



**Chandler · Arizona**  
*Where Values Make The Difference*

A.  
DEC 16 2015



**MEMORANDUM**                      **Planning Division – PZ Memo No. 15-111**

**DATE:**            DECEMBER 16, 2015

**TO:**                PLANNING AND ZONING COMMISSION

**THRU:**            JEFF KURTZ, PLANNING ADMINISTRATOR  
KEVIN MAYO, PLANNING MANAGER

**FROM:**            JODIE M. NOVAK, MEP, CPM, SENIOR CITY PLANNER

**SUBJECT:**        APL15-0004 CHANDLER AIRPARK AREA PLAN AMENDMENT / DVR15-0028/PPT14-0012 ENCLAVE AT HAMILTON RANCH

**Request:**        Chandler Airpark Area Plan amendment from Neighborhood Commercial and Commercial/Office/Business Park with a Light Rail Corridor Overlay to Low-Medium Density Residential. Request rezoning from Agricultural District (AG-1) and Planned Area Development (PAD) for Offices to PAD for Residential with Preliminary Development Plan (PDP) approval for subdivision layout and housing product with Preliminary Plat (PPT) approval

**Location:**        South and east of the southeast corner of Arizona Avenue and Queen Creek Road

**Applicant:**        Mike Withey, Withey Morris PLC

**Project info:**    Approximately 28 acres, with 128 single-family residential units; approximately 4.61 du/ac

**RECOMMENDATION**

Planning Staff, upon finding the request to be inconsistent with the General Plan, recommends denial.

**BACKGROUND**

The proposed Area Plan amendment, Rezoning with PDP and Preliminary Plat (PPT) came before City Council on March 26, 2015, zoning cases APL14-0007 and DVR14-0019. The requests were denied. The current application requests remain essentially the same; however, minor changes have occurred with the PDP component. The development has been reduced from 132 lots to 128 lots. The four removed lots were previously located at the ends of four streets. The landscape tract near the east property line/railroad right-of-way remains the same with some

enlarged tracts in place of the four lots. While some landscape tracts got wider, the separation width between lots and the railroad right-of-way/east property line is not greater than other subdivisions built or developing along the railroad track.

In addition, the applicant has provided studies on noise attenuation, an airport influence area analysis, and an office market analysis responding to concerns that arose with their initial application request in March 2015. These documents are attached. The noise study concludes that potential noise impact from the Chandler Municipal Airport and Union Pacific railroad activity are well below (quieter than) Housing and Urban Development (HUD) "acceptable" standards. Noise attenuation is achieved through site walls and home construction materials. The airport influence area analysis compares the differences between the proposed residential development and a recently approved residential development along McQueen Road, Avalon, as well as the airport potential impacts from each project. The analysis concludes both developments are within acceptable parameters for impacts from the airport. The proposed development is further away from the airport than Avalon, thus subject to less overflight and related airport operational activity and will not be a detriment to present and future airport operations. Lastly, the office market analysis concludes that commercial/office/business park development on the subject site as designated by the CAAP would be a disruption to emerging neighborhoods and detrimentally impact the area by generating commercial traffic and posing safety concerns for children on their way to school. Further, the presence of existing and proposed office developments in Chandler combined with the proposed residential development's lack of proximity to a major freeway and business amenities, the best land use for the property is this residential proposal.

The subject site is located south and east of the southeast corner of Arizona Avenue and Queen Creek Road. The property is approximately 28 acres and a portion of the site was annexed in February 2015 and given initial City zoning of Agricultural District (AG-1). The balance of the site received PAD zoning for office in 2006 on 9 acres which never commenced. The PAD zoning was extended for an additional 3 years expiring in 2012. The subject property primarily surrounds an undeveloped 8-acre parcel located at the immediate intersection corner of Arizona Avenue and Queen Creek Road. This parcel is zoned C-3 (General Commercial) and RU-43 (Rural Residential) in the County. This corner parcel has a current zoning case in process for a proposed post-operation transitional care medical facility. East of the site is the Union Pacific Railroad tracks and land zoned PAD for office/warehouse/industrial type uses. To the south is vacant land zoned Neighborhood Commercial (C-1) and developed land zoned PAD for a veterinary office/pet resort and a church along with 30 acres of undeveloped land owned by the church. North of the site is Queen Creek Road. North of Queen Creek Road is land zoned PAD for a single-family residential development and a multi-family residential development both under construction. To the west is Arizona Avenue, vacant land zoned PAD for commercial, and a multi-family residential development.

#### **GENERAL PLAN CONFORMANCE / AREA PLAN BACKGROUND**

The General Plan designates the subject site as Employment and a Commercial Node, as within the Chandler Airpark Area Plan (CAAP), and as a Large Tract Growth Area. The General Plan's Employment designation includes light industrial parks, corporate offices, manufacturing,

knowledge-intensive employers, and a compatible mix of industrial support uses and residential densities as an integral component of a planned mixed-use development. The Commercial Nodes category denotes intersections appropriate for neighborhood or community commercial retail, office, commercial services, and institutional uses, as well as residential or employment where appropriate when allowed by the underlying land use, in this case Employment.

The Chandler Airpark Area Plan (CAAP) denotes the parcel as Commercial/Office/Business Park for major, campus-like employment centers including retail services, research and development, or office/showroom development type uses. In addition, the entire parcel is within the Light Rail Corridor Overlay allowing the development of residential densities of 12.1 to 18.0 dwelling units per acre. The CAAP also identifies Neighborhood Commercial at the intersection corner for neighborhood-based commercial uses such as retail, personal services, restaurants, and the like. The subject site is not part of a larger single-family residential neighborhood. Under the guidelines of the General Plan and CAAP, single-family residential is not a land use recognized in the Employment, Neighborhood Commercial, or Commercial/Office/Business Park categories.

Planning Staff finds the subject site is not appropriate to consider for single-family residential land use based on the existing established CAAP land uses.

#### **AREA PLAN AMENDMENT**

The request is to amend the Chandler Airpark Area Plan from Neighborhood Commercial and Commercial/Office/Business Park with a Light Rail Corridor Overlay to Low-Medium Density Residential. The single-family residential use is not part of the current land use categories and is incompatible with planned commercial/office/business park development including industrial uses to the east and planned commercial/office/business park uses to the south.

#### **REZONING**

The request is for rezoning from Agricultural District (AG-1) and Planned Area Development (PAD) for offices to PAD for Residential (Low-Medium Density). The property has been farmed for many years. Mattamy Homes proposes to develop a single-family residential community that includes 128 single-family residential units at approximately 4.61 du/ac.

#### **SUBDIVISION DIVERSITY**

The Rezoning request includes PDP approval for a single-family subdivision layout with one- and two-story housing products. The gated development includes private streets. The subdivision abuts a vacant parcel planned for neighborhood commercial. There is a full-movement entry/exit off of both arterial streets which will be shared with adjacent parcels when developed. The Arizona Avenue entry landscape median is highlighted with Date Palm tree-lined entry leading to the community's gates. A central curvilinear street meanders north connecting to the Queen Creek Road entry/exit gate. The entries are designed with an agrarian accent including gates with decorative metal and faux roughhewn wood accent. The main entry off of Arizona Avenue is further enhanced with a stone veneer pier with lighting and faux wood light poles.

The lots are designed as a traditional subdivision layout for individual detached homes. Lot sizes are a minimum 52'x97' (5,044 sq. ft.) providing minimum front yard setbacks of 18 feet and/or

10 feet, rear yard setbacks of 10 feet, and side yard setbacks of 7 feet and 5 feet. Front yard setbacks will be staggered to enhance the streetscape. It is important to note there is no restriction for corner lots being limited to 1-story homes or a limit on the number of 2-story homes along arterial streets.

Since all of the lots are less than 7,000 square feet, all of the Residential Development Standards (RDS) for subdivision diversity would be required. However, it is realized that this type of subdivision cannot meet all of the subdivision diversity standards due to the parcel's configuration. The conventional lot layout incorporates diversity elements such as curvilinear streets, looped streets, a cul-de-sac, and open spaces. A centralized active open space and playground area includes custom amenities integrated amongst shade trees and ramadas. Unique features are a tree house platform, play stream with bridge, a tunnel, climbing rope ladder, and climbing blocks. The subdivision design meets the intent of the RDS subdivision diversity elements as outlined in the Development Booklet.

### **HOUSING PRODUCT**

The housing plans include two 1-story and three 2-story homes ranging in size from 1,916 to 2,827 livable square feet with a variety of architectural styles. Each housing plan includes 3 elevation styles providing a total of 12 housing plan options.

Since all of the lots are less than 7,000 square feet, all of the RDS for architectural diversity would be required as well. However, it is realized that a subdivision of this type cannot meet all of the diversity standards as outlined in the RDS. The lot sizes are not practical for deeper rear yard setbacks and rear yard vehicle access. The homes have forward facing garages both recessed and at livable space. The housing product design meets the intent of the RDS architectural diversity elements as outlined in the Development Booklet.

### **AIRPORT RECOMMENDATION**

The Airport Commission reviewed the request in accordance with the Airport Conflicts Evaluation Process at their November 18, 2015, meeting. The Airport Manager has issued a conflicts evaluation report indicating that the Airport Commission determined that the proposed development does constitute a conflict with existing or planned airport uses. While a non-residential use is preferred, various physical and administrative corrective actions were recommended for mitigation.

Physical corrective actions included noise attenuation construction within the homes, a roadway style sign indicating the presence of aircraft, and incorporation of 'Chandler Airpark' into the development's name.

Administrative corrective actions included the requirement of significant disclosure statements to be signed by prospective home buyers indicating the proximity to the airport, heliport, aircraft engine repair and testing facility, and the potential impact from aviation noise and vibrations. Additionally, an aviation easement shall be dedicated to the City of Chandler. Finally, a large map shall be displayed within the sales office identifying the proximity of the subdivision to the airport including the noise contours, and over flight patterns.

As discussed at the meeting, the goal was to create a physical and administrative 'net' to catch prospective home buyers that may not want to necessarily live near an active airport, acknowledging that certain home buyers do enjoy living in that environment. A copy of the Airport Manager's report detailing the Airport Commission's recommendation is attached to this memo.

### **DISCUSSION**

Planning Staff finds the proposed development is not in conformance with the General Plan and Chandler Airpark Area Plan. The single-family residential use is incompatible with planned industrial and commercial surrounding the subject parcel including future industrial and light industrial development to the east as a part of the Airpark Area Plan. Land uses as identified within the CAAP are more appropriate including commercial, office, flex industrial, warehouse, business park, and like uses. These uses are compatible and provide a transition into commercial/office/business park and light industrial uses planned for the area. Residential land uses can be considered; however, the CAAP identifies the need for higher density multi-family residential to support the CAAP in addition to commercial, office, and business park type uses.

Additionally, the intersection is a designated Commercial Node and currently the northwest and southwest corners are zoned PAD for commercial use, and the northeast corner is zoned and developing with multi-family residential and single-family residential. An evaluation of this intersection and surrounding area from a land use and economic development standpoint considered the potential growth at this intersection and what is sustainable for the future. Staff concluded that the subject site remains viable for neighborhood commercial and commercial/office/business park uses.

While Planning Staff does not support the requested Area Plan amendment and Rezoning, the PDP for subdivision layout and housing product are consistent with the intent of the RDS. The curvilinear street system and unique recreational amenity creates a pedestrian-oriented neighborhood environment amongst 128 homes.

### **PUBLIC / NEIGHBORHOOD NOTIFICATION**

- This request was noticed in accordance with the requirements of the Chandler Zoning Code.
- A neighborhood meeting was held on September 29, 2015. There were no attendees other than the applicant.
- As of the writing of this memo, Planning Staff is not aware of any concerns or opposition.

### **RECOMMENDED ACTIONS**

#### **Area Plan**

Planning Staff recommends Planning Commission motion to recommend denial of APL15-0004 CHANDLER AIRPARK AREA PLAN AMENDMENT.

#### **Rezoning**

Planning Staff recommends Planning Commission motion to recommend denial of DVR15-0028 ENCLAVE AT HAMILTON RANCH.

**Preliminary Development Plan**

Planning Staff recommends Planning Commission motion to recommend denial of DVR15-0028 ENCLAVE AT HAMILTON RANCH.

**Preliminary Plat**

Planning Staff recommends Planning Commission motion to recommend denial of PPT14-0012 ENCLAVE AT HAMILTON RANCH.

**PROPOSED MOTIONS**

**Area Plan**

Motion Planning Commission to recommend denial of Area Plan request APL14-0007 AIRPARK AREA PLAN AMENDMENT from Neighborhood Commercial and Commercial/Office/Business Park with a Light Rail Corridor Overlay to Low-Medium Density Residential.

**Rezoning**

Motion Planning Commission to recommend denial of rezoning request DVR14-0019 ENCLAVE AT HAMILTON RANCH from Agricultural District (AG-1) and Planned Area Development (PAD) for offices to PAD for Residential.

**Preliminary Development Plan**

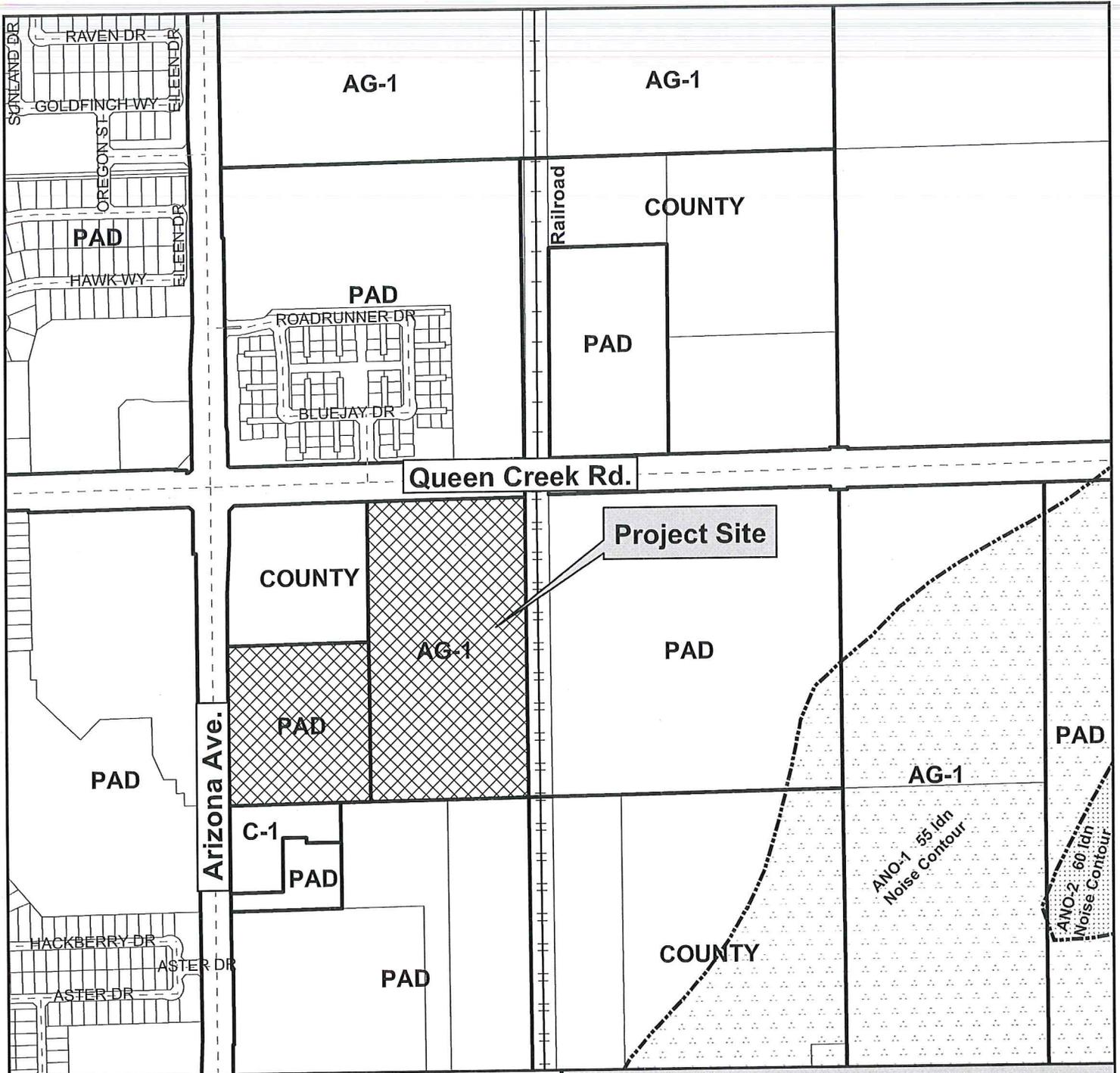
Motion Planning Commission to recommend denial of Preliminary Development Plan request DVR14-0019 ENCLAVE AT HAMILTON RANCH for a single-family residential development.

**Preliminary Plat**

Motion Planning Commission to recommend denial of Preliminary Plat request PPT14-0012 ENCLAVE AT HAMILTON RANCH.

**Attachments**

1. Vicinity Maps
2. Applicant Letter
3. Site Plan
4. Landscape Plan
5. Perspective
6. Building Elevations
7. Airport Conflicts Evaluation
8. Airport Manager's Memo
9. Applicant's Noise Study
10. Applicant's Airport Influence Area Analysis Letter
11. Applicant's Airport Influence Area Analysis Report
12. Applicant's Office Market Analysis
13. Area Plan Map
14. Preliminary Plat
15. Development Booklet, Exhibit A

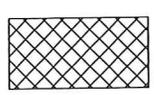


Queen Creek Rd.

Project Site

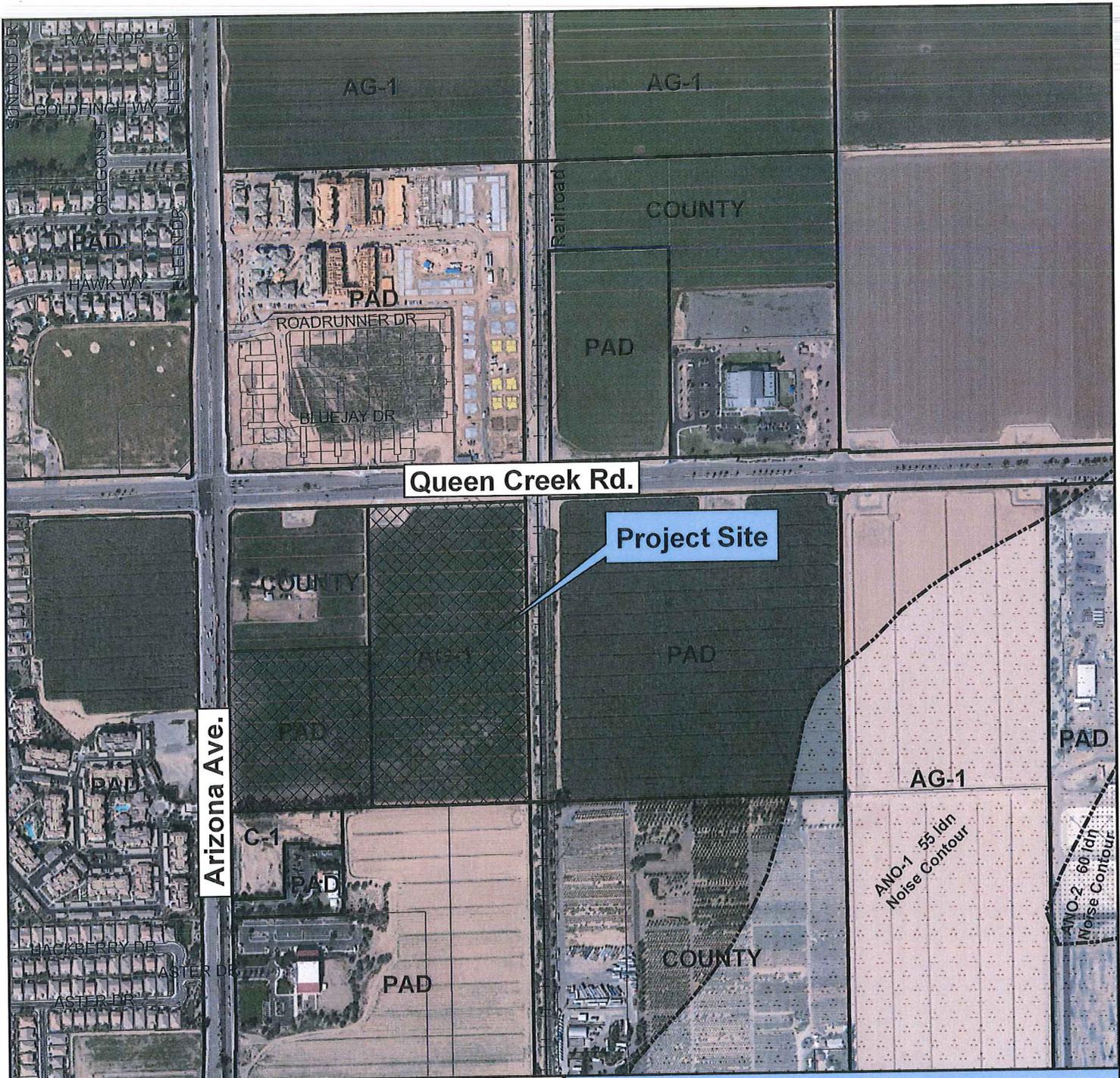
Arizona Ave.

### Vicinity Map

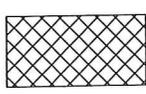
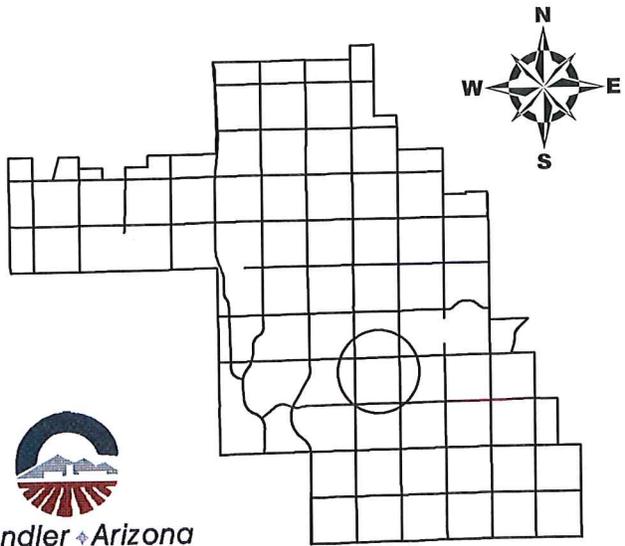


APL15-0004/  
DVR15-0028

**Airpark Area Plan amendment  
(Enclave at Hamilton Ranch)**

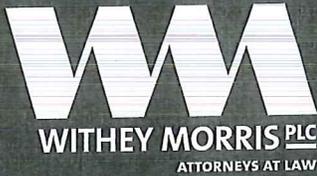


## Vicinity Map



APL15-0004/  
DVR15-0028

**Airpark Area Plan amendment  
(Enclave at Hamilton Ranch)**



PHONE: 602-230-0600

FAX: 602-212-1787

2525 E. Arizona Biltmore Circle, Suite A-212, Phoenix, AZ 85016

September 16, 2015

**Via Hand Delivery**

Jeff Kurtz  
Jodie Novak  
City of Chandler  
Planning & Development Department  
215 E Buffalo St  
Chandler, AZ 85225

Re: Enclave at Hamilton Ranch / New Submittal Update

Dear Jeff and Jodie:

Thank you for your work on the Enclave at Hamilton Ranch rezone, PDP, and Area Plan Amendment applications (the "Applications") proposed near the southeast corner of Queen Creek Road and Arizona Avenue (the "Property"). Since the last public hearing, the development team has worked diligently to resolve and address issues raised in the hearings. We are pleased to report we have done so. The purpose of this letter is to describe the results of that effort and outline our new application submittal.

PDP

As you recall, the site plan and residential design were generally very well received. In fact, even persons that were ultimately not supportive of the application commented on the quality of their design and amenities. Accordingly, we have kept the site plan and housing product generally the same with certain improvements to increase compatibility and respond to specific comments. In the resubmittal, the applicant has agreed to:

1. Eliminate four lots along the east boundary abutting the railroad tracks.
2. Increase the building setback distance from the railroad tracks. The new setback will be the greatest compared to any of the existing subdivisions along this stretch of Arizona Avenue. The new distance will be 116.73' from the centerline of the railroad.
3. Install a 6' block fence along the east property line.
4. Install additional trees in the abutting east landscape area to buffer view.

Applicant letter  
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5. 2'x6" exterior walls (other subdivisions are 2'x4" construction).
6. Wet-blown insulation for additional sound proofing.
7. Install higher rated STC windows in homes next to the railroad.

### Aviation Study

The Applicant also retained Genesis Consulting Group – an Airport Development Specialist – to analyze the airport data and determine whether the proposed development would, in fact, have any impact on the Chandler Airport. The Study looked at the existing conditions around the Chandler Municipal Airport and Airpark, in addition to historical development, current land use, and zoning for properties on and in the immediate vicinity of these areas. The Study also evaluated the Federal Aviation Regulations (FAR) 150 Study pertaining to the airport traffic patterns, noise contours, and neighborhood noise complaints. Finally, the Study explored the specific potential for impacts from aviation over flights, surrounding land uses, and other activities.

The Airport Study concludes:

- The development will not conflict with existing or planned airport uses.
- “The development will not be a detriment to present and future operations of the Chandler Municipal Airport.”
- “The development...will not be subject to unreasonable safety, noise, and overflight impacts from current or projected future airport operations.”
- “The development...will not have a negative bearing on the operations of the Chandler Municipal Airport. It is not located in an especially noise sensitive area, and is outside of the 55 DNL, its development and related construction activities will not penetrate critical imaginary surfaces of the Airport, present an obstruction to its operations, or otherwise inhibit in any way the day to day air and ground functions of that facility.”
- The development will not limit expansion of the Airport in the future, if the City chooses to do so.

A copy of the Airport Study is enclosed.

