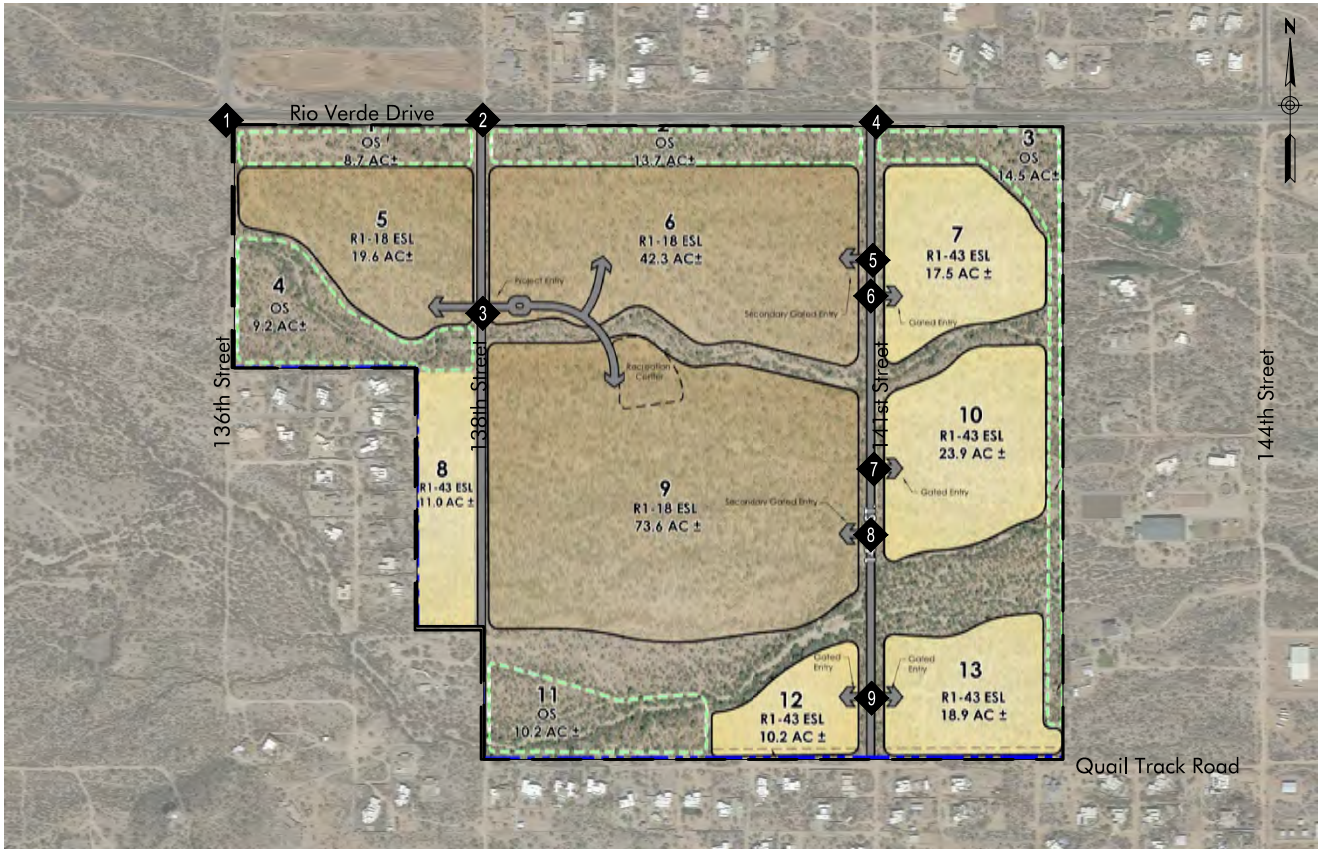


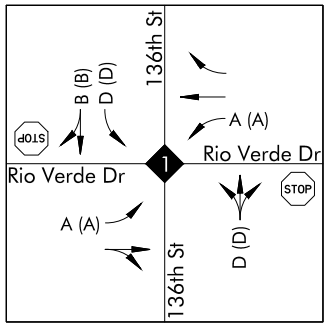


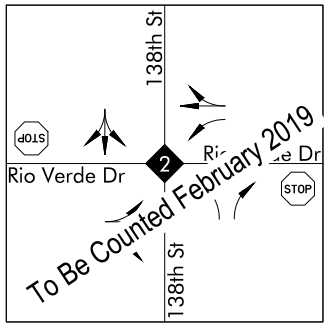
Legend

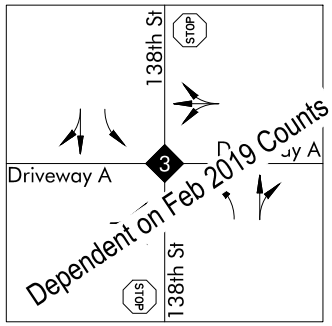
AM (PM)	No Build Peak Hour Capacity Analysis
X	Intersection
	Lane Configuration

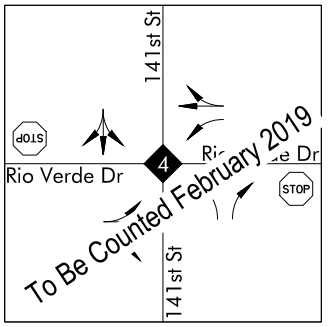
FIGURE 10 | YEAR 2027 NO BUILD CAPACITY ANALYSIS

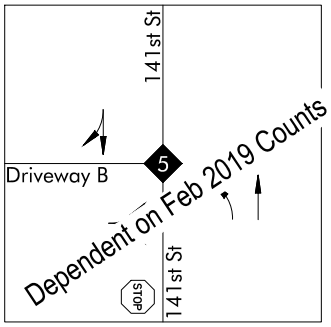


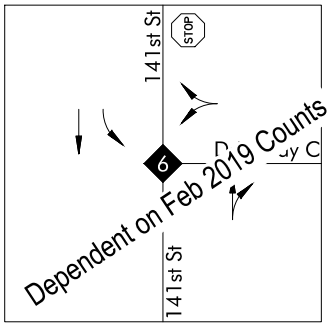


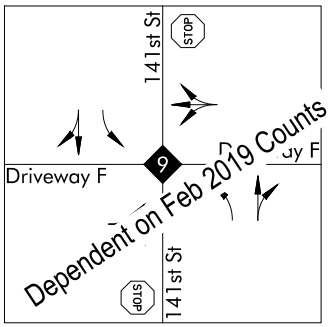


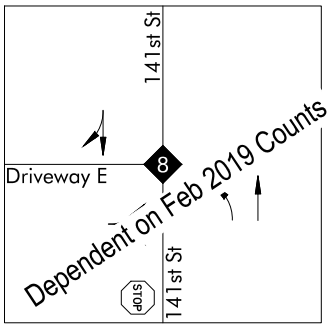


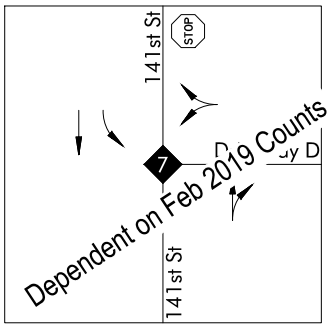












Legend

AM (PM) Build Peak Hour Capacity Analysis

X Intersection

Lane Configuration

FIGURE 11 | YEAR 2027 BUILD CAPACITY ANALYSIS

7. TURN LANE ANALYSIS

7.1. RIGHT TURN LANE WARRANTS

The Maricopa County Department of Transportation (MCDOT) *2018 Roadway Design Manual* Section 7.15.1 (Right Turn Lanes) was utilized to determine the need for a right turn deceleration lane at the following intersections:

- Rio Verde Drive and 138th Street (2)
- Rio Verde Drive and 141st Street (3)

A driveway right turn deceleration lane is required when either of the following is met:

✓ The outside lane has an expected volume ≥ 250 vehicles per hour (vph) and the right turn volume is > 55 vph

✓ Any three of the below criteria are met:

1. At least 5,000 vehicles per day are using or are expected to be using the adjacent street
2. The roadway's posted speed limit is > 35 mph
3. At least 1,000 vehicles per day are using or are expected to use the driveway
4. At least 30 vehicles per hour are expected to make right-turns into the driveway

Rio Verde Drive will eventually be widened to be a 4-lane roadway, providing 2 lanes for each direction of travel. For the year 2027 analysis it is assumed to be a 4-lane roadway. See Table 9 for the right turn analysis.

Table 9 – Year 2027 Right Turn Lane Analysis

On	At	No. Thru Lanes	Speed Limit	Peak Hour	Criteria 1				Criteria 2				
					Direction	Right	Through	Warranted	ADT	Posted SL	Driveway ADT	Right	Warranted
Rio Verde Drive	138th Street	2	50	AM	EB	25	317	NO	14,310	50	1,538	25	YES
				PM		87	476					87	
Rio Verde Drive	141st Street	2	50	AM	EB	15	316	NO	10,910	50	916	15	YES
				PM		51	434					51	

It is recommended that right turn deceleration lanes be provided at the following intersections:

- Rio Verde Drive and 138th Street (2) - Eastbound
- Rio Verde Drive and 141st Street (3) – Eastbound
-

For the two intersections shown above, based on the 95th percentile queue, the recommended storage length is 100 feet, which is the City of Scottsdale's minimum required storage length.

7.2. LEFT TURN LANE WARRANTS

The Maricopa County Department of Transportation (MCDOT) *2018 Roadway Design Manual* Section 7.15.2 (Left Turn Lanes) was utilized to determine the need for a left turn deceleration lane at the following driveways:

- Rio Verde Drive and 138th Street (2)
- Rio Verde Drive and 141st Street (3)

MCDOT's volume warrants for left-turn lanes are shown in Table 11 below:

Table 10 – MCDOT Volume Warrant Criteria for Left Turn Lanes

TABLE 7.6: VOLUME WARRANTS FOR LEFT-TURN LANES				
Peak Hour Traffic Volume on the Roadway in the Advancing Direction	Minimum Peak Hour Left-turn Traffic Volume # of through lanes per direction			
	1		2	
	< 45 MPH Posted Speed	≥ 45 MPH Posted Speed	< 45 MPH Posted Speed	≥ 45 MPH Posted Speed
≤ 200	30	15	-	-
201-300	12	12	40	30
301-400	12	12	30	25
401-500	12	12	25	18
501-600	12	12	15	12
601-1000	12	12	10	8
1001+	12	8	10	8

Rio Verde Drive will eventually be widened to be a 4-lane roadway, providing 2 lanes for each direction of travel. For the year 2027 analysis it is assumed to be a 4-lane roadway. See Table 11 for year 2027 left turn analysis.