### Noise Study

The applicant also retained an acoustical engineer to conduct a noise impact study and obtain recommendations for additional noise attenuation measures. The noise study examined the individual potential noise sources which could impact this site including, Arizona Avenue traffic, Queen Creek Road traffic, Chandler Municipal Airport, and the railroad. The study found “noise impact from Chandler Airport and the railroad are well below (quieter than) the HUD ‘Acceptable’ Standards. The traffic noise impact from Arizona Avenue is the loudest noise source. The potential roadway traffic noise is subjectively twice as loud as the other sources.” The study states that noise from existing roadway traffic “is easily controlled by typical walls of reasonable height...similar to those of any other residential projects adjacent to arterial streets.” The study concludes that the potential noise impact to this project is similar to or quieter

than the noise impact to many other existing residential projects in this area. There are well over 1,000 existing homes that are more impacted by noise from Chandler Municipal Airport than the proposed homes on this site. In short, noise from the airport and railroad are less than the noise of the existing street network and therefore, will have no negative impact on the proposed residential subdivision. A copy of the study is enclosed.

#### Out-parcel on immediate corner

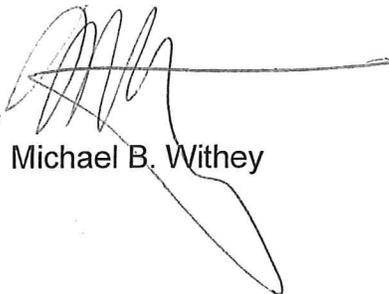
Initially, there was a question about how this project might be affected by development of the corner out-parcel at the immediate southeast corner of the intersection. At the time, no one knew how the out parcel might develop. That question has now been answered. The Property owner intends to develop the site as a post-acute transitional care facility. The facility will cater to patients that require short-term, post-operation/incident medical treatment and therapy after a hospital stay. The health care facility will offer 94-beds, treatment areas and amenities in a two-story 70,000 square foot building in a hospitality-like setting. The transitional care facility will be an ideal use adjacent to the proposed development.

#### Conclusion

In summary, while we believe this site is no different from the other residential uses that already exist north and south of the property. The new changes to the site plan, wall, landscaping, and construction details further improve its compatibility and sufficiently addresses the concerns raised during prior public hearings. In addition, the mystery regarding how the adjacent parcel might develop has now been answered. The Enclave will fit in perfectly with the adjacent uses. We hope Staff and the City Council agree the new proposal is better designed, better situated, and more compatible than the initial proposal, and is the best solution for this remnant parcel.

Very truly yours,

WITHEY MORRIS P.L.C.

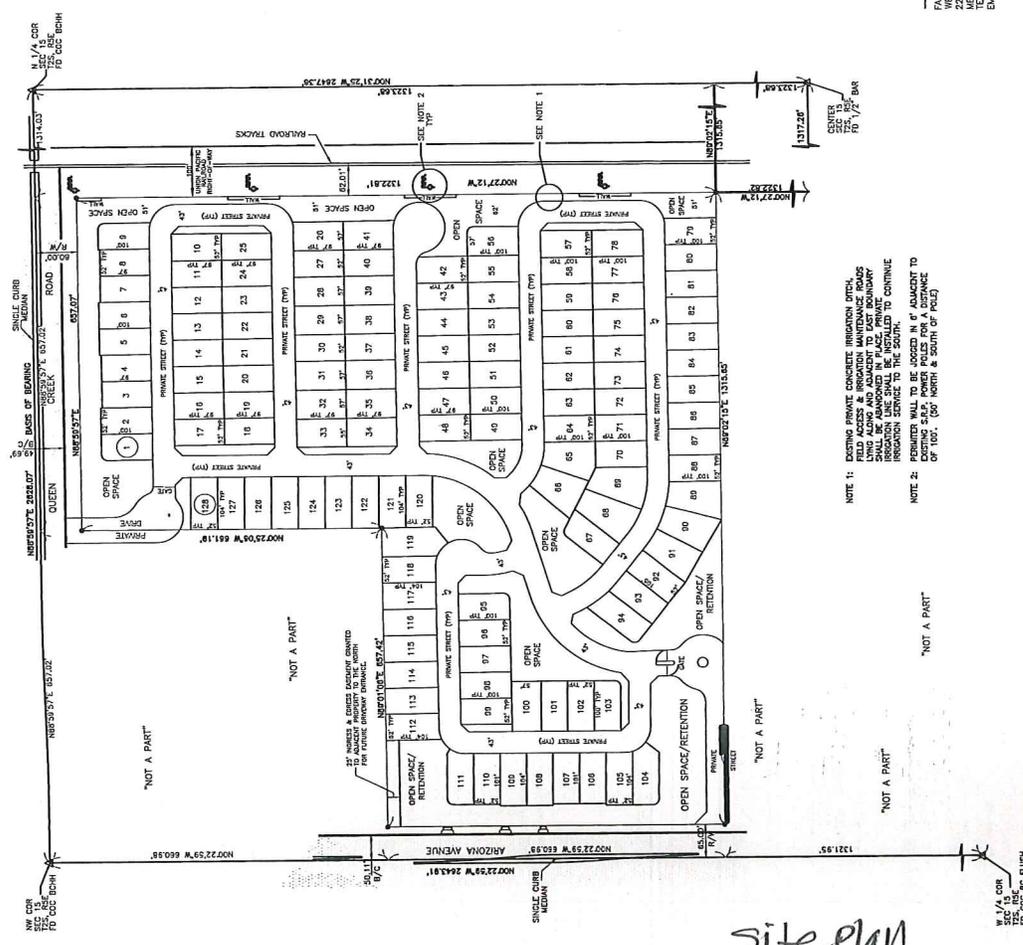
By   
Michael B. Withey

CC: Jodie Novak

Applicant letter  
p. 3 of 3

**DEVELOPMENT PLAN**

**ENCLAVE AT HAMILTON RANCH**  
 A PORTION OF THE NW 1/4 OF THE NW 1/4, SECTION 15, T. 2 S., R. 5 E.  
 OF THE GILA & SALT RIVER BASE & MERIDIAN, MARICOPA COUNTY, ARIZONA



NOTE 1: EXISTING PRIVATE CONCRETE IRRIGATION DITCH, FIELD ACCESS & PROVISION FOR FUTURE IRRIGATION SHALL BE MAINTAINED IN PLACE. PRIVATE IRRIGATION SERVICE TO THE SOUTH.

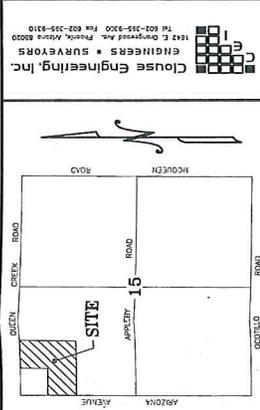
NOTE 2: PERMITTER SHALL BE JOINED IN IF ADJACENT TO EXISTING S.P. POWER POLES FOR A DISTANCE OF 100'. (SEE NORTH & SOUTH OF PLAN)

"NOT A PART"

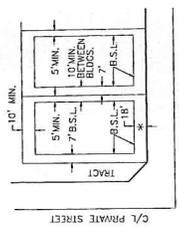
"NOT A PART"

"NOT A PART"

site plan



SEC 15, T 2 S, R 5 E  
 VICINITY MAP  
 N.T.S.



TYPICAL LOT SETBACKS  
 \* MIN 10' FOR SIDE-ENTRY GARAGES, PORCHES OR LIVABLE SPACE & 18' FOR FORWARD FACING GARAGES

**SITE DATA**

128 LOTS: 52'x97' MINIMUM  
 GROSS AREA: 29,940 ACRES  
 GROSS DENSITY: 4.28 LOTS/ACRE  
 NET AREA: 27,740 ACRES  
 NET DENSITY: 4.61 LOTS/ACRE  
 OPEN SPACE: 5.39 ACRES OR 18.0% GROSS AREA

ASSESSOR PARCEL NUMBER: 303-41-011A & 303-41-016

**DEVELOPER**  
 WALTON PLANNING GROUP, LLC  
 WOODRILL BROS. INC.  
 2222 N. VAL VISTA DRIVE #6  
 PHOENIX, ARIZONA 85024  
 TELEPHONE: (602) 228-7177  
 EMAIL: WENWELL\_BECK@WHDG.COM

**CIVIL ENGINEER**  
 WALTER BECK ENGINEERS  
 5000 GLENDALE AVE. REG. #16875  
 1842 E. GRANWOOD AVENUE  
 PHOENIX, ARIZONA 85024  
 TELEPHONE: (602) 382-3300  
 EMAIL: JOULES@WBECK.COM

**LANDSCAPE ARCHITECT**  
 WALTER BECK ENGINEERS  
 5000 GLENDALE AVE. REG. #6793  
 4450 N. 12TH STREET, SUITE 236  
 PHOENIX, ARIZONA 85018  
 TELEPHONE: (602) 951-4600  
 EMAIL: STOREY@WBECK.COM

Clouse Engineering, Inc.  
 ENGINEERS & SURVEYORS  
 1542 E. Camelback Road, Suite 200  
 Phoenix, Arizona 85016  
 Tel: 602-955-9300 Fax: 602-955-9310

SITE PLAN  
 ENCLAVE AT HAMILTON RANCH  
 PART OF NW 1/4 OF THE NW 1/4, SEC. 15  
 ARIZONA

DATE: 08-02-14  
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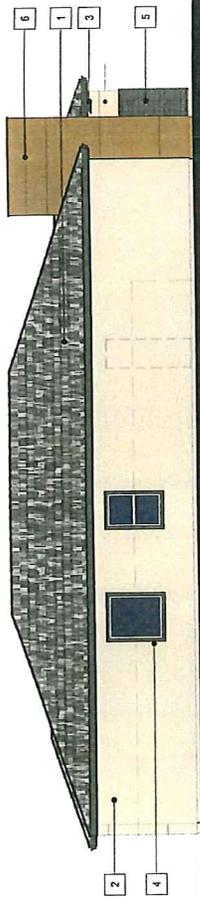
SITE MONUMENTATION - ENTRY SIGNAGE



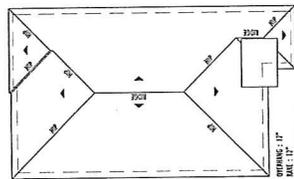
Enclave at Hamilton Ranch | 15

Perspective

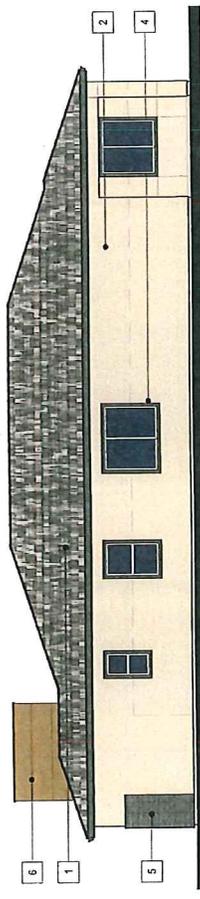
FLOOR PLAN ONE: 1,916 SF.  
ELEVATIONS



LEFT

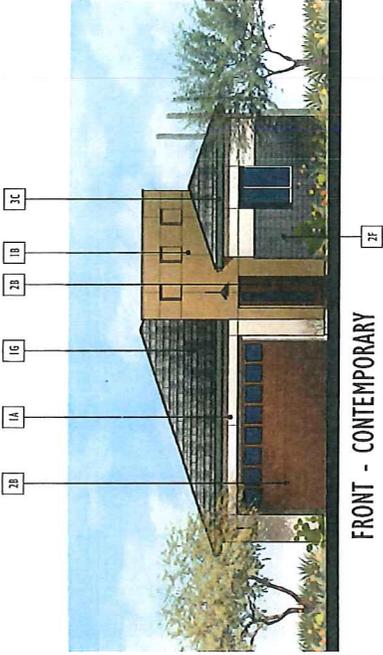


ROOF PLAN  
3/16" = 1'-0"



RIGHT

Elevations



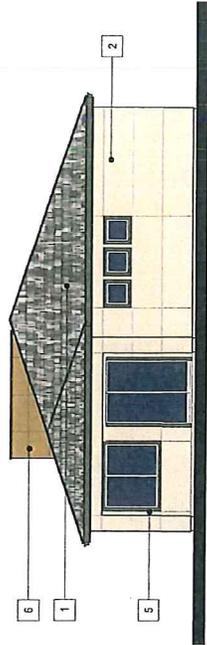
FRONT - CONTEMPORARY

MATERIAL LEGEND

- 1 FLAT TILE ROOF
- 2 STUCCO FINISH
- 3 COACH LIGHT
- 4 STUCCO FINISH TRIM
- 5 BRICK VENEER
- 6 STUCCO SCREED

COLOR LEGEND

- 3C SW 7061 NIGHT OWL
- 1B SW 6138 ARTEFACT
- 1A SW 7042 SHOJI WHITE
- 2B SW 2807 ROOKWOOD MED BROWN
- 2F MODULE BLACK DIAMOND VELOUR
- 1C 4697 SLATE BLEND



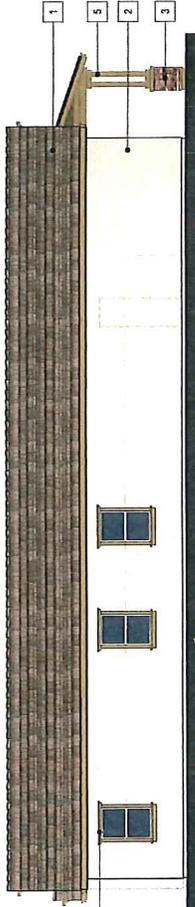
REAR

PLAN 1 - ELEVATIONS AND ROOF PLAN

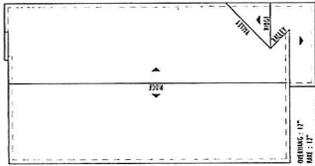


Eric Baerlan, Hamilton, Ontario, 779

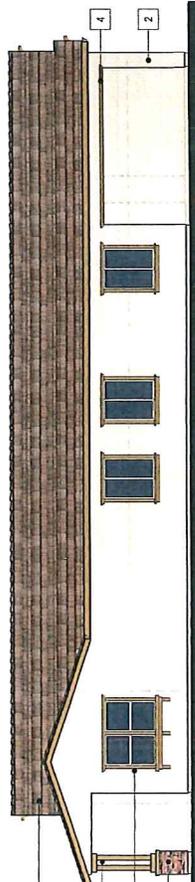
LOOR PLAN TWO: 1,933 SF.  
ELEVATIONS



LEFT

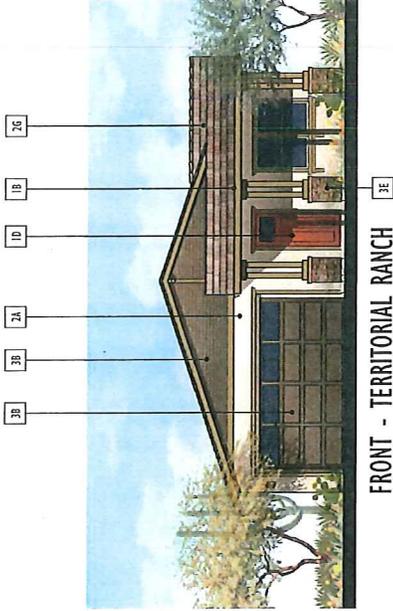


ORIGINAL: 11"  
NEW PITCH: 4/12 RISE  
ROOF PLAN  
3/16" = 1'-0"



RIGHT

*Elevations*



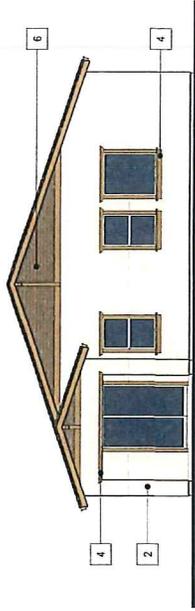
FRONT - TERRITORIAL RANCH

MATERIAL LEGEND

- 1 FLAT CONCRETE TILE ROOFING
- 2 STUCCO FINISH
- 3 STONE VENEER
- 4 STUCCO FINISH TRIM
- 5 WOOD POST
- 6 GABLE END DETAIL

COLOR LEGEND

- 1B SW 6138 ARTIFACT
- 2A SW 7040 SMOKEHOUSE
- 3B SW 7632 MODERN GRAY
- 4C SW 2803 ROOKWOOD TERRA COTTA
- 5B CHABLIS MOUNTAIN STRIP STONE
- 6C 4689 BROWN BLEND

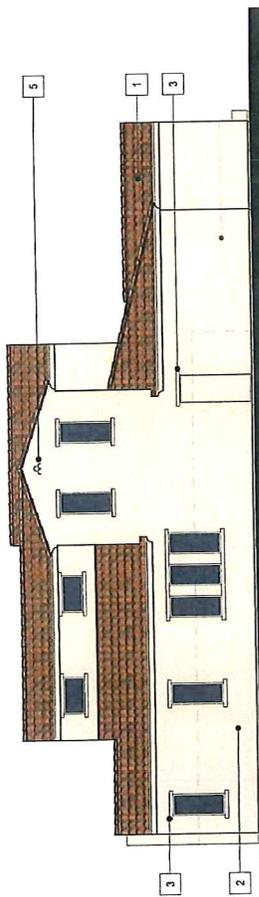


REAR

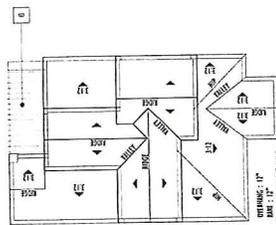
PLAN 2 - ELEVATIONS AND ROOF PLAN

FLOOR PLAN THREE: 2,530 SF.

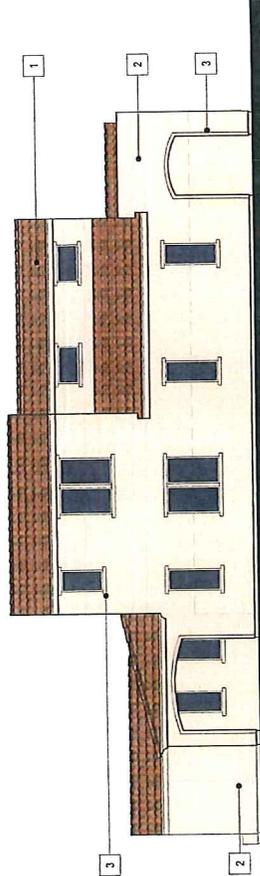
ELEVATIONS



LEFT



ROOF PLAN  
3/16" = 1'-0"



RIGHT

Elevations



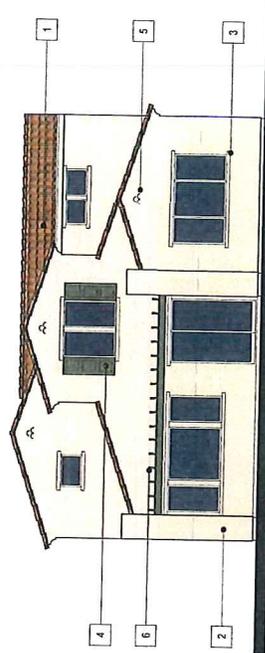
FRONT - SPANISH

MATERIAL LEGEND

- 1 SPANISH ROOF TILE
- 2 STUCCO FINISH
- 3 STUCCO FINISH TRIM
- 4 SHUTTERS
- 5 GABLE END DETAIL
- 6 TRELIS

COLOR LEGEND

- 2A SW 7632 MODERN GRAY
- 1A SW 7042 SHOJI WHITE
- 3C SW 7632 MODERN GRAY
- 3G 3605 SAN BENITO BLEND



REAR

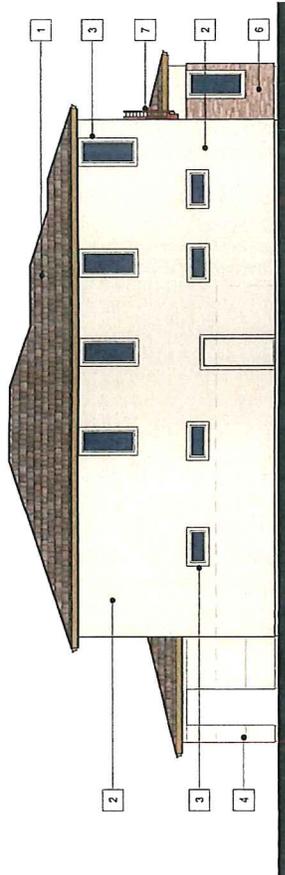
PLAN 3 - ELEVATIONS AND ROOF PLAN



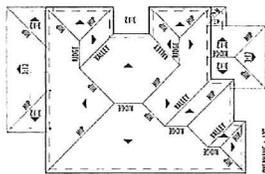
Empire at Hamilton Heights 118

FLOOR PLAN FOUR: 2,734 SF.

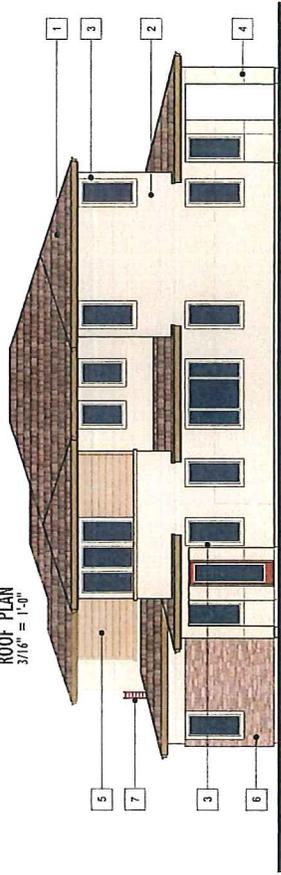
ELEVATIONS



LEFT

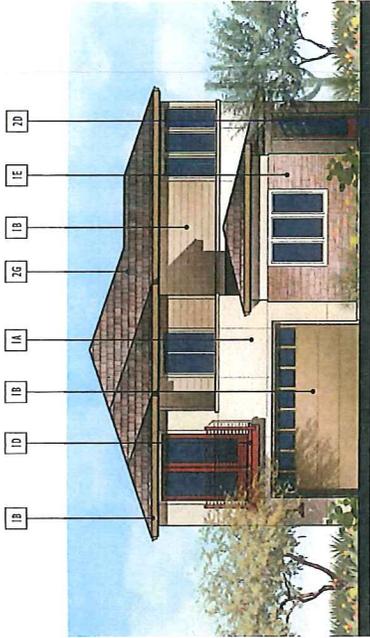


ROOF PLAN  
3/16" = 1'-0"



RIGHT

*Elevations*



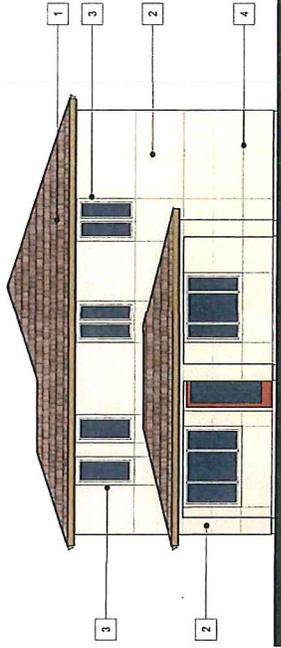
FRONT - CONTEMPORARY

MATERIAL LEGEND

- 1 FLAT CONCRETE TILE ROOFING
- 2 STUCCO FINISH
- 3 STUCCO FINISH TRIM
- 4 STUCCO SCREED
- 5 SIDING
- 6 STONE VENEER
- 7 RAILING

COLOR LEGEND

- 1B SW 6138 ARTIFACT
- 1A SW 7042 SHOJI WHITE
- 1D SW 2803 ROOKWOOD TERRA COTTA
- 1E COUNTRY BEIGE FRENCH LIMESTONE
- 2G 4689 BROWN BLEND



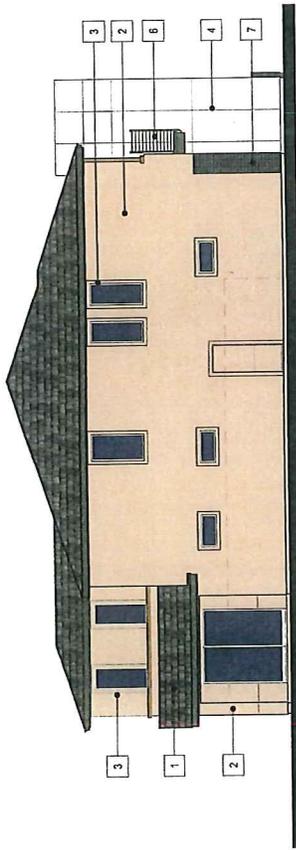
REAR

PLAN 4 - ELEVATIONS AND ROOF PLAN

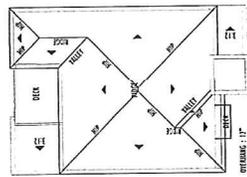


Envelope at Mattamy Homes | Plan 4 | 05

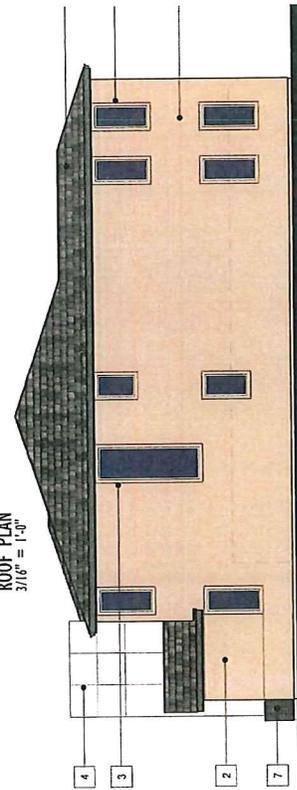
LOOR PLAN FIVE: 2,827 SF.  
LEVATIONS



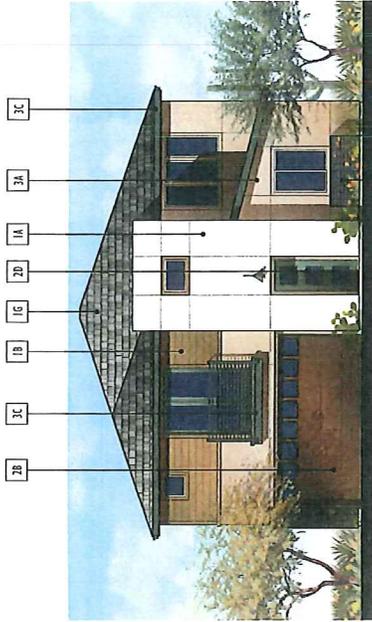
LEFT



ROOF PLAN  
3/16" = 1'-0"



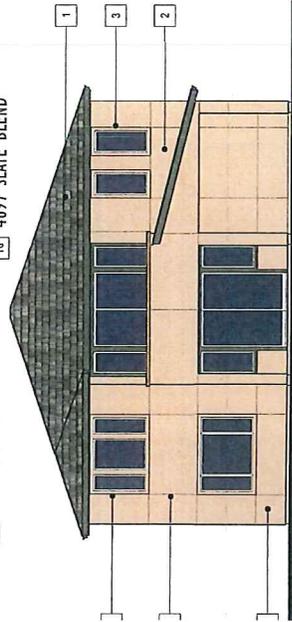
RIGHT



FRONT - CONTEMPORARY

COLOR LEGEND

- |                              |                                |
|------------------------------|--------------------------------|
| <b>MATERIAL LEGEND</b>       | <b>COLOR LEGEND</b>            |
| 1 FLAT CONCRETE TILE ROOFING | 3C SW 7061 NIGHT OWL           |
| 2 STUCCO FINISH              | 1A SW 7042 SHOJI WHITE         |
| 3 STUCCO FINISH TRIM         | 3A SW 6126 NAVAJO WHITE        |
| 4 STUCCO SCREED              | 1B SW 6138 ARTIFACT            |
| 5 SIDING                     | 2D SW 2811 ROOKWOOD BLUE GREEN |
| 6 RAILING                    | 3B SW 2807 ROOKWOOD MED BROWN  |
| 7 BRICK VENEER               | 2F MODULE BLACK DIAMOND VELOUR |
|                              | 1C 4697 SLATE BLEND            |



REAR

PLAN 5 - ELEVATIONS AND ROOF PLAN



Enclave at Hamilton Park #115

Elevations



MEMORANDUM

Airport Memo No. AP16-019

DATE: NOVEMBER 19, 2015
TO: JEFF KURTZ, PLANNING ADMINISTRATOR
FROM: CHRIS ANDRES, AIRPORT ADMINISTRATOR. CA
SUBJECT: AIRPORT CONFLICT EVALUATION
APL 15-0004 AIRPARK AREA PLAN AMENDMENT
DVR15-0028 ENCLAVE AT HAMILTON RANCH

At their November 18, 2015 meeting, the Chandler Airport Commission ("Commission") discussed the rezoning request for the Enclave at Hamilton Ranch subdivision development located near the southeast corner of Arizona Avenue and Queen Creek Road.

Finding: The Commission determined the proposed development constitutes a conflict with existing or planned airport uses.

Conflict(s) Cited: The proposed land use is inconsistent with the City's General Plan and Airpark Area plan. The proposed development contains single-family residential units and the site will experience aviation noise and vibration impact from aircraft in the normal airport traffic pattern and from aircraft approaching Runway 4L-22R.

Conflict Resolution(s): While a non-residential use would be the preferred corrective action, if the development is approved, physical and administrative corrective actions should be employed including, without limitation:

Physical corrective actions: (1) construction of all houses built with noise attenuation construction materials and techniques to reduce the ambient interior noise levels to less than 45 decibels; (2) installation of at least one roadway-style sign at the site's entrance identifying the presence of low flying aircraft; (3) incorporation of "Chandler Airpark" in the development's name which shall be prominently displayed on a monument sign visible from the right-of-way.

Administrative corrective actions: (1) all prospective purchasers of property in the subdivision should be required to sign separate disclosure statements, (i) acknowledging the proximity to the Chandler Airport, and (ii) the potential for impact from aviation noise and vibrations; (2) all prospective purchasers of property should be required to sign the disclosure statements before a purchase contract is signed and again at the transaction closing; (3) dedication of an aviation

Handwritten note: Airport Conflicts Evaluation p 1 of 2

easement to the City; (4) display of a large size map in the onsite sales office identifying the Airport Impact Overlay District, the noise contours and overflight patterns as depicted in Exhibit 6A in the FAR Part 150 Noise Compatibility Study document as adopted by the Chandler City Council (Resolution No. 2950, 11-5-98), and the noise contours as identified in the Chandler Airpark Area Plan; (5) submittal of a signed affidavit and photograph of the prior referenced map display; (6) inclusion of an affirmative disclosure statement on the final plat; (7) inclusion of the physical and administrative corrective actions in the Subdivision Public Report that is submitted to the Arizona Department of Real Estate.

Commission Members in Attendance: Chairman Kelly McMullen, Vice Chairman David Sperling, Chelle Daly, Schulyer "Sky" McCorkle, and Frank Nechvatal were in attendance. This attendance represented a quorum.

Per the Airport Conflicts Evaluation Process, the Commission voted 5-0 to forward a report to the Planning Administrator indicating the finding noted above.

Attached is a full copy of the Airport Conflict Evaluation for the above referenced project.

cc: Kevin Mayo, Planning Manager

Attachment: Airport Conflict Evaluation

Airport Conflicts  
Evaluation  
p. 2 of 2



**Chandler • Arizona**  
Where Values Make The Difference

**MEMORANDUM**

**Airport - Memo No. AP16-018**

**DATE:** NOVEMBER 18, 2015

**TO:** CHANDLER AIRPORT COMMISSION

**FROM:** CHRIS ANDRES, AIRPORT ADMINISTRATOR *CA*

**SUBJECT:** AGENDA ITEM 4.D. - AIRPORT CONFLICT EVALUATION  
-APL 15-0004 AIRPARK AREA PLAN AMENDMENT  
-DVR15-0028 ENCLAVE AT HAMILTON RANCH  
NEAR SOUTHEAST CORNER OF ARIZONA AVENUE AND QUEEN CREEK  
ROAD

RECOMMENDATION:

Staff recommends the Airport Commission present an Airport Conflict Evaluation (ACE) report to the Zoning Administrator and City Council with a finding of "conflict with airport uses" for the proposed Enclave At Hamilton Ranch single-family residential subdivision.

BACKGROUND:

The approximately 28 acre site is located south and east of the southeast corner of Arizona Avenue and Queen Creek Road, approximately one mile (1 mi.) west of the southern end of Runway 4L-22R (*Exhibit A - Vicinity Map, Exhibit B - Property Location*). The property primarily surrounds an undeveloped 8-acre parcel located at the immediate intersection corner of Arizona Avenue and Queen Creek Road, which is currently being annexed into the City with a subsequent rezoning request of a preliminary development plan for a transitional care facility (Mainstreet, DVR 15-0035). The property to the east is zoned and planned for industrial and office development. Parcels to the south are commercial and public assembly development and zoning districts, and the intersection to the south is commercial. Parcels to the north of Queen Creek Road are zoned for single and multi-family residential development and the parcels west of Arizona Avenue are zoned for commercial and multifamily residential.

The proposed project is a single family residential subdivision with 128 detached units (*Exhibit C - Site Plan*). The Applicant's request has four components:

- An area plan amendment to the Chandler Airpark Area Plan from Neighborhood from Neighborhood Commercial and Commercial/Office/Business Park with a Light Rail Corridor Overlay to Low-Medium Density Residential;

*Airport manager  
memo (AM)  
p 1 of 9*

- Rezoning from Agricultural District (AG-1) and Planned Area Development (PAD) for offices to PAD for Residential;
- Preliminary Development Plan (PDP) for subdivision layout and housing product;
- Preliminary Plat (PPT) approval for a single-family subdivision.

The City of Chandler General Plan designates the property for Employment and denotes that the property is within the Airpark Area Plan. The Airpark Area Plan designates the corner as Neighborhood Commercial and the surrounding area to the east and south as Commercial/Office/Business Park with a Light Rail Corridor Overlay Planning Area, potentially allowing Mixed Use (*Exhibit D – Chandler Airpark Area Plan Land Use Plan*).

On October 8, 2014, the Airport Commission discussed this proposed project and found that the proposed land use constituted a conflict with existing or planned airport uses.

#### ANALYSIS:

The proposed single-family residential use is: i) within the Low-Medium Density Residential category, ii) inconsistent with the Airpark Area Plan, and iii) not a land use designated in the adopted land use categories for this property.

The subject property is approximately one mile (1 mi.) from the west of the southern end of Runway 4L-22R. The proposed development will experience a significant number of daily overflights from aircraft in the normal airport traffic pattern (*Exhibit E – Flight Tracks*). Flight operations are typically between sunrise and sunset and, at this location, the flight traffic pattern altitude for fixed wing aircraft is approximately 800 feet above ground level. However, aircraft approaching Runway 4L-22R may frequently be at lower altitudes. Outdoor activities are especially susceptible to overflight noise, depending on the nature of the activity. Single family residences under or near the flight traffic pattern are a significant source of noise complaints for the Airport.

Based on the maximum allowable building heights, the proposed development does not appear to pose a hazard to flight safety or be an airspace obstruction.

Due to the proximity to the Airport, the developer will need to file a Notice of Proposed Construction with the Federal Aviation Administration.

#### AIRPORT CONFLICT EVALUATION PROCESS

In January 2002, the City Council adopted an Airport Conflicts Evaluation (ACE) Process policy requiring any zoning changes within the nine-square mile Chandler Airpark Area to be reviewed by the Airport Commission to determine if the use and/or development will be a conflict with current and future airport operations. The ACE policy specifically outlines the Commission's tasks as they relate to this review. These tasks are noted in *underline and italics*:

1. *The Airport Commission's determination as to whether conflicts exist between the proposed development and airport uses.*
2. *If conflicts exist, the specific areas of conflict.*
3. *If conflicts exist, a statement of corrective actions which can be taken, if there are any.*

Am p. 2019

4. *The Airport Commission Members voting in support of the Airport Commission's determination and those members voting in opposition to the Airport Commission's determination.*

Airport staff provides the Airport Commission with information and a recommendation regarding the proposed project and the conflict evaluation process. Staff will compile and forward an ACE report that summarizes the Airport Commission's discussion and findings to the Zoning Administrator. Planning staff will report the Airport Commission's findings regarding potential for airport conflicts to Planning and Zoning Commission and to City Council.

#### FINDINGS

1. *The Airport Commission's determination as to whether conflicts exist between the proposed development and airport uses. A conflict **exists** between the proposed development and proposed airport uses.*
2. *If conflicts exist, the specific areas of conflict. The proposed land use is inconsistent with the City's General Plan and Airpark Area plan. The proposed development contains single-family residential units and the site will experience aviation noise and vibration impact from aircraft in the normal airport traffic pattern and from aircraft approaching Runway 4L-22R.*
3. *If conflicts exist, a statement of corrective actions which can be taken, if there are any. A non-residential use that conforms to the City's General Plan and Airpark Area Plan is the preferred corrective action.*

If the development is approved, physical and administrative corrective actions should be employed including, without limitation:

Physical corrective actions: (1) construction of all houses built with noise attenuation construction materials and techniques to reduce the ambient interior noise levels to less than 45 decibels; (2) installation of at least one roadway-style sign at the site's entrance identifying the presence of low flying aircraft; (3) incorporation of "Chandler Airpark" in the development's name which shall be prominently displayed on a monument sign visible from the right-of-way.

Administrative corrective actions: (1) all prospective purchasers of property in the subdivision should be required to sign separate disclosure statements, acknowledging (i) the proximity to the Chandler Airport, and (ii) the potential for impact from aviation noise and vibrations; (2) all prospective purchasers of property should be required to sign the disclosure statements before a purchase contract is signed and again at the transaction closing; (3) dedication of an avigational easement to the City; (4) display of a large size map in the onsite sales office identifying the Airport Impact Overlay District, the noise contours and overflight patterns as depicted in Exhibit 6A in the FAR Part 150 Noise Compatibility Study document as adopted by the Chandler City Council (Resolution No. 2950, 11-5-98), and the noise contours as identified in the Chandler Airpark Area Plan; (5) submittal of a signed affidavit and photograph of the prior referenced map display; (6) inclusion of an affirmative disclosure statement on the final plat; (7) inclusion of the physical and

**administrative corrective actions in the Subdivision Public Report that is submitted to the Arizona Department of Real Estate.**

4. *The Airport Commission Members voting in support of the Airport Commission's determination and those members voting in opposition to the Airport Commission's determination.* **This information will be determined through Commission discussion and action.**

PUBLIC MEETINGS

On September 29, 2015, a public neighborhood meeting was held at the Chandler Municipal Airport Terminal, 2380 S. Stinson Way in Chandler. No members of the public attended.

On November 2 2015, the Airport Commission's Development and Land Use Subcommittee reviewed the proposed development and unanimously voted to find a "conflict with airport uses".

PROPOSED MOTION:

Move to present an Airport Conflicts Evaluation (ACE) report to the Zoning Administrator and City Council with a finding of "conflict with airport uses" for The Enclave At Hamilton Ranch.

ATTACHMENTS:

- A. Vicinity Map
- B. Property Location
- C. Site Plan
- D. Chandler Airpark Area Plan Land Use Plan
- E. Flight Tracks

EXHIBIT A: VICINITY MAP

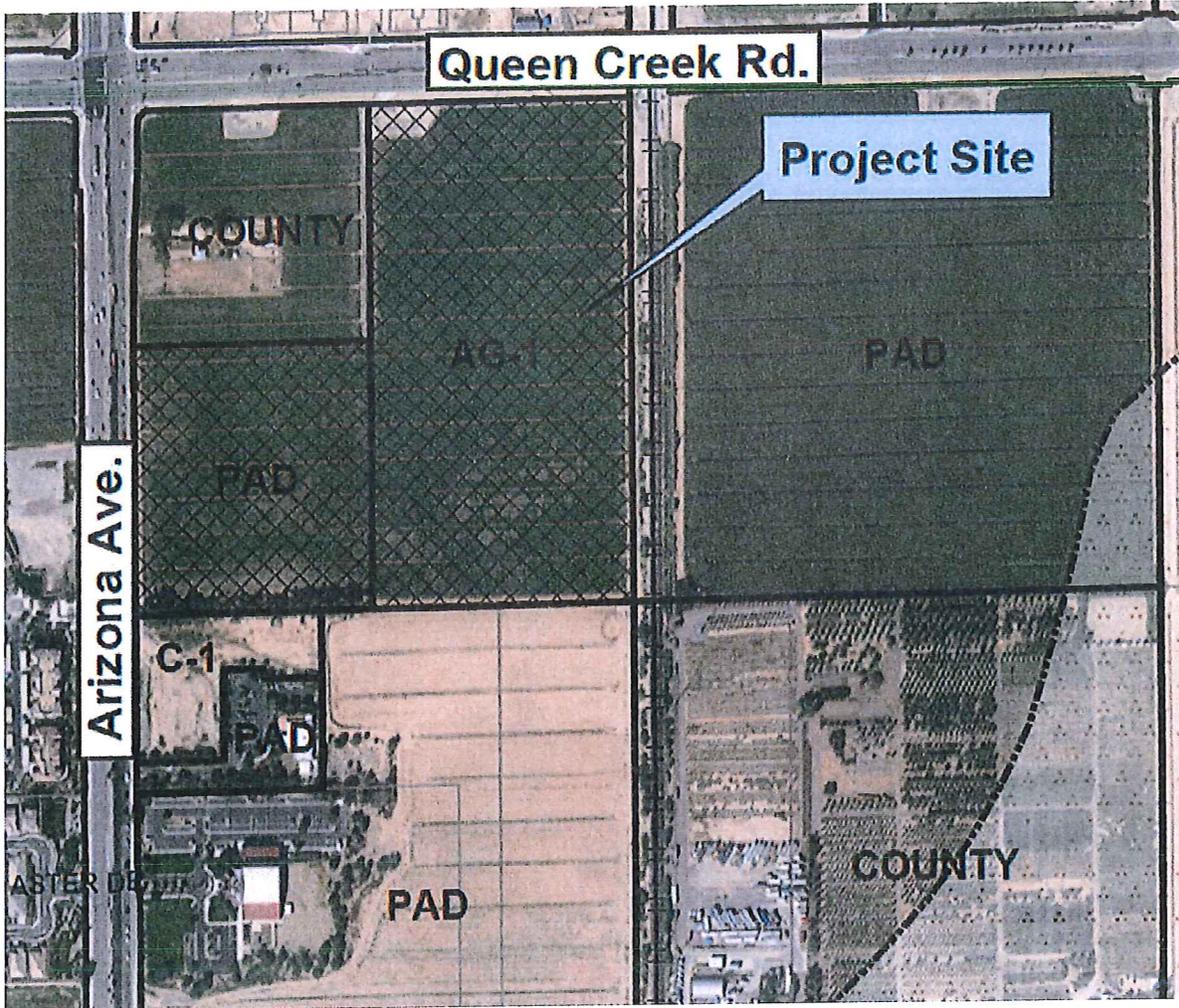
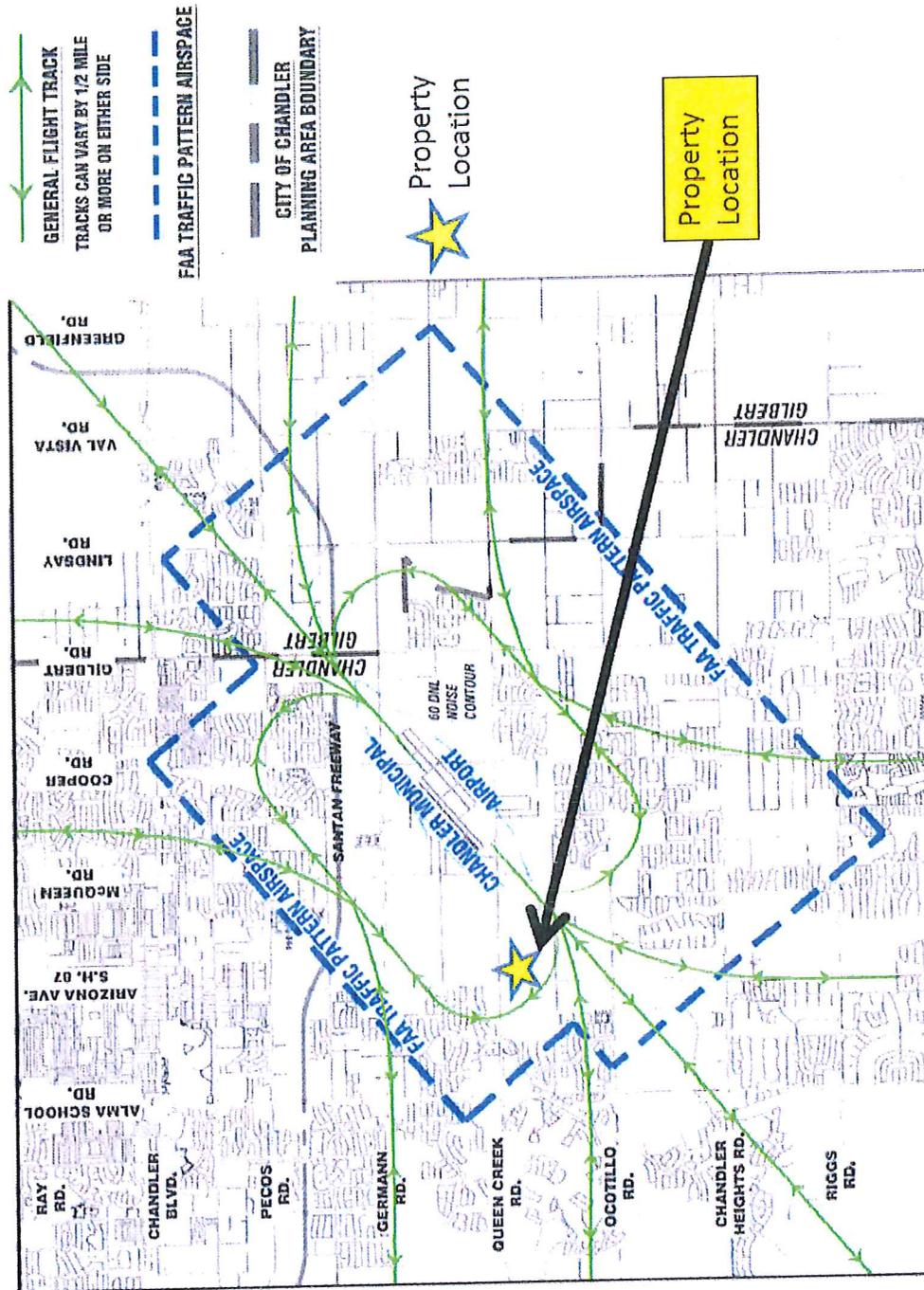
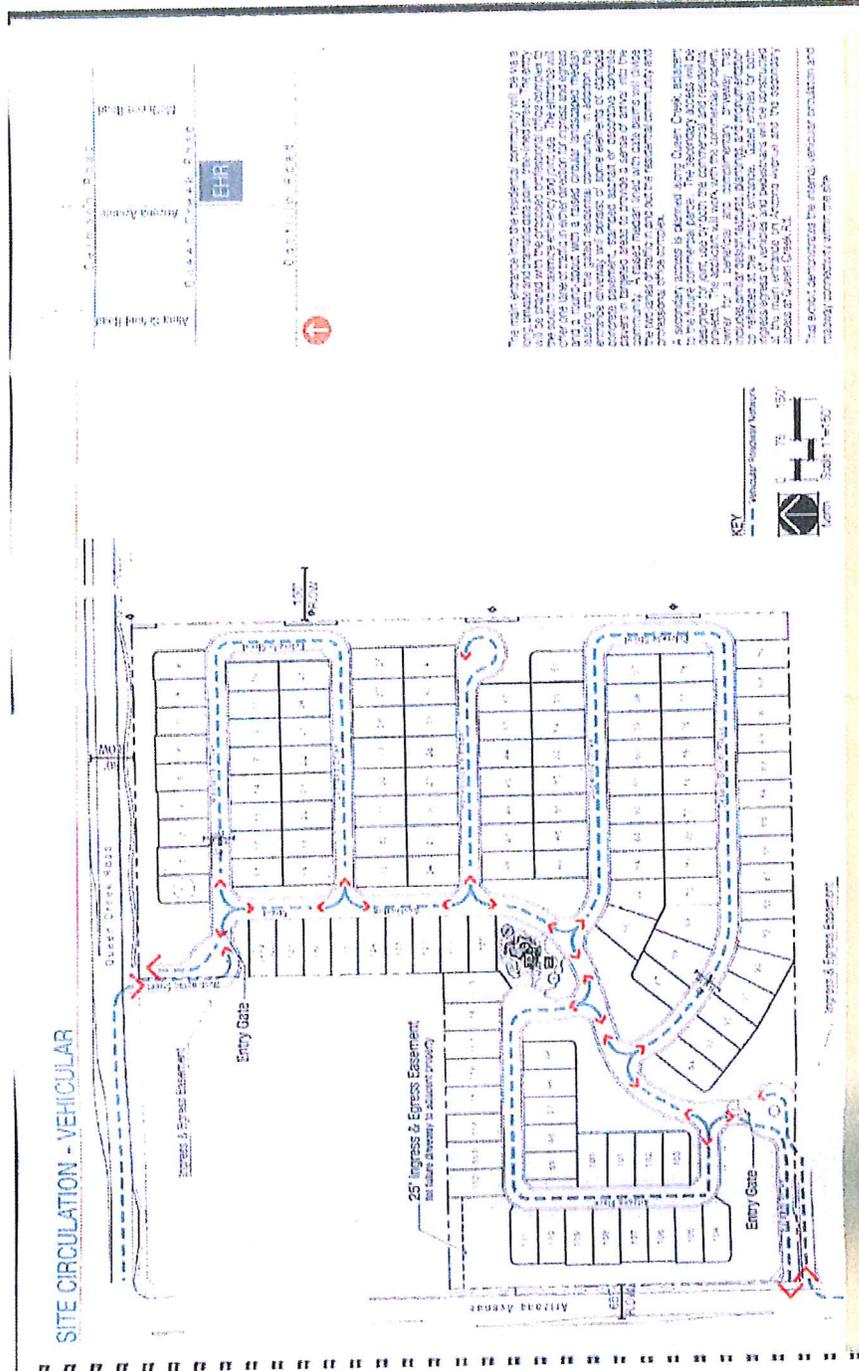