Table 11 – Year 2027 Left Turn Lane Analysis

On	At	No. Thru Lanes	Speed Limit	Peak Hour	Left Turn			
					Direction	Through	Left	Warranted
Rio Verde Drive	138th Street	2	50	AM	WB	525	5	NO
				PM		358	15	
Rio Verde Drive	141st Street	2	50	AM	WB	485	3	NO
				PM		343	9	

Left turn deceleration lanes are not warranted at either of the two intersections.

8. RECOMMENDATIONS & CONCLUSIONS

The proposed Fiesta Ranch residential development will be comprised of 260 single-family residential dwelling units.

Existing Capacity Analysis

The AM and PM peak hour existing conditions capacity analysis were completed for the intersection of Rio Verde Drive and 136th Street. This existing stop-controlled intersection currently operates with a LOS C or better for all movements during the AM and PM peak hours.

AM and PM peak hour turning movement counts are currently being collected at the following intersections:

- Rio Verde Drive and 138th Street (2)
- Rio Verde Drive and 141st Street (4)

The existing capacity analysis for these two intersections will be included with the next submittal.

Trip Generation

The proposed development is anticipated to generate 2,454 weekday trips, with 193 trips occurring during the AM peak hour and 257 trips occurring during the PM peak hour.

Land Use	ITE Code	Qty	Units	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Single-Family Detached Housing	210	260	Dwelling Units	2,454	193	48	145	257	162	95
			TOTAL	2,454	193	48	145	257	162	95

Trip Generation Comparison (Existing Zoning vs. Proposed Development)

A comparison between the trips generated by the build out under the existing R1-70 and R1-190 zoning versus the proposed 260 residential development was calculated.

Land Use	ITE Code	Qty	Units	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Single-Family Detached Housing (Existing Zoning)	210	127	Dwelling Units	1,199	94	24	71	126	79	47
			TOTAL	1,199	94	24	71	126	79	47
Single-Family Detached Housing (Proposed Development)	210	260	Dwelling Units	2,454	193	48	145	257	162	95
			TOTAL	2,454	193	48	145	257	162	95
			Difference	1,255	99	25	75	131	83	48

The proposed Fiesta Ranch residential development is anticipated to generate 1,255 more weekday daily trips, 99 more trips during the AM peak hour, and 131 more trips during the PM peak hour.

Future Conditions

Year 2027 (build out) analyses were completed without, as well as with the build out of the proposed Fiesta Ranch development. An annual growth rate of 2.0% was applied to the existing traffic volumes to create the future background traffic volumes for year 2027.

Year 2027

Capacity analyses were completed for both the AM and PM peak hours for the year 2027, without, as well as with the build out of the proposed Fiesta Ranch development. All movements at the study intersection operate at a LOS D or better during the AM and PM peak hours.

Right Turn Lanes

The MCDOT right turn lane warrants were used to analyze the following two intersections:

- Rio Verde Drive and 138th Street (2) - Eastbound
- Rio Verde Drive and 141st Street (3) - Eastbound

Rio Verde Drive will eventually be widened to be a 4-lane roadway, providing 2 lanes for each direction of travel. For the year 2027 analysis it is assumed to be a 4-lane roadway.

Right turn lane warrants are met for both intersections. Based on the 95th percentile queue, the recommended storage length is 100 feet, which is the City of Scottsdale's minimum required storage length.

Left Turn Lanes

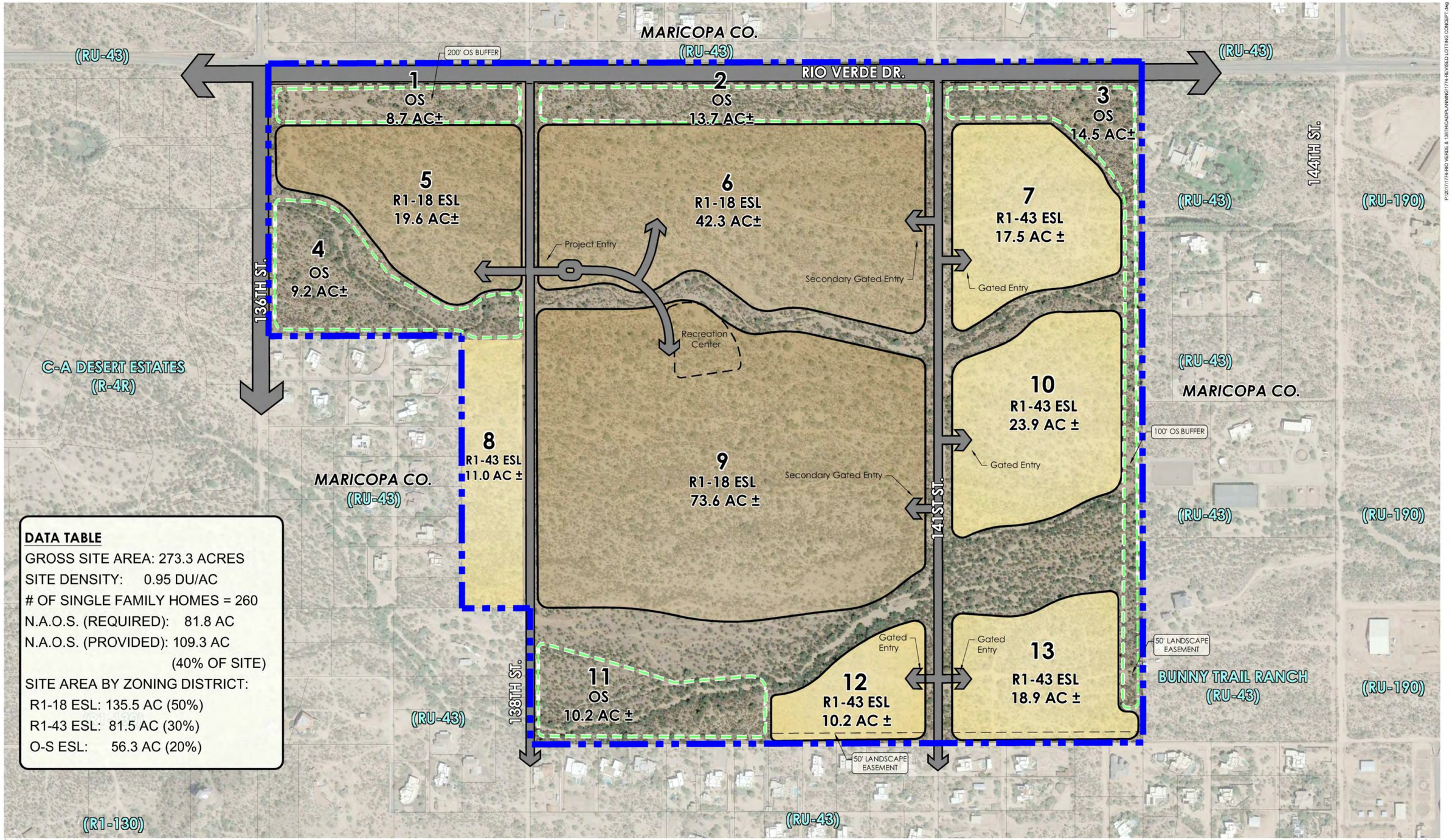
The MCDOT right turn lane warrants were used to analyze the following two intersections:

- Rio Verde Drive and 138th Street (2) - Westbound
- Rio Verde Drive and 141st Street (3) - Westbound

Rio Verde Drive will eventually be widened to be a 4-lane roadway, providing 2 lanes for each direction of travel. For the year 2027 analysis it is assumed to be a 4-lane roadway.

Left turn deceleration lanes are not warranted at either of the two intersections.

Appendix A – Proposed Site Plan



Aerial Photography Date:

RVi
120 S. Ash Avenue
Tempe, Arizona 85281
Tel: 480.994.0994
www.rviplanning.com

RIO VERDE • CONCEPTUAL SITE PLAN

Rio Verde
2019-01-23
1774

0 100' 200' 400'

Information furnished regarding this property is from sources deemed reliable. RVi has not made an independent investigation of these sources and no warranty is made as to their accuracy or completeness. This plan is conceptual, subject to change, and does not represent any regulatory approval.

Appendix B – Crash Data

CITY OF SCOTTSDALE '15 -'16 COLLISION SUMMARY

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV. #1	INJ. SEV. #2	PHYS. COND. #1	PHYS. COND. #2	VIOLATION #1	VIOLATION #2	ACTION #1	ACTION #2	TRAV. DIR. #1	TRAV. DIR. #2	MANNER OF COLLISION	COMMENTS
16-24847	161107	1426	LONE MOUNTAIN	PY	CAVE CREEK	RD	N	740	4		99		13		1		SB		1	
15-09692	150427	1215	128	ST	RANCH GATE	RD	S	300	1	1	0	0	1	1	1	1	SB	NB	7	
16-25447	161115	0600	118	ST	RIO VERDE	DR	AT		1	1	0	0	20	1	4	1	NB	WB	3	
16-22636	161010	0326	138	ST	RIO VERDE	DR	AT		1		0		2		1		EB		97	
16-22290	161005	0939	136	ST	RIO VERDE	DR	AT		1	1	0	0	2	1	1	3	SB	SB	4	
16-19557	160831	1900	136	ST	RIO VERDE	DR	AT		1	1	0	0	20	1	4	1	NB	WB	3	
16-14293	160622	0944	114	ST	RIO VERDE	DR	AT		1	1	0	0	20	1	1	1	NB	EB	2	
16-12169	160526	1531	136	ST	RIO VERDE	DR	AT		1	1	0	0	20	1	4	4	SB	NB	3	
16-05970	160312	1412	128	ST	RIO VERDE	DR	AT		1	1	0	0	2	1	1	6	EB	SB	4	
15-13591	150617	1438	136	ST	RIO VERDE	DR	AT		2		1		1		1		EB		1	
15-07861	150405	0752	138	ST	RIO VERDE	DR	AT		3	3	0	0	2	1	1	2	EB	EB	4	
16-07906	160403	1733	141	WY	RIO VERDE	DR	W	115	99	3	4	0	2	1	7	1	WB	WB	4	
15-15739	150717	0129	120	ST	RIO VERDE	DR	E	170	1		0		1		1		EB		1	
16-06891	160323	0654	122	ST	RIO VERDE		W	231	1	1	0	0	4	1	1	2	WB	WB	4	
15-00899	150112	1455	LONE MOUNTAIN	PY	STANDING STONES	RD	W	200	4	4	0	0		1	1	1	SB	WB	2	

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV. #1	INJ. SEV. #2	PHYS. COND. #1	PHYS. COND. #2	VIOLATION #1	VIOLATION #2	ACTION #1	ACTION #2	TRAV. DIR. #1	TRAV. DIR. #2	MANNER OF COLLISION	COMMENTS

KEY

INJURY SEVERITY: 1=NO INJURY, 2=POSSIBLE INJURY, 3=NON-INCAPACITATING INJURY, 4=INCAPACITATING INJURY, 5=FATAL INJURY, 99=NOT REPORTED / UNKNOWN

PHYSICAL CONDITION: 0=NO APPARENT INFLUENCE, 1=ILLNESS, 2=PHYSICAL IMPAIRMENT, 3=FELL ASLEEP / FATIGUED 4=ALCOHOL, 5=DRUGS, 6=MEDICATIONS, A=NO TEST GIVEN, B=TEST GIVEN, C=TEST REFUSED, D=TESTING UNKNOWN, 97=OTHER, 99=UNKNOWN

VIOLATION: 1=NO IMPROPER ACTION, 2=SPEED TOO FAST FOR CONDITIONS, 3=EXCEEDED LAWFUL SPEED 4=FOLLOWED TOO CLOSELY. 5=RAN STOP SIGN, 6=DISREGAREDED TRAFFIC SIGNAL7=MADE IMPROPER TURN, 8=DROVE/RODE IN OPPOSING TRAFFIC LANE, 9=KNOWINGLY OPERATED WITH FAULTY / MISSING EQUIPMENT, 10=REQUIRED MOTORCYCLE SAFETY EQUIPMENT NOT USED, 11=PASSED IN NO PASSING ZONE, 12=UNSAFE LANE CHANGE, 13=FAILED TO KEEP IN PROPER LANE, 14=DISREGARDED PAVEMENT MARKINGS, 15=OTHER UNSAFE PASSING, 16=INATTENTION/DISTRACTION, 17=DID NOT USE CROSSWALK, 18=WALKED ON WRONG SIDE OF ROAD, 19=ELECTRONIC COMMUNICATIONS DEVICE, 20=FAILED TO YIELD RIGHT OF WAY (added August 2014), 97=OTHER, 99 UNKNOWN

ACTION: 1=GOING STRAIGHT AHEAD, 2=SLOWING IN TRAFFICWAY, 3=STOPPED IN TRAFFICWAY, 4=MAKING LEFT TURN, 5=MAKING RIGHT TURN, 6=MAKING U-TURN, 7=OVERTAKING/PASSING, 8=CHANGING LANES, 9=NEGOTIATING A CURVE, 10=BACKING, 11=AVOIDING VEH/OBJ/PED/CYCLIST/ANIMAL, 12=ENTERING PARKING POSITION, 13=LEAVING PARKING POSITION, 14=PROPERLY PARKED, 15=IMPROPERLY PARKED, 16=DRIVERLESS MOVING VEHICLE, 17=CROSING ROAD, 18=WALKING WITH TRAFFIC, 19=WALKING AGAINST TRAFFIC, 20=STANDING, 21=LYING, 22=GETTING ON OR OFF VEHICLE, 23=WORKING ON/PUSHING VEHICLE, 24=WORKING ON ROAD, 97=OTHER, 99=UKNOWN

MANNER OF COLLISION: 1=SINGLE VEHICLE, 2=ANGLE (front to side, other than left turn), 3=LEFT TURN, 4=REAR END (front to rear), 5=HEAD-ON (front to front, other than left turn), 6=SIDESWIPE (same direction), 7=SIDESWIPE (opposite direction), 8=REAR-TO-SIDE, 9=REAR TO REAR, 97=OTHER, 99=UNKNOWN

TOTAL 15

CITY OF SCOTTSDALE '17 -'18 COLLISION SUMMARY

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV. #1	INJ. SEV. #2	PHYS. COND. #1	PHYS. COND. #2	VIOLATION #1	VIOLATION #2	ACTION #1	ACTION #2	TRAV. DIR. #1	TRAV. DIR. #2	MANNER OF COLLISION	COMMENTS
1711737	170525	0030	116	ST	RIO VERDE	DR	AT		1		0		1		1		EB		1	
1807399	180402	2013	118	ST	RIO VERDE	DR	AT		1		0		1		1		EB		97	
1703836	170216	0447	118	ST	RIO VERDE	DR	AT		2	1	0	0	97		4	1	EB	WB	3	
1801172	180116	0940	120	ST	RIO VERDE	DR	AT		2	3	0	0	2	1	1	3	WB	WB	4	
1726384	171129	0617	120	ST	RIO VERDE	DR	E	500	1		0		1		1		WB		1	
1701844	170124	1037	122	ST	RIO VERDE	DR	E	892	1	1	1	0	15	1	7	1	EB	EB	7	
1705403	170307	1241	136	ST	RIO VERDE	DR	N	35	1	1	0	0		1	5	3	SB	SB	4	
1808150	180412	0623	141	ST	RIO VERDE	DR	W	145	3	2	0	0	2	1	1	3	EB	EB	4	
1800738	180111	0751	LONE MOUNTAIN	PY	CAVE CREEK	RD	W	55	2	2	0	0	7	1	6	1	SB	WB	2	
1809406	180427	1001	LONE MOUNTAIN	PY	STANDING STONES	RD	AT		1	1	0	0	97	1	10	3	SB	NB	4	

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV. #1	INJ. SEV. #2	PHYS. COND. #1	PHYS. COND. #2	VIOLATION #1	VIOLATION #2	ACTION #1	ACTION #2	TRAV. DIR. #1	TRAV. DIR. #2	MANNER OF COLLISION	COMMENTS

KEY

INJURY SEVERITY:
1=NO INJURY, 2=POSSIBLE INJURY, 3=NON-INCAPACITATING INJURY, 4=INCAPACITATING INJURY, 5=FATAL INJURY, 99=NOT REPORTED / UNKNOWN

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0=NO APPARENT INFLUENCE, 1=ILLNESS, 2=PHYSICAL IMPAIRMENT, 3=FELL ASLEEP / FATIGUED 4=ALCOHOL, 5=DRUGS, 6=MEDICATIONS, A=NO TEST GIVEN, B=TEST GIVEN, C=TEST REFUSED, D=TESTING UNKNOWN, 97=OTHER, 99=UNKNOWN

VIOLATION:
1=NO IMPROPER ACTION, 2=SPEED TOO FAST FOR CONDITIONS, 3=EXCEEDED LAWFUL SPEED 4=FOLLOWED TOO CLOSELY. 5=RAN STOP SIGN, 6=DISREGAREDED TRAFFIC SIGNAL7=MADE IMPROPER TURN, 8=DROVE/RODE IN OPPOSING TRAFFIC LANE, 9=KNOWINGLY OPERATED WITH FAULTY / MISSING EQUIPMENT, 10=REQUIRED MOTORCYCLE SAFETY EQUIPMENT NOT USED, 11=PASSED IN NO PASSING ZONE, 12=UNSAFE LANE CHANGE, 13=FAILED TO KEEP IN PROPER LANE, 14=DISREGARDED PAVEMENT MARKINGS, 15=OTHER UNSAFE PASSING, 16=INATTENTION/DISTRACTION, 17=DID NOT USE CROSSWALK, 18=WALKED ON WRONG SIDE OF ROAD, 19=ELECTRONIC COMMUNICATIONS DEVICE, 20=FAILED TO YIELD RIGHT OF WAY (added August 2014), 97=OTHER, 99 UNKNOWN

ACTION:
1=GOING STRAIGHT AHEAD, 2=SLOWING IN TRAFFICWAY, 3=STOPPED IN TRAFFICWAY, 4=MAKING LEFT TURN, 5=MAKING RIGHT TURN, 6=MAKING U-TURN, 7=OVERTAKING/PASSING, 8=CHANGING LANES, 9=NEGOTIATING A CURVE, 10=BACKING, 11=AVOIDING VEH/OBJ/PED/CYCLIST/ANIMAL, 12=ENTERING PARKING POSITION, 13=LEAVING PARKING POSITION, 14=PROPERLY PARKED, 15=IMPROPERLY PARKED, 16=DRIVERLESS MOVING VEHICLE, 17=CROSING ROAD, 18=WALKING WITH TRAFFIC, 19=WALKING AGAINST TRAFFIC, 20=STANDING, 21=LYING, 22=GETTING ON OR OFF VEHICLE, 23=WORKING ON/PUSHING VEHICLE, 24=WORKING ON ROAD, 97=OTHER, 99=UKNOWN

MANNER OF COLLISION:
1=SINGLE VEHICLE, 2=ANGLE (front to side, other than left turn), 3=LEFT TURN, 4=REAR END (front to rear), 5=HEAD-ON (front to front, other than left turn), 6=SIDESWIPE (same direction), 7=SIDESWIPE (opposite direction), 8=REAR-TO-SIDE, 9=REAR TO REAR, 97=OTHER, 99=UNKNOWN

TOTAL 10

Appendix C – Parcel Information

219-39-010G Agricultur e Par cel

This is a agriculture parcel and the current owner is WILDCAT RIDGE LLC. Its current year full cash value is $293.

Pr operty Information

MCR #	
Description:	E 329.02F OF LOTS 1 & 2 EX N 100F RD
Lat/Long	
Lot Size	850,291 sq ft.
Zoning	R1-190
Lot #	
High School District	CAVE CREEK UNIFIED #93
Elementary School District	CAVE CREEK UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	31 5N 6E
Market Area/Neighborhood	07/005
Subdivision (0 Parcels)	

Owner Information

WILDCA T RIDGE LLC

Mailing Address	14901 N SCOTTSDALE RD STE 201 , SCOTTSDALE, AZ 85254
Deed Number	050667016
Last Deed Date	05/19/2005
Sale Date	n/a
Sale Price	n/a

Valuation Information

We provide valuation information for the past 5 years. For mobile display, we only show 1 year of valuation information. Should you need more data, please look at our data sales.
The Valuation Information displayed below may not r eflect the taxable value used on the tax bill due to any special valuation r elief pr ogram. CLICK HERE T O PAY YOUR TAXES OR VIEW YOUR T AX BILL

Tax Year	2018	2017	2016	2015	2014
Full Cash Value	$293	$1,171	$1,366	$1,366	$1,562
Limited Property Value	$293	$1,171	$1,366	$1,366	$1,421
Legal Class	2	2	2	2	2
Description	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	15%	15%	15%	16%	16%
Assessed FCV	n/a	n/a	n/a	n/a	$250
Assessed LPV	$44	$176	$205	$219	$227
Property Use Code	4710	4710	4710	4710	4710
PU Description	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL
Tax Area Code	931400	931400	931400	931400	931400
Valuation Source	Notice	Notice	Notice	Decision	Notice

Similar Par cels

Parcels that are similar to this one (known as the reference parcel) are displayed below.