EXHIBIT B: PROPERTY LOCATION



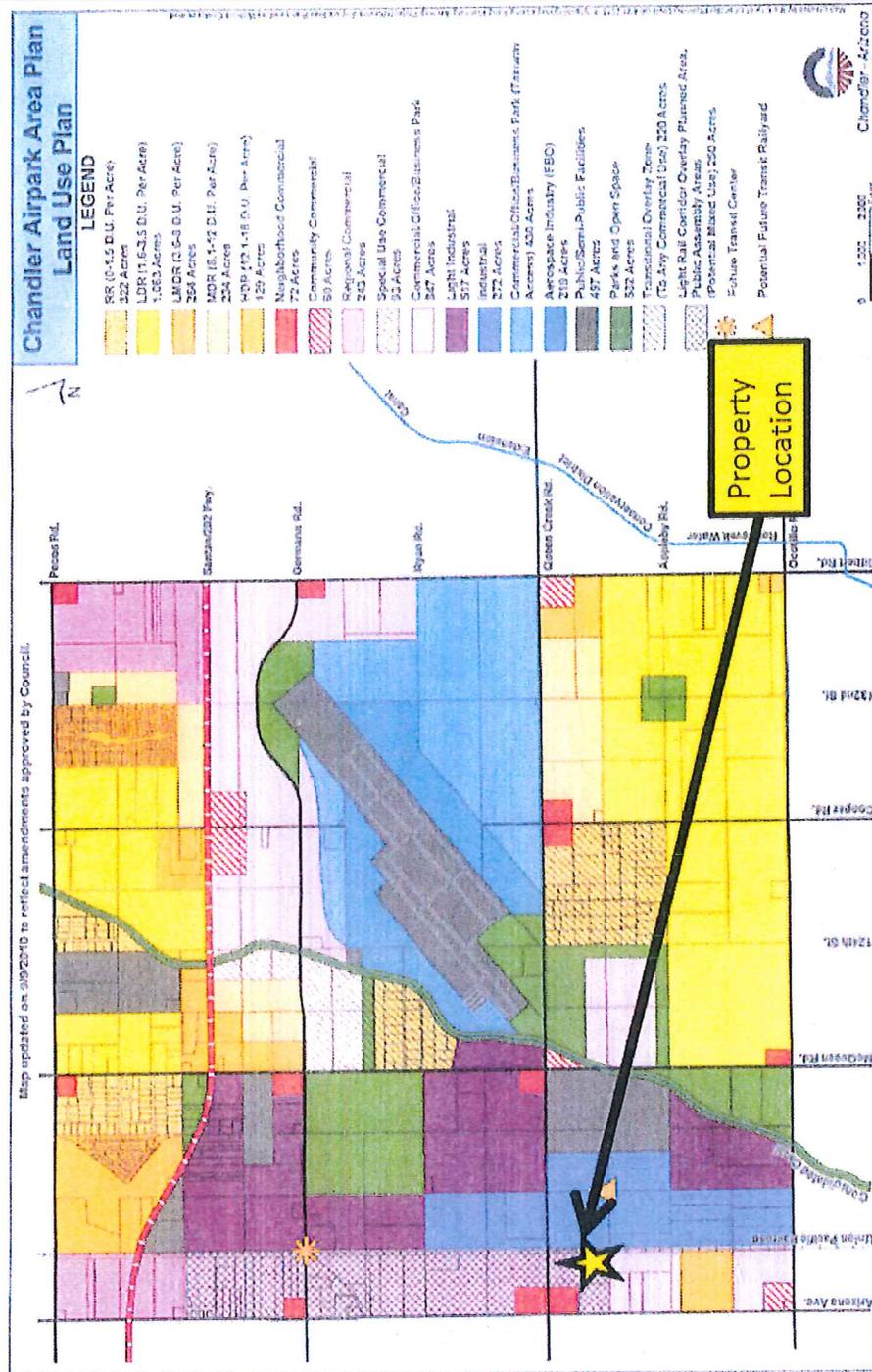
Am p. 6 of 9

EXHIBIT C: SITE PLAN



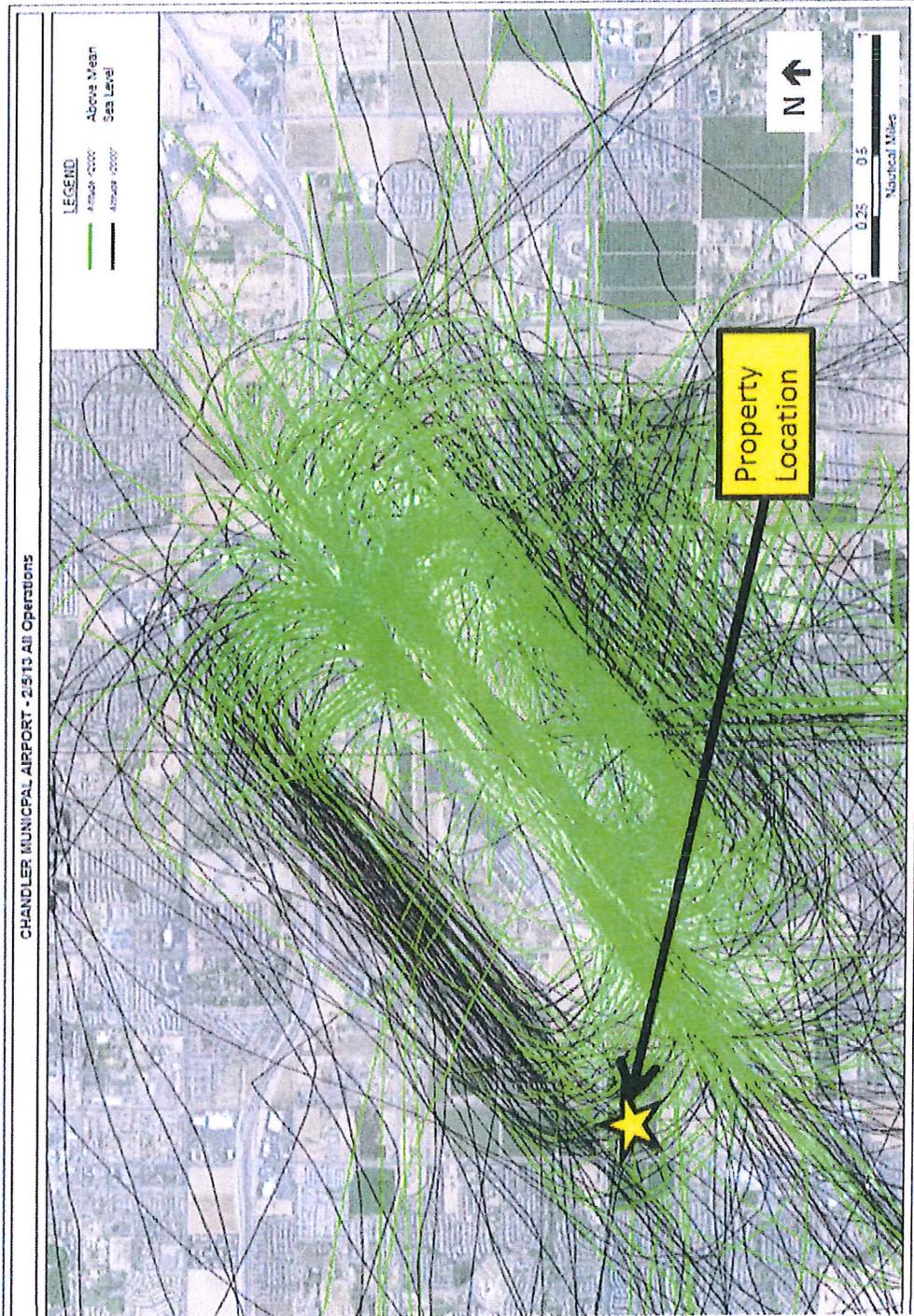
Am p. 7 of 9

EXHIBIT D: CHANDLER AIRPARK AREA PLAN LAND USE PLAN



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EXHIBIT E: FLIGHT TRACKS



Am p. 9 of 9



Jim Runner & Wendell Beck  
C/O Withey Morris, PLC  
2525 E Arizona Biltmore Cir  
Suite A-212  
Phoenix, AZ 85016

August 20, 2015

Dear Mr. Runner and Mr. Beck,

Re: **NOISE STUDY FOR THE ENCLAVE AT HAMILTON RANCH (CHANDLER, AZ)**

ACS has been retained to prepare a HUD Noise Study for the Enclave at Hamilton Ranch project located at Arizona Avenue and Queen Creek Road (Chandler, AZ).

**EXECUTIVE SUMMARY**

Within this study, ACS demonstrated that this project will easily be in compliance with the HUD "Acceptable" standards for exterior and interior noise.

Additionally, ACS examined the individual potential noise sources to this site: Arizona Avenue, Queen Creek Road, Chandler Municipal Airport, and the railroad. The noise impact from Chandler Airport and the railroad are well below (quieter than) the HUD "Acceptable" Standards. The traffic noise impact from Arizona Avenue is the loudest noise source. The potential roadway traffic noise is subjectively twice as loud as the other sources. However, this is easily controlled by typical walls of reasonable height. Additionally, these roadway levels are very similar to those of any other residential projects adjacent to arterial streets.

The potential noise impact to this project site is similar to or quieter than the noise impact to many other existing residential projects in this area. There are several existing residential communities located adjacent to the railroad. There are well over 1000 existing homes that are impacted by more noise from Chandler Municipal Airport than the proposed homes of this site.

**US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT**

To help achieve its national goal of "a decent home and suitable living environment for every American family," HUD is concerned with the projected future noise impact to the residential property. For the purpose of analysis, the *Noise Assessment Guidelines* require that you consider all military/civilian airports (with jet activity) within 15 miles of the project, all significant roads within 1000 feet and basically all railroads within 3000 feet.

HUD Regulations set forth the following exterior noise standards for new housing construction assisted or supported by the department:

65 Ldn\* or less - **Acceptable**

Exceeding 65 Ldn but not exceeding 75 Ldn - **Normally Unacceptable** (To achieve an acceptable status, appropriate sound attenuation measures must be provided)

Exceeding 75 Ldn - **Unacceptable**

\*Ldn - Day Night average sound level (also known as DNL) is the 24-hour equivalent sound level, in decibels, obtained after the addition of 10 decibels to the sound levels occurring between 10:00 pm and 7:00 am.

HUD's regulations do not contain standards for interior noise levels. Rather a goal of 45 decibels (Ldn) is set forth and the attenuation requirements are geared toward achieving that goal. It is assumed that with standard construction, any building will provide sufficient attenuation so that if the exterior level is 65 Ldn or less, the interior level will be 45 Ldn or less.

NOTE: The HUD interior noise level limit of 45 decibels (Ldn) is the same as the City of Chandler's interior noise level limit.

**Project Assumptions:**

Projected traffic volumes 10-15 year in the future are recommended for the HUD analysis. ACS used the 2031 traffic projections provided by Maricopa Association of Governments (MAG) for this assessment. The aircraft information was provided by each airport. Railroad information was provided by the US Department of Transportation and the Arizona Railroad Museum. The following vehicle classification breakdown was used: 1.98% medium trucks; 1.9% heavy trucks. (Note: Higher traffic levels will result in a higher potential noise impact.)

**Calculation Results:**

*Railroad* – ACS has been informed that, at times, there will only be 1 train per week on this branch. Typically, there will be 1 train per day (usually during the mid-morning), but for only 3 days per week. To be conservative, the projected noise impact calculations assumed there will be 1 train per day, every day of the year. Based on this level of activity, the projected railroad sound impact to the closest home will be 58.6 Ldn. This is well within compliance with HUD "Acceptable" standards. The number of train operations used for these calculations could quadruple (everything else remaining the same) and the potential levels would still comply.

*Aircraft* – ACS examined the potential sound impact created by the currently projected air traffic of all applicable airports within 15 miles of the site. The worst-case, projected potential sound impact to the site was calculated for each airport:

Chandler Municipal Airport	53.9 DNL/Ldn*
Stellar Airpark	36.7 DNL/Ldn
Phoenix-Mesa Gateway Airport	40.0 DNL/Ldn
Falcon Field	32.0 DNL/Ldn
Pegasus Airpark	17.4 DNL/Ldn

\*NOTE: To be conservative, 55 Ldn for Chandler Airport was used for the calculations.

These levels are well within compliance with HUD "Acceptable" standards.

*Roadway* - ACS examined the potential, future (2031) roadway sound impact from both Arizona Ave and Queen Creek Road. The worst-case lots could be impacted by as much as 69.8 Ldn. To be in compliance with the HUD exterior noise standards, a 6.5' high wall would be required for the lots closest to Arizona Ave and a 6' high wall would be required for the lots closest Queen Creek Rd. These walls would reduce potential sound level for the worst-case lots to 63.5 Ldn (64.4 Ldn including railroad and aircraft). This is in compliance with HUD "Acceptable" standards.

Interior Noise Standard

Since the exterior sound levels are in compliance with the HUD "Acceptable" exterior standards, analysis of the exterior construction is not technically required. The maximum sound impact from all combined sources is 69.7 Ldn without the benefit of a barrier wall (as would be the case for any two-story homes). To comply with HUD's interior sound level goal of 45 Ldn, the exterior construction would need to achieve a Noise Level Reduction (NLR) rating of 25 or higher.

ACS calculated the NLR rating for each building type of the project. ACS has been informed that dual-pane windows will be used for this project. However, a specific window manufacturer has not yet been selected. The isolation rating for dual-pane windows is at least STC 27-33 (STC – Sound Transmission Class). To be conservative, STC 27 was used for the following calculations.

Building Type	Rear	Sides
1	NLR 33.2	NLR 35.8
2	NLR 32.8	NLR 33.7
3	NLR 33.5	NLR 35.4
4	NLR 32.9	NLR 33.1
5	NLR 32.2	NLR 34.2

As long as the window assemblies meet or exceed STC 27, the exterior isolation rating will exceed NLR 32 for all building types. This will allow compliance with the HUD and City of Chandler interior noise standards.

**HUD Noise Study Conclusions:**

- 1) To be in compliance with HUD "Acceptable" standards a 6.5' high barrier wall along the west side of the subdivision (adjacent to Arizona Ave), and a 6' high wall along the north side of the subdivision (adjacent to Queen Creek Rd) will be necessary.
- 2) In ACS's opinion, additional construction procedures to increase sound isolation levels are not required. ACS would typically recommend not to build two-story structures on the lots adjacent to Arizona Ave or Queen Creek Road. However, if two-story homes are planned for these lots, the exterior construction would need to achieve a minimum Noise Level Reduction (NLR) 25. ACS has calculated the NLR for the various building types of this project. In all cases, the exterior construction of the building types achieved an NLR 32 or higher. This would allow compliance with HUD and the City of Chandler's interior standards.

**INDIVIDUAL SOUND SOURCES**

ACS has been informed that the City is primarily concerned by the potential noise impact from the railroad and Chandler Airport.

**Projected Levels:**

*Airport* - Based on the 2014 and 2028 DNL Contours for Chandler Airport, this project site is outside of the 55 DNL (Ldn) contour. This is well within the HUD "Acceptable" standards. Additionally, over 1000 existing homes are exposed to more airport noise than the homes of this project will be. (Please see attached exhibit depicting the number of current residential projects within the airport's 2028 55 DNL contour.) The site (depicted in black) is outside of (quieter than) 55 DNL. The highlighted orange areas are of existing homes within (louder than) the 55 & 60 DNL contours.

*Railroad* – The projected sound levels from railroad activity at the nearest homes is 58.6 Ldn. This is well within compliance with the HUD "Acceptable" exterior standard, and substantially below (quieter than) both the HUD and the City of Chandler interior noise standards. Additionally, the already inflated train counts

used for these calculations could quadruple (everything else remaining the same) and the potential levels would still comply with HUD and City of Chandler standards.

There are typically 3 train operations on this railroad branch per week (7 operations per week was used for the calculations). To get an idea of how noticeable this railroad activity is, ACS interviewed residents of the Paseo Lindo residential complex located adjacent to the tracks approximately 1/3 mile south of the proposed Enclave site. The responses ranged from they thought there was approximately 1 train operation per week to they had heard the train maybe 2 times in the year they lived there.

*Roadways* – The roadway traffic is the loudest noise source for this site. For the projected traffic volumes of 2031, the lots closest to Queen Creek Road could be impacted by as much as 67.3 Ldn and the lots closest to Arizona Avenue could be impacted by as much as 69.8 Ldn.

Although these projected traffic noise levels are the loudest day/night noise source, they are easily controlled by typical walls of reasonable height. Additionally, these levels are very similar to those of other residential projects adjacent to arterial streets.

**Current Measured Levels:**

ACS measured current typical noise at the proposed Enclave site and, as a comparison, adjacent to the existing Paseo Lindo residential site. The typical traffic noise levels (without the benefit of any barrier walls) during various morning-hour periods were:

Site	Lots near	Light Traffic	Typical Traffic	Maximum Traffic	Leq
Enclave	Queen Creek Rd	60-61 dBA	65-67 dBA	68 dBA	59 Leq
Enclave	Arizona Ave	66-67 dBA	65-67 dBA	79 dBA	68 Leq
Paseo Lindo	Arizona Ave	66-67 dBA	71-73 dBA	79 dBA	69 Leq

Single aircraft event maximum noise levels were:

Day/Time	Site	Frequency	Range	Average
Saturday 8/15/15 ~9:30am	Enclave	Every 2-6 minutes	55.1 – 62.2 dBA	57.4 dBA
	Paseo Lindo		61.4 – 74.4 dBA	66.8 dBA
Tuesday 8/18/15 ~10:00am	Enclave	Every 1-4 minutes	51.3 – 62.3 dBA	58.2 dBA
	Paseo Lindo		52.2 – 62.6 dBA	56.2 dBA
Wednesday 8/19/15 ~8:30am	Enclave	Every 1-6 minutes	42.0 – 62.4 dBA	47.6 dBA
	Paseo Lindo		46.3 – 65.9 dBA	54.6 dBA

On average, the noise measurements were louder (by a “clearly noticeable” amount) at the existing Paseo Lindo site than at the proposed Enclave site.

Please let me know if you have any questions or need additional information.

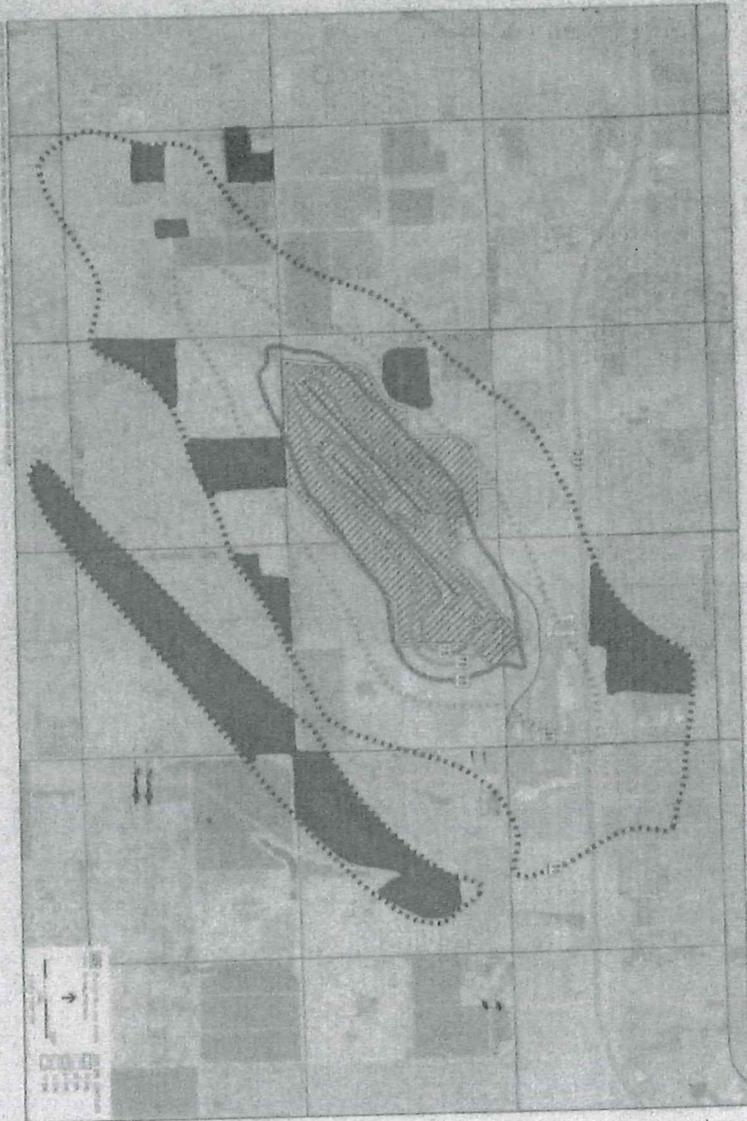
Respectfully,



**Tony Sola**  
Acoustical Consulting Services

Chandler Municipal Airport/FAR Part 150 Study

Figure 6.3  
2028 DNL CONTOURS



Chapter Six: Noise Exposure  
Prepared: June 2009

(NS) p.5085



**GENESIS**  
CONSULTING GROUP

October 12, 2015

Mr. Mike Withey, Esq.  
Withey Morris, PLC  
2525 E. Arizona Biltmore Circle  
Suite A-212  
Phoenix, AZ 85016

**Re: Chandler Air Park – Influence Area Analysis  
McQueen Road Development and Enclave at Hamilton Ranch Site Comparisons**

Dear Mr. Withey,

The Genesis Consulting Group performed a comparison of a recently approved residential development on *McQueen Road*, adjacent to the Chandler Municipal Airport, and the proposed *Enclave at Hamilton Ranch*. When comparing the differences between the two proposed residential developments, and the potential impacts from the adjacent Chandler Municipal Airport, a number of issues became evident:

#### **Physical Location**

The *McQueen Road* proposed development as shown in Exhibit No. 1, is physically much closer to the boundaries of the Chandler Municipal Airport than the *Enclave at Hamilton Ranch*. In fact, it is immediately adjacent to the northwest side of the airfield, and directly under the northwest downwind traffic pattern. As such, this site will be more heavily impacted by local airport traffic pattern activities than locations further away from the airport's boundary. This location makes the *McQueen Road* development far more likely to receive associated impacts from the airports operation, than the *Enclave at Hamilton Ranch*.

The proposed *Enclave at Hamilton Ranch* development is located nearly a full mile further to the west of the airport's runway ends in an area where the air traffic patterns tend to be more disbursed.

#### **Identified Noise Contours**

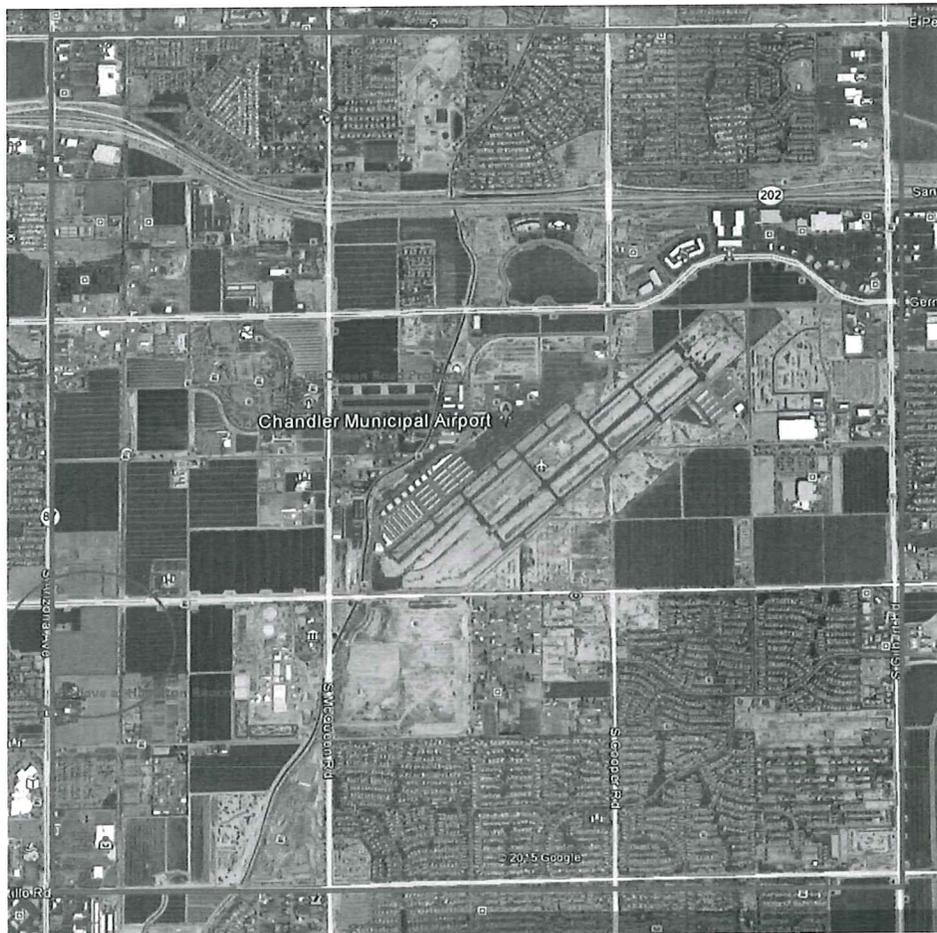
The eastern portion of the proposed *McQueen Road* development is directly under the 55 DNL noise contours of the airport, as shown in the 2010 Chandler Municipal Airport FAR-150 Study, and close to the 65 DNL contours. Development within the 65 DNL limits would require specific mitigation measures to deal with overflight impacts.

The *Enclave at Hamilton Ranch*, as proposed is outside of both the 65 DNL and 55 DNL contours, and is forecast to remain so during the foreseeable future.

## Airport Operations and Ground Based Noise

The east end of the *McQueen Road* development is close enough to the airport boundary to receive some of the ground-based noise generated by aircraft and maintenance operations, in addition to other routine airport operations and activities.

The *Enclave at Hamilton Ranch*, proposal is located far enough away from the airport boundary that it will not be routinely affected by ground based noise and operations.



**Exhibit No. 1**  
**Chandler Municipal Airport and Proposed Residential Development**

### Summary

Both of the proposed residential developments discussed in this letter are within acceptable parameters for impacts from surrounding Airport and Airpark operations. The *Enclave at Hamilton Ranch* is clearly in a more favorable position than the *McQueen Road* development as it is further away from the Chandler Municipal Airport, and is subject to less overflight and related airport operational activity. Additionally, the *Enclave at Hamilton Ranch* is outside of both the 65 DNL and 55 DNL noise contours as

identified in the 2010 Chandler Municipal Airport FAR-150 Study, both now and in the future. The *McQueen Road* development, is already partially under the 55 DNL, and the site will require immediate stipulations and other notices to potential homeowners.

Sincerely,

*Richard A. Crosman*

Richard A. Crosman  
Senior Vice President  
Genesis Consulting Group, LLC

Cc: Mary Ortega-Itsell, President

# Chandler Airpark Influence Area Analysis



**Chandler Airpark**  
**August 30, 2015**  
**Prepared By:**



*Applicant's Airport  
Influence Area Analysis*

*- REPORT (R) -  
21 total sheets with  
1016 pages.*

# Chandler Airpark – Influence Area Analysis

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# EXECUTIVE SUMMARY

## Study Background:

Located in the technology hub of Chandler, Arizona, Chandler Municipal Airport is situated in the southeastern portion of Metropolitan Phoenix. No scheduled commercial service air carriers are present on the Airport, but it is home to multiple private and corporate aircraft operators. The airport is situated in the center of the Chandler Airpark, an area designated for development of land uses that are compatible with airport operations. Subsequently, the Chandler Airpark Area Plan (CAAP) was initially adopted in 1998 to guide development in and around the Chandler Municipal Airport, with the goals of protecting the airport environment with appropriate land uses and providing a plan for economic development. The City of Chandler later adopted (March 2002) the Chandler General Plan which updated its land use plan. In this plan, Chandler Municipal Airport and the Chandler Airpark are identified and have the appropriate land use zoning adjacent to both entities.

## Study Analysis:

The Study Area for this report includes the Chandler Airpark and areas immediately adjacent to its borders, with specific focus on the various land uses along its western edge. The primary study objective is to determine the potential impacts of present and future operations and activities from the Chandler Municipal Airport, on proposed development at the Enclave at Hamilton Ranch.