APN Addr ess Sale Info FCV Size Livable Sq Ft Year Built Pool For eclosed

219-39-010M Agricultur e Par cel

This is a agriculture parcel located at 13701 E RIO VERDE DR SCOTTSDALE 85262. and the current owner is WILDCAT RIDGE LLC. Its current year full cash value is $846.

Pr operty Information

13701 E RIO VERDE DR SCOTTSDALE 85262

MCR #	
Description:	TH W2 OF LOT 1 EX N 100F RD & EX W 55F RD
Lat/Long	33.74128852 | -111.78581319
Lot Size	737,035 sq ft.
Zoning	R1-70
Lot #	
High School District	CAVE CREEK UNIFIED #93
Elementary School District	CAVE CREEK UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	31 5N 6E
Market Area/Neighborhood	07/005
Subdivision (0 Parcels)	

Owner Information

WILDCA T RIDGE LLC

Mailing Address	14901 N SCOTTSDALE RD STE 201 , SCOTTSDALE, AZ 85254
Deed Number	050667016
Last Deed Date	05/19/2005
Sale Date	n/a
Sale Price	n/a

Valuation Information

We provide valuation information for the past 5 years. For mobile display, we only show 1 year of valuation information. Should you need more data, please look at our data sales.
The Valuation Information displayed below may not r eflect the taxable value used on the tax bill due to any special valuation r elief pr ogram. CLICK HERE T O PAY YOUR TAXES OR VIEW YOUR T AX BILL

Tax Year	2018	2017	2016	2015	2014
Full Cash Value	$846	$1,015	$1,184	$1,184	$1,354
Limited Property Value	$846	$1,015	$1,184	$1,184	$1,232
Legal Class	2	2	2	2	2
Description	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	15%	15%	15%	16%	16%
Assessed FCV	n/a	n/a	n/a	n/a	$217
Assessed LPV	$127	$152	$178	$189	$197
Property Use Code	4710	4710	4710	4710	4710
PU Description	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL
Tax Area Code	931400	931400	931400	931400	931400
Valuation Source	Notice	Notice	Notice	Decision	Notice

Similar Par cels

Parcels that are similar to this one (known as the reference parcel) are displayed below.

APN Addr ess Sale Info FCV Size Livable Sq Ft Year Built Pool For eclosed

219-39-010N Agricultur e Par cel

This is a agriculture parcel and the current owner is WILDCAT RIDGE LLC. Its current year full cash value is $462.

Pr operty Information

MCR #	
Description:	TH E2 LOT 1 SEC 31 T5N R6E EX TH E 329.02F TH/OF & EX N 100F RD
Lat/Long	
Lot Size	402,494 sq ft.
Zoning	R1-70
Lot #	
High School District	CAVE CREEK UNIFIED #93
Elementary School District	CAVE CREEK UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	31 5N 6E
Market Area/Neighborhood	07/005
Subdivision (0 Parcels)	

Owner Information

WILDCA T RIDGE LLC

Mailing Address	14901 N SCOTTSDALE RD STE 201 , SCOTTSDALE, AZ 85254
Deed Number	050667016
Last Deed Date	05/19/2005
Sale Date	n/a
Sale Price	n/a

Valuation Information

We provide valuation information for the past 5 years. For mobile display, we only show 1 year of valuation information. Should you need more data, please look at our data sales.
The Valuation Information displayed below may not r eflect the taxable value used on the tax bill due to any special valuation r elief pr ogram. CLICK HERE T O PAY YOUR TAXES OR VIEW YOUR T AX BILL

Tax Year	2018	2017	2016	2015	2014
Full Cash Value	$462	$554	$647	$647	$739
Limited Property Value	$462	$554	$647	$647	$672
Legal Class	2	2	2	2	2
Description	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	14.9%	15%	15%	16.1%	16%
Assessed FCV	n/a	n/a	n/a	n/a	$118
Assessed LPV	$69	$83	$97	$104	$108
Property Use Code	4710	4710	4710	4710	4710
PU Description	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL
Tax Area Code	931400	931400	931400	931400	931400
Valuation Source	Notice	Notice	Notice	Decision	Notice

Similar Par cels

Parcels that are similar to this one (known as the reference parcel) are displayed below.

APN Addr ess Sale Info FCV Size Livable Sq Ft Year Built Pool For eclosed

219-39-010P Agricultur e Par cel

This is a agriculture parcel and the current owner is WILDCAT RIDGE LLC. Its current year full cash value is $3,635.

Pr operty Information

MCR #	
Description:	TH PT E2 SEC DAF BEG NE COR SEC TH S 5279.03F TO SE COR SEC TH W 1981.58F TH N 5281.95F TO PT ON N LN SEC TH E ALG SD N LN 1978.36F TO POB EX E2 E2 NE4 & EX E2 W2 E2 NE4 & EX NE4 NE4 SE4 & EX E2 NW4 NE4 SE4 & EX SE4 SE4 & EX E2 SW4 SE4 & EX S2 NE4 SE4 & EX SE4 NW4 SE4 & EX N 100F RD
Lat/Long	
Lot Size	3,166,376 sq ft.
Zoning	R1-190
Lot #	
High School District	CAVE CREEK UNIFIED #93
Elementary School District	CAVE CREEK UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	31 5N 6E
Market Area/Neighborhood	07/005
Subdivision (0 Parcels)	

Owner Information

WILDCA T RIDGE LLC

Mailing Address	14901 N SCOTTSDALE RD STE 201 , SCOTTSDALE, AZ 85254
Deed Number	050667016
Last Deed Date	05/19/2005
Sale Date	n/a
Sale Price	n/a

Valuation Information

We provide valuation information for the past 5 years. For mobile display, we only show 1 year of valuation information. Should you need more data, please look at our data sales.
The Valuation Information displayed below may not r eflect the taxable value used on the tax bill due to any special valuation r elief pr ogram. CLICK HERE T O PAY YOUR TAXES OR VIEW YOUR T AX BILL

Tax Year	2018	2017	2016	2015	2014
Full Cash Value	$3,635	$4,361	$5,088	$5,088	$5,815
Limited Property Value	$3,635	$4,361	$5,088	$5,088	$5,292
Legal Class	2	2	2	2	2
Description	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	15%	15%	15%	16%	16%
Assessed FCV	n/a	n/a	n/a	n/a	$930
Assessed LPV	$545	$654	$763	$814	$847
Property Use Code	4710	4710	4710	4710	4710
PU Description	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL
Tax Area Code	931400	931400	931400	931400	931400
Valuation Source	Notice	Notice	Notice	Notice	Notice

Similar Par cels

Parcels that are similar to this one (known as the reference parcel) are displayed below.

APN Addr ess Sale Info FCV Size Livable Sq Ft Year Built Pool For eclosed

219-39-010U Agricultur e Par cel

This is a agriculture parcel and the current owner is WILDCAT RIDGE LLC. Its current year full cash value is $3,634.

Pr operty Information

MCR #	
Description:	W2 E2 NW4 & W2 E2 E2 NW4 & NW4 NE4 SW4 & W2 NE4 NE4 SW4 & EX N 100F
Lat/Long	
Lot Size	3,165,941 sq ft.
Zoning	R1-70
Lot #	
High School District	CAVE CREEK UNIFIED #93
Elementary School District	CAVE CREEK UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	31 5N 6E
Market Area/Neighborhood	07/005
Subdivision (0 Parcels)	

Owner Information

WILDCA T RIDGE LLC

Mailing Address	14901 N SCOTTSDALE RD STE 201 , SCOTTSDALE, AZ 85254
Deed Number	050667016
Last Deed Date	05/19/2005
Sale Date	n/a
Sale Price	n/a

Valuation Information

We provide valuation information for the past 5 years. For mobile display, we only show 1 year of valuation information. Should you need more data, please look at our data sales.
The Valuation Information displayed below may not r eflect the taxable value used on the tax bill due to any special valuation r elief pr ogram. CLICK HERE T O PAY YOUR TAXES OR VIEW YOUR T AX BILL

Tax Year	2018	2017	2016	2015	2014
Full Cash Value	$3,634	$4,361	$5,088	$5,088	$5,814
Limited Property Value	$3,634	$4,361	$5,088	$5,088	$5,291
Legal Class	2	2	2	2	2
Description	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	15%	15%	15%	16%	16%
Assessed FCV	n/a	n/a	n/a	n/a	$930
Assessed LPV	$545	$654	$763	$814	$847
Property Use Code	4710	4710	4710	4710	4710
PU Description	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL
Tax Area Code	931400	931400	931400	931400	931400
Valuation Source	Notice	Notice	Notice	Notice	Notice

Similar Par cels

Parcels that are similar to this one (known as the reference parcel) are displayed below.

APN Addr ess Sale Info FCV Size Livable Sq Ft Year Built Pool For eclosed

219-39-010V Agricultur e Par cel

This is a agriculture parcel and the current owner is WILDCAT RIDGE LLC. Its current year full cash value is $3,634.

Pr operty Information

MCR #	
Description:	W2 W2 NE4 & NW4 NW4 SE4 & E2 E2 E2 NW4 & E2 NE4 NE4 SW4 & EX N 100F
Lat/Long	
Lot Size	3,165,941 sq ft.
Zoning	R1-70
Lot #	
High School District	CAVE CREEK UNIFIED #93
Elementary School District	CAVE CREEK UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	31 5N 6E
Market Area/Neighborhood	07/005
Subdivision (0 Parcels)	

Owner Information

WILDCA T RIDGE LLC

Mailing Address	14901 N SCOTTSDALE RD STE 201 , SCOTTSDALE, AZ 85254
Deed Number	050667016
Last Deed Date	05/19/2005
Sale Date	n/a
Sale Price	n/a

Valuation Information

We provide valuation information for the past 5 years. For mobile display, we only show 1 year of valuation information. Should you need more data, please look at our data sales.
The Valuation Information displayed below may not r eflect the taxable value used on the tax bill due to any special valuation r elief pr ogram. CLICK HERE T O PAY YOUR TAXES OR VIEW YOUR T AX BILL

Tax Year	2018	2017	2016	2015	2014
Full Cash Value	$3,634	$4,361	$5,088	$5,088	$5,814
Limited Property Value	$3,634	$4,361	$5,088	$5,088	$5,291
Legal Class	2	2	2	2	2
Description	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	15%	15%	15%	16%	16%
Assessed FCV	n/a	n/a	n/a	n/a	$930
Assessed LPV	$545	$654	$763	$814	$847
Property Use Code	4710	4710	4710	4710	4710
PU Description	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	AGRICULTURAL
Tax Area Code	931400	931400	931400	931400	931400
Valuation Source	Notice	Notice	Notice	Notice	Notice

Similar Par cels

Parcels that are similar to this one (known as the reference parcel) are displayed below.

APN Addr ess Sale Info FCV Size Livable Sq Ft Year Built Pool For eclosed

Appendix D – Traffic Count Data

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup
Traffic Studies Done Right

N-S STREET:	136th St.	DATE:	06/12/18	LOCATION:	Scottsdale
E-W STREET:	Rio Verde Dr.	DAY:	TUESDAY	PROJECT#	18-1280-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	1	1	0	1	1	0	0	1	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	0	0	18	6	55	0	0	86	0	165
7:15 AM	0	0	0	2	0	24	6	70	0	0	89	1	192
7:30 AM	0	0	0	3	0	31	6	51	0	0	88	1	180
7:45 AM	0	0	0	2	0	10	8	61	0	0	93	2	176
8:00 AM	0	0	0	0	0	26	16	49	0	0	113	3	207
8:15 AM	0	0	0	1	0	23	14	58	0	0	87	1	184
8:30 AM	0	0	0	2	0	16	6	67	0	0	101	5	197
8:45 AM	0	0	0	3	0	15	8	65	0	0	81	4	176
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	13	0	163	70	476	0	0	738	17	1477
Approach %	####	####	####	7.39	0.00	92.61	12.82	87.18	0.00	0.00	97.75	2.25	
App/Depart	0	/	87	176	/	0	546	/	489	755	/	901	

AM Peak Hr Begins at: 800 AM

PEAK													
Volumes	0	0	0	6	0	80	44	239	0	0	382	13	764
Approach %	####	####	####	6.98	0.00	93.02	15.55	84.45	0.00	0.00	96.71	3.29	
PEAK HR. FACTOR:	0.000			0.827			0.969			0.851			0.923

CONTROL:	1-Way Stop (SB)
COMMENT 1:	
GPS:	33.741338, -111.786889

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, June 12, 2018 City: Scottsdale Project #: 18-1280-002

Location: Rio Verde Dr. west of 136th St.

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			7		0			12:00			86		91		
00:15			2		0			12:15			60		96		
00:30			3		4			12:30			92		84		
00:45			2	14	1	5	19	12:45			98	336	98	369	705
01:00			3		6			13:00			72		114		
01:15			2		0			13:15			91		96		
01:30			1		1			13:30			74		110		
01:45			5	11	0	7	18	13:45			61	298	89	409	707
02:00			2		1			14:00			93		101		
02:15			1		0			14:15			86		98		
02:30			2		2			14:30			83		107		
02:45			1	6	0	3	9	14:45			82	344	80	386	730
03:00			2		2			15:00			70		88		
03:15			4		3			15:15			89		73		
03:30			0		6			15:30			94		78		
03:45			9	15	4	15	30	15:45			94	347	58	297	644
04:00			9		19			16:00			99		77		
04:15			20		17			16:15			100		85		
04:30			40		19			16:30			104		80		
04:45			48	117	28	83	200	16:45			105	408	61	303	711
05:00			46		40			17:00			104		73		
05:15			35		32			17:15			97		50		
05:30			66		47			17:30			94		51		
05:45			63	210	53	172	382	17:45			113	408	49	223	631
06:00			48		62			18:00			90		36		
06:15			65		99			18:15			91		40		
06:30			60		98			18:30			82		31		
06:45			64	237	95	354	591	18:45			61	324	27	134	458
07:00			61		104			19:00			76		30		
07:15			76		113			19:15			59		28		
07:30			57		119			19:30			45		21		
07:45			69	263	103	439	702	19:45			58	238	21	100	338
08:00			65		139			20:00			61		11		
08:15			72		110			20:15			50		23		
08:30			73		117			20:30			30		16		
08:45			73	283	96	462	745	20:45			42	183	16	66	249
09:00			58		91			21:00			40		4		
09:15			75		73			21:15			24		8		
09:30			72		98			21:30			30		11		
09:45			68	273	112	374	647	21:45			25	119	9	32	151
10:00			53		81			22:00			22		5		
10:15			65		98			22:15			18		3		
10:30			72		109			22:30			8		4		
10:45			62	252	92	380	632	22:45			18	66	0	12	78
11:00			63		107			23:00			18		1		
11:15			86		108			23:15			9		3		
11:30			79		98			23:30			9		5		
11:45			63	291	85	398	689	23:45			6	42	4	13	55
Total Vol.				1972		2692	4664					3113		2344	5457

GPS Coordinates: 33.741444, -111.788310

Daily Totals

NB	SB	EB	WB	Combined
		5085	5036	10121

	AM			PM		
Split %	42.3%	57.7%	46.1%	57.0%	43.0%	53.9%
Peak Hour	11:15	07:15	07:45	16:15	12:45	12:45
Volume	314	474	748	413	418	753
P.H.F.	0.91	0.85	0.92	0.98	0.92	0.96

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, June 12, 2018 City: Scottsdale Project #: 18-1280-003

Location: Rio Verde Dr. west of 144th St.

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			6		0			12:00			79		74		
00:15			2		0			12:15			49		90		
00:30			3		3			12:30			73		73		
00:45			1	12	1	4	16	12:45			81	282	88	325	607
01:00			3		6			13:00			66		95		
01:15			2		0			13:15			81		85		
01:30			1		1			13:30			71		97		
01:45			4	10	0	7	17	13:45			53	271	84	361	632
02:00			2		1			14:00			80		91		
02:15			1		0			14:15			77		89		
02:30			2		2			14:30			69		93		
02:45			0	5	0	3	8	14:45			69	295	68	341	636
03:00			2		1			15:00			58		74		
03:15			3		2			15:15			72		69		
03:30			0		6			15:30			81		70		
03:45			9	14	4	13	27	15:45			80	291	54	267	558
04:00			9		17			16:00			82		63		
04:15			19		16			16:15			89		69		
04:30			40		15			16:30			99		50		
04:45			47	115	18	66	181	16:45			90	360	45	227	587
05:00			44		34			17:00			98		41		
05:15			32		25			17:15			87		50		
05:30			58		41			17:30			74		45		
05:45			58	192	46	146	338	17:45			75	334	43	179	513
06:00			42		51			18:00			74		31		
06:15			60		76			18:15			74		39		
06:30			60		83			18:30			71		29		
06:45			61	223	71	281	504	18:45			42	261	26	125	386
07:00			58		80			19:00			62		28		
07:15			54		78			19:15			53		25		
07:30			59		74			19:30			41		21		
07:45			66	237	87	319	556	19:45			44	200	16	90	290
08:00			49		116			20:00			49		10		
08:15			59		88			20:15			43		22		
08:30			69		106			20:30			24		17		
08:45			68	245	85	395	640	20:45			30	146	14	63	209
09:00			57		79			21:00			34		4		
09:15			70		65			21:15			22		8		
09:30			60		88			21:30			28		12		
09:45			64	251	101	333	584	21:45			23	107	8	32	139
10:00			51		68			22:00			18		5		
10:15			53		95			22:15			16		2		
10:30			63		92			22:30			5		1		
10:45			54	221	82	337	558	22:45			16	55	0	8	63
11:00			59		100			23:00			16		1		
11:15			74		92			23:15			8		3		
11:30			71		89			23:30			9		3		
11:45			59	263	79	360	623	23:45			6	39	4	11	50
Total Vol.				1788		2264	4052					2641		2029	4670

GPS Coordinates: 33.741306, -111.772090

Daily Totals

NB	SB	EB	WB	Combined
		4429	4293	8722

	AM			PM		
Split %	44.1%	55.9%	46.5%	56.6%	43.4%	53.5%
Peak Hour	11:15	07:45	07:45	16:15	12:45	12:45
Volume	283	397	640	376	365	664
P.H.F.	0.90	0.86	0.91	0.95	0.94	0.98

Appendix E – Existing Capacity Analysis

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	247	4	1	394	14	11	0	2	7	0	83
Future Vol, veh/h	46	247	4	1	394	14	11	0	2	7	0	83
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	100	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	268	4	1	428	15	12	0	2	8	0	90

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	428	0	0	273	0	0	847	801	271	802	803	428
Stage 1	-	-	-	-	-	-	371	371	-	430	430	-
Stage 2	-	-	-	-	-	-	476	430	-	372	373	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1131	-	-	1290	-	-	282	318	768	302	317	627
Stage 1	-	-	-	-	-	-	649	620	-	603	583	-
Stage 2	-	-	-	-	-	-	570	583	-	648	618	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1131	-	-	1290	-	-	233	304	768	291	303	627
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	304	-	291	303	-
Stage 1	-	-	-	-	-	-	620	593	-	576	582	-
Stage 2	-	-	-	-	-	-	487	582	-	618	591	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	19.6	12.2
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	261	1131	-	-	1290	-	-	291	627
HCM Lane V/C Ratio	0.054	0.044	-	-	0.001	-	-	0.026	0.144
HCM Control Delay (s)	19.6	8.3	-	-	7.8	0	-	17.7	11.7
HCM Lane LOS	C	A	-	-	A	A	-	C	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.1	0.5

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	352	13	2	270	6	8	0	1	8	0	43
Future Vol, veh/h	70	352	13	2	270	6	8	0	1	8	0	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	100	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	72	363	13	2	278	6	8	0	1	8	0	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	278	0	0	376	0	0	819	796	370	796	803	278
Stage 1	-	-	-	-	-	-	514	514	-	282	282	-
Stage 2	-	-	-	-	-	-	305	282	-	514	521	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1285	-	-	1182	-	-	294	320	676	305	317	761
Stage 1	-	-	-	-	-	-	543	535	-	725	678	-
Stage 2	-	-	-	-	-	-	705	678	-	543	532	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1285	-	-	1182	-	-	265	301	676	291	299	761
Mov Cap-2 Maneuver	-	-	-	-	-	-	265	301	-	291	299	-
Stage 1	-	-	-	-	-	-	513	505	-	684	677	-
Stage 2	-	-	-	-	-	-	663	677	-	512	502	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0.1	18.1	11.2
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	284	1285	-	-	1182	-	-	291	761
HCM Lane V/C Ratio	0.033	0.056	-	-	0.002	-	-	0.028	0.058
HCM Control Delay (s)	18.1	8	-	-	8.1	0	-	17.7	10
HCM Lane LOS	C	A	-	-	A	A	-	C	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.1	0.2