The analysis gathered information from various Federal and local documents including the Chandler Municipal Airport Master Plan, the updated FAR-150 Noise Abatement and Mitigation Study, Chandlers General Plan, Acoustical Consulting Services Noise Study for the Enclave at Hamilton Ranch, and the Chandler Airpark Area Plan, along with various records and zoning documents from the City, to create a picture of the Airport and Airpark environment. In turn, these documents allowed us to develop a vision of current and future airport operations, and development potential, along with associated impacts, by studying the current activity levels and long range forecasts for aircraft at Chandler Municipal. We also studied projected noise impacts and DNL contours for future years from data contained in the airports noise study, and evaluated airport traffic patterns. General airport development trends as forecast in the Master Plan were compared against current performance, and general land uses, and zoning variances within the Airpark were noted within the body of this report.

Over the course of this study it became apparent that the area west of the railroad tracks has developed differently than the initial intent of the Airpark plan. As circumstances and business demands changed, zoning changes were requested, and approved, to better fit into the current fabric of the surrounding community. Today the area includes a mix of residential uses, commercial and retail, churches, schools and agricultural uses. Our data also indicates that while this area is in proximity to the local airport, forecasts indicate that the proposed development area will not invade the critical 65 DNL noise contours, or present other detrimental development obstacles to the airport, now or in the future. In general terms it appears that the subject development will only receive similar noise impacts from the Chandler Municipal Airport, or even be quieter than many established neighborhoods already surrounding its location.

## Conclusion:

It is prudent for a community to apply appropriate safeguards and other measures against activities that impinge upon the effective operation of its local airport. However, our analysis has revealed that appropriate safeguards are in place, and the proposed development will not be a detriment to present and future operations of the Chandler Municipal Airport. Sufficient regulatory safeguards already exist at both the Federal level, and the local City regulatory and zoning level, that will prevent detrimental intrusions into the Airports operating environment.

Our analysis also reveals that the location of the proposed *Enclave at Hamilton Ranch* development will not be subject to unreasonable safety, noise, and overflight impacts from current or projected future airport operations. Data from a number of recent sources and studies indicate that such impacts will be similar, or less than other surrounding neighborhoods.

## Chandler Airpark – Influence Area Analysis

### I. INTRODUCTION

This report will provide an analysis that explores the specific potential for impacts from aviation over flights, surrounding land uses, and other activities, if the subject parcel is developed as proposed. A Situational Analysis of existing conditions around the Chandler Municipal Airport and Airpark will be provided, in addition to historical development, current land use, and zoning for properties on and in the immediate vicinity of these areas. The Chandler Municipal Airports Federal Aviation Regulations (FAR) 150 Study will also be referenced, and the latest information pertaining to the airports traffic patterns, noise contours, and neighborhood noise complaints analyzed.

The Genesis Consulting Group, LLC has prepared this study with the intent of providing a legitimate picture of current and potential future impacts from the airport and airpark proposed development.

### II. QUALIFICATIONS OF THE GENESIS CONSULTING GROUP, LLC

The Principals of the Genesis Consulting Group, LLC are long established aviation professionals with more than 50 years of combined experience with commercial and General Aviation airports, airlines, and aviation consulting companies across the country. Genesis is a Disadvantaged Business Enterprise (DBE) company specializing in Airport Operations and Planning Programs, Public Involvement, Airport Development and Project Management Services.

Mary Ortega-Itsell is the Principal and owner of the Genesis Consulting Group, with over 25 years of senior level aviation experience in the development, planning, design, and construction of complex aviation programs in both the public and private sectors. As a Program Manager at Sky Harbor International Airport, she provided senior level expertise in the delivery of a diverse array of capital planning and development programs, including oversight of the Noise Abatement Program. She also provided the expertise necessary to successfully manage Airport-wide Redevelopment Capital Projects, providing consistent leadership for the organization and implementation of project management processes and procedures.

Richard Crosman is the Senior Vice President of the Genesis Consulting Group, and an expert in specialized airport management, operations, and consulting disciplines with strong emphasis on Aviation Planning, Federal Regulatory Requirements, Airside/Landside Improvements, NAVAID's, and Flight Procedures. His career involvements include major milestones such as planning, development, and program management for two new commercial service airports, plus major planning, management, and operational responsibilities for such large-scale projects as the Boston-Logan 2000 Terminal Area Projects program, and he was the Program Manager for the construction and commissioning of the new St. George Municipal Airport, commissioned in 2011. On behalf of Genesis, Richard applies his leadership and expertise to all levels of Airport Master Planning, Business and Strategic Planning, Needs Assessments, Environmental Oversight, and Federal Regulatory Requirements.

### III. SITUATIONAL ANALYSIS

#### *Off Site Development – Greater Influence Areas Adjacent to Chandler Airpark*

The “Off Site” development areas occur in all quadrants around the Chandler Airpark, as indicated in Figure No. 1 below. These areas are important to this study because they represent what might be called the Greater Influence Area from activities that occur both from the Chandler Municipal Airport and the Chandler Airpark.

On the north side of the Airpark’s boundary along Pecos Road, the land use is largely dominated by established residential areas consisting primarily of single family homes. These areas are interlaced with occasional commercial and industrial land uses that become more predominant immediately adjacent to the State Route 202 loop that passes through the north side of the Airpark.

The West boundary of the Airpark runs along Highway 87, or Arizona Avenue, and Queen Creek Road, and consists primarily of small to medium residential units, churches and schools, with occasional commercial/retail development, a trailer park, and several sections of agricultural land. It is worthy of note that large sections of residential development exist literally “across the street” (Arizona Avenue, and Queen Creek Road) from the proposed *Enclave at Hamilton Ranch* development.

The Southern boundary of the Airpark runs along Ocotillo Road, and is heavily residential supporting large numbers of single family homes, and smaller amounts of agricultural land.

Land use along the Eastern edge of the Airpark along S. Gilbert Road continues to be a mix of residential use, interlaced with open agricultural land, and commercial development. The northeast approach and departure paths to the Chandler Municipal Airport presently track over what is mostly commercial retail development, and agricultural lands.



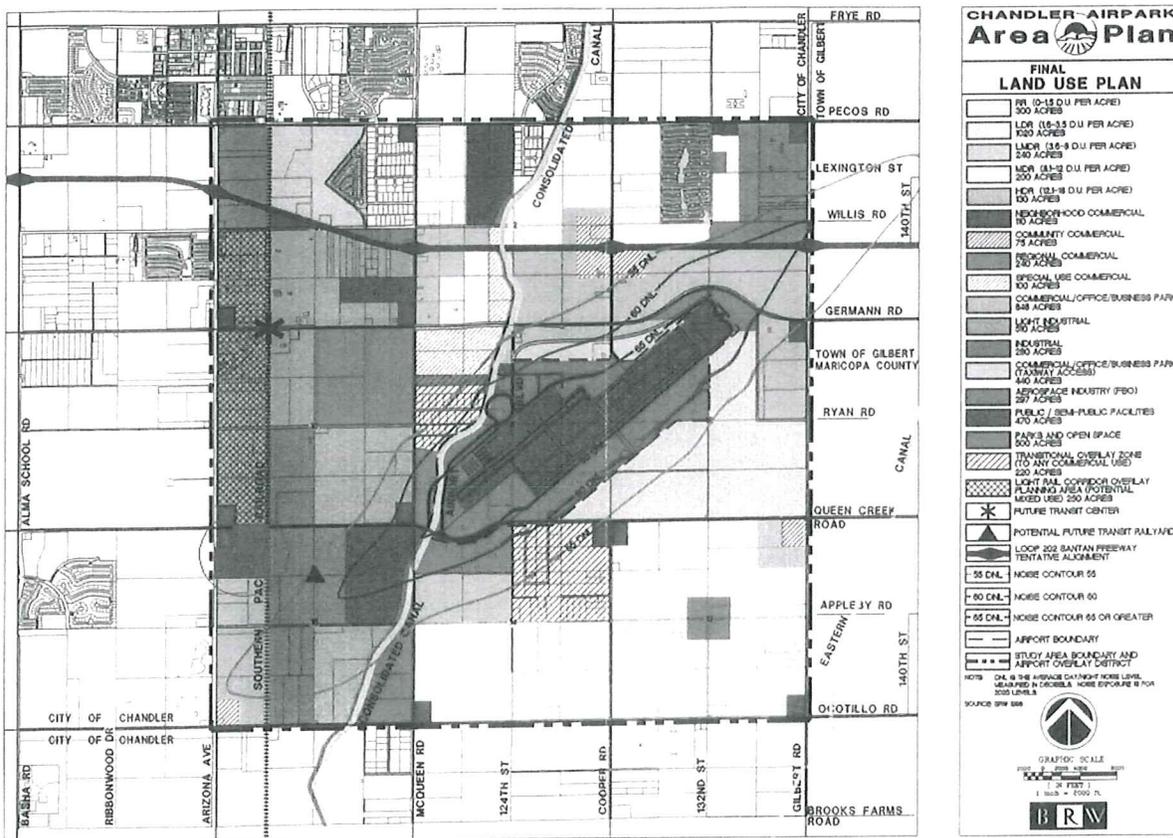
Figure No. 1  
Greater Chandler Airpark Influence Area

**On Site Development – Chandler Airpark including Chandler Municipal Airport**

**Chandler Airpark**

The Chandler Airpark Area encompasses an area of nine (9) square miles surrounding the Chandler Municipal Airport, and is located approximately 15 miles southeast of downtown Phoenix. The Airpark Area is bounded on the north by Pecos Road, on the south by Ocotillo Road, on the west by Arizona Avenue, and on the east by Gilbert Road, within the City of Chandler.

Land uses within the Airpark include a variety of Industrial, Commercial and Residential uses, including activity by the Southern Pacific Railroad. The Southern Pacific Railroad Corridor runs north and south through the Airpark area approximately one quarter mile to the east of Arizona Avenue. The rail line is a spur line and **is only in occasional use as a freight-way for agricultural products grown and harvested to the south of the Airpark area, and very limited service to industrial producers within the Airpark.** Current indications are that train traffic on this spur **only runs about three times a week**, offering little impact to adjacent properties within the Airpark.



**Figure No. 2  
Chandler Airpark Area Plan**

The Airpark area also contains a number of different intermodal transportation links including the Paseo System comprised of pedestrian and bicycle trails, the San Tan Freeway, roadways of regional significance, and a spur of the Southern Pacific Railroad, along with the Chandler Municipal Airport. The

Airport serves as the centerpiece of the Airpark Area providing recreational and private air services to the local area. The Airport consists of a double runway, located on approximately 480 acres, and provides service to smaller reciprocating and turboprop engine aircraft, along with the rare corporate jet.

### ***Chandler Municipal Airport***

#### *Location*

The Phoenix metropolitan area encompasses approximately 23 cities and towns. The Metro area elevation is approximately 1,117 feet and is located in the heart of the Sonoran Desert and extends from Scottsdale in the northeast, to Glendale and numerous expanding towns in the west.

Chandler Municipal Airport is one of the airports that serve the southeastern side of the Phoenix metropolitan areas general aviation population. As shown in Figure 3, Chandler Municipal Airport is located approximately 20 miles southeast of downtown Phoenix in Maricopa County. The Airport is located within the City of Chandler's corporate limits. Airport property is bounded by several roadways. The general boundaries of the Airport site are as follows:

- North Boundary – East Germann Road
- South Boundary – East Queen Creek Road and South Cooper Road
- East Boundary – South Gilbert Road
- West Boundary – South McQueen Road and Airport Boulevard

#### *Historic and Future Airport Operations*

The Chandler Municipal Airport was opened in 1948, and originally consisted of a single runway (Runway 18/36). Beginning in 1960 the City began construction of new runways with a northeast-southwest orientation. Today Chandler Municipal is currently served by parallel runways, Runway 4R/22L and Runway 4L/22R, 4,870 feet in length and 4,401 feet in length, respectively. .

The Chandler Municipal Airport has enjoyed vigorous growth for many years, and is currently one of the major General Aviation facilities of the greater Phoenix area. It is also designated as a reliever facility for the Phoenix Sky Harbor International Airport.

The last Airport Master Plan indicated that the Chandler Municipal Airport was home to 457 based aircraft and approximately 235,111 annual operations in 2005. Those numbers were forecast to increase to 581 based aircraft, and approximately 306,900 annual operations by 2015.

***Important Note:*** Since the general economic downturn of 2008 began a series of economic events have resulted in slower growth for Chandler Municipal than was forecast. Based aircraft today total 295 compared to the 581 forecasted in 2005, or approximately 46% of the forecast number. Annual operations today are approximately 215,183 as compared to the forecast number of 306,900, or approximately 70% of the originally forecast number.

While Chandler Municipal Airport is still a busy facility, its' development appears to have slowed substantially from the relative boom years prior to 2008.

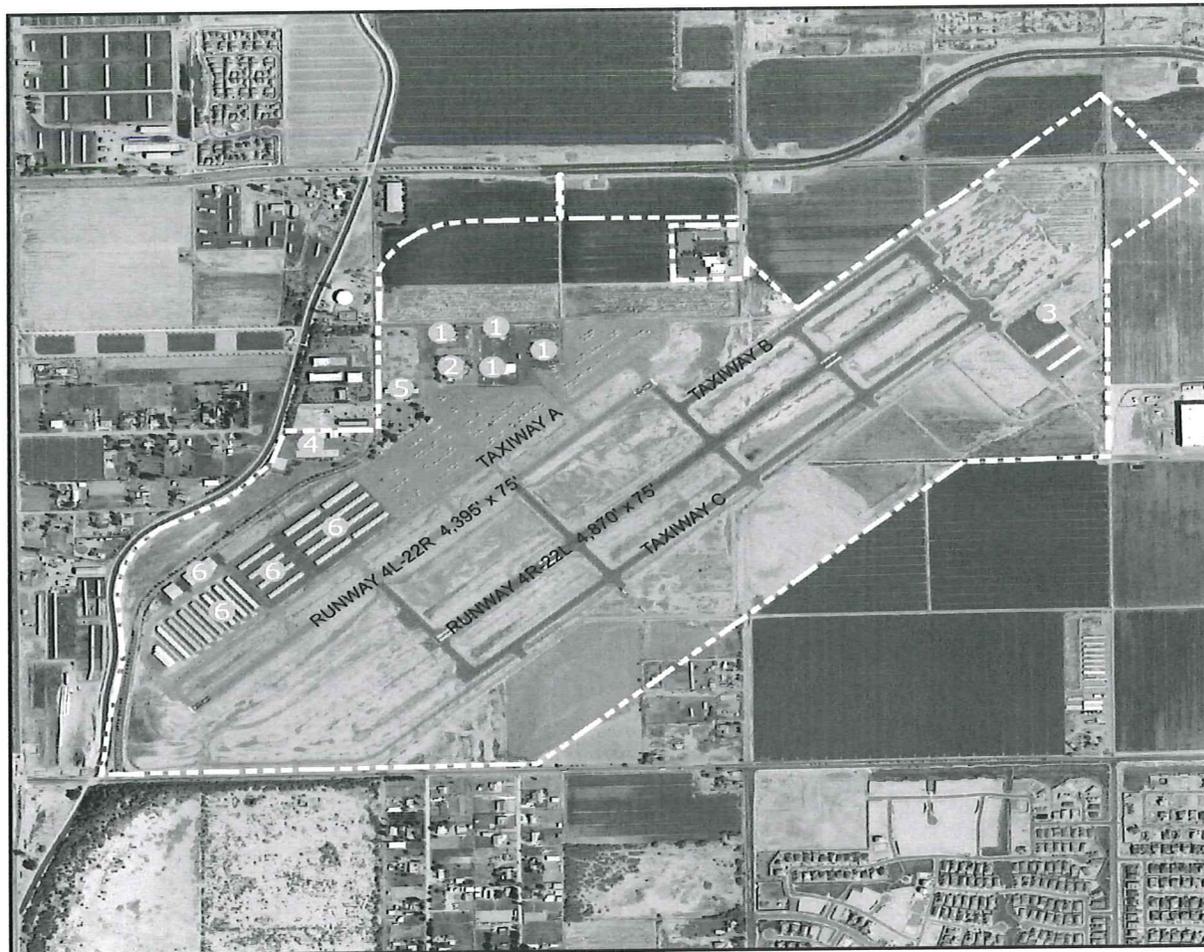


Figure No. 3  
Chandler Municipal Airport

*Airport Traffic Pattern and Procedures*

The approach, departure, and taxiing of aircraft on the parallel runway system and taxiways at Chandler Municipal is managed by the Airport's Air Traffic Control Tower (ATCT). Runway usage is determined based on the weather conditions at the Airport, including wind direction and speed, and the amount of aviation activity occurring at the Airport at any given time. When conditions and activity levels allow, Airport users are typically directed to use the closest runway environment to minimize taxiing requirements which during calm winds and ideal conditions is Runway 4L/22R.

As a result of prevailing winds and atmospheric conditions at the Airport, on an average annual basis, the majority of aircraft operations occur to the northeast, with approaches to and departures from Runway 4R and Runway 4L. The remaining annual activity operates in a southwesterly flow with approaches to and departures from Runway 22R and Runway 22L.

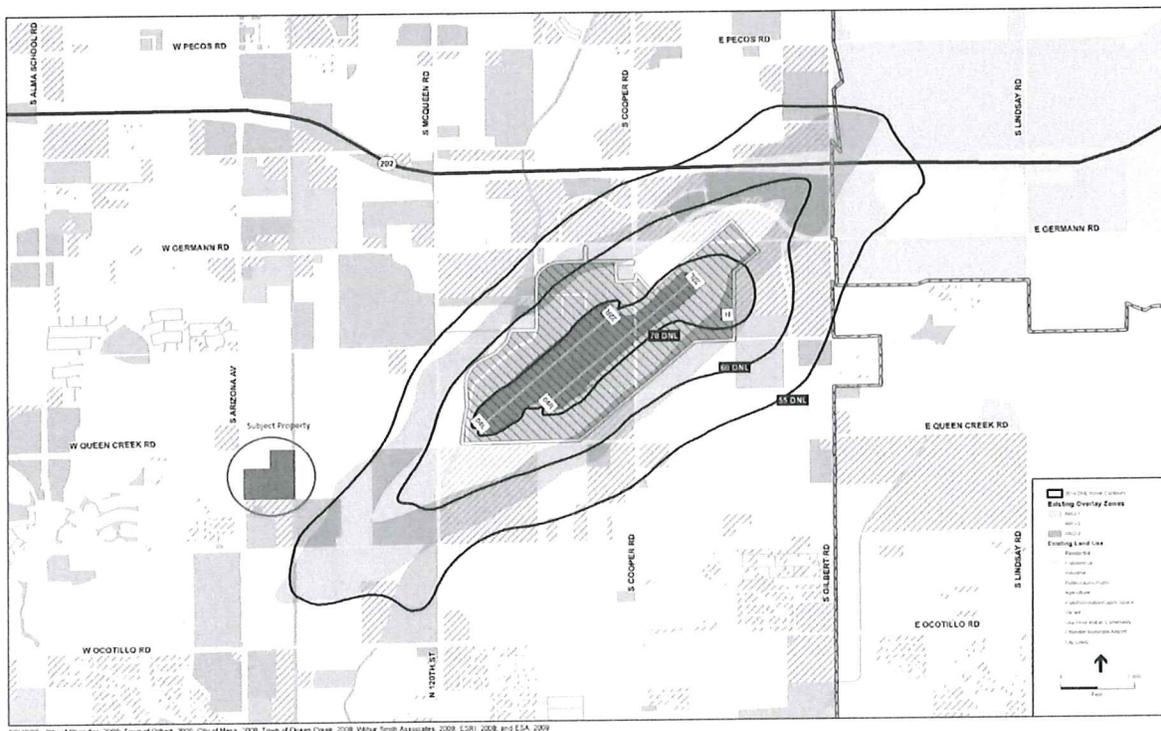
The centerlines of the parallel runways at Chandler Municipal Airport are separated by approximately 1,750 feet. There are no adverse effects to aircraft operating simultaneously due to the separation between Runways 4R/22L and 4L/22R during visual flight rules (VFR).

In VFR conditions, periods when there is at least 1,000 foot cloud base and 3 miles visibility, general aviation traffic is typically assigned to Runway 4L/22R. Runway 4R/22L is also used to accommodate general aviation activity during peak periods of activity.

During periods of instrument flight rule (IFR) conditions, those periods when weather conditions do not meet VFR requirements, arriving IFR aircraft use Non Directional Beacon (NDB), Visual Omni Range (VOR) or Global Positioning Service (GPS) approaches to Runway 4R.

*Federal Aviation Regulation (FAR) Part 150 Noise Compatibility Study*

The Airport conducted a FAR Part 150 Noise Compatibility Study (Part 150 Study) that was updated in 2010. The objective of the noise compatibility planning process was to improve the compatibility between aircraft operations and noise-sensitive land uses in the area, while allowing the Airport to continue to serve its role in the community, State, and Nation. The Part 150 Study included measures to abate aircraft noise, control land development, mitigate the impact of noise on non-compatible land uses, and implement and update the program. Many of the recommendations from the Part 150 Study were related to the noise generated by helicopters operating at the Airport and relocating the heliport. Where possible, this and other Part 150 Study recommendations were implemented over the last several years.

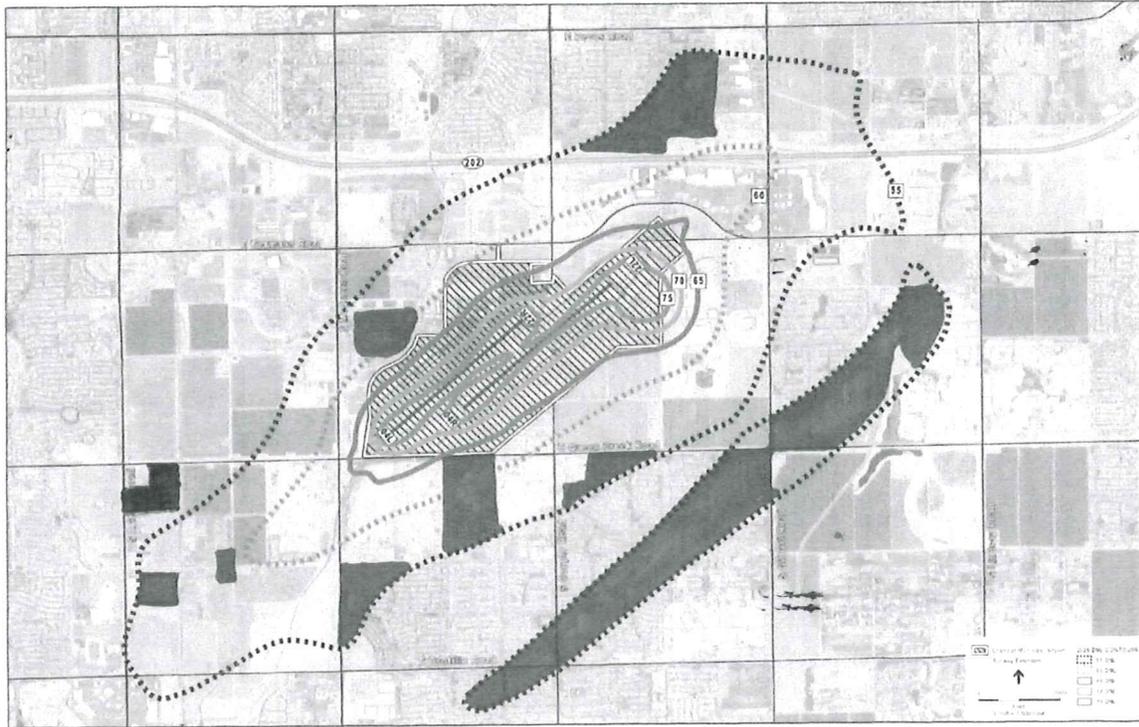


**Figure No. 4**  
**Chandler Municipal Airport 2014 Noise Contours**

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### Airport Overlay Zone

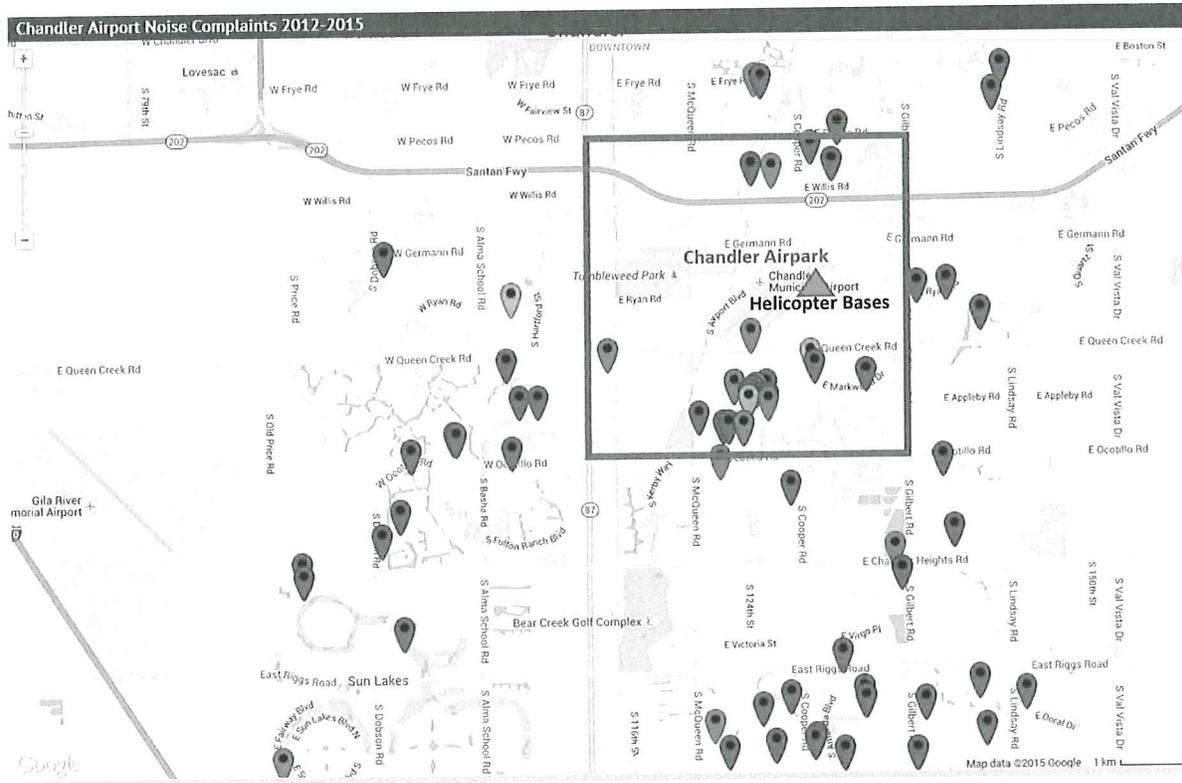
Information drawn from the 2010 Chandler Municipal Airport FAR-150 Noise Study indicates that the proposed development does not fall within the critical 65 DNL contours either currently, (Figure No. 4 - 2014 Noise Contour Map), or in the future (Figure No. 5 - 2028 Noise Contour Map)



**Figure No. 5**  
**Chandler Municipal Airport 2028 Noise Contours**  
**Airport Overlay Zone**

Since the FAR 150 Noise Compatibility Study was completed, many of the Airports helicopter operations have been shifted to the north east portion of the airfield. These activities apparently still result in occasional noise complaints from areas located south and east of the field as lower level approach and departure helicopter traffic still must transition over or near residential areas located in those areas. Many of those areas are actually located under the 55 DNL and 60 DNL contours of the airport.