Appendix F – Trip Generation

Rio Verde
Wildcat Ridge, LLC

Completed	MS	2/19/2019
Checked	GT	2/22/2019

Trip Generation Calculations

South Leg of Rio Verde Drive and 136th Street

210 Single-Family Detached Housing

Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Single-Family Detached Housing	**210**	**24**	**Dwelling Units**	**9.44**	**50%**	**50%**	**0.74**	**25%**	**75%**	**0.99**	**63%**	**37%**	**227**	**114**	**114**	**18**	**5**	**13**	**24**	**15**	**9**	**Average**
Single-Family Detached Housing	210	24	Dwelling Units	4.81	50%	50%	0.33	25%	75%	0.44	63%	37%	116	58	58	8	2	6	11	7	4	Minimum
Single-Family Detached Housing	210	24	Dwelling Units	19.39	50%	50%	2.27	25%	75%	2.98	63%	37%	466	233	233	55	14	41	72	45	27	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Single-Family Detached Housing	210	24	Dwelling Units	Ln(T)=0.92Ln(X)+2.71	50%	50%	T=0.71(X)+4.80	25%	75%	Ln(T)=0.96Ln(X)+0.20	63%	37%	280	140	140	22	6	16	26	16	10	Equation

Single-Family Detached Housing	Standard Deviation	2.10		0.27		0.31		
	Number of Studies	159		173		190		
	Average Size	264		219		242		

Rio Verde
Wildcat Ridge, LLC

Completed	MS	2/19/2019
Checked	GT	2/22/2019

Trip Generation Calculations

Existing Zoning

210 Single-Family Detached Housing

Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Single-Family Detached Housing	**210**	**127**	**Dwelling Units**	**9.44**	**50%**	**50%**	**0.74**	**25%**	**75%**	**0.99**	**63%**	**37%**	**1,199**	**600**	**600**	**94**	**24**	**71**	**126**	**79**	**47**	**Average**
Single-Family Detached Housing	210	127	Dwelling Units	4.81	50%	50%	0.33	25%	75%	0.44	63%	37%	611	306	306	42	11	32	56	35	21	Minimum
Single-Family Detached Housing	210	127	Dwelling Units	19.39	50%	50%	2.27	25%	75%	2.98	63%	37%	2,463	1232	1232	289	72	217	379	239	140	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Single-Family Detached Housing	210	127	Dwelling Units	Ln(T)=0.92Ln(X)+2.71	50%	50%	T=0.71(X)+4.80	25%	75%	Ln(T)=0.96Ln(X)+0.20	63%	37%	1,296	648	648	95	24	71	128	81	47	Equation

Single-Family Detached Housing	Standard Deviation	2.10	0.27	0.31	
	Number of Studies	159	173	190	
	Average Size	264	219	242	

Rio Verde
Wildcat Ridge, LLC

Completed MS 2/19/2019
Checked GT 2/22/2019

Trip Generation Calculations

Proposed Development

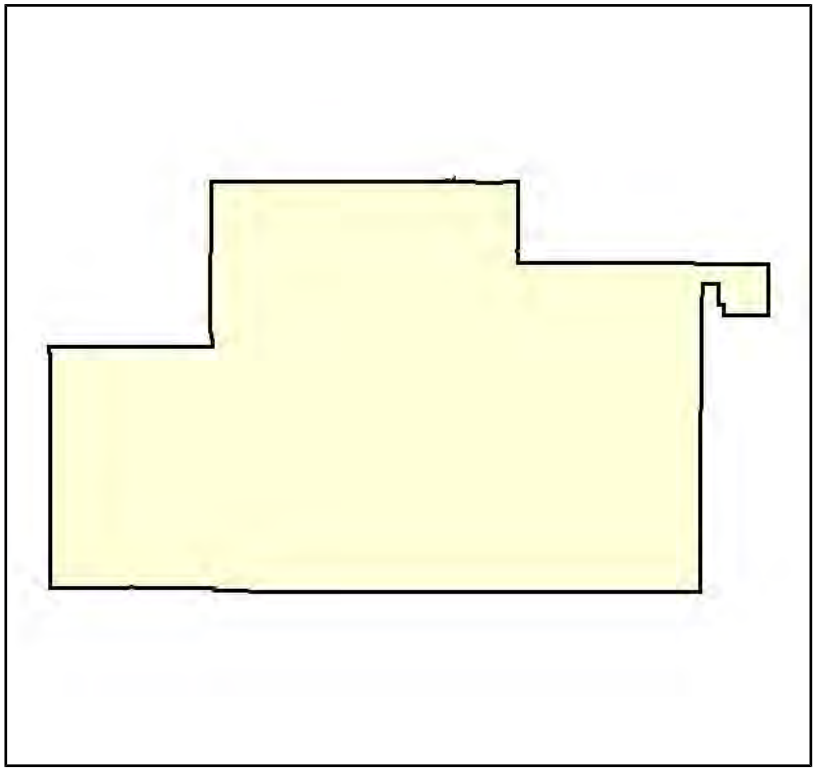
210 Single-Family Detached Housing

Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Single-Family Detached Housing	**210**	**260**	**Dwelling Units**	**9.44**	**50%**	**50%**	**0.74**	**25%**	**75%**	**0.99**	**63%**	**37%**	**2,454**	**1227**	**1227**	**193**	**48**	**145**	**257**	**162**	**95**	**Average**
Single-Family Detached Housing	210	260	Dwelling Units	4.81	50%	50%	0.33	25%	75%	0.44	63%	37%	1,251	626	626	86	22	65	115	72	43	Minimum
Single-Family Detached Housing	210	260	Dwelling Units	19.39	50%	50%	2.27	25%	75%	2.98	63%	37%	5,042	2521	2521	591	148	443	775	488	287	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Single-Family Detached Housing	210	260	Dwelling Units	Ln(T)=0.92Ln(X)+2.71	50%	50%	T=0.71(X)+4.80	25%	75%	Ln(T)=0.96Ln(X)+0.20	63%	37%	2,505	1,253	1,252	190	48	142	255	161	94	Equation

Single-Family Detached Housing	Standard Deviation	2.10		0.27		0.31		
	Number of Studies	159		173		190		
	Average Size	264		219		242		

Appendix G – MAG Socioeconomic Projections

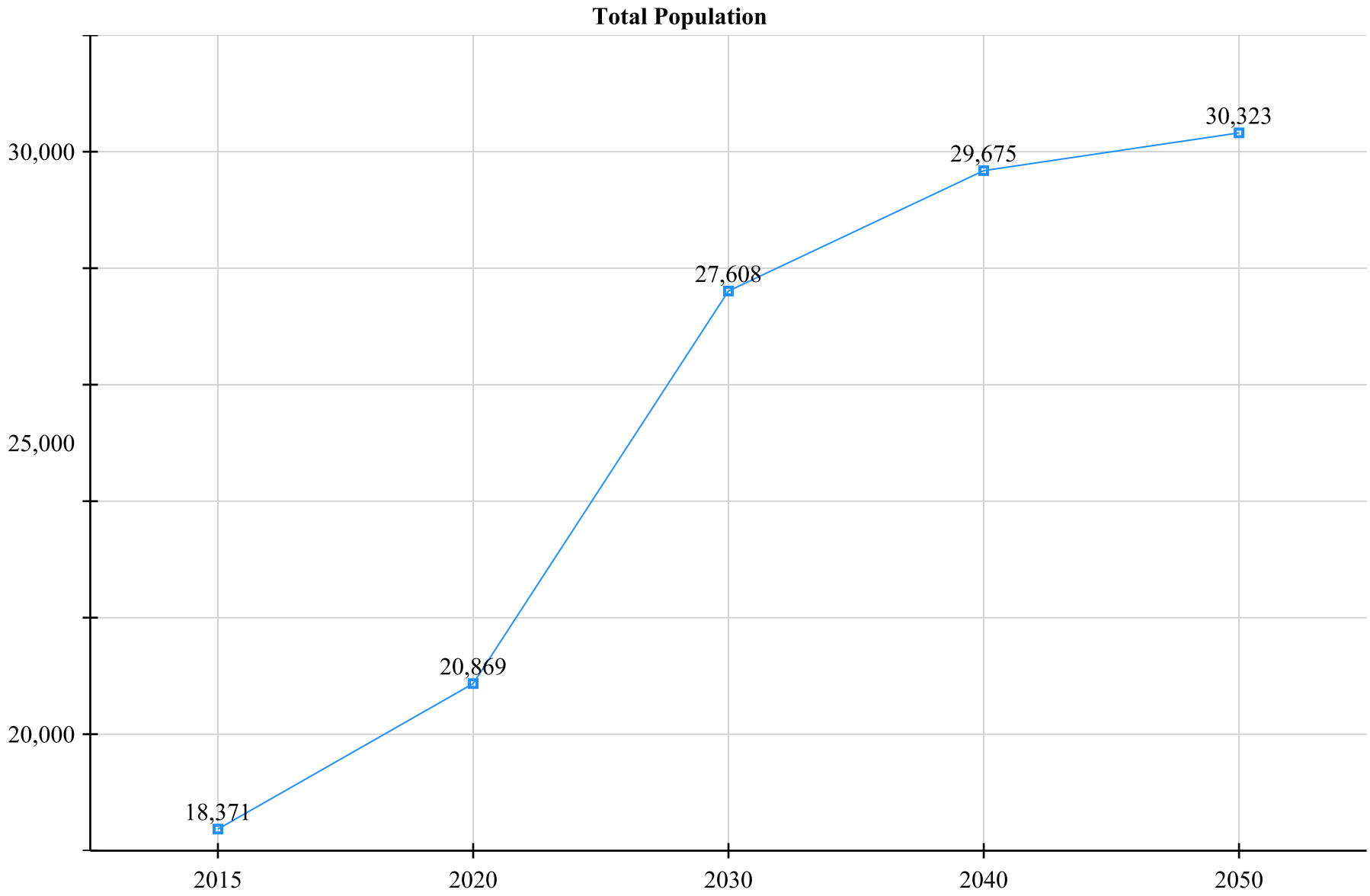
RAZ: 229 Projections Report



Projections summary:

	2015	2020	2030	2040	2050
Total Population	18,371	20,869	27,608	29,675	30,323
Household Population	18,326	20,813	27,521	29,552	30,175
Households	7,749	8,725	11,224	11,944	12,180
Dwelling Units	9,569	10,160	12,529	13,209	13,422
Total Employment	8,061	8,951	9,806	10,968	11,866

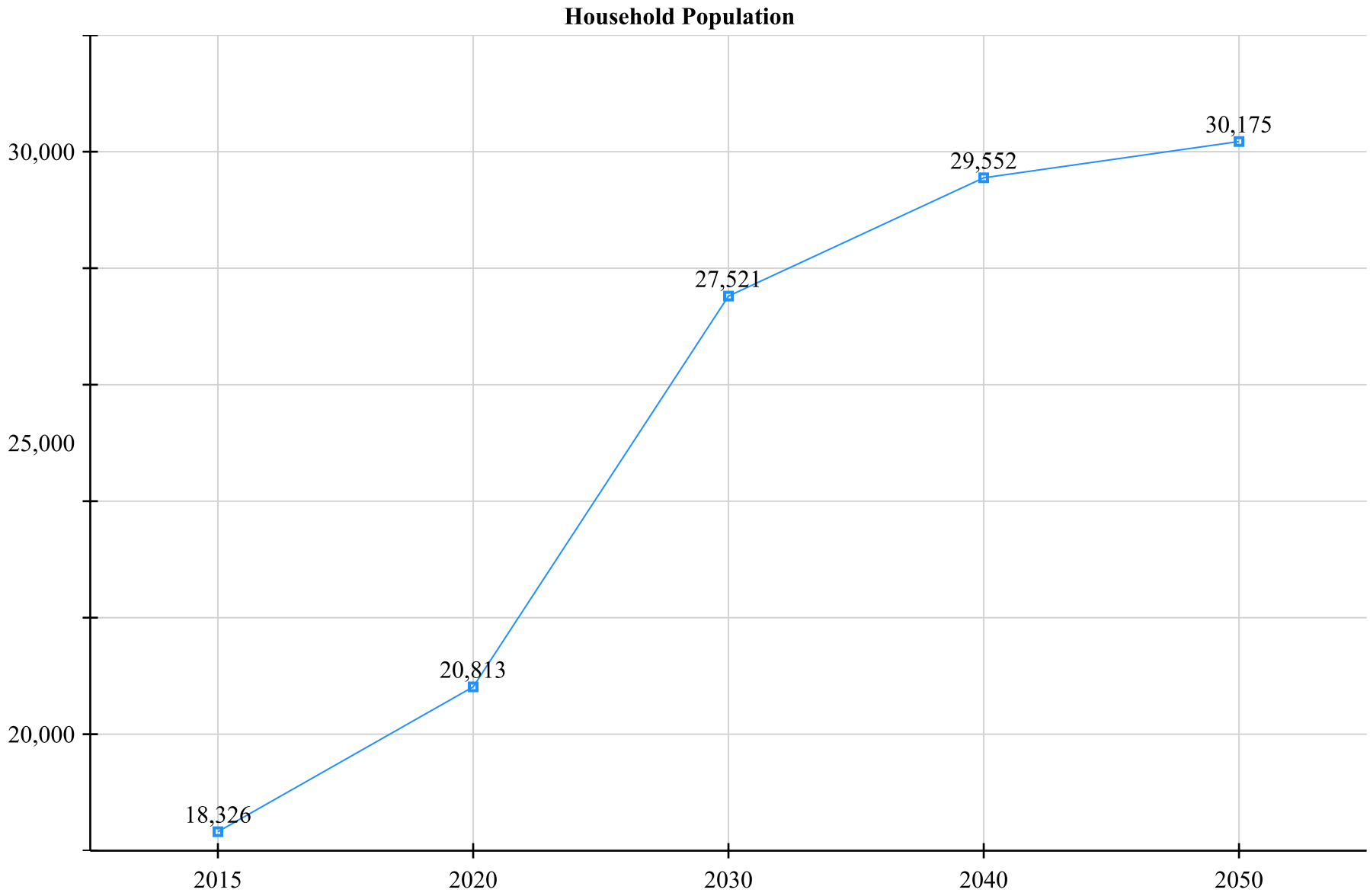
RAZ: 229 Projections Report



Source: MAG Socioeconomic Projections 2016

6/19/2018

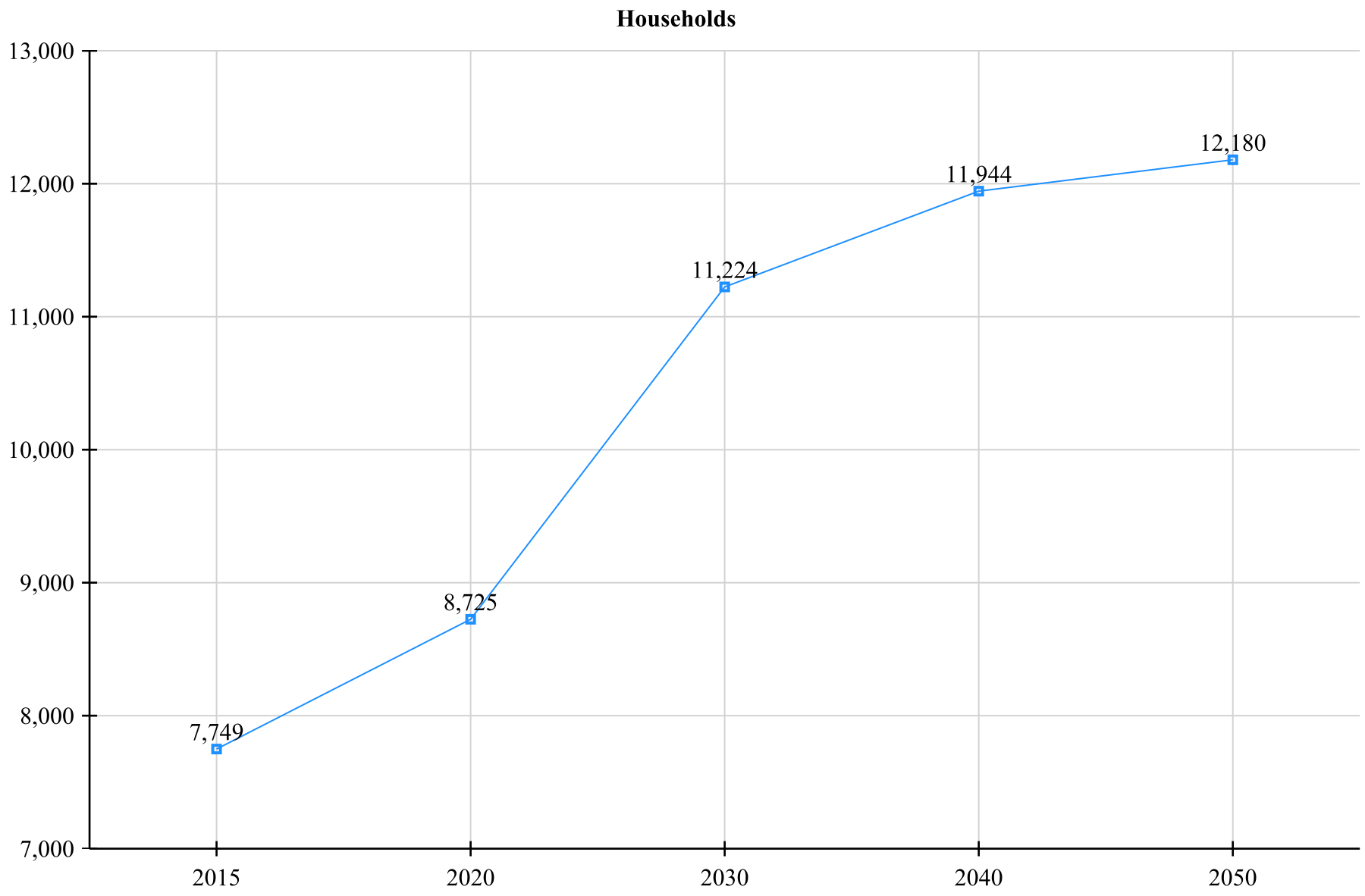
RAZ: 229 Projections Report



Source: MAG Socioeconomic Projections 2016

6/19/2018

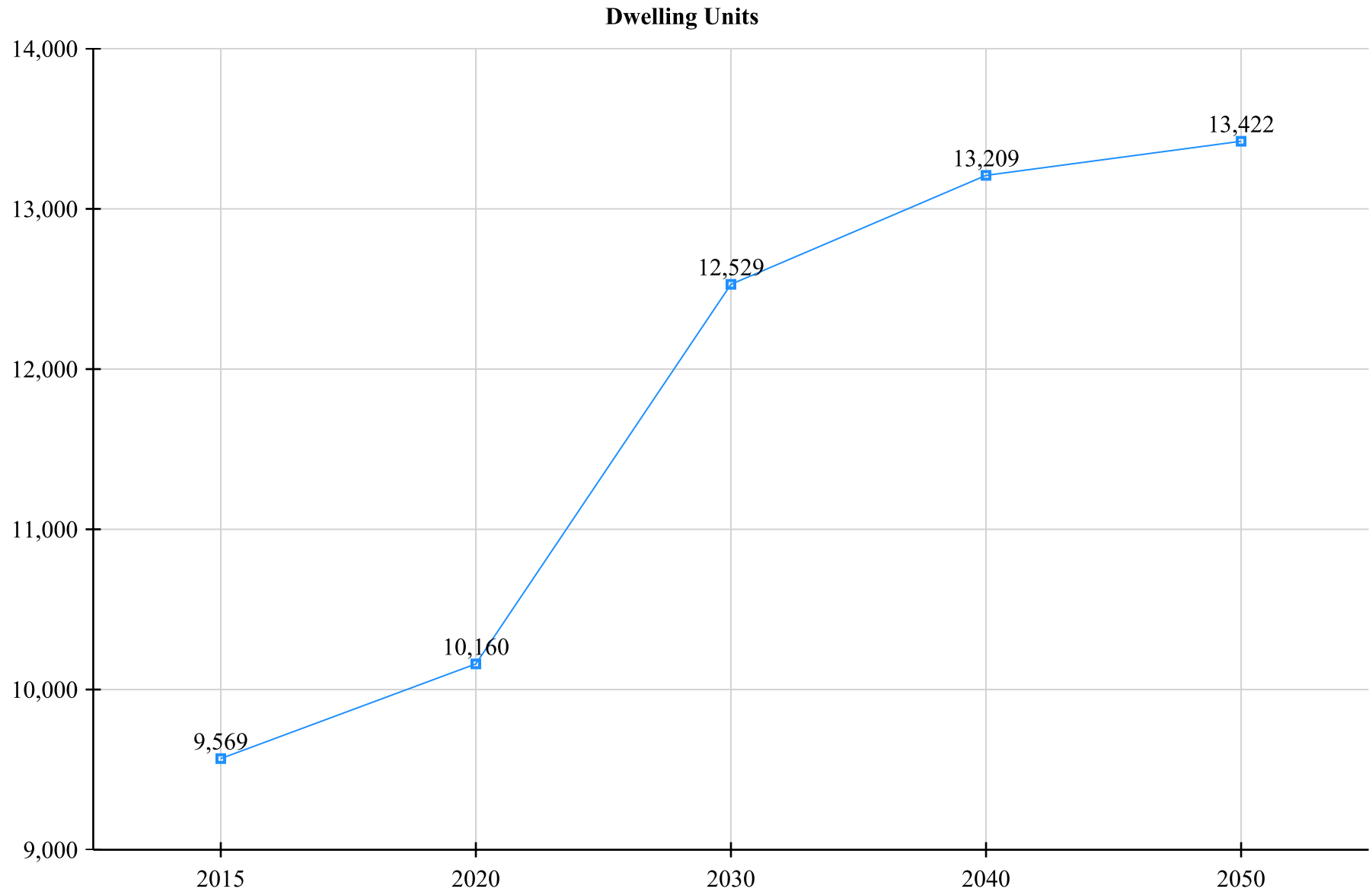
RAZ: 229 Projections Report



Source: MAG Socioeconomic Projections 2016

6/19/2018

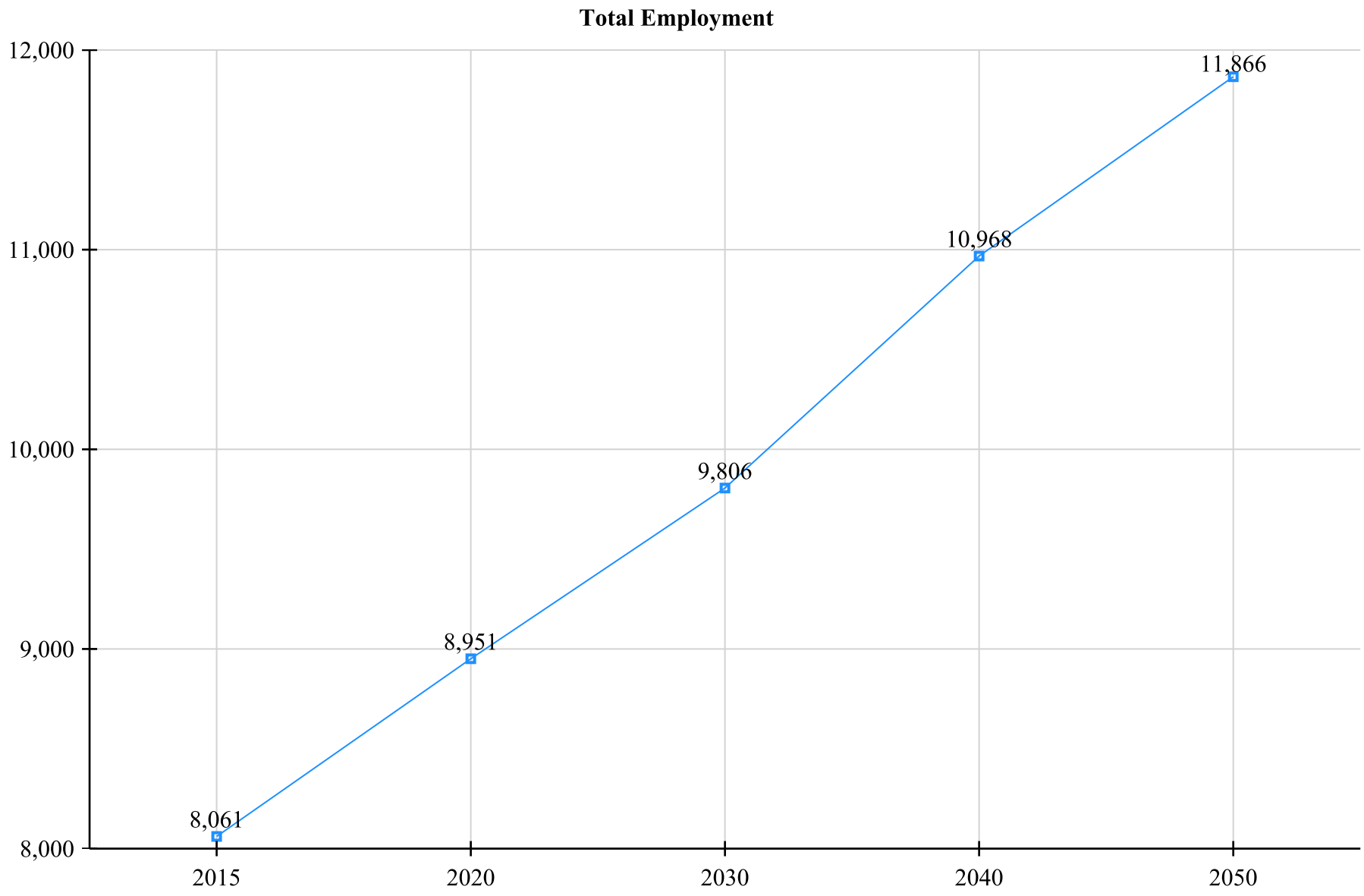
RAZ: 229 Projections Report



Source: MAG Socioeconomic Projections 2016

6/19/2018

RAZ: 229 Projections Report



Source: MAG Socioeconomic Projections 2016

6/19/2018

RAZ: 229 Projections Report

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To provide comments or report problems please contact: Jason Howard, GIS Program Manager

Appendix H – Year 2027 No Build Capacity Analysis

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	54	290	5	1	462	17	13	0	3	9	0	98
Future Vol, veh/h	54	290	5	1	462	17	13	0	3	9	0	98
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	100	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	315	5	1	502	18	14	0	3	10	0	107

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	502	0	0	321	0	0	993	939	318	941	942	502
Stage 1	-	-	-	-	-	-	435	435	-	504	504	-
Stage 2	-	-	-	-	-	-	558	504	-	437	438	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1062	-	-	1239	-	-	224	264	723	243	263	569
Stage 1	-	-	-	-	-	-	600	580	-	550	541	-
Stage 2	-	-	-	-	-	-	514	541	-	598	579	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1062	-	-	1239	-	-	174	249	723	231	248	569
Mov Cap-2 Maneuver	-	-	-	-	-	-	174	249	-	231	248	-
Stage 1	-	-	-	-	-	-	567	548	-	519	540	-
Stage 2	-	-	-	-	-	-	417	540	-	562	547	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	24.4	13.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	203	1062	-	-	1239	-	-	231	569
HCM Lane V/C Ratio	0.086	0.055	-	-	0.001	-	-	0.042	0.187
HCM Control Delay (s)	24.4	8.6	-	-	7.9	0	-	21.3	12.8
HCM Lane LOS	C	A	-	-	A	A	-	C	B
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0	-	-	0.1	0.7

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	83	413	15	3	317	8	9	0	2	10	0	51
Future Vol, veh/h	83	413	15	3	317	8	9	0	2	10	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	-	-	100	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	90	449	16	3	345	9	10	0	2	11	0	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	345	0	0	465	0	0	1017	989	457	990	997	345
Stage 1	-	-	-	-	-	-	638	638	-	351	351	-
Stage 2	-	-	-	-	-	-	379	351	-	639	646	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1214	-	-	1096	-	-	216	247	604	225	244	698
Stage 1	-	-	-	-	-	-	465	471	-	666	632	-
Stage 2	-	-	-	-	-	-	643	632	-	464	467	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1214	-	-	1096	-	-	187	228	604	211	225	698
Mov Cap-2 Maneuver	-	-	-	-	-	-	187	228	-	211	225	-
Stage 1	-	-	-	-	-	-	431	436	-	617	630	-