Since the completion of the Chandler Municipal Airports FAR-150 Study, noise complaints have been tracked and their location in relation to the airport plotted on area maps. One example is shown in Figure No. 6 below. The red square indicates the boundary of the Chandler Airpark, and the purple arrow indicates the location of the proposed development of *Enclave at Hamilton Ranch*. The general location of the helicopter staging area on the airport is indicated by the orange triangle. All other arrows indicate the location of noise complaints from 2012 to 2015.



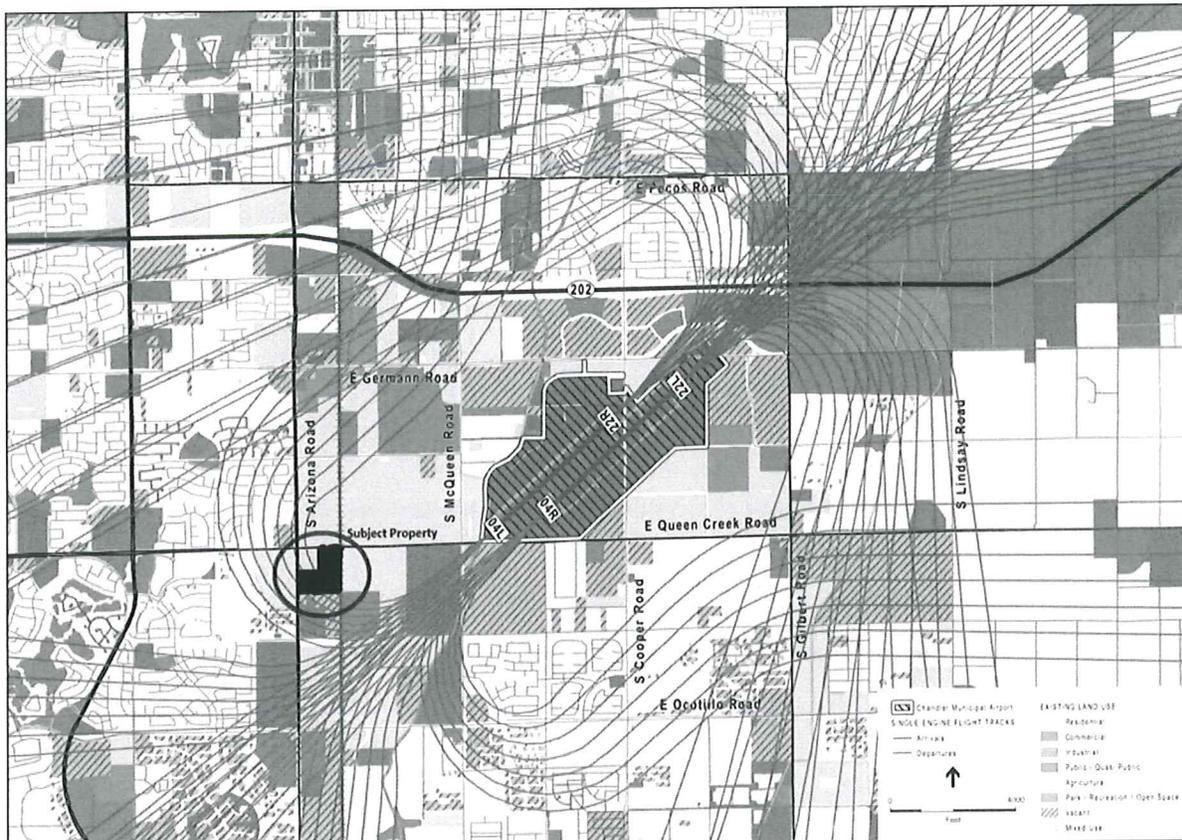
**Figure No. 6**  
**Chandler Municipal Airport Noise Complaints Plot**

A large number of the noise complaints are concentrated in an area immediately south of the approach end of the airports runways, and again further south over “large lot” residential areas located in the County. This is likely due to a combination of low level helicopter traffic, and inbound fixed wing traffic headed for the south end of the airports runways, and the helicopter staging areas.

A lesser number of complaints appear to be centered along a line from the south end of the airports runways and running southwest towards Interstate 10 over residential areas. Areas immediately west and northwest of the Airport appear to have received the fewest complaints.

***For a facility of the size and complexity as the Chandler Municipal Airport the number of noise complaints seems reasonably minor compared to similar facilities, and their noise program appears well managed.***

Most of the noise complaints are consistent with the current flight tracts for aircraft utilizing Chandler Municipal Airport as shown in Figure No. 7 below.



SOURCE: City of Chandler, 2008; Town of Gilbert, 2008; City of Mesa, 2008; Town of Queen Creek, 2008; Wilbur Smith Associates, 2008; ES&R, 2008; and ESA Airports, 2008

**Figure No. 7**  
**Current Flight Tracks**  
**Chandler Municipal Airport**

**Important Note:** When examining the area’s most likely to be affected by overflight and associated noise impacts it is important to keep in mind that the subject property, the proposed *Enclave at Hamilton Ranch* is located on the Arizona Avenue corridor of the Chandler Airpark, and is located **outside** of the 55 DNL, both now, and for the projected future.

Overflights of the subject property do occur as it is located under a portion of the Airports traffic pattern (Figure No. 7) However; the frequency of such over flights is consistent with other neighborhoods in the immediate vicinity, and land uses surrounding the Airpark. **Additionally, the majority of the traffic utilizing the south western end of the runways is “approach traffic” and generally produces fewer noise impacts than the departure end of a runway.**

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#### IV. HISTORIC DEVELOPMENT AND CURRENT LAND USE

##### *Current Area Land Use Patterns and Zoning*

The City of Chandler has adopted a specific zoning district, AP-1-Airport District, to regulate the development of land owned or leased by the City of Chandler as well as height restrictions as they apply to FAA Part 77 requirements. These regulations specify allowed uses or uses that can be considered under a Use Permit process to verify compatibility with the Airport. Additionally, these regulations specify development standards in the interest of the safety and compatibility with airport operations and to ensure the development quality of a public land use.

Current land uses of lands south of Queen Creek and east of McQueen Road primarily include industrial/support uses, transitional/mixed uses, and commercial uses along the immediate borders of the Airport's property. Residential areas are located primarily to the south and east of the Airport and immediately adjacent to the Airparks boundary along Arizona Avenue, and areas west.

In November 1998, the City of Chandler adopted the Chandler Airpark Area Plan. This plan was developed to guide future development in and around the airport area. The airpark area encompasses approximately nine square miles surrounding the Airport. The goal of plan is to protect the Chandler Municipal Airport from residential encroachment and economic development within the area. The City of Chandler later adopted (March 2002) the Chandler General Plan which updated its land use plan. In this plan, Chandler Municipal Airport and the Chandler Airpark are identified and have the appropriate land use zoning adjacent to both entities. The surrounding areas serve as a "buffer" to the residential areas located to the north and southeast. It should be noted that the Airpark Area Plan follows the overall goals and policies of the General Plan and is compatible with surrounding uses which are planned.

Arizona has several statutes in place that were developed to reflect the importance of addressing airport noise. The first, Airport Influence Area (ARS: 28-8485), was implemented in 1997. At this same time, to encourage the preservation of military airports in Arizona, Military Airport Registry was also implemented (ARS: 28-8483 and 28-8484), which was later amended to Military Airport Disclosure. The Public Airport Disclosure (ARS: 28-8486) was implemented in 2000.

The Airport Influence Area statute allows the development of an airport influence area to serve as a notification that properties are located in the vicinity of an airport that may be impacted by noise levels or aircraft overflights. If an airport influence area is established, a record must be filed in each county that contains property in the area such that notification of homeowners within the area occurs. The airport influence area is not restricted in size to noise contours, but can be established to address issues such as overflights from training or significant activity levels that occur as a result of aircraft operating patterns. At this time Chandler Municipal Airport has not adopted this statute.

The City of Chandler has however adopted an Airport Impact Overlay District that encompasses the nine square miles covered by the Airpark Area Plan. This zoning district is marked on the City's zoning maps as an overlay zoning district establishing rules and regulations in addition to any other rules and regulations otherwise established by a property's zoning district. The zoning district's purpose is to establish four airport overlay areas to distinguish between the severity of the levels of noise impact and accident potential so that appropriate uses and acoustical performance standards can be established to mitigate the adverse impacts of aircraft noise, and hazards to protect the public's health, safety, and

welfare. Further, prior to the issuance of any building or development permit for property within the Airport Impact Overlay District, the City requires the recordation of an aviation easement and release from liability for airport related damage claims.

The Public Airport Disclosure statute requires that the public airports work with the Arizona Department of Real Estate to develop a map “showing the exterior boundaries of each territory in the vicinity of a public airport.” The territory is defined as property that is within the traffic pattern airspace, including property that is within a certain DNL, determined based on county population. For counties with a population of less than 500,000, 65 DNL is the standard; for counties with more than 500,000 in population such as Maricopa County, 60 DNL is the standard. It is important to note that the FAA uses 65 DNL as its basis for determining incompatible land use compared to the State’s use of 60 DNL for large counties such as Maricopa. The map is then recorded with the applicable county recorder(s) and made available to the public – there is no requirement for distribution. Chandler Municipal Airport currently has a disclosure map on file with the Arizona Department of Real Estate.



**Figure No. 8**  
**Chandler Airpark and Chandler Municipal Airport Overview**  
**Proposed Enclave at Hamilton Ranch Circled on Left**

### *West Side Airpark Development*

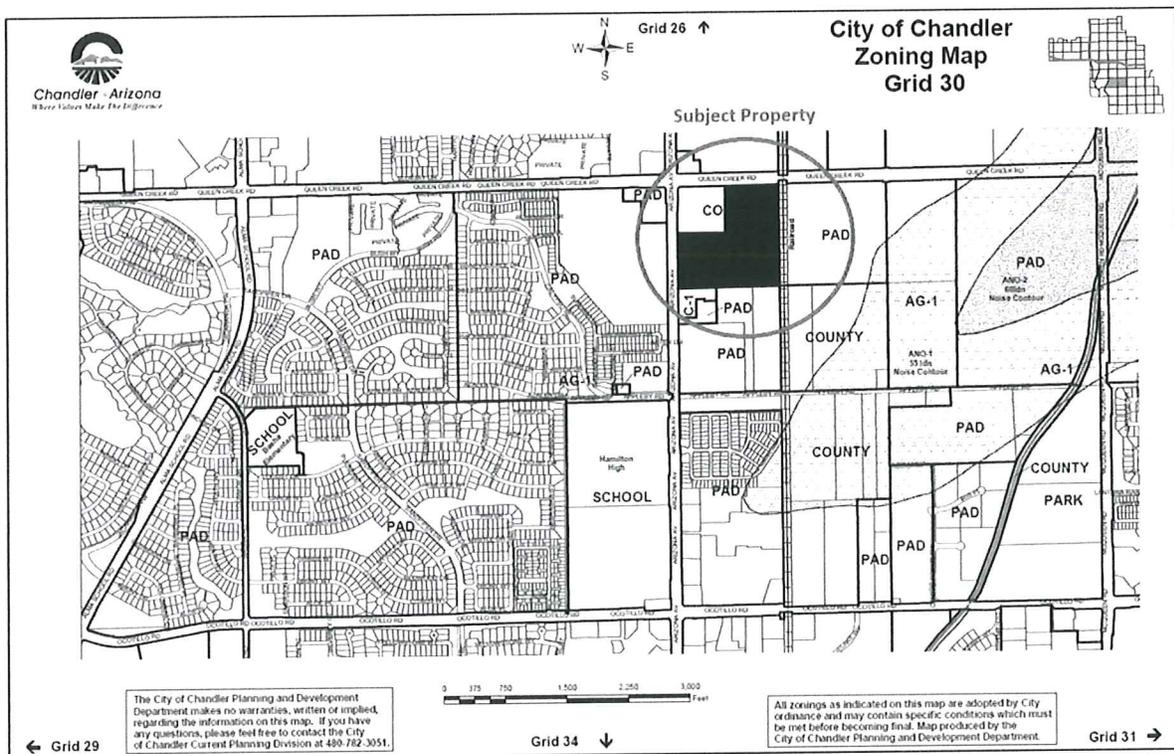
The Chandler Airpark was initially developed in and around the Chandler Municipal Airport with the stated goals of protecting the airport environment with appropriate land uses and providing a plan for economic development. The Study Area for this report includes the Chandler Airpark and immediately adjacent areas around its borders with specific emphasis on the multiple development and land uses along its west side adjacent to Arizona Avenue, including the proposed EnClave at Hamilton Ranch.

This “Arizona Avenue Corridor” located west of the Union Pacific rail line spur is today comprised of multiple land uses that include zoning for apartments, residential housing, office space development,

churches, commercial retail, industrial, and agricultural. This "Arizona Avenue Corridor" is a mix of uses, that does in large part reflect and interact with the development and land uses that occur directly across the street (Arizona Avenue, and Queen Creek Road) along the Airparks border.

All of the land uses currently shown comply with the Airparks regulations designed to protect the Chandler Municipal Airport from encroachments that might diminish its effectiveness. These include compliance with FAR Part 77 requirements that protect the Airports approaches and transitional surfaces. This is accomplished through the City's zoning regulations which include the filing of an FAA Form 7460, or "Notice of Construction" for evaluation and approval by the FAA prior to any new development. Additionally, while some historical development such as residential, churches, and schools would not be sanctioned within the 65 DNL or higher noise contours of the Airport, none of this Arizona Avenue corridor development falls under the 65 DNL, or even the 55 DNL noise contours.

The Figure shown below is from current City of Chandler Zoning Maps, and depicts the *Enclave at Hamilton Ranch* (Subject Property) location in relation to the Chandler Airports 55 DNL and 60 DNL noise contours, along with surrounding zoning designations:

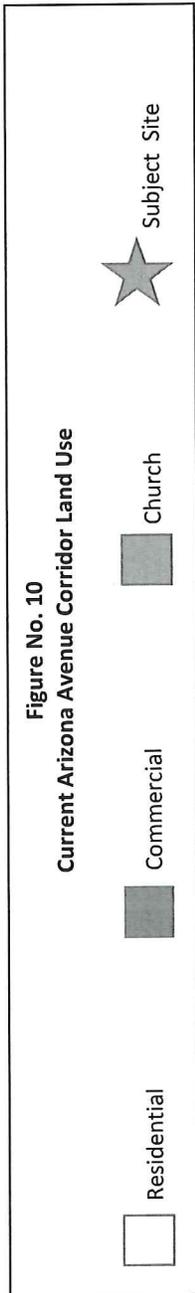


**Figure No. 9**  
**City of Chandler Zoning Map**  
**Includes Southwest Portion of Chandler Airport and Subject Property**

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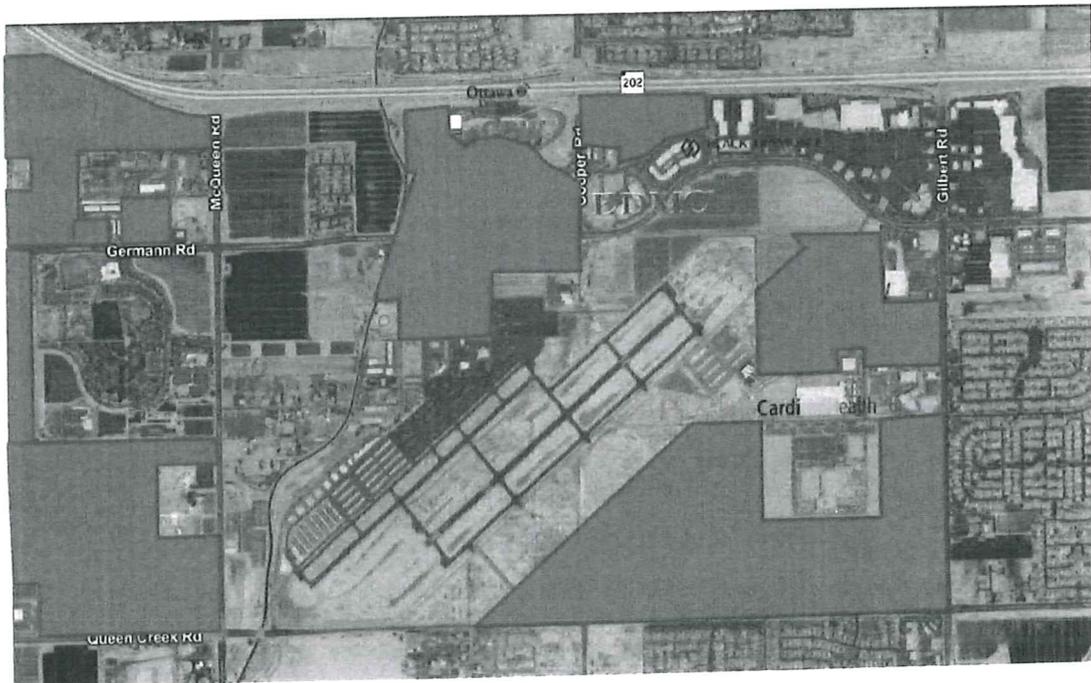
**Figure No. 10**  
**Current Arizona Avenue Corridor Land Use**



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As indicated in the previous Figure No. 10, current land uses surrounding the Arizona Avenue Corridor of the Airpark are comprised of existing residential, including apartments and single family homes, commercial/retail development, churches, schools, employment/office space, and agricultural. The majority of the land uses located on the western edge of the Airpark mirror the development literally across the street (Arizona Avenue) outside of the Airpark.

The existing commercial inventory for the corridor from the Highway 202 freeway down to Riggs Road contains 1.7 million square feet of built commercial. These are large power centers anchored by “Big Box” tenants such as Sam’s Club, Lowes, Target, etc. Many other parcels are still vacant but have approved commercial zoning of about 500,000 square feet that lie in the city and the county in the same corridor.



**Figure No. 11**  
**Employment Land Around Chandler Municipal Airport**

The industrial and open agricultural land uses identified in Figure No. 11 are most compatible and/or beneficial to airport operations occur to the east of the Southern Pacific Railroad tracks. Figure No. 12 below provides a closer aerial view of the proposed *Enclave at Hamilton Ranch* development, and surrounding land uses. Property immediately to the north of this proposed development is currently being developed for KB Homes, and Archstone Apartments, and property immediately to the south hosts a veterinary clinic, the First Baptist Church, and single family residential development.



**Figure No. 12**  
**Proposed Development Site for Enclave at Hamilton Ranch**

## V. DISCUSSION

### Issue 1 – Will the proposed development conflict with existing or planned airport uses?

No. The proposed project, Enclave at Hamilton Ranch does not encroach on the airport in any fashion. The City of Chandler's zoning ordinance allows residential property to be built within the 55 DNL and in some cases of the 60 DNL areas. The proposed development area of the *Enclave at Hamilton Ranch* is clearly located outside all of the current noise contours generated by the Airport including the 55 DNL. Additionally, the location of the proposed development, and proposed heights of its residential structures will not penetrate any of the Airport's critical imaginary surfaces, such as the approach surface, or the transitional side slopes. This is guaranteed by the City requirement to file an FAA 7460 form for new construction.

### Issue 2 – What are the impacts of noise caused by aircraft overflights to the area?

It is highly unlikely that this new development will generate additional noise complaints. Noise impacts outside of the critical DNL contours caused by aircraft overflights may continue to generate some complaints in surrounding neighborhoods simply due to the frequency and "perceived" noise of the overflight. However, such overflights already occur over all quadrants around the Airport, both on and off the Chandler Airpark, and well into surrounding residential areas. The number of complaints today seems to be relatively low for an airport with operational levels the size and scale of Chandler Municipal Airport, and if the proposed development was 100 feet to the west on the opposite side of Arizona Avenue, this development would already be considered appropriate. A review of the noise complaints received by the City from 2012-2015 to identify where the complaints were coming from indicated that most have not been from the area of the proposed project, but from the areas affected by the helicopter pattern to the south and west.

Additionally, the City of Chandler has adopted an Airport Impact Overlay District that encompasses the nine square miles covered by the Airpark Area Plan. This zoning district is marked on the City's zoning maps as an overlay zoning district establishing rules and regulations in addition to any other rules and regulations otherwise established by a property's zoning district. The zoning district's purpose is to establish four airport overlay areas to distinguish between the severity of the levels of noise impact and accident potential so that appropriate uses and acoustical performance standards can be established to mitigate the adverse impacts of aircraft noise, and hazards to protect the public's health, safety, and welfare. Further, prior to the issuance of any building or development permit for property within the Airport Impact Overlay District, the City requires the recordation of an avigation easement and release from liability for airport related damage claims. Additionally, data from recent sources and studies indicate that potential noise or overflight impacts from the Chandler Municipal Airport will be similar, or less than other surrounding neighborhoods.

The conclusion to be drawn from this analysis is that the development of the *Enclave at Hamilton Ranch* will not have a negative bearing on the operations of the Chandler Municipal Airport. It is not located in an especially noise sensitive area, and is outside of the 55 DNL, its development and related construction activities will not penetrate critical imaginary surfaces of the Airport, present an obstruction to its operations, or otherwise inhibit in any way the day to day air and ground functions of that facility.

### **Issue 3 – Will the proposed development limit expansion of the Chandler Airport in the future?**

No. Even if the Airport chooses to expand in the future, this new development will not be a problem. It is recognized that the Chandler Municipal Airport has not yet achieved its full potential. Additional capacity still exists for more based aircraft and more flight operations. However, while it is acknowledged that the Airport is still growing, it should be noted that its present growth rate is substantially less than was forecast in its last Airport Master Plan. Baring a substantial change in the airports mission, the airports operational impacts should not increase substantially beyond what has already been addressed in the Airport Master Plan and FAR – 150 studies.

It is unlikely that the Airport will need to expand beyond its current boundaries. Its dual runway system and accompanying infrastructure already contain sufficient capacity to handle existing and projected future traffic. Recent bids to extend runway lengths have been defeated twice by public action, and it seems equally unlikely that this issue will arise again in the future.

Additionally, the City of Chandler has enacted an Airport Impact Overlay District that encompasses the nine square miles covered by the Airpark Area Plan. In association with the City of Chandler zoning regulations this Overlay District poses additional requirements consistent with FAA-7460 requirements and other regulations specifically tailored to prevent conflicts with operating airports.

It is important to note that the location of the proposed *Enclave at Hamilton Ranch* is located directly west of the Airport, is not located on any runway centerlines, is not within any critical noise contours, and the proposed development poses no threat to the airports critical surfaces or approach areas. As proposed, the *Enclave at Hamilton Ranch* will not limit expansion of the Chandler Airport or its associated uses in the future.

## VI. CONCLUSION

After performing a detailed assessment of the activities and development in the Chandler Airpark area, it is our professional opinion that the proposed development will not be a detriment to present and future operations of the Chandler Municipal Airport. The analysis shows that sufficient regulatory safeguards are in place to prevent detrimental intrusions into the Airports operating environment, and that the location of the proposed *Enclave at Hamilton Ranch* development will not be subject to unreasonable safety, noise, and overflight impacts from current or projected future airport operations.

2015

Enclave at Hamilton Ranch  
Office Market Analysis

Applicant's office  
market analysis  
— (CMA) —  
18 total sheets with cover  
page and

**Enclave at Hamilton Ranch**  
**Chandler, Arizona**  
**Office Market Analysis**

PREPARED BY:  
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November 2015

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## EXECUTIVE SUMMARY

The purpose of this study is to provide a market analysis for The Enclave at Hamilton Ranch that addresses the potential demand for office space within the City of Chandler, and discuss the desirability of The Enclave location for office or industrial use. The Enclave is located southeast of South Arizona Avenue and Queen Creek Road. It is included within the Airport Area Master Plan, which was prepared 17 years ago, and as such is planned for commercial/office/business park or mixed use development. However, there are a number of compelling reasons why this location is not suitable for office or industrial development.

- Since the approval of the Airport Master Plan there have been two major transportation facilities constructed within the City of Chandler: The Price Freeway (Loop 101) in 2001 and San Tan Freeway (Loop 202) in 2006. Developers and end users have opted to locate their office projects within these highly visible and accessible corridors.
- The Enclave is located two miles from the San Tan Freeway, and will be challenged in trying to compete for office uses due to its lack of visibility and accessibility to the San Tan Freeway, as well as the absence of business amenities.
- Traffic volumes in proximity to The Enclave are a fraction of those along the two freeway corridors, again indicating the absence of business vitality.
- The City of Chandler has already approved residential land uses on three of the four corners of Queen Creek and South Arizona Avenue intersection. Changes in zoning is reflective of residential market demand for the area.
- The addition of office or industrial uses at this location would disrupt the emerging neighborhoods by generating undesirable traffic and pose a safety concern for school children.
- The First Baptist Church, which is located immediately south of The Enclave, has expressed their support for residential development at this location, and believes that massive commercial or office would be incompatible.
- There is currently 5.8 million square feet of office space that is either under construction or proposed within the City of Chandler, which represents a 34 percent increase to the existing inventory. Given average annual absorption rate of 369,621 square feet, this sheer amount of office space would take nearly 16 years to absorb.
- End users, office developers and corporate site selectors desire locations along the freeway corridors. These locations are magnets drawing major corporations and high technology companies who want superior access to a skilled workforce and highly desirable business amenities, such as retail, restaurants and services.
- There are only a handful of office developers in the metro area who have the track record and financial wherewithal to develop a 28 acre Class A office site, and none have expressed interest in The Enclave location. The brokerage community is unwilling to present the Enclave to a client as a potential office site.
- The area surrounding The Enclave is nearly nonexistent of office/service employment. South Arizona Avenue is not a major north-south business arterial in Chandler, and will not attract office users for several reasons including competing office locations that are far superior, the area's lack of business amenities and its distance from the existing freeway corridors.

- Based on the market demand analysis, there is net marginal demand for 1.9 million square feet of office space today. With the addition of 5.2 million square feet of planned/entitled space, this net marginal demand will be absorbed leaving a surplus or oversupply of 3.2 million square feet of office space.
- Future competition for office space within the southeast valley will accelerate as Mesa and Gilbert attract office developers and users to their employment centers such as the Fiesta District, Elliot Road Technology Corridor, Phoenix-Mesa Gateway Airport, and the San Tan Freeway corridor.

Office employment growth is the key driver that stimulates the demand for office space. Over the last 10 years office jobs increased by 3 percent in Maricopa County. MAG projects that Chandler will experience robust office job growth in 2020, but this job growth begins to taper off in future decades. Any disturbances in the economy could alter this trajectory and result in an increase in office vacancies and a reduction in the absorption of space.

The addition of office or industrial space at this location would be a disruption to the emerging neighborhoods and have a detrimental impact on the area by generating commercial traffic and posing safety concerns for children on their way to school.

Given the substantial presence of existing and proposed office developments in Chandler, combined with The Enclave's lack of proximity to major freeway corridors and business amenities, and including the economic development competition within the southeast valley, it is the opinion of the author that the best land use for the Enclave at Hamilton Ranch is residential.

## 1. PROJECT OVERVIEW

The objective of this report is to provide a market analysis for The Enclave at Hamilton Ranch that addresses the demand for office space within the City of Chandler and the likelihood of The Enclave location for office uses. The Enclave is a 28 acre site located southeast of South Arizona Avenue and Queen Creek Road in Chandler, Arizona. The site is presently zoned commercial/office business park. Based on The Enclave's location, its surrounding land uses, as well as existing and proposed office space available within the region, the property owner would like to rezone the site to residential.

This study will address the demand for office, discuss key office and employment concentrations within the City of Chandler, and include an evaluation of historical office absorption and future demand. Finally, a discussion on planned and office under construction is discussed to demonstrate the future pipeline and competition within the marketplace.

In conducting this market analysis, data was gathered from a number of sources including CoStar, CBRE, U.S. Census, City of Chandler, local real estate brokerage firms, and MAG. An examination of office space was conducted over a 10 year time horizon evaluating, occupancy, absorption, construction, and vacancy rates. Additionally, employment growth trends and projections for the City of Chandler and the trade area were analyzed over a similar timeframe.

### Subject Property

The Enclave at Hamilton Ranch consists of 28 acres located southeast of South Arizona Avenue and Queen Creek Road. This parcel is within the Chandler Airpark Area Plan and is situated on the farthest western boundary within that area plan, west of the railroad tracks. According to the Airpark Plan the proposed uses at this location include commercial/office/business park. It also contains a light rail corridor overlay to accommodate mixed use development.

Figure 1 – Subject Property



The Airpark Area Plan was prepared 17 years ago in 1998, and since its approval there have been two major transportation facilities constructed within the City of Chandler: Price Freeway (Loop 101) in 2001 and San Tan Freeway (Loop 202) in 2006. Developers and end users have opted to locate their office projects within these highly visible and accessible corridors. These corridors exhibit robust traffic volumes with Loop 101 between Warner Road and Chandler Boulevard carrying 140,000 to 170,000 vehicles per day (bi-directional), and Loop 202 between Price and Gilbert Roads carrying 90,000 to 117,000 vehicles per day.<sup>1</sup>

By comparison, traffic counts along Arizona Avenue at the Queen Creek Road intersection are between 30,000 and 32,000 vehicles per day and along Queen Creek Road at the Arizona Avenue intersection are between 16,000 and 20,000 per day.<sup>2</sup> Today, Arizona Avenue south of Loop 202 is not the major transportation arterial in Chandler that was envisioned 30 years ago.

### Surrounding Land Uses

The primary land uses surrounding the Enclave to the north, south and west include residential and commercial. Southwest of The Enclave is a 320 unit apartment complex built by PB Bell. North of Queen Creek Road is a 90 unit single family subdivision planned by KB Homes, as well as a 380 unit apartment complex. On the northwest corner of Arizona Avenue and Queen Creek Road, is a commercial parcel with 74,000 square feet of space proposed, and Shea Homes is building condominiums. Located south of The Enclave is an existing residential development, a church and a veterinarian clinic. Finally between Ocotillo Road and Chandler Heights Boulevard on the east side of Arizona Avenue are two residential projects under way; one by Fulton Homes and the other DR Horton.

Figure 2 – Surrounding Land Uses



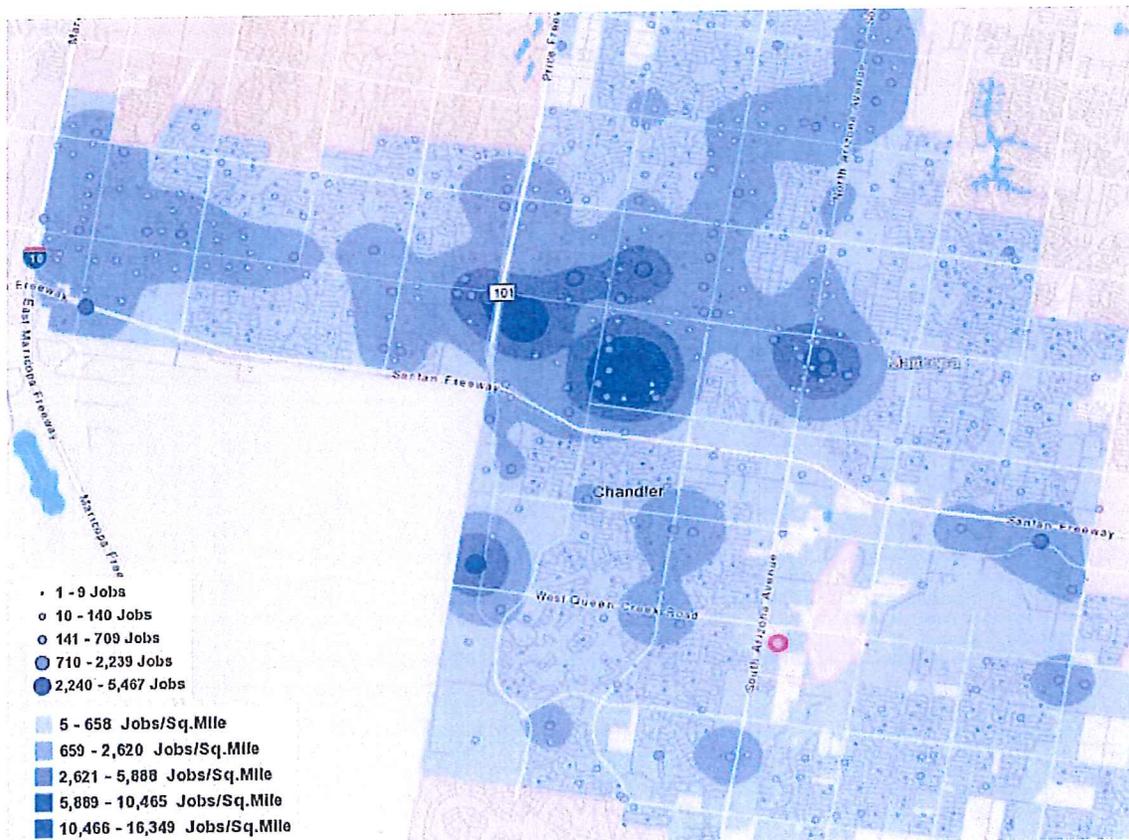
<sup>1</sup> ADOT, "AADT & KDT Report for the Year, 2014."

<sup>2</sup> City of Chandler Segment Traffic Volumes, 2015

## Employment Concentration and Existing Office

The development community has experienced monumental success locating their office development projects along existing freeway corridors. This is where corporate users want their operations located because it provides them with superior access to a skilled workforce and highly desirable business amenities. As can be seen in Figure 3, office and business amenity employment is concentrated along the Loop 101/Price Road Corridor and the San Tan Freeway/Airport areas where existing office development is located. These locations are magnets drawing major corporations and high technology companies. Also seen in Figure 3 is the area surrounding The Enclave, which is nearly nonexistent of office/service employment. South Arizona Avenue is not a major north-south business arterial in Chandler, and will not attract office users for several reasons including competing office locations that are far superior, the area's lack of business amenities and its distance from the existing freeway corridors.

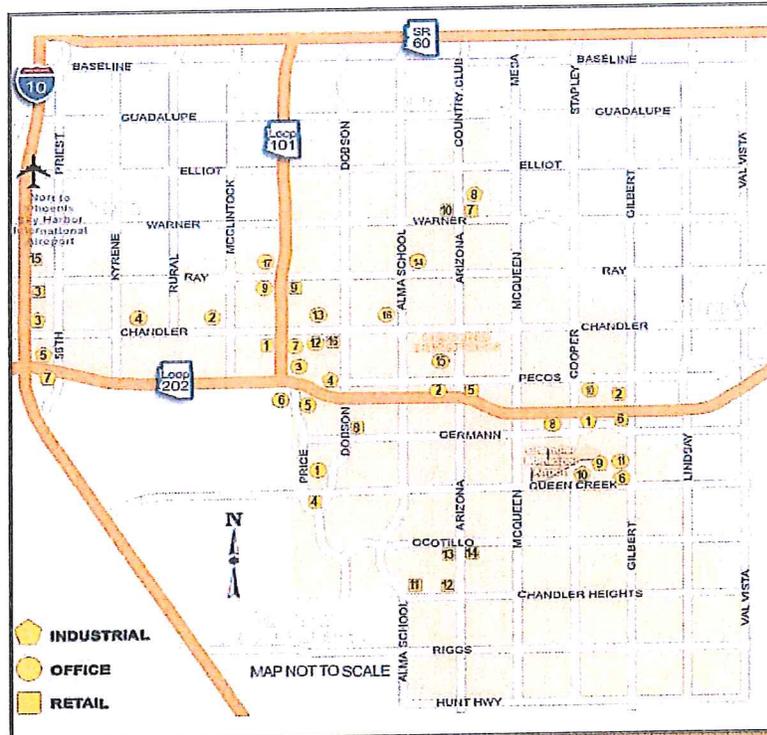
Figure 3 – Office and Business Amenity Employment Concentration



To underscore this point, there are a couple of small office buildings along South Arizona Avenue with approximately 25,271 square feet of existing space, both of which experience high vacancy. There are also several partially built-out office developments including the Chandler Piazza and the Airpark South Professional Village Condos. In spite of the economic recovery, these projects continue to struggle and are unable to compete with better sited office developments.

Based on the City of Chandler's Development map posted on their website, office development projects are clustered primarily along the freeway corridors, with none located in proximity to The Enclave (Figure 4). The inventory prepared by the City shows that there is more than 500,000 square feet of vacant space within these freeway corridors.

Figure 4 – Chandler Development Projects



Office Map #	Building Name	Vacant Sq. Ft.
1	Continuum Business Park	231,829
2	Arizona 202	Planned
3	Chandler Freeway Crossing	35,000
4	Chandler Midway Corporate Center	110,000
5	Allred Park Place	Planned
6	Mammoth Professional Building	9,950
7	Rockefeller Group Chandler 101	Planned
8	Chandler Airport Center I & II	17,858
9	The Park at San Tan	21,520
10	San Tan Crossing Professional Plaza	38,280
11	Watermark	19,409
12	Ascend at Chandler Airport Center	Planned
13	Portico Place I & II	5,079
14	Chandler Office Center I & II	8,636
15	Park at Chandler	2,594
16	Chandler Corporate Center I	5,747
17	SanTan Corporate Center II	4,673
<b>Total Vacant Space</b>		<b>510,575</b>

Source: City of Chandler map; Office Project Brochures, November 2015

## Ongoing Challenges

The City of Chandler has already approved residential land uses on three of the four corners of Queen Creek and South Arizona Avenue intersection. This change in zoning is reflective of residential market demand for the area. The residential development pattern becomes a real deterrent to office or industrial development due to the increase in resident and school traffic that is generated.

Assuming that there is market demand for this site to develop as office, the size of the parcel would yield approximately 400,000 square feet of office space at a .24 FAR. There are only a handful of office developers in the metro area who have the track record and financial wherewithal to develop a 28 acre Class A office site. Corporate users today want nice Class A office space near freeways with good proximity to plenty of amenities for their employees such as restaurants, retail and services.

In conversation with local real estate brokers, their developer clients are seeking office sites along the freeway corridors. The brokerage community is unwilling to present the Enclave to a client as a potential office site.

Combine all of these challenges with the fact that there is already more than 500,000 square feet of vacant office space located near freeway corridors, and another 5.8 million square feet of space planned and under construction. It is highly unlikely that the highest and best use for this 28 acre parcel would be office.

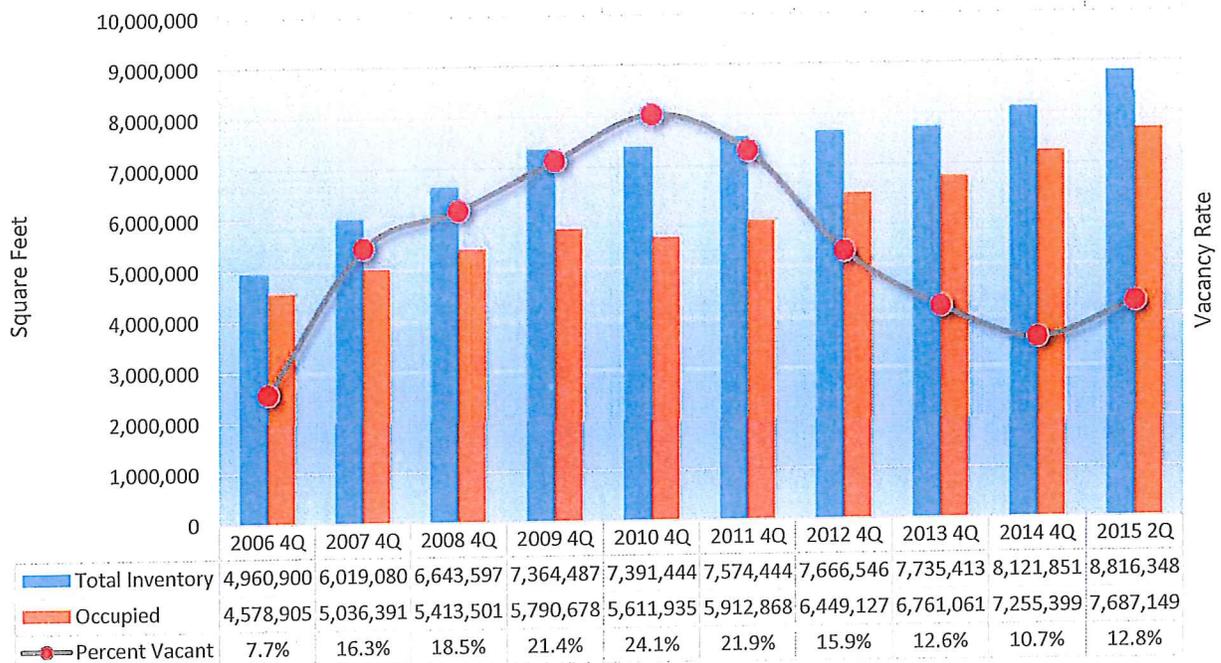
The First Baptist Church located South of The Enclave has expressed their support for residential as opposed to office development at this location. They believe that residential is complementary to their church campus as well as their long-term development plans. Mixed use development, which includes office or industrial uses, would disrupt the emerging neighborhoods by generating undesirable commercial traffic and pose a safety concern for school children.

## 2. CHANDLER OFFICE MARKET

### Existing Supply

At the present time Chandler has 8.8 million square feet of office space, which represents 5.4 percent of the inventory in metro Phoenix. The following Chart 1 depicts the historical inventory and occupancy from 2006 to 2015 quarter to date for the City of Chandler. Total occupied square footage amounts to 7.6 million square feet of space with a vacancy rate of nearly 13 percent for a total of 1.1 million square feet of vacant space waiting for the market to absorb. Peak vacancy occurred in 2010 and has been trending downwards. With the addition of office inventory in 2015, vacancy rates have crept up.

Chart 1 – City of Chandler Historical Office Inventory and Occupancy, 2006-2015



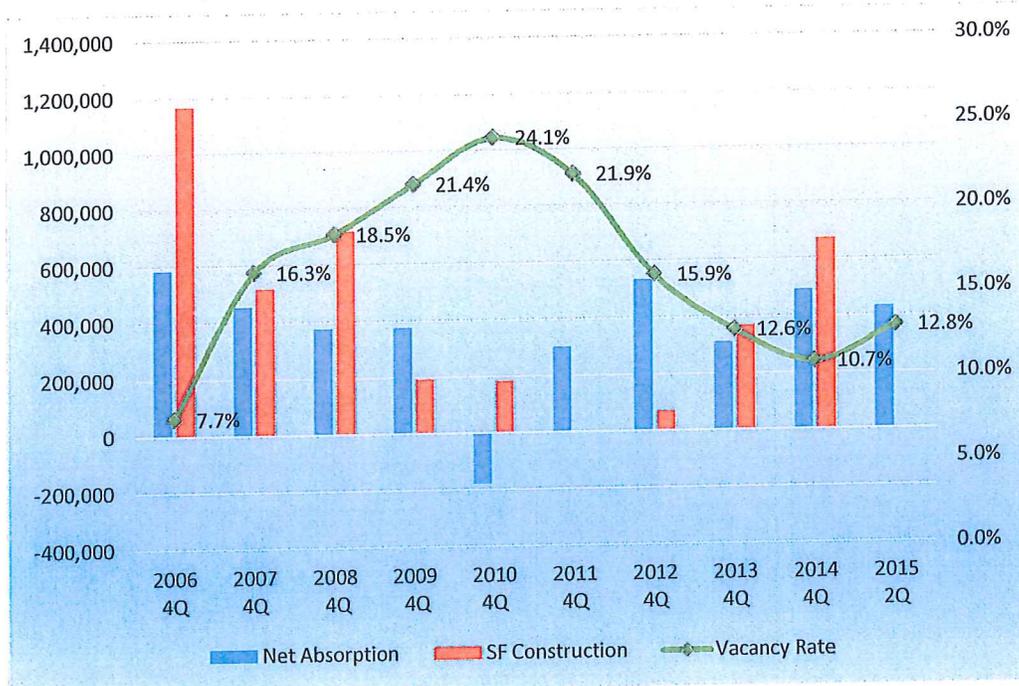
Source: CoStar, October 2015

When comparing CoStar data to major real estate brokerage firms in the region, there are significant differences in the total square footage and vacancy rates that are reported. This is due to the differing data collection methodologies employed by each brokerage house. Colliers International, for example, pegs the total office inventory in Chandler at 7.1 million square feet with a vacancy rate of 18 percent, CBRE estimates the Chandler office market at 3.7 million square feet with a vacancy rate of 13.6 percent, while Lee and Associates posts the total office inventory at 3.5 million square feet with a vacancy rate of 20.9 percent.

Chart 2 compares Chandler's net absorption, square feet under construction and vacancy rates over the 10 years. Negative absorption occurred once in the 4th quarter of 2010 and accelerated in 2012 reaching 536,259 square feet with construction ramping up in 2014 with 674,247 square feet of new space. Historical absorption of office space over this 10 year timeframe averages 369,621 square feet of space

per year. With the sheer amount of office space that is either under construction or entitled in the City of Chandler, it is very likely that the office market could become overbuilt.

**Chart 2 – City of Chandler Net Office Absorption, Sq. Ft. Construction and Vacancy Rate**



Source: CoStar, October 2015

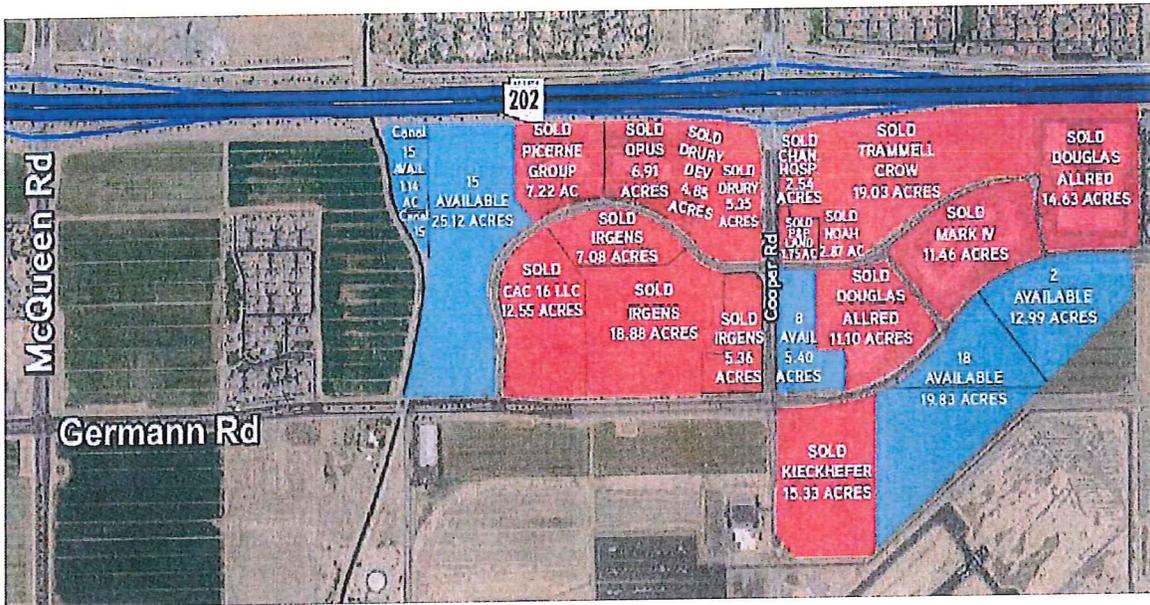
When comparing the office inventory in Chandler to that of the metro area, Chandler historically captures between 4 and 5 percent of the total. When comparing Chandler to the defined trade area, Chandler captures approximately 47 percent of the total.

### Market Competition

The City of Chandler has identified five employment centers or corridors including Price Corridor, Airport Area, Downtown, West Chandler and North Chandler. Over the last 10 years office development has been highly concentrated along the Price Corridor, which is rich with business amenities including a regional shopping center, dining and hotel accommodations. Most recently the Airport area is garnering a considerable amount of attention with a number of office projects under construction or planned for the area. Sales transactions of land, as depicted in the following Figure 5, not only includes potential office development, but the addition of business amenities such as a hotel and healthcare facility.

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Figure 5 – Chandler Airport Center Properties



Map courtesy of Collier's International

An inventory of planned and under construction office space prepared by ESI Corp (Table 1) estimates that there is 618,719 square feet of office space under construction in the city. With this additional office space coming on line, it will bring the base inventory of 8.8 million square feet of office to 9.4 million square feet of space. This figure does not include planned/entitled office projects, of which there are many.

The proposed office development combined with the square feet currently under construction in Chandler is substantial. These projects are concentrated along the Loop 101/Price Road Corridor and the San Tan Freeway/Airport Area. An inventory of planned and under construction office space in Chandler was prepared to identify market competition. The information provided in Table 1 shows that there is 618,719 square feet under construction, with the vast majority to be located at the airport. There is another 5.2 million square feet planned/entitled bringing the total to 5.8 million square feet of space.

Adding another 5.8 million square feet of office space represents a 34 percent increase to the existing inventory of 8.8 million square feet. If you consider an average annual absorption of 369,621 square feet of space per year, it will take nearly 16 years for 5.8 million square feet of space to absorb.

Due to the nature of the real estate market, it should not be assumed that this inventory of "planned or under construction" square footage is complete, and no doubt will change in the short term. It does, however, illustrate the magnitude of potential investment and market concentration of office space within the two corridors.