Stage 2	-	-	-	-	-	-	590	630	-	428	432	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0.1	22.8	12.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	214	1214	-	-	1096	-	-	211	698
HCM Lane V/C Ratio	0.056	0.074	-	-	0.003	-	-	0.052	0.079
HCM Control Delay (s)	22.8	8.2	-	-	8.3	0	-	23	10.6
HCM Lane LOS	C	A	-	-	A	A	-	C	B
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0	-	-	0.2	0.3

Appendix I – Year 2027 Build Capacity Analysis

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	54	330	5	1	585	17	13	0	3	9	0	98
Future Vol, veh/h	54	330	5	1	585	17	13	0	3	9	0	98
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	100	-	100	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	359	5	1	636	18	14	0	3	10	0	107

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	636	0	0	364	0	0	1170	1117	361	1118	1120	636
Stage 1	-	-	-	-	-	-	479	479	-	638	638	-
Stage 2	-	-	-	-	-	-	691	638	-	480	482	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	947	-	-	1195	-	-	170	207	684	184	206	478
Stage 1	-	-	-	-	-	-	568	555	-	465	471	-
Stage 2	-	-	-	-	-	-	435	471	-	567	553	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	947	-	-	1195	-	-	126	194	684	174	193	478
Mov Cap-2 Maneuver	-	-	-	-	-	-	126	194	-	174	193	-
Stage 1	-	-	-	-	-	-	533	520	-	436	471	-
Stage 2	-	-	-	-	-	-	338	471	-	529	519	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	32.3	15.7
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	149	947	-	-	1195	-	-	174	478
HCM Lane V/C Ratio	0.117	0.062	-	-	0.001	-	-	0.056	0.223
HCM Control Delay (s)	32.3	9.1	-	-	8	-	-	26.9	14.7
HCM Lane LOS	D	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.4	0.2	-	-	0	-	-	0.2	0.8

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	83	551	15	3	398	8	9	0	2	10	0	51
Future Vol, veh/h	83	551	15	3	398	8	9	0	2	10	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	230	-	-	100	-	100	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	90	599	16	3	433	9	10	0	2	11	0	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	433	0	0	615	0	0	1255	1227	607	1228	1235	433
Stage 1	-	-	-	-	-	-	788	788	-	439	439	-
Stage 2	-	-	-	-	-	-	467	439	-	789	796	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1127	-	-	965	-	-	148	178	496	155	176	623
Stage 1	-	-	-	-	-	-	384	402	-	597	578	-
Stage 2	-	-	-	-	-	-	576	578	-	384	399	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1127	-	-	965	-	-	126	163	496	145	161	623
Mov Cap-2 Maneuver	-	-	-	-	-	-	126	163	-	145	161	-
Stage 1	-	-	-	-	-	-	353	370	-	549	576	-
Stage 2	-	-	-	-	-	-	523	576	-	352	367	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.1	31.8	14.7
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	146	1127	-	-	965	-	-	145	623
HCM Lane V/C Ratio	0.082	0.08	-	-	0.003	-	-	0.075	0.089
HCM Control Delay (s)	31.8	8.5	-	-	8.7	-	-	31.8	11.3
HCM Lane LOS	D	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0	-	-	0.2	0.3