Table 1 - Office Square Feet Planned or Under Construction in Chandler

Project Name	Location	Square Feet	Notes
<b>Loop 101/Price Road Corridor</b>			
Chandler 101 (Rockefeller Group)	SEC Price Road & Chandler Blvd	65,880	Proposed
Chandler 101 (Rockefeller Group)	SEC Price Road & Chandler Blvd	263,300	Proposed
Chandler 101 (Rockefeller Group)	SEC Price Road & Chandler Blvd	293,550	Proposed
Chandler 101 (Rockefeller Group)	SEC Price Road & Chandler Blvd	330,750	Proposed
Chandler Freeway Crossing	NEC Loop 101 & Loop 202	172,067	Proposed
Chandler Viridian (Hines)	NWC of Loop 101 & Loop 202	250,000	Proposed
Park Place Central Building 7	Northeast of Price Road & Willis Road	150,000	Proposed
Park Place Central Building 9	Northeast of Price Road & Willis Road	200,000	Proposed
Park Place Central Building 10	South of Loop 202 & East of Ellis Rd alignment	92,450	Proposed
Park Place North Building 11	Southeast of Loop 101 & Loop 202	400,000	Under Construction
Park Place North Building 12	Southeast of Loop 101 & Loop 202	400,000	Proposed
Park Place South Building 15	Southwest of Price Road & Willis Road	69,000	Proposed
Park Place South Building 16	Southwest of Price Road & Willis Road	99,500	Proposed
Park Place South Building 17	Southeast of Price Road & Willis Road	200,000	Proposed
Park Place South Building 18	Southeast of Price Road & Willis Road	200,000	Proposed
Park Place South Building 19	Southeast of Price Road & Willis Road	150,000	Proposed
Chandler 202 Business Center	West of the NWC of Frye & Ellis	133,335	Proposed
2700 W. Frye Road	SEC Frye Rd & Loop 202	183,000	Proposed
Continuum Business & Technology Campus	North of the NEC of Price and Queen Creek	463,658	Proposed
	<b>Subtotal</b>	<b>3,983,288</b>	
<b>San Tan Freeway/Chandler Airport Area</b>			
Airpark South Professional Village	West of the SWC of Cooper & Queen Creek	5,385	Proposed
Airpark South Professional Village	West of the SWC of Cooper & Queen Creek	4,432	Proposed
Airpark South Professional Village	West of the SWC of Cooper & Queen Creek	4,366	Proposed
Airpark South Professional Village	West of the SWC of Cooper & Queen Creek	5,385	Proposed
Airpark South Professional Village	West of the SWC of Cooper & Queen Creek	4,443	Proposed
Airpark South Professional Village	West of the SWC of Cooper & Queen Creek	5,364	Proposed
Tiburon at Chandler Airport	SEC of Germann Road and Cooper Road	109,557	Under construction delivers Dec 2015
Ascend at Chandler Airport Center	NWC Cooper Rd & Germann Rd.	350,000	Proposed
Ascend at Chandler Airport Center	NWC Cooper Rd & Germann Rd.	84,712	Proposed
Mach One (Trammell Crow)	SEC Loop 202 and Cooper Road	105,000	Under construction, delivers Jan 2016
Mach One (Trammell Crow)	SEC Loop 202 and Cooper Road	105,000	Under construction, delivers Feb 2016
Watermark III	North of the NWC Gilbert & Ryan Road	250,000	Proposed
Rivulon	NEC of Loop 202 and Gilbert Road	125,000	Under construction delivers late 2015
Rivulon	NEC of Loop 202 and Gilbert Road	120,000	Proposed
	<b>Subtotal</b>	<b>1,275,644</b>	
<b>Other Locations</b>			
Arizona Commerce Center	SEC AZ Ave & Ryan Road	408,000	Breaks ground Nov 2015, 7 buildings
AZ 202	NWC Loop 202 & Arizona Avenue	161,000	Proposed
	<b>Subtotal</b>	<b>569,000</b>	
	<b>Square Feet Under Construction</b>	<b>618,719</b>	
	<b>Total Square Feet Planned</b>	<b>5,209,213</b>	
	<b>Total Square Feet Planned or Under Construction</b>	<b>5,827,932</b>	

Source: City of Chandler, Colliers, CBRE, ESI Corp, October 2015

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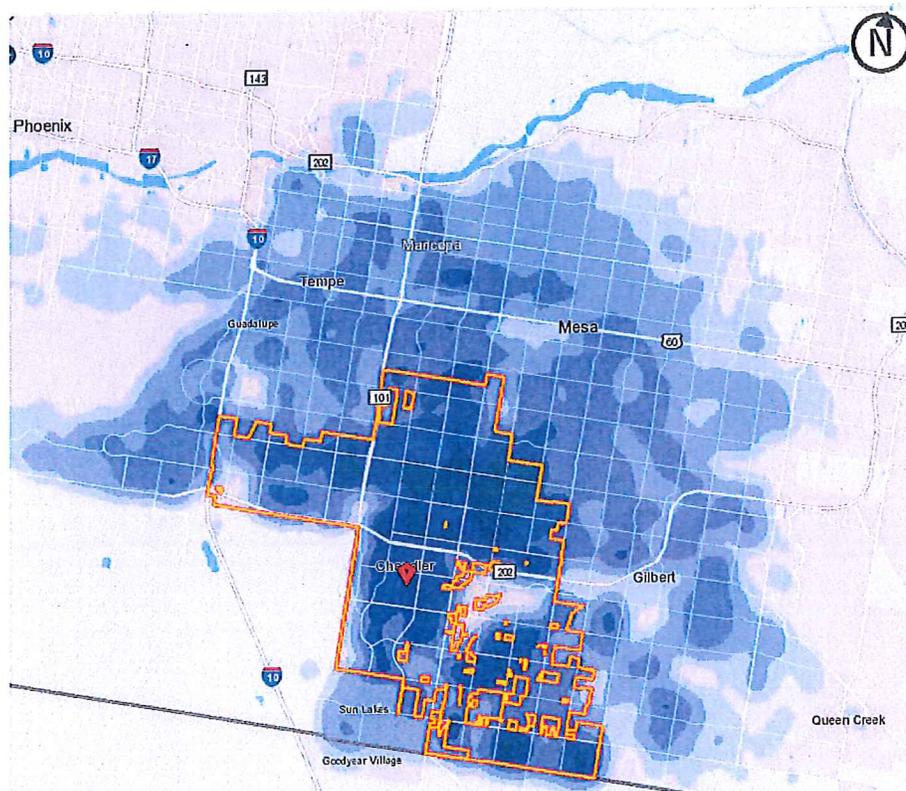
### 3. MARKET DEMAND

The large amount of existing office space in Chandler today is partly due to the existence of State Routes 101 and 202, which facilitates the flow of the workforce as well as goods and services. As a result, office space in Chandler is bolstered by the demographics of the southeast valley. The office market demand analysis takes this into consideration by utilizing office employment and projections within a defined commute shed, or trade area. The geographic trade area defined for this analysis represents the labor commute shed for the office sector.

#### Office Commute Shed

To calculate the future demand for office space within the City of Chandler it was first necessary to identify the labor commute shed, or trade area for office workers, which is depicted in Figure 6. The result determined the geography for the real estate office demand analysis. With two major freeway arterials running through the community, the City of Chandler is able to capture a lion's share of the office demand within its commute shed. For the purposes of this analysis, the geographic boundaries of the trade area includes the southeast valley which is representative of Chandler, Gilbert, Tempe and Mesa.

Figure 6 – City of Chandler Office Commute Shed



Source: U.S. Census Bureau, OnTheMap Application and LEHD origin-Destination Employment Statistics (Beginning of Quarter Employment, 2<sup>nd</sup> Quarter of 2002-2013).

The demand for office space is driven by employment growth; specifically office related jobs in finance, insurance, information, real estate, professional, scientific and administrative sectors. When evaluating historical job creation for the City of Chandler from 2006 to 2014, the total number of jobs grew from

126,969 jobs to 133,636 for an overall job growth of 5 percent which outpaced the trade area and the county who both had a 3 percent growth rate, as noted in Table 2. Office jobs in Chandler experienced a 22 percent increase over this period and in fact grew at a faster pace than all jobs. For every 100 jobs created in Chandler, 27 are office related positions and this ratio has been increasing steadily over time.

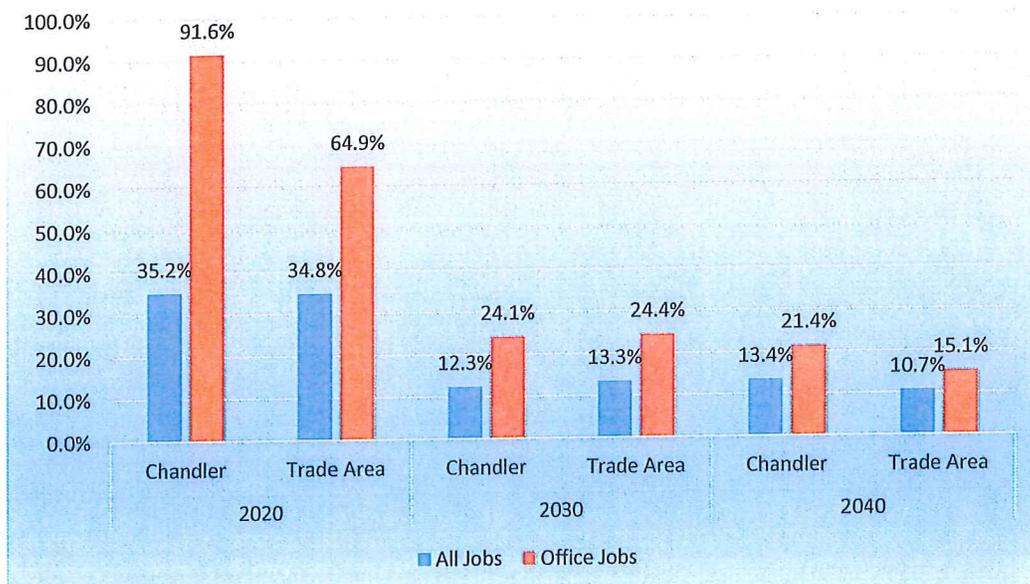
**Table 2 – Employment Growth, 2006-2014**

	2006	2014	2006-14 % Change
<b>City of Chandler</b>			
Total Employment	126,969	133,636	5%
Office Employment	29,504	35,959	22%
Office Employment as a % of Total Employment	23%	27%	4%
<b>Trade Area</b>			
Total Employment	535,724	551,414	3%
Office Employment	120,731	142,868	18%
Office Employment as a % of Total Employment	23%	25%	2%
<b>Maricopa County</b>			
Total Employment	1,801,281	1,858,087	3%
Office Employment	443,150	457,070	3%
Office Employment as a % of Total Employment	25%	25%	0%

Source: U.S. Census, S2402: Industry by Sex and Median Earnings; ESI Corporation

Future forecast for office demand is based on employment projections provided by MAG for the years 2020, 2030 and 2040. When comparing the growth rate over the decades, office jobs are projected to grow at a faster rate than all jobs for both the city and the trade area. MAG also projects that office job growth in Chandler will outpace the trade area in the years 2020 and 2040.

**Chart 3 - Chandler and Trade Area Job Growth Projections**



Source: MAG, Socioeconomic Projections, 2013

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## Demand Analysis

Chandler is able to capture a larger share of total office development in the southeast valley due to its proximity to two major freeway corridors. Consequently, this demand analysis utilizes office employment projections within the trade area and estimates the percent of in-commuters to determine future demand for office space.

The findings of this analysis show that with 175 square feet of space per office employee, and a frictional vacancy rate of 5 percent, the City of Chandler has office demand for 11.3 million square feet of space. When subtracting the current supply plus square footage under construction, there is a net marginal demand for 1.9 million square feet of office space, which grows to 3.4 million in 2020. However, in the pipeline today are entitled office developments consisting of 5.2 million square feet of space. If all of this space is added to the existing inventory, the City would have excess capacity or a surplus of 3.2 million square feet of office space. It is not until 2030 that the market could support the additional square feet of space.

Table 3 – City of Chandler Office Space Demand Analysis

	2015	2020	2030	2040
Total Trade Area employment (net of Chandler)	416,514	544,893	619,065	680,230
Percentage occupying office space type jobs	26%	26%	28%	29%
Total employed in office space	108,294	139,916	174,494	199,514
Office workers that in-commute	25,990	33,580	41,879	47,883
Chandler office workers	35,959	36,715	45,564	55,300
Average sq. ft. per employee	175	175	175	175
Total Trade Area occupied office demand in sq. ft.	10,822,130	12,280,025	15,275,587	18,025,405
Plus frictional vacancy @ 5%	569,586	646,317	803,978	948,706
Gross estimate of total Trade Area office demand in sq. ft.	11,391,716	12,926,342	16,079,565	18,974,111
Less current competitive sq. ft.	8,816,348	9,435,067	9,435,067	9,435,067
Less estimate new construction	618,719	0	0	0
<b>Marginal demand - net (excess) shortage</b>	<b>1,956,649</b>	<b>3,491,275</b>	<b>6,644,498</b>	<b>9,539,044</b>
Planned/Entitled	5,209,213	5,209,213	5,209,213	5,209,213
<b>(excess) shortage</b>	<b>-3,252,564</b>	<b>-1,717,938</b>	<b>1,435,285</b>	<b>4,329,831</b>

Source: MAG, CoStar, ESI Corp, U.S. Census Bureau, and LEHD origin-Destination Employment Statistics

Office employment growth is the key driver that stimulates the demand for office space. MAG projects that Chandler will experience robust office job growth in 2020, but this job growth begins to taper off in future decades. Any disturbances in the economy could alter this trajectory and result in an increase in office vacancies and a reduction in the absorption of space.

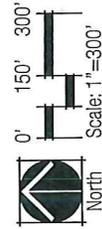
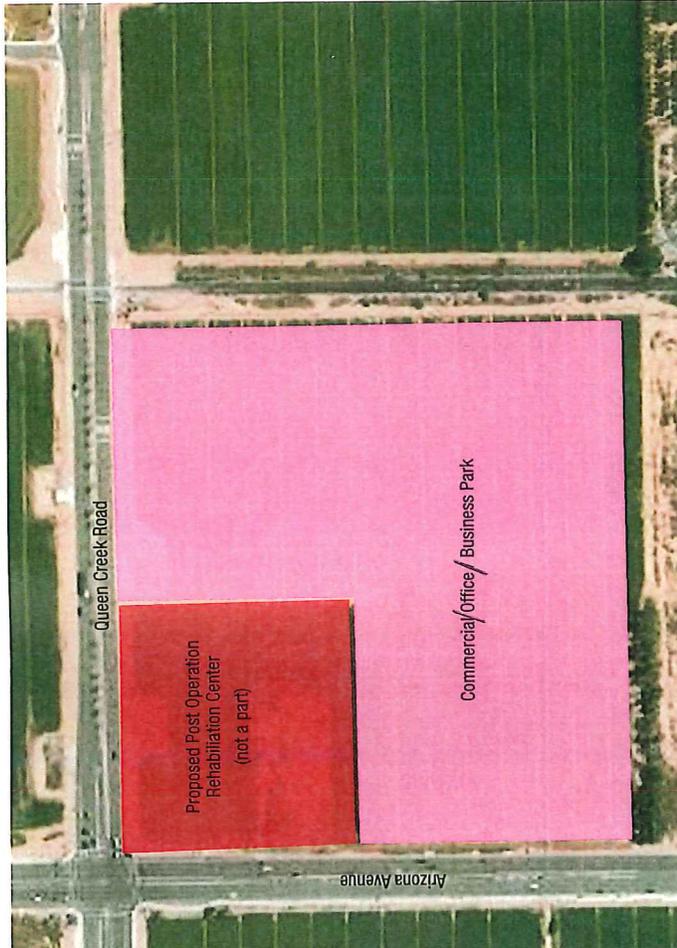
Given the substantial presence of existing and proposed office developments in Chandler, combined with The Enclave's lack of proximity to major freeway corridors and business amenities, and including the economic development competition within the southeast valley, it is the opinion of the author that the best land use for the Enclave at Hamilton Ranch is residential.

## APPENDIX – STUDY LIMITING CONDITIONS

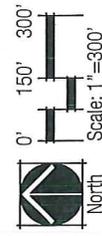
The research for this project was completed October 2015. This market analysis is subject to the following considerations and limiting conditions.

- It is our understanding that this market analysis is for your project due diligence and other planning purposes. Our report, nor its contents, nor any of our work were intended to be included and, therefore, may not be referred to or quoted in whole or in part, in any registration statement, prospectus, public filing, private offering memorandum, loan agreement or other agreement or document without our prior written approval, which may require that we perform additional procedures, nor can it be used for any purpose other than as expressly stated in this report.
- Except as specifically stated to the contrary, this market analysis will not give consideration to the following matters to the extent they exist: (i) matters of a legal nature, including issues of legal title and compliance with federal, state and local laws and ordinances; and (ii) environmental and engineering issues, and the costs associated with their correction.
- The reported market findings presented in this report will represent the considered judgment of ESI Corporation based on the facts, analyses and methodologies described in the report.
- All direct and indirect written information supplied by the client, its agents and assigns, concerning the Subject Property is assumed to be true, accurate and complete; additionally, information identified as supplied or prepared by others is believed to be reliable. However, no responsibility for the accuracy of such information is assumed.
- This market analysis is intended to be read and used as a whole and not in parts.
- Our analyses are based on currently available information and third party data, which is subject to uncertainty and variation. Accordingly, we do not represent them as results that will be achieved. Some assumptions will not materialize and unanticipated events and circumstances may occur; therefore the actual results achieved may vary from the estimated results.

# Airpark Area Plan Amendment



Proposed Airpark Area Plan  
 Neighborhood Commercial  
 Commercial Office / Business Park

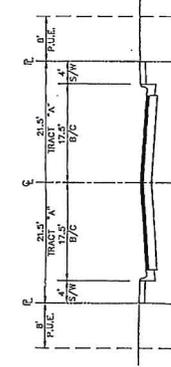


Proposed Airpark Area Plan  
 Low-Medium Density Residential (LMDR)  
 3.6-8.0 Dwelling Units/Acre

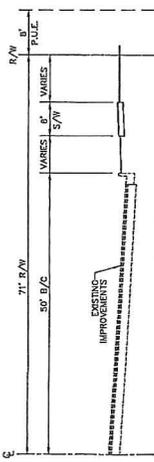
*Chandler  
 Airpark  
 Area Plan  
 Amendment  
 APRIL 2007*

# PRELIMINARY PLAT FOR ENCLAVE AT HAMILTON RANCH

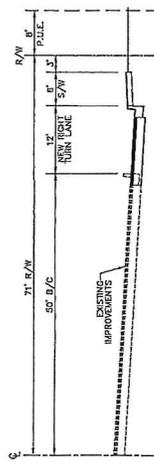
A PORTION OF THE NW 1/4 OF THE NW 1/4, SECTION 15, T. 2 S., R. 5 E. OF THE GILA & SALT RIVER BASE & MERIDIAN, MARICOPA COUNTY, ARIZONA



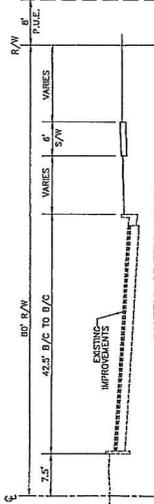
TYPICAL INTERIOR STREET



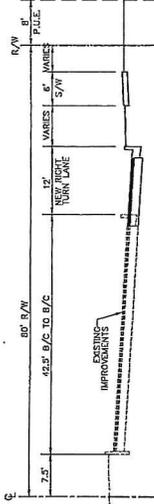
ARIZONA AVENUE  
C.O.C. DET. C-203  
1"=10' LOOKING NORTH



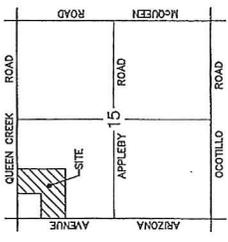
ARIZONA AVENUE W/RIGHT TURN LANE  
C.O.C. DET. C-203  
1"=10' LOOKING NORTH



QUEEN CREEK ROAD  
C.O.C. DET. C-203  
1"=10' LOOKING EAST



QUEEN CREEK ROAD W/ RIGHT TURN LANE  
C.O.C. DET. C-203  
1"=10' LOOKING EAST



VICINITY MAP  
SECTION 15, T.25, R.5E.

### BASIS OF BEARING

THE BASIS OF BEARING IS THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 15, T.25, R.5E. BEARING S 89° 58' 00\"/>

### RETENTION VOLUME REQUIRED

QUEEN CREEK ROAD: 14,870.00 CF.

### LOCATION

SECTION 15, T.25, R.5E. BRASS CAP IN CONCRETE, 100' NORTH, 100' WEST OF THE INTERSECTION OF QUEEN CREEK ROAD AND ARIZONA AVENUE.

### UTILITIES AND SERVICES

WATER SERVICE BY THE CITY OF CHANDLER  
SEWER SERVICE BY THE CITY OF CHANDLER  
ELECTRIC SERVICE BY ARIZONA PUBLIC SERVICE  
TELEPHONE SERVICE BY CENTURYLINK  
CABLE SERVICE BY COX CABLE  
POLICE BY CITY OF CHANDLER  
FIRE BY CITY OF CHANDLER  
REUSE SERVICE BY CITY OF CHANDLER

### SITE SUMMARY

GROSS ACRES: 29.9402 AC, 1,306,100 SF.  
TOTAL LOTS: 128  
EXISTING ZONING: RU-43 AND PAD  
PROPOSED ZONING: PLANNED AREA DEVELOPMENT (PAD)

### NOTES

1. THE IMPROVEMENTS SHOWN ON THIS PLAT WILL NOT BE FULLY APPROVED BY THE CITY OF CHANDLER UNTIL THE UNDERGROUNDING REQUIREMENT HAS BEEN SATISFIED.  
2. THE IMPROVEMENTS SHOWN ON THIS SET IF PLANS WILL NOT BE FULLY APPROVED BY THE CITY OF CHANDLER UNTIL THE UNDERGROUNDING REQUIREMENT HAS BEEN SATISFIED.  
3. THE FINAL PLAT FOR THIS SUBDIVISION WILL NOT BE APPROVED OR RECORDED UNTIL THE UNDERGROUNDING REQUIREMENT HAS BEEN SATISFIED AND APPROVED BY THE CITY.  
4. THIS PROPERTY LIES WITHIN A FLOOD ZONE. ACCORDING TO THE FLOOD ZONE MAP, THE PROPERTY IS NOT IN A FEMA 100 YEAR FLOOD ZONE.  
5. THE SUBDIVISION ON WHICH THIS PLAT IS BASED SHALL BE PROVIDED AT THE TIME OF FINAL PLATING.

### TYPICAL LOT SETBACKS

\* ALL STRUCTURAL ELEMENTS SHALL APPROACH UP TO 10' MIN. TO TOP OF SIDEWALK, FORCES OR UNWALE  
\*\* 10' MIN. TO TOP OF SIDEWALK, FORCES OR UNWALE  
\*\*\* 10' MIN. TO TOP OF SIDEWALK, FORCES OR UNWALE

ENGINEER  
1842 E. CHANDLER BLVD.  
PHOENIX, AZ 85020  
TEL: (602) 944-8800  
FAX: (602) 944-8829

DEVELOPER  
FALCON PHOENIX ROAD #102-613  
MESA, ARIZONA 85215  
TEL: (480) 944-8800  
FAX: (480) 944-8829

CONTACT: WENDALL BECK

Close Engineering, Inc.  
ENGINEERS & SURVEYORS  
1442 E. Chandler Ave. Phoenix, Arizona 85020  
Tel: 602-944-8800 Fax: 602-944-8829

## PRELIMINARY PLAT FOR ENCLAVE AT HAMILTON RANCH

Revised DB-31-15

1 OF 2

Pre-Plat

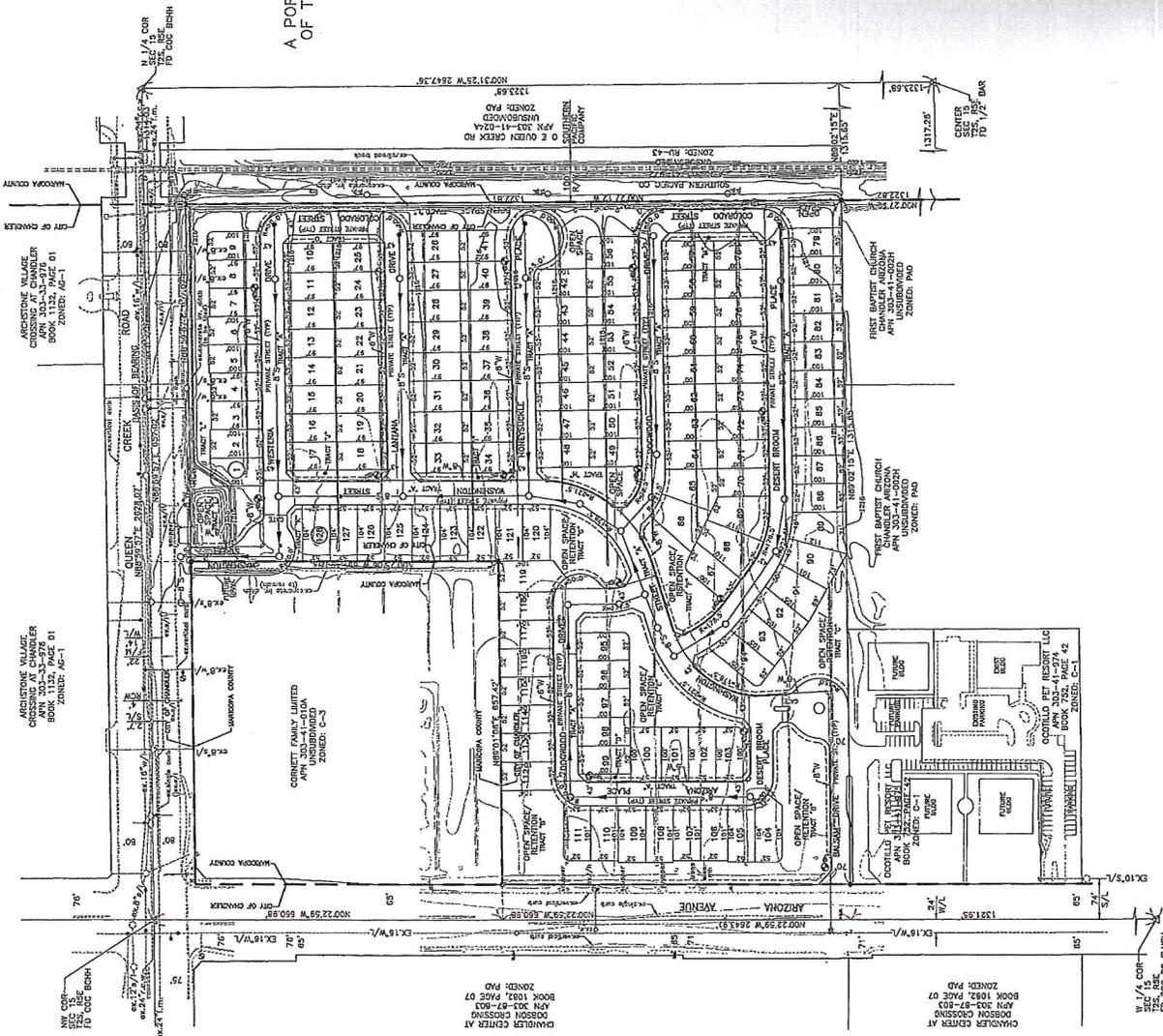
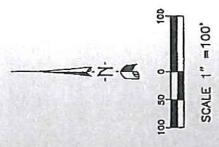
PRELIMINARY PLAT  
 FOR  
 ENCLAVE AT HAMILTON RANCH  
 CHANDLER

Tract No.  
 02-23-15

Date  
 04-14-14  
 Job No.  
 130808

PRELIMINARY PLAT  
 FOR  
 ENCLAVE AT  
 HAMILTON RANCH

A PORTION OF THE NW 1/4 OF THE NW 1/4, SECTION 15, T. 2 S., R. 5 E.  
 OF THE GILA & SALT RIVER BASE & MERIDIAN, MARICOPA COUNTY, ARIZONA



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